

INTERNATIONAL HEALTH ACTIVITY IN WALES

RAPID REVIEW



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Glossary of Terms

NHS WALES-SPECIFIC ACRONYMS AND ABBREVIATIONS	
BCUHB	Betsi Cadwaladr University Health Board
ABUHB	Aneurin Bevan University Health Board
CAVUHB	Cardiff and Vale University Health Board
CTMUHB	Cwm Taf Morgannwg University Health Board
DHCW	Digital Health and Care Wales
Hywel Dda	Hywel Dda University Health Board
Powys	Powys Teaching Health Board
Swansea Bay	Swansea Bay University Health Board
PHW	Public Health Wales
Velindre	Velindre University NHS Trust (Cancer)
WAST	Welsh Ambulance Service Trust
HEIW	Health Education and Improvement Wales
NWSSP	NHS Wales Shared Service Partnership

Glossary of Terms: continued

TERM	MEANING
ALBs	Arm's Length Bodies
BAPIO	The British Association of Physicians of Indian Origin
CPD	Continuing Professional Development
CSOs	Civil Society Organisations
DfID	The Department for International Development
DHSC	UK Department of Health and Social Care
DIT	Department for International Trade
EMRTS Cymru	The Emergency Medical Retrieval and Transfer Service
FCDO	Foreign, Commonwealth and Development Office
GCRF	Global Challenges Research Fund
GNI	Gross National Income
HCA	Hub Cymru Africa
HCRW	Health and Care Research Wales
HEE	Health Education England
HEI	Higher Education Institution
HEFCW	Higher Education Funding Council Wales
HSSG	(Welsh Government) Health and Social Services Group.
IANPHI	International Association of National Public Health Institutes
IHCC	International Health Coordination Centre
LMICs	Low- and Middle-Income Countries
LSHW	The Life Sciences Hub Wales
MENA	Middle East and North Africa
MoU	Memorandum of Understanding
MTI	Medical Training Initiative
NIHR	National Institute for Health Research
ODA	Official Development Assistance
PHE	Public Health England
R&D	Research and development
SDGs	(United Nations) Sustainable Development Goals
SSAP	The Sub-Sahara Advisory Panel
The Act	The Well-being of Future Generations (Wales) Act.
THET	The Tropical Health and Education Trust
WaAHLN	The Wales and Africa Health Links Network
WASH	Water, Sanitation and Hygiene
WHEB	Welsh Higher Education Brussels
WHO	World Health Organisation
WHOCC	World Health Organisation Collaborating Centre

1 EXECUTIVE SUMMARY

This rapid review of international health activity in Wales, carried out over two months, has been commissioned by the Welsh Government at a time of seismic change. The coronavirus pandemic, exit from the European Union, and changes to UK government aid spending are impacting in ways that are not yet fully understood, and it could not be more timely to examine Wales's international engagement on health. Maintaining and strengthening global relationships offers the prospect of protecting and enhancing Welsh society, contributing to others, and closing the wide equality gaps which have become so apparent, at home and abroad.

This review documents the considerable assets Wales has at its disposal in the international health space, looking across all sectors. Wales is home to world-leading universities, a unified health and care system, a thriving life sciences commercial sector and energetic, global non-profit activity, all supported by outward and forward-looking national policies. The review considers the ways in which Wales can increase the value of its engagement in international health, to benefit the country commercially and reputationally. Its recommendations are formulated with an eye to the fiscal constraints facing all institutions and government at this time, but also recognising that, in recent years, Wales has not been reaping the full benefits of international health activity, economically or socially.

After detailing structure and activity in each of the four sectors, Section 8 draws conclusions which identify key areas for improvement, and these are addressed by a series of recommendations in Section 9. Recommendations fall into three broad themes:

1. Build Core Structure:
 - Collate information on international health activity routinely.
 - Build strong relationships across and between governments.
 - Review government involvement in international networks.
 - Build capacity for international health activity.
2. Promote excellence:
 - Create an Institute of Global Health in Wales.
 - Celebrate success.
 - Advance established health-related businesses.
3. Seize opportunities:
 - Build and promote a "Brand Wales".
 - Accelerate NHS innovation and adoption of new solutions.
 - Explore options linking healthcare and commerce.

Central to these are the need to improve collaboration and coordination across Wales and the UK, in order to make a bolder statement about what Wales can contribute and gain through global engagement. The refreshed approach will allow fuller realisation of benefits, which are charted throughout the report and include recruitment and development of talented staff and students across sectors; more effective innovation in the NHS; better access to funding streams; and new commercial opportunities for the Welsh health sector.

There is huge potential for Wales's international health activity to contribute to national ambitions in terms of active global citizenship, strong international profile and a thriving economy. We hope this review will help to guide efforts to maximise the potential of this activity, at a time when globally engaged nations must reach out to each other, developing strength through mutual support.

2 BACKGROUND AND INTRODUCTION

This review has been commissioned by the Welsh Government at a time of rapid and seismic change in the sphere of international health. The triple challenges of the coronavirus pandemic, EU exit and swingeing cuts to UK aid spending will impact in ways that cannot yet be fully understood, but certainly it could not be more timely for Wales to examine its global health engagement, with a view to making the most of this. The review is a signal of the Welsh Government's commitment to strengthening Wales's role as an outward looking and globally responsible nation, building on the policy making and legislation of many years. This includes the support for low- and middle-income countries (LMICs) provided since 2006 through the Wales and Africa programme¹; the expectation of NHS Wales involvement, expressed in the October 2006 Welsh Health Circular² and the Charter for International Health Partnerships³; the translation of the UN Sustainable Development Goals (SDGs) into legislation – a world first – with the Well-being of Future Generations (Wales) Act in 2015⁴; and, most recently, the publication of a detailed International Strategy.⁵

The report aims to present a clear picture of where and how Wales is engaging internationally in terms of health. It was commissioned as a “rapid review” and is not intended to be exhaustive, but rather to give an overview and recommendations which will support decision making on future direction. It looks at Wales's international health activity in all its diversity, from healthcare to the life sciences, in public, commercial, academic and non-profit sectors. It considers the strengths and weaknesses of the systems currently structuring and supporting this activity, and opportunities for developing these in line with key policies and legislation to maximise their effectiveness.

There are several other reviews and publications which should be considered alongside this:

- The recently completed review of Wales's international Health Partnerships with LMICs, particularly Africa, with a focus on UK Official Development Assistance (ODA) spending.⁶ This was carried out by the same team and relevant findings are not repeated in full, leading to slimming down of the section dedicated to the non-profit sector.
- The “Reid Review” of Government Funded Research and Innovation in Wales,⁷ and the Senedd Economy, Infrastructure and Skills Committee's Research and Innovation inquiry which closely followed it.⁸ These examine the vital collaboration between academic and commercial sectors and note the need for Wales's higher education institutions (HEIs) to better access competitive funds, as European structural funds are lost. Its recommendations have yet to be fully implemented.⁹
- The Learned Society of Wales's two publications which examine Wales's international engagement, the first in terms of academia¹⁰, the second more generally and in light of recent national and global events.¹¹ These find that, in order to strengthen its position in the world, Wales needs to develop national self-confidence and build stronger links across the UK and internationally, with the Welsh Government taking an “enabling” role to achieve long term aims.

¹ Welsh Government (2020). [Wales and Africa](#).

² Welsh Assembly Government (2006). [Welsh Health Circular](#).

³ International Health Coordination Centre (2014). [A Charter for International Health Partnerships in Wales](#).

⁴ Future Generations Commissioner for Wales (2021). [Well-being of Future Generations \(Wales\) Act 2015](#).

⁵ Welsh Government (2020). [International strategy for Wales](#).

⁶ THET (2021). Wales's Health Partnerships with Africa: Maximising potential for mutual benefit. [Publication pending.]

⁷ Welsh Government (2018). [Review of Government Funded Research and Innovation in Wales](#).

⁸ Welsh Government, Economy, Infrastructure and Skills Committee (2019). [Research and Innovation in Wales](#).

⁹ The Fifth Senedd Cross-Party Group on Medical Research (2021). [The Next Steps for Wales to Achieve its Potential in Medical Research](#).

¹⁰ The Learned Society of Wales and Times Higher Education (2017). [Wales and the World](#).

¹¹ The Learned Society of Wales (2021). [Wales and the World: Global Partnerships, Local Benefits](#).

- The All-Party Parliamentary Group on Global Health’s 2015 report on the UK’s contribution to global health,¹² which maps and analyses international health activity in the UK as a whole and provides useful context on systems of UK-wide relevance.

The scope of this review is limited to activity whose primary focus is on human health in a narrow sense, but we recognise that health is inextricably linked with environment, education, prosperity and culture. This is the thrust of the Well-being of Future Generations Act and, to some extent, the WHO’s “one health” principle.¹³ While it is not possible to examine these wider factors here, we endorse the principle of considering them alongside our narrower definition of “health”, and seek to highlight examples of this within Wales.

These are challenging times in which to promote international engagement. The UK economy has been hit hard and while the pandemic drives some to seek global unity, others tend towards a protective retreat within borders. A recent UK-wide survey found 72% of respondents in favour of reducing UK aid spending and 23% in favour of a temporary complete cessation, with those in the latter group more likely to be based in Wales.¹⁴ These opinions must be kept in mind when considering developments to Wales’s international engagement and argue for community involvement, in keeping with the Well-being of Future Generations Act.

This report will show that Wales has strengths in international health which can bring benefits to all. It is home to world-leading universities, a unified health and care system based on planning rather than competition, a thriving life sciences commercial sector and energetic, global non-profit activity. It produces high impact research and innovation with a global reach and is small enough to facilitate networking within and across sectors. We identify areas where further efforts could raise this to the next level, supporting Wales’s ambitions in terms of global responsibility and international profile, for the benefit of people at home and abroad.

¹² All-Party Parliamentary Group on Global Health (2015). [The UK’s Contribution to Health Globally: Benefiting the country and the world.](#)

¹³ World Health Organisation (2021). [One Health.](#)

¹⁴ British Foreign Policy Group (2021). [UK Public Opinion on Foreign Policy & Global Britain: 2021 Survey - Key Findings.](#)

3 METHODOLOGY AND SCOPE

3.1 OBJECTIVES

This review set out to map the role of the Welsh Government and its interface between key organisations involved in international engagement in Wales, in health (including Public Health) and the life sciences. This comprises:

- A mapping exercise to understand current levels of international health activity across Wales.
- Identification of areas of opportunity for Wales to build its reputation in health and health science globally.
- Identification of lessons learned from the coronavirus pandemic, to take forwards for benefit now or in the future.

It aims to provide practical recommendations for structuring and coordinating future activity, in order that Wales's contributions to the international health agenda are maximised, using available capacity and resources efficiently. In all, there will be a focus on aligning activity with the International Strategy and the Well-being of Future Generations Act.

3.2 SCOPE

This work relates to organisations based in Wales and engaging in the field of health, with any non-UK country. Activity is captured in four sectors:

- Public (including government and the NHS).
- Academic (universities).
- Commercial.
- Non-profit.

Each section carries a fuller description of what is included in each, and inevitably, there is significant overlap.

In this context, "health" refers to delivery of and capacity building for healthcare, and education, training or research in healthcare or the life sciences with a specific focus on health. While recognising their importance as wider determinants of health, we have not included activity in areas such as climate, crop production, education and poverty reduction. "Based in Wales" generally means "with headquarters in Wales". In the commercial sector we include some global organisations with a major presence but headquarters elsewhere, where these were identified as economically important by the steering group or key informants.

3.3 METHODOLOGY

A combination of methods was used to develop this report, including desk-based research, consultation with a steering group, engagement of key informants, online surveys and semi-structured key stakeholder interviews.

The steering group which guided this work comprised individuals with expertise in one or more relevant sectors (Appendix 1). Steering group members and their wider organisations advised on contacts, networks and stakeholders. Two key informants (Appendix 1) provided substantial information, based on wide knowledge across multiple sectors. This was used to supplement the findings of the desk-based research, guide avenues of further exploration and make new contacts.

Desk-based research included an academic literature search, investigation of websites and grey literature and searching of public databases including the UK Government's Development Tracker¹⁵ and the IATI database.¹⁶ Information on universities' international collaborations in publications was provided by a contact at Swansea University, from the Scopus database of academic publications.

Two online surveys were sent, to gather core "mapping" information and seek views. The first was sent to leaders in key areas at all major institutions in each sector. This included International Leads at each university, International and Research Leads at each NHS body and leaders of major representative networks or institutions within the commercial and non-profit sectors. The second was sent to leaders of individual groups or organisations, such as specific research groups or units, NHS Health Partnerships, businesses and non-profit civil society organisations (CSOs). Each survey had a distribution of approximately 100 recipients. There were 28 responses, representing 24 different institutions, to the first survey and 21 responses to the second.

Semi-structured interviews with key stakeholders allowed exploration of practical experiences of engaging in international health work in Wales, along with insights and opinions. Three individuals were invited from the non-profit sector (reflecting the extensive recent work done in this area for our previous report) and five from each other sector, along with five external stakeholders who engage with Wales outside of the country. There was a high uptake of invitations, with 17 of the 23 invited (74%) agreeing to interview: 100% of those in external and academic sectors, 80% public/NHS, 60% commercial and 33% non-profit.

Limitations

This is a "rapid review", completed in two months. This allows a good overview, but detailed data cannot possibly be complete. As many relevant institutions and groups as possible were given the opportunity to provide data, but the majority of this was via online survey and dependent on response rate. This inevitably limits the richness of the information we have obtained and leads to some gaps in terms of the organisations represented. An absence of information about a particular organisation does not imply that they are not involved in any international activity, simply that we have not obtained details of this within our timeframe.

There is considerable overlap between sectors. For example, NHS Health Partnerships relate both to public and non-profit sectors, and academic research is often linked either to the NHS or industry. We have included activity on a best-fit basis, recognising that this is debateable.

Finally, we have sought evidence and views on the impact of Brexit in relation to international health activity. It is very likely, less than six months after the UK's formal departure from the EU and with the masking effects of the coronavirus pandemic, that the true impact of this is not yet known. We include commentary on what we have found, but recognise that this is an evolving area whose effects will only become fully apparent with time.

¹⁵ UK Foreign, Commonwealth and Development Office. (2021). [Development Tracker](#).

¹⁶ [International Aid Transparency Initiative \(2021\)](#).

This section describes the main public sector actors in terms of international health and maps their contributions to this. Wales's public sector in this regard comprises, chiefly, Welsh Government's relevant policy, funding and leadership, and NHS Wales. Areas of Welsh Government activity which relate specifically to other sectors will be mentioned here to present a clear overview, but are covered in more detail in the relevant report section. The UK Foreign, Commonwealth and Development Office (FCDO) is also discussed here, since overarching foreign policy and ODA funding are powers retained by the UK government. Bodies which do not fit neatly into any sector, but which interface predominantly with public sector organisations, are also included. Information and views gathered through surveys and interviews are discussed, and the section closes with an analysis of this sector.

Wales's devolved powers are extensive and include policy, legislation and funding around health and care, education (including higher education) and economic development, along with limited tax-varying powers. The resulting differences from other UK nations reflect both the prevailing political climate and Wales's features, such as the equal recognition of both Welsh and English languages within public life, relatively older and low density population,¹⁷ and relatively high rates of poverty.¹⁸ Policies on health and social care are integrated and the NHS operates on the basis of planning rather than competition, with regional Health Boards responsible for provision of all services in their area. The UK government sets overall foreign policy, including immigration rules and aid spending, limiting the scope of Wales's control over its international health activity, particularly in terms of funding. However, Welsh Government is free to independently pursue international relations specific to devolved areas, and there are many ways in which domestic policy can affect international engagement on health.

4.1 THE ROLE OF THE WELSH GOVERNMENT IN INTERNATIONAL HEALTH

4.1.1 POLICY AND LEGISLATION

The legislative landscape around health, higher education and business is outwith the scope of this review, but two pieces of Welsh Government policy merit further consideration here: the Well-being of Future Generations (Wales) Act (the Act) and the International Strategy.

The Well-being of Future Generations (Wales) Act

The Act was passed by the Senedd in 2015,¹⁹ following a major public consultation exercise and development in parallel with the UN Sustainable Development Goals (SDGs).²⁰ It requires public bodies in Wales, including the Welsh Government, all NHS organisations and the Higher Education Funding Council Wales (HEFCW), to work towards achieving seven wellbeing goals. In doing so they must consider the long term implications of their plans, ensuring that developments today do not negatively impact the population in the future: i.e., sustainable development. The wellbeing goals most obviously relevant to this review are "A healthier Wales" and "A globally responsible Wales", but the goals are interdependent and, in recognition of this, the Act requires public bodies to work together to achieve them. This is described in Act's expected "Five Ways of Working", which include "Integration" (considering the impact of objectives to achieve each goal on other objectives and goals) and "Collaboration" (within and between public bodies, and with other relevant parties). This focus on integration and collaboration is highly relevant to the international health arena where we see, as described throughout this report, activity in an array of public and private organisations, within each of which are a variety of aims and objectives.

¹⁷ Office for National Statistics (2020). [Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2019](#).

¹⁸ Joseph Rowntree Foundation (2020). [Poverty levels and trends in England, Wales, Scotland and Northern Ireland](#).

¹⁹ Future Generations Commissioner for Wales (2021). [Well-being of Future Generations \(Wales\) Act 2015](#).

²⁰ UNDP (2021). [Sustainable Development Goals](#).

As the first country in the World to translate the SDGs into legislation, Wales's approach and progress has attracted international attention, and formed the focus of a World Health Organisation (WHO) publication considering sustainable development and health.²¹ At that time the potential benefits and challenges of its implementation were largely theoretical, but now, six years since the Act was passed, it is possible to review the progress so far. The Future Generations Commissioner's 2020 report highlights achievements and challenges to date, and makes recommendations for improvement, some of which are particularly relevant to international health activity.²² It notes an "implementation gap" between Welsh Government aspirations, as set out in policy and legislation, and their commitment to supporting and resourcing delivery. Government finance and budgeting structures, linked to individual ministerial portfolios, do not support an integrated approach to decision-making. Short term, silo-based government funding is one factor hampering better collaboration within and between organisations, and with the public. It recommends that more sustained funding options are provided by the 2023-24 financial year. The "Globally Responsible Wales" goal is not well understood, and public bodies' accounts of their positive contributions to the World are weak. It recommends that Welsh Government focuses on ensuring that Wales demonstrates global citizenship and leadership.

The International Strategy for Wales

This was published in 2020,²³ closely followed by five Action Plans relating to key areas.²⁴ Its three core ambitions are to raise Wales's international profile, to grow the economy through exports and inward investment, and to establish Wales as a globally responsible nation. It intends to provide strategic direction not just for Welsh Government, but for all those "engaged in the international space". Intentions particularly relevant to international health include:

- Increasing Wales's presence within the EU.
- Coordinating international activity and working with UK government, particularly the (now) FCDO and Department for International Trade (DIT).
- Ensuring strong Welsh representation at UK level.
- Encouraging global collaboration on research.
- Increasing international exports, supported by development of a Welsh diaspora business network. There will be a focus on markets in certain EU countries (including Germany, France and Ireland), North America, the Middle East and Asia.
- Promoting "magnet projects", a number of which relate to life sciences.
- Enhancing engagement with overseas alumni of Welsh universities, by working in collaboration with Global Wales and Welsh universities.

Efforts will be focussed on certain "priority" countries (Germany (Wales's biggest trade partner), France, Ireland, the USA, and Canada) and regions (the Basque Country, Flanders and Brittany). In terms of health:

- In the Basque country there is collaboration on health, with a particular interest in primary care and value based health care, research, and a relationship with the Basque life sciences cluster. There is an intention to collaborate on health policy.
- Flanders is a strategic partner region for health and social care, with established links between respective health and care departments and various other bodies. Health equity is an area of common interest. There are also strong research links.

²¹ WHO (2017). [Sustainable development in Wales and other regions in Europe: achieving health and equity for present and future generations.](#)

²² Future Generations Commissioner for Wales (2020). [Future Generations Report 2020 – Summary.](#)

²³ Welsh Government (2020). [International Strategy for Wales.](#)

²⁴ Welsh Government (2020). [International Action Plans.](#)

- In Quebec there is possibility of collaboration on COVID-19 research, cancer therapies, neuroscience and personalised medicine.

The Wales and Africa programme has a specific action plan, covering its various areas of activity, including health. This commits to continued support for Civil Society Organisations (CSOs) through the capacity building activities of Hub Cymru Africa (HCA), and further efforts to engage the African diaspora in its activities. The importance of gender equality is recognised and its grants scheme, one theme of which is health, which will be reviewed this year in terms of how it can best deliver and capture impact. All activity is predicated on mutual respect and learning through partnership working.

The Strategy document includes a complete list of strategic networks with which Welsh Government engages, which are explored further in the Priority Regional Relationships and Networks Action Plan. There is an intention to prioritise engagement with networks which will afford international influence in the International Strategy’s core areas. This has been reiterated in conversations with members of the government; these networks have already been reviewed for strategic prioritisation and this will be repeated once ongoing relationships with the EU are clearer. At present the priority networks relevant to health include the Network for European Regional and Local Health Authorities (EUREGHA), which a Welsh representative currently chairs, and the Vanguard Initiative, which has the potential to impact on life sciences commercialisation.

4.1.2 WELSH GOVERNMENT’S INTERNATIONAL ENGAGEMENT

The Welsh Government has specific Memoranda of Understanding (MoUs) with 12 countries or regions, including China, Lesotho and Quebec. It has a network of 21 overseas offices in 12 countries, in China, Europe (including London), India, Japan, the Middle East and North Africa (MENA), and North America. These have bespoke remits in terms of delivering the International Strategy.²⁵ All are expected to focus on trade and work with the DIT, promote Wales’s research excellence and seek partnerships or collaborations, and build Welsh diaspora networks. Table 1 shows how offices’ other specific remits relate to international health.

In 2020 Welsh Government signed an MoU with the WHO Regional Office for Europe in the area of health equity and prosperity for all, which named Wales as one of only three countries in Europe to be an “international influencer” and “live innovation site” for health equity.

Office/region	Area within remit relevant to health		
	Encourage student exchanges	Build research and innovation links	Life sciences a focus for export opportunities
USA	✓		✓
Canada	✓	✓	
Ireland			✓
France			✓
Germany	✓		✓
Belgium	✓		✓
MENA			✓
India		✓	
China	✓		

Table 1: Mapping remits of Welsh Government Overseas offices to international health.

Within Wales, there are honorary consuls for 29 countries within Europe, the Americas, Africa and Asia. These are voluntary posts held by Welsh residents, who are appointed by and responsible to the countries they represent. They enable strengthening of bilateral relationships through coordination of official visits to Wales, provision of contextual briefings and support for visitors from the nations they represent. They liaise with Welsh Government both individually and via The Consular Association in Wales.²⁶ In relation to health, the countries represented include major partners in trade, academia, healthcare worker migration, and the Wales and Africa programme.

²⁵ Welsh Government (2020). [Welsh Government International Offices Remits.](#)

²⁶ [The Consular Association in Wales \(2021\).](#)

4.1.3 WELSH GOVERNMENT AND INTERNATIONAL HEALTH ACTIVITY

In the main, the Welsh Government's support for international health activity comes via its overall interaction with the sectors involved, and takes the form of both funding and facilitation of activity. Some programmes, such as the Global Wales partnership and the Wales and Africa programme, have a specific international focus. Relevant bodies and programmes are summarised in tables 2 and 3, and suggest:

- That there is substantial government support in relation to international health activity, primarily by extension of support for domestic activity.
- That this takes the form of a complex web of involved departments, supporting bodies and programmes.

The ARTHUR programme

This illustrates the cross-sectoral nature of activity related to international health. The Welsh Government Office for Science, working with colleagues in the health and economy sectors and international experts, have developed the ARTHUR (Advanced Radioisotope Technology for Health Utility Reactor) programme.²⁷ Its main objective is to ensure a sustainable supply of medical radioisotopes for the UK: existing supplies come from only a few such facilities around the world, many of which are reaching the end of their working lifetimes. Radioisotopes are required in a range of diagnostic and therapeutic procedures, particularly for cancer. The proposal would see a small non-power nuclear reactor developed in Wales, which would primarily produce medical radioisotopes for nuclear medicine but could also support advances in the physical sciences. This could become part of a wider initiative to develop a greater national capability in nuclear medicine and the intention is to collaborate with the other UK administrations and international colleagues.

Body/programme	Main sectors	Details
HCRW*	NHS/Academia	Funds and supports research into diseases, treatments and services to improve health and social care.
HEFCW**	Academia	Funds a proportion of higher education teaching and research; sets fees and assesses quality and performance of higher education institutions (HEIs).
Global Wales	Academia/ Commercial	Partnership with non-government bodies to promote recruitment of international students, international academic collaborations and increase access to international markets. Offers scholarships for inward migration of students.
WHEB†	Academia	Funded by HEFCW as well as universities, to promote Welsh HEIs through European networks, for study and collaboration, and to help with funding opportunities.
LSHW††	Commercial/ Academia/NHS	Provides support and funding to accelerate development and adoption of innovative solutions for better health and wellbeing. Programmes: <ul style="list-style-type: none"> • Accelerate (with academia/NHS). • Digital Health Ecosystem Wales (with NHS).
Efficiency Through Technology	Commercial/ Academia/NHS	To accelerate development and adoption of new products and services, aiming to increase efficiency and improve patient outcome.
Wales and Africa	Non-profit/NHS	Funds and supports partnership activities through: <ul style="list-style-type: none"> • Hub Cymru Africa and its activities • Grants programme • International Learning Opportunities

Table 2: Bodies/programmes supported by Welsh Government which contribute to international health activity.

* Health and Care Research Wales

** Higher Education and Funding Council Wales

† Welsh Higher Education Brussels

†† Life Sciences Hub Wales

²⁷ This project is at proposal stage. Details here have been seen and approved by those involved.

Department/Group	Activities
Health and Social Services Group	
Public Health Division	<ul style="list-style-type: none"> • Represents Wales in key forums including WHO Regions for Health Network, NHS International Health Group, and UK & Ireland Global Health Co-ordination Network. • Coordinates requests from other nations for sharing of good practice. • Acts as health link to the Wales and Africa programme. • Leads on the Welsh Government–WHO MoU.
Technology, Digital, Innovation and Strategy Team	<p>Works across government, NHS Wales and with partners across sectors to maximise benefits of NHS technology and innovation. Responsibilities include:</p> <ul style="list-style-type: none"> • Overall NHS strategy development. • Policy development/delivery for technology and innovation in health and social care. • Efficiency Through Technology programme; contributes to Digital Health Ecosystem Wales. • Industry engagement and partnership development. • Maximising EU funding.
Research and Development Division, Health and Social Care	Leads HCRW; through this develops policy and administers funding for research within NHS, social care and academia, and links with the commercial sector.
International Relations Directorate	
Welsh European Funding Office	Seeks and promotes opportunities to access EU funding, including for health research/innovation. Developing new programmes to mitigate impact of loss to some of these opportunities following Brexit.
Wales and Africa Programme	Described in Table 2.
International Relations and Trade	<p>Overall approach to/policy on trade, with a team dedicated to the life sciences. Includes:</p> <ul style="list-style-type: none"> • Promoting exports. • Seeking inward investment opportunities. • Working with UK government, particularly DIT.
Office for Science	
International Intelligence Subgroup of the Technical Advisory Group (TAG).	Set up in response to the coronavirus pandemic, to gather information from other countries and inform advice to/from the TAG.
Via Office of Chief Scientific Advisor / Chief Scientific Advisor for health	<ul style="list-style-type: none"> • Developing ARTHUR programme (see above). • Led the Sér Cymru Programme. • Other inputs, particularly in relation to research and its coordination.
Overseas Offices	<ul style="list-style-type: none"> • Links for trade (exports and inward investment). • Sharing of health-related experience/expertise. • Development of academic and research collaborations. • Contributed to early intelligence on coronavirus.

Table 3: Activities of Welsh Government departments and groups relevant to international health.

Funding

Funding support from the Welsh Government has historically taken the form of both direct contribution from the budget and European Structural Funds, particularly the European Regional Development Fund. While access to some European funds, such as Horizon 2020 (discussed further in section 5) is preserved under the Brexit deal, this does not apply to Structural Funds, leaving a substantial gap. The UK government has committed to replacing this in full, but current plans, including the UK Shared Prosperity Fund, do not do yet this, and responsibilities for fund allocation have changed. Welsh Government continues to make the case for a strong role in relation to future funding, reflecting devolved responsibilities.

Welsh Government has plans, developed over years and in collaboration with the Organisation for Economic Co-operation and Development (OECD), on how to manage these changes.²⁸ It envisages a need for even better cross-UK and international relationships, to maximise access to available funding opportunities, based on local, regional and national strengths. This would be backed up by an “Agile Fund” to invest rapidly in small scale cross-border and international projects, supporting, for example, development of funding bids or new collaborations. This fund has not yet been finalised but would be important in health-related innovation and commerce. The framework expresses an ambition to support start up and growth of small businesses, which Wales disproportionately relies on economically, including through strengthening the research and development base.

²⁸ Welsh Government (2020). [A Framework for Regional Investment in Wales](#).

4.2 UK GOVERNMENT BODIES AND POLICIES RELEVANT TO WALES'S INTERNATIONAL HEALTH ACTIVITY

The UK government retains control or influence over some key areas relevant to Wales's international health activity. The most important are:

- Immigration into the UK.
- International treaties, including access to markets, customs regulations and taxes.
- Research funding, through provision of large, UK-wide competitive funds.
- Official Development Assistance (ODA) funding.

The first of these will not be considered in this review, though it is of relevance to recruitment of health workers from overseas to the NHS, and international students. The second and third are considered in sections 6 and 5 respectively. This section will therefore look primarily at ODA funding, in relation to Wales's international health activity. As this topic has been explored in detail in our recent report into Wales's Health Partnerships and their funding, this section will present a brief overview, with additional information relevant to the wider scope and an update on recent events.

ODA is government aid that promotes and specifically targets the economic development and welfare of developing countries.²⁹ This is distinct from, for example, the funding for the Wales and Africa programme, which must bring benefit to Wales. ODA may be bilateral (spent on specific countries, regions or programmes) or multilateral (contributions to core funding for organisations such as the WHO and UN). While most is spent through the Foreign, Commonwealth and Development Office (FCDO), other UK government departments are also involved, including the Department of Health and Social Care (DHSC). Provisional figures show that approximately £14.5bn was spent in 2020 (0.7% of GNI), with approximately 65% of this bilateral, and 26% spent by non-FCDO departments (1.7% through the DHSC).³⁰ In line with previous years, Africa received the greatest share (55%), followed by Asia (38%).

Towards the end of the year described in that report, the scale and structure of ODA spending was greatly altered, with the UK government stepping back from its legal commitment to spend 0.7% of GNI and merging the Department for International Development, which had been responsible for this area, with the Foreign and Commonwealth Office, creating the FCDO. Soon after, the FCDO announced an intention to move away from spending based on the 2015 Aid Strategy, instead focusing ODA spending on countries where the UK's development, security and economic interests align, and on seven "global challenges", one of which is COVID and global health security.³¹

The provisional ODA allocations for 2021 showed an overall reduction in spend of approximately one third, to close to £10bn, with a similar drop in the proportion spent through non-FCDO departments.³² More recently the FCDO announced the details of its own ODA spending plan, with 1.3bn to be spent on COVID and global health (a 9% reduction in health spending), and 42% cut from the budget for humanitarian assistance. There is to be a "tilt" towards the Indo-Pacific region, and though a significant proportion of the budget will still be spent in Africa there will be a more limited focus, concentrated on East Africa.

The practical effects of the reduction across all departments include:³³

- A 95% reduction in support for polio eradication programmes.
- An 80% reduction in projects focussing on clean water and sanitation.

²⁹ OECD (2020). [Official Development Assistance \(ODA\)](#).

³⁰ FCDO April 2021. [Statistics on International Development: Provisional Aid Spend 2020](#).

³¹ UK Foreign, Commonwealth and Development Office (2020). [Letter from the Foreign Secretary regarding the future of the UK aid budget](#).

³² UK Parliament (2021). [Development Update: Statement UIN HCWS735](#).

³³ BOND (April 2021). [UK aid cuts: reactions from the UK and beyond](#).

- Cuts in conflict affected areas such as Myanmar and Yemen.
- Reduction of UK Research and Innovation's budget for global research, including on health by almost half, to £125m.³⁴
- Cancellation of THET's £42m UKPHS grant programme, some of which was soon to be disbursed to Health Partnerships, and other applications ready to be submitted.³⁵

Effects of ODA reduction on Wales

In our previous review, we found that Wales's Health Partnerships had drawn nearly £1.5m in ODA funding over the previous five years. While this is clearly a tiny proportion of the overall budget, it represents a significant amount to these often relatively small organisations, and loss of access to this will inevitably have an impact on their activity. We also know that the cancellation of THET's UKPHS programme has resulted in the loss of at least £593,500 in potential funds, from bids submitted or in preparation.³⁶ Hub Cymru Africa have lost over £10,000 (40% of the value of their grant through the Civil Society Collective) and United Purpose have lost funding for work in Myanmar.

As part of this review, we have found that Welsh universities received just over £15m in ODA funded grants for health-related research during the last five years, through schemes such as the Global Challenges Research Fund (GCRF), Newton Fund, National Institute for Health Research (NIHR) and Global AMR Innovation Fund. We have heard of grants, which had been allocated and committed to work, being suddenly withdrawn, leaving projects incomplete. This wastes efforts to date and prevents progress on important issues, damages relationships and institutional reputation, and in some cases has led to job losses.

What opportunities remain for Wales's health activity in terms of ODA?

The ODA spend for health has been reduced and is now more concentrated on certain activities and regions, but the overall reduction has been less severe than in other areas. Our previous report identified Wales's particular strengths which may draw ODA funding and of these, the most likely to still be a priority are those relating to disease outbreaks – such as PHW's world-leading pathogen genomics service – and strong relationships in some East African countries, including Somaliland. Other projects may, of course, be funded, but the likelihood is lower.

In terms of academic research, the following funds remain open:

- NIHR Global Health funds (Research Units, Research Centres, and Global Health Policy and Systems Research). However, NIHR global health funding has also been cut and the impact on these schemes remains uncertain.³⁷
- The Global Challenges Research Fund, which lists 121 open grant opportunities. However, this is part of the UKRI portfolio which is under review, as above.
- The Global Innovation Fund. This is only partially funded by UK ODA and gives no information about reductions to funding, so may be relatively protected.

The £265m Fleming Fund, focusing on antimicrobial resistance, has closed. The £1.2bn cross-department Prosperity Fund has also now closed, and its ongoing programmes are under the responsibility of the FCDO. However, this remains the type of programme the UK government may feel is of value, so it is worth considering here. The Prosperity Fund aimed to promote growth and prosperity in developing countries, particularly middle-income countries, by improving the global business environment, strengthening institutions, and encouraging greater global private investment. One stream of this was Better Health, which focussed on developing health systems in eight countries, primarily in southeast Asia, and was

³⁴ UK Research and Innovation (2021). [ODA review](#).

³⁵ THET (2021). [UKPHS: UK Partnerships for Health Systems](#).

³⁶ Personal communication from potential grant applicants.

³⁷ NIHR (2021). [Funding Opportunities](#).

overseen by a steering group hosted by Health Education England. The Department for International Trade and Healthcare UK (discussed in section 6) were involved in its implementation, through work with partners overseas and promotion of opportunities in the UK. Though not open to new bids, some of these projects are ongoing. This highlights the importance of working relationships with key UK institutions, such as Healthcare UK and Health Education England, should similar opportunities arise in the future.

No new, relevant ODA funds have been identified since our last review. Clearly this area is in a state of flux. While overall opportunities for ODA funding are considerably reduced, they will exist, and Wales could position itself to take advantage of new funds as they are announced.

4.3 THE NHS AND INTERNATIONAL ENGAGEMENT

The NHS in Wales is an integrated system, based on planning rather than competition. Nearly 50% of the Welsh Government's total budget of £18bn is committed to health and social services, with the bulk of this (approximately £8bn) going to NHS Wales.³⁸ Services are provided through seven regional Health Boards, responsible for primary, secondary and community care services, and three Trusts and two Strategic Health Authorities, providing services across the whole of Wales. These all receive support services from NHS Wales Shared Services Partnership (NHSWSSP).

NHS Wales contributes to international health primarily through:

- Employment and training.
- Research and innovation.
- Engagement in voluntary/humanitarian activities.

These are considered further below. There are other areas which contribute to a lesser extent:

- Service provision: the Welsh Burns and Plastic Surgery Centre in Swansea is commissioned as a national UK burns centre and is part of a European and global network for mass casualty burns response. As part of these arrangements, it has received patients from major incidents, for example, in Eastern Europe (nightclub fire) and Egypt (Coptic Cathedral bombing). This is the only example of international service provision of which we are aware, but there is, of course, cooperation with other UK NHS services for reciprocal commissioning of specialist services, particularly in border areas.
- Novel service models. The Emergency Medical Retrieval and Transfer Service (EMRTS Cymru) is a unique system of pre-hospital care hosted by Swansea Bay University Health Board (SBUHB), using the infrastructure of the Wales Air Ambulance Charity, Welsh Ambulance Service Trust (WAST) Critical Care Paramedics, and Critical Care Doctors based across Wales. It delivers critical care interventions in the community, for trauma or medical conditions, for patients of all ages. Its novel infrastructure and universal coverage have drawn international interest, and its staff have taken part in international conferences and visits, notably from Japan and to Norway. Analysis of EMRTS's patient data, in collaboration with Australian colleagues, has been presented internationally.
- Opportunities to train overseas, contributing to other countries' health systems and bringing learning back to NHS Wales. These are much less common in Wales than in England, for example, as examined in our previous review. To our knowledge, the only formal scheme currently offered by Health Education and Improvement Wales (HEIW) is a Global Fellowship programme for GP trainees, though it is working to further develop its global engagement.

The map below (Figure 1) shows the number of NHS bodies engaged in any sort of formal collaboration – health partnership, research or training activity – in each country worldwide. Note that this does not include participation in international clinical trials. Of all collaborations, 39% are in Africa, 31% in Asia and 19% in the EU. Public Health Wales has substantial, strategic international engagement, and is considered as a case study.

³⁸ Welsh Government. [Wales Budget 2020-21](#).



Figure 1: NHS international collaborations (number of NHS bodies active in each country).

Public Health Wales: strategic international engagement

Public Health Wales (PHW) is NHS Wales’s most strategically active organisation in terms of global health. In 2017 it published its International Health Strategy, describing an organisational vision for global engagement during the next decade, with anticipated benefit in Wales and overseas. This work is supported by an International Health Team. PHW staff are involved in more than 60 international collaborations and networks, and have contributed to globally important developments in areas such as health security, child abuse and neglect, cancer care, and health equity.

PHW and its staff have key strategic partnerships and positions, including:

- Designation as a WHO Collaborating Centre (WHOCC) on Investment for Health and Wellbeing: the first centre in the world with this expertise, driving social, economic and environmental sustainability, and prosperity for all in Wales and Europe.
- WHO Focal Point for Violence and Injury Prevention for the UK; global focal point for research on Adverse Childhood Experiences; and WHO Focal Point for the European Regions for Health Network.
- Member of the International Association of National Public Health Institutes (IANPHI) and held the Chair of IANPHI’s European Regional Network until May 2021.
- Member of EuroHealthNet, with a seat on the Executive Board.
- Chairs the Four Nations Health Protection Oversight Group, formed following changes to the structure of PHE to inform the UK Health Protection Committee.
- Runs UK-wide laboratory reference services for certain pathogens and provides specialist health protection advice within the UK and Europe.
- Hosts the International Health Coordination Centre (IHCC) and chairs a cross-sector multiagency International Health Strategic Advisory Group for Wales.
- Led preparations for assuring health security in Wales in advance of Brexit, and now leads implementation of the Health Security elements of the Trade and Co-operation Agreement.

PHW has informed and coordinated many aspects of Wales’s response to the coronavirus pandemic, producing regular International Horizon Scanning and Learning reports and sitting on several Subgroups of the Welsh Government Technical Advisory Group. Its approach has drawn international interest. Its world-leading pathogen genomics service began sequencing coronavirus samples early, allowing rapid development and delivery of near-patient testing across the country. The volume of samples now analysed puts it within the top three globally, allowing strong surveillance and response within Wales.

PHW exemplifies the international profile and activity that can be supported through strategic direction and dedicated resource. It is well placed to lead other NHS organisations in developing in this area and already holds key roles here. The coronavirus pandemic has had a major impact on this wider work with the NHS, but there is an intention now to refresh the role of the IHCC which, with additional capacity and resource, can realise its potential to drive forward the international engagement of NHS Wales.

NHS Wales is the largest employer in Wales, with nearly 100,000 staff in more than 85,000 full-time equivalent posts.³⁹ Staff, particularly nursing and medical, are drawn from all over the world. In 2020, 8% of health and social care staff in Wales identified as non-UK nationals, with more from the EU than non-EU countries.⁴⁰ There have been major recruitment drives in, for example, India, Romania and the Philippines, particularly for nursing staff. Medical staff migrate long term, to join UK specialty training programmes and take up consultant or Staff and Associate Specialist posts, or temporarily, as part of the Medical Training Initiative (MTI) or for non-training opportunities. Without care, recruitment from low- and middle-income countries may detract from, rather than contribute to global health.

The MTI is a UK wide scheme run through medical Royal Colleges of various specialties, which allows doctors from LMICs to spend up to two years working and training in the NHS.⁴¹ In 2019 there were 36 MTI doctors working in Wales,⁴² most supported through the Royal College of Paediatrics and Child Health and the Royal College of Physicians, with a small number through the Royal College of Psychiatrists, the Royal College of Surgeons of Edinburgh and the Royal College of Surgeons of England. In the years 2016 and 2017, Wales's MTI doctors represented a 2.7% and 4.3% share of the UK total respectively, thus remaining lower than Wales's population share (approximately 5% of UK total).

Of course, British healthcare staff also migrate, sometimes with the explicit aim of learning or sharing skills, sometimes for lifestyle or other reasons.

In terms of specific opportunities in Wales, we have found:

- The cardiac centre in Swansea invites trainee cardiac surgeons from LMICs to train there, then return to their home countries with new clinical and research skills.
- The same centre has recently been approved as one of only three European centres of Excellence for transcatheter aortic valve implantation (TAVI) teaching, and will receive international clinicians and allied health professionals for training.
- A Swansea Bay University Health Board (SBUHB) surgeon has developed the UK's largest plastic surgery research group, and has been awarded a Cutler/Royal College of Surgeons of England Fellowship to work with colleagues in Paris, with a view to developing specialist expertise in Wales. He is the first UK recipient of a European and American Association of Plastic Surgeons academic scholarship.
- SBUHB are part of a scheme to support a college and hospital in India, providing a training rotation in paediatrics in Swansea for trainees from India.
- Betsi Cadwaladr University Health Board (BCUHB) offers innovative non-training roles which attract doctors from the UK and overseas to difficult to fill posts in Emergency Medicine and Intensive Care medicine.^{43,44}
- HEIW is exploring new links in India to bring doctors to Wales (and potentially vice versa) and will seek to become a Tier 5 visa sponsoring body to support this.
- The British Association of Physicians of Indian Origin (BAPIO) has a division in Wales, whose connections help link doctors in India to vacant posts in Wales.

The positives of inward migration to the NHS include the filling of posts and the bringing of different experiences (both clinical and cultural) and expertise., although the latter is not captured in any systematic way and the NHS loses much potential benefit as a result. Workers' countries of origin may also benefit, if healthcare workers return home to similarly

³⁹ Welsh Government. [Staff directly employed by the NHS: as at 30th September 2020.](#)

⁴⁰ Welsh Government (2020). [Preparing Wales: Health and social services.](#)

⁴¹ Academy of Medical Royal Colleges (2021). [Medical Training Initiative.](#)

⁴² Information provided by the Royal College of Physicians Wales Office, from an internal document.

⁴³ [Mountain Medicine Ysbyty Gwynedd: About us \(2021\).](#)

⁴⁴ [EPIC North Wales \(2021\).](#)

contribute new experiences and skills. In 2019, THET surveyed diaspora healthcare staff as part of their report “From Competition to Collaboration”.⁴⁵ Of 139 respondents 70% intended to return to their country of origin or heritage, and 94% felt that they had developed skills which would positively contribute there.

However, there are also negative consequences, most obviously that of denuding countries of vital healthcare staff, and wasting the investment made locally into their training. Schemes such as the MTI seek to mitigate this risk. NHS Wales adheres to the UK’s principles of ethical recruitment of healthcare staff,⁴⁶ which prohibit active recruitment from many LMICs, and is represented on the Cross-Whitehall International Recruitment Steering Group. Though there are currently no models equivalent to the MTI for non-medical staff in Wales, these exist elsewhere and are discussed further in our examination of other UK nations’ models in our previous review. As Wales’s largest employer, with a substantial cohort of diaspora staff, NHS Wales could have a major impact on international health simply by introducing innovative contracts which promote the transfer of skills back to the country of origin of migrant healthcare workers.

4.3.1 NHS RESEARCH AND INNOVATION

NHS Wales is active in research, with benefits to organisations and their patients. Research activities are known to attract and retain staff. In 2018-19 NHS Wales’s commercial research activity is estimated to have generated £7.4m income and £93m “gross value added”,⁴⁷ generated 1600 jobs and saved £1.3m in pharmaceutical costs.⁴⁸ Though precise figures are not available, some of this activity is “international”, through international sponsorship, collaboration, or contribution to knowledge which can be applied worldwide. The essential structures supporting this activity are:

- Each organisation’s research and development (R&D) director and department, some of which also cover innovation.
- Health and Care Research Wales (HCRW): one of the Welsh Government’s major funders of NHS-based research, which can involve international research.⁴⁹ Its Support and Delivery Service includes a central coordination function and the NHS R&D departments, through which it provides services coordinating study set-up, contracts and regulatory approvals. Its annual budget of £42m⁵⁰ also supports research centres, Clinical Trials Units, academic studentships and fellowships, and a variety of grants schemes. The last includes the NHS Research Time Awards, which fund sessional research time for clinicians: six of these were awarded in 2019-20.
- HCRW research centres and infrastructure groups: these link the NHS with universities and others to enhance capability and capacity, often in specific subject areas. They are considered further in section 5.
- Funding, which can come through one or more of HCRW, charities, companies, or competitive national or international grants. HCRW supports the research community in seeking opportunities, including making links with industry and across the UK.
- Cross-NHS networks, for example of Innovation Leads, or in specific clinical specialties.

NHS engagement in international commercial research is facilitated by HCRW, whose industry team often provides the first point of contact between industry partners (usually pharmaceutical companies) and NHS research sites. Over the past few years, HCRW has developed partnerships with leading global companies including GlaxoSmithKline, AstraZeneca and Novartis, and global Contract Research Organisations (CROs) PPD and Parexel. Wales is very much part of the UK in terms of attracting industry sponsorship, and HCRW joins joint UK delegations to international trade shows and events. Wales is represented on a number of UK policy and operational groups which support commercial engagement, such as

⁴⁵ THET (2019). [From Competition to Collaboration: Ethical leadership in an era of health worker mobility.](#)

⁴⁶ UK Government Department of Health and Social Care. [Code of Practice for international recruitment of health and social care personnel in England.](#)

⁴⁷ A measure of the overall economic value of an activity.

⁴⁸ KPMG (2020). [Impact and value of research supported by NHS organisations in Wales.](#)

⁴⁹ [Health and Care Research Wales: about \(2021\).](#)

⁵⁰ IWA (2021). Time to prioritise medical research in Wales.

the UK Clinical Research Working Group and the UK commercial Clinical Operations Group. This engagement brings funding and expertise to support NHS Wales's participation in major international trials, with financial and clinical benefits as described earlier, but commercial sponsorship remains lower in Wales than in England. In 2019-20, 18% of studies recruiting in Wales and 2.8% of all patients recruited were commercial, compared with 24.5% and 3.9% respectively. The Welsh Government, via HCRW, aims to improve this, and ambitions are aligned with the new UK-wide vision of clinical research delivery.⁵¹

There is much more research involving the NHS, which is covered in Section 5, being led from the academic sector. Innovation requires close links with academia and industry, and is included with the commercial sector in Section 6. BCUHB's international activity in the round, including international research and innovation, is presented as an illustrative case study.

One of the major barriers to greater engagement in research in the NHS is staff time. This was reported through informal conversations, stakeholder interviews and surveys. Though HCRW offers competitive access to funding for sessional time, there are only six awards nationally each year. Any other time must be negotiated through individuals' employers and is often simply not possible alongside clinical duties. Both the Royal College of Physicians Wales Office and the Senedd Cross-Party Group on Medical Research have recent publications recommending protection of staff time for research, having identified a significant weakness here in Wales.^{52,53}

4.3.2 NHS VOLUNTARY AND HUMANITARIAN ACTIVITY

Wales has led the UK in encouraging and coordinating NHS involvement in international voluntary activity, through the Wales and Africa programme,⁵⁴ the 2006 Welsh Health Circular,⁵⁵ the 2012 Framework for International Health Engagement,⁵⁶ and the Charter for International Health Partnerships.⁵⁷ These are discussed in detail in our previous review, along with the current strengths and weaknesses of these supporting systems. A short summary, along with details of funding and support through the Wales and Africa programme will be presented in section 7. NHS organisations benefit from involvement in this activity, as staff develop in areas such as resourcefulness, resilience and leadership, along with cultural enrichment and acquisition of new knowledge and skills. Access to such opportunities improves staff recruitment, retention and satisfaction.

We previously identified 10 Health Partnerships or other links with African countries, based in NHS organisations, and other Civil Society Organisations (CSOs) with close affiliations. The current review has identified additional activity. The major partnerships are summarised in Table 4. There are also many individuals with personal links, or taking part in larger organisations, some of which we are aware of (involving work in Africa, India, Bangladesh, St Helena, Ascension and Tristan da Cunha, Gambia and the Caribbean), much of which we will not have detected. Some of these links, such as training in Vanuatu and Nepal, the Betsi Kenya Link, and many other individual connections, have been established by diaspora healthcare staff, demonstrating the mutual benefits these staff can bring to NHS Wales and their countries of origin.

⁵¹ Policy paper of the four UK Governments (2021). [Saving and improving lives: the future of UK clinical research delivery](#).

⁵² Royal College of Physicians Wales Office (2019). [Breaking down barriers: Our action plan for the next Welsh Government](#).

⁵³ The Fifth Senedd Cross-Party Group on Medical Research (2021). [The Next Steps for Wales to Achieve its Potential in Medical Research](#).

⁵⁴ Welsh Government (2020). [Wales and Africa](#).

⁵⁵ Welsh Assembly Government (2006). [Welsh Health Circular](#).

⁵⁶ Welsh Government (2012). [Health within and beyond Welsh borders: An enabling framework for international health engagement](#).

⁵⁷ International Health Coordination Centre (2014). [A Charter for International Health Partnerships in Wales](#).

Organisation	Countries	Activities
ABUHB*	Ethiopia	Midwifery training and support.
BCUHB	Ethiopia, Kenya, Lesotho	Capacity building in primary and secondary care.
CTMUHB**	Zimbabwe	Individual supporting medical training, connected to UK-wide Zimbabwe Health Training Support.
	Vanuatu, Nepal	Informal links supporting under- and postgraduate medical training.
	Uganda	Training and capacity building, in partnership with PONT.
Digital Health and Care Wales	Lesotho	Collaboration with Dolen Cymru and SOS Children's Villages. Support other Health Partnerships (e.g., BCUHB).
HEIW	South Africa	Global Fellowships (GP training).
Powys HB	Kenya	Collaboration with Brecon-Molo Community Partnership.
SBUHB	Bangladesh	Development of endoscopy services since 2012, in with Swansea medical school and Gastroenterology Societies.
	Pakistan, Egypt	Cardiac surgery education and training; lead clinician's longstanding contribution has been honoured by professional associations in Pakistan.
	India, Hong Kong	Radiotherapy training.
	Estonia	A paediatrician is the lead for this region for Child Health International, a cystic fibrosis charity.
	The Gambia	Capacity building in ophthalmology.
	Zimbabwe	Midwifery training and support.
Velindre (with CAVUHB†)	Sierra Leone	Paediatric oncology service: local capacity building and remote specialist support.
WAST	Indonesia	In collaboration with Cardiff University, supporting development of an ambulance service.
	Uganda	In collaboration with PONT, support for motorbike ambulance service.
Cross-Wales/UK: Rural Seeds	Membership in every continent.	An online collaborative connecting young doctors working rurally. Provide mutual support, connect with experienced clinicians and advocate for better training, with a view to improving care. Has taken off during the pandemic and hosts popular online "cafes".

Table 4: International voluntary activity involving NHS Wales staff.

*Aneurin Bevan University Health Board

†Cardiff and Vale University Health Board

**Cwm Taf Morgannwg University Health Board

4.4 OTHER BODIES RELEVANT TO INTERNATIONAL HEALTH IN THE PUBLIC SECTOR

4.4.1 PROFESSIONAL ASSOCIATIONS

Many medical Royal Colleges and Faculties, and the Royal College of Midwives, have active global health sections. In most cases, it has not been possible to tease out separate data for Welsh clinicians' involvement in this activity, though there is no doubt that some will contribute, representing another facet to Wales's international health engagement. Specific examples we have found are:

- Members of the Royal College of GPs Wales have been involved with an education project in Lesotho, in collaboration with Dolen Cymru.
- The Royal College of Psychiatrists is a global membership body which reports frequent representation from Wales on international projects. Specific work is planned in forensic psychiatry in Ghana, led by a College member who is a professor at Cardiff University. At its upcoming conference, Wales will be represented at international roundtable discussions, whose aim is to bring global projects closer to home.
- The Royal College of Obstetricians matched Wales and Africa grant funding for a project in Zambia, delivered by Welsh members. This was an online "train the trainers" course in post-partum family planning and safe abortion care, aiming to save the lives of mothers and babies through better spacing of pregnancies. A Welsh clinician is also undertaking College research on the global burden of benign gynaecological disease.
- As discussed in section 4.3.1, there are medical training activities in Wales through, for example, the MTI scheme.

Medical Royal Colleges also run exams internationally, and very many individual clinicians will have links to EU or wider international professional associations, such as the European Societies of Anaesthesiology or Cardiology. Others are similarly involved in national standard-setting bodies such as NICE. These connections are too numerous and varied to consider in detail here, but do represent another route for sharing of knowledge and skills between Wales and the wider world.

4.4.2 THE BEVAN COMMISSION

The Bevan Commission is an independent thinktank hosted and supported by Swansea University, with a particular focus on innovation and value based health and care.⁵⁸ It encourages the translation of ideas into practice within the NHS, supporting staff with mentorship through ‘Fellow’, ‘Exemplar’ and other programmes. There is a strong interest in international sharing of good practice, facilitated through their 25 (voluntary) Commissioners, based across the UK and in Australia, New Zealand and the USA. Staff and Fellows/Exemplars have taken part in international events in Europe and Australasia, allowing others to learn about Wales’s unusually integrated health and care system, while bringing back ideas from others. The Welsh Government is currently funding part-time secondment of a senior member of the International Foundation for Integrated Care,⁵⁹ which strengthens both the Bevan Commission’s work and its international connections.

Betsi Cadwaladr University Health Board: international activities

Betsi Cadwaladr University Health Board (BCUHB) is Wales’s largest health board, covering a population of nearly 700,000 in the North Wales region. Its 19,000 staff come from across the world, with many from Europe, Africa and Asia. Innovative non-training posts and individual connections attract high quality junior doctors, some from overseas. Training courses in, for example, trauma, intensive care medicine and ultrasound attract faculty and delegates from across the UK and beyond. There are close ties with Bangor, Cardiff and Glyndŵr universities, for training of healthcare staff and research.

BCUHB employs two of the six 2019-20 winners of the Welsh Government’s NHS Research Time Awards, which fund sessional time for NHS staff to engage in research activities. The Innovation Lead actively seeks international opportunities, through connections with NHS leads, the Life Sciences Hub Wales and others. There are currently 11 internationally sponsored clinical trials, plus collaboration on other innovative projects including development of:

- Clinical monitoring systems to improve the care of acutely ill patients. This is part of wider, internationally collaborative research in this area.
- Voice recognition technology to improve laboratory diagnostic capacity.
- An app to support engagement of adolescents with mental health care.

Respiratory Departments and Intensive Care Units participated in major international studies into COVID-19, whose findings have benefited patients globally by identifying effective treatments.

BCUHB and Bangor University jointly manage the Centre for Mental Health and Society (CFMHAS), whose South Asia Self Harm Initiative (SASHI) is a partnership project to prevent suicide and self harm. The centre has links with many other countries, including in South America and the Middle East.

The Health Board has three international Health Partnerships, with Ethiopia, Lesotho and Kenya. Staff of all disciplines contribute, from medical engineers to nurses, and from primary and secondary care. Partner countries have gained from access to specialist training and equipment, while BCUHB staff involved report improved cultural awareness, flexibility and resourcefulness, and better cross-departmental networks. The wider organisation benefits from reciprocal visits, when overseas partners deliver teaching and training, and raise awareness of global health issues. This work is facilitated by Board-level support through an International Health Group, currently Chaired by the Deputy Chief Executive/Executive Director of Nursing & Midwifery, and the Health Board’s charity, which manages the Health Partnerships’ funds.

The major challenge in all this work is resource, in terms of both staff time and funds. Some clinicians have dedicated research time and while helpful, this is uncommon. The International Lead role sits alongside many others, without dedicated time. Members of Health Partnerships are happy to give their own time to international work, but are inevitably limited in their capacity to plan and deliver projects alongside demanding healthcare roles.

⁵⁹ [International Foundation for Integrated Care: About IFIC \(2021\)](#).

4.5 BASELINE CROSS-SECTOR INFORMATION FROM SURVEY RESPONSES

Before looking at impact of recent events on the public sector specifically, including information from surveys and stakeholder interviews, we present some overarching information from our surveys.

There were 28 responses (approximately 28%), representing 24 separate institutions, to the first survey aimed major institutions or networks. There was representation from all sectors, with 54% public sector (including professional associations), 17% academic, 21% commercial and 8% non-profit. 46% of respondents reported activity in more than one sector. 71% reported that their institution had an international strategy, and 11% did not know. The type of activity undertaken is shown in Figure 2, with training and research being the most common. Only 3.8% reported manufacturing or sale of goods as a major activity, probably reflecting the fact that this survey was aimed at key networks in the commercial sector, rather than individual companies. Figure 3 shows the regions in which respondents are active, with Africa being the most commonly reported, perhaps due to the strong activity of the Wales and Africa programme, followed by Europe.

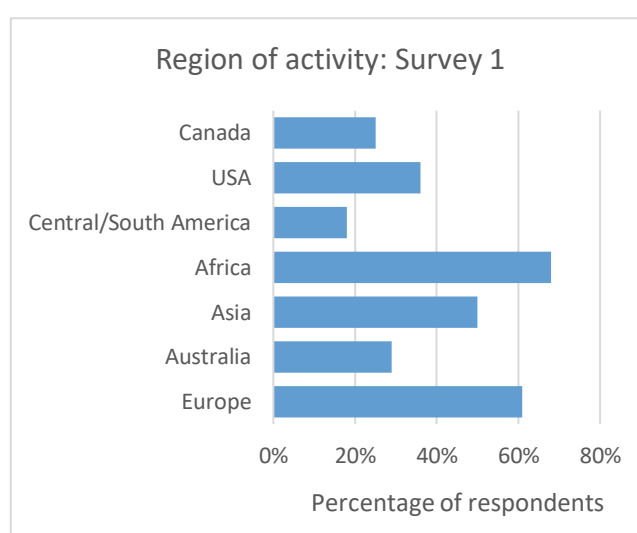
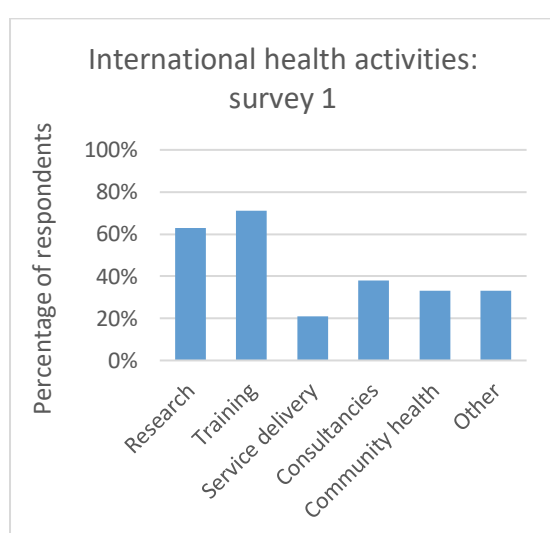


Figure 2: International health activities reported by respondents to survey 1 (institutions and networks).

Figure 3: Global regions in which respondents to survey 1 (institutions and networks) report activities.

“Other” includes policy making, manufacturing and sale of goods, and marketing and communications.

The second survey, aimed at individual organisations or active groups, received 21 responses (approximately 21%), of which 33% were NHS-based (all Health Partnerships), 29% academic, 19% commercial and 19% non-profit. Again, there was significant cross-sector activity, with 27% reporting this.

Figures 4 and 5 show, respectively, the type of activity undertaken and the regions in which respondents to the second survey are active. Again, training and research are the most common activities, and the greatest proportion of respondents are active in Africa, followed by Europe.

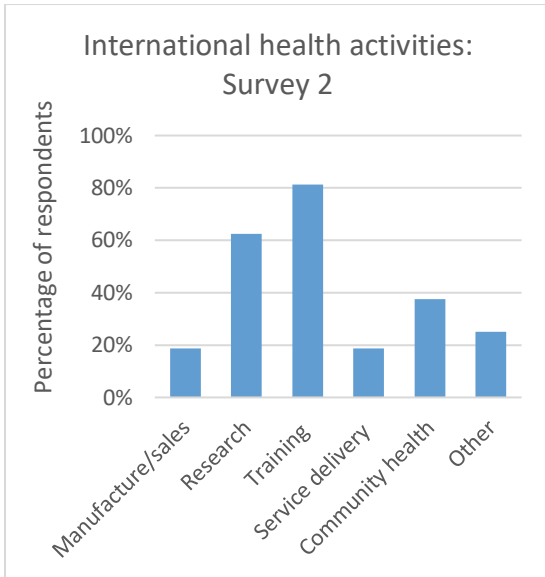


Figure 4: International health activities reported by respondents to survey 2 (individual organisations/groups).

“Other” includes consultancies and provision of funding.

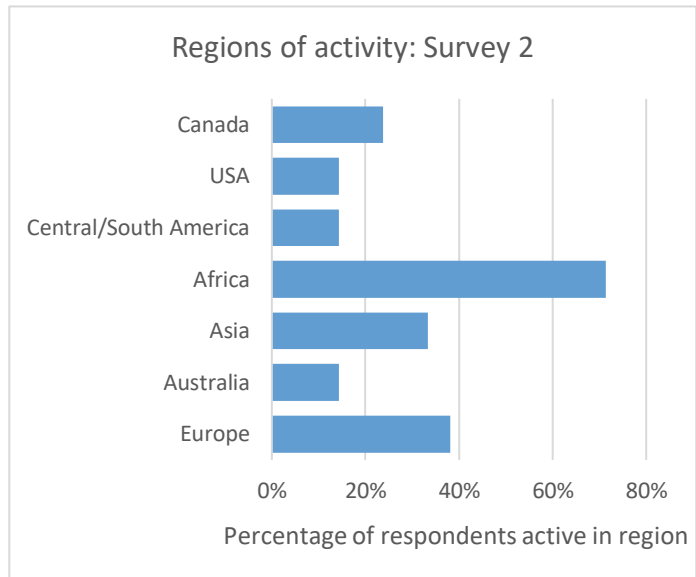


Figure 5: Global regions in which respondents to survey 2 (individual organisations/groups) report activities.

4.6 IMPACT OF RECENT EVENTS ON PUBLIC SECTOR CONTRIBUTION TO INTERNATIONAL HEALTH

The coronavirus pandemic

The enormous impact of the pandemic on the NHS is widely known and need not be laboured here, except to point out that there have been significant associated effects on its international health engagement. In keeping with this, 100% of NHS respondents to our two surveys reported an impact in some area, which fits with information from informal conversations and stakeholder interviews. Migration of healthcare staff has been hit in both directions: for example, inability to recruit doctors via the MTI scheme and cancellation of the GP trainee Global Fellowships. Some international research studies have been paused, as attention at various levels has been diverted elsewhere.

In terms of Health Partnership activity, the Charter Implementation Group has been unable to meet for over a year, and travel by partners in both directions has been disrupted. Along with time pressures this has had negative effects on some ongoing projects. Travel restrictions have further impacted short-term training and networking opportunities, such as attendance at international conferences. PHW has had to divert attention from its global engagement activities to domestic priorities, although their involvement in international networks has supported that work. In the NHS as a whole, staff morale and wellbeing has suffered, and there are concerns that staff may be lost at a time when they are needed more than ever.

At the same time, a number of benefits have been identified. A clear example is the TAG International Intelligence Subgroup, a role taken on by the Office for Science due to both expertise and availability (being marginally less impacted in terms of time than HSSG colleagues), and initially relying on information from Welsh Government overseas offices, amongst other sources. It rapidly developed into a key group drawing together expertise from government, academia and public health to provide essential guidance for the coronavirus response. It will continue to meet weekly for the foreseeable future and, even if mothballed in the future will remain as a model which can be rapidly brought back into play.

In the NHS there has been strong participation in research into COVID-19, with many hospitals taking part in landmark trials such as RECOVERY⁶⁰, which have altered treatment of the disease worldwide. Stakeholders and survey responses indicate a new willingness in the normally risk-averse NHS to adopt new practices. One said: “I saw more innovation in the first six months of COVID than I have in the last 15 years”. Those involved do not perceive increased risk as a result of rapid adoption of new technologies and practices, but do see a need for proper monitoring to allow problems to be identified and so that innovations which are not useful are abandoned quickly.

Many report better digital connections, not just with colleagues worldwide but across NHS Wales itself. Historically, staff spent substantial time travelling to distant meetings, or finding it difficult to communicate as a minority joining a physical meeting by videoconference. Now the playing field has been levelled, with all having an equally digital presence and, precious time is not lost to travel. This extends to, for example, health partnerships, where the ability for the whole group to meet online reduces power imbalance and facilitates communication. It does, however, depend on good internet connections, which may not exist in partner countries (or, indeed, always in Wales).

Brexit

This has thus far had a limited effect, with only 28% of NHS respondents to the surveys reporting an impact. The main effect reported was to R&D, with some grants and activities paused while its effects were being clarified. In particular, and also relevant to innovation/commerce, there was concern about the validity of regulatory processes in the UK versus Europe (and vice versa) which hampered collaboration for a period. This seems to have resolved as processes and agreements have become clearer, but there may yet be an impact on the UK's participation in global pharma studies. Some EU funding streams are now inaccessible.

Access to some key EU networks has been lost: PHW noted the European Centre for Disease Prevention and Control, and their Fellowship training programme in epidemiology (EPIET).

In the NHS and other sectors, the coronavirus pandemic has thus far masked potential effects of Brexit on staffing. Given the relatively high proportion of EU nationals working in NHS Wales, and previous recruitment drives in Eastern Europe particularly, it is likely that this will have an effect on staffing. However, staff numbers have increased in the last year, as former clinicians responded to the crisis,⁶¹ and it may be some time before the true impact is seen.

Changes to UK aid spending

In this sector only 16% of survey respondents reported an impact. One Health Partnership is known to have lost potential funds from a planned bid to the THET UKPHS scheme, and there has been similar impact for groups in other sectors. Given how little ODA flows into NHS-based research or Health Partnership activity, these changes have had a relatively small effect. They will, however, limit development of this activity through a general scarcity of funds and, potentially, reputational damage to the UK as a whole.

4.7 ANALYSIS: PUBLIC SECTOR

Strengths

In terms of international health Wales has significant strength in terms of its supportive policies and outward-looking intentions. The Well-being of Future Generations Act has major (as yet largely untapped) potential to allow recognition of international health activity as contributing to development of global citizenship and responsibility in Wales. Full implementation of the Charter for International Health Partnerships has huge potential to benefit the NHS and its staff.

⁶⁰ Oxford University (2021). [RECOVERY: Randomised Evaluation of COVID-19 Therapy](#).

⁶¹ Welsh Government (2021). [Staff directly employed by the NHS: as at December 31st, 2020](#).

NHS leaders and government ministers are supportive of the idea of international engagement in health, including with LMICs.

External stakeholders reported positive interactions with those from Wales, including government representatives in key networks. They were noted to be engaged and to bring ideas; to listen but “not just listen”, and to follow up on ideas of mutual interest. In terms of partnership working, individuals from Wales were said to be particularly good at listening and responding to partners’ needs, rather than imposing a preconceived plan. This collaborative approach carries over into interactions within Wales and a major strength, noted across all sectors and in survey and interviews, is the country’s small size. This supports networking and collaboration, both within and across sectors, and with key members of government – both ministerial and civil servants. Members of all sectors value these connections and recognise them as unusual by comparison with larger countries. They are the foundations of a structure which should be able to adapt and progress with relative ease.

The activity presented shows the number and range of enthusiastic and talented individuals and groups: they are collaborating in training and research, and sharing skills, all over the world. The wide range of experience was noted in our survey as a benefit to the country, allowing access to advice and support. There are strong links to international institutions and networks, particularly within Europe through PHW.

A final significant strength in Wales is its highly integrated health and care system. Again, this is relevant to all sectors in relation to international health. For Health Partnerships, it facilitates involvement of staff from many disciplines, and both primary and secondary care, allowing development of projects suited to the health systems of lower resource countries. In research it allows access to a wide range of settings for information gathering, or piloting new treatments or devices. While this is not yet used as effectively as it might be, one clear example of this benefit is the SAIL databank (see section 5), which has attracted worldwide attention for its comprehensive and interlinked datasets, which facilitate population research in many areas.

Weaknesses

Health crosses many areas of responsibility and we see this in the number of government divisions involved: NHS strategy, research, trade in life sciences technology, and international relations are overseen by different teams. While the different groups clearly communicate with each other and aware of their various responsibilities, this somewhat “siloed” working does not support overall strategic thinking and direction in terms of international health activity. Extending this to the different responsibilities of Welsh and UK governments, many perceive a disadvantage to Wales of England’s dominance in forums which represent the UK as a whole: for example, relating to UK global health policy and funding.

A highly consistent finding, across all sectors and from all sources, was that international health activity is hampered by lack of time and capacity. In relation to the NHS, this largely relates to clinicians’ or managers’ time to engage in research or Health Partnership activity. The latter is expected to be largely voluntary and is supported by extra leave to facilitate overseas visits, and respondents recognise this. But they also expressed the difficulty of securing funding without time or skilled help. NHS International Leads are similarly limited, as this role sits alongside many others which are generally more pressing. The same issue applies to research, with only some clinicians having identified time in which to undertake this.

A further NHS-specific weakness is its risk-aversity and bureaucracy, which holds back development of innovative employment opportunities, both within the NHS and overseas, and implementation of innovations. This contributes to Wales having limited global engagement in terms of medical recruitment, overseas training opportunities, and flexible contracts.

Finally, there is the issue of profile. There is no doubt that Wales has world-leading strengths in health, highlighted throughout this report, and that these are known within specific spheres or subject areas. A strong example is its recognition within the WHO European region as leading the way in health equity. But we uncovered a general feeling that these strengths are not currently brought together and projected in a way that would give Wales a stronger international profile. Interviewees noted that Wales is, in fact, more widely known for a few areas where its excellence

more obvious externally, such as music and sport. Interviewees, both “internal” and external, find that international health partners generally do not see Wales as distinct from the UK. Some expressed a sense that Wales is not, in fact, as outward looking as it appears on paper: when opportunities appear that would allow profile-raising, leaders pull back and don’t recognise or capitalise on the opportunity presented to them. Often this makes little difference to the individuals involved: for example, researchers and businesses do not necessarily need to push a Welsh profile in order to succeed. But for a government seeking to raise its country’s profile, and a population proud of its strengths, there is clearly work to be done here.

Opportunities

Many see the coronavirus recovery period as an opportunity to reset, and interest in healthcare careers has been stimulated by the pandemic. Notwithstanding the pressures on the NHS, this is the perfect time to strengthen resources around international health engagement of all sorts. This should be seen as an investment which will reap benefits in terms of staff satisfaction, recruitment and retention. In terms of international recruitment and training placements, other UK nations have already developed models which could be adapted to suit Wales’s needs, representing a “quick win” in terms of progress. Further, given the policies and interest which already exist, a relatively small push to strengthen implementation (for example of the Charter for International Health Partnerships) could make a significant difference to effective activity.

New Welsh Government policies are in development and there is potential to include international activities and collaboration within these, making such considerations “core business”. HCRW, for example, are developing a three-year strategy which could usefully include international funding and industry engagement. This ties in with significant opportunities to build on the NHS’s recent activity around innovation, discussed further in section 6.

There are huge strengths in specific areas, detailed later in the report as well as here, which Wales can capitalise on to raise its profile. The individuals and bodies involved have strong international connections, which are wide ranging and often influential. An example relevant to the public sector is PHW: it is strategically engaged internationally, and now within the UK. It is already raising Wales’s profile internationally and is positioned to influence the UK in terms of health protection. It is well placed to lead the wider NHS in international engagement, in line with the overall international health strategy which we later recommend developing. There may also be opportunities for PHW to play a more influential role in terms of UK global health policy, with the creation of the new UK Health Security Agency, and these could be explored at the level of the four nations’ CMOs.

5 THE ACADEMIC SECTOR

This section describes the higher education landscape in Wales, and the activities taking place within it that relate to international health. Broadly, this comprises training of healthcare workers and researchers in this field; and conducting health-related research which is either focussed on global health issues, involves international collaboration, or is published and used by an international audience. The funding, from Welsh Government and other sources, which supports this activity is also considered. Information and views gathered through surveys and interviews are included, and the section closes with an analysis of this sector.

Wales has eight universities, providing high quality education to more than 140,000 under- and postgraduate students annually. Three (Aberystwyth, Cardiff and Swansea) are ranked amongst the top 500 universities globally,⁶² and Cardiff University is a member of the Russell Group of leading UK universities. The most recent Teaching Excellence Framework (TEF) evaluation rated all eight institutions either silver or gold.⁶³ The Research Excellence Framework (REF) evaluation found 77% of research submitted from Welsh universities to be either “world-leading” or “internationally excellent”,⁶⁴ with 49% impacting beyond academia: the highest proportion of any UK region. All universities host health or life sciences education of some sort, there are two medical schools, and most support undergraduate or postgraduate training in nursing or allied health professions.

5.1 FUNDING AND OTHER SUPPORT FOR THE ACADEMIC SECTOR

Higher Education Institutions (HEIs) in Wales are regulated and part-funded by the Higher Education Funding Council Wales (HEFCW).⁶⁵ This is funded by and responsible to Welsh Government, and works to both develop and enact its policy in terms of higher education. This year it is providing £171.5m to HEIs, reduced from the planned budget of £178m due to the coronavirus pandemic.⁶⁶ Of this £71m supports research through a quality related formula (QR: i.e., provided in proportion to the quality of the institution’s research), and £7.5m was provided through the Research Wales Innovation Fund, which supports translation of activities into social and economic impact.

HCRW (described in section 4) offers a number of research funding schemes, supports research centres, and highlights other UK funding opportunities such as NIHR grants. Government expenditure on R&D in Wales is relatively low: in 2018 it was 2.1% of the UK total and 1.0% of Welsh gross domestic product (GDP).⁶⁷ This was noted as a weakness in the Reid Review⁷⁴, and both Welsh and UK Governments have ambitions to raise R&D spending significantly, to the OECD average of 2.4% of GDP by 2027. Historically, Welsh HEIs have been heavily dependent on EU funding, both structural and competitive, and less successful in accessing competitive UK funds⁶⁸, and this now needs to change. Both the Reid Review (specific to Wales)⁶⁸ and the Smith-Reid Review (UK-wide)⁶⁹ made recommendations on this, including changes to funding levels and structures, and the collaborations necessary for success. At present, major competitive funding sources include:

- UK Research and Innovation (UKRI). This is sponsored by the UK Government Department for Business, Energy and Industrial Strategy (BEIS), and brings together the seven disciplinary research councils and Innovate UK. Of these, the Medical Research Council (MRC) and Biotechnology and Biological Sciences Research Council (BBSRC) are the most health-specific, but there is crossover with others. UKRI disburses the majority of UK-wide research funds

⁶² QS Top Universities. [QS World University Rankings 2021](#).

⁶³ Office for Students (2021). [TEF Outcomes: Wales](#).

⁶⁴ Universities Wales (2021). [Research Excellence Framework 2014](#).

⁶⁵ [Higher Education Funding Council Wales: About us \(2021\)](#).

⁶⁶ Higher Education Funding Council Wales. [HEFCW’s funding allocations 2020-21](#).

⁶⁷ Welsh Government. [Research and development gross expenditure: 2018](#).

⁶⁸ Welsh Government (2018). [Review of Government Funded Research and Innovation in Wales](#).

⁶⁹ [Professor Sir Adrian Smith and Professor Graeme Reid \(2019\). Changes and choices: Advice on future frameworks for international collaboration on research and innovation](#).

through one or more of its specific councils, with a spend of nearly £8bn in 2019-20, across all disciplines.⁷⁰ This included £356m supporting development of global partnerships, in developed countries (through the Fund for International Collaboration) and LMICs (Global Challenges Research Fund and Newton Fund).

- Horizon Europe (formerly Horizon 2020). This is the EU's €95bn competitive funding programme, to which UK HEIs retain access post-Brexit.⁷¹ In total Wales has received €139m through this scheme, to HEIs and the private sector, contributing to 5000 collaborative links with 78 countries.⁷² In 2019, £1.5m of this was awarded to health-related projects and a further £3.6m to biotechnology. Organisations in Wales are supported in their applications through Welsh Government's Welsh European Funding Office, through which they can apply for seed funding to support early development of projects which may go on to secure Horizon Europe funds.⁷³
- The National Institute for Health Research (NIHR). This provides grants for health-specific work, funded largely through the UK Department of Health and Social Care (DHSC) and receiving some ODA funds for activity focussed on global health.
- The Wellcome Trust: a charitable trust funding research into health and wellbeing, with a particular focus on international collaboration and global health issues. A disadvantage of charitable funding is that, unlike UKRI funds, it is rarely provided on a Full Economic Costing model (i.e., activities are funded, but the university infrastructure supporting this is not).

It is vital that Welsh HEIs are able to compete for these funds, which are of a scale that Welsh Government could not be expected to replicate.

HEIs link with each other through Universities Wales, a representative body which brings together the Vice Chancellors of the eight HEIs and the director of the Open University in Wales, and is part of Universities UK.⁷⁴

5.2 UNIVERSITIES' OVERALL INTERNATIONAL ENGAGEMENT

Overall global engagement by Welsh HEIs is crucial to their health-related global engagement, in creating the profile and connections which support this. International students are important to all universities, enriching their culture, creating ongoing links with other countries, contributing to research, and bringing funds which support the university as a whole. Many return to their countries of origin with new skills and qualifications and, if their experiences have been positive, are in a position to act as ambassadors for Wales. In the academic year 2019-20, overseas students comprised between 9.6% (University of South Wales) and 17.5% (Cardiff University) of Wales's student body.⁷⁵

Universities Wales works closely with Universities UK International, which in turn works with governments and other bodies to create and promote opportunities for HEI international engagement. It also forms part of the Global Wales partnership, with HEFCW, Welsh Government and British Council Wales, supported by Welsh Government funding.⁷⁶ Global Wales provides strategic support aiming to increase and diversify Wales's international student recruitment, and institutional and research partnerships. Priority markets include the EU, the USA, India, and Vietnam. Global Wales offers scholarships to support overseas students studying in Wales (see below).

Welsh HEIs are represented in Europe through Welsh Higher Education Brussels (WHEB), which is funded by all eight universities and HEFCW, and supported by Universities Wales.⁷⁷ Its aim is to support Welsh engagement across Europe, in institutional and research collaborations and access to funding, and to promote Welsh HEIs to potential EU students

⁷⁰ UK Research and Innovation. [Annual report and accounts 2019-20](#).

⁷¹ European Commission (2021). [Horizon Europe](#).

⁷² Welsh Government. [Horizon 2020: review 2019-20](#).

⁷³ Welsh Government (2021). [SCoRE Cymru: Supporting Collaborative Research and Innovation Endeavours](#).

⁷⁴ Universities Wales (2021). [About Universities Wales](#).

⁷⁵ SIUK (2021). [UK University Profiles](#).

⁷⁶ British Council Wales (2021). [Global Wales: a Welsh higher education partnership](#).

⁷⁷ [Welsh Higher Education Brussels: About WHEB. \(2021\)](#)

and academics. WHEB is a member of the European Regions Research and Innovation Network of over 100 European regions and universities with Brussels offices, and the UNiLiON network of 48 Brussels-based university liaison offices, representing almost 150 universities across Europe, Japan and Russia.

Many Welsh HEIs have overseas campuses, and all have strategic partnerships with one or more overseas university, shown in Figure 6. It is most common to partner with HEIs in the USA, Europe and China, but there is wide global spread, and a number of partnerships are with institutions in LMICs. As an example of the benefit these arrangements bring, Cardiff University’s partnership with KU Leuven in Belgium has supported the growth of research collaborations and joint funding bids, leading to a doubling of collaborative publications since the partnership was formed. They are developing a joint master’s programme and joint PhD studentships.

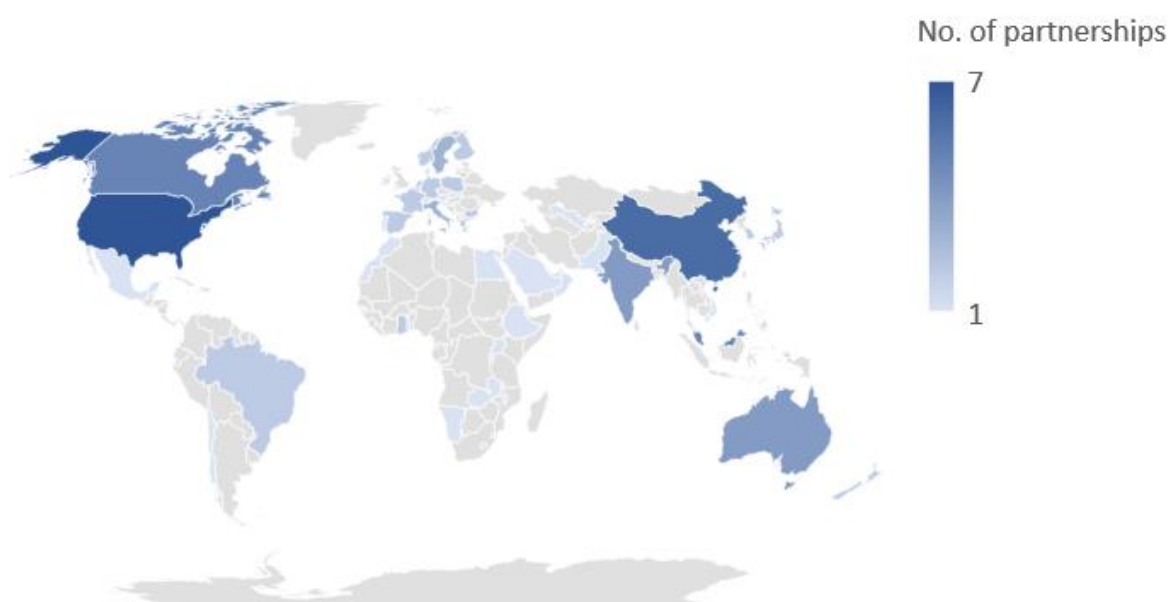


Figure 6: Countries in which Welsh universities have a strategic partner institute.

A number of schemes support international exchanges of students or researchers:

- The Erasmus+ programme, which supports exchanges into and out of the UK. The UK has recently lost access to this, under the terms of the EU withdrawal agreement. During 2014-18, students and staff of Welsh HEIs represented approximately 5% of total UK participation in the scheme.⁷⁸
- The Turing scheme, which is the UK government’s replacement for Erasmus+. Starting in September 2021, this will expand opportunities to countries beyond Europe but, unlike Erasmus+, only supports movement out of the UK.
- Welsh Government International Learning Exchange scheme.⁷⁹ This is an investment of £65m between 2022 and 2027, which seeks to replace all Erasmus+ activity where possible, including its reciprocal element. It aims to support 10,000 students coming to study in Wales, as well as 15,000 going overseas.
- Sêr Cymru. This was jointly funded by the Welsh Government, EU and universities and aimed to attract talented researchers into Wales. It has now closed.
- Global Wales scholarships: there are a variety of options for under- or postgraduate study from the EU, the USA, India or Vietnam, including Chevening Scholarships (see below).

⁷⁸ [Erasmus+: Statistics \(2021\)](#).

⁷⁹ Welsh Government (2021). [Press release: New International Learning Exchange programme to make good the loss of Erasmus+](#).

- Commonwealth Scholarships, which support postgraduate study in the UK for individuals from other Commonwealth countries. Funding is primarily from the FCDO, with in-kind contributions from universities. In the 2019-20 academic year, six Welsh universities (of 92 across the UK) participated in this scheme.⁸⁰
- Chevening Scholarships and Fellowships, which bring “future leaders” to the UK to undertake short courses, research, or professional placements.⁸¹ These are funded by the FCDO and partner organisations, and recipients are selected through overseas British embassies and high commissions. Twelve Chevening Scholarships are funded in Wales through the Global Wales programme.

These illustrate both the losses caused by Brexit and the efforts of Welsh Government to fill the gaps left by UK-wide plans for their replacement.

5.3 HEALTHCARE TRAINING

Wales supports undergraduate and postgraduate training of doctors, nurses, midwives and allied health professionals. The UK as a whole has an international reputation for providing high quality education in healthcare and life sciences, making it a popular destination for overseas students. Many of these students will return to their countries of origin and contribute to healthcare provision there. Of those who stay in Wales, some will go on to participate in international research or clinical collaborations, or join voluntary activities focused on improving health in low- and middle-income countries (LMICs). So, simply providing this training in Wales contributes to improving health globally.

We have also found many examples of specific international activity related to Wales’s healthcare training:

- Swansea University Medical School is developing links with Xuzhou Medical University in China, with a “declaration of intent” signed recently, following reciprocal visits by academic and clinical staff. A joint programme with Trent University in Canada has been approved, with Canadian students joining Swansea university to complete their studies. The Swansea-Gambia Link is a student and staff partnership, active since 2007 with reciprocal visits and joint work on teaching and research. There are also links with Bangladesh, and Wuhan in China.
- Cardiff University School of Medicine encourages international engagement, seeing benefits in terms of global citizenship, bidirectional learning and developing wider perspective on health issues. There are links with institutions in many countries including India, Australia, the USA and China, and a large programme of overseas “electives” (short medical student placements). Around 40 students per year undertake a short course in global health, and there are plans to develop a similar course in humanitarian medicine. Schools’ members have participated in Phoenix Project activities (see section 5.4) and are currently undertaking improvement work with colleagues in Zambia. There is a longstanding global palliative care programme, including a distance learning course which has educated over 3000 doctors since 1989, and support for development in countries worldwide.
- Cardiff University School of Healthcare Sciences also has many overseas links, including with Malawi and China in optometry, Ghana and China in dentistry, and China in Pharmacy. Some overseas opportunities, across this School and the School of Medicine, are supported by university funding, others by external schemes. In the next academic year, the Schools have applied to the Turing scheme for funding to send students to 45 countries.
- Glyndŵr University has established a collaboration with St Augustine in Florida, centred around inter-professional simulation-based education, led by an occupational therapist.
- Bangor University School of Health Sciences has developed an Infection Prevention Best Practice and Behaviours MOOC, which is free to access and leads to Bangor University certification for a small fee. It has been completed by healthcare staff all over the world and was shortlisted for the Nursing Times Awards 2020.

Other examples, related to specific centres or topics, are noted elsewhere.

⁸⁰ Commonwealth Scholarship Commission in the UK. [Delivering a common future: Annual report for the year ending 30th September 2020](#).

⁸¹ Chevening (2021): [About Chevening](#).

The WHO Collaborating Centre for Midwifery Development, Cardiff University

The WHO Collaborating Centre (WHOCC) for Midwifery Development at Cardiff University was established in 2016 and is one of only two such collaborating centres worldwide. Its role is to support the WHO in strengthening midwifery education and practice across the 53 member states of the WHO European region, with the aim of improving quality of care for mothers and babies. As such it works in close collaboration with the WHO Regional Office for Europe and WHO headquarters in Geneva, and forms part of the Global Network for Nursing and Midwifery Collaborating Centres.

Much of the WHOCC's work focuses on the low- and middle-income countries of Eastern Europe, where midwifery as a discipline is low profile or non-existent. On a practical level it was commissioned by WHO EURO to create a self-evaluation tool for developing midwifery education –the Midwifery Assessment Tool for Education – and provides support in using this. Strategically, the formal relationship with the WHO enables Cardiff's WHOCC to contribute to strategic decision making across the European region and beyond. This benefits Cardiff University, raising its profile and attracting high quality students, and benefits Wales, as its members naturally take on an ambassadorial role. Staff find the international collaborations rewarding, bringing new challenges and a sense of global citizenship. Wales's small size has allowed them to garner interest and support across the country, and to make links within government.

Support from key members of Welsh Government, including the Chief Nursing Officer and Minister for Health and Social Services, and funding from Cardiff University have been central to the designation and ongoing success of the WHOCC. But, despite its almost unique position and high profile globally, the WHOCC for Midwifery Development suffers from the same limitations on activity we find in so many other areas: staff capacity and funding. The university is the sole source funding and most WHOCC activities are undertaken alongside other duties, without additional time. Wales's focus on Africa contributes to limitations, with these grants inaccessible for work in the LMICs of, for example, Eastern Europe. This institution is a feather in Wales's cap, and it could do still more with additional financial support.

5.4 HEALTH AND LIFE SCIENCES RESEARCH.

Despite relatively low funding levels, Wales performs strongly in research. A 2016 study found that, across all subjects, Wales accounted for 0.14% of global researchers, but 0.47% of global citations and 0.59% of the top 1% cited articles.⁸² The field weighted citation impact of Welsh publications was 68% above the global average. Wales was ranked second after New Zealand on the number of publications per unit of its Higher Education Expenditure on R&D, and first according to Government Expenditure on R&D. In other words, Wales's researchers produce more, for less.

In terms of health-related research, even entirely Wales-based activity may contribute to improving global health, through broad relevance and international impact on publication. But it is very common for research to involve collaboration with other UK or international institutions. Research collaboration and high-impact publications contribute to the reputations which attract overseas students, fuelling a positive feedback cycle of international engagement and excellence.

An analysis of Wales's HEI research database for this review, filtered for publications on clinical, pre-clinical and health topics and covering 2015-21, found that Wales's eight universities are collaborating with almost 4000 institutions, in 142 countries and all continents except Antarctica.⁸³ The institutions most frequently collaborated with are in Australia, Europe, China and the USA. Figure 7 shows the top ten countries according to the number of institutions collaborating with Welsh HEIs. Figure 8 summarises the geographical spread of international research collaborations on health for each HEI: the majority are in Europe, followed by either the Asia Pacific region or North America.

⁸² Elsevier, for HECFW (2016). [International Comparative performance of the Welsh research base 2010-2014: 2016 update.](#)

⁸³ Scopus database, searched for us in May 2021.

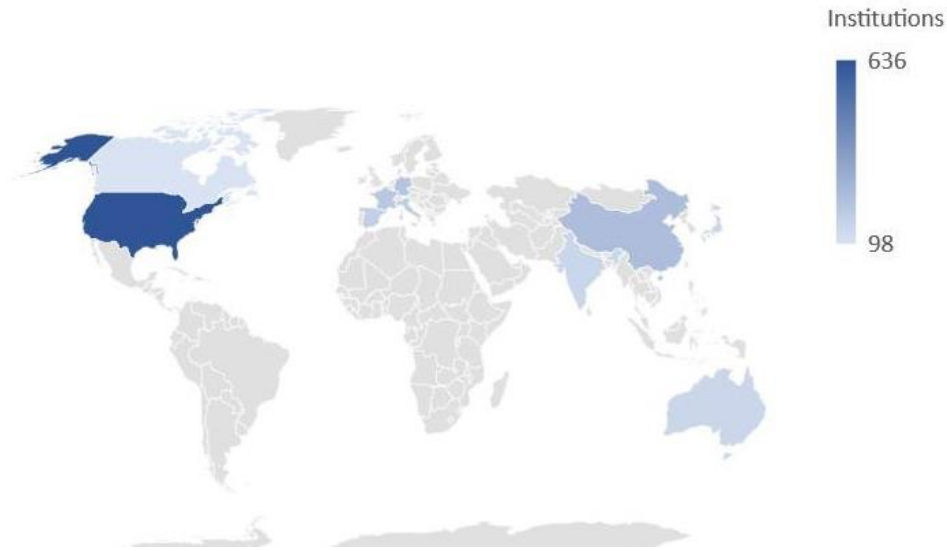


Figure 7: Number of institutions collaborating with Welsh HEIs in the top 10 collaborating countries, last five years.

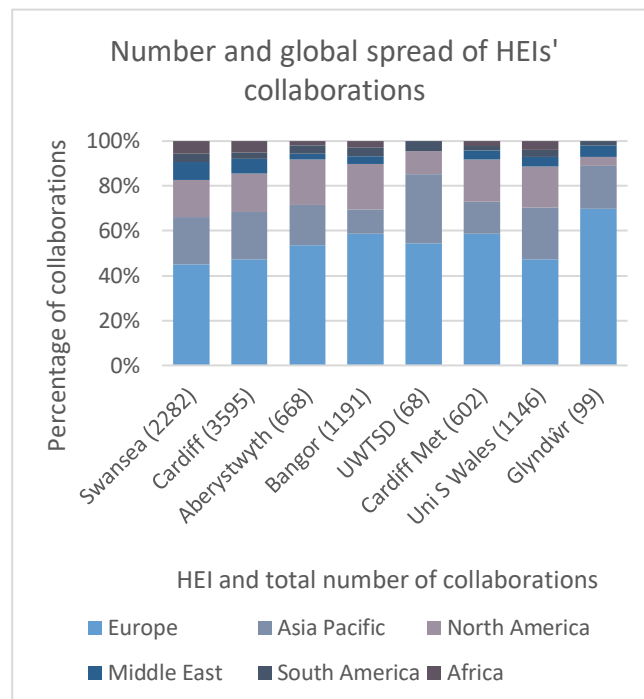


Figure 8: Number of international research collaborations at Welsh HEIs and proportion of these in each global region, last five years

UTWSD: University of Wales Trinity Saint David

Uni S Wales: University of South Wales

There is also considerable collaboration within Wales, supported by Health Care Research Wales and the Life Sciences Research Network Wales. The latter is led by Cardiff University and aims to bring together life sciences researchers, industry and others to promote excellence and support collaborative funding bids, in areas of unmet clinical need.⁸⁴

⁸⁴ [Life Sciences Research Network Wales: Phase 2. \(2021\)](#)

HCRW spans translational and applied research including public health (see section 4.3.2) and supports a number of clinical research units. Table 4 summarises those with significant international activity.

Centre/group (HCRW supported)	International activity
National Centre for Mental Health (NCMH)	<ul style="list-style-type: none"> Partnership with Takeda Pharmaceutical Company Limited for a drug discovery collaboration. GCRF-funded South Asian Self Harm Initiative. European funding for research into women's mental health. Leadership roles in the international Psychiatric Genomics Consortium. Research on post-partum psychosis in Malawi and India.
PRIME Centre Wales (Wales Centre for Primary and Emergency Care Research)	<ul style="list-style-type: none"> International collaboration in several workstreams. Led WHO discussions to prepare a Global Patient Safety Action Plan (2020-2030). Developed international patient survey via the OECD Working Group.
Secure Anonymised Information Linkage (SAIL) Databank	Unusually complete and linked data with a global reputation: one of Wales's particular strengths. Collaboration with many countries plus personal international links.
Wales Cancer Bank (WCB)	<ul style="list-style-type: none"> Researchers worldwide can apply for biosamples and/or data. Key to practice-changing translational research, developing and optimising therapies for patient benefit nationally and globally. Its operational manager leads the International Society for Biological and Environmental Repositories for the Europe, Middle East and Africa region
Wales Cancer Research Centre (WCRC)	Links with European Cancer Stem Cell Research Institute, which has worldwide collaborators.
National Centre for Population Health and Wellbeing Research (NCPHWR)	<ul style="list-style-type: none"> Works internationally through PHW WHOCC and IANPHI to maximise grant income for Wales. Harmonised datasets facilitate UK and international comparisons and enable collaborative work. Findings disseminated internationally. The Centre is part of the Population Health Information Research Infrastructure, a network of 41 partners and 30 countries researching population impacts of COVID-19.
Clinical Trials Units	
Cardiff Centre for Trials Research	<ul style="list-style-type: none"> Leading a consortium involving several countries across Europe, addressing the health and social care of people with diseases of the brain. Funded for a study into maternity care during the COVID-19 outbreak, involving a global registry of women affected during pregnancy.
North Wales Organisation for Randomised Trials in Health (NWORTH)	International collaborations include a study on psychotherapy, in Lebanon and Kenya, and work with the European College of Gerodontology.
Swansea Trials Unit	International Type 1 diabetes trial, supported by the European Commission. Study on incidence and impact of COVID-19 in Bangladesh, building on an existing Swansea University collaboration with Bangladesh and funded through the GCRF.
Health and Care Economics Cymru	<ul style="list-style-type: none"> Contribute economic expertise to research at the Centre for Global Burns Injury Policy and Research. Collaborating with Norway, Germany, and Finland to compare cost-effectiveness of treatments for peripheral artery disease.
Centre for the Development and Evaluation of Complex Interventions for Public Health Improvement (DECIPHer)	<ul style="list-style-type: none"> Studies involve international collaboration with many countries, across all continents. Findings are disseminated globally. Policy and practice developments have international impact.
Brain Repair and Intracranial Neurotherapeutics (BRAIN) Unit	<ul style="list-style-type: none"> Conducts international trials at its clinical research facility, including a landmark trial for treatment of Huntington's Disease. Members lead international working groups in specialist areas, funded by European and global networks. Biobank supplies national and international projects.
Wales Kidney Research Unit (WKRU)	Part of the International Society of Nephrology Sister Centre Program: clinical and research links with Nanjing, China and Addis Ababa, Ethiopia.
Diabetes Research Unit Cymru (DRU)	<ul style="list-style-type: none"> International impact through development of therapies recommended worldwide. Diabetic retinopathy research which has changed national and international policy.

Table 4: International activity of HCRW supported research units

Of these, the Secure Anonymised Information Linkage (SAIL) Databank warrants further discussion, since the expertise and activity around this gives Swansea University, and Wales, a global reputation for excellence in medical informatics. It is commissioned and funded by HCRW, and members of Welsh Government were instrumental in its development. The databank links a number of Wales-wide datasets on population health data, providing an unusually rich resource for research. Academics collaborate with special interest groups across the NHS, for example on public health, mental health, dementia, trauma and COVID-19. There is wide international collaboration, including with the USA, Australia and Europe, and affiliated staff hold influential global positions, such as Chair of the International Collaborative Effort on Injury Statistics, hosted by the US Centre for Disease Control. UKRI and European competitive grants form the bulk of funding for its work.

There are other important groups or centres. The Cardiff University Brain Research Imaging Centre (CUBRIC) carries out brain mapping and stimulation to understand neurological and psychiatric conditions. This has been very successful in accessing competitive European funding and produces world-leading research. The Phoenix project, based at Cardiff

University, and the Centre for Global Burns Policy and Research, based at Swansea University, are discussed below and in case studies. The Joint Clinical Research Facility (Swansea University and SBUHB), in collaboration with Swansea Diabetes Research Group, has been designated a UK diabetes centre of excellence by the Sanofi Global Network.

These are illustrative examples and there will certainly be more that we have not uncovered.

The Phoenix Project

The Phoenix Project is based at Cardiff University and aims to reduce poverty, promote health and support a sustainable environment. It operates through MoUs with the Universities of Namibia and Zambia, and will consider supporting any project with potential for mutual development of expertise and impact on one of the SDGs. This has led to development of a wide range of activity, some of which might not classically be considered “health related”, but all of which affect wider determinants of health. Many involve innovation and have led to development of new products or systems. Examples include:

- Development of anesthesia and midwifery training programmes, and a CPD programme for clinicians in remote areas.
- Training first response personnel (for example, police officers) in Emergency Medicine, and introduction of the “Cardiff Trauma Pack” for their use in road traffic accidents.
- Running a fiction writing competition for children and a schools’ tree planting programme, in Wales and Namibia.
- Research on freshwater ecosystems, including sustainability, biodiversity and pathogens.
- Promoting honey production for health and wealth creation (poverty reduction).
- Research into local languages in Namibia, with a view to improving patients’ understanding of health-related information and interactions with health workers.

This diversity supports a broad funding base, with grants from the Wales and Africa programme, Global Challenges Research Fund, MRC Public Health Intervention Development fund, the Wellcome Trust, THET, the Arts and Humanities Research Council, the British Council, and indeed many more. Student exchanges, in both directions, are supported by the Erasmus and Commonwealth Scholarship programmes. Cardiff University provides some core funding, which sustainably supports the core staff time required to compete for these other funds. Effective networking in Wales, the wider UK and partner countries increases the likelihood of successful applications.

Despite this, the project is not immune to recent events. Reduction of UK ODA spending has led to Research Councils pausing funding for international projects and the cancellation of THET’s current grant programme, forcing postponement of plans to develop new projects in Somaliland and Zambia. Student exchanges are hit by loss of access to the Erasmus+ programme, with replacement UK funded schemes not supporting movement of researchers and students into the UK – although there is hope that new opportunities will arise through the Welsh International Learning Exchange programme, which will support incoming as well as outgoing mobility. Project development is hampered by coronavirus-related travel restrictions.

The existing flexibility of the project and the strong relationship between partners is helping to mitigate these effects. Though clearly not suiting the capacity or skill of all organisations, it offers a model which others could look to in developing resilience to change.

5.5 GLOBAL HEALTH VERSUS INTERNATIONAL ACTIVITY

The information above covers both “international activity” and activity focussed on “global health”, and these are subtly different, though sometimes there is overlap between the two. The former includes research and other projects, some world-leading, in areas of broad relevance and involving collaboration or dissemination in other countries across the world. The latter relates to research and other projects which are focussed on health issues particular to other countries, often LMICs: for example, specific diseases, training needs, or features of health systems. This difference is applicable to all sectors. There are some practical differences relating to global health activity:

- It requires specific expertise, not only in subject matter, but in managing the partnership relationship, which is at risk of power imbalance favouring the higher income partner.
- It requires specific funding, designated for work with a focus outside the UK. This generally means either UK ODA (in academia through specific grant streams, e.g., GCRF or some NIHR funds) or charitable funding.
- It contributes more directly to improving health (including healthcare) in LMICs.
- It can bring particular benefits to Wales-based partners, through cultural enrichment, widening of perspectives, and satisfaction from a growing sense of global citizenship.

There are examples of work on global health throughout this review and we bring some together here, to illustrate the range of activities taking place across Wales:

- Aberystwyth University supports a range of activities, often through expertise not classically associated with health. For example, work at its Institute of Biology, Environmental and Rural Sciences (IBERS) on tropical diseases includes development of new colour pigments to attract mosquitos, and satellite imagery techniques for predicting disease outbreaks following flooding. The university has expertise in the politics of global health and health security, through its Department of International Politics, and academics here contributed to the development of Public Health Wales’s International Strategy.
- Bangor University hosts the South Asia Self Harm Initiative and the infection prevention MOOC, which is designed to be relevant globally. Researchers have received GCRF or NIHR funding for projects on violence prevention in Jamaica, treatment for cardiovascular disease in sub-Saharan Africa and evaluation of water supplies for pathogenic viruses in Nigeria and South Africa. There are relevant projects in non-health departments, outside the scope of this review, such as work on improving nutrition through crop selection.
- Cardiff University hosts the Phoenix Project, which has wide-ranging global health activity (see case study), and various training activities for medical and other healthcare students. Its WHOCC for Midwifery Development (see case study) works with LMICs in the European region. Its academics have been involved in studies on dementia in LMICs, antimicrobial resistance in Vietnam and China, community interventions to improve maternal and child health in South Africa, childhood malnutrition in West and Central Africa, and COVID-19 research in Kenya.
- Cardiff Metropolitan University have received GCRF funding for work on improving healthcare support in rural Indian communities.
- Swansea hosts the Centre for Global Burn Injury Policy and Research (see case study, section 7.2), which has been funded as an NIHR Global Health Research Group: the only such group in Wales and a major contributor to developments in burn management in low resource settings. There are many links between healthcare training programmes and LMICs, and relevant work in non-health departments, such as the Water Research Institute.
- Cardiff and Swansea Schools of Medicine have active links with LMICs and share learning through exchanges in both directions.
- NHS Wales supports Health Partnerships and other voluntary activity, described in section 4.3.3, contributing to training and health system strengthening activity in many countries and specialties.
- Most international health activity in the non-profit sector would be considered focussed on global health. Wales has a particular asset here in the Wales and Africa Health Links Network, which brings together those active in this specific area.

It is clear that there is diverse activity in global health in Wales, spread across the country and linking to most geographical regions globally, and involving many different areas of expertise. There are often informal connections between those involved, while more formally the non-profit sector benefits from the activity of the Wales and Africa Health Links Network, and the International Health Coordination Centre provides some coordination of NHS work. However, we have not identified any bodies or networks which support or integrate this work in a more structured way.

5.6 IMPACT OF RECENT EVENTS ON ACADEMIC SECTOR CONTRIBUTION TO INTERNATIONAL HEALTH

The coronavirus pandemic

Across the two surveys, 92% of academic respondents reported an impact from the pandemic and there was further discussion of this in stakeholder interviews. The major effect has been loss of international students: “The floor fell out of the market”. Institutions which had been more attractive internationally and had higher proportions of overseas students have been harder hit. The loss of these students has significantly damaged universities’ funds, leading to restructuring and, in some cases, job losses. HEFCW has reduced its overall funding to HEIs this year, as a result of the pandemic.

As in other sectors, HEIs report an impact on international collaborations due to travel restrictions. Some research has also been affected by restricted access to facilities during periods of lockdown, or inability to progress clinical trials due to NHS pressures. Research funding has been impacted by changed priorities and postponed deadlines or decisions.

Brexit

As with other sectors, the effects of this are clouded by the simultaneous effects of the coronavirus pandemic, but 69% of survey respondents reported some impact. Student mobility is affected by closure of the Sêr Cymru programme and loss of access to Erasmus+. Effects are mitigated through Welsh students’ access to the new UK Turing fund, and new Welsh Government funds for inward mobility. However, EU students previously had advantages in terms of visa requirement, fees and support, which have now been lost. It is very likely that EU student numbers will drop as a result. Even before actual departure from the EU, some stakeholders noticed reduced recruitment or loss of EU staff, as a result of future uncertainties and the atmosphere surrounding the Brexit process.

Some survey respondents and interviewees report new difficulties developing collaborations with EU colleagues, who are more wary of involvement. This was more pronounced during the negotiation phase of the Brexit process, when ultimate structures and relationships were less clear. There is hope that the end result will be little change in terms of academic partnership, but it is too early to know.

Changes to UK aid spending

As described in section 4.2, research on global issues in the whole of the UK has been hit hard by cuts to globally focussed grant funds. This type of grant forms a relatively low proportion of overall funding and only 38% of academic survey respondents reported an impact here, but for individual projects whose grants have been withdrawn the effects are significant. This also impacts current and future collaborations through loss of submitted or future grant bids, and the reputational damage and loss of trust caused by cancellation of active projects.

5.7 ANALYSIS: ACADEMIC SECTOR

Strengths

Higher education in Wales forms a relatively small and well-connected community. Leading members of its eight universities are in regular contact with each other and there are many connections between individual academics. Interviewees describe an environment which is competitive but also collaborative: its members understand that they need each other to succeed, particularly when competing for funding against much larger institutions. This collaboration extends to HEFCW, with which HEIs work closely, and this is seen as a significant strength in comparison to, for example,

England. Members of Welsh Government have been instrumental in developing key resources such as the SAIL databank, which is commissioned and funded by HCRW.

The Welsh Government has recognised the benefits of inward migration of students and academics for many years and, though the Sêr Cymru programme has ended, there is funding to replace the “inward” function of the Erasmus+ programme. This supports the fundamental principle of reciprocity as the foundation of international partnerships and is very much welcomed by stakeholders we have engaged with. There are other advantages of the Welsh HE system which could be a selling point for international students. One is its strong quality assurance process, which aims not just to meet minimum standards, but to improve and enhance activity. This is not the same in all other UK countries.

It is clear that Wales produces high quality research which has global reach. In the life sciences we have found wide collaboration internationally, and in surveys and interviews this was seen as key to engaging the right expertise and generating robust findings. Wales’s size is again seen as a benefit when carrying out clinical trials: “...large enough to be useful but small enough to be manageable...”, in terms of both population and activity. There is varied and high impact work focussed on global health, and international partnerships which enrich Wales’s culture.

Weaknesses

Although also mentioned as a positive, the small size of Wales and its HEIs was frequently discussed as a disadvantage in the academic sector, particularly in competitive bids for UK funds. These funds are a much more important source of support now that access to EU funds is restricted, and HEIs must collaborate more to compete successfully. This was considered in recent roundtable discussions coordinated by the Learned Society of Wales:⁸⁵ low levels of un-hypothecated funding (i.e., not tied to any specific activity) and the difficulty of smaller and teaching-focussed universities in increasing Research Quality funding were identified as challenges, which may only be overcome by greater public funding to HEIs. These discussions also noted that while Welsh Government has acted on many recommendations of the Reid Review, including establishing a research office in London, Wales remains under-represented within UK funding bodies. Even if Wales’s researchers compete more successfully for UK funds, these are less likely to support globally focussed work (for example, on tropical diseases), and ODA-based funds such as the GCRF have been substantially reduced. This leaves work with a specific global health focus at risk.

As noted in section 4.6 and applicable to the academic sector, internationally Wales does not have a strong profile as distinct from the UK. Within the sector the Welsh ethos of collaboration and responsiveness, and direction of travel in terms of improving quality, are seen as potential selling points for international students. But without a distinct profile this is lost, and Welsh universities are at risk of damage from England’s policy decisions, which are wrongly seen as applying also to Wales.

Globally focussed health research is being carried out across Wales, and while there are many examples of strong projects, there is little apparent connection between groups. There is no point of contact to engage with Wales’s global health research overall, and this may lead to loss of strong ideas and projects which could spring from collaboration. The connections between HEIs and NHS-based or community non-profit Health Partnerships are scant, and this weakens all.

Opportunities

The collaborative base is ready to be built on, and there is impetus to do this following the loss of EU funds. This is particularly relevant to health research, which crosses many different areas of expertise, and global health research, which is spread across the country. Any area needs a critical mass of activity for success and bringing disparate groups together will facilitate this.

⁸⁵ The Learned Society of Wales; the Campaign for Science and Engineering. [The Future of Research and Innovation in Wales \(June 2020\)](#).

At the same time, new relationships are developing prompted by changes in funding sources. For example, in Aberystwyth the university is working with local councils to mobilise UK government funds for regional development. One of these relates to rural development, highlighting an area of global relevance in which Wales has particular experience: health and healthcare in rural areas. In terms of both research and practical partnership, particularly with LMICs, this is an area ripe for shared learning and mutual benefit.

Also at Aberystwyth University, a very specific opportunity is recent development of containment level 2 and 3 laboratories for research on animal pathogens. These could be adapted to support research on human pathogens, should there be a future disease outbreak similar to the coronavirus pandemic, allowing Wales contribute strongly in this event.

Finally, new healthcare training facilities are being developed: for nursing at Aberystwyth University, and medicine at Bangor University. These bring new opportunities both locally and globally, particularly given the even deeper appreciation amongst healthcare professionals of the need for global engagement brought about by the pandemic.

6 THE COMMERCIAL SECTOR

This section considers international health activity in terms of business, including innovation leading to commercial product development and overseas sales, and international inward investment in this area. Commercialisation of healthcare itself is developing in England and is discussed, but for Wales currently, the commercial sector applies predominantly to the life sciences. We discuss Welsh Government's support for this activity and the considerable overlap with other sectors, particularly academia. Information and views gathered through surveys and interviews are included, and the section closes with an analysis of this sector.

International trade is at the core of the Welsh economy, with exports worth £17.8bn in 2019, equivalent to 23% of Wales's GDP, versus a UK average of 17%.⁸⁶ Exports to the EU accounted for 60% of this trade, with Germany the single biggest individual export market and the USA third. In terms of inward investment, around 1,250 foreign-owned companies are based in Wales, employing more than 160,000 people. This sector is perhaps more dependent than others on UK government policy, which controls areas such as customs and export regulations, VAT and, more recently, trade agreements.

In terms of health, the life sciences can be broadly divided into three areas:

- Medical technology (medtech): devices or services, including digital devices and software, which improve health through prevention, diagnosis, monitoring or treatment.
- Medical biotechnology (biotech): the use of living organisms or their products (for example, cells) to improve health. Examples include gene and stem cell therapy, as well as some pharmaceuticals.
- Pharmaceuticals (pharma): drug development, by any means.

The Welsh life sciences sector employs over 12,000 people in more than 360 companies, around 65% of which are active in the medtech sub-sector.⁸⁷ Within this there is growing activity in digital developments. The annual turnover (domestic and international) for the health sector is over £2 billion. Recognised strengths include precision medicine, cell and gene therapy, diagnostics, and digital health.

6.1 ORGANISATION OF THE LIFE SCIENCES INDUSTRY IN WALES

Commercial developments are often based on research taking place in universities or the NHS, and may require trials in a clinical setting, so there are close ties between these three sectors. Wales's HEIs have a strong track record in this field: in 2020, based on data covering the preceding decade, Cardiff University was ranked third in the UK for "Entrepreneurial Impact", with the University of South Wales and Bangor University also making the top 50.⁸⁸ Co-location of research facilities with small- and mid-sized enterprises (SMEs) is known to drive growth, and the UK Life Sciences Strategy, published in 2017, recommended further development of these "clusters".⁸⁹ Wales has three such clusters, offering office and laboratory space for life sciences businesses alongside university research facilities:

- The Institute of Life Sciences at Swansea University. Housed in two locations, this includes hubs for specific subjects such as the Centre for Nanohealth.
- AberInnovation, based at Aberystwyth University and developed in partnership with what is now UK Research and Innovation (UKRI). This supports innovation in several areas, including biotech and biopharmaceuticals.
- MSparc, close to and owned by Bangor University.

⁸⁶ Welsh Government (2020). [Export Action Plan](#).

⁸⁷ [UK Healthcare Pavillion: Wales. \(2021\)](#)

⁸⁸ Octopus Ventures. [Spinning Out Success: Entrepreneurial Impact Ranking 2020](#).

⁸⁹ [Life Sciences Industrial Strategy: A report to the Government from the life sciences sector. \(2017\)](#)

The Life Sciences Hub Wales (LSHW), based in Cardiff and funded by the Welsh Government, is not a “cluster” as such, but provides a focal point for networking amongst those involved in this sector.⁹⁰ The support this provides is discussed further below.

Other organisations provide key support:

- MediWales is Wales’s life sciences network, an independent, not-for-profit company which brings together businesses, NHS organisations, university groups and others. It facilitates collaboration, offers advice and support, and promotes opportunities. It links with wider UK and European networks, leading to further opportunities including access to international events.
- AgorIP, based at Swansea University and supported with Welsh Government funding, helps innovators to develop their Intellectual Property (IP – i.e., ideas) into marketable products, by providing practical advice and support, and seed funding. Swansea University is one of the UK’s top 10 for creating spin-out companies.
- The Celtic Advanced Life Science Network (CALIN) is a partnership between Bangor, Cardiff and Swansea Universities and three universities in Ireland, offering SMEs access to R&D experts and facilities to develop projects. The universities cover R&D costs. Eligible businesses must be in certain parts of southwest, west and north Wales
- Health Technology Wales, an independent body funded by Welsh Government and hosted within NHS Wales, aimed at improving quality of care through adoption of new technology. This appraises non-pharmaceutical health technology, including devices, procedures and therapies, and signposts innovators to organisations which can support development of new technology.
- NHS Wales Innovation Leads Group. This brings together each Health Board/Trust’s innovation lead, along with representatives from many of the above organisations such as LSHW and MediWales. It facilitates sharing of ideas, collaboration and access to support in developing and embedding innovations in practice.
- The Association of the British Pharmaceutical Industry (ABPI), which has a Welsh division (ABPI Cymru Wales) with 33 member companies. This facilitates industry connections with Welsh Government and NHS Wales and, through the wider ABPI, to UK-wide and international networks.

Finally, there are three new Intensive Learning Academies (ILAs), co-funded by Welsh Government and their host universities, aimed at supporting innovation in health and social care.⁹¹ Each offers research, consultancy and educational courses which are taking their first cohort of students this year.

- The Value-Based Health and Care Academy, at Swansea University (see case study).
- The ALPHAcademy, at Bangor University, focusing on accelerating the adoption of preventative health into practice.
- The All-Wales Intensive Learning Academy for Innovation in Health and Social Care, at Swansea University, focusing on innovation and transformation within health, social care and the third sector.

These have been set up to be world-leading and to have global reach.

⁹⁰ [Life Sciences Hub Wales: about us \(2021\)](#).

⁹¹ Life Sciences Hub Wales (2021). [Intensive Learning Academies Wales](#).

Value-Based Health and Care in Wales

The Welsh Government has established a policy position to focus on value in health and social care through its long-term plan, A Healthier Wales. This agenda was launched as “Prudent Healthcare” in 2014 and in 2018 a national Clinical Lead for Value-Based Healthcare (VBHC) was appointed. “Value” refers to the balance of resources, systems, and outcomes that matter to patients – such as mobility or ability to work. Initially something of an abstract concept, Wales’s approach to VBHC is world-leading in translating principles into practice, taking a whole-system approach addressing culture, education and technology, across the country. This year, an MoU was agreed between Welsh Government, Pfizer, Swansea University and LSHW, reflecting a shared intent to promote the adoption of Value-Based Healthcare in Wales.

This pioneering work has been recognised by the World Economic Forum (WEF), which in March 2021 designated Wales as one of its first four global innovation hubs: the only one assigned to a country, rather than an individual institution. There is a separate, formal arrangement with the OECD’s PaRIS programme, which seeks to develop a suite of VBHC patient-reported outcomes, to add to its global healthcare system comparators. The work has led to a strong international network of collaboration, with informal and formal partnerships in all continents, including in LMICs, where this work is potentially highly applicable.

This is now complemented by a Value-Based Health and Care Academy in Swansea University, which forms part of Welsh Government’s Intensive Learning Academy Programme. The first of its kind worldwide, this builds on an existing partnership between Swansea University and Pfizer, supported by collaboration with the life science sector. The Academy undertakes research and consultancy, and offers educational programmes leading to advanced qualifications, which have already attracted learners from over 40 countries. It has engaged an international faculty of experts from the USA, Italy, Holland, Sweden and Belgium, is undertaking collaborative research with colleagues in Denmark, and is collaborating on health outcome data and registries at a European level. It is affiliated to the European Alliance for Value in Health, and its director represents Wales at the Value-Based Healthcare Think-Tank of the European Federation of Pharmaceutical Industries and Associations.

The work of the national VBHC programme has been hampered by a lack of capacity, which is slowly improving. Much initial work was driven by individual effort, but the national lead now has a budget and is developing a small team. The cross-cutting nature has also been an issue, spanning various government departments and teams before coming to sit under the Digital and Innovation team of the HSSG. There is huge potential as part of the WEF recognition, with Wales now having a “seat at the table” distinct from that of the UK and a substantial network to promote opportunities for commerce, including inward investment, in relation to VBHC. Wales can capitalise on its status as a world leader in this area, sharing good practice and influencing for the benefit of patients worldwide.

6.2 WELSH AND UK GOVERNMENT SUPPORT FOR THE LIFE SCIENCES INDUSTRY

The Welsh Government supports the sector with general services through Business Wales,⁹² and for international trade through the life sciences team within its International Relations and Trade group. Many of the groups described above are partially funded by Welsh Government.

The UK government controls many policy and legislative areas relating to international trade, not least trade agreements following Brexit. The Welsh Government therefore works closely with the UK Government Department for International Trade (DIT) to seek and promote opportunities for Welsh life sciences businesses. Indeed, many Welsh overseas offices are co-located with the DIT.

⁹² [Welsh Government: Business Wales \(2021\)](#).

Exports

Life sciences is one of six priority sectors identified by Welsh Government as having high potential in terms of exports, and the International Relations and Trade group works with LSHW, MediWales and others to identify businesses who may benefit from support. International Trade Advisors provide companies with advice, training and contacts. The International Trade Opportunities programme helps to identify new markets, and there is now greater emphasis on facilitation of this through Welsh Government international offices. Priority sectors (including life sciences) are organised into “export clusters”, which facilitates targeted and peer support. Businesses and network representatives undertake overseas visits as part of Welsh Government delegations to major trade fairs, such as Medica in Germany: attendance at this event has more than tripled since 2000, with 30 companies joining in 2019. Companies can also apply for grants to support individual overseas visits. The overall aim is to enhance capacity and capability of Welsh companies which, in terms of exports, have been identified as being weaker than elsewhere in the UK.⁹³

Inward investment

This work is undertaken by a different section of the same overall team, working closely with overseas offices, the DIT, LSHW and MediWales to identify opportunities. There is international interest in Wales’s areas of excellence, such as the Welsh Wound Innovation Centre and genomics. Medtech in south Wales has been selected, through competitive bidding, as one of the DIT’s “High Potential Opportunity” areas for inward investment, meaning that the DIT will now use its extensive network to showcase this work internationally and contact investors to promote the projects.⁹⁴

Healthcare UK

This is a joint initiative of the UK Government DIT, Department of Health and Social Care (DHSC), and NHS England/Improvement, which aims to connect UK healthcare providers with overseas markets and to enhance their competitiveness. Though part-funded through purely English departments, the involvement of the DIT means it has responsibilities towards all four UK nations. UK strengths in terms of marketable healthcare have been identified, in areas such as health systems strengthening, digital health, medtech, and education. There is crossover with non-profit and international development activity, via engagement with the FCDO Prosperity Fund’s Better Health Programme and Aid Funded Business opportunities. Inward investment is also part of their remit, although practically this does not form a large part of the work.

There has been contact between Healthcare UK and the Welsh Government (HSSG, rather than International Trade) in terms of its “Export Collaborative”, which brings NHS organisations and Arm’s Length Bodies (ALBs) together to work on larger issues. The idea of commercialising health care may not suit Wales’s different political outlook or its non-competition based NHS model. On the other hand, the integrated care system may be attractive to partners overseas, for example, in the Middle East, looking to develop their own health services. There are potential benefits from engagement in other areas, many of which would fit well with Wales’s existing activity and strengths, such as digital development and recent healthcare infrastructure developments.

⁹³ Department for International Trade. [DIT National Survey of UK Registered Businesses’ Exporting Behaviours, Attitudes and Needs \(2018\)](#).

⁹⁴ UK Government news story (2020). [Regional investment projects announced to boost local economies](#).

The Life Sciences Hub Wales

LSHW is funded through Welsh Government to accelerate development and adoption of innovative solutions for better health and wellbeing. As well as providing general support, signposting to opportunities and networking, it supports two major programmes:

- Accelerate, which is a partnership with Cardiff University (Clinical Innovation Accelerator - CIA), Swansea University (Healthcare Technology Centre - HTC) and University of Wales Trinity Saint David (Assistive Technologies Innovation Centre - ATiC). The university units are linked to local Health Boards, industry and other public sector organisations, aiming to “turn ideas into solutions”. The government funding supports these units, which in turn provide innovators with expertise, business support and facilities, though not directly with funds.
- Digital Health Ecosystem Wales, which is funded as part of the HSSG’s Efficiency Through Technology programme. This aims to bring together all those needed to support digital innovation in Welsh healthcare, from clinicians to policy makers, to make it easier and faster to adopt digital healthcare technology in Wales.

Though focussed on the domestic health system and market, these programmes further international health engagement by supporting the creation of products and systems which are both useful and marketable in other countries. The LSHW itself works with innovation hubs internationally, Welsh and UK government international trade departments and Twin’s International MultiHelix (TIM), a consortium of similar hubs worldwide.

Most of the supportive programmes discussed here have been supported by European Structural Funds, which Wales can no longer access following Brexit.

6.3 COMMERCIAL AND INNOVATION ACTIVITY WITH INTERNATIONAL REACH

Life sciences businesses

These fall into two broad categories: global companies with a base in Wales, and Welsh companies which trade or otherwise engage with other countries. The first group includes major names such as Cytiva (the life sciences division of GE Healthcare), Siemens, 3M and Wockhardt. This last has put Wrexham on the map, as the UK finishing plant for the AstraZeneca coronavirus vaccine. These largely fall outwith the scope of this review, but we have included such companies where they have been highlighted as particularly important to the Welsh economy. The second group are predominantly SMEs and manufacture all manner of health-related products, from surgical and anaesthetic equipment to diagnostic devices, including point-of-care testing kits needed for COVID-19 diagnosis.

The most internationally active life sciences companies were identified through our steering group and other contacts. These 31 companies have manufacturing or distribution centres in 171 countries (see Figure 9) and some distribute further from these hubs. Although the greatest concentration is in the USA, most activity is in Europe: taking all countries together, our selected Welsh businesses have 70 bases across Europe. Although the greatest concentration is in the USA, most activity is in Europe: taking all countries together, our selected Welsh businesses have 70 bases across Europe.

Figure 10 summarises these companies’ products. The greatest number of companies are involved in production of clinical equipment, including surgical instruments, and anaesthetic and dental equipment, followed by laboratory diagnostics. Many companies are also involved in research to develop their products, usually in collaboration with academic or NHS institutions. Some offer training to healthcare staff, via webinars, e-learning resources or in-person clinical support.

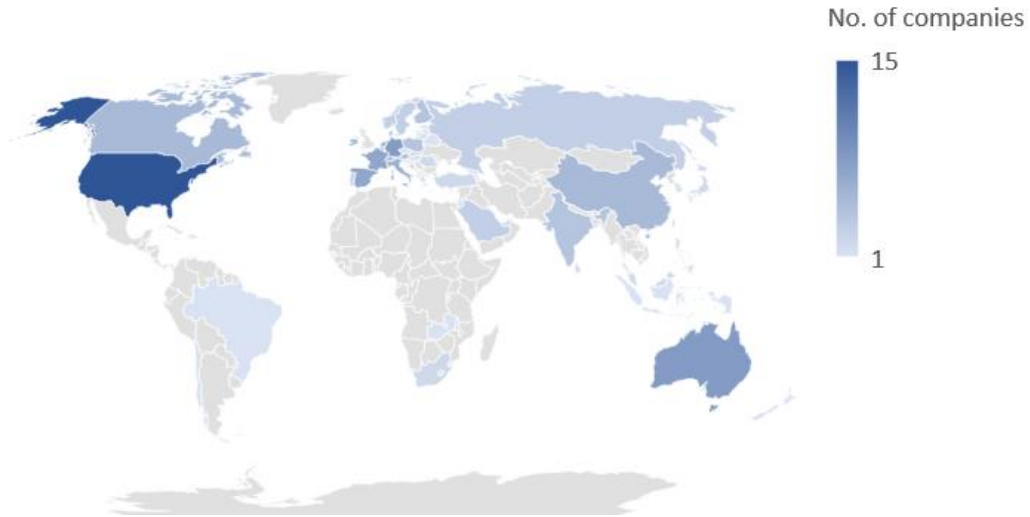


Figure 9: Global distribution hubs of the 31 most internationally active Welsh life sciences businesses (number of companies active in each country).

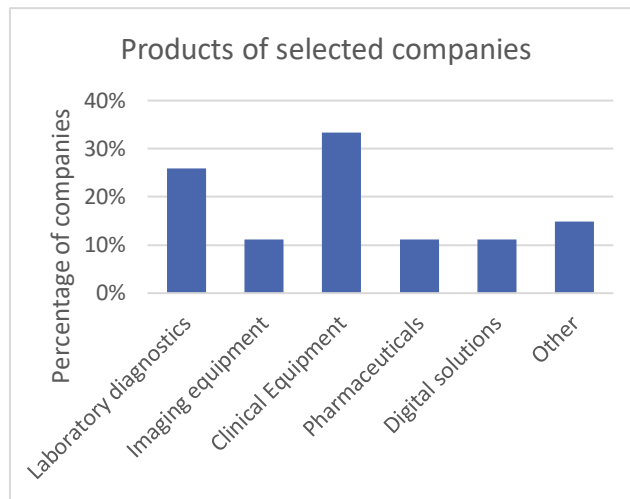


Figure 10: Products of the selected internationally active life sciences companies.

NB: some have products in more than one category.

Innovation in the NHS

Appointment of Innovation Leads in each Health Board is a relatively recent development, but leads have rapidly formed themselves into an active and well-connected group. The LSHW also holds quarterly meetings of the Innovation Network for Health and Social Care, which brings together leads and others in the NHS with academics and members of Welsh Government, aiming to support and scale up innovative activity. Examples of innovative projects with relevance to international health include:

- Oncology: the Southwest Wales Cancer Centre is an international reference centre for its novel service model of decentralised chemotherapy treatment delivery.
- Colorectal cancer: a Swansea surgeon is collaborating with an Indian hospital to develop a new screening system, and a US company to develop new treatments.
- Diagnostics: a GP is developing an ECG (cardiac monitor) machine based on a mobile phone, using his own company based in India.

Areas of particular strength

There is considerable overlap between clinical activity, research and innovation. The following are some examples of Wales's particular strengths which fall more firmly into the last:

- The Welsh Wound Innovation Centre is the world's first national wound healing centre, and provides clinical care as well as supporting business led innovation in wound care through consultancy and product development. Experts from the Netherlands, Australia, Finland and Canada have looked to this centre for advice when developing their own services. The Centre runs a master's level distance learning course in wound healing, with 190 graduates of whom nearly 40% are international, and training which attracts visitors from all over the world. Its director also leads a research institute in Singapore and has secured funding for progressing wound management in the tropics.
- The Lymphoedema Network Wales is known internationally for the coordinated national service it provides, including one of the world's first services for children. Its innovations include data capture tools, new surgical treatments, innovative training programmes and development of a Patient Reported Outcome Measure for Lymphoedema. The network supports many international collaborations including, at present, three international research studies, the first International Masters in Lymphoedema and educational videos made available internationally.
- The Centre for Nanohealth, based at Swansea University Institute of Life Science. This includes collaborations with universities in China, Germany and the US, members of the CALIN network, and industry. It is a multidisciplinary enterprise, involving members of the university's colleges of engineering and science, its medical school, and the local Health Board. It works with SMEs to facilitate development of new nano-enabled technologies.
- The Centre for Applied Reconstructive Technologies in Surgery (CARTIS) is a collaboration between Health Boards, Cardiff Metropolitan University and PDR International (see case study), which conducts research and innovation in cranio-maxillofacial surgery and prosthetics. Developments are shared with an international audience through the Advanced Digital Technologies in Head and Neck Reconstruction Foundation, whose president is the centre's director and whose Board members are based all over the world. Conferences and training events attract an international audience.

PDR International

PDR is an award winning engineering and design company, established by Cardiff Metropolitan University. Its work is varied: approximately 70% relates to the life sciences, of which around 70% involves international collaboration or trade. International business has expanded over several years and has increased turnover, brought interesting new challenges and driven up standards. PDR are ranked first in the UK by the IF World Design Index and are in the top 25 European companies. Counterintuitively, Brexit played a role in this expansion by prompting a close evaluation of existing activity and opportunities. Welsh Government support played a role, through export support and opportunities to visit trade fairs as part of a joint delegation.

Income is generated through consultancy, for example turning ideas into products, and competitive research funding. Historically the latter was won largely from EU funds, but UK Research and Innovation is now a larger source. Research and development takes place in Cardiff and across the world, depending on clients' needs. There are major links with San Francisco and Germany, and activity across Europe, Asia and the USA. Research includes work to develop deeper understanding of user and stakeholder needs, and devices developed range in nature and complexity.

Though already well adapted to online working, the coronavirus pandemic poses challenges in maintaining distant relationships, especially when a client's need to see and handle a physical object is at the core of a project. Attracting suitably skilled and talented staff has been a challenge, but the widespread adoption of remote working has changed this, and several new staff are now based elsewhere in the UK. There are good connections with the NHS through LSHW. Internationally, access to this integrated system for assessing need and piloting devices could be an advantage. However, NHS Wales's unusual profile is not widely known, and this could be an area of opportunity to develop in the future.

The coronavirus pandemic

The commercial sector has, of course, been hit by the economic crisis prompted by the pandemic. Exports and imports have dropped, with around 80% of UK health-related businesses reporting reductions.⁹⁵ In keeping with this, 83% of survey respondents in the commercial sector reported an impact. Many businesses have adapted well, facilitated by pre-existing online activity. However, travel restrictions have impacted on in-person visits and trade fairs, which are important for relationships and sales in the longer term, and vital when activities are focused on physical objects, which partners need to see and handle. Product development has also been affected by periods of restricted access to facilities for research, design and manufacturing. The demand for specific products has changed: for example, there has been less planned surgery, but more critical care activity.

On the other hand, as one interviewee described, “The world has shrunk”. Welsh Government’s international trade department have adapted completely to online working and have found that this facilitates provision of training and “meeting” partners in many countries. This has allowed better networking with international offices and other overseas connections in terms of trade opportunities. More recently, these networks have helped to coordinate a call to support India during its devastating pandemic wave (see case study). But there remains a perception that activity in the future will need a hybrid approach, and that personal relationships cannot be completely sustained virtually.

During the first wave of the pandemic in Wales, the structures around innovation and the commercial sector helped to support the NHS. The LSHW was able to coordinate offers, for example, to produce PPE, allowing Wales to maintain supplies more successfully and cost-effectively than some other countries. Those working in the sector have seen more collaborative work generally, with a change in manufacturing and research capabilities, at speed, to fulfil immediate need. This was facilitated by the community ethos in Wales: “A call was put out, and people responded”, with companies working together to supply what was needed.

In the NHS itself, the pandemic has led to much greater innovation, particularly in terms of implementing new ways of working and new treatment options. One stakeholder described seeing “more innovation in the first six months of the pandemic than in the last 15 years”. This was facilitated by a move away from traditional NHS features of risk aversity and bureaucracy.

Brexit

There has been a fear of losing all-important EU markets and connections: Wales’s major trade partners are in the EU. Things have improved now that rules and regulations are clear, but there are increased costs, timescales and other burdens which affect all businesses. In our surveys, 83% reported an impact, including a loss of interest from EU partners in collaborating in EU funded programmes, and issues with recruitment.

The pharmaceutical industry, which may be relatively small but is present in Wales, has been affected by the divergence of some aspects of UK pharmaceutical policy for EU legislation. This has impacted on regulation of the industry and movement of talented staff.

⁹⁵ Welsh Government. [Autumn update: Socio-economic analysis of Wales 2020](#).

The coronavirus crisis in India: support from Wales

In April 2021 coronavirus cases in India surged dramatically, leaving its health service struggling to cope. The Welsh NHS had similarly struggled during the worst of the crisis, and systems developed then were reactivated to coordinate assistance from Wales to India.

The International Relations and Trade team in Welsh Government, who are closely connected with India via its Welsh Government Overseas Office, received a call for support from their contact in the Confederation of Indian Industry. They requested urgent assistance, via donations or sales, of specific equipment and medication required to save lives. This request was circulated to relevant colleagues within Welsh Government, and to the LSHW and MediWales. LSHW had been key in coordinating the industry response to support the Welsh NHS a year earlier and put out a similar call for assistance from Welsh businesses. At the same time, the British Association of Physicians of Indian Origin (BAPIO) was organising a range of supportive initiatives and was ideally positioned to direct offers of help.

Working with BAPIO and the UK and Indian governments, surplus NHS Wales equipment – procured to support the coronavirus response in Wales and no longer needed – was sent to India. A company with ventilator equipment originally bought for NHS Wales in 2020, which had ultimately not been required, offered this to India. Working with BAPIO and other Welsh organisations, they were able to deliver a substantial shipment very rapidly. Other businesses have offered essentials such as face masks and testing kits, and the Welsh Overseas Office team have been supporting the effort in situ.

This demonstrates how the development and maintenance of international connections, along with strong networks and teamworking in Wales, can support a rapid and effective response to urgent global health needs. This ability to contribute as well as to gain from global connections fits well with Wales's aim to grow in global responsibility, and shows how all sectors can play a part in this.

Changes to UK aid spending

These have not significantly impacted the commercial sector, and no survey respondents or interviewees noted any impact.

6.5 ANALYSIS: COMMERCIAL SECTOR

Strengths

Like the academic sector, Wales's commercial sector has strong networks and a culture of collaboration. This facilitated the sector's response to the coronavirus pandemic, as described above. The relatively small size of the country and sector plays a part in this, allowing more rapid changes and supporting new ventures: businesses and groups need to "get fewer people in the room" to establish new initiatives.

The integrated care system can be attractive to those overseas looking to develop their health systems, or for developing or embedding innovation. There are good connections between industry and academic/NHS partners, facilitating co-development and nationwide trialling of new developments.

Welsh Government support is valued, with respondents particularly noting the opportunity to attend trade fairs as part of a Welsh Government delegation. This both facilitates access to new markets and improves domestic networking.

Weaknesses

There has been a heavy reliance on European structural funds to support innovative companies. Supportive networks including AgorIP, CALIN and AberInnovation and Accelerate all received EU funds via the Welsh Government. Much work has been done to mitigate this, but inevitably a hole will be left. At the same time, this serves to illustrate the almost bewildering array of networks and support systems which exist for innovation, many of which are supported by Welsh Government. This can be difficult to navigate, and some respondents mentioned the potential benefit of either clearer guidance on where to go for help, or a need for streamlining. At the same time, better links with networks elsewhere in the UK – for example, the Academic Health Science Networks of NHS England – may support development of strong collaborative projects which would draw better funding.

Furthermore, many of these supports and opportunities are aimed at new companies, for example, seed funding and help with early product development. This is useful, but it is not matched by support aimed at established businesses. In part this reflects the expectation that viable businesses be self-sustaining, but scaling up innovation and expanding trade networks requires resources and expertise, and returns can take time to develop. More businesses might flourish in the long term with step-up funds or access to more tailored advice. Advisors (government or other) would need to have expertise in other markets and to be able to move at speed.

The commercial sector is perhaps particularly affected by the different areas of Welsh and UK government involved in regulating and supporting it. Though they work closely together different individuals work on exports and inward investment. The international trade team liaise with the DIT, but Healthcare UK (which is part of DIT) approached Welsh Government through the HSSG to discuss opportunities in healthcare business. Cross-sector businesses often do not fall squarely under either health or trade: one respondent described being “passed around like a hot potato”.

Finally, and in line with other sectors, we heard from stakeholders a perception that Welsh Government does not “trumpet success”. There is a sense of a political reluctance to give too much support to commercial success, despite potential benefits to the economy and national profile.

Opportunities

Wales has a strong life sciences sector, and this recognised by UK government. There are several areas of excellence, which are starting to attract inward investment. There can together be capitalised upon, particularly now, as many countries overseas are developing their own healthcare systems in line with the SDGs. UK government support, including through Healthcare UK, can supplement that provided by Welsh Government, and this will be facilitated by strong inter-governmental links, some of which already exist.

NHS innovation is ready to develop, with enthusiastic leads and good connections across and outside of the NHS. The pandemic has changed the ethos around innovation, with clinicians and managers more adept at implementing change. At the same time, Health Boards are more often working in partnership with universities and innovation hubs. The whole sector could benefit from tapping into the expertise of those embedded within the NHS. There is considerable potential for developments which safely improve patient outcomes and staff satisfaction, though also a risk that NHS culture slips back, hindering this with risk aversity and red tape. International engagement will facilitate this work, through seeding of ideas through new networks, potential for collaboration to strengthen projects and funding bids, and promotion of NHS Wales for trialling innovations.

Finally, existing areas of strength have given access to influential international networks, notably VBHC and the WEF. These developments offer new opportunities for Wales to influence, learn and promote itself globally, which Welsh Government should look to exploit.

7 THE NON-PROFIT SECTOR

This section sets out the contribution of Wales's non-profit sector to international health. This is primarily through small or medium sized Civil Society Organisations (CSOs) and through NHS-based health partnerships and individual connections (discussed in section 4.3.3). Wales-based charities which fund international partnership activity and research are also considered.

This is the shortest section of the review, reflecting not a perception that the non-profit sector is less important, but rather the opposite: we have just completed a separate review focussing on it.⁹⁶ That report includes a detailed description of activity, policies and support from Welsh Government, Arm's Length Bodies and within the NHS, along with consideration of strengths and weaknesses, and recommendations for future action. Some of this is presented here in brief summary, along with additional activity uncovered with the widening of scope. The analysis is not repeated, but key points are summarised and up to date information included.

7.1 STRUCTURE AND SUPPORT FOR WALES'S NON-PROFIT INTERNATIONAL HEALTH SECTOR

Non-profit international activity as a whole, in Wales, is focussed on Africa, following a decision by Welsh Government in 2006 to concentrate its efforts and limited funds there. That was the beginning of the Wales and Africa programme (then called Wales for Africa) which has since supported hundreds of CSOs undertaking a variety of activities in partnership with communities and institutions in Africa.⁹⁷ As discussed in section 4, Wales does not have devolved power over ODA spending, so the funds committed to the Wales and Africa programme (approximately £1.3m per annum, of which £50,000 is from the health budget) come from the Welsh budget and must bring benefit to Wales. This has encouraged a focus on true partnership and mutual benefit. The areas supported by the Wales and Africa programme are:

- Grant funding: small grants of up to £20,000 each distributed in a yearly round, with additional funds this year and last to support COVID-19 related activities.
- Funding for Hub Cymru Africa (HCA), which provides training, networking events and practical support for activity in all areas, including health.⁹⁸ HCA also receives competitive grant funding, most recently ODA through the Small Charities Challenge Fund, to allow it to undertake other activities.
- International Learning Opportunities: these allow any public sector worker to undertake an eight-week placement in Africa, supporting a specific project. They are currently suspended due to the pandemic.

Health-related activity is further supported by two organisations:

- The Wales and Africa Health Links Network (WaAHLN), a charity which advocates for and provides support to health-related organisations, particularly those within the NHS, including training and networking events.⁹⁹ It is a partner of HCA, through which it receives administrative support.
- The International Health Coordination Centre, hosted by PHW.¹⁰⁰ This initially received dedicated funding from Welsh Government, but is now supported through the PHW core budget. It developed the Charter for International Health Partnerships, to which NHS organisations are signatories, and which sets standards in best practice for this activity. It coordinates the Charter Implementation Group, which has representatives from each NHS body and some associate signatories, such as the Bevan Commission.

⁹⁶ THET (2021). Wales's Health Partnerships with Africa: Maximising potential for mutual benefit. [Publication pending.]

⁹⁷ Welsh Government (2020). [Wales and Africa](#).

⁹⁸ Hub Cymru Africa (2021). [Welcome to Hub Cymru Africa: Supporting partnerships in Wales and Africa](#).

⁹⁹ Wales and Africa Health Links Network (2021). [Welcome to Wales and Africa Health Links Network](#).

¹⁰⁰ International Health Coordination Centre (2021). [Welcome to the International Health Coordination Centre](#).

Though not health specific, Wales's international development/solidarity sector also includes the Sub-Sahara Advisory Panel.¹⁰¹ This is a Welsh Government funded HCA partner which aims to support diaspora involvement in local and international development, and implements initiatives in Wales and across sub-Saharan Africa.

We identified a number of other organisations which could contribute to international health activity in the non-profit sector, most of which are discussed in previous sections of this report. They include the Bevan Commission and the National Centre for Population Health and Wellbeing Research, who are associate signatories to the Charter for International Health Partnerships, universities, and LSHW. THET is a UK wide organisation with connections to all devolved nations and has potential to contribute through, for example, capacity building of Health Partnerships and support for overseas placements for NHS staff, and already has significant activity in the latter area with Health Education England.

7.2 ACTIVITY IN INTERNATIONAL HEALTH IN THE NON-PROFIT SECTOR

Our previous review identified 38 active organisations: 10 affiliated with NHS organisations, two affiliated with universities and 26 CSOs. The majority of these are no more than medium in size, classified by annual income, with over 50% small (<£100,000pa) or micro (<£10,000pa). Their major funding sources are direct donations (for example, via their website), Wales and Africa programme grants and fundraising activities.

Expanding our search with new criteria, we have identified a further 56 organisations or initiatives based in Wales and active in international health, bringing the total to 94. Note that this total figure includes NHS-based Health Partnerships: these are discussed in section 4.3.3, but presented here for consistency with our previous review. The distribution of these 94 organisations globally is shown in Figure 11, below. Activity is highest in India, Kenya and Uganda.

These organisations' activities include:

- Training of healthcare workers (with reciprocal benefits).
- Maternal and neonatal health projects.
- Development of infrastructure, including healthcare facilities and emergency transport.
- Provision of medical equipment, where this cannot be sourced in-country.
- Water, sanitation and hygiene products.
- Sexual and menstrual health projects.
- Education specifically focussing on health.

Some NHS Health Partnerships (such as those in BCUHB – see case study in section 4.3) are supported by their Health Board's charitable body, which hold funds and supports with the governance around this. This demonstrates recognition that such activity brings benefits to their local health services and population, through the development of the staff involved, thereby falling within their remit despite involving a global focus. However, this interpretation is inconsistent, and some partnerships are hampered by lacking this support.

¹⁰¹ [Sub-Sahara Advisory Panel: About us \(2021\)](#).

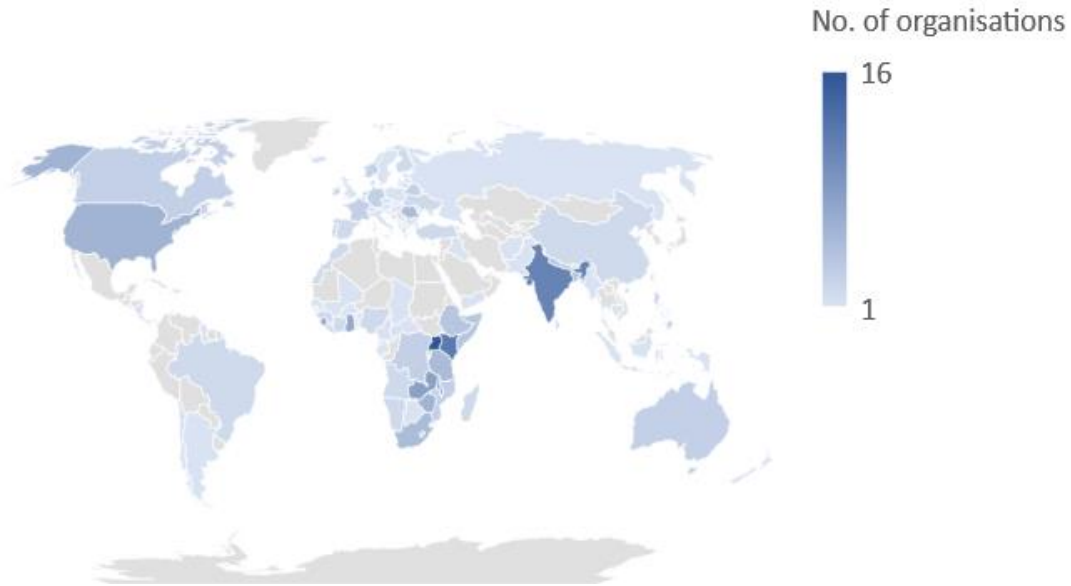


Figure 11: Number of Wales-based non-profit organisations active in international health in each country.

In relation to international health overall, Wales also has a small number of charities and trusts which provide funding for practical activities or research. These include the Waterloo Foundation, the Moondance Foundation, Cancer Research Wales and Tenovus Cancer Care. In terms of overall funding to international health activity these make a relatively small contribution compared to large research grants and core funding for universities and the NHS, but our previous review found that they form an important component of funding for CSOs.

Interburns, and the Centre for Global Burn Injury Policy and Research

Interburns is a Civil Society Organisation set up in 2006 with the aim of transforming burn care in LMICs, which see 95% of the world's burn injuries, predominantly in children. From a self-funded link between burn surgeons in India and Wales, it has developed into a global organisation with programmes in Bangladesh, Ethiopia, Ghana, India, Malawi, Nepal, the West Bank and more. This activity is supported by just two dedicated staff, plus a network of engaged clinicians across the world, who spread training and good practice between institutions and countries. This represents a best-practice model of efficient use of resource and meaningful partnership engagement.

Interburns is linked through its leaders to the Centre for Global Burn Injury Policy and Research (CGBIPR) at Swansea University, which works to develop strategies that will reduce the incidence of burn injuries and improve patient outcomes. Together with Interburns, in 2017 the CGBIPR won a substantial NIHR grant and was designated an NIHR Global Research Group on Burn Trauma, working to strengthen research capacity in its partner LMICs. A suite of free-access resources has been developed to improve the outcome of burn injuries, including online courses, operational standards for institutions, a guide to improving quality of care, and a first aid handbook translated into 10 languages. Countless lives have been saved or improved through implementation of the practices the organisations promote, and those involved have won awards and accolades.

Between them, Interburns and the CGBIPR have demonstrated the power of academic and non-profit collaboration in transforming healthcare, and have put Wales on the map as a global leader in burns care. The CGBIPR has hosted major international events in Wales, attracting high-profile representatives from all over the world, and Interburns has shared its resources with major organisations such as the WHO, the International Committee of the Red Cross, and Médecins Sans Frontiers. But a "perfect storm" of changes, including the impact of the coronavirus pandemic, Brexit and new opportunities for staff, now threatens Interburns, and the CGBIPR is closing. This will be a loss for Wales and for the world, and calls for a pause for thought on how such a precious resource could be supported, for mutual benefit, in the future.

7.3 IMPACT OF RECENT EVENTS ON NON-PROFIT SECTOR CONTRIBUTION TO INTERNATIONAL HEALTH

The coronavirus pandemic

This has had a major impact, by drawing healthcare staff in Wales and overseas away from their partnership work, and preventing the travel that projects depended on. Not including NHS Health Partnerships, 83% of respondents to our surveys in the non-profit sector reported such issues. Many of Wales's small organisations rely on fundraising activities, some of which have been impossible to arrange due to restrictions. At the same time, better digital connections have developed, and the existing relationships have allowed mutual support during the worst of the crises in various countries. This is still ongoing, as the pandemic badly affects the Indian subcontinent.

There is potential benefit in the changed ways of working, which will support a reduced carbon footprint in international health activity. The move to online activities has also facilitated a rebalancing of the power in partnerships, with those overseas better able to participate in meetings on an equal footing. However, as in other sectors, most believe that some international travel will still be required to support development and maintenance of good relationships, both within Wales and with global partners.

Brexit

There has been less impact on the non-profit sector so far, and no survey respondents reported effects. However, it will affect access to some funding sources, and we are aware of one organisation which has registered in the EU in order to secure an EU funded contract. This relates to training which would previously have been delivered in Wales and is now less likely to involve Welsh staff.

Changes to UK aid spending

The overall impact of these changes is described in section 4.2, and although ODA funding contributes a small proportion of funding to Welsh organisations, 83% of survey respondents reported an impact. This represents loss of opportunities as well as actual loss of funding, and reputational damage. Survey respondents noted the contradiction between these UK-level funding cuts and Welsh Government's intentions to remain globally engaged.

7.4 ANALYSIS: NON-PROFIT SECTOR

This section comprises a summary of findings from our previous report on Wales and Africa activity, supplemented by additional information and views which have come to light through this review.

Strengths

The number of active organisations we have found speaks to a vibrant non-profit international health sector in Wales. As in other sectors, people are perhaps this sector's greatest asset: Wales has many individuals with passion, drive and experience, so that it supports more impactful work than might be expected from its current level of funding. The support, both financial and practical, through the Wales and Africa programme is highly valued. Hub Cymru Africa brings together health-related and other groups and this may be beneficial, creating a forum where issues relevant to all (for example, racism and colonialism) can be explored, and a common approach developed.

This work, too, benefits from the small size of the country and community, and the good networks afforded through that, including with key members of Welsh Government. The strong positive signalling of the Charter for International Health Partnerships, the Well-being of Future Generations Act and the Wales and Africa programme itself is seen, both within and outside of Wales, as a significant strength.

Within the NHS, the provisions of the Charter are appreciated, particularly the provision of Special Leave to undertake international activities, and support through the Charter Implementation Group. Most see great benefits of global engagement: staff satisfaction, development of cultural, practical and leadership skills, and better networks within the workplace.

Weaknesses

One major weakness is coordination, and a sense that some non-profit international health activity falls “between two stools” of the NHS and the international development/solidarity sector as a whole. As described above, HCA forms a good hub for international activity in general, but has less specific support for health-related groups. The WaAHLN provides health-specific advice and support but has little capacity, with no dedicated support officer within HCA and most Board members in other full time employment. This limits its ability to provide the support that would allow small Health Partnerships to grow in capacity and impact. The IHCC is felt by stakeholders to be active primarily in terms of the Charter and its Implementation Group, with few perceiving useful coordinating activity beyond this. There is no focal point at which CSOs, NHS-based organisations, academia and other potentially supportive organisations can come together.

The absence of an overarching international health strategy is also seen by stakeholders as a significant weakness. They often discussed the need for leadership in terms of the overall aims of Wales’s international health engagement. There are mixed opinions of the value of limiting focus to Africa, with some feeling that this is too narrow and others believing that the focus should be further narrowed, to concentrate limited resources for maximum impact.

Funding levels are low, and while many organisations would be happy to collaborate in consortia bids, current coordination does not support these connections. Networking outside Wales can be difficult, and even within Wales groups in the north sometimes feel remote from important contacts in and around Cardiff. Wales’s many small organisations often lack the capacity or experience to access major funding streams such as UK ODA grants, and there are few opportunities between these and the much smaller Wales and Africa grants, to allow that experience and capacity to grow. Funding for the Wales and Africa programme has been static from some years, including the contribution from the health budget, which is intended to recognise the contribution of other countries to NHS staffing. Many stakeholders report limitations on their activity due to “boom and bust” grant funding, with a lack of sustainable income leaving them unable to implement long term projects. However, not all organisations want to access more funding, particularly when these involve complicated application processes and narrow eligibility criteria. Some prefer to build on community and other fundraising methods, and find that, with effort, this can prove a more sustainable source than grants.

Finally, but by no means least important, there is a need to encourage engagement of diaspora, both in the NHS and the community, to play an active role in this work. Without that the sector loses valuable expertise and risks perpetuating the colonial approaches that there is now a drive to move beyond.

Opportunities

This is a time of significant opportunity for Wales to highlight its positive approach to international engagement and strengthen this, in the face of UK-level changes which many perceive as being in the opposite direction. The coronavirus pandemic provides a natural “reset” point, which has highlighted the global nature of health and from which we can rebuild with that in mind, and this report and the last bolster the chances of translating intention into impact. This opportunity applies to all sectors but is particularly important to appreciate here, where there is greatest risk of activity being seen as “non-essential”, when it is in fact at the core of Wales’s global health-focussed efforts and full of potential for shared learning and development of global responsibility.

At the level of individual organisations, there is an opportunity to build on the changes brought about by the coronavirus pandemic, to cement and build on the rebalancing of power. Shared learning and mutual benefit will be maximised through truly equal partnership. This applies also to the “Wales end” of partnerships: there is a renewed impetus to ensure proper representation and respect of all members of our communities, driven in part by inequalities highlighted by the coronavirus pandemic. The Welsh Government is currently consulting on its draft Race and Equality Action Plan.¹⁰² This is an ideal time to recognise the international health activity many diaspora people are already engaged in individually or informally, to integrate more of this expertise and experience into Wales’s activity overall.

¹⁰² Welsh Government (2021). [Race Equality Action Plan: An Anti-racist Wales](#).

8 CONCLUSIONS

The information collected here allows us to draw some clear conclusions. We recommend also reviewing the conclusions of our previous report into Wales's Health Partnerships with Africa, many of which retain relevance here and are further supported by the new evidence. Those conclusions, and the recommendations which follow them, are presented in Appendix 3.

8.1 WALES'S INTERNATIONAL HEALTH ACTIVITY IS DIVERSE AND WIDELY SPREAD, RISKING LOSS OF BENEFITS.

It is clear that Wales supports an impressive amount of international activity in the broad field of health, and that this is bidirectional. There is activity across the country which takes many forms: voluntary work, education and training, research and innovation, and commerce. Some of these are major programmes with multi-million pound budgets, whilst others are dependent on charitable giving and personal contribution. In every sector we have heard those involved spell out the benefits: attraction and retention of high quality staff and students to universities, the NHS and businesses; enrichment of organisations' and communities' cultures; shared learning, with new ideas and practices coming from overseas partners; raised standards giving a competitive edge to businesses; and a growing sense of active global citizenship, particularly from work focussing on global health issues. But the activity exists in small pockets and, without systematic attention, the benefits are not fully exploited. There is no central point of contact or information in relation to international health activity, and within government the diversity necessitates the involvement of many different groups. While the level of activity and impact of some work indicates real strength, there is a risk that efforts are duplicated and benefits lost through lack of integrated strategy, coordination or unified oversight.

8.2 INDIVIDUALS ARE AN ASSET, AND NEED TO BE CONNECTED AND SUPPORTED.

Wales benefits from strong, supportive policies in terms of international engagement in health, though we have noted weaknesses in their implementation, particularly in our previous review. In fact, we find that much of Wales's activity here is reliant on enthusiastic and talented individuals, who make strides in their particular areas. These individuals are present at all levels and in all sectors, including within government. Their efforts range from small scale individual links to high profile partnership projects, all making a contribution to health globally. But they are often disconnected from each other. This hinders the cross-fertilisation of ideas and multidisciplinary, cross-sector collaborations which could foster ambitious projects and draw the funding to support them. It limits Wales's potential to contribute globally and to raise its profile in the process, and risks collapse of impactful work if individuals or their funding are lost. If the power of the wide work taking place is to be harnessed, effective individuals need to be supported by better structures, linking them to each other and to opportunities for growth.

8.3 CAPACITY HINDERS GROWTH, IN ALL AREAS AND AT ALL LEVELS

A very consistent finding has been that key individuals lack time to undertake their activities in relation to international health. This applies in the NHS, to researchers, managers and volunteers; in academia, where staff are even more thinly spread following the pandemic; and in industry and the third sector, where the time and effort required to apply for funding and support does not always balance positively with the rewards. This tends to keep efforts at a relatively low, or higher but static level, with groups unable to find the capacity to take up opportunities which would allow them to grow. Some organisations are satisfied with this, finding their activities fruitful and rewarding. But many more are frustrated that they are unable to strengthen their partnerships, plan more ambitious projects, and reap the benefits at both ends through involvement of and impact on more people. Development of excellence, which Wales can use to grow its profile and global contribution, requires resource. Small investments will be multiplied, as the increased capacity they support allow groups to better exploit all opportunities for funding and development.

8.4 WALES HAS WORLD-LEADING STRENGTHS

Wales is world-leading in a number of health-related areas, including:

- Public Health, including pathogen genomics.
- Value-based health and care.
- Midwifery training and research.
- Burns.
- Wound healing.
- Medical informatics.

Many of the individuals involved in these areas already have strong international connections, including to key organisations such as the WHO and WEF, as well as professional groups and associations. Their profile within their own fields is already established, and high. With some coordination Wales could capitalise on this more generally, raising the nation's profile as a whole and contributing expertise widely for the benefit of others, and bringing learning back to Wales to accelerate the development of organisations and services.

8.5 WALES DOES NOT DRAW SUFFICIENT ATTENTION TO ITS SUCCESSES.

Despite these strengths, we find that Wales lacks a strong international profile overall and this may, in part, relate to its not “trumpeting” its successes. The reasons for this are no doubt complex and beyond the scope of our work, but there is a general sense that the ambition and national pride expressed on paper does not quite translate into action. It follows that those based both within and outside of Wales feel that it does not have a significant international profile, as distinct from the UK. The individuals involved, and sometimes their particular fields, may be recognised internationally as strong, but Wales as a whole is not. We present very solid successes that Wales can and should be proud of. The Welsh government needs to find a way to communicate these strongly and coherently, both within and outside Wales, to practically develop that sense of pride and the profile that should come with it.

8.6 WALES'S SMALL SIZE IS AN ASSET.

Across all sectors we found a strong perception that Wales benefits from being a small country. This facilitates networking, including with key members of Welsh Government, and a collaborative approach to work in all areas. It can also support rapid change when needed. Though this has not always happened historically, the coronavirus pandemic has shown this to be possible, and a significant strength. Businesses rallied to support the NHS and existing networks were rapidly pivoted to support this; the integrated NHS and particularly PHW provided a coordinated and cost-effective response; and new networks rapidly formed within government, drawing in experts from other sectors, to inform strategic planning. This shows what can be done when necessary, and this sort of flexibility could also be used in less extreme circumstances. Collaboration is at the heart of the Well-being of Future Generations Act and is recognised in a number of publications as the key to successful access to competitive funding. A push for more of this, routinely, will help Wales's international health activity to reach its true potential, bringing bidirectional benefits and demonstrable global responsibility.

International engagement on health can bring major benefits to the nation, but in Wales we have identified weaknesses which are currently limiting their realisation. In the NHS, international engagement boosts recruitment, retention and wellbeing, and brings funds through commercially sponsored research. In academia it draws talented staff and students, who contribute to institutional and national culture, and the economy, and can act as ambassadors for Wales overseas. Commercially, expanding export networks and attracting inward investment bring economic benefits, while new ideas are stimulated and standards raised through collaboration. Non-profit activity involves communities, bringing people together around shared goals, creating global links and enriching culture. Wales's key policies, the Well-being of Future Generations Act and the International Strategy, are highly relevant to international health activity: for maximum impact and benefit this requires collaboration across sectors and disciplines, planned sustainably for the long term. Done well, it has huge potential to raise Wales's profile, grow the economy, and solidly establish Wales's credentials as a globally responsible nation. Wales's international health activity has not yet reached that potential, and these recommendations are aimed at strengthening the areas which are holding it back.

The findings of this review support the recommendations of our recent report examining Wales's Health Partnerships with Africa, which are presented in Appendix 3 to facilitate cross-referencing. The ten recommendations here fall into three broad themes and some apply to more than one body or sector. This reflects the need for co-production and integration in developing Wales's international health activity, in line with the principles of the Well-being of Future Generations Act. However, many are specific to Welsh Government, and all will require its strong leadership, driving change to benefit the nation as a whole.

9.1 BUILD CORE STRUCTURE

1. Collate information on international health activity routinely.

This report provides little more than a snapshot of current activity. It has not been easy to produce and we acknowledge that it is incomplete. If Welsh Government view this as an area to value and grow, developing a full and up-to-date repository of information on international activity across sectors must be a priority, to allow identification of strengths, weaknesses and opportunities on an ongoing basis, and to track progress following changes. To this end:

- NHS organisations in Wales should be asked to produce a yearly "International Activity Report", and to include a summary of that report in their Integrated Medium-Term Plans. This should include voluntary and research activity, and workforce information specific to the organisation (as distinct from HEIW).
- University international departments are collecting their activity; best practice for presenting this could be shared and an annual report published by each HEI.
- Health and Care Research Wales could contribute information on international studies taking place, or grants awarded.
- MediWales and LSHW could report on life science companies' international activity.
- Third sector information could be provided by the Wales and Africa Health Links Network, if suitably resourced, or Hub Cymru Africa – though the focus of the latter is broader than health. Consideration would be needed on how best to capture activity with countries outside of Africa which, as we have shown, is significant.

These reports would inform the cross-government International Strategy Group (see below). Initially, reports will likely be incomplete, but with time and higher profile of the activity, the data quality will improve. A clear, up to date picture of the full scale and scope of activity will be key to targeting support and highlighting success, allowing consistent growth and increasing benefit.

2. Build strong relationships across and between governments.

This review brings to light the many different Welsh Government departments and groups which are relevant to international health activity. The Future Generations Commissioner's report into implementation of the Act recommends strongly against "siloes" working, and siloes and short-term funding is also seen as a barrier to effective implementation of the Act. It is vital that all agencies are working in a coordinated fashion and following an agreed strategy in relation to international health. At the same time, relationships with the UK government are key in areas which have been highlighted throughout this report.

We therefore reiterate here two recommendations from our last review:

- Convene a cross-government International Health Strategy Group (IHSG).
- Strengthen the strategic relationship with key UK government departments and networks, including the FCDO, DHSC and DIT.

Since that report, events have moved on in terms of clarity over FCDO funding cuts and developments at Public Health England. Regarding the latter, PHW has positioned itself to be an influential leader in Health Protection. There may also be new roles to play in the new UK Health Security Agency, which has a four-nations remit, and opportunities could be sought here through Wales's Chief Medical Officer.

Creation of an International Health Strategy for Wales would provide direction in many areas. Current examples include potential for this to guide international aspects of HCRW's three-year strategy, which is in development, and to facilitate coordinated, strategic bids for EU funds.

3. Review Government involvement in international networks.

There was originally an intention that this review consider the key networks for Welsh Government involvement, in terms of international health. This was set aside, as we learned that this process had been completed internally during development of the International Strategy, and is to be repeated now that the terms of the UK's exit from the EU are known. We recommend that this process be undertaken as soon as is feasible, so that members of Welsh Government are in a position to influence direction during the early phase of development of the new UK-EU relationship. We hope that this review's findings will contribute to that process.

4. Build capacity for international health activity.

Without sufficient capacity, development of this activity is impossible and overall efforts will remain low level. Potential solutions here will vary by sector:

- Welsh Government perhaps has most influence over opportunities within the NHS, where clear guidance can be given on providing dedicated time within contracts or job plans for international engagement, including training, research, and other activity following the standards of the Charter for International Health Partnerships.
- Both government and universities could consider ways to streamline time-consuming activities such as grant applications, for example by providing centralised support. The recommendations of the Reid Review on research funding, which is currently lower than in other UK nations and the OECD average, should be implemented.¹⁰³
- LSHW could lead on this for the commercial life science sector, again looking to provide centralised, practical support.
- Hub Cymru Africa undertakes capacity building work with civil society organisations and Health Partnerships, but they, the Wales and Africa Health Links Network, and the IHCC, could consider how further support could best be provided.

¹⁰³ Welsh Government (2018). [Review of Government Funded Research and Innovation in Wales](#).

This is likely to require additional government funding and this should be seen as an investment, from which Welsh Government can expect to see a return in terms of NHS staff satisfaction and wellbeing, universities which are internationally attractive, a growing economy, and a population of engaged global citizens.

9.2 PROMOTE EXCELLENCE

5. Create an Institute of Global Health in Wales

This would be a cross-sector institution, bringing together the substantial, but disparate and geographically spread work relating to global health issues. It would need at least one physical base, but could be set up as a networked organisation, allowing each involved institution to retain its distinct expertise and to benefit from participation. Wales already has examples of such a structure in its Intensive Learning Academies: these work on a partnership delivery model in which universities are the lead partner of a consortium involving the NHS, local authorities, industry, the third sector, and credible international partners.

The primary aim of this Institute would be to develop true excellence in global health, giving Wales a high profile in this area and attracting talented individuals in all sectors to contribute. It would do this by:

- Supporting and growing existing expertise.
- Stimulating new ideas, by creating connections.
- Facilitating collaboration, allowing development of strong projects and successful funding bids.
- Connecting classically health-related activity with work that is less so, broadening the outlook on “health” and the funding base which supports it.

This would require financial resource, which could be provided jointly by Welsh Government and the affiliated organisations, and should be based on supporting long-term development. This would support a core staff who would coordinate and communicate about the Institute’s work, highlight and support access to funding bids, and provide high-profile leadership through appointment to one or two funded Chairs. In time a “paired chair” system could be considered, with partner institutes across the world match-funding similar positions. Secondary benefits of such an Institute would be:

- Creation of a focal point for global health activity in Wales, supporting new initiatives and drawing established groups to contribute.
- Creation of a focal point for engagement with the Welsh population, facilitating conversations about the benefits of such activity locally and globally, and through this furthering the global citizenship agenda.
- Creation of a high-profile body which Wales can be proud of and can use to raise its international profile.
- Development of strong global partnerships which maximise benefits in both directions.

In doing so, such an institute would further the aims of the Well-being of Future Generations Act and the International Strategy while having a positive impact on health worldwide.

6. Celebrate success

Wales already has a world profile in a number of fields, and the country as a whole could benefit from concerted efforts to build and promote these. They include:

- Public Health, particularly prevention, equity and pathogen genomics, which have led to strong connections with the WHO and other international public health bodies.
- Value Based Health and Care, which is now connected to major global bodies and networks, which Wales can benefit from more widely.

- Midwifery training and research, with Cardiff University hosting one of only two WHOCCs globally, and through this having influential connections with the WHO and other international networks.
- Burns, with the Centre for Global Burn Injury Policy and Research and Interburns looked to internationally for leadership. In this case it may be too late to retain expertise, but Welsh Government and universities should consider what remains possible.
- Wound healing, with the first centre of its kind not only providing excellent clinical care within Wales, but guiding other countries in developing similar services.
- Medical informatics, with the SAIL databank representing an unusually rich resource for population-level health research and attracting global interest.

These strengths are surprisingly low profile, even within Wales. The Welsh Government could become more adept at “trumpeting” such successes, using them to build the country’s profile, networks and potential to influence. In doing so it should recognise that these areas have been developed through the drive and talent of individuals and groups, but that support (whether financial, practical or in promotion) will help them to go further. This has the potential to attract high quality staff and students across sectors, creating a positive cycle of rising standards and growing profile, and contributing knowledge and expertise globally.

7. Advance established health-related businesses

Wales has an impressive array of support for innovative start-up companies in health and the life sciences, from financing to advice, and cross-sector co-location of activity. There is less support for established businesses, which have proven themselves successful but may benefit from initiatives to expand in scope or reach. International success requires high standards and a competitive edge, and established businesses are in a position to further develop this, leading to new employment opportunities, stronger export and investment activity and a higher profile for Wales. Welsh Government should consider offering more services to help established life sciences businesses grow in this way, such as:

- Providing grants or low interest loans to support specific developments.
- Making available experienced advisors, with understanding of the need for speed in business.
- Building networks in key countries, to allow clear insight into new markets.

Better international connections and profile will also benefit healthcare in Wales, through the cost-effective development of high quality products and services. Efforts can be linked to the International Strategy (in terms of target countries) and the Well-being of Future Generations Act, in terms of involvement of communities and sustainability.

9.3 SEIZE CURRENT OPPORTUNITIES

8. Build and promote a “Brand Wales”

As the developments above progress, and building on the information in this review together with Wales’s key national policies, there is a moment of opportunity to bring Wales’s international health-related strengths together and promote them widely. As well as the specific areas discussed above, Wales has general strengths to promote, in terms of healthcare and health-related research and development:

- Its integrated health system.
- Its relatively small size and ethos of collaboration, which has led to strong networks within and across sectors, including Welsh Government.
- Its focus on quality and improvement.
- Its strong communities and drive to involve them in all developments.

These combine to create an unusually rich environment for robust and wide ranging research, with the potential to add knowledge and lead to new therapies, healthcare systems and products. Promoting this internationally will help to draw funding for excellent research and inward commercial investment, and promote outward trade. The growing research activity and quality would attract staff to universities and the NHS and raise Wales's overall profile. This could start with a coherent communication drive at government level, in which health forms one strong pillar of a wider strategy to promote Wales's strengths worldwide.

9. Accelerate NHS innovation and adoption of new solutions.

Innovation is a relative newcomer to the NHS and is at a stage of development where support and direction could make a significant difference to its effectiveness. International involvement is key to the sharing of learning and ideas that facilitate innovation, as recognised by internationally involved bodies such as the Bevan Commission. This is a time of considerable opportunity in this area, as the coronavirus pandemic has forced the NHS to change at speed, with rapid adoption of new treatments and ways of working that previously would have taken years to embed. The need for change persists even as the pandemic subsides, because of the huge backlogs in patient care facing the NHS. There is a need to capitalise on this while the new culture of change persists in the NHS, by:

- Encouraging ongoing rapid, but safe adoption of new systems, technologies and therapies. This includes timely removal of those that prove ineffective.
- Presenting innovation leads with clear guidance on how and where to engage with academia and industry, including internationally. Consideration could be given to streamlining the many supportive networks and opportunities.
- Using innovation leads' insights to identify the big issues that could be addressed by cross-sector innovative efforts, with benefits for patients in Wales and overseas. The Life Sciences Hub Wales should play a leading role in drawing out these ideas and developing appropriate links, and Welsh businesses can be expected to benefit from new activity and potential exports.
- Involve NHS innovation leads in Welsh Government's international delegations, to facilitate the networking which will lead to new ideas and shared learning.

There is great potential here to benefit the health and care system in Wales, especially as it recovers following the pandemic. International engagement will facilitate developments and allow Wales to grow its profile in this area, with potential further benefits to the economy.

10. Explore options linking healthcare and commerce.

The NHS is widely considered to be one of the UK's most precious assets and its egalitarian principles are rightly protected, perhaps even more strongly in Wales than in other parts of the UK. Wales has a proud history of working altruistically and cooperatively with LMICs to develop their healthcare systems, and will remain active in this. But this need not exclude Wales from benefiting commercially from developments in healthcare, and related products and services, globally. Many middle- and even high-income countries, for example in the Middle East, are working to develop their own health systems in line with the SDGs and Wales has particular strengths which may be of interest as they do this.

To this end Welsh Government should:

- Develop connections with Healthcare UK to explore options for involvement with their programmes of trade, including those funded through ODA.
- Use its own country offices in suitable areas, such as the Middle East, to explore these options.

Any activity could be directed to fit with Wales's values, remembering that offering a wide range of non-clinical opportunities in the NHS attracts staff, benefiting the Welsh population, and that contributing expertise in areas such as value based health and care, and integrated health systems can benefit populations worldwide.

10 CLOSING REMARKS

Wales is committed, through legislation, policy and attitude, to being an outward looking and globally responsible nation. This must be solidly backed by an ability to change in response to what is seen outside our borders, and to influence where we believe our ideas and expertise may benefit others. This can begin now, by investing in a concerted effort to capitalise on Wales's existing world-leading strengths, driving forward global engagement on health and fully realising its potential benefits, at home and overseas. Just as the UK government changes the focus of its international engagement, Welsh Government can strengthen its own distinctive approach, creating the profile it desires and deserves. We hope the information in this report and its recommendations will prove helpful as it does so.

APPENDIX 1: ACKNOWLEDGEMENTS

Steering Group Members	
Name	Roles
Dr Gillian Richardson (Chair)	Deputy Chief Medical Officer (Vaccines) for Wales; Public Health Consultant.
Dr Mariana Dyakova	Public Health Consultant; International Health Lead and Deputy Director WHO Collaborating Centre on Investment for Health and Well-being, Public Health Wales.
Dr Dafydd Evans	Welsh Government, Dept of Health and Social Services, Deputy Director EU and International Division.
Nicola Evans	Welsh Government, Department of Health and Social Services, Public Health Division.
Rhodri Griffiths	Life Sciences Hub Wales, Director of Innovation and Adoption.
Professor Judith Hall	Cardiff University, Professor of Anaesthetics, ICM and Pain, and Lead for the Phoenix Project; Consultant in Anaesthesia, University Hospital Wales.
Claire O'Shea	Hub Cymru Africa, Head of Partnerships.
Professor Tom Potokar	International Committee of the Red Cross, Chief Surgeon; Director, Interburns; Consultant in Burns and Plastic Surgery.
Jonty Roland	Independent adviser on health system reform and universal health coverage; THET trustee.
Ben Simms	THET, Chief Executive Officer
Carys Thomas	Welsh Government, Department of Health and Social Services, Head of Policy R&D health and social care.

Key Informants	
Name	Roles
Professor Judith Hall	<ul style="list-style-type: none"> • Professor of Anaesthetics, ICM and Pain, Cardiff University. • Lead for the Phoenix Project, Cardiff University. • Founder and Chair, Mothers of Africa. • Consultant in Anaesthesia, University Hospital Wales.
Professor Hamish Laing	<ul style="list-style-type: none"> • Professor of Enhanced Innovation, Engagement and Outcomes, School of Management (Faculty of Humanities and Social Sciences), Swansea University. • Director, Value-Based Health and Care Academy, Swansea University. • Non-Executive Director, Life Science Hub Wales. • Vice-chair, Welsh Government Digital Services for Patients and the Public Programme. • Former Consultant in Plastic and Reconstructive Surgery and Executive Medical Director, Swansea Bay University Health Board.

Special thanks to:

- Caroline Coleman, Swansea University, for searching and collating information from the Scopus Database.
- Audrey Arbaud, THET, for collating information on ODA grant funding to Welsh HEIs.
- The many individuals who contributed time and knowledge through less formal communications.

APPENDIX 2: STAKEHOLDERS INTERVIEWED

Sector	Organisation
Public	Betsi Cadwaladr University Health Board (R&D, Innovation)
	The Bevan Commission
	Public Health Wales
	NHS Wales Innovation Leads Group
Academic	Aberystwyth University
	Bangor University
	Cardiff University, WHOCC for Midwifery Development
	Swansea University and SAIL Databank
	Swansea University and NHS Value Based Health and Care
Commercial	Flexicare
	PDR International
	Welsh Wound Innovation Centre
Non-Profit	Interburns
External	House of Lords
	Public Health England
	The Scottish Government
	University of Iowa
	University of Namibia

APPENDIX 3: CONCLUSIONS AND RECOMMENDATIONS FROM “WALES’S HEALTH PARTNERSHIPS WITH AFRICA”

Conclusions

1. International health work will benefit from better coordination.
2. International health organisations need to develop to access better funding.
3. Wales has options to increase ODA funds, but should also look elsewhere.
4. The NHS needs to invest to benefit from international health work.
5. Diaspora groups need to be actively drawn into international health work.
6. Wales would benefit from a strategy relating specifically to international health.

Recommendations

Recommendations for the Welsh Government

1. Commit to maintaining funding and support for international work.
2. Convene a cross-government International Health Strategy Group (IHSG).
3. Strengthen the strategic relationship with key UK government departments and networks, including the FCDO.
4. Review and reinvest in coordination of international health work.
5. Standardise the use of NHS charitable bodies for Health Partnership fundholding.
6. Build the capacity and sustainability of existing organisations.

Recommendations for NHS Wales

1. Embed international work into the core business of the NHS using the Well-being of Future Generations Act.
2. Fully implement the Charter for International Health Partnerships.
3. Develop the global engagement of Health Education and Improvement Wales.

Recommendations for other bodies

The WaAHLN: clarify purpose and vision, to create a strong network.

THET works to create a world where everyone, everywhere has access to quality healthcare. We achieve this by training and educating health workers in low- and middle-income countries, in partnership with volunteers from across the UK health community. Founded in 1988 by Professor Sir Eldryd Parry, we are the only UK Charity with this focus.

