

Wales COVID-19 Evidence Centre

Canolfan Dystiolaeth COVID-19 Cymru

Wales COVID-19 Evidence Centre Review

2021 - 2023



Ariennir gan Lywodraeth Cymru Funded by Welsh Government

Foreword

COVID-19 dramatically changed the health and social care needs of people in Wales and the way services are delivered. Those who make decisions about policy and practice in this area needed to respond rapidly to health and social care issues, using research to understand and manage the pandemic and its impact.

However, the research evidence has not often been readily available to those who need it, including Welsh Government, the NHS, Social Care and the public, and it can be challenging to ensure the research evidence base is up-to-date and relevant to Wales.

This was the driver for establishing the Wales COVID-19 Evidence Centre, which aimed to improve the quality and safety of health and social care delivery by ensuring COVID-19 research was timely and applicable to Wales.

"Having the Wales COVID-19 Evidence Centre available to pull the research together has been imperative for Wales. The Centre has informed equity discussions and helped us through a difficult journey...when I think about what the Centre does...I think it's excelled. The work they've done is fantastic."

Sir Frank Atherton, Chief Medical Officer for Wales

We are delighted to take the **next step in our journey, as we transition to the 'Health and Care Research Wales Evidence Centre'**, also funded by Welsh Government via Health and Care Research Wales. The new Centre launches in March 2023 and will focus on a range of new topics across health and social care.

We would like to **thank our dedicated collaborating partners** for their continued support in providing key evidence to improve health and social care in Wales in this **new stage of research funding and look forward to building on the exemplar work of the Wales COVID-19 Evidence Centre.**

Professor Adrian Edwards Centre Director





March 2021 WCEC Launch

In March 2021 the Wales COVID-19 Evidence Centre was launched and we begun working with our six Collaborating Partners

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Autumn / Winter 2021 Research Prioritisation Round 2

Working with key stakeholders to identify the most important COVID-19 evidence needs to inform policy and practice



March 2022 Symposium

Our second public symposia, opened by Mark Drakeford, First Minister for Wales: "A year of impact."



Spring / Summer 2022 Research Prioritisation Round 3

Working with key stakeholders to identify the most important COVID-19 evidence needs to inform policy and practice Early 2023 Transition

> Working to transition to the new Health and Care Research Wales Evidence Centre

2021 - 2023

Spring / Summer 2021 Research Prioritisation Round 1

Working with key stakeholders to identify the most important COVID-19 evidence needs to inform policy and practice



December 2021

Symposium

Our first public symposia, opened by Eluned Morgan, Minister for Health & Social Services: "The effect of the COVID-19 pandemic on education, children & young people."



April 2022 Primary Research Programme

The launch of our Primary Research work programme, working to answer evidence gaps identified by reviews and stakeholders



October 2022 Symposium

Our third public symposia, opened by Sir Frank Atherton, Chief Medical Officer for Wales: "Unequal impact, fairer recovery."



44 🕄

Stakeholder Groups



Studies



Rapid Evidence Summaries



Rapid Evidence Maps



Rapid Reviews



Publications to date



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June 2023

The Wales COVID-19 Evidence Centre was funded by Welsh Government via Health and Care Research Wales

Public Involvement & Engagement

Public Partnership Group

Despite the rapid turnaround from identifying important evidence needs, conducting the research and sharing the findings with decision makers, **public involvement was critical**.

Our Public Partnership Group (PPG) of 8 - 10 members was created to ensure the public were involved in all our processes, from start to finish.

Key activities

- Identifying research priorities
- Prioritising research questions
- Advising on evidence reviews
- Advising on primary research
- Writing reports and publications
- Writing lay summaries
- **Presenting** at evidence briefings
- Engagement events

PPG Members

Our dedicated team of PPG members who have made **outstanding** contributions to our work include:

- Debs Smith
- Nigel Pearson
- Sally Anstey
- Bob Hall
- Rashmi Kumar
- Nathan Davies
- Chris Pavlakis
- Alexandra Strong

"I have very much enjoyed working with the WCEC. The highlight was the weekend in Wrexham...helping colleagues run a stall at a public venue. There was good coproduction with input into the stall and I was treated as an equal member of the team."

Debs Smith, PPG Member

The work of the PPG

Between March 2022 - March 2023, our PPG have supported or produced the following:





6

Evidence

Briefings









From top to bottom: Debs Smith, Nigel Pearson, Sally Anstey, Bob Hall, Rashmi Kumar



Summaries

Lav



"The PPG have been essential to the work we have done. They have worked tirelessly to support rapid reviews that have made a difference to policy and practice in Wales" Natalie Joseph-Williams. core Team

Public Involvement & Engagement

Working with those most impacted

Everyone has been impacted by the COVID-19 pandemic in some way, but we know that some groups and communities were affected more than others - sometimes existing inequalities were made worse.

"Things weren't great before COVID...we need to look at the existing things the pandemic has made worse"

Workshops with groups most impacted by the pandemic

We set-up four workshops to work together with these groups to understand their specific experiences and research priorities. Workshops were either online or face-to-face, and sign-language / palyntypist support was available (if required).

"Why is all the information online? A lot of people don't have computers and are missing out on vital information"



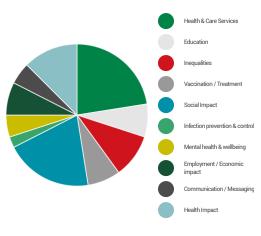
"Day to day we have to catch up, keep going and manage our conditions, but the NHS is not catching up at the same speed"

Our Public Workshop Partners

- Children and young people (CYP) groups: Children's Commissioner for Wales, DECIPHER's ALPHA Group, Wolfson Centre for Young People's Mental Health
- Disability Wales
- Ethnic minority and Youth Support Team (EYST) Wales
 Taff Housing

55 participants took part across the four workshops (April-May 2023).

What mattered most to the public?



Top 5 Research Priority Areas

- Health and care services
 - Social impact
 - Impact on health
 - Inequalities
- Education

Helping to inform our work programme

The public have directly informed our work programme by suggesting questions for us to take on.



Questions were put forward by the public

20 Included in our work programme

PPG members were also involved in the research question prioritisation process - or choosing our questions (see page 3)

2

Wider Public Consultation

We also consulted the following groups to help identify public research priorities: - Health and Care Research Wales Forum Event (May 2021) - Service Users for Primary and Emergency Research Group (May 2021)

Choosing our research questions

Our goal was clear - to work with relevant stakeholders in Wales to identify the most important COVID-19 research priorities that could inform policy and practice decision making.

We needed to be reactive to the evolving pandemic situation and use pragmatic research approaches to **rapidly provide evidence** to those who needed it.

We **invited 52 stakeholder groups** across policy, healthcare, social care, the public, third sector, and academia to submit priority questions across three research prioritisation rounds - Spring / Summer 2021, Autumn / Winter 2021, and Spring / Summer 2022.

"Good questions, answered quickly"

Questions were assessed against the following criteria for inclusion in our work programme:

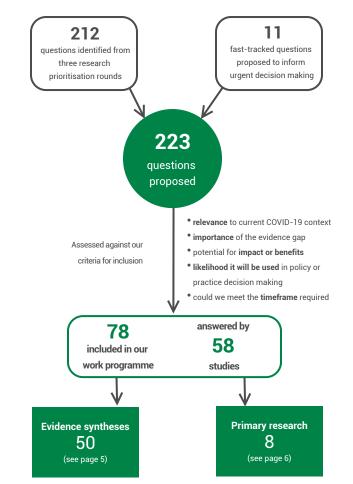
- relevance to current COVID-19 context
- **importance** of the evidence gap
- potential for impact or benefits
- likelihood it will be used in policy or practice decision making
- could we meet the **timeframe** required?

44

Stakeholder groups took part across three rounds

Priority questions submitted across three rounds

212



What did our questions cover?

Our stakeholders suggested questions that covered a **broad range of themes**. The pandemic impacted the public in many different ways from disruption to healthcare delivery, missed education, infection prevention and control measures that were put in place to reduce the spread of the virus, long covid, the impact on mental health and wellbeing and worsening of inequalities.

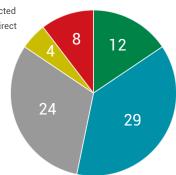
Our work programme reflects this our included **questions covering a broad range of 12 themes** (see below).

Themes covered by our work programme

- 1 Health and social care services delivery
- 2 Infection prevention and control
- 3 Children and young people
- 4 Inequalities
- 5 Vaccination
- 6 Mental health and wellbeing
- 7 Long covid
- 8 COVID-19 management and treatment
- 9 Financial and economic impact
- 10 Social care
- 11 Social impacts
- 12 Environment

Welsh Government's Five Harms of the COVID-19 Pandemic

In 2021, the Welsh Government produced a report outlining the 'Five Harms of the COVID-19 Pandemic'. These reflected the most important direct and indirect harms to be mitigated and managed. Our work programme addressed questions covering all five harms. The harm covered by most questions related to indirect harms due to surge pressures on health and social system and changes to healthcare activity (Harm 2).



Harm 1	Harm directly arising from the SARS-CoV2 infections
Harm 2	Indirect harms due to surge pressures on health/social care system and changes to healthcare activity
Harm 3	Harm arising from population based protection measures e.g. educational, psychological
Harm 4	Economic harms e.g. unemployment
Harm 5	Harms arising from the way COVID-19 has exacerbated existing, or introduced new, inequalities in society

Five Harms of the COVID-19 Pandemic report available here: <u>https://www.gov.wales/sites/default/files/publications/2021-07/technical-advisory-group-5-harms-arising-from-covid-19_0.pdf</u>

Evidence Synthesis

Looking to existing literature

The Evidence Synthesis Work Programme focused on rapid reviewing of existing research to provide answers to the questions prioritised by our stakeholder groups. A phased review process was developed, which could address urgent requests within days, weeks or months as required.

Each review was conducted by a dedicated Collaborating Partner (see page 9). Early and ongoing stakeholder engagement was used to focus the question and ensure the review was appropriate to the needs of the stakeholder. This was supported by a series of stakeholder meetings.

Key review outputs

The initial phase (1-2 weeks) included an introductory stakeholder meeting and preliminary search of key COVID-19 resources for existing reviews. This phase clarified the needs of the stakeholder, checked the research question had not been addressed elsewhere, informed methods and design of the next phase, and provided limited interim findings to the stakeholder (presented at an interim stakeholder meeting).

This phase was adapted to address urgent questions and produce the final Rapid Evidence Summary (RES) product - an annotated bibliography with key findings.

The next phase was the Rapid Review (RR) - a more rigorous and comprehensive review (1-2 months).

For broad or complex reviews, an interim Rapid Evidence Map (REM) was sometimes conducted to help focus the subsequent rapid review. This was also requested as a final product.

Evidence synthesis outputs

Between March 2021 - March 2023, our Collaborating Partners have produced the following evidence synthesis outputs.

✓ <u></u> ✓ <u></u>			
10	6	35	
Rapid Evidence Summaries	Rapid Evidence Maps	Rapid Reviews	
All of our reviews are sh	ared to our online repor	t library:	

All of our reviews are shared to our online report library: <u>https://healthandcareresearchwales.org/wales-covid-19-</u> <u>evidence-centre-report-library</u>

Some reports are written up for publication on pre-print servers or peer-reviewed journals (a full list can be found on page 16).

Our rapid reviews provided valid and reliable evidence for stakeholders to address time-sensitive decision problems in a resource-efficient manner. They aimed to comprehensively locate and synthesise the evidence surrounding a particular question, using ordered, transparent, and replicable procedures to minimise inaccuracies and bias.

Rapid Evidence Summaries (RES)

Provided a quick summary of existing research evidence addressing a specific question. Timescale: 1-2 weeks.

Rapid Evidence Maps (REM)

Provided an inventory of the available research evidence. They were suitable for broad or complex research questions and could be used to select a focus for a further detailed rapid review or to identify gaps in the research evidence. Timescale: 1-2 months.

Rapid Reviews (RR)

Provided a rigorous and comprehensive evaluation of the existing research within a short time frame. They were based on systematic review methods, but parts of the process were streamlined or left out. Timescale: 1-2 5 months

Primary Research

Conducting new research

Reviewing research evidence has provided answers to many questions, but reviews have also highlighted key evidence gaps that could benefit from further investigation.

To tackle this, we set up the **Primary Research Work Programme in Summer 2022** to address information gaps highlighted through our Evidence Synthesis work programme, and other key priorities identified by COVID-19 researchers in Wales.

We had three main streams to the primary research work programme:

- 'In house' conducted by our researchers
- 'Collaborating Partner' work
- Small-scale funded research projects

'In house' research

A number of topics came through our research prioritisation process that we explored 'in house'.

Carbon dioxide monitors to improve ventilation in education settings

This survey explored experiences of using the monitors - most felt they were useful and provided confidence classrooms were ventilated. Full report available here: <u>https://healthandcareresearchwales.org/carb</u> on-dioxide-monitors-ventilation

Patient reported safety incidents

We are supporting members of PRIME Centre Wales refine a patient-reported survey to capture safety incidents in health care. Report due June 2023.

Mental health in key workers

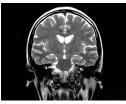
Our evidence review showed this is a significant issue. We are working with stakeholders to develop a research funding bid to explore this in more detail.

Brain and brain stem basis of COVID-19 - BBB COV

Principal Investigators:

Dr Helen Davies (Cardiff & Vale University Health Board) and Prof Neil Harrison (Cardiff University Brain Research Imaging Centre)

Long covid results in a wide-range of disabling symptoms which are unexplained by standard medical tests. Evidence found that COVID-19 could



affect the brain and nerves, but this is not well. seen or characterised by scans typically used in hospital (e.g. CT or conventional MRI scans). Therefore, this study performed specialised MRI scans of the brain and brainstem in people with long covid and healthy control to create detailed images looking at brain activity and areas of damage. The results of the study will be used to help with the diagnosis of different types of long covid and to improve treatments, and ultimately, outcomes for those suffering. Report due July 2023.

Impact of the pandemic on Welsh Learners



Principal Investigators:

Professor Sian Lloyd (Aberystwyth University) and Professor Enlli Thomas (Bangor University) Access to the Welsh language during the pandemic was one aspect that some families found challenging and the lack of exposure to

the Welsh language during the pandemic was a particularly problematic for pupils from English-speaking households who attended Welshmedium schools. This qualitative study explored the experiences of these learners and their families, focusing on those who transitioned to secondary school in 2021. The findings will add to the evidence base about strategies to support this cohort and also broader recommendations on support required during the primary to secondary school transition. Report due July 2023.

Funded research projects

We had a small research-fund available for small-scale external projects. Researchers were invited to submit their proposals for short-term projects, which were assessed against our inclusion criteria, peer reviewed, and considered by a grant funding panel (review team and funding panel included public member).

Primary Research

Public Views during the Coronavirus Pandemic - PVCOVID

On 4th March 2022, Wales announced it's Together for a Safer Future: Wales' Long-term Covid-19 Transition from Pandemic to Endemic plan, setting out a plan for the long-term management of the virus and people's safety. As Wales, like many countries, looked towards a new phase where people's responses to the coronavirus are shaped by public health guidance and their own perceptions and motivations rather than law, the question of how people will behave in relation to COVID-19 becomes even more critical. This project

examined the changes over time in people's COVID-1 self-isolation, face mask wearing and social mixing. This research hopes to understand if these behaviours have been maintained and why, and also provide insight into inequalities.



The final results are due July 2023.

COVID-19 & common respiratory tract infection-related health behaviours - CARI Cymru

Flu-like illnesses, coughs, and colds place a significant burden on individuals, healthcare systems and society. COVID-19 has highlighted the importance of understanding what people can do to reduce the spread of infections and to manage these conditions. This study aimed to understand what people in the community think, feel and do about preventing COVID-19 and other common respiratory tract infections when they do and do not have symptoms. It also explored which viruses.



not have symptoms. It also explored which viruses and bacteria can be identified in people who do and do not have symptoms, and how this relates to how they are feeling and behaving. The researchers hope to inform interventions to promote prevention and self-management behaviours. Interim results are due in July 2023. Final results of microbiology study due Autumn 2023.

Improving COVID-19 vaccine uptake & equity in Wales

Population Data Science team & PHW

Despite the COVID-19 vaccination programme being one of the most successful vaccination programmes in Wales, there is the potential for routine vaccination data to hide inequalities. This population data linkage study aimed to identify and characterise those who are under-vaccinated (either unvaccinated or incompletely vaccinated). Final results are expected June 2023.



Impact of COVID-19 on recorded incidence of long-term conditions

Population Data Science team The aim of this study was to explore the effects of the

COVID-19 pandemic on 17 long-term health conditions using population data linkage of primary and secondary care. Recorded incidence rates from 2020-2021 were lower than expected across all conditions expect Type II diabetes - put simply, a GP practice of 10,000 patients might have over 400 patients with undiagnosed long-term conditions. BJGP. <u>https://bjgp.org/content/73/730/e332</u>

over 400 patients with undiagnosed long-term conditions. BJGP: <u>https://bjgp.org/content/73/730/e332</u> Real world effectiveness of anti-viral treatments

among higher-risk patients in Wales Population Data Science team

The aim of this retrospective cohort study was to compare the effectiveness of molnupiravir, nirmatrelvir-ritonavir, and sotrovimab with no treatment in preventing hospital admission or death in higher-risk patients infected with SARS-CoV-2 in the community. Journal of Infection: <u>https://www.journalofinfection.com/action/showPdf?</u>



Principal Investigators for PVCOVID and CARI Cymru:

Dr Kim Dienes and Dr Simon Williams (Swansea University)

Knowledge Mobilisation

As well as conducting evidence reviews and new studies, we wanted to make sure that the results were **rapidly** and **readily** available to those who needed it.

Our knowledge mobilisation work programme focused on this making sure the outputs were being used to **inform policy and practice decision making in Wales.**

"Knowledge mobilisation is about connecting and encouraging people to share knowledge and to use this knowledge to inform their decision making"

Knowledge Mobilisation Activities Reports & lay summaries

All studies are published as reports in our online report library, or in an online pre-print server (e.g. medRxiv). Reports include the **full technical output**, a **top line summary** of key findings, and a **lay summary** (written by one of our public partners). When required and helpful for the stakeholders, an accompanying infographic was also produced.

Welsh Government Briefing Sessions

Fortnightly briefings sessions were scheduled with key Welsh Government stakeholders to provide **rapid dissemination of findings**. These provided a valuable forum for discussion and deeper understanding of research findings by COVID-19 related policy makers and advisors.

"Evidence briefings and symposia were very insightful events that provided useful opportunities to share learning & develop links for future collaboration"

Newsletters

The WCEC produced a biannual newsletter including information on all related progress:

- Issue one <u>November 2021</u>
- Issue two March 2022
- Issue three September 2022

Public Symposia

The WCEC hosted three public symposia, each with a different focus, reflecting the evolving pandemic priorities in Wales.

December 2021

<u>"The effect of the COVID-19 pandemic on education, children, and young people"</u> Opened by Eluned Morgan, Minister for Health and Social Services

March 2022

<u>"A year of impact"</u> Opened by Rt Hon Mark Drakeford, First Minister for Wales

September 2022

<u>"Unequal impact, fairer recovery"</u> Opened by Sir Frank Atherton, Chief Medical Officer for Wales

Some ways our evidence has been used

"NHS worker recruitment and retention is central to everything going on in the NHS and the medical Royal Colleges. Being able to present accurate data enables us to show to policy makers that our asks and approaches are evidence-based. This is invaluable."

"'Evidence assisted important policy and legislative decisions on outcome measures, societal restrictions, school safety measures, reducing inequalities in the population" "We used the evidence summary as part of an information pack in meetings with each of the seven regional partnership workforce boards in Wales."

"The rapid evidence summary helped to support the action plans of the Vaccine Equity Committee"

[&]quot;...used to advise the Ministers for Health & Social Services and Education & the Welsh Language about using ozone generators in schools."

Making an impact Spotlight on our Collaborating Partners

Our Collaborating Partners are the backbone of the WCEC. The core team have worked together with **six Collaborating Partners across Wales** to answer the priority COVID-19 research questions, and to deliver outputs that have informed policy and practice decision making.

Our Collaborating Partners

- <u>Bangor Institute for Health &</u> <u>Medical Research (BIHMR)</u>
- <u>Health Technology Wales (HTW)</u>
- <u>Population Data Science team,</u> <u>Swansea University</u>
- <u>Public Health Wales</u>
 <u>Observatory</u>
- <u>Specialist Unit for Review</u> <u>Evidence Centre (SURE)</u>
- <u>Wales Centre for Evidence</u> <u>Based Care (WCEBC)</u>

Skills

Our Collaborating Partners are experts in reviewing, health economics, and analysis of large-data sets.

The work of each Collaborating Partner is 'spotlighted' over the next few pages, where we share information about each team, their specific expertise, and case studies of work they have undertaken across our evidence synthesis and primary research work programme.

Outputs

All research outputs produced by the WCEC, together with our Collaborating Partners, can be found in the additional information section on page 16.

"I genuinely think that WCEC have been a pleasure to work with...the fact that the team's diligence and commitment has been combined with the patience and good humour that it has speaks volumes about the team and those comprising it."

Bangor Institute for Health & Medical Research (BIHMR)

The Bangor Institute for Health & Medical Research (BIHMR), incorporating the Centre for Health Economics and Medicines Evaluation (CHEME) group) includes researchers specialising in public and prevention health economics, and collaborates with Health and Care Economics Cymru.

Areas of Expertise

Public health and prevention economics
Pharmacoeconomics
Health economic evaluations including cost-effectiveness analysis (CEA), cost utility analysis (CUA), cost benefit analysis (CBA) and Social Return on Investment (SROI)
Patient Reported Outcome Measures (PROMs)
Systematic review (SR) methodology

Supporting young people exposed to domestic abuse

We know that children and young people witnessing domestic violence and abuse can be affected negatively in terms of their psychological, emotional, and social development. Our public stakeholders felt this was an important issue, and proposed a question on this topic for our work programme. The BIHMR team produced a rapid review asking: What is the effectiveness and costeffectiveness of interventions in reducing the harms for children and young people who have been exposed to domestic violence or abuse?



This review has the potential to shape policy regarding how children and young people exposed to domestic violence and abuse can be helped to deal with their trauma and become more resilient adults.

The full report can be viewed here: https://www.medrxiv.org/content/medrxiv/early

/2023/05/11/2023.05.10.23289781.full.pdf



Health Technology Wales (HTW)

Health Technology Wales (HTW) is a national body that undertakes technology appraisals of nonmedicine health and social care technologies and models of care and support. It includes a multidisciplinary group of researchers, health economists, and information specialists.

Areas of Expertise

Health Technology Assessment
 Systematic and rapid evidence reviews of
 quantitative or qualitative methods
 Economic evaluation
 Information science and retrieval

Informing decisions about face masks

In July 2021 HTW produced a rapid summary which provided an evidence-based answer to the following question: What is the effectiveness of face coverings used in the community to reduce rates of COVID-19 transmission and infection and what guidelines exist on their use?

HTW's team of researchers examined the evidence currently available on the effectiveness of face coverings, including systematic reviews, meta-analyses and primary studies investigating protection against influenza, randomised trials, and observational studies. The summary found that the evidence base is limited, however, there are studies suggesting a modest benefit offered by wearing masks. Medical masks appear to have a higher efficacy than fabric masks. It concluded that high-quality trials are needed to assess when wearing a face covering in the community is most likely to be protective.



The study resulted in the policy implication that masks may play a role in preventing transmission of SARS-CoV-2. The work offered Welsh Government with the appropriate information to make important decisions regarding continued mask usage.

The full report can be viewed here: https://healthandcareresearchwales.org/facecoverings-reduce-transmission-sars-cov-2



Population Data Science - Swansea University

The Population Data Science team at Swansea University conduct worldleading research using the Secure Anonymised Information Linkage (SAIL) Databank and in the increasingly important field of population data science - *the science of data about people.*

Areas of Expertise •Large scale studies •Complex evidence synthesis •Policy evaluation •Methodological research •Curation and management of populationscale data and analysis •Health technology assessment

Real world effectiveness of antivirals to treat COVID-19

The development of novel therapeutic agents for the treatment of SARS-CoV-2 infection was a priority during the COVID-19 pandemic.

However, there was considerable uncertainty as to whether the benefits of these treatments observed in a clinical trial are realised in the real world in highly vaccinated populations and where newer variants dominate those that resulted in infection amongst trial participants. The Population Data Science Team used the SAIL Databank to explore this: Real-world effectiveness of molnupiravir, nirmatrelvirritonavir, and sotrovimab on preventing hospital admission among higher-risk patients with COVID-19 in Wales: A retrospective cohort study



In higher-risk adult patients in the community with COVID-19, those who received treatment with molnupiravir, nirmatrelvir-ritonavir, or sotrovimab were at lower risk of hospitalisation or death than those not receiving treatment.

The full report can be viewed here: https://www.journalofinfection.com/article/S01 63-4453(23)00082-8/fulltext

> Population Data Science at Swansea University



Public Health Wales Evidence Service

The Public Health Wales Evidence Service was set up in 2014 to help ensure good quality research evidence is at the heart of public health decision making in Wales. The team includes experienced systematic reviewers and information specialists.

Areas of Expertise

•Full breadth of the public health agenda •Experience of a broad range of evidence synthesis approaches including :evidence mapping, rapid reviews, and systematic reviews

Shaping policy around children safely staying in and returning to school during the pandemic

Children and young people faced severe disruption to their education during the lockdown periods. A range of measures had been introduced into school and education settings to reduce the spread of COVID-19.

Welsh Government wanted to know how effective these measures had been and which measures should be kept in place in education and childcare settings as the pandemic progressed. In August 2021, the Public Health Walles Evidence Service produced a rapid review exploring "how effective are the infection prevention and control measures being applied in education and childcare settings for children?"



This report informed a strategic framework and action in education policy in Wales aimed at operating schools and education settings safely during the pandemic. It was also referenced in a Welsh Government report (October 2021), noting that the findings were used to inform a policy regarding a return to school for children after a lockdown period.

The full report can be viewed here: https://healthandcareresearchwales.org/effe ctiveness-infection-prevention-and-controlmeasures-applied-education-and-childcaresettings





Specialist Unit for Review Evidence (SURE)

SURE was established in 2000 and is uniquely placed in Cardiff University's library services. The team includes experienced information specialists and systematic reviewers. They conduct systematic and literature reviews in the fields of health and social care, investigate methodological innovation and provide consultancy and training services.

Areas of Expertise

•Advanced search design and implementation •Experience of conducting all forms of systematic and literature reviews •Evidence synthesis, critical appraisal and using GRADE •Use of text mining to improve review

Supporting pregnant women to make evidence-based vaccination decisions

All of the WCEC reviews have been responsive to priority COVID-19 questions, typically taking 2-3 months to complete. Occasionally, we received urgent requests to inform high priority policy and guidance. In July 2021, the SURE team undertook one of these urgent requests from the public health and vaccine policy leads in Welsh Government, exploring the evidence of direct harm from COVID-19 infection and vaccine in pregnant and post -partum women. This request was in direct response to concerns that vaccine uptake was low among pregnant women in Wales, leading to increased hospital admissions.

The team produced this review for the stakeholder in seven days - the quickest turnaround of any of our outputs!



The report and accompanying infographic

(above) were shared by the Public Health Wales Vaccine Preventable Disease Programme training lead with Heads of Maternity and maternity services across Wales, to inform evidence based decision making with women.

The full report can be viewed here:

https://healthandcareresearchwales.org/whatevidence-direct-harm-covid-19-infection-andcovid-19-vaccine-pregnantpost-partum-womenand



Wales Centre for Evidence Based Care (WCEBC)

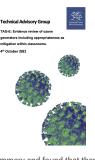
The Wales Centre for Evidence Based Care (WCEBC) was established in 2006 as a JBI Centre of Excellence. They promote evidence-based practice through the development and evaluation of internationally excellent systems for evidence appraisal, translation and utilisation. The group includes an information specialist and systematic review methodologists.

Areas of Expertise

Health and social care topics
Experience of a broad range of evidence syntheses types
Using JBI quality appraisal, implementation and management tools, and using the GRADE approach.

How safe and effective are methods for disinfecting COVID-19 in schools and colleges?

There are several ways of disinfecting air or surfaces of COVID-19 in education settings, including a type of light, moist gas (hydrogen peroxide) or dry gas (ozone). It was important to find out how well these work in reducing the spread of the virus and whether or not they create any health risks to the pupils. In summer 2021, Welsh Government were considering the



 best methods ahead of the start of the next academic year, and looked to the WCEC for advice. The WCEBC conducted a rapid evidence

summary and found that there was a lack of evidence that ozone is an effective and safe disinfectant, and positive evidence that ozone is harmful to the health of children and young people.

It was used to advise Ministers for Health & Social Services and Education and Welsh Language about the use of these machines. It was included in a <u>Technical Advisory</u> <u>Group (TAG) report</u>, and formed a key part of Welsh Government's decision to not use ozone machines.

The full report can be viewed here: https://healthandcareresearchwales.org/effi cacy-effectiveness-and-safety-sars-cov-2disinfection-methods-including-ozonemachines



What stakeholders say about working with us

As part of our ongoing monitoring and improvement processes, we regularly captured feedback from our stakeholders on how they found working with the WCEC and our Collaborating Partners. Here is some of the feedback:

"...the WCEC representatives involved with the project were highly responsive. Their suggestions were constructive and they worked proactively to make meaningful progress that allowed our Welsh Government project team to quickly and conveniently locate relevant evidence that helped shape our policy proposals"

"Whilst the process was new to me, I felt included as an equal partner and any uncertainty was resolved by being allowed to check information and understanding prior to sign off"

"Excellent process for defining questions, setting boundaries for research, discussing key findings"

"....helpful to convene interested parties across WG in one place" "It has been a really helpful process in shaping our work and focusing our attention on things that matter and raising the topic up the agenda with key partners and stakeholders"

"I have seen excellent teamwork and a strong professional ethic that holds itself to account to provide the highest quality research and analysis'.... 'The model for delivery is one that is agile and flexible as well as speedy...albeit with an understanding of the caveats that come along with it"

"Well chaired (stakeholder meetings) to ensure that all relevant aspects considered. Good representation of stakeholders present to ensure implementation"

"The research team were a great help in supporting us to refine the question to ensure we could be confident of getting results to address our requirement"

What have we learned?

Speaking with the right stakeholders

Engaging with the right stakeholders early on is critical. There is a need to balance broad engagement with **targeting groups that will use the evidence and make a change**.

Understand how the evidence will be used early on

It is important to understand how the evidence will be used from the start. This allows for a clear **pathway to impact** to be designed and it helps to refine review and research questions and methods so that they are the most useful to the stakeholder.

Public partners can support ALL processes

With the right support, public members can be **involved in rapid research processes that inform policy decisions.** They can support research prioritisation, advise on projects, support write-up and dissemination.

Involvement of stakeholders from start to finish

The **continuous stakeholder involvement** embedded in the research process has been a particular strength, facilitated by remote working and close collaboration between different research groups and organisations across Wales.

Recognising and combining expertise

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The alliance and **sharing of knowledge and expertise** for conducting evidence reviews and research across the collaborating partner groups, core team, and stakeholders has been key to our success.

Rapid outputs

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We now better appreciate the speed at which evidence needs to be turned around to inform decision making. **Rapid turn around on outputs is key** - timeframes should be **agreed at the outset.**

Transparency and sharing work programmes

It is key to avoid duplication both within and between organisations. Involve these groups as stakeholders, and share regular updates on work programme plans (and publicly) to **identify areas of potential duplication and collaboration**.

Being clear about data quality

8 Rapid processes are key for some health and care policy and practice decision making - it is important to be **clear about the quality of the data, and potential limitations**.

Pushing evidence AND pulling into practice

Knowledge mobilisation is a 2-way process and should underpin questions from start to finish - we can push the evidence out, but key stakeholders need to pull it into their practice. Careful planning from the outset is important to understand what outputs are most useful.

Streamlining processes for public partners

Clear guidance helps public partners to engage in the rapid research processes. The research team should be aware of the email traffic and put processes in place to **streamline** this as much as possible for public partners.

What next?

In August 2022, Health and Care Research Wales announced a funding call for a new Evidence Centre. The WCEC team, along with their Collaborating Partners, submitted a funding application for this competitive award.

We were delighted to be told that **we were successful in this bid to host the new Health and Care Research Wales Evidence Centre.** From Autumn 2022, we planned for our transition from a COVID-19 specific centre to an Evidence Centre covering all of health and social care.

The new five-year Health and Care Research Wales Evidence Centre officially launched in March 2023, with an opening address from the Minister for Health and Social Services, Eluned Morgan.

"The new Centre is absolutely essential to the future of health and social care in Wales. It will help us provide the best evidence-based health and social care services to patients and communities, and we are proud to have the Centre available to us here in Wales. We are looking forward to seeing all the incredible things the Centre achieves over the next five years as it works to improve the lives of people across Wales and beyond."

Eluned Morgan, Minister for Health and Social Services

We continue to work with our Collaborating Partners (page 9) and a broad range of health and social care stakeholders across Wales to identify key evidence gaps, and **produce evidence to inform key health and care decisions in Wales**.

"Rigorous, rapid and relevant evidence to inform health and care decision making in Wales"

You can **find our more about the new Evidence Centre,** including our work programme, on our website: <u>https://researchwalesevidencecentre.co.uk/</u>

Director Prof Adrian Edwards

Associate Directors Dr Natalie Joseph-Williams, Dr Alison Cooper, Dr Ruth Lewis Health and Care Research Wales Evidence Centre Canolfan Dystiolaeth Ymchwil Iechyd a Gofal Cymru

Our Contributors

The success of the WCEC has depended on the input of various stakeholder groups, our Public Partnership Group and our Collaborating Partners. We are grateful of their continued support and would like to thank all for their contributions.

BIHMR

Bhiannon Tudor Edwards Dyfrig Huges Deb Fitzsimmons Catherin Lawrence Clare Wilkinson Jane Noyes Nathan Bray Annie Henry Ned Hartfiel Llinos Spencer Joanna Charles Abraham Makanjuola Bethany Anthony Jacob Davies Kalpa Pisavadia Mohammed Albustami In memory of Jessica Roberts

WCEBC

Deborah Edwards Judith Carrier Elizabeth Gillen Maggie Hendry Judit Csontos

HTW

Susan Myles David Jarrom Matthew Prettyjohns Katie McDermott Jenni Washington Tom Winfield Lauren Elston Antonia Needham Charlotte Bowles Clare England Jessica Williams Sasha Barratte Caron Porter

PHW

Hannah Shaw Alisha Davies Elen De Lacy Sian Price Kirsty Little Eleri Tyler Chukwudi Okolie Rocio Rodriguez Lopez Amy Hookway Alesha Wale Jordon Everitt Toby Ayres

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STAKEHOLDER GROUPS

- Academy of Medical Royal Colleges Wales
- ALPHA Group
- Aneurin Bevan UHB
- Audiology Scientific Advisory Group
- Betsi Cadwaladr Local Public Health Team
- Children's Commissioner for Wales
- Cwm Taf Morgannwg UHB
- Department of Health & Social Care (England)
- Disability Wales
- Ethnic Minorities & Youth Support Team (EYST)

- Long COVID Task Force
- National Cancer Institute
- PRIME Centre Wales
- Royal College of General Practitioners
- Royal College of Podiatry
- Royal College of Surgeons Edinburgh
- Social Care Wales
- SUPER Group
- Taff Housing
- Velindre NHS Trust
- Wales Cancer Network
- Welsh Ambulance Services NHS Trust
- Welsh Government Education Directorate
- Welsh Government Equity Branch
- Welsh Government Renew & Reform Programme Analyst Group
- Welsh Government Social Justice Division
- Welsh Government Vaccine Equity Group
- Welsh Government Welsh Language Division
- Welsh Government Technical Advisory Cell (TAC)
- Welsh Government Technical Advisory Groups (including Children & Education, Health Economics, Policy Modelling, Risk Communication & Behavioural Insights, Socio Economic Harms, Testing,
- Wolfson Centre for Young People's Mental Health

WCEC Outputs (2021-2023)

Published reports: www.healthandcareresearchwales.org/wales-covid-19-evidence-centre-report-library

1	COVID-19 transmission in semi-outdoor or partially covered settings	HTW	https://healthandcareresearchwales.org/covid-19-transmission- semi-outdoor-or-partially-covered-settings
2	Rapid review on the impact of the COVID-19 pandemic on the mental health of health and social care workers within the UK	SURE	https://healthandcareresearchwales.org/rapid-review-impact- covid-19-pandemic-mental-health-health-and-social-care- workers-within-uk
3	Which innovations can improve timeliness of investigations and address the backlog in endoscopy for patients with potential symptoms of upper and lower Gastrointestinal (GI) cancers?	BIHMR	<u>https://healthandcareresearchwales.org/which-innovations-can-</u> improve-timeliness-investigations-and-address-backlog- endoscopy-patients
4	A rapid review of the effectiveness of alternative education delivery strategies in medical, dental, nursing and pharmacy education during the COVID-19 pandemic	WCEBC	<u>https://healthandcareresearchwales.org/rapid-review-</u> effectiveness-alternative-education-delivery-strategies- undergraduate-and-postgraduate
5	The effectiveness of home monitoring using pulse oximetry in people with COVID-19 symptoms to guide future management	HTW	<u>https://healthandcareresearchwales.org/effectiveness-home-</u> <u>monitoring-using-pulse-oximetry-people-covid-19-symptoms-</u> <u>guide-future-management</u>
6	Vaccination uptake (barriers/facilitators and interventions) in adults from underserved or hard-to-reach communities	PHW	<u>https://healthandcareresearchwales.org/vaccination-uptake-</u> <u>barriersfacilitators-and-interventions-adults-underserved-or-hard-</u> <u>reach</u>
7	Face coverings to reduce transmission of SARS-CoV-2	нтw	https://healthandcareresearchwales.org/face-coverings-reduce- transmission-sars-cov-2

8

15

The effectiveness of service delivery interventions for adult orthopaedic patients on a surgical waiting list

The effectiveness of infection prevention and control measures

- **9** applied in education and childcare settings for children: a summary and critical appraisal
- 10 What is the risk of SARS-CoV-2 transmission in vaccinated populations?

What is the impact of educational and other restrictions during the COVID-19 pandemic on children aged 3-13 years?

12 Barriers and facilitators to the uptake of personal protective behaviours in public settings

A rapid review of strategies to support learning and wellbeing among
 16-19 year old learners who have experienced significant disruption in their education as a result of the COVID-19 pandemic

14 Long-Covid Research in Wales

Have infection control and prevention measures resulted in any adverse outcomes for care home and domiciliary care residents and staff?

PHW	https://healthandcareresearchwales.org/effectiveness-service- delivery-interventions-adult-orthopaedic-patients-surgical- waiting-list
PHW	<u>https://healthandcareresearchwales.org/effectiveness-infection- prevention-and-control-measures-applied-education-and- childcare-settings</u>
нтw	https://healthandcareresearchwales.org/what-risk-sars-cov-2- transmission-vaccinated-populations
SURE	https://healthandcareresearchwales.org/what-impact-educational- and-other-restrictions-during-covid-19-pandemic-children-aged- 3-13-years
PHW	<u>https://healthandcareresearchwales.org/barriers-and-facilitators-</u> uptake-personal-protective-behaviours-public-settings
WCEBC	<u>https://healthandcareresearchwales.org/rapid-review-strategies- support-learning-and-wellbeing-among-16-19-year-old-learners- who-have</u>
WCEC	<u>https://healthandcareresearchwales.org/summary-active-and-prospective-long-covid-research-wales</u>
BIHMR	https://healthandcareresearchwales.org/infection-control- prevention-control-care-homes

16	What evidence is there of the inverse care law in social care in Wales and has this been exacerbated by the COVID-19 pandemic?	BIHMR	<u>https://healthandcareresearchwales.org/inverse-care-law-social-</u> <u>care-wales</u>
17	The efficacy, effectiveness and safety of SARS-CoV-2 disinfection methods (including ozone machines) in educational settings for children and young people	WCEBC	https://healthandcareresearchwales.org/efficacy-effectiveness- and-safety-sars-cov-2-disinfection-methods-including-ozone- machines
18	What is the evidence of direct harm from COVID-19 infection and COVID-19 vaccine in pregnant/post-partum women and the unborn child?	SURE	https://healthandcareresearchwales.org/what-evidence-direct- harm-covid-19-infection-and-covid-19-vaccine-pregnantpost- partum-women-and
19	What is the effectiveness of financial support schemes for individuals requested to self-isolate following a positive Covid test or positive contact: A rapid review	нтw	https://healthandcareresearchwales.org/effectiveness-financial- self-isolation
20	Impact of the COVID-19 pandemic on disabled children and adults across the Equality and Human Rights Commission life domains: a Rapid Evidence Map	SURE	https://healthandcareresearchwales.org/impact-covid-19- pandemic-disabled-children-adults
21	Impact of the COVID-19 pandemic on the health and access to health care of disabled people: a rapid review	SURE	https://healthandcareresearchwales.org/impact-covid-19- pandemic-disabled-people
22	What innovations help to attract, recruit and retain social care workers within the UK context?	WCEBC	https://healthandcareresearchwales.org/what-innovations-help- attract-recruit-and-retain-social-care-workers-within-uk-context
23	A rapid review of the effectiveness of innovations to support patients on elective surgical waiting lists.	PHW	https://healthandcareresearchwales.org/support-patients-elective- surgical-waiting-lists

24	What innovations can address inequalities experienced by women and girls due to the COVID-19 pandemic across the different areas of life/domains: work, health, living standards, personal security, participation and education?	BIHMR	<u>https://healthandcareresearchwales.org/what-innovations-can-</u> address-inequalities-experienced-women-and-girls-due-covid-19- pandemic-across
25	The effectiveness of interventions/innovations relevant to the Welsh NHS context to support recruitment and retention of clinical staff: a rapid evidence map	WCEBC	<u>https://healthandcareresearchwales.org/innovations-support-</u> recruitment-welsh-nhs
26	What is the impact of the COVID-19 pandemic and restrictions on LGBTQ+ communities in the UK and what actions could help address these?	SURE	<u>https://healthandcareresearchwales.org/covid-19-impact-lgbtq-</u> communities-uk
27	What impact have COVID-19 induced changes in working practice had on greenhouse gas emissions?	Bangor Biocomposites	https://healthandcareresearchwales.org/impact-covid-19- changes-greenhouse-gas-emissions
28	A rapid review of the effectiveness of remote consultations versus face-to-face consultations in secondary care surgical outpatient settings	WCEBC	https://healthandcareresearchwales.org/remote-consultations
29	What is the cost impact of demands due to Long COVID on NHS and social care services?	BIHMR	<u>https://healthandcareresearchwales.org/cost-long-covid-nhs-</u> social-care
30	A rapid review of barriers and facilitators to cancer screening uptake (breast, cervical and bowel) in underserved populations	PHW	<u>https://healthandcareresearchwales.org/cancer-screening-under-</u> served-populations
31	What is the cost impact of Long COVID on employment and caring responsibilities?	BIHMR	https://healthandcareresearchwales.org/long-covid-employment- caring-responsibilities

32	Modelling studies used to evaluate the effect of population-level non- pharmaceutical interventions on the reproduction number of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)	HTW	https://healthandcareresearchwales.org/modelling-studies-used- evaluate-effect-population-level-non-pharmaceutical-interventions
33	A rapid review of what is known about the effectiveness of strategies to address challenging and disruptive behaviours in students in a classroom setting	SURE	<u>https://healthandcareresearchwales.org/student-challenging-</u> <u>behaviours-pandemic</u>
34	A rapid review of what innovative workforce models have helped to rapidly grow capacity for community care to help older adults leave hospital	SURE	https://healthandcareresearchwales.org/rapid-review-what- innovative-workforce-models-have-helped-rapidly-grow-capacity- community-care-help
35	What is the long-term impact of COVID-19 on the Health-Related Quality of Life of individuals with mild symptoms (or non- hospitalised)?	BIHMR	<u>https://healthandcareresearchwales.org/mild-covid-19-quality-</u> life-mild
36	Supplementary air filtration systems in health service settings	нтw	https://healthandcareresearchwales.org/air-filtration-systems
37	What interventions or best practice are there to support people with Long COVID, or similar post-viral conditions or conditions characterised by fatigue, to return to normal activities: a rapid review	BIHMR	<u>https://healthandcareresearchwales.org/support-people-long-</u> covid
38	A rapid review of strategies to support learning and wellbeing among 16-19 year old learners who have experienced significant disruption in their education as a result of the COVID-19 pandemic (June 2022 update).	BIHMR	https://edarxiv.org/b6wq3/

36	A rapid evidence map of women's health	WCEBC	https://healthandcareresearchwales.org/gender-inequalities- health-social-care
37	Personal Protective Equipment (PPE) in General Practice and Ambulance settings: a rapid review	нтw	https://healthandcareresearchwales.org/use-personal-protective- equipment-general-practice-and-ambulance-settings
38	Living review with UKHSA: COVID transmission rate in vaccinated populations. Update from report	HTW / UKHSA	https://www.medrxiv.org/content/10.1101/2022.12.09.22283255v1
39	What innovations help with the recruitment and retention of ambulance staff	WCEBC	https://healthandcareresearchwales.org/recruitment-retention- ambulance-staff
40	A rapid review of the effectiveness and cost effectiveness of interventions that make homes warmer and cheaper to heat for households in fuel poverty in rural and remote areas	WCEBC	https://www.medrxiv.org/content/10.1101/2023.04.18.23288747v1
41	What organisational level factors support or inhibit the scale and spread of innovations in children's social care: a rapid review	SURE	https://www.medrxiv.org/content/10.1101/2023.04.03.23288061v1
42	How effective and cost-effective are interventions to support children and young people who have been exposed to domestic violence or abuse: a rapid review	BIHMR	https://www.medrxiv.org/content/10.1101/2023.05.10.23289781v1
43	What is the effectiveness, efficiency, and acceptability of surgical hubs in supporting planned care activity? How best should they be established and run	PHW	https://www.medrxiv.org/content/10.1101/2023.04.20.23288815v1

Pending Reports

What is the effectiveness, efficiency, and acceptability of surgical hubs in supporting planned care activity? How best should they be established and run	РНЖ
Interventions to support children and young adults bereaved by suicide in the family	SURE
Cost of living - impact on health	HTW
Brain and Brain Stem Basis of COVID-19 (BBB- COV)	Dr Helen Davies (PI)
Effectiveness of antiracist interventions for ethnic minority healthcare staff: A systematic review	Student Project
The effects of the COVID-19 pandemic on prison populations: a systematic review	Student Project
The effects of the COVID-19 pandemic on homeless populations: a systematic review	Student Project
Contribution of institutional racism to adverse COVID-19 clinical outcomes in ethnic minority healthcare staff: systematic review	Student Project

	Prof Sian Lloyd
Impact of the pandemic on Welsh Learners	& Prof Enlli
	Thomas (PIs)
Public Views During the COVID-19 Pandemic	Dr Kim Dienes &
(PVCOVID)	Dr Simon
	Williams (PI's)
COVID-19 & common respiratory tract infection-	Dr Kim Dienes &
· · · ·	Dr Simon
related health behaviours - CARI Cymru	Williams (Pl's)

Peer Review Publications

Cancer

Greene G et al. Impact of the SARS-CoV-2 pandemic on the female breast, colorectal and non-small cell lung cancer incidence, stage and healthcare pathway to diagnosis during 2020 in Wales, UK using a national cancer clinical record system. British Journal of Cancer. 2022;127:558-568.

https://www.nature.com/articles/s41416-022-01830-6



British Journal of Cancer

R the trace

Impact of the SARS-CoV-2 pandemic on female breast, colorectal and non-small cell lung cancer incidence, stage and healthcare pathway to diagnosis during 2020 in Wales, UK, using a national cancer clinical record system

Glie Genera (), Romera Gelffert², Jun Hon², Ablart Ablay Ablau², Movica Conec³, June Lynes¹, Botan A. Lynes¹, Martin Rober⁴, Franneh Tosob², Jonet Robor¹, Sox R. A. Moreno³, Mark Levier² and Dyfol Blyn Hours¹⁰⁰ O M. Advino¹, Junete exclusive licence to Springer Hanne Linded 2022

ARTICLE

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incidence, stage and healthcare pathways to diagnosis. These parameters have not been assessed at the population level in the UK. We undertook an analysis of clinically ascertained: (Il female	METHODS . We conducted a retrapective observational study of the resident population of Wales aged 18+ years (= $2,310,7140[11]$ in the Con-COV

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Workforce

Edwards D et al. A rapid review of innovations for attraction, recruitment and retention of social care workers, and exploration of factors influencing turnover within the UK context. Published Sep 2022. Journal of Long Term Care. 2022:205-221.

https://journal.ilpnetwork.org/articles/10.3138 9/jltc.130



dt The LK social care sector has come under increased pressure to combat we shortages. With international requirement of partiessionals impacted by and the COVID-19 pandemic, social care is in need of innevations to attract, and main staff.	Debarah Edwards Cardiff University, GD edwardscijihoordiff ac.uk	
Areas: The review climed to identify (1) invocations to ethers, service, and retain workers (prefeasionable working with children and adults to protect theme from form as case menagem) and the wider social care workfring: (workers previding precision supports to hildren and adults with their delip activities) and (2) fectors sing saff "amorea" in the UK context.	KEYWORDS Social care, Social workers, social care workers, versilione shartages, worubment, retention, othraction; turnover	
d: Pre-defined inclusion criteria were developed using the SPEDE Dempik, memor ef Interest, Desigs, Deutazion, Research type: Internewsk, Searchen ankuted across three dotabases and 32 key United Kogkouth this sector and meet organisations from 2001. In table, LASS clusters were rehieved and 40-met pblity criteria (31 for social workers and 26 for social care workfored). Thereads no usuad to applying the data and prevented across two evidences maps.	TO CITE THIS ARTICLE Edwards, D. Togo, L. Carter, J. Coguer, A. Zartto, L. Tou, L. Carton, L. Zartto, L. Tou, L. Carton, K. A. Sizz, A nogle review of investions for obtaction, resultment and institution of indiane and and the second second second the control. Lower of Lange- time fam, (2022), pp. 265–221. Doi: Inspir. Archis.org/20.2.1188W [21.110]	
gs: Exclustion evidence was anly available for a small partian of impositions ed. Procide teaming, faint track graduate programmes, and appendicably paper the network of social works, while pre-employment barriers, advand- ment campaigne, care work combansadors, and values-based recruitment caulal traction, recordingent, and reterior on the wide social care workform.		
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ations: Future policy initiatives should include an evaluation strategy from		

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Implica

Long-term conditions

Qi C et al. Impact of COVID-19 pandemic on incidence of long-term conditions in Wales: a population data linkage study using primary and secondary care health records. British Journal of General Practice. 2023;73(730):e332-339.

https://bjqp.org/content/73/730/e332

Vaccination

Lench A et al. Household Composition and Inequalities in COVID-19 Vaccination in Wales, UK. Vaccines. 2023; 11(3):604.

https://www.mdpi.com/2076-393X/11/3/604

Research Cathr Di Tim Disborne, Rowens Bailey, Alison Cosper, Jae P Holling

Ruth Crowder, Holly Peters, Rebecca-Jane Law, Ruth Lewis, Deb Smith, Adrian Edwards and Ronan A Lyons

Impact of COVID-19 pandemic on incidence of long-term conditions in Wales:

a population data linkage study using primary and secondary care health records

Abstract	INTRODUCTION The CDVD-18 candientic has had both a	people with multiple long-term condition (multimorbidita) is increasing 1 Patient
Partot IXX Background The EXVID-TY pandemic has directly and indirectly field at impact on heath service products on the pytem. The effects of these pensaures on the pytem. The effects of these pensaures on the management of target tens at divents isonalitizes are not fully understand.	dreet and indirect impact on the health and care system. ¹ Direct effects are from ef EOVID-19-instand litenses. ¹ Indirect effects are highly heteropervises and include delays in cancer services and purponented of viscitie surgery and either non-user biselinests, central to	with long-term conditions are more intensive users of health and social can services, and before the pandemi accounted for SPNs of CP appointments sid's of subpative appointments, and 30% shall inpatient bed days. ⁴ In primary care, a call and receil padem
Aim Tomplan the effectival CDVD-19 as the manifedimized effectival constraints.	other non-ungline treatments owing to surge pressures on the system." For example, it has been estimated that around 28-million operations were cancelled or postponed glabally during the pack 12 weeks of the pandemich first haue. If The Impact on non-ungent treatments include harm from cessation or delay of surgestion accurates to an annaneement of	In stand to have been as to recent plane which is offered to partients after a opeof diagnosis is made and recented in condition registries. Primary care activity was substantially reduced in the sarly menths is the particular and, when activity returns to more used levels in the 2003, avoir care disalated much interest care sails.
Basign and setting This was an observational intergraphics appealation and a briage dualy on the proposition of Pains-using primary and accordary cars data within the Secan Anaryminal Information Lineage (FAL) Databasis.		
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Anato Household Composition and Inequalities in COVID-19 Vaccination in Wales, UK

Alex Lench ^{1,2,-1}, Malorie Peny ^{1,2,1}0, Rhodri D. Jahrson ², Richard Fry ²0, Gill Richardson ³, Ronan A. Lyons ²0, Ahley Akhuri ², Adrian Edwards ⁴0, Brendan Collins ⁵0, Natalie Joseph-Williams ⁴, Alison Cooper ⁴ and Strenc Centrol ¹

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Under development

Two papers are currently under review. Four papers have been written. Further papers will continue to be submitted to journals as projects are completed.

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