WISERD Research

Covid-19: policy responses and social consequences

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WISERD

Sefydliad Ymchwil Cymdeithasol ac Economaidd a Data Cymru

Wales Institute of Social and Economic Research and Data

The Wales Institute of Social and Economic Research and Data (WISERD) is a national, interdisciplinary, social science research institute.

We have been designated by the Welsh Government as a national research centre. Using innovative approaches, our research spans the fields of economics, sociology, geography and political science.

We are a collaborative venture between five Welsh universities: Aberystwyth, Bangor, Cardiff, South Wales and Swansea – working together to improve the quality and quantity of social science research in Wales and beyond.

Our research effects change by influencing the development of policy and practice across a range of sectors.

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Introduction

The arrival of Covid-19 to the UK in early 2020 led to rapid and far-reaching changes in the way we live our lives. 'Lockdown' led to school closures and working from home became the norm for many workers. And while most shops and businesses closed, 'key' workers and services experienced unprecedented pressures.

For the last two years, WISERD has adapted its research programme to address the challenges posed by the arrival of the Covid-19 pandemic. This re-orientation has entailed two main strategies. Firstly, where relevant, we have drawn on those existing research findings that can be used to inform the likely impacts of the pandemic. Secondly, we have repurposed ongoing and planned research projects to address the consequences of the pandemic on key activities and sectors.

This report provides a brief overview of WISERD's research across a range of areas, including on education, work and labour markets, health and wellbeing, and welfare. Not surprisingly given that WISERD hosts the ESRC Civil Society Centre, we also examine the current impact of the pandemic on civil society, as well as exploring how civil society might help shape a brighter post-pandemic future. While ESRC funding supports most of the research reported here, we also include findings from projects funded by the European Commission, the British Academy, the Welsh Government, the Leverhulme Trust, Carnegie UK Trust, Institute of Welsh Affairs, and Sêr Cymru. A list of the projects referenced in this report is provided in Appendix A.

As always, our research draws from across a range of disciplines and methodologies. The projects discussed in this report are informed by economic, sociological, geographical, and social policy perspectives. Methodologically, in addition to the extensive secondary analysis of administrative data, the complex use of geographic modelling and longitudinal surveys, we have undertaken policy analysis and smaller scale qualitative projects with community groups. To maximise the usefulness of our research for informing current challenges and future possibilities, we have engaged in ongoing dialogue throughout the pandemic with a wide range of policymakers, professionals and civil society stakeholders. A list of key engagement activities is provided in Appendix B.

In the following pages we outline some of the key findings and projects. Because of the need to disseminate findings quickly, many of the sources cited are infographic materials, reports and blog posts, as peer-reviewed articles take a long time to be published. We also report on research which is currently underway, and for which Covid-relevant findings will be available in the future. A list of outputs referenced in the report is provided in Appendix C.

Covid-19 and education

One of the first responses to the pandemic was the closure of schools – closures which were repeated at various points during the last two years at national, school and year level. The long-term consequences of the impact of school closures are, as yet, unclear, but WISERD research has shown that there have been negative effects on the progress, wellbeing and prospects of children and young people. And it is very clear that the experience has been more damaging for some young people than others.

WISERD research on the impact of the pandemic on education has entailed two sweeps of the WISERD Education Multi-Cohort Study (WMCS)[1] and the analysis of administrative data, backgrounded against findings from the third wave of the Jacob Foundation Children's Worlds Survey[2] and the Millennium Cohort Study (MCS)[3]. Brief summaries of key findings relating to the scale of the disruption, the challenges of learning at home, the impact of revised assessment arrangements, and young people's anxieties about their educational progression are outlined below.

Learning at home

Data from the WMCS reveal the scale of disruption that the pandemic had on young people's education. Even before the government announced the national lockdown in March 2020, nearly one fifth of students had stopped attending school.[4] When the schools were allowed to re-open, high levels of disruption continued, with significant proportions of children having to isolate at home. During the 2020-2021 school year, two thirds of students reported that they had to self-isolate, and one quarter had had to self-isolate more than once.[5] Perhaps it is not surprising that, by the summer of 2021, the overwhelming majority of students felt that Covid-19 had affected their learning, and nearly half felt that that they had been affected a lot. In particular, these students reported significant challenges of learning at home as well as anxieties over changes to the assessment arrangements, and how these might affect their longer-term future plans.

During 2020, in the early months of school closures, WMCS data reveal wide disparities in the amount of schoolwork being undertaken at home. For example, 40% of secondary school students spent 10 or fewer hours on schoolwork whilst at home. This compares to 15% of

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1   Details of the WMCS can be found at https://wiserd.ac.uk/project/wiserd-education-multi-cohort-study/

2   https://jacobsfoundation.org/en/publication/childrens-worlds-survey-2017-19/

3   https://cls.ucl.ac.uk/cls-studies/millennium-cohort-study/

4   Taylor, C. (2020) The impact of Covid-19 on children's learning in Wales. WISERD Blog. 6 October.

    https://wiserd.ac.uk/news/impact-covid-19-childrens-learning-wales

5   WISERD (2021) Life in Lockdown: Evidence from the WISERD Education Multi-Cohort Study.

    https://wiserd.ac.uk/wp-content/uploads/Life-in-Lockdown-Evidence-from-the-2020-WISERD-Education-Multi-Cohort-Study_1.pdf

children who spent more than 20 hours a week doing schoolwork.[6] To some extent, these disparities can be explained by uneven access to space, resources, and parental support.

WISERD's analysis of data from the Children's Worlds Survey revealed the potentially unequal consequences that lockdowns will have on children from different backgrounds. Using a child-specific version of a material deprivation measure which asked children about the things that they had, nearly one in 10 children in Wales can be considered to be materially deprived.[7] The findings also show that children are less likely to do homework or study outside of school if they have higher levels of material deprivation. Differences in the frequency of studying done outside of school may be partly due to whether children have a place where they can study at home. Our findings show that those experiencing higher levels of material deprivation are less likely to have a place to study at home.

The problem of lack of space to study in the home was confirmed in the 2021 WMCS sweep. While most students did have space to learn at home, over one fifth did not, and those who were most likely to report not having the space were those who were eligible for free school meals (e-FSM). There is a similar inequality in relation to access to technology. While most had a device to do schoolwork on at home, one quarter had to share it and a few said they never had access to a device. Again, e-FSM pupils were more likely to share 'or have no access to a device than their non-e-FSM classmates.[8]

In order to address this kind of digital exclusion, the Welsh Government developed the Hwb – a digital learning platform designed to support home learning. Funded by Sêr Cymru, WISERD utilised administrative data collected during the first wave of national school closures in 2020 to ascertain patterns of engagement by students and staff.[9] The analysis revealed complex patterns of engagement, but also highlighted a strong association between level of engagement and socio-economic disadvantage. Pupils from schools with higher proportions of pupils eligible for free school meals had lower usage rates than those with a less disadvantaged school body. Differences in usage existed pre-closure and were exacerbated during full closure.

The 2020 WMCS also revealed striking disparities in the extent to which pupils were able to draw on support from their parents, differences which are likely to relate to home circumstances and levels of education. Nearly 70% of children said that their parents rarely or never helped set them tasks and half said that they had rarely or never shared their schoolwork or received help from their parents.[10]

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6   Taylor, C. (2020) The impact of Covid-19 on children's learning in Wales. WISERD Blog. 6 October.
    https://wiserd.ac.uk/news/impact-covid-19-childrens-learning-wales

7   Hampton, J. (2020) Covid-19, home learning and educational inequalities. WISERD Blog. 30 September.
    https://wiserd.ac.uk/news/covid-19-home-learning-and-educational-inequalities

8   WISERD (2022) The Pandemic and Beyond: Evidence from the WISERD Education Multi-Cohort
    Study.

9   Hampton, J.M. & Sandu, A. (2021) Continuity of learning in wales Analysis of Hwb digital learning Platform
    data (2019/20). WEDL Report. WISERD.

10 Taylor, C. (2020) The impact of Covid-19 on children's learning in Wales. WISERD Blog. 6 October.
    https://wiserd.ac.uk/news/impact-covid-19-childrens-learning-wales

WISERD is currently collaborating with the Universities of Edinburgh, Oxford and Queen's Belfast to examine the extent to which young people 'at risk' of exclusion have been impacted by the pandemic and identify measures through which disadvantaged children can be supported.[11] We hope to report on this in the next two years.

Assessment and progression

WISERD research has also revealed some of the potentially negative consequences of the changes to key examination arrangements that were put in place in 2020 and 2021. In 2020, for example, GCSE and A-level grades were based to a large part on teacher assessments. This raised a number of concerns about the extent to which teacher bias might disadvantage particular groups of students. The potential risks of these were illuminated by WISERD research which analysed the difference between teacher assessments and examination grades of participants in the Millennium Cohort Study. This analysis showed a complex, but consistent, picture of teacher bias, that favoured some students over others.[12]

WMCS 2021 data revealed high levels of anxiety around the changes in the examination arrangements.[13] The overwhelming majority of students expressed worries about how their learning would be assessed. And while many felt they would get better grades from teachers than from external examiners, this was not always the case. Those who generally considered themselves less successful in their schoolwork felt they would be disadvantaged by teacher assessments. WMCS 2021 also revealed the extent to which young people felt their futures might be blighted by the disruption caused by Covid-19. Nearly one half of Year 11 students felt they now had less chance of going to university. There was also widespread concern that there would be fewer jobs available. In the next section, we outline WISERD's research on the consequences of Covid-19 for work and the labour market.

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11 https://excludedlives.education.ox.ac.uk/

12 Taylor, C. (2020) Covid-19 and pupil assessment, WISERD Blog. 14 May. https://wiserd.ac.uk/news/covid-19-and-pupil-assessment

13 WISERD (2022 in press) The Pandemic and Beyond: Evidence from the WISERD Education Multi-Cohort Study.

Covid-19, work and the labour market

The government response to limit the Covid-19 pandemic caused a dramatic shock to the UK labour market, with unprecedented changes in the pattern of demand across industries and a particularly dramatic shift towards homeworking. However, despite large-scale policy intervention in the labour market aimed to reduce layoffs, the impact of the pandemic is unlikely to be felt equally across workers. Over the last two years, WISERD has been able to provide important evidence on the extent, experiences, and implications of homeworking, as well as on the variable degree to which the impact of the pandemic has severely affected the economy in different regions and industries – both within the UK and overseas.

The move towards homeworking

WISERD research has been able to provide new and up-to-date evidence on the scale of the shift of paid work into the home in the UK, its impact on the mental wellbeing and productivity of homeworkers, and the likely prevalence of homeworking after social distancing restrictions are fully lifted.[14] [15] Drawing on three online surveys carried out towards the end of April, May and June 2020, WISERD has provided evidence on how frequently workers used the home as their place of work immediately before the UK lockdown and at the time of each survey, how their productivity had changed and whether they would like to continue working at home in a post-pandemic world.

Our research reveals that while homeworking was on a gradual, but slow, upward trajectory even before the lockdown, it rose dramatically and suddenly in lockdown. The proportion reporting that they worked exclusively at home rose eight-fold. However, homeworking was most prevalent among the highest paid, the better qualified, the higher skilled and those living in London and the South-East of England.

In terms of productivity, homeworking does not appear to have had a significant effect on productivity levels either way. However, the data also illuminate some of the negative aspects of homeworking. In particular, the switch to working at home took its toll on the mental health of those reporting that they always or often worked at home during lockdown.

Despite the negative aspects, the research also suggests that the vast majority of employees who worked at home during the lockdown would like to continue to work from home, at least for some of the time. Overall, the research suggests that many workers have become used to – and have even experienced the benefits of – working at home, after a shaky start. In addition, productivity has not been adversely affected by the shift towards homeworking. Furthermore, if those who want to continue working at home in the future are allowed to do so, productivity may be boosted by a sustained increase in the prevalence of homeworking, as those who felt more productive while working at home are among the keenest to continue to work at home.

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14 Felstead, A. and Reuschke, D. (2020) 'Homeworking in the UK: before and during the 2020 lockdown', WISERD Report. Cardiff: Wales Institute of Social and Economic Research and Data. Available for download from: https://wiserd.ac.uk/publications/homeworking-uk-and-during-2020-lockdown

15 Felstead, A. (2022) *Remote Working: A Research Overview*, London: Routledge.

This research has been widely picked up in the national media, has provided evidence to Select Committees in the House of Commons[16] and the House of Lords,[17] as well as Senedd Cymru.[18]

Inequalities in the labour market

As indicated above, it was the higher paid and better qualified who were able to work from home during lockdown. In general, the impact of Covid-19 reflected and reinforced existing inequalities in the labour market. Over the years, WISERD's research on labour market inequality has established the scale of disadvantage faced by protected groups in terms of rates of pay and employment. We have also traced how these inequalities vary across regions and time, such as in response to equality legislation and the economic cycle. We are currently examining the differential short and long-term effects of the pandemic between groups of workers such as those defined by gender, education, age, race, disability, or region. Our aim is to provide a robust evidence base to inform policy responses that support those most affected.

There is already emerging evidence from UK that the economic downturn caused by the pandemic has disproportionately affected young people both in terms of employment rates and pay. WISERD is exploring the extent to which civil society organisations are responding to this crisis through an ESRC New Investigator grant.[19]

Covid-19 has also had a more devastating impact in some areas and regions compared to others. There is mounting evidence that rural areas in Wales and elsewhere are being hit the hardest by the economic consequences. WISERD has been undertaking research with the Welsh Local Government Association as part of the Horizon 2020 ROBUST[20] project, which has documented impacts that spread across the breadth of the rural economy. For example, in Wales a greater proportion of the workforce has been furloughed in rural counties than in urban counties. Whilst the return to work for many offices, factories and retail outlets is starting to reanimate towns and cities, the nature of the rural economy means that restarting business is likely to be a much slower process. Inevitably, it has been the tourism sector that has been the worst affected. [21]

16 Felstead, A. (2020) 'Response to request for additional evidence following oral evidence given to the Department for Work and Pensions Select Committee on preparation for changes in the world of work inquiry', 4 November 2020', written evidence, 2 December, https://committees.parliament.uk/writtenevidence/15117/pdf/

17 Felstead, A. (2020) 'Written evidence given to the House of Lords living online: the long-term impact on wellbeing inquiry', House of Lords 9 December, https://committees.parliament.uk/writtenevidence/18839/pdf/

18 Felstead, A. (2020) 'Written evidence given to Senedd Cymru/Welsh Parliament remote working: implications for Wales inquiry', Economic, Infrastructure and Skills Committee, 9 December 2020, https://business.senedd.wales/documents/s111791/02.%20Cardiff%20University.pdf

19 Pearce, S. (2020) Civil society approaches to tackling youth unemployment: an analysis of the UK nations. WISERD Blog. 17 September. https://wiserd.ac.uk/news/civil-society-approaches-tackling-youth-unemployment-analysis-uk-nations

20 https://rural-urban.eu/

21 Woods, M., Heley, J., Goodwin-Hawkins, B. & Howells, H. (2021) A Rural Vision for Wales: The Evidence Report. https://rural-urban.eu/publications/rural-vision-wales-thriving-communities-future-evidence-report

The economic consequences of Covid-19 may be particularly devastating for poorer societies, and countries in the Global South, as is evident in WISERD's ongoing research into 'Operationalising Labour Rights' (OLR) supported by the United Nations Human Rights Council's Access to Remedy Project.[22] In March 2020, this research was temporarily brought to an abrupt halt, as lockdown in India was announced with just four hours' notice. Garment workers found themselves turned out of work as factories closed their doors, international brands cancelled future orders and some even reneged on contracts for work already completed. The terrible hardship that ensued meant that hundreds of thousands of workers began to walk home to their villages while those who remained in Bangalore were without the income they needed to pay their rent or buy food.[23]

In the context of crisis, the OLR project team in India and Cardiff worked together to adapt OLR research tools (phones and tablets) to allow local organisations to connect with workers in need. Through the months of April and May 2020 we recorded 412 workers in urgent need of food and medical supplies. Almost 90% of these people were garment workers, with the remainder being either construction or domestic workers. Most (83%) were migrants from other areas who came to Bangalore in search of work, were living with their immediate families and had family members who were dependent on their income.

The vast majority (just over 92%) of the workers lived in rented accommodation, and when asked whether they had sufficient money to afford to pay for rent and the basic essentials of life, no less than 96% answered that they did not. While the government had ordered employers to pay workers until the end of March 2020, around 30% of the workers in our data had been paid only in part. Indeed, around 10% had been paid nothing for March and in subsequent months, almost a third reported that they had not received any payment of wages since lockdown was originally imposed.

Findings from the OLR research are being used to inform Covid-related questions to the report on safety and health in the Pakistan ready-made garment sector that the team have been compiling for the Clean Clothes Campaign. The findings are also being converted into Campaign reports for the Clean Clothes Campaign.

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22 https://undocs.org/A/HRC/44/32

23 Jenkins, J. (2020) Covid-19 lockdown and the needs of garment workers in Bangalore, India. WISERD Blog. 21 September. https://wiserd.ac.uk/news/covid-19-lockdown-and-needs-garment-workers-bangalore-india

Covid-19, wellbeing and welfare

The Covid-19 virus led to the deaths and poor health outcomes of many tens of thousands of people in the UK, and many millions worldwide. These damaging health outcomes exposed and exacerbated inequalities in access to a variety of welfare and health services. In addition, and relatedly, the pandemic and associated policy responses, had further negative consequences for people's wellbeing and welfare. Many mental health issues arose because of enforced isolation and loneliness, and the disruption to routines.

Mental wellbeing

Lockdown measures disrupted the normal patterns of everyday life which had implications for physical and mental wellbeing, especially in young people.

WMCS data revealed the extent to which the closure of schools meant that many daily routines were abandoned. Only one quarter of the young people surveyed reported going to bed at around the same time every night and over one third of 14-year-olds were not going to bed until after midnight. In general, the average number of hours in bed was less than that recommended with the result that many said they felt tired for much of the time.[24] As previous WISERD research has shown, lack of sleep is negatively associated with a range of wellbeing indicators.[25]

As noted in connection with homeworking, lockdown measures could have negative consequences for mental health. This was certainly true for young people who were not able to meet friends and family. WMCS data revealed that over 90% of young people suffered from loneliness during lockdown. Over 90% missed seeing their school friends and nearly 80% missed seeing their grandparents. In general, young people experienced heightened levels of anxiety. Not only did over half of them worry about keeping themselves and their families safe, over one quarter worried about whether their family had enough money to get by.[26] While it might be argued that the subsequent development and distribution of the Covid-19 vaccine might allay some of these anxieties, WMCS data collected in 2021 indicate considerable degrees of uncertainty about the safety of the vaccine. Only half of the respondents believed that vaccine to be safe, and confidence in the vaccine varied according to gender. Girls were less confident than boys, and e-FSM pupils were significantly less confident. Over one quarter of e-FSM respondents believed the vaccine was unsafe.[27]

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24 WISERD (2021) Life in Lockdown: Evidence from the WISERD Education Multi-Cohort Study. https://wiserd.ac.uk/sites/default/files/documents/Life%20in%20Lockdown%20Evidence%20from%20the%202020%20WISERD%20Education%20Multi-Cohort%20Study_1.pdf

25 Power, S., Taylor, C., & Horton, K. (2017) Sleepless in school? The social dimensions of young people's bedtime rest and routines. Journal of Youth Studies, 20(8), 945-958.

26 WISERD (2021) Life in Lockdown: Evidence from the WISERD Education Multi-Cohort Study. https://wiserd.ac.uk/sites/default/files/documents/Life%20in%20Lockdown%20Evidence%20from%20the%202020%20WISERD%20Education%20Multi-Cohort%20Study_1.pdf

27 Foster, C. (2021) Do young people trust Covid-19 vaccines? WISERD Blog. 20 September. https://wiserd.ac.uk/news/do-young-people-trust-covid-19-vaccines

Vaccine attitudes among historically disadvantaged communities is the focus of a current British Academy-funded project on 'Covid and the Coalfields' which entails surveying and interviewing people in the coalfield areas of South Wales and Kentucky where rates of vaccine uptake have been lower than elsewhere. A report of the findings will be available in the near future.

While young people experienced significant levels of anxiety and loneliness as a result of school closures, elderly people were also severely affected. The first year of the pandemic exposed the vulnerabilities of the UK health system because of a lack of spare capacity to deal with surges in demand, and nowhere was this clearer than in the fragility of the symbiotic relationship between acute services and care homes.[28] Indeed, the lockdown of care homes raised questions about the extent to which the long-term neglect of this sector left already vulnerable residents and staff exposed.[29]

However, research also showed that people with dementia living in the community were likely to be disproportionately affected by social distancing, isolation, and lockdown measures. For many years, WISERD has been involved in the IDEAL project which aims to improve the experience of dementia.[30] Based on research findings, the team published two leaflets on how to stay well during the Coronavirus outbreak, for people with dementia and their family members or other supporters providing unpaid care.

Access to services

It is widely recognised that exercise is beneficial for both physical and mental health and can be used to reduce high levels of anxiety. However, the last two years has seen a significant reduction in opportunities for participation. During the pandemic, leisure trusts and privately run leisure centres/gyms have been severely impacted by the loss of revenue that threaten their existence. At a time of potential austerity-driven reductions in support for some activities and the likely continued need for social distancing for the foreseeable future, we could anticipate an increase in demand for the types of facilities that could help address some of the health concerns that have arisen during the pandemic. WISERD has therefore been developing models that can help us understand the complex relationships between such supply-and-demand-led factors on overall patterns of accessibility. This work is crucial if we are to identify spatial and social inequalities in the provision of recreational (and other) services.[31]

Local authorities in Wales have had to make difficult decisions to close or rationalise a wide range of services in response to changes in the incidence of Covid-19. This has had major impacts for those sectors of the community most dependent on various forms of service

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28 Froud, J. (2020) When Systems Fail https://foundationaleconomycom.files.wordpress.com/2020/08/when-systems-fail-uk-acute-hospitals-and-public-health-after-covid-19.pdf

29 Jones, I.R. (2020) Covid-19 age-specific health messages can be misleading. WISERD Blog. 23 April. https://wiserd.ac.uk/news/covid-19-age-specific-health-messages-can-be-misleading

30 Jones, I. R. (2020) Five key messages for those with dementia and their carers during Covid-19. WISERD Blog. 5 June. https://wiserd.ac.uk/news/five-key-messages-those-dementia-and-their-carers-during-covid-19

31 Price, A., Langford, M. and Higgs, G. (2021) 'Computing geographical access to services: the design of a client-server solution that incorporates multiple transport modes', Transactions in GIS, 25(4), 1849–1867.

provision. Where there have been partial closures involving changes in opening times, or where key decisions have been made to retain provision in some localities, this is likely to have important implications for geographical patterns of accessibility to key services.

At the same time, the importance of access to indoor and outdoor activity opportunities for aspects of mental and physical health have been to the fore in discussions regarding the impact of Covid-19 on social groups. Inequalities in physical activity patterns were shown to have widened during lockdown and this is even more pronounced for children living in deprived areas.[32]

This research has led to the development of a GIS-based tool that policymakers can use to examine the impact of policies that involve partially restricting or fully closing facilities, or modelling the impacts of new proposals regarding service provision in order to minimise inequalities.[33] For example, should a significant amount of homeworking continue post-pandemic, there will be implications for a range of sectors, such as transport. The GIS-based tool can be used to evaluate the implications of a wide range of transport modes under different policy scenarios, the implications for those without access to private means of transport can be integrated within such models to help understand the impacts on those communities with poorer levels of public transport provision or for those who have unreasonable distances to travel. This can contribute to debates surrounding policies geared towards promoting active travel, encouraging us all to either walk or cycle to access jobs and services, which can ultimately benefit both our individual health outcomes and the environment.

WISERD is also involved in monitoring post-Covid-19 impacts on services (facilities such as banks closed and never re-opened;[34] residential care homes; changes in public transport provision) with potential links to wellbeing. There is also planned research into the impact on existing multi-modal inequalities in provision (e.g., green space/open parks) on wellbeing and post-Covid recovery. The rate of closures of bank branches has accelerated in recent years and our research has examined the impact of reconfiguration on communities by incorporating multi-modal approaches to modelling accessibility. This research has two strands; firstly, an examination of the impact of closures in the early stages of Covid (closures in the period 2019-2021) and secondly a cross-sectional analysis of access to banks by both public and private transport that takes account of factors such as bank opening hours in relation to the prevailing bus and rail services. Regarding access to residential and nursing care home places models have been developed that enable an analysis of spatial patterns in accessibility to social care

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32 Higgs, G. & Langford, M. (2021) Monitoring inequalities in physical activity opportunities in a post-Covid Wales. WISERD Blog. 18 March. https://wiserd.ac.uk/news/monitoring-inequalities-physical-activity-opportunities-post-covid-wales

33 Price, A., Langford, M. and Higgs, G. (2021) 'Computing geographical access to services: the design of a client-server solution that incorporates multiple transport modes', Transactions in GIS, 25(4), 1849–1867.

34 Langford, M., Higgs, G., & Jones, S. (2021) Understanding spatial variations in accessibility to banks using variable floating catchment area techniques. Applied Spatial Analysis and Policy, 14(3), 449-472.

at Lower Super Output Area (LSOA) level for March 2020.[35] This research will be revisited during 2022 to examine the early impact of Covid-19 on changes in provision and spatial patterns of accessibility in Wales. As part of this research, we have developed tools that enable an assessment of changes in bus transport (routes and frequency) during the period 2019-2021 to examine changes in bus accessibility measures during the pandemic. We are currently exploring ways in which we can promote this research prior to the launch of the Welsh Governments' *Bus Strategy* in early 2022.

Social and spatial inequalities

The relationship between Covid-19 and patterns of geographical inequality has been investigated in the WISERD-led Horizon 2020 IMAJINE project on territorial inequalities and spatial justice. WISERD researchers at Aberystwyth University have compiled a unique dataset of monthly Covid-19 cases for NUTS2 regions across the whole of Europe, which will be released as an open data resource.[36] Analysis of these data has revealed that Covid-19 has exploited and intensified existing spatial inequalities between and within regions, with disparities in Covid-19 cases between more and less affluent areas most pronounced at the very local scale, and has also created new inequalities as the pandemic has evolved. At the start of the pandemic in spring 2000, wealthier and better-connected regions in Europe were hardest hit, but as the pandemic progressed more deprived regions became worst affected. This pattern has been repeated with each new wave of the coronavirus, suggesting that swift action could help to protect the most vulnerable communities.[37]

The IMAJINE analysis has further shown how the response to the pandemic has similarly accentuated inequalities between urban and rural areas around issues such as broadband connections and access to green space, including in Wales.[38] Tensions have also been documented over other questions of 'spatial justice', including whether territorial differences in restrictions have been fair and perceived threats from tourists and second home-owners carrying the virus into communities with relatively low cases.[39] [40] [41]

35 Higgs, G., Langford, M. And Llewellyn, M. (2022) 'Towards an understanding of inequalities in accessing residential and nursing home provision: the role of geographical approaches'. DOI: https://doi.org/10.1111/hsc.13770

36 The database will be available from March 2022 on the IMAJINE website, https://imajine-project.eu

37 Woods, M. (2021) Spatial Justice in Post-Pandemic Europe. Presented to the European Week of Cities and Regions, October 2021, view at: https://vimeo.com/637385016

38 Woods, M. (2020) Coronavirus: the great magnifier? The Welsh Agenda, Autumn/Winter 2020, pp 52-55.

39 Woods, M. (2020) COVID-19, Territorial Inequalities and Spatial Justice, IMAJINE Blog. 18 May. http://imajine-project.eu/2020/05/18/covid-19-territorial-inequalities-and-spatial-justice-part-two/

40 Goodwin-Hawkins, B. (2020) 'Coronavirus holidays' stoke rural fury. The Conversation, 10 April. https://theconversation.com/coronavirus-holidays-stoke-rural-fury-135779

41 Woods, M. (2020) The Rural Dilemma: How to restart tourism and reassure residents. WISERD Blog. 25 June. https://wiserd.ac.uk/news/rural-dilemma-how-restart-tourism-and-reassure-residents

The crisis in social care has also been informed by comparative analysis of how all four national governments in the UK have 'mixed economies of welfare' where social care is provided by a diverse arrangement of state, private and third sector provision. WISERD research highlighted the strength and weaknesses of the Welsh approach. The study showed how the Covid-19 pandemic exposed existing pathologies and underlined the need for adult social care reform in all four nations, as well as emphasising the value of volunteering in adult social care delivery and moving away from the current market-based tendering systems in adult social care which gives primacy to share-holder profit – rather than welfare standards and care workers' well-being.[42] [43] [44]

In addition to magnifying challenges in the social care sector, the pandemic has also intensified the range of pressures on individual carers providing essential but unpaid care. WISERD researchers are currently exploring these pressures. Early findings suggest that the risks of caring are being individualised and that one key outcome is that hidden care work in the home setting is helping to obscure the full extent of market failure.

One group of people who are particularly vulnerable during the pandemic are the homeless. At the start of the Covid-19 pandemic there were concerns about the increased risk of infection, hospitalisation, and death amongst homeless populations. Experiencing homelessness potentially means having to share space in temporary or unsuitable accommodation and in some cases, people may also lack sanitary conditions. People who are homeless may therefore face difficulties in social distancing, isolating when sick, and maintaining hand hygiene.

WISERD/ADR (Administrative Data Research Wales) researchers have investigated Covid-19 infection rates amongst people experiencing homelessness in Wales using Covid-19 testing data available via the Secure Anonymised Information Linkage (SAIL) Databank. Analysis revealed that people experiencing homelessness had lower rates of Covid-19 infection than people who had not experienced homelessness and who were of similar age, gender, and area deprivation characteristics living in the same areas.[45] This result was surprising in that the existing literature, which focuses on people using shelters and hostels, suggested that infection rates would be high and would certainly be higher than people who were not experiencing homelessness. The research team suggest that shelters and hostels may be high risk environments for the transmission of the virus. The response of Welsh Government and local

42 Chaney, P. & Sophocleus, C. (2021) New Research on Adult Social Care during the Pandemic Presented at International Conference. WISERD Blog. 12 July. https://wiserd.ac.uk/news/new-research-adult-social-care-during-pandemic-presented-international-conference

43 Chaney, P. and Sophocleous, C. (2021) "Trust, Transparency and Welfare: Third Sector Adult Social Care Delivery and the COVID-19 Pandemic in the UK", *Journal of Risk and Financial Management*, 14(2): 572-584. ISSN: 1911-8074 https://www.mdpi.com/1911-8074/14/12/572/htm

44 Chaney, P. and Sophocleous, C. (2022) "Civil society, pandemic, and the crisis of welfare: exploring mixed economy models of welfare in domiciliary adult social care in a devolved UK" Chapter 4 in Paul Chaney and Ian Rees Jones (2022) *Civil Society in an Age of Uncertainty: Institutions, Governance and Existential Challenges.* Bristol: Policy.

45 Thomas, I., & Mackie, P. (2021) A population level study of SARS-CoV-2 prevalence amongst people experiencing homelessness in Wales, UK. DOI: https://doi.org/10.23889/ijpds.v5i4.1695

authorities in Wales during the pandemic of limiting the use of these forms of accommodation may therefore have contributed to the lower prevalence rates of Covid-19 observed amongst people experiencing homelessness in Wales.[46]

The research team plan to follow on their analysis of SARS-CoV-2 infection rates by exploring vaccination uptake amongst people experiencing homelessness in Wales, and the potential impacts of the Welsh Government's decision to prioritise this group of people.

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46 Thomas, I. (2021) Welsh research finds Covid-19 infection rates lower amongst people who had experienced homelessness than the general population. ADR Blog. 6 December. https://www.adruk.org/news-publications/news-blogs/welsh-research-finds-covid-19-infection-rates-lower-amongst-people-who-had-experienced-homelessness-than-the-general-population/

Covid-19 and civil society

Thanks to two ESRC Centre awards, for the last eight years WISERD has been exploring the significance of civil society along a number of dimensions – and most recently in terms of its contribution and potential for civic stratification and civil repair. The arrival of the Covid-19 pandemic in early 2020 has made this research agenda even more pressing and important. Our research has been able to not only examine the extent to which the pandemic has negatively affected civil society organisations, but also how civil society has made important contributions to attempts to mitigate the worst consequences of Covid-19. Indeed, to some degree it might be argued that the pandemic has both underscored and augmented civil society's potential to repair the social fabric and local economies. In this section we examine how civil society has been affected by and has responded to the pandemic in terms of civic engagement activities, such as volunteering, political participation, and the work of associations.

Volunteering and civic engagement

The pandemic underscored the importance of voluntary activity in supporting vulnerable people – and in revealing the uneven distribution and precarious support for volunteers and voluntary sector organisations.

As we noted in the last section, social care provision has been severely impacted by the challenges of Covid-19, and WISERD research has looked across the four jurisdictions of the UK to investigate how the legal and policy context related to third sector adult social care provision has changed in light of coronavirus. In particular, we have been concerned to examine the response and impact of third sector care providers.[47] Findings from this work were extensively cited in the Welsh Parliament/Senedd Cymru, Equalities and Local Government Committee Inquiry/ Report on the impact of the Covid-19 Pandemic on the Third Sector (January 2021).[48]

WISERD has also examined the factors which determine people's likelihood to volunteer in health and social care in England and Wales. For example, WISERD researchers have analysed questions about volunteering in health and social care from the British Social Attitudes Survey in order to gain a greater understanding of the differences between socio-demographic groups that get involved in such activities. Analysis of the data from the 2015 survey indicate that levels of volunteering in health and social care have been similar across the countries of Britain.[49] Around 50% of respondents in each country reported that they would consider volunteering, 35% that they wouldn't and the remaining 15% that their health prevented them from doing so. However, there are a number of factors which exert an influence on, and the potential to engage in, volunteering in the sector, such as gender, age and education.

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47 Chaney, P. & Sophocleus, C. (2021) New Research on Adult Social Care during the Pandemic Presented at International Conference. WISERD Blog. 12 July. https://wiserd.ac.uk/news/new-research-adult-social-care-during-pandemic-presented-international-conference

48 https://senedd.wales/media/d4jh52zz/cr-ld14075-e.pdf

49 Blackaby, D., Drinkwater, S. & Robinson, C. (2020) Statistical Annex – Volunteering in Health and Social Care. https://wiserd.ac.uk/publications/statistical-annex-volunteering-health-and-social-care

WISERD has also been able to draw on its expertise in geographical modelling to examine how these types of factors interact with the characteristics of neighbourhoods to influence the extent and type of volunteering activities within local communities.[50] Researchers have explored whether there is a sufficiently large, and consistently available, local volunteering base to draw on when, for example, local authority services such as branch libraries or leisure facilities are partially or permanently closed, and volunteers are needed to help run services. While some areas initially demonstrate high levels of volunteering effort in response to such changes, factors such as individuals' health status, fatigue, wider family priorities and other commitments may impact on levels of retention of volunteers.

Findings from the volunteering questions asked in the 2019-2020 National Survey for Wales[51] have identified characteristics associated with those who formally volunteered within clubs or organisations during the early stages of the Covid-19 pandemic in Wales. Overall, these highlight factors that have been consistently shown to impact on the propensity to volunteer, including higher rates amongst the elderly (65-74), those with good educational qualifications, those with religious faiths, homeowners and those in generally good health. The survey also found volunteering rates to be higher in some local authority areas (such as Denbighshire or Pembrokeshire) and lower in others (such as Merthyr Tydfil, Rhondda Cynon Taff and Blaenau Gwent). These data have been used to investigate whether a proxy measure of local volunteering opportunities could be used to capture those geographical factors that may interact with these types of characteristics to impact on the propensity to 'formally' volunteer.

Preliminary findings largely point to the types of overriding individual-level variables associated with the propensity to volunteer as being relatively more important than such contextual influences. However, it is also important to acknowledge differences in the approach taken in our study of variations in volunteering effort, not least at the definitional level (for example, the distinction between formal and informal volunteering and the volunteering activities under consideration), the geographical scale of analysis and the data sets used to estimate the extent of 'local' volunteering opportunities.

These analyses of secondary data can lead to a greater understanding of how public and third sector organisations can target potential volunteers in the future since it reinforces the importance of demographic factors in explaining differences in behaviour. It also offers greater insight into the changing factors that influence pro-social behaviour.

In addition to analysing secondary data, WISERD has used mixed method approaches to explore the extent to which some of the factors impacting on different types of volunteering activities during Covid-19 may differ slightly to those that were seen to be influential in pre-pandemic times. There is little doubt that the Covid-19 pandemic transformed the landscape of 'voluntary action'. In addition to the ESRC Centre-funded research, a further ESRC-funded project[52] has reviewed, analysed and evaluated the state- and non-state supported volunteer

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50 Higgs, G., Page, N., & Langford, M. (2021) Exploring the relationship between local volunteering opportunities and the propensity to volunteer using a nationally representative survey of adults in Wales. Journal of Civil Society, 17(2), 101-118.

51 https://gov.wales/volunteering-national-survey-wales-april-2019-march-2020-html#section-57334
52 https://www.mvain4.uk/

responses to the crisis across the UK. Co-produced between academics and practitioners in the voluntary sector, the project sought to understand the different responses in the UK's four constituent countries through policy document analysis, interviews, analysis of volunteer management app data and a UK-wide call for evidence. Interim findings are already available[53] [54] and it is hoped that the forthcoming publications[55] [56] from the project will help guide the UK's volunteer efforts to support the national recoveries and preparedness for future crises.

In addition to international comparative research, WISERD has been concerned to explore local responses. For example, WISERD has been engaged with volunteers in community-based volunteering projects, such as re-usable mask-making using donated fabrics. The group of women volunteers came from a range of different backgrounds, with some retired, some furloughed and others working part-time. As a result of spending more time at home during lockdown many had (re)discovered their domestic craft skills and were enthusiastic about putting them to use for a good cause.[57]

At Aberystwyth University, WISERD researchers have been working in partnership with the Welsh Local Government Association on the EU-funded ROBUST project.[58] Considering rural-urban connections and with a focus on sustainable food, infrastructures, and culture, these themes have become all the more important in the Covid-19 crisis. With global supply chains experiencing massive disruptions, those processes which carry food into, out of, and across Wales have been heavily impacted. Their research is therefore tracking emerging local responses, from village shops shifting to online delivery to guerrilla gardeners planting community crops. In this context, WISERD research is also focusing on the demand for more crisis-resilient alternatives as the Covid crisis encouraged more people to subscribe to food box schemes and engage in community-supported agriculture (CSA).[59]

Of particular interest are data from the WMCS which indicate high levels of pro-social activity among children and young people – both in terms of helping parents and neighbours.[60] Nearly three quarters of young people reported that they had been helping their parents more through, for example, taking care of pets, gardening, decorating and doing food

53 Rees, S., Lundie, J., Crawford, L. & Jones, R. D. (2021) Mobilising voluntary action in Wales: Learning from volunteering activity to support post COVID-19 recovery September 2021 Briefing Paper. https://www.mvain4.uk/wp-content/uploads/2021/10/Wales-briefing-report.pdf

54 A Welsh language podcast specifically on Covid and civil society in Wales is available on https://www.mvain4.uk/resource-details/podcast-series-episode-5-perspectives-from-wales-safbwyntiau-o-gymru/

55 https://policy.bristoluniversitypress.co.uk/covid-19-and-the-voluntary-and-community-sector-in-the-uk

56 https://policy.bristoluniversitypress.co.uk/mobilising-voluntary-action-in-the-uk

57 Muddiman, E. (2020) Crafting civil society during Covid-19. WISERD Blog. 9 October. https://wiserd.ac.uk/news/crafting-civil-society-during-covid-19

58 https://wiserd.ac.uk/research/research-projects/rural-urban-outlooks-unlocking-synergies-robust

59 Bonfert, B. (2021) Active citizenship through community supported agriculture networks. WISERD Blog 3 September https://wiserd.ac.uk/news/active-citizenship-through-community-supported-agriculture-networks

60 Muddiman, E. (2020) Young people and Covid: Part of the solution rather than part of the problem?. WISERD Blog. 19 November. https://wiserd.ac.uk/news/young-people-and-covid-part-solution-rather-part-problem

shopping. They also reported looking after younger siblings and older relatives who needed extra help. Many children highlighted the importance of keeping in contact with relatives who might be feeling lonely. For some, this meant calling family members that they could no longer visit in person, writing letters or sending parcels. In addition to helping out at home, the children in our survey were also involved in helping others in their community. Nearly one quarter said that they had helped with dropping off food or other items to their neighbours, including newspapers and PPE. Respondents also reported walking their neighbours' dogs and making an effort to be more friendly when exercising outdoors. And while some of the opportunities to volunteer were lost because of lockdown, children supported causes by donating, fundraising, sewing, or baking cakes for hospitals and keyworkers.

Political participation

The pandemic also appears to have increased political polarisation and a loss of trust in politicians among citizens. However, comparative research by WISERD has shown that this is not a simple linear relationship, and greater transparency and trust may move in different directions depending on the political context.[61] For example, WISERD research has revealed the relationship between 'job polarization' and support for Brexit. This calls for a nuanced understanding of the drivers of political polarization. There is evidence that perceptions of Covid-19 and attitudes towards control measures in the USA are sharply divided on partisan lines, potentially reinforcing political polarisation.[62]

The management of the Covid-19 pandemic has itself been a polarising issue, with divisions over lockdowns and vaccines contributing to tensions within local communities, as is being explored through research in the WISERD Civil Society Research Centre.[63] This includes communities in Wales where fears over Covid-19 and the impact of increased domestic tourism in the summers of 2020 and 2021 have accentuated polarised opinions on tourism and second homes. Equally, media analysis and initial interviews have identified how Covid-19 has been enrolled as a discursive device in other disputes within communities, for example in arguments opposing Black Lives Matter rallies by presenting them as unsafe.

At national and local scales, a key question is the extent to which civil society can mediate perceptions of civic deficit and the politics of polarization? These are issues that WISERD researchers are currently researching and hope to report on soon.

But while disagreements about how to respond to the pandemic may have led to political polarisation, they also appear to have generated increased interest in politics among young people. Data from the WMCS reveal that over 40% of young people surveyed said that they had become more interested in politics and what the government has been doing since the pandemic. Some commented that they had spent time during lockdown signing petitions and campaigning for causes that they care about, including Black Lives Matter. Just over half of the

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61 Stafford, I. Cole, A. and Heinz, D. (2022) Analysing the Trust-Transparency Nexus: Multi-level governance in the UK, France & Germany. https://wiserd.ac.uk/publications/analysing-trust-transparency-nexus-multi-level-governance-uk-france-germany

62 Drinkwater, S (2020) Brexit and the 'left behind': Job polarization and the rise in support for leaving the European Union. Industrial Relations Journal 52(6) pp 569-588

63 https://wiserd.ac.uk/research/research-projects/populism-conflict-and-political-polarisation

children surveyed also said that since lockdown they had become more interested in what is going on in other countries (52.1%).[64]

In other ways, though, the pandemic appears to have negatively affected international links. In recent years, WISERD has been exploring the benefits and challenges of town-twinning. Even before the pandemic, twinning associations were already struggling. More cheap travel and fewer school language enrolments had turned twinning exchanges passé. New members had long dwindled, while dedicated leaders aged. The pandemic has threatened these connections even more – not only because of legal restrictions on movement, but because of fears of 'outsiders' and moves to strengthen borders to prevent the spread of the disease.[65]

Trade unions and other associations

WISERD has a longstanding interest in trade unions and has been examining how their work has been affected by the pandemic.[66] The impact of Covid-19 on the economy and the world of work is unprecedented: full or partial lockdown measures are affecting approximately 80 per cent of the global workforce, with the harshest effects falling disproportionately on unprotected workers and those working in the informal economy.

For trade unions, the Covid-19 pandemic has cast light on an increasingly common kind of employment relationship in developed economies – forms of work that are associated with lower wages, reduced social protection, income insecurity, and poorer working conditions, as well as challenges over rights to unionise and engage in collective bargaining. Yet, while the pandemic has made visible just how vulnerable many working people are, it has also sharply illustrated the ongoing importance of trade unions – their ability to leverage workers' power to defend and extend workers' rights and interests, both within the workplace and beyond.

Previous WISERD research has examined the retail and fast-food sector.[67] This workforce is neither well organised historically, nor in possession of any kind of militant labour movement tradition and will require new configurations and formations of collective representation and organisation if unions are to remain relevant to them in the longer term. During the pandemic, unions have led the way in campaigning for adequate PPE for those in the health and social care sector, but this group of workers present the labour movement with similar challenges to those we have previously considered. We are currently undertaking research with trade unions to examine grassroots organising within the social care sector and will explore how workers are organising in this sector, and the potential role of unions in representing workers' concerns and ensuring these key workers are better protected.

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64 Muddiman, E. (2020) Young people and Covid: Part of the solution rather than part of the problem?. WISERD Blog. 19 November. https://wiserd.ac.uk/news/young-people-and-covid-part-solution-rather-part-problem

65 Goodwin-Hawkins, B. (2020) Keeping up connections: town twinning after Covid-19. WISERD Blog. 18 August. https://wiserd.ac.uk/news/keeping-connections-town-twinning-after-covid-19

66 Blakely, H. & Davies, S. (2020) Covid 19: the role of trade unions. WISERD Blog. 8 June. https://wiserd.ac.uk/news/covid-19-role-trade-unions#_ftn8

67 Blakely, H. & Davies, S. (2018) Trade Union responses to the changing world of work. WISERD Blog. 29 May. https://wiserd.ac.uk/publications/trade-union-responses-changing-world-work

We are also examining the extent to which Covid-19 has affected trade union protection for those working in the 'gig economy', an area where many workers are now particularly vulnerable, both physically and financially.

In general, many civil society organisations (CSOs) have struggled with the reduced resources and increased demand brought about by Covid-19. This is evident in WISERD's work with Roma communities.[68] The Roma CSOs with whom we are working have received more than four times the number of support petitions from Roma seeking advice on their legal situation and language interpretation services to deal with the EU settlement scheme application process. In this environment of high socio-political tension added to the new obstacles posed by the series of lockdowns resulting from the high Covid-19 infection rates, CSOs had to put aside part of their day-to-day work to support and provide information to the Roma community in the UK.

In general, the pandemic has underscored the interconnectedness of nations and peoples. It is clear that our research will need to adapt to the changing global context. As part of this, a Leverhulme-funded fellowship is exploring the role of international bodies, such as UNESCO, in responding to the humanitarian impacts of the pandemic.[69]

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68 Brablecova, D. (2021) Roma civil society organisations in Europe: Navigating uncertainty in times of Brexit and Covid-19. WISERD Blog. 23 August. https://wiserd.ac.uk/news/roma-civil-society-organisations-europe-navigating-uncertainty-times-brexit-and-covid-19

69 Zimmermann, A. C., & Morgan, W. J. (2021). No One is an Island at a Time of Pandemic. Peace Review, 33(1), 48-55.

Living with Covid: a future of crisis and renewal?

In addition to researching the many ways in which Covid-19 has altered the way we learn, work and live, and the extent to which the pandemic has exacerbated and reconfigured existing inequalities and social divisions, WISERD has been working with a range of international scholars and key stakeholders to map out how things might be not only different but better in a world that is learning to live with variants of Covid-19.

The pandemic has highlighted the vulnerabilities in our current economic models and raised awareness of the key parts of our economy and society that cannot be allowed to stop – those jobs being carried out by 'key workers'. WISERD's Foundational Economy Research Network[70] has explored the potential of new models of co-production for the design and delivery of essential public services such as education, care for the elderly and housing, where local authorities can work with civil society. This research theme has looked beyond the pandemic to set out a ten-point platform to renew those areas of social and economic life, including our health and social care services, that form the basis of the foundational economy.[71]

Taking this different approach to areas of our lives, such as the provision of food in schools and social care, requires politicians to leave behind the austerity agenda and instead tap into the power of purchase in more strategic and transformational ways to promote public health, social justice and ecological integrity.

An illustration of how this might be taken forward is provided by WISERD's research on the EU-funded ROBUST project[72] which has been run in partnership with the Welsh Local Government Association. A key output from the project has been a Rural Vision for Wales, setting out policies and initiatives to help rural Wales recover from the pandemic and adapt to long-term structural challenges. The experience of the pandemic has strongly shaped these ideas, with an emphasis on green technology, reviving small towns, building community resilience, strengthening local food systems, finding more sustainable and equitable approaches to tourism and rural housing, and embracing opportunities from the growth in remote working.[73]

We are also exploring the potential of community supported agriculture (CSA) which highlights people's potential for being 'active citizens' who not only consume but actively engage in social and political activities to shape the conditions of the foundational economy. The pandemic has also provided a considerable boost to CSAs in the UK, which almost doubled in numbers over

70 https://wiserd.ac.uk/research/research-projects/wiserd-foundational-economy-research-network

71 Foundational Economy Collective (2020) What comes after the pandemic? https://wiserd.ac.uk/news/covid-19-report-foundational-economy-collective

72 https://wiserd.ac.uk/research/research-projects/rural-urban-outlooks-unlocking-synergies-robust

73 Woods, M., Heley, J., Goodwin-Hawkins, B. & Howells, H. (2021) A Rural Vision for Wales: The Evidence Report. https://rural-urban.eu/publications/rural-vision-wales-thriving-communities-future-evidence-report

the past year, thereby expanding both their economic scale and the scope of their social and political activities.[74]

More broadly, WISERD researchers in the Horizon 2020 IMAJINE project have contributed to scenarios for Europe in 2048 that articulate different trajectories out of the pandemic. In one scenario, the experience of the pandemic has led to a greater emphasis on social and environmental wellbeing and on regions helping each other to adapt to challenges of climate change. In other scenarios, tensions between nations and regions over the management of the pandemic and polarising debates over vaccines and lockdowns have contributed to a weakening of solidarity and, in one scenario, a patchwork of semi-autonomous communities that consider 'justice' to be the ability to define their own values.[75]

To confront the challenges exacerbated by Covid-19 with a social and ecological transition, the foundational economy requires a substantial renewal driven by new ways of thinking and collaborative action. The strongest conclusion to emerge from discussions with key stakeholders is that forging partnerships, co-production opportunities and new place-based alliances will be key to implementing the practical changes needed for foundational renewal. Furthermore, securing public engagement for potentially significant lifestyle disruption will also be needed. WISERD research has focused on the extent to which the pandemic is leading to the emergence of new forms of citizenship regimes. Positing a new taxonomy this work provides a framework for further research to better understand the transformations in the political authority of nation states in the face of digitization and rapid technological development.[76]

Conclusion

The extent and range of the consequences of the Covid-19 pandemic and the resulting policy responses are still unclear. In the coming years, WISERD will continue to address these social consequences across a range of research themes utilising our interdisciplinarity and strong partnerships with civil society organisations and policy actors. Our role is to present an independent and robust evidence base for initiatives aimed at renewal and repair.

74 Bonfert, B. (2021) Active citizenship through community supported agriculture network. WISERD Blog. 3 September. https://wiserd.ac.uk/news/active-citizenship-through-community-supported-agriculture-networks

75 Scenario Sketches for IMAJINE: Future Visions of European Spatial Justice, September 2021. http://imajine-project.eu/wp-content/uploads/2020/09/IMAJINE-Scenarios-text.pdf

76 Calzada, I. (2022) Emerging digital citizenship regimes: Pandemic, algorithmic, liquid, metropolitan, and stateless citizenships, Citizenship Studies, DOI: 10.1080/13621025.2021.2012312

Appendix A: Referenced research projects

Title of Bid	Funder /Scheme	Research Team (for WISERD)	Lead Institution	Other Institutions
IMAJINE	EU	Michael Woods	Aberystwyth University	
ROBUST- Rural-Urban Outlooks: Unlocking Synergies	EU	Michael Woods, Jesse Heley	Aberystwyth University	
UNESCO and the Cultural Cold War: Intellectual co-operation or "soft-power"?	Leverhulme Standard Grant	Ian Rees Jones	Cardiff University	
Evaluation of Parents, Childcare and Employment (PACE)	Welsh Government	Rhys Davies	Cardiff University	
Operational labour rights (OLR): Access to remedy at the workplace	ESRC	Jean Jenkins	Cardiff University	Cividep
Administrative Data Research Wales (ADR Wales)	ESRC	Rhys Davies, Chris Taylor	Cardiff University	Swansea University (Lead), Welsh Government
Understanding Welsh Places	Carnegie Trust UK	Scott Orford	Cardiff University	
WISERD Education Data Lab	HEFCW/ Welsh Government	Chris Taylor	Cardiff University	
The political economies of school exclusion and their consequences	ESRC	Sally Power, Chris Taylor	Cardiff University	Oxford University (Project Lead)
The PrOPEL Hub – Productivity Outcomes of Workplace Practice, Engagement and Learning	ESRC	Alan Felstead	Cardiff University	
WISERD Civil Society: Changing Perspectives on Civic Stratification and Civil Repair	ESRC	Ian Rees Jones	Cardiff University	Aberystwyth University, Swansea University, University of South Wales, Bangor University, University of

				Roehampton, Staffordshire University, University of Manchester, UCL
Urgent appeals, data and shared learning	ESRC	Jean Jenkins	Cardiff University	
Youth unemployment and civil society under devolution: A comparative analysis of sub-state welfare regimes	ESRC	Sioned Pearce	Cardiff University	
Re-Imagining Territorial Politics in Times of Crisis	UACES	Anwen Elias	Aberystwyth University	
WISERD Education Multi Cohort Study	Welsh Government	Sally Power, Chris Taylor	Cardiff University	
Working co-operatively for sustainable and just food system transformations in Wales: 2040	ESRC	Poppy Nicol	Cardiff University	
Tackling COVID 19 Ser Cymru	Welsh Government	Chris Taylor	Cardiff University	
Continuity of learning in Wales	Welsh Government	Chris Taylor	Cardiff University	
CymBreizh: What is the impact of Brexit on fishing communities?	MSNB	Michael Woods, Rhys Dafydd Jones	Universite Rennes 2	Aberystwyth University, L'Institut Agro, UBO, CNRS, GIS Europee
Mobilising Voluntary Action in the Four UK Jurisdictions	ESRC COVID-19 Response Fund	Rhys Dafydd Jones	Aberystwyth University	Irene Hardill (PI, Northumbria University), Jurgen Grotz (University of East Anglia), Eddy Hogg (University of Kent), Ewen Speed (University of Essex),

				Alasdair Rutherford (University of Stirling)
Covid and the coalfields (project extension)	British Academy (Covid Recovery USA)	Robin Mann	Bangor University	Chris Saville, R Mann (Bangor University) Daniel Thomas (Cardiff University) April Young (University of Kentucky)
Disentangling the effect of case management models per components – a systematic review	Centre for Homelessness Impact	Ian Thomas	Cardiff University	
Labour Rights in Pakistan – Occupational Health and Safety Survey	Clean Clothes Campaign, Amsterdam	Rhys Davies, Jean Jenkins	Cardiff University	
Civil Society in Turbulent Times: Exploring Connections, Comparison & Capacity-building in Ireland and Wales	ESRC-IRC Ireland/ UK Networking Grant Competition	Michael Woods, Robin Mann, Sally Power, Matt Wall	Aberystwyth University	Marie Mahon, Maura Farrell (NUI Galway), Eoin Carolan (University College Dublin), Vicky Conway (Dublin City University)
UK and Ireland Rural Futures Project	ESRC-IRC Ireland/Wales Networking grant Competition	Michael Woods	Aberystwyth University	Sally Shortall (Newcastle University)
International Public Policy Observatory	ESRC	Chris Taylor	Cardiff University	UCL
Improving the Experience of Dementia and enhancing active life (IDEAL) cohort study	ESRC/NIHR	Ian Rees Jones	Cardiff University	Exeter University
Covid and the Coalfield: Vaccine Hesitancy in Appalachia and Wales	British Academy	Robin Mann	Bangor University	University of Kentucky

Appendix B: Key engagement activities

Providing evidence to policymakers

Written evidence given to the House of Lords 'Living online: the long-term impact on wellbeing inquiry', House of Lords, 9 December 2020. (A. Felstead)

Invited witness to the Senedd Cymru/Welsh Parliament remote working: implications for Wales inquiry', Economic, Infrastructure and Skills Committee, 9 December 2020. (A. Felstead)

Written evidence given to Senedd Cymru/Welsh Parliament remote working: implications for Wales inquiry', Economic, Infrastructure and Skills Committee, 9 December 2020. (A. Felstead)

Additional evidence following oral evidence given to the Department for Work and Pensions Select Committee on preparation for changes in the world of work inquiry', 4 November 2020, written evidence 2 December. (A. Felstead)

Written evidence submitted to inquiry on the impact of COVID 19 on social welfare. Equality, Local Government and Communities Committee, Senedd Cymru. November 2020. (P. Chaney, C. Sophocleous)

Written evidence submitted to Welsh Government White Paper on Social Care Consultation. March 2021. (C. Sophocleous)

Invited witness to the Department for Work and Pensions Select Committee on preparation for changes in the world of work inquiry', 4 November 2020. (A. Felstead)

Contribution to UK Government consultation on Making Flexible Working the Default (p9), https://wiserd.ac.uk/news/government-consultation-cites-wiserd-homeworking-report. (A. Felstead)

Evidence from the 2020 Sweep of the WMCS presented to the Children and Education sub-group of the Welsh Government TAC. 26 March 2021. (S. Power)

Evidence from the 2021 Sweep of the WMCS presented to the Children and Education sub-group of the Welsh Government TAC, 29 October 2021, and the Welsh Government Education and Skills Directorate, 17 November 2021. (S Power)

Providing advice to the Wales COVID-19 Evidence Centre. The Centre was set up by the Welsh Government to mobilise research evidence in areas of health and social care following COVID. (C. Taylor).

Contributions to ESRC International Public Policy Observatory syntheses of evidence disseminated UK-wide policy roundtables with policymakers and relevant stakeholders on the following topics: Inequalities and COVID; Gender-based recovery; Basic income; Summer catchup for children; Population mental health; Youth unemployment; Cities strategy; Education evidence reviews (schools, FE and HE); Social care data; Wellbeing amongst NHS staff; Homelessness and COVID; and BAME Rapid Evidence Review. (C. Taylor)

Committee membership

Membership of the International Intelligence sub-group of the Welsh Government Technical Advisory Cell (TAC) – meeting weekly (during the main part of the pandemic) to provide additional international intelligence to TAC. (C. Taylor)

Membership of the Children and Education sub-group of the Welsh Government TAC – meeting weekly (during the main part of the pandemic) to consider the latest evidence and discuss policy. (S. Power)

Secondments

Academic Fellowship 2020-2021, Research Services, Senedd Cymru. (M. Langford)

Research Secondment 2019-, Senedd Research, Senedd Cymru. (S. Jones)

Resources for policymakers and other stakeholders

The development of a web application, *Understanding Welsh Places*, providing accessible data and geographical information about towns or local areas to help communities identify opportunities to improve their localities. (S. Orford, S. Jones, K. Dickson)

The development of an interactive digital dashboard to help visualise and promote engagement with the Welsh Government's Hwb digital platform data, which provided a principal means of supporting schools and learners during lockdown. (J. Hampton, S. Jones)

Publication of leaflets for those providing care for people with dementia on how to stay well during the Coronavirus outbreak. (I. Jones)

Research tools developed as part of the OLR project to allow local organisations in India to connect with workers in need, alongside evidence provided for the Clean Clothes Campaign (J. Jenkins).

The development of a GIS-based tool for policymakers to model the impacts of new proposals regarding service provision in order to minimise inequalities (G. Higgs, M. Langford)

The design and distribution of infographic postcards on the impact of the pandemic on children and young people to schools and other education stakeholders. (S. Power)

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