



**DECIPHER**

Centre for Development, Evaluation, Complexity  
and Implementation in Public Health Improvement  
A Public Health Research Centre of Excellence

# ANNUAL REPORT 2020/21

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



Ariennir gan  
**Lywodraeth Cymru**  
Funded by  
**Welsh Government**

<https://decipher.uk.net>





# INTRODUCTION

DECIPHer brings together leading experts from a range of disciplines to tackle public health issues such as mental health and well-being, positive social relationships, diet and nutrition, physical activity and tobacco, alcohol and drugs. We have a particular emphasis on the development, evaluation and implementation of policies and interventions that, by improving the health of the population and reducing inequalities, impact on the health and well-being of children and young people.

DECIPHer engages with academic, policy, practice and user communities and develops research capacity. This includes supporting staff and students, delivering short courses and establishing Public Health Improvement Research Networks (PHIRNs). To date, we have successfully developed networks for young people, Advice Leading to Public Health Advancement (ALPHA) and for schools, the School Health Research Network (SHRN) and have begun to expand to workplace and community settings.



This work supports our four cross cutting research programmes:

1. HEALTHY PUBLIC POLICY

2. HEALTHY SETTINGS AND ORGANISATIONS

3. HEALTHY SOCIAL RELATIONSHIPS

4. METHODOLOGICAL INNOVATION IN PUBLIC HEALTH SCIENCE

A co-production approach also supports the translation of evidence through our collaboration, engagement and impact work. You will find details of our annual progress in each of these areas in our report.

Over the last year, we have inevitably dealt with the challenges raised by the pandemic. This has meant operating remotely as a centre, moving to on-line events and pausing a number of research projects. It has also meant an increased role in supporting Welsh Government, including membership of the Technical Advisory Cell for Children and Education. This has highlighted the increased relevance of our work in responding to the emerging population health challenges in Wales and beyond.

A handwritten signature in black ink, appearing to read 'S Murphy'.

Professor Simon Murphy  
Director of DECIPHer

# WHO WE ARE AND HOW WE OPERATE

DECIPHer investigators are drawn from the School of Social Sciences and School of Medicine at Cardiff University and Public Health Wales. We come together as a Strategic Partnership Board to oversee the work of the Centre, and are supported by a Public Involvement Strategic Advisory Board and a Scientific Advisory Board. The day to day delivery and management of the centre resides with the DECIPHer Executive Team.

## DECIPHer Executive Team



## DECIPHer Co-Investigators



# CORE METRICS

Reporting period: 2020/2021

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



Direct funding awarded

**£437.6k**

Jobs created through direct funding



## Grants won during reporting period

Grants won	Led by group	Group collaborating
Number	<b>8</b>	<b>25</b>
Value	<b>£1.27m</b>	<b>£14.87m</b>
Funding to Wales	<b>£1.25m</b>	<b>£7.04m</b>
Funding to group	<b>£1.18m</b>	<b>£1.7m</b>
Additional jobs created for Wales	<b>9</b>	<b>19</b>
Additional jobs created for group	<b>9</b>	<b>12</b>



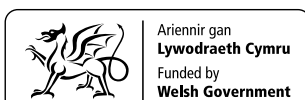
Number of publications




Number of public engagement events



Number of public involvement opportunities





The DECIPHer Centre is funded by Welsh Government through Health and Care Research Wales. This year we received a grant of £437,674.93 and our collaborations have secured 25 new research studies with a value of over £14 million, £7 million of which came to Wales. Eight of these studies were led by DECIPHer and £1.18 million came directly to our centre. It is also worth noting prior success in securing the £10 Wolfson Centre for Young People's Mental Health in partnership with the National Centre for Mental Health (NCMH) and the Secure Anonymised Information Linkage (SAIL) databank and which commenced this year. As well as key success with infrastructure, funding has supported a wide range of projects which are detailed in our research programmes section.

It is also worth noting that our success has resulted in 19 additional jobs created in Wales, 12 of them within our centre. Further details of how we have developed research capacity can be found in the next section of the report.

DECIPHer has supported 51 collaborative activities and events with our stakeholders to co-produce and translate our research. This has included task and finish research bid development groups and consultation events on centre strategy. Meanwhile, we have produced 49 publications including refereed journal articles and published reports and guidance. This year, we have also successfully supported and delivered 51 public engagement events, this includes presentations by our centre staff, DECIPHer on line events and our international programme of short courses.

Over the year, DECIPHer made significant contributions supporting policy development and evaluation, through membership of Welsh Government advisory groups and ALPHA reviewing national strategies and resources. Our methodological work on co-production was also cited a number of times by the U.K. Government's Scientific Advisory Group for Emergencies (SAGE) Scientific Pandemic Insights Group on Behaviours (SPI-B). Further details of activities can be found in the section on Collaboration, Engagement and Impacts.

# DEVELOPING CAPACITY

## Public Health Improvement Research Networks

DECIPHer adopts a co-production partnership approach to tackle complex public health challenges. To this end we have successfully developed a number of high impact public health networks. The first of these, the Public Health Improvement Research Network (PHIRN), was initially funded in 2005 by the then National Institute for Social Care and Health Research. Since then, DECIPHer has developed the School Health Research Network (SHRN) and a young persons' advisory network, Advice Leading to Public Health Advancement (ALPHA). The overall aim of these networks is to bring together policy, practice, public and academic stakeholders to develop solutions to Wales' public health challenges. We do this by setting up stakeholder Research Development Groups to progress funding bids and then support the research studies and their translation for impact. In part this is achieved through shared research priorities and joint capacity development with Public Health Wales as a key policy and practice partner. Please see our section on Collaborations, Engagement and Impacts to find out what SHRN and ALPHA have done this year.

An additional network development has been the successful funding of a Public Health Intervention Responsive Studies Team (PHIRST) including DECIPHer investigators Prof Simon Murphy and Dr. Jemma Hawkins and DECIPHer research fellow Dr. Kelly Morgan. This is a collaboration between Cardiff University and the University of Bristol which is one of four PHIRST teams across the U.K. funded by the National Institute of Health Research. The PHIRST initiative links up academic researchers with local authorities to co-produce and implement evaluations of existing interventions that have a focus on improving public health and reducing health inequalities.

Our approach to this work has co-production at its core, informed by the U.K. standards for public involvement and recognising the importance of this for successful collaborative working between researchers, practitioners, policy makers and the public. This collaborative approach with local government stakeholders develops research capacity within local authorities. The first initiative being evaluated by the team is a free universal breakfast club and secondary school meals project in a local authority in London. A second initiative evaluation, led by the investigators in DECIPHer, has been co-produced with local authority stakeholders through a Task and Finish Group and will begin in 2021.

Our future plans for the development of the research networks within DECIPHer include extending our scope to develop research networks in new policy and practice areas. A particular focus of expansion is on the workplace setting in collaboration with Healthy Working Wales, a Public Health Wales programme. Expanding the work of SHRN into other parts of the Welsh education system is also being explored.



Julie Bishop



Jemma Hawkins

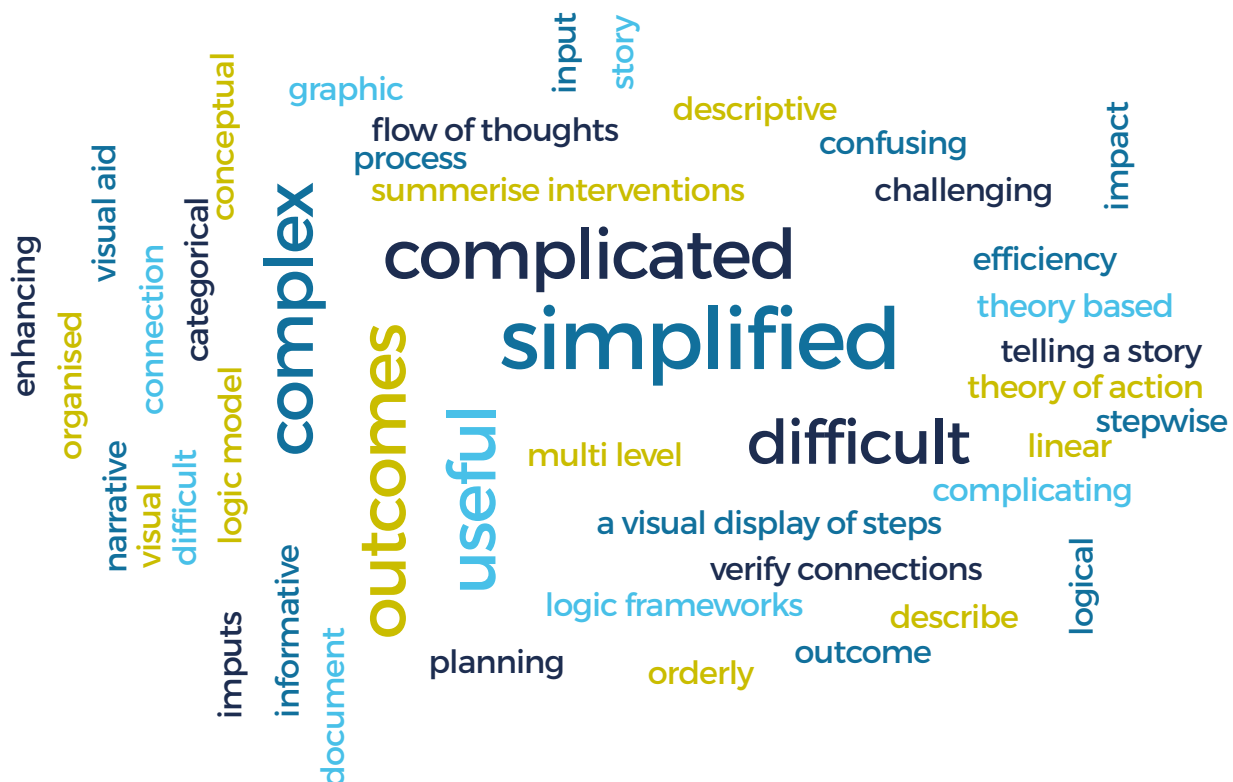


## National and international short courses

A key part of our research methodology programme is the DECIPHer suite of internationally recognised methodology short courses delivered to researchers, practitioners and policy makers. Despite COVID-19 pandemic restrictions, methods-related teaching and training have continued to be delivered by the team via remote online methods. DECIPHer co-investigators Dr. Jemma Hawkins and Prof Graham Moore led a fully online two-week accredited doctoral training course on [developing and evaluating complex interventions for Karolinska Institute \(KI\)](#) in Sweden. The course attracted Health Sciences students from KI itself, as well as students from elsewhere in Sweden, Denmark, the Netherlands and Tanzania. The course received excellent feedback and is running again in 2021 and is already fully booked, with a growing waiting list. This collaboration with academic colleagues in KI has led to successful external funding grants involving Dr. Jemma Hawkins as a collaborator.

In October 2020 DECIPHer co-investigator Dr. Rhiannon Evans and research associate Dr. Rachel Brown delivered an adapted online version of the [Process Evaluation course](#) to 15 researchers and doctoral students at Aalborg University, Denmark. The course received very positive feedback and is planned to run again in 2021. In January 2021, DECIPHer co-investigator and CTR senior lecturer Dr. Jeremy Segrott and public involvement officer Peter Gee delivered a [public involvement training course](#) in collaboration with Health and Care Research Wales on how to involve young people in the design and conduct of research. The course was fully booked with 20 participants attending and received very positive feedback and has been requested to run again later in 2021. As a result of the successes of delivering online courses to date, the annual 5-day DECIPHer short course has been condensed into a [3-day online course](#) for 2021.

Word cloud of participants' thoughts about intervention development in short course teaching:



## Supporting research staff

This year, we congratulated our Deputy Director Graham Moore who was promoted to Professor. Graham was also nominated for Outstanding Doctoral Supervisor, along with Rhiannon Evans for Outstanding Personal Tutor in the Enhancing Student Life Awards at Cardiff University.

Also this year, two of our DECIPHer students were awarded their PhDs, Manal Alhumud exploring 'The prevalence, socio-economic determinants and related health outcomes of energy drink consumption among young people in Wales and Saudi Arabia: A mixed method study', and Stephen Jennings researching 'Co-production of health and well-being interventions in primary schools'.

We have also supported a significant number of our researchers to progress in their postgraduate studies and postdoctoral careers. We asked three of them to reflect on their experiences with DECIPHer.

### AMY SIMPSON



I joined DECIPHer in 2016 as a Cardiff University Research Opportunities Placement (CUROP) student working on the evaluation of The 'Food and Fun' School Holiday Enrichment Programme. The placement offered the opportunity to work in a research environment, enhance academic and research skills and encouraged engagement in academic activities. I was subsequently employed at DECIPHer working on The Well-being in Secondary Education Study (WISE) where there were opportunities for involvement in data collection and analysis which supported my overall professional development. I was invited to meet with Simon Murphy to discuss my future career aspirations. I stated my interest in establishing an academic career and Simon connected me with senior researchers. With support and guidance from Graham Moore and Jemma Hawkins I successfully secured funding from the ESRC 3+1 Doctoral Funding Scheme. MY CUROP experiences heavily influenced my PhD research entitled 'Parental Engagement in Children's School Life: The Food and Fun School Enrichment Programme A Case Study'.

I am currently undertaking an internship within the Department of Education at the Welsh Government working on a report on educational research capacity building in higher education which will contribute to the development of the National Strategy for Education Research and Enquiry in Wales. Another collaborative project between the Welsh Government and DECIPHer will highlight the multi-agency approaches utilised to mitigate the harms of school closures on children during the coronavirus pandemic in Wales.

Alongside my PhD, I have undertaken many career development and networking opportunities including leading the DECIPHer Forum, facilitating at the DECIPHer short course, writing blogs and contributions to academic papers. I have completed the Associate Fellowship of the Advanced Higher Education, have taught on multiple undergraduate social science modules and have worked alongside Jemma Hawkins supervising an undergraduate dissertation student. I am now in the final year of my PhD, writing up my findings with the hopes of remaining in academia and securing a research and teaching role.



## EMILY LOWTHIAN



I have been involved with DECIPHer for seven years, after starting my research placement in 2014. Following that, Professor Moore was my dissertation supervisor, who encouraged me to do a PhD. However, I applied to three institutions but was unsuccessful. Although, that didn't stop me as I was able to get a job at the Office for National Statistics, partially due to the skills I had developed working with DECIPHer! But, the hunger for academic research never really went away and in 2016 I applied for a PhD within DECIPHer, of which I was finally successful! It investigated the effects of parental substance use on children's attainment, and although you hear a lot of negative comments about a PhD, I found it an enjoyable and rewarding experience, which was undoubtedly due to DECIPHer's support. From project involvement, to advice, teaching, and informal chats in the kitchen, DECIPHer influenced my work. I am particularly grateful to my supervisors and progress reviewers who encouraged me to break the mould and use more novel, although complex, statistics.

Through this, I completed a 7-month maternity cover post in DECIPHer as a research associate; I developed skills in working with the third sector, routine data, and leading publications. This experience was invaluable, and without this I would not be where I am now, a Data Scientist and Researcher at Swansea University. I'm currently working on combining cohort and routine data to explore the relationship between parental health and children's cognitive development. I plan to keep developing new, novel ways of exploring child health determinants and am hoping to secure my own grant or fellowship to extend this, and of course to publish some more!

## DANIELLE COUTURIAUX



I joined DECIPHer in 2018 as part of the Cardiff University Research Opportunities Placement (CUROP) programme, working on the Well-being in Secondary Education (WISE) study. Knowing I was soon graduating, I wanted to gain as much research experience as possible to improve my employability prospects but also establish what career path to take. Working in DECIPHer enabled all of this, reflected in the wide variety of roles and projects I undertook and through a supportive environment that continuously encouraged and promoted learning and skills development.

After my placement I stayed on WISE as a Specialist Research Administrator, during which I collaborated on two systematic reviews, assisted data collection for the JACK Trial and conducted qualitative analysis for the Medical Research Council's ADAPT study. After graduating I joined the School Health Research Network (SHRN) as a Research Assistant and then later as a Data Manager. This was a really exciting opportunity as I had used SHRN's Student Health and Well-being survey data for my undergraduate dissertation exploring the risk factors associated with dating and relationship violence among young people in Wales. To say I was stunned when colleagues suggested I publish my dissertation would be an understatement. Publishing a paper based on my undergraduate dissertation has been one of my proudest achievements, one which I could not have done without the input, support (emotional and academic!) and encouragement of my colleagues in DECIPHer. My time in DECIPHer has been invaluable, not only the skills I gained but the friends I made. My experiences contributed to me pursuing a research career where I am currently a Research Officer in the Welsh Government on the National Survey for Wales team.

# RESEARCH PROGRAMMES

Our work is based around four cross cutting programmes of research:

## 1. HEALTHY PUBLIC POLICY

In its first ten years, DECIPHer undertook a diverse range of research influencing and evaluating public health policy. Examples included evaluation of the National Exercise Referral Scheme, and research cited by Welsh Government as informing the decision to ban smoking in cars carrying children.

From 2020, the new Healthy Public Policy programme builds on this work.

Its aims are to

- i) provide timely and robust evidence to influence decisions by national and local government organisations, in order to improve population health and reduce inequalities, and
- ii) evaluate implementation and impacts of these decisions.

In partnership with the U.K. Prevention Research Partnership (UKPRP) consortium Shaping Public Health Policies To Reduce Harm ([SPECTRUM](#)), whose investigator team includes two DECIPHer co-investigators (Prof Graham Moore and Dr. Julie Bishop), we have supported expansion of the Smoking and Alcohol Toolkit Surveys from England to Wales and Scotland (1). This will provide a new source of data to inform policy and analyse policy impacts across the devolved nations, building on our track record of influencing tobacco policy in Wales. DECIPHer are investigators on a new Economic and Social Research Council/Irish Research Council funded grant led by University of Stirling, which aims to develop a U.K. and Ireland network around [intervention to reduce children's exposure to smoke in homes](#).

We continue to take advantage of large survey datasets in Wales to examine time trends in public health issues such as young people's tobacco and cannabis use (2), communicating these via our networks to provide policy stakeholders with evidence on areas of policy priority. Extending to commodities such as energy drinks, we recently published analyses of time trends in young people's consumption of sugary drinks and energy drinks (3). This aims to inform ongoing policy debates in this area, such as on the age of sales for energy drinks on which Welsh Government is committed to consultation as part of its Healthy Weight, Healthy Wales strategy delivery plan for 2021/22.

The programme also focuses on health impacts of policy decisions beyond the health sector, linking to DECIPHer's other research programmes. For example, it connects to the Healthy Settings programme via work focused on education policy, including ongoing research on the mental health in schools strategy in partnership with the Wolfson Centre for Young People's Mental Health and [planned implementation of curriculum reform in Wales](#).




Graham Moore



Amanda Robinson





The DECIPHer grant began in the weeks after the first lockdown began. Hence, a key focus of this programme in its earliest stages has been understanding impacts of policy responses to the pandemic, to inform policy decisions in supporting pandemic recovery. Two DECIPHer investigators (Prof Mike Robling & Prof Graham Moore) are investigators on the UKRI funded **COVID Health and Help Seeking Behaviours Study**, which connects several Health and Care Research Wales infrastructures including collaboration with the Centre for Trials Research and Health Wise Wales. It is focusing on the impacts of Stay Home measures on cancer symptom presentation and screening behaviour. DECIPHer researchers on the ongoing NIHR funded **Family Recovery after Domestic Abuse (FReDA)** are also working with Cardiff Women's Aid to understand patterning in referrals to their services during periods of lockdown. Our ongoing Welsh Government funded research via the School Health Research Network is examining impacts of COVID-19 restrictions, including school closures, on children's readiness for transition to secondary school, mental health and risk behaviours.



## 2. HEALTHY SETTINGS AND ORGANISATIONS

The Healthy Settings and Organisations programme aims to develop and evaluate whole system approaches to improving population health, as well as understanding their implementation. Most of our work to date has taken place in education settings; namely primary and secondary schools and further education.

Schools in particular provide one of the most important contexts for young people's development and health and are key settings for health improvement.

Historically we have conducted a large number of studies in schools, but in 2013 we saw a step change in our work with the establishment of the School Health Research Network (SHRN). SHRN brings together schools, researchers and key policy and practice organisations, to improve the quantity and quality of school-based health improvement research. Based on the World Health Organisation's Health Promoting Schools (HPS) model, SHRN connects multiple aspects of school life, including the curriculum, the physical and social environment, and links with families and the local community. We are currently developing our programme of research, with a focus on workplace and community settings.



Simon Murphy



Honor Young

### Supporting healthy school strategies

In Partnership with the new £10M Wolfson Centre for Young People's Mental Health, DECIPHer has supported Welsh Government in the development of the Whole-School Approach to Emotional and Mental Well-Being, and have secured funding for the evaluability assessment of the framework prior to its national evaluation using the SHRN infrastructure. DECIPHer, through the provision of SHRN data analysis, has also supported the evaluation of the Welsh Government CAMHS In-Reach pilot and the development of Counselling Services in schools. DECIPHer are also supporting the development of policies designed to address pandemic recovery in schools, including through the COVID Technical Advisory Committee on Children and Education.

### Supporting healthy school practice

Schools and Local Authorities continue to benefit from engagement with SHRN and its data infrastructure. We distributed tailored reports of their pupil health and well-being issues to 198 participating schools and all Local Education Authorities across Wales. Using the data, we routinely publish research articles accompanied by lay summaries and webinars for our educational stakeholders. These focus on what may explain types of risks facing young people in Wales and what schools may be best placed to do about it.

You can find a full list of our [publications](#) as well as [lay research briefings](#) and webinar [recordings](#) covering food fitness and physical activity, mental health and emotional well-being, sex and relationships, risk behaviours and school well-being policies on our SHRN website.



## Developing a healthy workplace

A new area of focus within this programme is the workplace setting, building on recent work with Public Health Wales' 'Healthy Working Wales' programme. DECIPHer investigators Dr. Jemma Hawkins and Prof Simon Murphy and research assistant Jordan Van Godwin have been working in partnership with Public Health Wales to develop new evaluation tools for the Healthy Working Wales programme. To date this has involved interviews with organisations across Wales representing the private, public and third sectors across a range of industries, as well as academic reviewing of existing workplace health research and work-related health and well-being measures. This was supported by a public health registrar training placement which was co-located between Healthy Working Wales and DECIPHer. The tools will support employers in Wales to undertake an assessment of the health and well-being of their workforce, measure progress against this and develop data-informed health and well-being practices, in support of Welsh Government's objectives to reduce the proportion of the working population who leave work due to ill health and recommendations from the Fair Work Commission Report (2019). The team are currently working on incorporating new measures relevant to COVID-19 and work, prior to a planned piloting phase of the tools in summer 2021.



## 3. HEALTHY SOCIAL RELATIONSHIPS

The DECIPHer Healthy Social Relationships programme aims to develop, adapt and evaluate interventions that improve health and well-being by strengthening social relationships. The work of the programme over the past 12 months has focused on three key themes: preventing domestic violence and abuse; developing family-based health and well-being interventions and school-based interventions with a family component; and improving the health and well-being of care-experienced children and young people.

### Preventing domestic violence and abuse (DVA)

This theme focuses on preventing and reducing the impact of DVA. It includes an evaluation of the [Health Pathfinder project](#), which aims to improve the reach and quality of health services provision for survivors. DECIPHer are also currently undertaking an evaluation of a psycho-social intervention to support mothers and children exposed to DVA. Jointly with the settings programme, it is further exploring how to prevent intimate partner violence through school-based intervention.

### Developing family-based health and well-being interventions

This theme is focused on interventions that are delivered within the family context. It is also concerned with developing parenting components that can enhance interventions delivered in school-based settings. We are undertaking notable capacity building within this theme, having supported a number of post-doctoral research fellowship applications and PhD studentship applications. These projects include exploration of the links between parenting and child health and well-being outcomes, understanding and reduction of intergenerational violence, and the development of new perspectives on whole school approaches to health improvement.

### Improving the health and well-being of care-experienced children and young people

Alongside the development and evaluation of family-based interventions, this theme has a specific focus on families where children and young people may be at an increased risk of poor health and well-being. This includes children and young people in need, at the edge of care, or with experience of being in care. In the past year, DECIPHer has been collaborating on the [TRIUMPH Network](#). As part of the Network we are working to understand which online interventions might work best in improving the mental health of children in foster care. We are also delivering a National Institute for Health Research funded complex systems systematic review to identify evidence-based approaches that improve mental health and well-being, and prevent self-harm and suicide, among individuals with experience of care.

### Public involvement

The programme has a strong emphasis on public involvement. Partnerships with policymakers and practitioners are central, helping to maximise the impact of our research and creating collaborations that increase research capacity in the parenting and social care sectors. We have developed a productive relationship with a number of organisations, including The Fostering Network in Wales. As part of this collaboration we are working to improve the mental health and well-being of children and young in care.




Jeremy Segrott



Rhiannon Evans



A young woman with long dark hair, wearing a white school uniform shirt and a blue and white plaid tie, is smiling broadly. She is sitting at a desk with an open book in front of her. The background is slightly blurred, showing another person in a school uniform. A blue circular graphic element is overlaid on the bottom right of the image, containing text.

“Over the years, we have had the pleasure of developing a close research relationship with Cardiff University and DECIPHer. The partnership not only progresses social scientific work with its own aims and purposes but also, and essentially, adds real value and utility in the fostering community at large. It also fulfils a recognised need. Networking has led to mutually beneficial collaboration on research projects, opened access to funding and improved use of data for both the university, and us a third sector organisation.”

Maria Boffey  
Head of Operations  
The Fostering Network in Wales





## Informing pandemic response

Our previously published methods guidance and frameworks continue to have impact in the U.K. and beyond. For example, our framework for co-producing and prototyping public health interventions (1) (developed by DECIPHer investigators Dr. Jemma Hawkins, Dr. James White and Prof Simon Murphy) has informed guidance produced by the Independent Scientific Pandemic Influenza group on Behaviours (SPI-B) expert group of the U.K. government's Scientific Advisory Group on Emergencies (SAGE). The framework forms part of the group's recommended principles for co-producing COVID-19 guidance as well as being referred to in guidance for COVID-19 preventive behaviours amongst young people.



## 4. METHODOLOGICAL INNOVATION IN PUBLIC HEALTH SCIENCE

The DECIPHer methodology programme focuses on guidance development and advancing methods innovation for the development, evaluation and implementation of interventions to improve health and well-being. DECIPHer has a long-standing track record as a world-leader in methodological innovation including development of methods guidance on process evaluation, discussion pieces on complex systems intervention science and innovation case studies.

### Methodological guidance

The development of methodological guidance and theory in the last 12 months has focused on co-production and adaptation of public health interventions. Since 2018, DECIPHer co-investigators Graham Moore and Rhiannon Evans have been leading an MRC-NIHR funded study to develop guidance on adapting interventions for new contexts such as a different country, with a different population or in a different organisational structure. Version 1 of the [completed guidance](#) was published on the DECIPHer website in October 2020 and has been accompanied by peer reviewed articles of the findings from each stage of the guidance development (2, 3, 4). Since publication, the ADAPT team have been invited to present the guidance at a number of international lectures and seminars, including in Leibniz Institute for Prevention Research Bremen, Harvard TH Chan School of Public Health and Washington University in St Louis.



Jemma Hawkins



Mike Robling

### Co-production methods

PhD student Hayley Reed is developing intervention programme theory for the co-production of school-based health interventions, supervised by DECIPHer investigators Dr. Rhiannon Evans and Prof Simon Murphy. The theory will support researchers and school stakeholders in co-producing quality health interventions as well as providing research funders and peer reviewers with guidance on the intervention functions and activities necessary to co-produce school-based interventions. The intervention development study has two phases including a [systematic review](#) of co-produced intervention studies and thematic synthesis of stakeholder experiences to articulate theory as well as case study research with two secondary schools to refine it.

### Using routine data

Our methods innovation also involves the use of routinely collected data in novel ways. One example is an ESRC-funded study led by DECIPHer research associate Dr. Sara Long which aims to explore 1) the relationship between Adverse Childhood Experiences and health and education outcomes of children who receive intervention from social services, and 2) the extent to which intervention, including being taken in to care, is a protective factor. This study has linked data from the Wales Electronic Cohort for Children with routinely collected local authority social services data via the SAIL databank. It will address the lack of large-scale longitudinal quantitative studies in the U.K. examining the role of intervention from social services in predicting education outcomes and health care usage in order to inform policy decision making regarding what works best for different children who are known to social services.



# COLLABORATIONS, ENGAGEMENT AND IMPACTS

## Working with school stakeholders: The School Health Research Network

SHRN, set up in 2013, was the first national network of its kind in the world. It brings together all the maintained, mainstream secondary schools in Wales with academic researchers, policy makers and practitioners from health, education and social care to promote an evidence informed approach to improving young people's health and well-being in the school setting. Through strategic collaboration, the provision of data and capacity development, SHRN also facilitates research partnerships to co-produce research questions, identify innovation at the 'chalk face', and collaborate on SHRN adopted research studies. The Network ensures that the research is relevant to stakeholders so that evidence has a higher likelihood of influencing policy and practice for population health impacts. A national data infrastructure is at the basis of Network activity: Schools complete a bilingual electronic Student Health and Well-being Survey every two years (completed in 2019 by over 70% of 11-16 year olds in Wales) and a school leadership School Environment Questionnaire. These data are shared at national, regional and school levels.



Simon Murphy



Joan Roberts



## National reports

We produce a regular national indicators report for Wales and provide data for the Public Health Outcomes Framework, the Children and Young People's Well-being Monitor, Well-being of Future Generations Act indicators and the Active Healthy Kids Wales Report Card.



## SHRN data supporting Welsh policies and strategies


- Mind over Matter Report
- Well-being of Wales Report 2017-18
- Tobacco Control Delivery Plan for Wales 2017-2020.
- The Future of the Sex and Relationships Education Curriculum in Wales – Recommendations of the Sex and Relationships Education Expert Panel (July 2018)
- National Assembly for Wales, Health, Social Care and Sport Committee 'Physical activity of children and young people (March 2019)
- 'Valuing our Health' Chief Medical Officer for Wales Annual Report 2018/19 (May 2019)
- Welsh Government Response to Physical Activity of Children and Young People -HSCS Committee Report (March 2019)
- Welsh Government Connected Communities - A strategy for tackling loneliness and social isolation and building stronger social connections (February 2020)
- Curriculum for Wales Health and Well-being Area of Learning and Experience
- Estyn Healthy and Happy: School Impact on Pupils' Health and Well-being (June 2019)
- Estyn's celebrating diversity and promoting inclusion report
- The Children's Society Good Childhood Report 2020



“Welsh Government supports and collaborates with the School Health Research Network by providing funding from both Health and Education and making strategic decisions together to impact the national school system and improve the health and well-being of children and young people. These data can support national surveillance, policy monitoring and evaluation. It has also enhanced capacity to monitor young people’s health and well-being in relation to emerging policy areas such as: the Well-being of Future Generations (Wales) Act 2015 and the Violence Against Women, Domestic Abuse and Sexual Violence (Wales) Act 2015.”

Dr. Chris Roberts  
Deputy Chief Social Research Officer  
Welsh Government





“Public Health Wales is responsible for the Welsh Network of Healthy School Schemes (WNHSS) and has worked with SHRN to more closely integrate the two networks: one practice oriented and one research oriented, so each can draw on the other’s assets and expertise in order to create more effective and sustained improvements in student health and well-being. Our collaboration is based upon reciprocal benefits: SHRN helps us to enhance the functioning of the Welsh school system in relation to health and well-being, whilst we improve SHRN researchers’ opportunities to achieve impact from their research.”

Dr. Julie Bishop  
Director of Health Improvement  
Public Health Wales

## Regional stakeholder and school reports

Schools and LEAs receive their own tailored health and well-being reports benchmarked against national averages. SHRN schools routinely use their data to engage their communities in self-evaluation, to inform the curriculum and Healthy School Initiatives.



SHRN activities and resources for schools and those that support their health and well-being, focus on developing capacity and sharing good practice in research evidence use. These include regular **webinars**, lay **research briefs**, for schools and annual summer **events**. We have a strong partnership with Public Health Wales to support their Network of Healthy Schools and the Whole School Approach to Mental Health Strategy.

## SHRN developments

The recognition of the value of SHRN has led to investment from the Welsh Government Education and Health Ministers in an ongoing feasibility study to extend into a number of primary schools, with an initial focus on transition years. SHRN has also achieved U.K.-wide impact through the establishment of partnerships to develop the Schools Health and Well-being Improvement Research Network (SHINE) school network in Scotland (2018), to harmonise measures with a new cohort to assess the impact on social mobility in England (2021) and support a secondary schools health research network across Manchester (2021). A partnership with the World Health Organisation and Schools for Health in Europe, has supported international pilots of the SHRN approach.

SHRN has been funded by the Medical Research Council, Public Health Wales, the Health and Education Departments of Welsh Government and Health and Care Research Wales.



“In response to the findings in the county SHRN report, a county health and well-being action plan is in development and will be implemented over a four year period. The Flintshire Youth Council have contributed to the development of the county action plan and is ongoing.”

Flintshire, Education and Youth Overview and Scrutiny Committee 2018

“[The report has] influenced every area – planning SRE, healthy schools food available in school, food and fitness policy, mental health services, and curriculum content. The well-being team use it in education and action planning, PSE curriculum, prioritising extra-curricular activities.”

School health and well-being lead  
Pembrokeshire

“...what we didn't really have access to was actual information on the things we needed to prioritise... I think that has probably been the most beneficial part, the fact that we now have timely data, where we can look at you know, our students in real time, and say this is the issue for Year 8...”

Assistant Head  
Newport



## Working with the public and ALPHA



Jeremy Segrott



Peter Gee

### Public Involvement Steering Group (PISG)

In our plans for DECIPHer over the next five years, we stated that the PISG would oversee the strategic development and oversight of Public Involvement (PI). The newly formed PISG comprises external stakeholders, from across Wales, with expertise in our three main areas of PI work: continued development of our Young People's Research Advisory Group - ALPHA, developing an all-Wales National Student Advisory Group (NSAG), and formation of a Parents and Carers advisory group.

"We have been delighted to be part of the DECIPHer Centre Public Involvement Steering Group. A values led and collaborative approach, the team actively seek the views of all group members with a visible willingness to explore ideas and build new relationships. The building of a wider network in Wales to promote joint working has not only being valuable to the DECIPHer Centre themselves but also for the PISG members"

Parents Voices in Wales

### ALPHA

A research advisory group of young people aged 14-25, their input helps ensure DECIPHer research is relevant to young people and their needs. ALPHA members are now represented on the PISG, helping to ensure that young people's views shape our strategic direction. This year we have met with over 40 ALPHA members on 13 occasions, consulting on 8 research funding proposals and 4 funded research studies. This includes providing strategic input to the NIHR supported Public Health Intervention Responsive Studies Team, and supported the development of a Mental Health Toolkit for the Welsh Government Led Hwb website. The Public Involvement Officer and several ALPHA members have provided youth voice and PI expertise, helping to develop infrastructure and influence policy for national and international stakeholders; UKRI eNurture network, Centre for Climate Change and Social Transformation (CAST), European Society for Prevent Research, Aalborg University, Wolfson Centre and the Society for Prevention Research.



"As a group we have had the opportunity to work on a range of public health issues including obesity, smoking and several more. We have been able to work with researchers across the country and have helped shape key public health interventions."

Natalie Howell  
ALPHA member

ADVICE LEADING TO PUBLIC HEALTH ADVANCEMENT



DECIPHER'S RESEARCH ADVISORY GROUP OF YOUNG PEOPLE



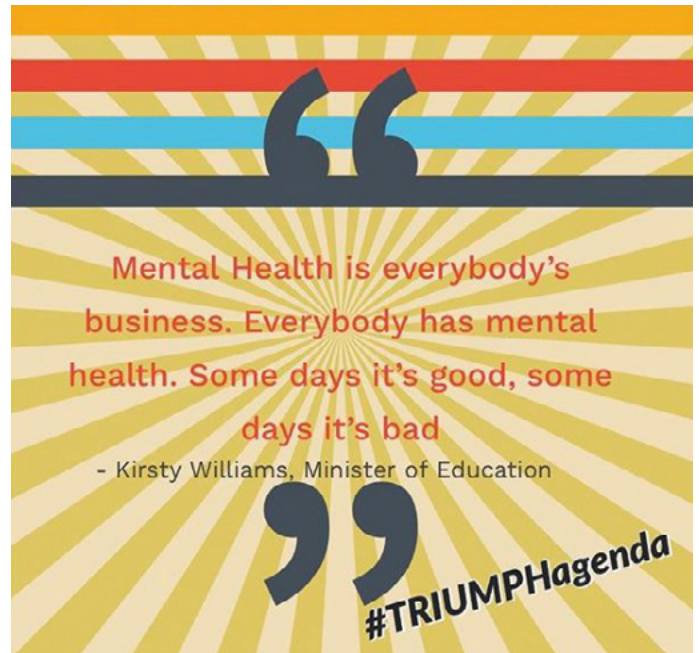
## Developing partnerships

Sharing PI practice with researchers from the National Centre for Mental Health (NCMH) helped to support the creation of their Youth Advisory Group (YAG). The NCMH YAG is a group of 7 young people aged 14-19 with Neurodiverse conditions who advise and support researchers conducting research related to young people's mental health.

The Public Involvement Officer also supported the Transdisciplinary Research for the Improvement of Youth Mental Public Health (TRIUMPH) Network to involve young people in assessing funding proposals. Involving young people in this process provided us with insight into how young people viewed the projects and ensured a focus on meaningful young people's involvement in all of the funded projects. From the 34 applications received, four projects were funded by the TRIUMPH Network, with a total grant value of £116,478 and each project receiving up to £30,000.

## Developing involvement

Over the last 12 months we have expanded our PI work through establishing an NSAG and a Parents and Carers Advisory Group. The NSAG is a network of secondary school students who advise our researchers by discussing and debating their views on public health research. It is an expansion of ALPHA to include young people throughout Wales via the school setting. To facilitate the running of the NSAG we have developed an Online Research Activity Platform, that enables researchers to connect and collaborate with a large number of School Health Research Network students from across Wales. The Parent and Carer Advisory Group builds on the successful model developed by the ALPHA group, and is key in enabling us to further develop parental involvement in research studies.





## Developing international collaborations and engagement



### International collaborations and research group engagements

1. In April 2020, Dr. Jemma Hawkins was invited to contribute to a new online MSc Public Health at University of Limerick, Ireland and has since been appointed as Adjunct Senior Lecturer at the University.
2. Dr. Hannah Littlecott undertook a part-time position working with Prof Eva Rehfuss at LMU Munich from September 2020 – March 2021 working on a project to develop an evidence ecosystem for COVID-19.
3. Prof. Graham Moore and Dr. Jemma Hawkins were invited to deliver lectures for an online colloquium to the Leibniz Institute for Prevention Research and Epidemiology at the University of Bremen in November 2020. This has led to a funding application to develop a linked online seminar series between the two Universities.
- 4, 5 & 6. Dr. Rhiannon Evans and Prof Graham Moore have been involved in various engagements with international research groups to disseminate the ADAPT guidance including: the Adaptation, Fidelity & Tailoring Group based in California and Colorado in December 2020; the St Louis Institute for Implementation Science Scholars, based in Washington University in St. Louis; and the Implementation Science Working Group, at the Harvard T.H. Chan School of Public Health.

### Online conference presentations

7. Rachel Parker presented her PhD research at the International Society for the Study of Self-Injury Annual Conference in June 2020, originally planned to take place in Vienna.

8. Dr. Rhiannon Evans, Prof Simon Murphy and Prof Graham Moore delivered presentations at the Society for Prevention Research international conference (based in Vancouver) in July 2020.
9. Dr. Jemma Hawkins delivered a keynote presentation for the Finnish Annual Conference of Effectiveness Research in October 2020.
10. Dr. Jeremy Segrott and Peter Gee ran a workshop for the EUSPR (based in Palma) virtual conference and members' meeting in October 2020. Jeremy also ran an additional session with Ina Koning from Utrecht University.
11. Dr. Kelly Morgan presented two abstracts at the International Population Data Linkage Network (IPDLN) Conference at The University of Western Australia, Perth in November 2020, one of which was selected as one of the highest scoring abstracts.
12. Dr. Yulia Shenderovich presented at the Evidence and Implementation Summit (hosted by the Centre for Evidence and Implementation and Monash University) in March 2021.

### Research meetings

13. Dr. Jeremy Segrott attended the Schools for Health in Europe Research Group (based in Denmark) online meeting in June 2020 to discuss school health research, Research Group activities and COVID-19.
14. Rachel Parker attended the virtual section business meeting of the European Psychiatric Associations' Section of Suicidology and Suicide Prevention (based in Strasbourg) in October 2020 to discuss that help to address the current challenges in suicide prevention stemming from the COVID-19 pandemic.

# CONCLUSION

This year has seen a new phase for DECIPHer. Having previously been funded by UKCRC, 2019 saw us secure funding from Health Care and Research Wales for a Welsh centre. We have new programmes of research, work packages and investigators. The centre now draws on a partnership between the School of Social Sciences and School of Medicine at Cardiff University and Public Health Wales.

Reflecting on our annual progress, despite the challenges of the last year, DECIPHer has secured major research funding, initiated a range of research projects, developed capacity and engagement activities and strengthened collaborations. Particularly noteworthy is our partnership with the NCMH and SAIL, which secured the £10M Wolfson Centre for Young People's Mental Health and the NIHR funding for one of the national PHIRST teams with Bristol University.

Looking forward, it is clear that DECIPHer is positioned to play a key role in supporting health in all policy approaches to pandemic recovery and a range of Welsh Government Acts. This covers legislation such as the Well-being of Future Generations Act (2015), Public Health Wales Act (2017) and Social Service and Well-being Act (2014); as well as policies such as the Whole School Approach to Mental Health, the National Obesity Strategy and the transformation of the Curriculum in Wales.

It is also worth highlighting that the next round of SHRN data collection will take place in 2021, with the WHO Health Behaviour in School-aged Children survey embedded within it. Given the last data collection was September to December 2019, this will provide invaluable pre/post pandemic data on a range of health and well-being indicators. Our collaborative networks will provide a strong framework to enhance the translation of this research for multiple stakeholders.