



WHESS

**Welsh Health Economics Support Service
Gwasanaeth Cymorth Economeg Iechyd Cymru**



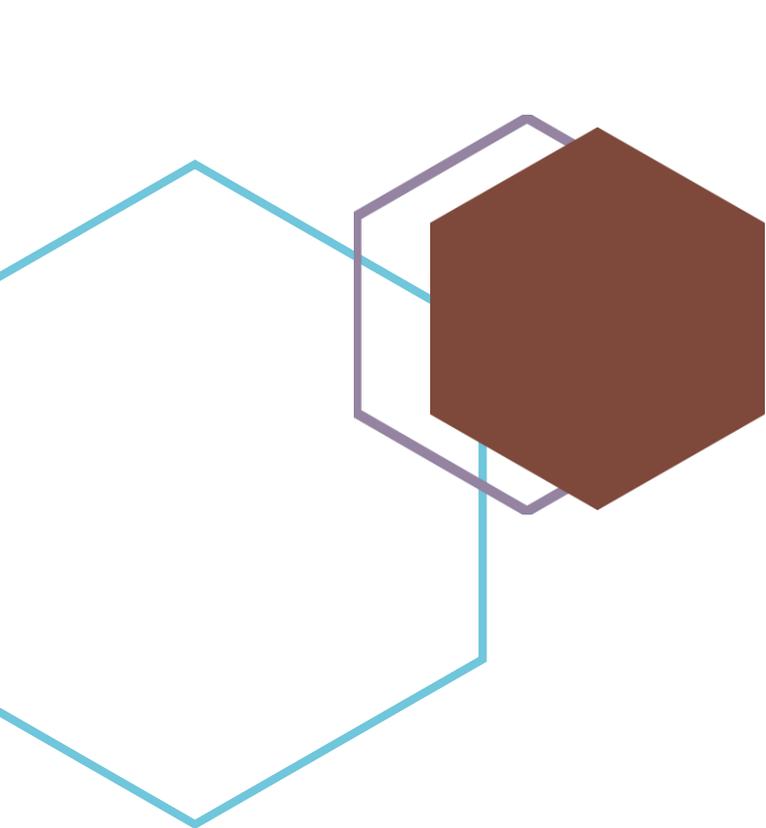
Ymchwil Iechyd
a Gofal **Cymru**
Health and Care
Research **Wales**



Ariennir gan
Lywodraeth Cymru
Funded by
Welsh Government

**2019-20
Annual Report**





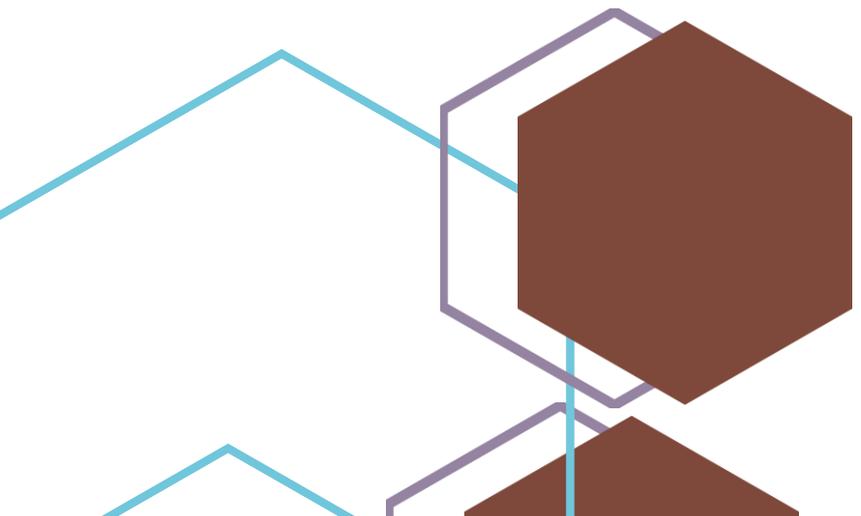
Discover more about WHESS:

<https://www.healthandcareresearch.gov.wales/welsh-health-economics-support-service/>

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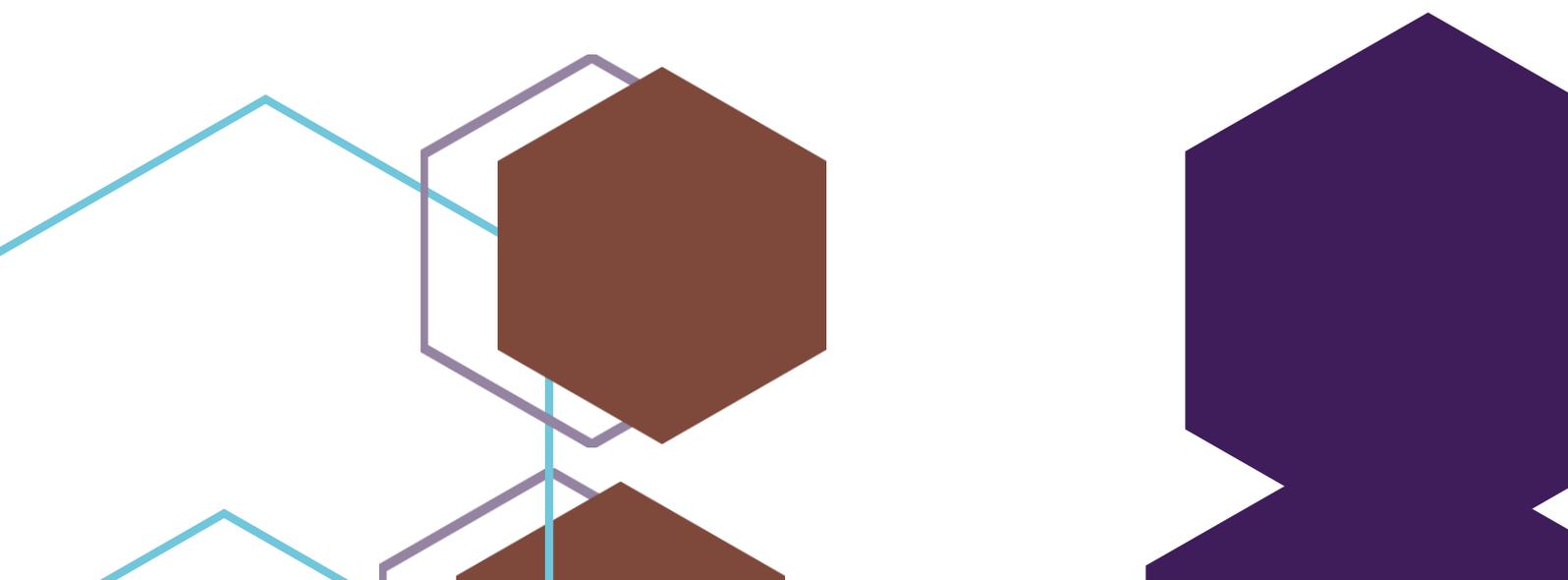
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Our Past Work as WHESS

What is health economics?

Health economists are interested in how we use scarce resources to fund our health and social care needs through focusing on the relationship between costs and outcomes. Health economic evaluations help us to answer questions about the health benefits that can be gained from health and care interventions (such as medicines, surgery, medical devices, social care, rehabilitative or preventative services), given the resources available.

WHESS, the **Welsh Health Economics Support Service**, was funded up to March 2020 by Welsh Government through Health and Care Research Wales to support medical and social care research, improve the quality of funding applications and aid health-related decision-making across Wales.

How could WHESS help?

Between 2018 and 2020, WHESS provided health economics support on all aspects of research including:

- Study development
- Building collaborative relationships
- Costing of interventions, National Health Service (NHS) and societal resources
- Economic evaluations such as cost-effectiveness and cost-utility analysis, based on clinical trials and/or economic modelling
- Systematic and realist reviews and epidemiology
- Priority setting methods including Programme Budgeting & Marginal Analysis (PBMA)
- Social Return on Investment Analysis (SROI)
- Patient Reported Outcome Measures (PROMs)
- Preference elicitation studies, such as discrete choice experiments
- Use and analysis of routine data
- Publishing and disseminating outcomes to other researchers, funders such as government and charities, and to patient groups



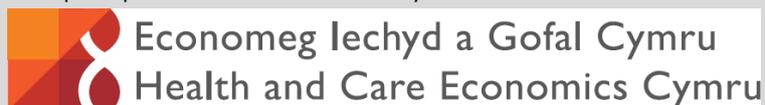
Who we helped...

We supported researchers working in academic, health and social care settings across the NHS in Wales who required health economics support from the early conceptual stages of proposal planning through to the final report stage and the dissemination of information.

Foreword

WHESS becomes Health and Care Economics Cymru

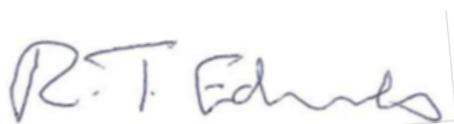
WHESS has changed its name to **Health and Care Economics Cymru from April 1st 2020**. This reflects our ambition as an all-Wales community of world-class health economics expertise leading and supporting world-class research for the benefit of the people of Wales and beyond.



We are delighted to announce the excellent news that we have been funded for a further three years beyond April 2020 as Health and Care Economics Cymru, co-directed by Professor Deb Fitzsimmons and myself. In this, therefore last, annual report for WHESS, we showcase how we continued to **develop our contribution across health and social care research in Wales** through sustained and effective collaboration, as an all-Wales service. We gained real prominence at the Health and Care Research Wales conference in October 2019. During 2019-20, we demonstrated how we **responded, adapted and grew with the changing landscape** to continue supporting the strategic objectives of Health and Care Research Wales. We further embraced the importance of social care and prevention across the life-course, which was emphasised most recently on an unprecedented scale due to the Covid-19 pandemic. In upcoming years, resources for health and social care will be stretched as never before. Health economics will be crucial to mitigate the unintended damage to the health and care sector caused by the necessary response to the pandemic. We need to ensure that we use scarce resources in innovative, efficient ways across health and social care. Our progress in engaging with health, social care, third sector and life science organisations this year places us in a prominent position to do this in the difficult period ahead.

This report summarises our key achievements and the impact of our collaborations over the past 12 months.

We hope you enjoy reading it.



Professor Rhiannon Tudor Edwards
WHESS Director





Plain English Summary

Never have we appreciated our NHS more than in recent months with the experience of the Covid-19 pandemic. However, resources for health and social care are limited. **Difficult decisions need to be made about how to get the most benefit from these resources.** Welsh health economists, as part of the Welsh Health Economic Support Service (WHESS) can help to find out about the value for money of different treatments and interventions. This will enable us to keep people healthy and well cared for across Wales.

This year, we are delighted to announce that WHESS became Health and Care Economics Cymru from April 2020. This reflects our collaborations with researchers in the NHS and social care across Wales and the UK, and internationally too. From April 2020, Health and Care Economics Cymru will be headed up by Professor Deb Fitzsimmons from Swansea University and Professor Rhiannon Tudor Edwards from Bangor University as an all-Wales collaboration. At a UK level, WHESS contributed to successful grant capture of over £2.1 million, of which £1 million came directly into Wales. This means that of the successful grant applications we were engaged in during the last year, over half were Welsh-led, demonstrating the extent of our collaborations with Health and Care Research colleagues across Wales, but also the role we are playing at a UK level. We also supported Welsh Government on policy and decision-making.

Health and Care Economics Cymru will continue to support health and social care research in Wales and beyond in the coming years, facing the “new normal” and all its challenges after the storm has passed. We will enjoy sharing our journey with all our funders, project partners and public involvement and engagement representatives.

Our key achievements in 2019/20 include:

For policy makers – Providing senior support to decision-making and policy-making committees (page 10).

For patients and the public - The UK ‘Festival of Social Science’ public-facing programme at Bangor University involving patients and the public in shaping, conducting and sharing our research (page 19).

For primary care staff – workshops to increase awareness, understanding, better planning, increased capacity, and self-efficacy to undertake health and care evaluations (page 21).

For people living with multiple sclerosis (MS) – Implementation of a clinical management pathway, incorporating neuropsychological rehabilitation (the NEuROMs study; page 22).

For people living with chronic conditions - Promoting independence, tackling inequalities and improving outcomes for the poorest by removing barriers to exercise and self-management of conditions (page 23).

For local authorities and charities wanting to demonstrate the social value they are producing – Social Value Training at the Social Value Hub in Bangor (page 27).

Executive Summary

The NHS in Wales faces increasing pressures of a growing and ageing population, rapid medical advances, rising patient expectations and the direct and indirect impact of the current Covid-19 pandemic. **Health economics, which helps us to choose the best way to use our, often limited, available resources by comparing the costs and benefits of different health and care services, is now more important than ever to ensure the NHS and social care system remain sustainable.**

The Welsh Health Economics Support Service (WHESS) **supports health and social care research across Wales to generate evidence that ensures greater impact of public spending.** Strong engagement with key stakeholders, fostered by WHESS, saw us support a wide range of research projects to understand how advances in preventive strategies, diagnosis, treatments and rehabilitation can improve health and well-being and contribute to the economy. We assist researchers working in academic, health and social care settings across the NHS in Wales who require health economics support from early conception through to the final report and publication stages. **Activities in the last year included:**

- **Providing over 690 advice units to researchers across Wales**, ranging from general advice to dedicated bid support, including acting as co-applicants on 55 grant proposals to funders in Wales, UK and internationally.
- **Engaging with our colleagues in the clinical trials units and research centres across Wales** to design high-quality economic evaluations alongside clinical trials and studies.
- Working with NHS Health Boards and Trusts with increasing engagement with social care and third sector organisations to **promote health economics thinking and methods** into their activities and plans.
- Engaging with colleagues in industry to undertake research to **investigate the value for money of their products in development and use.**
- Giving conference presentations, invited talks and visits across the UK and beyond to **promote the work of WHESS.**

We congratulate our early-career health economists who gained promotions and bid farewell to colleagues who moved to new opportunities. **WHESS continues to build research capacity in academic, practice and commercial settings to better meet the increasing need for health economics** across the ever-changing health and social care landscape. We generate knowledge that can be translated into positive impact through our publications and presentations to peers, the public and decision-makers.

As health economics thinking continues to have a significant role in the missions of multiple health and social care agencies locally, nationally and internationally, a key message in all our activities is one of collaboration. We wish to thank our past and current collaborators and welcome new ones, including our expanded advisory board, who may be encouraged by our achievements as we **move into the new era of health economics in Wales as Health and Care Economics Cymru.**



Introduction

THE WHESS MISSION

“To support health and social care research and, through generation of evidence, use ‘economic principles’ to inform and improve decision-making in health and social care in Wales.”

The **Welsh Health Economics Support Service (WHESS)** was funded by the Welsh Government through Health and Care Research Wales and we now go forward as **Health and Care Economics Cymru**. The next three years, as part of the new infrastructure group awards, will see us drive forwards our collective ambitions to deliver world-class research and development, working towards a positive impact on the health, well-being and prosperity of the people in Wales.

We are proud to be an exemplar model of inclusive and collaborative working, providing health economics support and expertise to the health and care community across Wales.

The NHS and social care services in Wales continue to face funding challenges, with enormous new challenges arising from the need to respond to the Covid-19 pandemic this year. **This emphasises the urgency to ensure best use of our scarce health and care resources.** We require evidence on the cost-effectiveness of our technologies, interventions and services to enable delivery of value-based health care.

We continue to make a substantial and distinctive contribution to generating the evidence base to support informed decision-making by health and social care providers across Wales. The challenge is how to **use limited resources to obtain the maximum benefit and value to the people of Wales.**

WHESS researchers at the Welsh Health Economists' Group (WHEG) Annual Meeting 2018 at Gregynog Hall.



Our Activities

Health economics thinking and robust, innovative methods are essential to sustain our NHS throughout the Covid-19 pandemic and beyond. We therefore play an increasing role in supporting health and care policy through research collaborations and our engagement with decision-making.

The need for strong health economics input adds value to the quality and impact of health and care research. The Office of the Secretary of State for Wales, the Medical Research Council (MRC), the National Institute for Health Research (NIHR) and Health Technology Assessment (HTA) bodies, amongst other UK funding bodies, **require research on both the effectiveness of new and existing health and social care interventions, and their value for money.**

We are particularly grateful for the contribution of our public representative, Karen Harrington, who joined us as a co-applicant on our funding bid for Health and Care Economics Cymru.

Did you know...?

In 2019/20, the WHESS team provided over **690 advice sessions** to academic health researchers, NHS and social care researchers, local authorities in Wales and commercial partners to develop large bids and small-scale projects for tender.

Activities in the last year included:

- Collaborating with our colleagues in other Health and Care Research Wales groups and Clinical Trials Units across Wales **to support research-funding applications.**
- Providing dedicated health economics support to the Regional Research and Design Conduct Services (RDCS) in North and Mid, South West and South East Wales. This year, **we supported 10 bids to the 2019 Health and Care Research Wales Research for Patient and Public Benefit and Pathway to Portfolio Scheme.** We also provided **420 hours of support** via the RDCS.
- Engaging with health and social care organisations, including NHS Wales Health Boards and Trusts, Public Health Wales and Local Authorities in providing health economics advice and support ranging **from raising awareness of health economics to undertaking commissioned work to generate evidence for service development.**
- Collaborating with the third sector and commercial companies, including funding application support to **further the development and evaluation of affordable and effective health technologies.**
- Providing health economics support for decision-making and policy formulation for Wales to **ensure sustainability of health and social care.**
- Building health economics capacity in Wales.
- Engaging the public in health economics research.



Building Health Economics Capacity

“Health economics has always been **important in the design and delivery of health and social care across Wales** but becomes crucial now as we move forward and work to minimise the health and economic harms from coronavirus.”

Dr Brendan Collins
Head of Health Economics
Welsh Government

One of our key objectives as WHESS was to build health economics capacity and expertise across Wales by growing our talented team. We have a track-record of **successfully training the next generation of health economists**, in part directly attributed to the support from Health and Care Research Wales. This has included securing permanent posts for many of our researchers and achieving several promotions ranging from lecturer to professor for WHESS-supported staff.

This last year, we focused on **nurturing a health economics community** beyond our academic units to enable health economists, or those who utilise their health economics backgrounds in their professional roles, to collaborate and share their experiences with our researchers to learn from each other. This unites health economists from the All Wales Therapeutics and Toxicology Centre (AWTTC), Health Technology Wales (HTW), Health Boards, and Public Health Wales as part of one virtual community.

Our **Welsh Health Economists' Group (WHEG) meeting brought together the community** this year at Bangor University (see more on pages 30-31). We enjoyed discussions with Matthew Prettyjohns and Tom Winfield (health economists at HTW) and Rajendra Kadel (health economist at Public Health Wales) in a morning session devoted to their activities within their respective organisations.

We are also delighted to welcome Brendan Collins, Chief Health Economist for Welsh Government, to our Advisory Board, which will test and challenge our progress over the next years and **provide valuable advice** to our research strategy.

Matthew Prettyjohns sharing the Health Technology Wales remit at the WHEG meeting in October 2019 at Bangor University.



Our Researchers

Health and Care Research Wales funding for WHESS partly supports 20 full-time and part-time researchers and administrative staff across Wales.

These staff are part of the two academic health economics units in Wales: the [Centre for Health Economics and Medicines Evaluation](#) (CHEME) at Bangor University and the [Swansea Centre for Health Economics](#) (SCHE) at Swansea University.

Our WHESS researchers have an impressive range of skills and experience to support our activities across the wide spectrum of trials, studies and activities on which we collaborate.

In 2019/20, our researchers' achievements included:

- **Professor Deb Fitzsimmons**, who has been a significant member of WHESS for over 10 years, now takes on the steering of **Health and Care Economics Cymru** as incoming Co-Director.
- **Professor Rhiannon Tudor Edwards** was appointed Honorary Professor of Health Economics in the Institute of Population Health Sciences, University of Liverpool, **strengthening research links** between North Wales and the North West.
- **Dr Mari Jones** and **Dr Berni Sewell** were shortlisted finalists in the category "**Outstanding impact on health and well-being**" at the Swansea University Research and Innovation Awards for their collaborative work with the team of the Rapid Diagnosis Centre.
- **Professor Dyfrig Hughes** joined the Health and Care Economics Cymru team bringing his expertise in pharmacoeconomics to help shape the future of Welsh health economics.
- **Dr Nathan Bray** and **Dr Carys Jones** progressed their Health and Care Research Wales fellowships in the areas of **health-related quality of life measurement in mobility** and the role of the third sector in **supporting carers of people with dementia**, respectively.
- **Dr Llinos Haf Spencer** organised two public engagement events to **celebrate health economics as part the social science research festival** (page 19).

Did you know...?

One of the most important and unique areas which WHESS provides experienced needs-led support and health economics advice to is for health and care organisations and the NHS.

In 2019/20, this included:

160 hours of support to **Health Technology Wales**

45 hours of support to the **NHS Wales Cell and Gene Therapy Health Economics Group**

130 hours of support to the **All Wales Strategic Medicines Group and New Medicines Group**

125 hours of support to the **NHS Wales Evidence Based Procurement Board**

50 hours of support to the **NHS Wales Interim Pathways Commissioning Group**

The decisions made by these bodies affect the health and care given to the people of Wales and we are proud that our contribution supports Wales in this meaningful way.

I am delighted to be joining Rhiannon as co-director of Health and Care Economics Cymru for the next three years to continue our support for Welsh Government, Health and Care Organisations and the NHS in Wales and beyond.



Deb Fitzsimmons
WHESS Collaborator and Health and Care Economics Cymru Co-Director

This year, I enjoyed providing advice to a working group, strengthening the collaboration between Betsi Cadwaladr University Health Board and Bangor University. We especially discussed the future of medical education in North Wales.



Rhiannon Tudor Edwards
WHESS Director and Health and Care Economics Cymru Co-Director

Work Packages and Themes

Our work is organised into two main areas called work packages. We also focus on four themes that cut across these two work packages.

Work Package 1: Supporting Welsh Government and Health and Social Care Organisations

Our health economics service supports decision-making and the practice and dissemination of research. It encompasses introduction to and application of 'health economics thinking', bringing knowledge of health economics frameworks and research and evaluation methods. This facilitates prioritisation, resource allocation, design of research and evaluation projects and analysis of the organisation's own data.

We do this in two main ways.

1. Providing senior support to decision-making and policy-making committees including:

- All Wales Medicines Strategy Group (AWMSG)
- Evidence Based Procurement Board (EBPB)
- Health Technology Wales (HTW)
- Welsh Health Specialised Services Committee (WHSSC)
- Health and Care Research Wales Health Awards and Research for Patient and Public Benefit Grant Panels

2. Delivering targeted and needs-based advice units and workshops for different audiences including...

- Health Boards and Trusts
- Local Authorities
- Public Health Wales
- Welsh Government teams

We provide one-to-one advice ranging from general advice, workshops on how to use and apply health economics thinking and methods through to submitting bids and tenders to support evidence-based commissioning of services and interventions.

Work Package 1 Activities in 2019/20 included:

- Dr Pippa Anderson and Professor Deb Fitzsimmons continued to support the New Medicines Group as Lead and Deputy Health Economists.
- Dr Pippa Anderson supports the Evidence Based Procurement Board on both its committees and the Health Technology Wales Assessment Group (with Professor Deb Fitzsimmons as deputy member).
- Dr Pippa Anderson supports the Health Technology Wales Appraisal Panel.
- Professor Deb Fitzsimmons continued to support CReST Cymru, the strategy oversight board for **the development of a revised National Cancer Strategy for Wales**.
- Dr Berni Sewell and Dr Jo Charles supported the One Wales Interim Pathways Commissioning Group.
- Dr Pippa Anderson and Dr Berni Sewell supported the All Wales Medicine Strategy Group (AWSMG) at their training day on the 15th January 2020.
- Julia Lowin and Dr Pippa Anderson continue to support work for the Evidence Based Procurement Board.
- As part of the current service level agreement with the All Wales Therapeutics and Toxicology Centre (AWTTC), Dr Pippa Anderson, Professor Dyfrig Hughes and Professor Deb Fitzsimmons are undertaking a commissioned project to **develop a disinvestment framework for medicines**, supporting AWSMG strategic objectives. This work will be presented to the AWSMG board in June 2020.
- Professor Rhiannon Tudor Edwards, Dr Llinos Haf Spencer, Bethany Anthony, and Lucy Bryning launched the “Wellness in Work” report, produced in conjunction with Public Health Wales.
- Dr Carys Jones will be leading on the economic evaluation of a one-year study to **evaluate the suitability and viability of a rotational model of Advanced Paramedic Practitioners in primary care**, funded by Betsi Cadwaladr University Health Board and the Welsh Ambulance Service Trust.

The “Wellness in Work” report published in collaboration with Public Health Wales.



Work Package 2: Developing an All-Wales Health Economics Workforce and Expertise to support the health and social care research community in Wales

I enjoyed collaborating with the team of the South East RDCS at their Writing Day in September 2019 in Cardiff. It is very rewarding to **support NHS professionals and clinical researchers in formulating their research ideas**, incorporating health economics from conception of new research and seeing their initial thoughts come to fruition in a funding bid that has the potential to impact health and care practice in Wales and beyond.



Berni Sewell
WHESS Co-Investigator

We actively support the growth of a health and social care research community that produces excellent research and outputs, with specific remit to develop capability and capacity within the speciality of health economics. This impacts the way health and social care is delivered and benefits the health, well-being and prosperity of the people in Wales.

We do this in three key ways:

- 1. We develop a strong, cohesive and sustainable community of health economists** in order to deliver health economics support.
- 2. We work through the regional Research Design and Conduct Services** to provide equitable support across Wales to health economics expertise.
- 3. We collaborate with clinical trials units, Health and Care Research Wales Centres and Units and other researchers across Wales** to enable health economics to be included in all health and social care research, from conception of proposals to dissemination of final results.



Dr Berni Sewell delivering a Health Economics 101 workshop to 55 NHS professionals, decision-makers and members of the public in collaboration with Health Technology Wales and Life Sciences Hub, Cardiff Bay.

Work Package 2 Activities in 2019/20 included:

- WHESS researchers were co-applicants on the Kemp et al. (RfPPB-18-1502) and Morgan et al. (HRG-18-1494) studies awarded in July 2019.
- WHESS researchers collaborated with clinical trials units and other Health and Care Research Wales infrastructure groups **to submit 10 grant applications** to the 2019 Research for Patient and Public Benefit funding round and the Pathway to Portfolio scheme.
- Dr Jo Charles and Professor Rhiannon Tudor Edwards, in collaboration with Liverpool and London City Universities and Liverpool Women's Hospital, submitted three bids aimed to **improve perinatal care for staff and women suffering post-traumatic stress disorder (PTSD) after traumatic childbirth**.
- Professor Rhiannon Tudor Edwards is Honorary Professor at Liverpool and through these collaborations has joined two bids to NIHR panels, one relating to **food systems security and non-communicable disease**, and one on **the impact of income on mental health** in a deprived area in Liverpool.
- Dr Carys Jones disseminated findings from the Health Precinct study (see page 23). The study evaluated the impact of social prescribing to a physical activity programme on the **health and well-being of older people with chronic health conditions**.



This year has seen me immersed in the measurement of 'well-being' – a simple word which, when unpicked, often has different meanings for different people. Depending if you are a member of the public, a patient, an economist, a psychologist or a politician, the meaning can be different. That's the joy of this job... getting to the very heart of what's important to people as the true purpose of health and care policy.



Pippa Anderson
WHESS Co-Investigator

Dissemination event of the Health Precinct study at Eirias Park Event Centre, Colwyn Bay, January 2020.

Cross-cutting theme 1: Commercial Engagement and Collaboration

Bethany Anthony, Professor Rhiannon Tudor Edwards, Dr Victory Ezeofor and I completed the Butterfly study, a successful collaboration with Liverpool's Women's Hospital on the development of a **new device to stem post-partum haemorrhage in childbirth**, funded by NIHR.



Lucy Bryning
WHES Research Officer

Did you know...?

In 2019/20, WHES provided **420 research advice hours** via the Wales Research Design and Conduct Services, and gave over **500 hours of senior support to decision-making and policy committees in Wales.**

This theme brings together stakeholders in Public Health Wales and Health and Social Care organisations (e.g. Local Authorities, Health Boards and Trusts) to collaborate with commercial enterprises which develop products and services in Life Sciences and Social Care.

We help to identify health economics research and evaluation opportunities and acquire funding to design, execute and analyse projects that enable **technologies and services to be assessed in terms of their value in improving the health and well-being of the people in Wales.**

In 2019/20, our partnerships included:

- Dr Pippa Anderson was part of a bid submission to **develop and test a diagnostic approach to type II Diabetes Mellitus** at population level with the Diabetes Research Unit Cymru to Innovate UK.
- Professor Rhiannon Tudor Edwards and Dr Nathan Bray are completing a semi-commercial EU-funded evaluation of the FLOW-OX boot in the **treatment of patients with lower limb ischemia.**
- Dr Pippa Anderson is in discussion with Swansea University School of Management to extend ongoing work funded by Pfizer UK and Pfizer Inc. to include health economics as part of the **development of a Faculty for Executive Education in Value Based Health Care.**

Did you know...?

During 2019/20, WHES researchers supported 34 Welsh-led research grant funding applications and collaborated on 55 research projects led by Welsh researchers. We helped to **generate over £1.2 million of research income** in Wales.

Cross-cutting theme 2: Engagement with the Welsh Government funded research infrastructure

We collaborate with Health and Care Research Wales infrastructure groups through supporting their activities that require health economics support. **This includes:**

- Representing WHESS on Heads of Centres and Units meetings and at Health and Care Research Wales Directors meetings.
- Providing advice units on health economics to researchers within the Health and Care Research Centre and Units - from raising awareness to supporting research development groups.
- Working with Clinical Trial Units, Health and Care Research Wales Centres and Units on developing research funding applications as co-investigators.
- Supporting the dissemination of research findings including engaging with the public. This is important to bring research income into Wales, create research jobs and add to the national and international standing of health and social care research undertaken in Wales, **which can have a real impact on patient and population health now and in the future.**

Activities in 2019/20 included:

- Working with PRIME, alongside Tenovus Cancer Care and Leeds and Sheffield Universities, Dr Berni Sewell is co-investigator on the ABACus Phase 4 Grant application to evaluate a targeted behaviour change intervention to **increase cancer awareness among adults living in socioeconomically deprived communities.**
- Dr Pippa Anderson, in collaboration with the Centre for Trials Research and St George's NHS Trust, submitted a research grant **evaluating an innovative stroke rehabilitation programme** as a stage two application to NIHR.
- Dr Berni Sewell has been invited to collaborate with the **BRAIN Unit and the Cardiff University Huntington's disease network** as lead health economist.
- Katherine Cullen has been appointed as independent health economist to the **Child and Adolescent Mental Health Services (CAMHS) Crisis Study** Steering Committee, led by Cardiff University.

The Mental Health Implementation Plan highlights the need for effective evidence-based services for children and adolescent mental health. As a member of the CAHMS study stakeholder advisory group, I have the great opportunity to collaborate with the project team, mental health professionals, patients and carers **to guide and support this project and nurture the close working relationship** between Swansea and Cardiff Universities.



Katherine Cullen
WHESS Health Economist

Cross-cutting theme 3: Communications and Knowledge Transfer

We continued our successful collaboration with colleagues at Neath Port Talbot Hospital to update the analysis conducted on the cost-effectiveness of the Rapid Diagnosis Centre (RDC) for patients with vague symptoms that could be due to cancer. Again, it was a pleasure to work with the RDC team.

The results of the first study were **published in February 2020 and widely shared in the media** (reaching over 1 million people). We gave various BBC radio and TV interviews and I was even featured on the Welsh evening news.



Mari Jones
WHESS Health Economics
Modeller

We communicate our research through journal articles and other peer-reviewed publications including reports published by the National Institute for Health Research. Furthermore, we utilise a range of media to communicate complex and conceptual ideas to a wide audience of stakeholders, for some of whom research terms may be unfamiliar.

Clear public involvement and engagement is crucial to the successful communication of our work and makes our research more accessible for policy audiences. We therefore collaborate with research teams and the public and patient partners who support the research studies to ensure the value of the health economic contribution is not lost in translation.

Activities in 2019/20 included:

- Dr Berni Sewell and Dr Pippa Anderson **delivered three Health Economics 101 workshops to over 120 NHS professionals** from various health boards, trusts and committees as well as delegates from industry and public and patient involvement and engagement representatives hosted by Health Technology Wales (HTW) and the Life Sciences Hub in Cardiff Bay.
- Following the success of a series of workshops delivered through HTW Wales and the Life Sciences Hub, SCHE have been commissioned to develop a further series of workshop **focussing on value-based health care**.
- Dr Ned Hartfiel, Dr Mary Lynch, Dr Nathan Bray and Dr Joanna Charles delivered a one-day health economics workshop to Cheshire County Council **attended by public health consultants, social prescribers and service commissioners**.
- Dr Nathan Bray was an invited lecturer at the British Association of Dermatologists conference in Liverpool, where he talked about **health economics in dermatology** during the plenary session. He also presented findings from his fellowship research project at the International Health Economics Association (iHEA) conference in Basel, Switzerland.
- Lucy Bryning attended a symposium on 'Public values and plurality in health priority setting: consistency, coherence and consensus' in October 2019 in London.

Cross-cutting theme 4: Social Care

It is essential that social care outcomes are defined from the perspective of people who use services and their carers. Our support helps evaluate social care services. This shows us how well they meet the requirements of resources and costs of providing long-term care in the future as population needs grow and evolve, including the value of unpaid care associated with social care services or interventions.

We are also supporting social care organisations to ensure the outcome measures that are developed and selected are appropriate.

We provide support through:

- Identifying and working with local and national care groups to **introduce the value of incorporating a health economics perspective to their research** ideas and programmes.
- Engaging with the Wales School for Social Care Research to support their activities, bring the health economics perspective into their research programmes and **provide support to grant applications**.
- Providing advice to individuals and groups on how to incorporate economics principles and methods to **generate evidence for their decision-making**.
- Leading and contributing to bids with other research groups to **evaluate social and public sector interventions and services**.

By providing this support the value of social care can be identified, researched, data captured and communicated so that social care funds are invested wisely.

We have continued to engage with NHS Health Boards and Trusts, Social and Third Sector organisations and Public Health Wales in providing health economics advice and support ranging from one-on-one advice sessions through to undertaking commissioned evaluations to inform service delivery.

Eira Winrow and I presented a **teaching session on social return of investment** to the Wales Arts Health and Wellbeing Network, including local government and third sector delegates, at the Big Pit National Coal Museum in Blaenavon, Torfaen in September 2019.



Ned Hartfiel
WHES Research Officer

Professor Rhiannon Tudor Edwards and I are working with Women's Aid and Safer Lives through the Big Lottery Scheme to evaluate ways of **delivering support to prevent and manage domestic violence**.



Eira Winrow
WHES Research Officer



Patient and Public Involvement and Engagement

WHESS works with patients and the public, mainly as part of research teams, to generate, disseminate and use high-quality evidence to support making the best choices for patients and the public in Wales and beyond.

Key activities to extend our public reach include:

- Ensuring public consultation through our research, e.g. **by working with public contributors to inform the Wellness in Work report**, commissioned by Public Health Wales.
- Working as part of trial and project teams where **patient and public involvement is a core activity**. This was enhanced in several projects, such as the Gwynedd Bus Project, the Health Precinct study, the Early Mobility and Powered Wheelchair Evidence Review (EMPOWER) project, the Patient Centred Benefit Risk Assessment of Treatment for Colorectal Liver Metastases (PaCT_CRLM) study, and the Mobility and Quality of Life (MobQoL) project.
- Supervising two PhD students who explore what matters most to patients in cancer service delivery and how patient and citizen values can be incorporated into activation programmes **to support people living with cancer (page 26)**. These innovative projects exemplify how Patient and Public Involvement and Engagement can inform and shape health economics thinking and methods.
- **Providing training and experience to our researchers in involving and engaging patients and public** in our work, e.g. during the Festival of Social Sciences event at Bangor University (page 19) and engaging with the public in the development of lay summaries for funding bids.
- **Raising awareness of health economics through attending events and providing training** such as workshops hosted by Health Technology Wales and Life Sciences Hub which are open to the public and the Festival of Social Sciences.

Public Involvement representative helping to disseminate Health Precinct project findings at the dissemination event in Eirias Park Event Centre, Colwyn Bay, January 2020.



Engaging with patients and the public: The ESRC Festival of Social Science

As part of the ESRC Festival of Social Science on the 7th November 2019, WHESS researchers at Bangor University, together with Karen Harrington, our public involvement and engagement representative, co-hosted two free **public engagement events to showcase health economics research** into social prescribing and wellness in Wales and to help shape the direction of future research projects.

The events linked to all four themes for 'taking Wales forward' in the 'Prosperity for All' National Strategy including 'Prosperous and Secure', 'Healthy and Active', 'Ambitious and Learning' and 'United and Connected'. It provided an opportunity for local people to discover, debate and discuss social science research and obtain an insight into the work of health economists and the importance of value-based health and social care.

Presentations at the event included:

- Dr Ned Hartfiel's talk about the evaluation of the Health Precinct project at Colwyn Bay (the evaluation was funded by Health and Care Research Wales). Two members of the public were involved on the project advisory board.
- Highlights of the work by Dr Nathan Bray, Dr Lorna Tuersley and Dr Carys Jones with funding from Public Health Wales on prevention through the life course including [Transforming Young Lives](#), [Living Well for Longer](#) and [Wellness in Work](#).
- Dr Leah McLaughlin's and Dr Joanna Charles' presentation on their on-going dialysis choices



The event was very informative and highlighted forward thinking research being undertaken here in Wales. The evidence from the research demonstrated **the positive impact on social prescribing on our individuals' wellbeing.**



Karen Harrington
WHESS Public Representative

Rhiannon Tudor Edwards reflecting on the health economics of caring through the life-course at the ESRC Festival of Social Sciences.



Our Key Achievements

We had a very productive year in 2019/20. We focused on strengthening our patient and public involvement and engagement activities, continued senior, needs-led support to health and care organisations in Wales and grew our presence on the Welsh and UK research platforms. We also worked hard on putting together our successful funding application for the next three years as Health and Care Economics Cymru.

The following case studies highlight our achievements.

Supporting clinical colleagues across NHS Health Boards and Trusts

We were delighted to support the PLACEMENT study, a feasibility trial led by Mr Chris Twine, Aneurin Bevan University Health Board, the Centre for Trials Research and colleagues **to evaluate the use of perineural anaesthetic catheters to reduce post-operative pain** for people undergoing lower limb amputation.

We investigated the costs of the intervention and its impact on health care resource use, and explored the potential benefit to patients in improving quality of life.

We are now looking forward to developing an application for a full efficacy trial.

Mari Jones and Berni Sewell at the Swansea University Research and Innovation Award ceremony with the Swansea Bay University Health Board Rapid Diagnosis Centre (RDC) team, January 2020.

Honours and Awards



Professor Rhiannon Tudor Edwards was appointed Honorary Professor in the Institute for Population Health Sciences at the University of Liverpool. She was also awarded the 2019 Bangor Institute for Health and Medical Research Early Career Researcher-led research support award.

The SCHE team were shortlisted for a Swansea University Research and Innovation Award for their collaboration with the Rapid Diagnosis Centre (RDC) for cancer.

Supporting the transformational programme of change to primary care and community services in Wales

What was the question that WHESS could help with?

WHESS research and evaluation staff have an established reputation in delivering a first-class research and consultancy service to organisations within the health care sector. We support NHS organisations with mixed-methods evaluation through to economic modelling to inform service planning and delivery. Dr Liv Kosnes developed and delivered Evaluation and Logic Model Workshops to a variety of Public Health Wales teams. They were commended for their bespoke nature and capacity building agenda and the quality assured and tested teaching and learning methods. These workshops aim to provide attendees with tools that support them to plan and evaluate their services and programmes and **further important understanding what evaluation is (and what it is not) and what methods can be used to deliver robust evidence** for use by decision-makers and health professionals within local, real-world contexts.

What did we do?

Dr Liv Kosnes and Rhys Pockett worked with the Primary Care Hub to develop learning resources for five workshops, delivered across Wales. Primary care staff learned to use logic models and to identify indicators for measurement to frame programme development and facilitate a comprehensive evaluation, along with **confidence and capacity to articulate clear evaluation aims, objectives and good evaluation design**. The workshops were supplemented with one-on-one clinics for workshop participants to provide additional support and advice on the development and evaluation of specific projects.

What is the expected impact?

The workshops received excellent feedback, suggesting the short-term outcomes of **increased awareness, understanding, better planning, increased capacity, and self-efficacy to undertake evaluations** were met. Longer-term outcomes will be captured in a follow-up of attendees.

The work supports the recommendations made in the Pacesetter programme's critical appraisal and a wider range of guidance and policy documents in Wales, such as 'the Quadruple Aim', 'Prosperity for All' (specifically, delivering quality health and care services fit for the future; equipping everyone with the right skills for a changing world), 'A Healthier Wales' and the parliamentary

One of our WHESS objectives is to develop capability and capacity within the speciality of health economics. This last year, I particularly enjoyed collaborating with the Primary and Community Care Development and Innovation Hub on these workshops across Wales. We introduced applied health economic thinking and frameworks to research and evaluation to **foster individual and organisational abilities to use evaluation to improve results**.



Liv Kosnes
WHESS Management Team

Working across the UK:

Our contribution to national research programmes

What was the question that WHESS could help with?

WHESS researchers have a track-record of working with leading UK research groups across social care and third sector organisations in a number of fields including dementia, asthma and multiple Sclerosis (MS). We have a considerable track-record of success **working with a leading research group, based at the University of Nottingham and Nottingham NHS Trust in neuropsychological interventions**. In the current WHESS funding period, we have contributed and delivered substantial health economics evaluations for two NIHR HTA trials to provide cost-effectiveness evidence to inform decision-makers, service commissioners, health professionals and the public of the value of these interventions.

What did we do?

We provided support and expertise and are leading the health economics work package of a 6-year NIHR programme grant for applied research to develop, evaluate and implement a clinical management pathway, incorporating **neuropsychological rehabilitation in MS** (the NEuROMs study). Addressing the cost-effectiveness of the programme and the economic impact to the NHS, patients and society was a vital objective. We also planned a novel approach (based on our expertise in using logic models to support health economics evaluation) to document the potential issues for service capacity and workload planning for commissioners as part **of informing the programme's proposed implementation strategy**. This programme of work commenced in 2019, with a budget of £1,836,000.

What is the expected impact?

The study was launched on World MS Day on 30th May 2019, with [a dedicated website](#). This work enables WHESS to 'promote and protect Wales' place in the world'. By fully engaging on the UK stage, we nurture relationships with key UK-wide groups, and develop international relationships as a result of growing our visibility, presence and performance beyond Wales. We will also contribute to 'delivering quality health and care services fit for the future' in **supporting high value services and interventions for people with MS**.

Improving health inequality in chronic conditions

What was the question that WHESS could help with?

The Health Precinct is a partnership between Conwy County Borough Council, Betsi Cadwaladr University Health Board (BCUHB), Public Health Wales and the Welsh Rugby Union. It uses Independent Care Funds from Conwy Council to **promote independence for people with chronic conditions** and focuses on **tackling inequalities and improving outcomes for the poorest** by removing barriers to exercise, and promoting co-production and self-management of conditions.

What we did?

Funded by the Health and Care Research Wales Social Care stream, we evaluated the impact of the Health Precinct on the well-being and social participation of its participants, and explored the factors that lead to successful implementation of, and engagement with, the Health Precinct.

Dr Carys Jones oversaw the exploration of Health Precinct data on patterns of attendance, evaluated the factors associated with successful implementation and client engagement and led a social return on investment analysis exploring the social value generated by the Health Precinct.

What is the impact?

If social participation and community-based assets are improved, existing initiatives need to be evaluated to understand what works and for whom, and to confirm the value generated by these initiatives. Our findings suggest that the social return on investment ratio of benefits to costs was **£5.07 of social value generated for every £1 invested in the Health Precinct**. Over half of the clients lowered their Body Mass Index, a third improved their blood pressure and quality of life improved after 16 weeks. This study provides clear evidence of the social value and benefits of the Health Precinct, along with an explanatory theory of how and why the initiative is successful.

The study findings were shared with a wide range of audiences, enhancing existing links with key stakeholders and generating interest in new collaborations.

Did you know...?

In 2019/20, WHESS researchers supported 19 events attended by **360 members of the public** and disseminated 34 **peer-reviewed publications**.

Collaborating closely with key Health Precinct stakeholders throughout the study ensured that **the research was relevant for both service users and those who organise and deliver the Health Precinct**. This collaboration helped to close the gap between research production and research use, and accelerate the pathway to impact.



Carys Jones
WHESS Research Officer

Working in partnership with Welsh institutions: The TRIAGE study

The TRIAGE study was an invaluable experience, offering new findings on health care pathways, medication non-responsiveness and adherence, implementation of complex interventions, and patient experience. We published two articles with a third under review and **opened up new dialogues on the management of chronic eye conditions such as glaucoma.** I'm delighted that my work on the study led to my transition into WHESS, collaborations on new research studies and my professional development.



Simon Read
WHESS Research Officer

What was the question that WHESS could help with?

The research, in collaboration with Cardiff University, explored **changing pathways for clinical care for people with glaucoma.** Patients with glaucoma can develop higher-than-expected intraocular pressure (IOP) despite being prescribed ocular hypotensive eye-drops. This can be problematic for clinicians given that IOP is a product of both the physiological response and patient adherence.

What did we do?

In collaboration with the RDCS, we supported a successful grant to the Health and Care Research Wales Research for Patient and Public Benefit (RfPPB) scheme. The study assessed whether the Cardiff Model of Glaucoma Care (CMGC), a clinical pathway aimed to unpick these issues, was acceptable to patients and health care professionals, and provided **novel information on non-responsiveness and non-adherence to latanoprost ocular hypotensive treatment.** We evaluated the resource impact and costs of the CMGC pathway relative to usual care and found solutions to challenges in the recruitment and delivery of the research. WHESS health economists worked closely with the qualitative research team and contributed to development of themes and recommendations together with delivering the health economics components. Such contributions are crucial to change the common perception that health economists '*just do the costing at the end*'.

What is the expected impact?

The fruitful cooperation with Dr Simon Read, the sociologist on the study team, resulted in a further collaboration on another research project and we learned more about each other's disciplines to mutual benefit. Simon has now joined SCHE and WHESS as a researcher, to harness this synergy to support other studies.

The health economics contribution was critical in identifying that the new pathway would incur minimal financial or resource impact if the pathway was changed. Other barriers to change were identified but removing financial worries is essential for gaining the attention of service managers. The study **provided robust evidence to inform glaucoma pathway development with improved clinical benefit** as part of delivering quality care to improve the health for individuals and families in Wales.

Investigating patients' preferences for bowel screening: The WASH study

What was the question that WHESS could help with?

This WASH study aimed to **investigate patients' preferences for bowel screening**, using the flexible sigmoidoscopy (FS) procedure to look for the presence of colorectal cancer. WHESS researchers conducted a discrete choice experiment (DCE) to explore the relative importance of different aspects of FS to patients.

What did we do?

We designed a DCE experiment with five attributes which were based on a purposive literature review, WASH randomised controlled trial (RCT) information and qualitative interviews with clinicians involved in the WASH RCT. Procedural pain was described in terms of three possible levels, whilst all other attributes (missing an abnormality, procedure time, bowel cleansing, and complication) were described using two levels. The DCE used an experimental design catalogue which resulted in eight hypothetical binary choices that were presented to patients in the WASH RCT, 24 hours after their FS procedure. Patients were asked to choose (or make trade-offs) between the attributes in the DCE tasks by comparing the variation of levels of attributes between pairwise choices and then choosing between the two or more competing hypothetical scenarios, thus revealing their relative preference for different attributes.

DCE data were analysed and attributes scaled with respect to meaningful changes, informed by the WASH study team, to establish a rank order of importance.

What is the expected impact?

This WASH patient preference DCE showed that information about pain and potential effectiveness of FS should be given to patients before they make a choice regarding FS options. Patients also preferred shorter time procedures over a longer time period and patients would be willing to endure more pain for less false negative results.

WHESS researchers **contributed an important aspect of patient perceptions and preferences to a study looking to reduce pain and discomfort levels for patients** receiving a sigmoidoscopy for the investigation of potential bowel cancer.

Seow Tien Yeo valued working with Professor Matt Rutter and his team on the WASH study to develop the discrete choice experiment. I enjoyed the collaboration of the CHEME and WASH teams during publication of the DCE results in a health economics journal.



Llinos Haf Spencer
WHESS Management Team

Focus on Value

Capturing patient and public values in cancer

I am currently building an evaluation framework for the cancer care setting based upon the values of a broad range of health care stakeholders. After navigating the planning stages of the project, it is rewarding to be working with participants in an effort to shape their health care service. Discussions around health care and health care delivery are now more crucial than ever, making this project very timely as an arena for patients, carers and the public to make their voices heard and **collaborate on shaping a future health care service that is valued by all.**



Rebecca Summers
WHESS PhD Student

What was the question that WHESS could help with?

WHESS researchers developed a PhD Project with Velindre NHS Trust to support the creation of a value-based framework to evaluate innovations in patient activation and education, centred around the development of Artificial Intelligence (AI) technologies. The project seeks to develop a value-based set of criteria that incorporates patient- and citizen-centred values into evaluation. This work supports Velindre Cancer Care's mission to '*deliver best quality patient care, world class education and research*' aimed to **understand, describe and measure the concept of 'value' in cancer care, capturing patient and public perspectives.**

What did we do?

Collaborating with Phillip Webb, Director of Strategic Planning, and Professor Peter Barrett-Lee, then clinical director at Velindre NHS Trust, an application was made and awarded from the KESS II programme which enables Universities to work with companies to deliver collaborative research projects and higher skills training. Rebecca Summers, a qualified nurse recently returned to Wales after completing a Masters at Oxford Brookes University, wishing to develop a career in qualitative health economics and health services research, was recruited to the project.

What is the expected impact?

The PhD has just entered its second year, with several presentations given to Velindre Cancer Centre committees including its patient and public panel. Rebecca's work was selected for presentation at the KESS II PhD conference in Hungary in Spring 2019, and presented at the Welsh Health Economists' Group (WHEG) meeting in October 2019. Outputs are in preparation for the early phase work describing value-based care from the perspective of senior opinion leaders and health care professionals.

Calculating social value: Update on the Bangor Social Value Hub

What was the question that WHESS could help with?

Last year, we reported how WHESS supported the development of the Social Value Hub, an organisational member of Social Value UK. In 2019/20, the Social Value Hub offered advice, training and consultancy to help organisations **measure and communicate the positive changes that statutory, voluntary and charitable organisations are making for people** and the environment in local communities.

What did we do?

We formed partnerships including Conwy Council, Gwynedd County Council, Grŵp Cynefin, Community Care Collaborative, Betsi Cadwaladr University Health Board, Well North Wales, and the Small Woods Association. The Social Value Hub also built research partnerships with Cardiff, Leicester and Nottingham Universities, the University of South Wales & PRIME Centre Wales. Building on networking and collaborative opportunities, Dr Mary Lynch is a steering group member for the Wales Social Prescribing Research Network (WSPRN), which aims to **generate the evidence base for social prescribing in Wales**. The Social Value Hub also completed a report for Gwynedd County Council on the 'The social value of subsidised bus routes in Gwynedd'.

What is the expected impact?

In the last year, the Social Value Hub published three papers and protocols, supported three MSc and one PhD project on social prescribing and presented at four conferences. We also provided social value training to Cheshire West and Cheshire County Council, the Welsh Arts Health and Wellbeing Network (WAHWN) in Abergavenny and Bangor, Business Wales, Conwy County Council and the National Trust in Birmingham.



Through the Social Value Hub and the membership of WSPRN, I am now a key member of the new Wales School for Social Prescribing Research (WSSPR), which is funded by a Health and Care Research Wales infrastructure fund. WSSPR works with the Wales Council for Voluntary Action (WCVA) and other partners to **build the critical evidence for social prescribing in Wales** with the networks seeking new collaborative research opportunities.



Mary Lynch
WHESS Researcher

Dr Ned Harfiel and Eira Winrow delivering social value training for the Wales Arts Health & Wellbeing Network at the Big Pit Museum in Blaenafon, Torfaen.

Presentations and Events



Berni Sewell presenting the results of the evaluation of the Swansea Bay University Health Board rapid diagnosis centre for patients with vague symptoms that could be due to cancer at the Health and Care Research Wales conference, October 2019.



Lucy Bryning presenting a poster on a visual summary of reports on the economic arguments for investment across the life course at the Bangor Institute for Health and Medical Research Early and Continuing Researcher conference.

We interact with the health and social care community, so the benefits of 'health economic thinking' are considered when planning research or evaluations of health and care interventions. This year, we **shared our expertise and made new connections across Wales, the UK and internationally by attending 19 events.**

Notable presentations and events

- Eira Winrow, Dr Jo Charles and Professor Rhiannon Tudor Edwards attended the European Health Economics Association Student-Supervisor Conference in Porto, Portugal. This conference aims to **support the next generation of health economists** across Europe.
- Professor Deb Fitzsimmons attended the EORTC Quality of Life Group meeting in Naples, Italy, in September 2019.
- Professor Deb Fitzsimmons joined the trial steering committees of TANDEM and CODIF2-Two NIHR HTA funded trials.
- Professor Rhiannon Tudor Edwards gave a seminar at the University of Liverpool where she is Honorary Professor, **strengthening research links** between Bangor University and the University of Liverpool.
- We held a joint research symposium between CHEME and colleagues from the University of Liverpool Institute of Population Health Sciences in September 2019. We were delighted to welcome Dr Brendan Collins, Professor Sally Sheard, and Professor Simon Capewell, along with early and mid-career researchers to Bangor with a plan for the next meeting in Liverpool, **building the North Wales-North West research corridor.**
- Dr Ned Hartfiel of CHEME's Social Value Hub presented on 'Measuring the Social Value of Woodland Activities' at a conference for National Trust General Managers in Birmingham.

WHESS on the Health and Care Research Wales Platform

We were delighted to provide a substantial contribution to the Health and Care Research Wales Annual Conference in October 2019.

Our contributions included:

- A plenary session talk by Professor Rhiannon Tudor Edwards illustrating how WHESS collaborates across the Health and Care Research Wales community.
- A showcase session talk delivered by Dr Berni Sewell about the collaboration with Swansea Bay University Health Board on the evaluation of their Rapid Diagnosis Centre for cancer.
- A Health Economics Workshop delivered by the WHESS all-Wales team on health economics and value-based health care.
- A poster by Dr Llinos Haf Spencer on the linguistic validation of the PROMIS-10 health measure.
- A poster by Dr Carys Jones describing the findings of the Health Precinct project (page 23).

Rhiannon Tudor Edwards delivering her plenary session talk at the Health and Care Research Wales Annual Conference, October 2019.



WHESS researchers facilitating a well-attended health economics workshop at the Health and Care Research Wales Annual Conference, October 2019.



WHEG in Pictures

A key date in the WHESS calendar is the **Annual Meeting of the Welsh Health Economists' Group (WHEG)**, funded through our Health and Care Research Wales Infrastructure grant. Our WHESS researchers and associated PhD students from North and South Wales meet socially and professionally over two days, to share and learn from each other's work through a series of presentations and poster displays.

Interested in WHEG?

To find out more about WHEG and our annual meetings, please contact our WHESS administrator Ann Lawton on a.b.lawton@bangor.ac.uk or 01248 382153.

This year at Bangor University we welcomed Dr Brendan Collins, Chief Health Economist for Welsh Government, and health economist colleagues from Health Technology Wales and Public Health Wales.

The annual WHEG meeting is a tremendous opportunity to **strengthen collaboration in health economics across Wales** and for our early-career researchers and students to network with world-leading health economists in a supportive and inclusive environment, to share knowledge, give them confidence and grow as professionals.



Brendan Collins talking about his vision for his new role as Head of Health Economics in Welsh Government at the WHEG meeting 2019.



Konstantinos Skiadas presenting his work on the appropriate disinvestment of medicines identified as a low priority for funding in NHS Wales in collaboration with AWMMSG.



Rajendra Kadel, Public Health Wales health economist, discussing health economics activities at Public Health Wales.



Hani Nor Ismail, MSc by Research student at CHEME, presenting her work on the health economics of community phototherapy.

Creating a Health Economic Evidence Base for Health and Care Services



We have had a productive year in generating outputs from WHESS-supported and led research. **We published 34 papers** and our research and evaluation results **reached over one million people** through the media and social media.

Notable publications in 2019/20

Bray N, Spencer LH, Tuersley L, & Edwards RT (2020): Development of the MobQoL patient reported outcome measure for mobility-related quality of life. *Disability and Rehabilitation*. <https://doi.org/10.1080/09638288.2020.1741701>.

Charles JM, Harrington DM, Davies MJ, Edwardson CL, Gorely T, Bodicoat DH, Kamlesh K, Sherar LB, Yates T, **Edwards RT** (2019): Micro-costing and a cost-consequence analysis of the 'Girls Active' programme: A cluster randomised controlled trial. *PLoS ONE*; 14(8): e0221276.

das Nair R, Bradshaw LE, Carpenter H, Clarke S, Day F, Drummond A, **Fitzsimmons D, Harris S**, Montgomery AA, Newby G, Sackley C, Lincoln NB (2019): A group memory rehabilitation programme for people with traumatic brain injuries: the ReMemBrIn RCT. *Health Technology Assessment*; 23(16): 1-194.

Davies E, Phillips C, Rance J, **Sewell B** (2019): Examining patterns in opioid prescribing for non-cancer-related pain in Wales: preliminary data from a retrospective cross-sectional study using large datasets. *British Journal of Pain*; 13(3): 145-158.

Deluca P, Coulton S, Alam MF, Boniface S, Donoghue K, Gilvarry E, Kaner E, Lynch E, Maconochie I, McArdle P, McGovern R, Newbury-Birch D, Patton R, Pellatt-Higgins T, Phillips C, Phillips T, **Pockett R**, Russell IT, Strang J, Drummond C (2020): Screening and brief interventions for adolescent alcohol use disorders presenting through emergency departments: a research programme including two RCTs. Southampton (UK): NIHR Journals Library; Programme Grants for Applied Research, No. 8.2.

Lincoln NB, Bradshaw LE, Constantinescu CS, Day F, Drummond AE, **Fitzsimmons D, Harris S**, Montgomery AA, das Nair R (2020): Group cognitive rehabilitation to reduce the psychological impact of multiple sclerosis on quality of life: the CRAMMS RCT. *Health Technology Assessment*; 24(4): 1-182.

Noyes J, Allen D, Carter C, Edwards D, **Edwards RT**, Russell D, Russell IT, **Spencer LH**, Sylvestre Y, Whitaker R, **Yeo ST**, Gregory JW (2020): Standardised self-management kits for children with type 1 diabetes: pragmatic randomised trial of effectiveness and cost-effectiveness. *BMJ Open*, 10(3), e032163.

Pine CM, Adair PM, Burnside G, Brennan L, Sutton L, **Edwards RT, Ezeofor V**, et al. (2020): Dental RECUR Randomized Trial to Prevent Caries Recurrence in Children. *Journal of Dental Research*, 99(2), 168-174.

Sewell B, Jones M, Gray H, Wilkes H, Lloyd-Bennett C, Beddow K, Bevan M, **Fitzsimmons D** (2020): Rapid cancer diagnosis for patients with vague symptoms: a cost-effectiveness study. *British Journal of General Practice*; 70(692): e186-e192.

Looking ahead: A new era of health economics in Wales

Did you know...?

WHESS 'began' on the 1st December 2006, then funded by NISCHR and under the leadership of Professor David Cohen, supported by Professors Ceri Phillips and Rhiannon Tudor Edwards. Over the past five years, WHESS was funded by Health and Care Research Wales and led by Professor Rhiannon Tudor Edwards together with our management group.

We hope you enjoyed reading our annual report for 2019/20. It marks an important milestone in the history of Welsh Health Economics.

We are most grateful to our advisory board who have 'tested and challenged' us along the way, particularly encouraging us to raise our ambitions. We also are indebted to all the people we have worked with us over the past five years and the support we have received from Health and Care Research Wales to enable us to deliver our activities and support the development of health economics research and build capacity in Wales. **One of our most notable achievements is seeing our researchers grow their own careers.** Many of them achieved fellowships and promotions within academia and several of our WHESS-supported researchers joined health organisations across Wales.

Our all-Wales approach with collaborations and partnerships across Wales remains central to our strength – from working with our colleagues in the clinical trials units and RDCS through to senior team members supporting decision making bodies with health economics advice and technical expertise.

In our now 15th year, we are not complacent! WHESS is transitioning into **Health and Care Economics Cymru** from the 1st April 2020, as part of our 3-year infrastructure award from Health and Care Research Wales. We renewed our vision and set out objectives to continue our **support to the research community and NHS and social care in Wales**, particularly through the RDCSs, CTUs and other Health and Care Research Wales infrastructure groups. We will also **nurture and grow our contribution to health care decision-making bodies** through experienced needs-based advice and support and ensure to continue the great progress we made in Public Involvement and Engagement. We are excited to develop new areas of activities, focusing on Health and Care Economics Cymru as an **All Wales Centre of Health Economics Excellence** across the UK and beyond. We are delighted to welcome Professor Dyfrig Hughes as one of our senior co-investigators alongside Dr Pippa Anderson who will lead the development of our community of health economics methodological expertise. We also welcome Professor Deb Fitzsimmons as Co-Director of Health and Care Economics Cymru.

On behalf of the Health and Care Economics Cymru community, reaching out to our collaborators, we make our closing statement from our respective homes across Wales, coming to terms with the 'new normal' as we think about cautiously entering life post-Covid-19 lockdown. Many things have been put in perspective. We wish to thank our WHESS/Health and Care Economics Cymru team who carry on with our research and prepare new bids to investigate the impact of Covid-19 despite the challenges presented during recent months. We look forward to 2020/2021 and the opportunities it will bring as we play our part as a Health and Care Research Wales infrastructure group.

Rhiannon, Pippa, Berni, Jo, Dyfrig and Deb

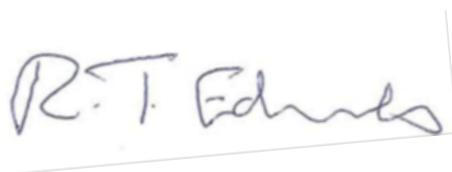
The 2019/20 WHESS Team



Our WHESS Director

Professor Rhiannon Tudor Edwards

Co-director of the Centre for Health Economics and Medicines Evaluation (CHEME) at Bangor University



The WHESS Advisory Board

Professor Steven Morris (Professor of Health Economics, University of Cambridge)

Mrs Karen Harrington (Public Involvement Representative)

Professor Mandy Ryan (Director of the Health Economics Research Unit, University of Aberdeen)

Professor Dyfrig Hughes (Professor of Pharmacoeconomics and Co-Director of the Centre for Health Economics and Medicines Evaluation, CHEME, at Bangor University)

The WHESS Management Team

Dr Pippa Anderson

Dr Joanna Charles

Dr Llinos Haf Spencer

Professor Dyfrig Hughes

Professor Deb Fitzsimmons

Dr Berni Sewell

Dr Liv Kosnes

Professor Rhiannon Tudor Edwards

The WHESS Research Team

Eira Winrow

Julia Lowin

Dr Carys Jones

Dr Mari Jones

Dr Lorna Tuersley

Dr Simon Read

Dr Victory Ezeofor

Lucy Bryning

Katherine Cullen

Dr Ned Hartfiel

Dr Narayan Poudel

Rebecca Summers

Rhys Pockett

Konstantinos

Skiadas

Bethany Anthony

Dr Nathan Bray

Dr Mary Lynch

Acknowledgements

We would like to thank **Ann Lawton, WHESS Administrator, at CHEME** for her significant contributions to the production of WHESS reporting throughout the year and **Dr Catherine Lawrence** for her help with this report.

Key WHES Partners

Our Host Institutions



PRIFYSGOL
BANGOR
UNIVERSITY



Swansea University
Prifysgol Abertawe

Welsh NHS Health Boards and Trusts and
Public Health Wales



GIG
CYMRU
NHS
WALES



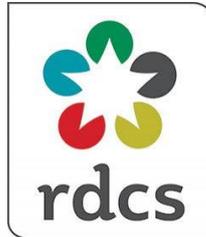
Members of the Public



Health and Care Research Wales Infrastructure



Ymchwil Iechyd
a Gofal **Cymru**
Health and Care
Research **Wales**



Research Design
& Conduct Service

Gwasanaeth Cynllunio
a Chynnal Ymchwil



Swansea
University
Prifysgol
Abertawe

Swansea Trials Unit
Uned Dreialon Abertawe



UNED YMCHWIL
DIABETES CYMRU
DIABETES RESEARCH
UNIT CYMRU



Centre for
Trials Research

Canolfan
Ymchwil Treialon



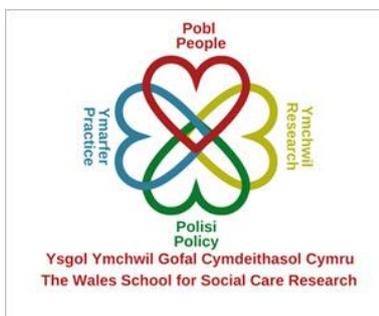
Canolfan PRIME **Cymru**
PRIME Centre **Wales**

Other Key Partners



AWTTC

All Wales Therapeutics
& Toxicology Centre



Technoleg Iechyd Cymru
Health Technology Wales

Evidence Based
Procurement Board



WHESS

Welsh Health Economics Support Service
Gwasanaeth Cymorth Economeg Iechyd Cymru

Discover more about WHESS:

<https://www.healthandcareresearch.gov.wales/welsh-health-economics-support-service/>

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