



Economeg Iechyd a Gofal Cymru

Health and Care Economics Cymru



Ymchwil Iechyd
a Gofal Cymru
Health and Care
Research Wales



Ariennir gan
Lywodraeth Cymru
Funded by
Welsh Government

2020 - 2021 Annual report



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WELCOME TO HEALTH AND CARE ECONOMICS CYMRU!

Health and Care Economics Cymru (HCEC) is an all-Wales collaborative research infrastructure group and we are delighted to be funded by Welsh Government via Health and Care Research Wales (HCRW) until 31st March 2023.

We were previously known as the Welsh Health Economics Support Service (WHESS). As HCEC, our aim has evolved to deliver world-class excellence in health economics research, its methodology and application. We strive to grow and sustain a community of health economics experts in Wales with strong collaborations across the health and care sector to make a difference to health and care research.

OUR MISSION

'To provide world-class health economics expertise (collectively harnessing an agile, integrated all-Wales approach) to enable excellent health and social care research and development in Wales to the benefit of patients, the public and the economy.'

One of the distinctive strengths of HCEC is the reach we have across the health and care research community in Wales alongside our contribution to policy and practice. We achieve this through our collaborations and partnerships with NHS and care organisations and decision-making bodies, and made considerable progress with involving and engaging patients and the public in our work.

As our much-valued stakeholders, our report shares with you a summary of our first year. We do so by highlighting our key metrics and achievements, alongside showcasing the best examples from across our four work packages (see page 10). We are proud to share how we made a difference during 2020/21 and how we demonstrate our impact through leading and supporting research.

We accomplish this through our objectives to:

- 1 Achieve a strategic, collaborative all-Wales direction for health economics, aligned to priorities for Wales.
- 2 Ensure Patient and Public Involvement and Engagement is embedded in everything we do.
- 3 Provide easy access to health economics support for researchers working within the HCRW infrastructure.
- 4 Optimise collaboration with the health and care research community to ensure the best evidence possible is available to support decision-making for service users and taxpayers.
- 5 Provide advice and support to decision-making, policy formulation and analysis through targeted involvement with committees.
- 6 Enhance capacity and capability across the health economics community in Wales, by developing an all-Wales methodological hub in areas of health economics.
- 7 Increase awareness of health economics in health and care with our key stakeholders.

WHY DO WE NEED HEALTH ECONOMICS?

The COVID-19 pandemic has brought into sharp focus that our health and care resources are limited. Every choice we make on how to allocate our scarce resources has an opportunity cost. This means we need to sacrifice one service in order to provide another and every decision will have unintended health and care consequences with some groups within society disproportionately affected. We therefore must understand the value for money, or cost-effectiveness, of the health technologies, interventions and services we provide. This will enable us to reduce inequalities, promote a fair prioritisation of resources, and ensure sustainability of our health and care system for the benefit of the people of Wales.

Find out more about what we do and how we can help on our website:

<https://healthandcareeconomics.cymru/>

A CHALLENGING YEAR IN REVIEW

During 2020/21, health and care systems and research environments faced unprecedented disruptions during the COVID-19 national emergency.

Despite the challenges, we continued to grow our contribution to policy and decision-making, e.g. by supporting Welsh Government and the Wales COVID-19 Evidence Centre regarding the impact of the pandemic on health and care systems across Wales. We provided rigorous, rapid synthesis of health economic evidence to ensure Wales can deliver the interventions and services of most value as we respond to and learn from the pandemic. Our bid development activity and conversion rate to funded awards remained healthy with 1 in 3 bids successful overall, and 1 in 2 HCEC-led research bids resulting in awards. We collaborated on bids with other HCRW infrastructure groups, Clinical Trials Units (CTUs) and Research and Design Conduct Services (RDSCS) across Wales. As a recognised centre in the UK and beyond, we bring income and reputation into Wales through our growing networks across the UK including Liverpool University, Kings College and University College London and Nottingham University.

During 2020/21, 94% of our publications were published in Gold Access journals. Our commitment to building capacity in health economics in Wales continues as many of our researchers took advisory positions on national decision-making committees and panels. In line with a critical objective of our first year, we focused on embedding patient and public involvement and engagement (PPIE) into our work and will use the solid foundations we built in the last year to develop our programme for engagement moving forward (see pages 14-15). This report highlights our key achievements including our response to the COVID-19 pandemic, the creation of an all-Wales Methodological Hub for Health Economics, our contributions to an NIHR centre for global health and a 'landmark' cancer trial. We also demonstrate the impact of our work with NHS Wales Health Boards to inform Welsh Government Policy on the value of lifestyle interventions for people with pre-diabetes in Wales.

We hope you'll enjoy reading it.

THE HCEC TEAM

The HCEC team is based within the two Welsh health economics units at Bangor University and Swansea University. Our new co-directorship model, supported by the co-applicants, project managers and management board and a strengthened advisory board successfully supported our objectives during 2020/21.

OUR MANAGEMENT BOARD



*Prof. Rhiannon Tudor
Edwards
HCEC Co-Director*



*Prof. Deb Fitzsimmons
HCEC Co-Director*

PROJECT MANAGERS:

Dr Catherine Lawrence

Dr Liv Kosnes

OTHER MEMBERS:

Prof. Dyfrig Hughes

Dr Pippa Anderson

Dr Joanna Charles

Dr Berni Sewell

Dr Llinos Haf Spencer

Ann Lawton

OUR ADVISORY BOARD

Prof. Steve Morris (University of Cambridge) - CHAIR

Dr Brendan Collins (Welsh Government)

Prof. Ceri Phillips (Swansea University)

Prof. Rod Taylor (University of Glasgow)

Dr Lisa Trigg (Social Care Wales)

Dr Angela Boland (University of Liverpool)

Prof. Monica Busse (Cardiff University)

Patient and Public Representatives: Mrs Karen Harrington and Mr Nathan Davies

OUR HCEC RESEARCHERS

Dr Mari Jones

Dr Lorna Tuersley

Dr Shaun Harris

Rhys Pockett

Dr Ned Hartfiel

Dr Victory Ezeofor

Dr Simon Read

Dr Eira Winrow

Dr Mary Lynch

Dr Carys Jones

Katherine Cullen

Dr Lucy Bryning

Bethany Anthony

Julia Lowin

Dr Narayan Poudel

SUMMARY OF THE YEAR

OUR KEY METRICS

Our key metrics of 2020/21 are summarised in the infographic below:

**Health and Care
Research Wales
infrastructure award
to the group**



Direct
funding
awarded

£385k

Jobs created
through direct
funding



Grants won during reporting period

Grants won	Led by group	Group collaborating
Number	7	7
Value	£357k	£4.9m
Funding to Wales	£330k	£1.5m
Funding to group	£330k	£676k
Additional jobs created for Wales	5	14
Additional jobs created for group	5	2



Number of publications



Number of public
engagement events



Number of public
involvement opportunities

TRANSITIONING FROM WHES TO HCEC

We are delighted to report our success in securing 7 new awards where collaboration was initiated prior to our current HCEC funding award. These awards contributed £1.92million into Wales. Particular congratulations go to Dr Emily Holmes for leading the successful award to investigate the use of rapid diagnostics to reduce antibiotic prescribing in NHS Wales as Chief Investigator and to Dr Pippa Anderson who is Co-Principal Investigator with Professor Barbara Ryan, Cardiff University on the H2C project to identify the value of community optometrists in managing chronic eye disease.

OUR YEAR AT A GLANCE

In 2020/21, our key achievements against our objectives (as described on page 3) included:

1

Our successful first online Welsh Health Economist Group (WHEG) conference, where we **brought together the health economics community across Wales** to discuss the future direction of health economics and its methodologies in Wales (see page 21).

2

The outstanding co-production as part of the My Options and Choices study with patients with kidney disease undergoing dialysis and their carers which **won the prestigious Patient and Public Involvement Award at the Health and Care Research Wales annual conference** on 7th October 2020 (see pages 12-13).

3

Our health economics support for researchers working within the Health and Care Research Wales infrastructure and Health Boards that led to **66 collaborative and group-led grant applications** during 2020/21.

4

Our collaboration with Swansea Bay University Health Board to undertake an economic evaluation of the rapid diagnosis centre (RDC) for patients with non-specific symptoms that could be due to cancer which has **enabled the roll-out of RDCs across Wales** and the beginning adaption of the service to other (site-specific) cancers (see page 18).

5

The provision of health economics advice and support to decision-making, policy formulation and **the COVID-19 response**, supporting Welsh Government, the Office of the Secretary of State for Wales and the UKRI/NIHR College of Experts during 2020/21 (see page 16).

6

Enhancing the capacity and capability across the health economics community in Wales, by **developing an all-Wales methodological hub** in areas of health economics (see page 20).

7

The creation of an animation video as part of our rebranding to help increase awareness and understanding of health economics in health and care. We are delighted that this animation **won the Best Virtual Exhibition Stand Award at the Health and Care Research Wales Conference** in October 2020 (see page 10).

HIGHLIGHTS OF OUR AREAS OF IMPACT

During 2020/21, HCEC supported decision-making and planning in a time of unprecedented demand and helped to mitigate the unintended (and longer-term) health and economic consequences of COVID-19 and beyond.

THE HCEC RESPONSE TO COVID-19 PRIORITIES

HCEC made a strong contribution to the immediate response to the COVID-19 emergency. We submitted research proposals to help investigate the impact on the people and economy of Wales and the wider harms and unintended consequences of COVID-19 and provided life-saving evidence on the safety of treatments being tested for use in COVID-19 (see page 16).

We also collaborate on the NIHR-funded HEAL-COVID trial, evaluating options for the management of long-term consequences of COVID-19 (see page 11)

and the EVITE study funded by the National Core Studies for COVID-19 Immunity Programme to establish the costs and consequences of the UK shielding initiative (see pages 12). Furthermore, HCEC collaborates with the Wales COVID-19 Evidence Centre to provide health economics support for one of the key strategic directions for HCRW during the COVID-19 pandemic to provide rapid, robust and representative evidence in response to questions set by Welsh Government (see page 17).

OUR CONTRIBUTION TO METHODOLOGY AND DECISION-MAKING



We successfully established a Health Economics Methodological Hub which is currently tasked to contribute a Welsh perspective to the generation of the new UK value set for the EQ-5D-5L questionnaire, an essential tool to calculate cost-effectiveness required for decision-making across the UK (see page 20).

PROMOTING WELLBEING, PREVENTION AND SUSTAINABILITY IN WALES

The evidence generated by our collaboration with the All Wales Diabetes Implementation Group (AWDIG) and the Diabetes Research Unit Cymru (DRUCymru) led Welsh Government to announce that it will invest £1million in the evaluated diabetes prevention programme in 2021 as a first step in a National roll-out. This will help to reduce health inequalities between Wales and England and Scotland who already have similar programmes and promotes wellbeing, prevention and sustainability in line with healthcare system change and improvement set out in 'A Healthier Wales: Our Plan for Health and Social Care' (see pages 17-18).



The effective lifestyle intervention for diabetes prevention which is delivered by a support worker trained and supervised by a dietitian.

EMPOWERING OESOPHAGEAL CANCER PATIENTS AT THE END OF LIFE

The ROCS trial, named a 'landmark' trial in the field of palliation, investigated the effectiveness and cost-effectiveness of palliative external beam radiotherapy in addition to self-expanding metal stents (SEMS) to improve dysphagia in oesophageal cancer patients. The trial concluded that radiotherapy alongside stenting was not a clinically or cost-effective option in the palliative management of dysphagia. This evidence will inform clinical management, empowering practitioners and oesophageal cancer patients to make informed end-of-life health and care choices. These results are expected to **inform national guidelines on the use of this palliative treatment across the UK** in line with the 'Palliative and End of Life Care Delivery Plan' (2017) on how the NHS and its partners can provide care and support for people at the end of their life, and their families (see page 13).

UPDATES ON WORK PACKAGES

Our objectives are supported by four work packages:

- 1** Optimising collaboration with health and social care researchers through an all-Wales Health Economics (HE) community of expertise.
- 2** Patient and Public Involvement and Engagement.
- 3** A) Delivery of HE advice and support to health and social care organisations against WG priorities and needs.
B) Contributing HE expertise to decision-making and policy formulation.
- 4** Building capacity and capability in methodological and applied HE research to position HCEC across the HE community.

The following case studies showcase the impact HCEC made in each of our work packages during 2020/21. We highlight areas where our contribution and support made a difference to health and care research and provision to the benefit of the NHS and the people of Wales. We also present our key achievements in responding to the COVID-19 pandemic.

AWARD-WINNING REBRANDING

During 2020/21, we rebranded to HCEC, which included a new logo, new social media accounts and a new website. In the picture on the right, HCEC members are proud to present the Best Virtual Exhibition Award we won at the Health and Care Research Wales Conference in October 2020 for our animation describing the importance of health economics and the work we do as HCEC.



WORK PACKAGE 1: OPTIMISING COLLABORATION WITH HEALTH AND SOCIAL CARE RESEARCHERS

Collaborating with Health and Care Researchers to Make an Impact During COVID-19

Mitigating the Longer-term Impact of COVID-19 Across the UK Population

What was the question that HCEC could help with?

The ongoing convalescent COVID-19 mortality rate is as high as 10%, with approximately 20% of hospitalised patients developing new or worsened cardiopulmonary symptoms within 60 days after discharge. Standard of care for patients with COVID-19 must be enhanced based on high-quality evidence on effectiveness and cost-effectiveness to improve longer-term outcomes.

What did we do?

HCEC researchers led by Dyfrig Hughes are contributing to the multi-centre HEAL-COVID trial which was awarded £3.6 million by the National Institute for Health Research (NIHR). In collaboration with the University of Cambridge and Addenbrooke's Hospital, we will undertake the cost-effectiveness analysis to determine the value for money of each treatment option from the perspective of the NHS.

The HEAL-COVID trial, which is one of the first investigations of the management of long-term consequences of COVID-19, is expected to provide pivotal findings that contribute to evidence-based recommendations and NICE guidance regarding the most effective and efficient interventions to guide standard of care and improve longer-term outcomes for people affected by COVID-19.



*Dyfrig Hughes, HCEC Management
Board Member*

HCEC supports the generation of crucial evidence regarding the benefits and potential harms of shielding which will inform and shape national and international public health policies on shielding in future health emergencies. Our contribution to this collaborative study demonstrates the role Wales-based researchers (and HCRW Infrastructure groups) play in the national response to COVID-19.



Berni Sewell, HCEC
Management Board
Member

Investigating the Impact of the COVID-19 Shielding Initiative

What was the question that HCEC could help with?

The shielding initiative, introduced during the COVID-19 pandemic across the UK, was intended to protect those at highest risk of serious harm should they catch COVID-19 because of preconditions such as cancer. However, no evidence is available on the effectiveness and impact of shielding on patient outcomes and costs.

What did we do?

The EVITE Immunity study is funded through the COVID-19 National Core Studies Immunity Programme in collaboration with Birmingham University to investigate the impact of shielding on the number of COVID-19 infections, serious illness and deaths and immunity. The study will also explore potential harms such as isolation, anxiety, depression or delayed care for serious health problems and the cost-effectiveness of shielding. Alongside researchers from PRIME and SAIL who examine the COVID-19-related health outcomes of patients on the shielding list compared to the general public, Berni Sewell leads the evaluation of the implementation and opportunity cost of the shielding initiative to the Welsh public sector.

HELPING PATIENTS CHOOSE

Patients with kidney disease in Wales are predominantly choosing unit-based over home-based dialysis which increases healthcare costs and mortality and reduces quality of life. The My Options and Choices study, funded by the HCRW Research for Patient and Public Benefit (RfPPB) scheme, was a co-production study including patients, their families and carers as well as the Wales Kidney Research Unit and experienced kidney specialists from across Wales.

Empowering Oesophageal Cancer Patients at the End of Life

What was the question that HCEC could help with?

Patients with advanced oesophageal cancer may require oesophageal self-expanding metal stent insertion for dysphagia. However, recurrent dysphagia and re-insertion is common. The ROCS multi-centre, randomised controlled trial was funded by the NIHR Health Technology Assessment (HTA) Programme and led by the Centre for Trials Research at Cardiff University in collaboration with Tayside, Marie Curie and Velindre Cancer Centres. The trial examined the clinical and cost-effectiveness of external beam radiotherapy (EBRT) following stenting compared to usual care in maintaining swallow and quality of life in palliative patients.

What did we do?

Berni Sewell, Mari Jones, Katherine Cullen and Deb Fitzsimmons designed and conducted a comprehensive health economic analysis alongside the ROCS trial including a de-novo economic model to assess the cost-effectiveness of the ROCS intervention. A detailed chapter was submitted in the NIHR report which, on peer review, received excellent feedback on the quality of analysis.

What is the expected impact?

The ROCS trial concluded that radiotherapy alongside stenting is not a clinically or cost-effective option in the palliative management of dysphagia. This evidence, published in the Lancet Gastroenterology, will inform national guidelines and clinical management on the use of this palliative treatment across the UK in line with the 'Palliative and End of Life Care Delivery Plan' (2017), empowering oesophageal cancer patients to make informed end-of-life health and care choices.

DIALYSIS OPTIONS

Rhiannon Tudor Edwards and Jo Charles established patient preferences and concerns, healthcare service use and cost of dialysis options. Based on the study results, education programme changes were made in local health boards in Wales to empower patients to make informed decisions about their dialysis modality more quickly and to ensure sustainability of current service provision. Furthermore, this first detailed analysis of dialysis costs will help inform future cost-effectiveness studies and healthcare policy and may drive service re-design.

I enjoy making a contribution to health economics and research in Wales. While writing the HCEC action plan for public involvement and engagement, I always felt my comments were valued, considered and acted upon.



Karen Harrington, HCEC Public Representative

I work in healthcare and am very interested in health economics. As part of the Advisory Board, I am increasingly aware of the ways that services can be developed and changed to become more cost-effective and, ultimately, better for patients.



Nathan Davies, HCEC Public Representative

WORK PACKAGE 2: PATIENT AND PUBLIC INVOLVEMENT AND ENGAGEMENT

Health economics has become integral to health and care research and we recognise the value of the public and patient voice in health economic evaluation. This year, we have worked with the public to develop our action plan, determine research priorities and generate research questions. Llinos Haf Spencer and Liv Kosnes were appointed co-leads for Patient and Public Involvement and Engagement (PPIE) and Nathan Davies from our South region joined our longstanding representative, Karen Harrington, as a public member of our HCEC Advisory Board. We are grateful for all Karen and Nathan do as our public representatives and wish to thank them for their contributions to HCEC during 2020/21.

Nurturing PPIE in Health Economics - Our HCEC Public Involvement Group

The first virtual HCEC Public Involvement Group meeting took place in March 2021. We have 18 registered members and regularly share information relating to involvement opportunities in health economic research. In the March meeting, the group discussed the National Standards for Public Involvement as related to our HCEC PPIE action plan, and enjoyed an informative presentation about quality of life measures and mobility. We were delighted that many of our public representatives were keen to help develop research projects.

Whilst we expect our reach and activities to mature over the funding period as we implement our PPIE action plan, our aim remains threefold: to inform, consult and collaborate with patients and the public.

Our Award-Winning Co-Production to Give Dialysis Patients in Wales a Choice

The co-produced My Options and Choices study (see pages 12-13) **won the Public Involvement Achievement Award** at the HCRW Conference in October 2020.

Patients with kidney disease, their family members, health care professionals, and the public were instrumental in all aspects of the research. Working together helped to develop new visions and road maps for more sustainable kidney health and social care services. As part of this study, we attended Black, Asian and minority ethnic (BAME) community events to include minority perspectives, hosted stands at Bingo Halls and the St. David's Day Parade, and delivered TED-style talks at festivals in Wales' National Museum. Our study communication strategy included a website, social media, a YouTube channel, and a monthly newsletter that was well received by over 100 people and 18 kidney dialysis units in Wales. It was great to see the PPI and co-production acknowledged. So many people have contributed to this research, and the new co-produced service designs and pathways are an exemplar of what can be achieved through working together.

WOULD YOU LIKE TO HELP?

If you are interested in helping to develop health economics research in Wales, please consider joining the HCEC Public Involvement and Engagement group (PIG). Information about involvement opportunities and details about current research projects are circulated to individuals in this group via emails and newsletters. If you are interested in joining the HCEC PIG group as a member of the public please go to our website and complete the form or contact Llinos (l.spencer@bangor.ac.uk) or Liv (hcec@swansea.ac.uk).

By sharing what we do, we increase opportunities for dialogue and learning from patients and the public about the implications of our research. This collaboration helps us to improve the quality and relevance of our research.



Liv Kosnes, HCEC PPIE Co-Lead

PPIE is at the core of what we do as health economics researchers. Our PPIE representatives are invaluable members of the team. Their input and feedback enable us to incorporate PPIE as a key element in the work we do.



Llinos Haf Spencer, HCEC PPIE Co-Lead

WORK PACKAGE 3A: DELIVERY OF HEALTH ECONOMICS ADVICE AND SUPPORT

The COVID-19 pandemic required rapid adjustments including recognising the health and economic consequences it would bring, particularly to vulnerable populations in Wales and beyond. During 2020/21, the 'rule of rescue' characterised public health and government responses, with many services de-prioritised to manage the health emergency. Compounded by the UK leaving the European Union, the pandemic has accentuated existing inequalities in health and life chances, with a backlog of need for cancer diagnosis and treatment and routine surgery. It is now more important than ever to incorporate health economics into decision and policy making to ensure quality of care and sustainability of our strained health and care system.

The strong HCEC contribution to the COVID-19 response in Wales included:

- Research proposals submitted to COVID-19 calls across UKRI and NIHR funding platforms to support bids with other research groups to investigate the impact of the immediate crisis on the people and economy of Wales and the wider harms and unintended consequences of COVID-19.
- Dyfrig Hughes provided life-saving evidence on the safety of treatments being tested for use in COVID-19, highlighting the risks associated with the use of chloroquine after several fatalities occurred due to its cardiotoxicity and overdoses.
- Rhiannon Tudor Edwards and Deb Fitzsimmons joined the UKRI/NIHR College of Experts to help to rapidly assess grants, often delivering multiple reviews within 48 hours of receipt. Rhiannon Tudor Edwards, Pippa Anderson and Berni Sewell were also on a register of experts to support Welsh Government in its response to COVID-19.
- Rhiannon Tudor Edwards worked with Dr Brendan Collins (Chief Health Economist to the Welsh Government) on his modelling of mass testing in Merthyr Tydfil and the surrounding area. She also was a member of a group of economists supporting the Office of the Secretary of State for Wales to investigate and mitigate potential future scarring of the Welsh economy.

Our Contribution to the Wales COVID-19 Evidence Centre

What was the question that HCEC could help with?

One of the key strategic directions for Health and Care Research Wales during the COVID-19 pandemic was the development of the Wales COVID-19 Evidence Centre to provide rapid, robust and representative evidence in response to questions set by Welsh Government.

What did we do?

HCEC researchers work with the Bangor Institute for Health & Medical Research (BIHMR), to host the health economics contribution to the Wales COVID-19 Evidence Centre in collaboration with the Wales Centre for Evidence Based Care, the Joanna Briggs Institute Centre of Excellence, Cardiff University, Specialist Unit for Review Evidence, Health Technology Wales (HTW), Velindre, SAIL databank, Swansea University, the All Wales Therapeutics and Toxicology Centre (AWTTC) and Public Health Wales. Due to our quick response, we started to deliver high quality, rapid evidence summaries (e.g. dealing with the effects of COVID-19 on cancer and diagnostic tests in light of a post-pandemic backlog).

Informing the First Diabetes-Prevention Programme for Wales

What was the question that HCEC could help with?

The lack of a national diabetes prevention programme to reduce the number of people developing type 2 diabetes in Wales needed addressing as a high priority. Progression from pre-diabetes to type 2 diabetes can be reversed through lifestyle interventions. However, the resources and costs of the prevention programmes of England and Scotland were too high for implementation in Wales and they were found ineffective in areas of socio-economic deprivation. Wales therefore needed a programme that was affordable, feasible and scalable.

Our collaboration with the new Wales COVID-19 Evidence Centre will support Welsh Government to answer key questions regarding decision-making in Wales during this pandemic and in the recovery period. HCEC will make a robust and distinctive contribution to evidence-based policy, acting as part of the HCRW infrastructure. This enables health economics and considerations of value-based healthcare into evidence review and evidence-informed policy for the benefit of the economy and the people of Wales.



*Rhiannon Tudor Edwards
HCEC Co-Director*

The evaluation of a lifestyle intervention to prevent diabetes in Wales received an award at the [Quality in Care Awards](#), and in March 2021, Welsh Government announced that, based on this collaborative research, it will invest £1million in the first Welsh diabetes prevention programme in 2021 as a first step in a National roll out. Further research is being discussed with Public Health Wales with Welsh Government committed to support the evaluation as part of the overall funding.



Pippa Anderson, HCEC
Management Board
Member

What did we do?

Pippa Anderson and Shaun Harris collaborated with the All Wales Diabetes Implementation Group (AWDIG) and the Diabetes Research Unit Cymru (DRUCymru) to undertake a pragmatic model-based health economic evaluation and an implementation and roll out costs analysis for all Wales. We used existing and published data to estimate the cost-effectiveness of an effective, brief lifestyle intervention that saw the majority of patients returning to a normal blood glucose range. The results of the economic evaluation suggested that provision of the lifestyle intervention increases patient health and health-related quality of life and saves NHS resources and costs compared with 'usual care' in a primary care setting in Wales, with the potential to save £6 million in NHS Wales resources per Health Board over a ten-year period.

TACKLING HEALTH INEQUALITIES IN CANCER

Our economic evaluation of the rapid diagnosis centre (RDC) for non-specific cancer symptoms in collaboration with Swansea Bay University Health Board (SBUHB) was pivotal to the adoption of the RDC as a permanent service in the Health Board and is now regarded as the flagship model in Wales. Based on the success of the service and the cost-effectiveness evidence provided by HCEC, the RDC programme is now being rolled out across Wales and will be developed further into RDC models for site-specific cancers to reduce time to cancer diagnosis and improve patient outcomes and survival in Wales. We continue to work closely with SBUHB and others in supporting the roll-out of other RDC initiatives, in which Wales is increasingly recognised as a leader in the field at national and international level.

WORK PACKAGE 3B: CONTRIBUTING HEALTH ECONOMICS EXPERTISE TO DECISION-MAKING AND POLICY FORMULATION

We provided on-going senior support to policy-making committee meetings to ensure health economics is integral to decision-making in Wales. Considering health economics when making tough decisions and choices will increase efficiency and sustainability of the health and care system and improve patient care and ultimately outcomes.

HCEC staff are members of the following national decision bodies:

- New Medicines Group (NMG) and All Wales Medicines Strategy Group (AWMSG)
- Interim Pathway Commissioning Group (IPCG)
- Evidence Based Procurement Board (EBPB)
- Health Technology Wales (HTW)
- Welsh Health Specialised Services Committee (WHSSC)
- Genomics Partnership Wales (GPW) Programme Board
- Research & Innovation Implementation sub-group
- Advanced Therapies Wales Programme Board
- Health and Care Research Wales Health Research Grant Awards and Research for Patient and Public Benefit Grant Panels

HCEC worked with the All Wales Therapeutics and Toxicology Centre (AWTTC) to develop an evidence-based framework to support the reassessment of medicines identified as potentially low value for prescribing in NHS Wales. We developed and piloted a reassessment pathway using economic modelling methods and routine prescribing data. This framework for resource reallocation of low value technologies was adopted by the All Wales Medicines Strategy Group (AWMSG) in late 2020. This project made a direct contribution to the value-based health care agenda and supports resource reallocation (disinvestment) as set out in the AWMSG 5-year strategy.



*Deb Fitzsimmons,
HCEC Co-Director*

WORK PACKAGE 4: BUILD CAPACITY AND CAPABILITY IN METHODOLOGICAL AND APPLIED HEALTH ECONOMICS RESEARCH

Improving the Robustness of Cost-Utility Analysis at a UK Level

What was the question that HCEC could help with?

The National Institute for Health and Care Excellence (NICE) draws on evidence of the cost-effectiveness for new and existing drugs and treatments to decide whether they should be recommended across England and Wales. The quality-adjusted life year (QALY) used in this assessment requires measurement of health-related quality of life. NICE recommends this is undertaken using the EQ-5D questionnaire of which there are two versions (3L and 5L). Algorithms put a numerical value on these health states derived from national value sets which say how the population make a valuation of being in different states of health/combinations of answers to the questionnaire. An EQ-5D-5L value set for England exists but is not recommended for use due to concerns about its quality and reliability. In light of this, the new EQ-5D-5L valuation study for the UK was commissioned. As NICE guidance applies to Wales and England, it is crucial that the evaluative tools used also reflect the values of people living in Wales which, at the moment, is not the case.

What did we do?

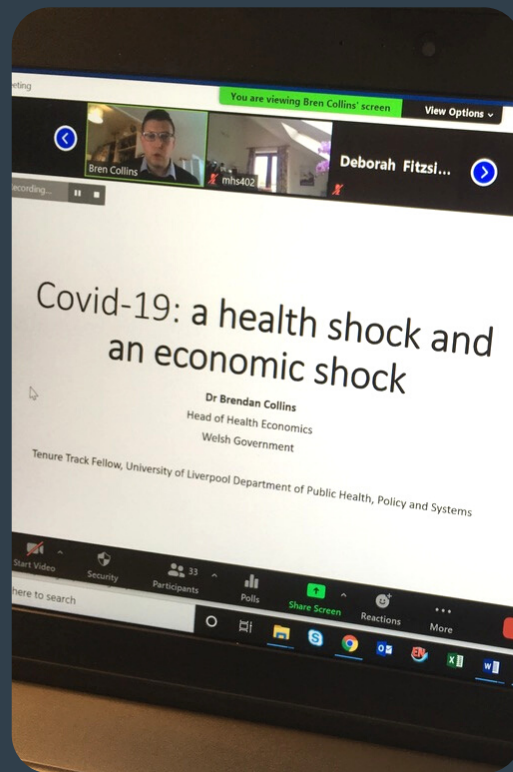
HCEC supports the Wales contribution to the national valuation study, led by the University of Sheffield and funded by the [EuroQoL Group](#). Data collection was delayed by the COVID-19 pandemic but is expected to begin in 2021.

What is the expected impact?

This methodological work undertaken by HCEC will ensure the inclusion of the Welsh population to the UK valuation set. This will provide future researchers and decision makers with confidence in a robust valuation set which also represents the values (weights) of the Welsh population. The new EQ-5D-5L value set will make a substantive contribution and impact to Wales and the UK as it underpins every health technology submission to HTW, AWMSG and NICE as well as internationally. This work will inform the majority of decisions about whether new drugs or treatments should be funded or rolled-out to patients in England and Wales going forward.

NURTURING A HEALTH ECONOMICS COMMUNITY IN WALES

In October 2020, HCEC hosted the first virtual Welsh Health Economist Group (WHEG) meeting which was attended by over 40 health economists, early career researchers and PhD students. The meeting is a valuable opportunity to discuss the all-Wales strategic direction of health economics and to strengthen collaboration in health economics across Wales. In 2020/21, we celebrated Prof. Ceri Phillips' contribution to the health economics landscape across Wales and beyond, including his role in the development of prudent health care in Wales. His talk on 'fair innings' provided insight into the contribution health economics can make to research and policy.



Brendan Collins (Head of Health Economics for Welsh Government) talked about 'Covid-19: a health shock and economic shock'.

LEADING PATIENT-REPORTED OUTCOMES MEASURE IMPROVEMENT FOR PANCREATIC CANCER

A grant was awarded to HCEC by the European Organisation for Research and Treatment of Cancer (EORTC) Quality of Life 2020 funding round to develop a programme of work to update a patient reported outcome measure for pancreatic cancer. Deb Fitzsimmons is leading this international collaboration (UK, Europe, USA, North Africa and India), and has also joined the EORTC Gastro-Intestinal Tract Cancer Group and Pancreatic Task Force as the 'Quality of Life Expert' to inform future clinical trial development in the field. We are also pursuing formal links with the National Cancer Research Institute with presentations planned in November 2021 to the group.

Our evaluation of the cost of severe burns management in Nepal focuses on prevention, health improvement and inequality and showcases how HCEC is 'promoting and protecting Wales' place in the world', fosters relationships with key UK-wide and international groups, grows our visibility and promotes health economics excellence internationally, which will support us in bringing greater funding opportunities to Wales.



Julia Lowin
HCEC Researcher

OUR COLLABORATIONS

Working Together to Improve Burns Outcomes in Low Income Countries

What was the question that HCEC could help with?

In 2017, Pippa Anderson and Deb Fitzsimmons collaborated with colleagues at Interburns, part of the Centre for Global Burns Injury Policy Research Unit (CGBIPR), to secure a 3-year NIHR Global Health Group award to support, design and conduct projects in low and middle income countries (LMICs). As part of the award, management of severe burns in Nepal was identified as a key area of public health concern to be addressed.

What did we do?

Narayan Poudel, Julia Lowin and the CGBIPR project team designed a novel method to estimate costs as part of HCEC's commitment to develop methodological expertise in health economics research and conducted a primary research programme (including four weeks of fieldwork in Nepal) to estimate the inpatient costs of severe burn management in collaboration with clinicians and researchers at Sushma Koirala and Kirtipur hospitals.

What is the expected impact?

The Nepal project highlighted key challenges in the conduct of primary research in LMICs and provided a robust preliminary estimate of one component of the cost of burn injury to the Nepal Health Care System and economy, which could be fed back to local policy makers and clinicians. With publications in the Journal of Burn Care and Burns, HCEC demonstrated the contribution Welsh-led research can make as partners on an internationally competitive grant award, creating a strong evidence base to drive forward burn prevention strategies, build healthcare capacity and improve clinical outcomes of patients in some of the poorest and most conflict-affected areas in the world.

SOME OF OUR COLLABORATORS



GIG
CYMRU
NHS
WALES



Technoleg Iechyd Cymru
Health Technology Wales



Canolfan PRIME Cymru
PRIME Centre Wales



AWTTC
All Wales Therapeutics
& Toxicology Centre



Swansea
University
Prifysgol
Abertawe

Swansea Trials Unit
Uned Dreialon Abertawe

UNED YMCHWIL
DIABETES CYMRU

DIABETES RESEARCH
UNIT CYMRU

We provide senior health economic advice to the AWMSG and support them with evidence appraisals and through our work on disinvestment of low value medicines.



Grŵp Strategaeth Meddyginiaethau
Cymru Gyfan

All Wales Medicines Strategy Group



Y Ganolfan Ymchwil Heneiddio a Dementia

Centre for Ageing & Dementia Research

We collaborate on a £5 million NIHR programme grant led by University College London, investigating the effectiveness and cost-effectiveness of support groups for people living with rare dementias.

Several studies supported by HCEC (including the HEAL-COVID trial and the EVITE study) use SAIL Databank data and we collaborate on the Wales COVID-19 Evidence Centre 2021-2023.



SAIL DATABANK



Centre for
Trials Research



Canolfan
Ymchwil Treialon



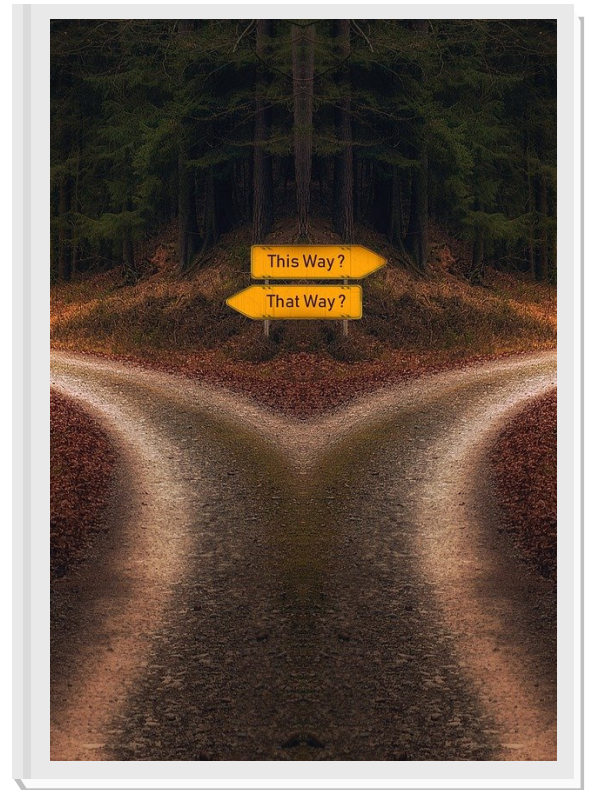
Research Design
& Conduct Service

Gwasanaeth Cynllunic
a Chynnal Ymchwil

CONCLUSIONS - LEARNING FROM AND LOOKING FORWARD

Despite the challenges of the COVID-19 pandemic, our year was characterised by renewed vigour and commitment to delivering our all-Wales health economics contribution to health and care research across Wales. We feel that our new identity as HCEC reflects that we are now initiating and innovating research as well as supporting the research of others.

In our second year as HCEC, we will focus on developing our leadership in research, raising our ambition to secure increased funding, recognising excellent opportunities for us to work with NHS and Care Organisations. We will prioritise targeted engagement with other Health and Care Research Wales groups, particularly new groups or existing groups where we have less historical collaboration. We are keen to contribute to a more 'global' ambition in the reach and significance of our work and ensure we maintain our trajectory in working across the UK to achieve success with major funding bodies. Having adapted to the 'new normal' and learning from the challenges of 2020/21, we are looking forward to the exciting opportunities of the year ahead.



We will continue to support decision-making by developing the capacity and capability of our workforce to meet the methodological, technical and analytical skills required for high-quality health economic analysis whilst ensuring we also remain grounded in real-world evaluation.

FIND OUT MORE

For more information on Health and Care Economics Cymru, our work and how we can support you, please visit our website:

<https://healthandcareeconomics.cymru/>

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CONTACT US

If you would like health economics advice or discuss how we can support you in your research, please feel free to **email us**:

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