GIG | Iechyd Cyhoeddus
CYMRU | Cymru
NHS | Public Health
WALES | Wales

A **Health Impact Assessment** of the **'Staying at Home and Social Distancing Policy' in Wales** in response to the COVID-19 pandemic

Supplementary Information

Liz Green, Laura Morgan, Sumina Azam, Laura Evans,
Lee Parry-Williams, Louisa Petchey and Mark A Bellis.

June 2020

This Health Impact Assessment is in three parts:

A Health Impact Assessment of the 'Staying at Home and Social Distancing Policy' in Wales in response to the COVID-19 pandemic. Executive Summary

A Health Impact Assessment of the 'Staying at Home and Social Distancing Policy' in Wales in response to the COVID-19 pandemic. Main Report

A Health Impact Assessment of the 'Staying at Home and Social Distancing Policy' in Wales in response to the COVID-19 pandemic. Supplementary Information (this report)

Suggested citation:

Acknowledgements

Contents

Section 1
Health Impact Assessment and methodology

The European Centre for Health Policy (1999) Gothenburg Consensus is widely accepted as the seminal definition of Health Impact Assessment (HIA), and defines it as:

> 'A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.'

HIA is a process which supports organisations to assess the potential consequences of their decisions on people's health and well-being. Public Health (Wales) Act 2017 has legislated for HIA to become statutory for public bodies in specific circumstances (as yet undefined).

HIA provides an evidence-based systematic yet flexible and practical framework that can be used to consider the wider effects of local and national policies or initiatives and how they, in turn, may affect people's health and well-being – in the present and in the future. A major objective or purpose of a HIA is to inform and influence decision-making or policy; however, it is not a decision-making tool per se.

HIA, as practised in Wales, is grounded in the World Health Organization (WHO) definition of health and well-being (WHO, 1948), which encompasses physical, mental and social health and well-being. HIA also views population impact through the lens and framework of the social determinants of health. This framework considers not just the biophysical and environmental health impacts which can be derived from policies, proposals and plans, but also assesses the social factors that can have an impact and the population groups which are affected. These factors, such as environment, transport, housing, access to services and employment can all interact to a greater or lesser extent with an individual's lifestyle choices and genetic makeup to influence health and well-being. The diagram below summarises the relationship between these determinants.

Figure 1: A social determinants of health and well-being framework
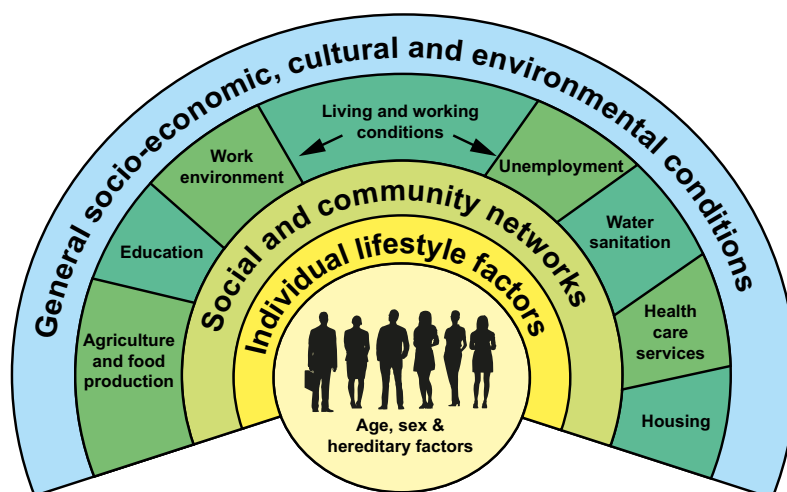
Source: Dahlgren and Whitehead (1991)

HIA works best when it involves people and organisations who can contribute different kinds of relevant evidence, contextual knowledge and insight. The information is then used to identify measures to maximise opportunities for health and to minimise any detrimental impacts, and identify any 'gaps' that need to be filled. HIA can be used to help address the inequalities in health that continue to persist in Wales, by identifying any groups within the population who may be particularly affected by a policy or plan or proposal.

HIA is based on triangulation of health intelligence and data, stakeholder knowledge / evidence and a review of the literature including peer reviewed journals. As practised in Wales, HIA is grounded on this mixed methodological approach and embraces community and lay knowledge. Wales emphasises the inclusion of all stakeholders including local community citizens as part of the process. Including this type of qualitative evidence is important to assess individual and community concerns, anxiety and fears, for example, and data can be quantified for use in decision-making and / or mitigation and can give a more holistic, contextual view of impacts.

There are three main types of HIA - prospective, concurrent and retrospective.

- *Prospective HIA* – at the start of the development of a project, proposal or plan

- *Concurrent HIA* – runs alongside the implementation of the project (or policy)

- *Retrospective HIA* - assesses the effect of an existing project or policy and can be used as an evaluation tool. Retrospective assessments can also be utilised for unexpected events, as a way of learning lessons for future similar events.

HIA is best used prospectively during the development of a proposal. The process should be activated late enough in a proposal's development to be clear about its nature and purpose, but early enough to be able to influence its design and / or implementation.

Within any of the above, HIA can take one of three different forms depending on the focus and the time and resources available - desktop, rapid or comprehensive. A desktop HIA may take only a few hours or a day to execute; a rapid HIA may take a few days to a few months to complete; and a comprehensive HIA is more in-depth / time and resource intensive and can take many months to complete. The most appropriate type to conduct can be decided through a short scoping meeting and discussion of timeframes, resources and levels of stakeholder involvement.

Often, however, any particular HIA may fit in between two of these categories, as the approach taken will be determined by the nature of the proposal, the timescales involved and the human, organisational and financial resources available to undertake the process.

HIA is also based on a number of key principles and values – these include equity, robustness, openness, transparency, ethical use of evidence, participation, sustainability and democracy.

Open	Transparent	Ethical
Democratic	Values of HIA	Equitable
Sustainable	Participatory	Robust
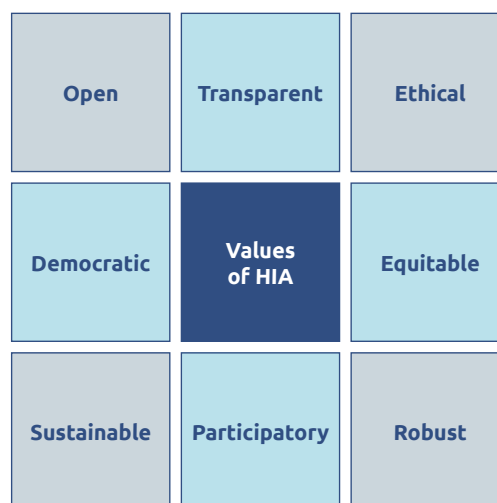
There are a number of ways in which the potential impacts may be described. Where possible, the following should be assessed:

- **The nature of the impact** - how will the proposal affect health and will the impact be positive or negative? Will it be direct or indirect i.e. via a direct pathway or as an associated impact?

- **The likelihood of the impact** - is the likelihood of the impact of the proposal confirmed, probable or possible?

- **The scale and significance of the impact** - what proportion of the population is likely to be affected? How significant or minimal will the impact be (i.e. will it cause mild distress, improve well-being or lead to deaths)?

- **The timing of the impact** - will the impact be in weeks, months, years? In some instances the short term risks to health may be worth the long term benefits.

- **The distribution of the effects** - will the proposal affect different groups of people in different ways? A proposal that is likely to benefit one section of the population may not benefit others. In some cases, the assessment will identify ways in which members of the least healthy or most disadvantaged or vulnerable populations could be helped. This can be an important contribution to reducing the health inequalities that exist between some communities.

There are five main steps to HIA (Box 1) and, while some may regard it as a linear process, HIAs are most useful and effective when the process is iterative. It is systematic yet flexible to particular timescales and circumstances.

Box 1. HIA Process

1. **Screening:** does the proposal or plan have an impact on population health?

2. **Scoping:** what resources, timeframes, policy windows and evidence needs to be considered? Does a Steering Group need to be established? Roles and responsibilities of any Steering Group outlined.

3. **Appraisal/Assessment of evidence:** triangulation of qualitative and quantitative evidence and health intelligence.

4. **Reporting and recommendations:** construction of HIA report and any non-technical summary.

5. **Review and reflection:** including monitoring and evaluation – did the HIA and any findings have an impact on health and well-being or decision-making process?

Methodology

This HIA is a concurrent and comprehensive assessment and was undertaken between April 2nd 2020 and May 11th 2020.

This section describes how the HIA was carried out, who was involved and the methodological approach taken. It followed the 5 step process contained in Box 1 (see previous page) but was adapted and impacts were scoped in or out as the evidence was gathered.

This HIA was iterative and followed the systematic methodology described in the Welsh HIA guidance entitled 'Health Impact Assessment: A Practical Guide' (WHIASU, 2012). Annex I and II in Section 4 (page 50) contain the Wales Health Impact Assessment Support Unit (WHIASU) Population Groups and Wider Determinants of Health checklists used in the assessment.

A Working Group was established to carry out the HIA, which consisted of internal public health specialists and practitioners from the Policy Team, WHO CC for 'Investment for Health and Well-being' and the Wales HIA Support Unit.

Scoping and screening of the potential public health impacts of the 'Staying at Home and Social Distancing Policy' took place using the WHIASU Scoping and Screening checklists and template.

A half-day interactive screening session was undertaken via Skype. The participants considered how a wide range of groups could be affected in Wales by the COVID-19 pandemic policy response and which determinants may be particularly impacted upon, utilising the WHIASU Population Groups and Wider Determinants of Health checklists (see Section 4, Annex I and II). The session was informed by a range of evidence that had been reviewed beforehand, which included academic literature, organisational reports and publications, and any published stakeholder perspectives. The Working Group completed a screening paper that preliminarily identified the potential determinants, populations and areas of policy focus that could be affected by the policy. This is available in Section 5.

These were to be explored further and included:

- Population Groups: Women / men, older people, children and young people; those on low incomes, health and social care workers; key workers; Black and Minority Ethnic (BAME) communities.

- Behaviours affecting health: diet / nutrition, physical activity, use of alcohol and risk taking behaviours.

- Social and Community factors: community cohesion, family life, community safety and volunteerism.

- The impacts on mental well-being.

- Economic conditions: home working; employment; working conditions.

- Access to services: health and social care, education and other municipal services.

- Environment: Air quality, transport and housing.

- Macro Socio-economic: Ethical considerations.

A Scoping Review document defined the scope of the HIA and how it would be carried out, the timeframes for the work, who would be involved and how, and the evidence needed. It also

outlined the governance mechanisms and the types of evidence required to ensure that the HIA and any report based on it was high quality and robust. The following questions were considered as part of the scoping process:

1. What are the timescales? When do crucial decisions need to be made? What financial and human resources are available?

2. What are the geographical boundaries of the project? (Is it necessary to consider the impact on people in other areas or communities that may be affected?)

3. What kind of assessment is necessary and / or possible in the time available – desktop, rapid or comprehensive?

4. Should the assessment be an in-house exercise or should someone be commissioned to do the appraisal?

5. Should a steering group be set up and who should be involved?

6. What elements of the policy / project / plan should the appraisal focus on?

7. Who are the stakeholders?

8. What are the roles and responsibilities?

9. What methods will be used to collect evidence?

10. What quality assurance procedures are in place?

11. What future monitoring arrangements will be implemented?

The Working Group oversaw and carried out the HIA. Internal Consultants in Public Health and Executive Directors reviewed the HIA and provided feedback, amendments or comments.

Evidence

As part of the HIA the following evidence was gathered or utilised:

- A literature review: To ensure that this was high quality in nature, a research protocol was constructed with support from the Public Health Wales Evidence Service, to rapidly identify relevant published evidence. The literature review can be found in Section 3 of this report.

- Qualitative evidence: The HIA captured knowledge and information held by stakeholder organisations and individuals. In total, 13 stakeholders were interviewed across 9 interview meetings with another 4 providing written feedback and evidence sources. The notes from these were transcribed and analysed using thematic analysis.

- Health Intelligence and data: A community and demographic profile of Wales was developed utilising recognised Welsh and UK sources such as the Public Health Wales Observatory (see Section 2 of this report).

- A Public Health Wales Public Engagement Survey was also carried out as part of the WHO Collaborating Centre's wider COVID-19 response work. Findings from this survey (where relevant) have been used as a source of evidence for the HIA.

All of the above evidence and data was collated, synthesised and analysed. The evidence analysis was carried out by two members of the Working Group and agreed with them. A matrix summarising the nature of the impacts was completed based on the collated evidence (see Executive Summary and Main Findings Report, Table 1).

Terminology

The HIA uses specific terminology to describe the impact, using the following descriptors throughout:

Type of impact		
Positive / opportunity Impacts that are considered to improve health status or provide an opportunity to do so		**Negative** Impacts that are considered to diminish health status
Likelihood of impact		
Confirmed	Strong direct evidence e.g. from a wide range of sources that an impact has already happened or will happen	**Confirmed**
Probable	More likely to happen than not. Direct evidence but from limited sources	**Probable**
Possible	May or may not happen. Plausible, but with limited evidence to support	**Possible**
Intensity / severity of impact		
Major	Significant in intensity, quality or extent. Significant or important enough to be worthy of attention, noteworthy	**Major**
Moderate	Average in intensity, quality or degree	**Moderate**
Minimal	Of a minimum amount, quantity or degree, negligible	**Minimal**
Duration of impact		
Short term (S)	Impact seen in 0 – 1 year	**Short term (S)**
Medium term (M)	Impact seen in 1 – 5 years	**Medium term (M)**
Long term (L)	Impact seen in > 5 years	**Long term (L)**

Based on the findings of the evidence analysis a number of conclusions were drawn. These were agreed within the Working Group. The HIA was sent for external review to an international HIA expert based in Europe.

Finally, the last stage of any HIA is to review and reflect on the process carried out and consider any monitoring and evaluation which needs to be in place. It is intended that this work will be reflected on, reviewed and monitored in the short, medium and longer term.

Section 2
Community health profile

Demographics

The total population of Wales recorded in 2018 was 3,138,600, of which just over half (51%) were women and just under half were men (49%) (Office for National Statistics, n.d).

The Public Health Wales Observatory (2018) reported that at 2016, 20% of the population in Wales was aged 65 and over and this was compared with 18% in the rest of the United Kingdom (UK). Population estimates provided by StatsWales (2019a) for mid-year 2018, shows the number of individuals aged 65 and over was projected to increase slightly to 651,993 (21%), with 18% aged 0 to 15 and 61% aged 16 to 64. Research by the Bevan Foundation (n.d), cited in Johnson (2020) outlines nearly 15% of the Welsh population is over 70 years of age. Within the UK, Wales has the largest proportion of older people per population, and many of these individuals live in rural areas and locations where there are high levels of deprivation (Clifton, 2019).

According to the last Census, undertaken in 2011, 21% of the population of Wales, (633,407 individuals), were children and young people aged 0 to 17, of which the majority were aged 0-4 (5.8%) and aged 10-14 (5.8%) (Office for National Statistics, 2011). Data from the 2011 Census shows there were 178,000 children under the age of 5 in Wales, an increase of 11,000 from the 2001 Census (Office for National Statistics, 2012). The estimated number of children and young people in Wales, aged 0 to 17, at mid-year 2019 was 629,939 (20% of the population), of which 165,542 (5%) were aged 0 to 4, 220,579 (7%) were aged 5 to 10, 177,714 (6%) were aged 11 to 15 and 66,104 (2%) were aged 16 and 17 (StatsWales, 2020a).

The 2011 (the most recent available) Census data shows that 93.7% of the population in Wales was reported as White British or Irish (Public Health Wales Observatory, 2015). Wales has been reported as less ethnically diverse compared to the regions of England with the exception of the North East, and those reporting as not White British or Irish in Wales are concentrated in urban centres (Public Health Wales Observatory, 2015). 4.4% of the Welsh population identify as Black, Asian or other ethnic minority group (BAME) (Welsh Government, 2019a).

Deprivation and poverty

The Welsh Index of Multiple Deprivation (WIMD) 2019, highlights that high levels of relative deprivation exist within the cities and valleys of South Wales and coastal and border towns in North Wales (Welsh Government, 2019b). At this time, Newport was identified as the local authority with the largest number of areas located within the most deprived 10% in Wales and Monmouthshire had the least, with no areas located in the most deprived 10% in Wales (Welsh Government, 2019b).

One quarter of children in Wales live in poverty (Public Health Wales Observatory, 2018) and compared to other countries within the UK, Wales has the highest level of child poverty (StatsWales, 2020b). In addition to this, almost a quarter of all people in Wales live in poverty

(Johnson, 2020) and 16% of adults in Wales are classed as materially deprived (Welsh Government, 2019c). The average life expectancy at birth in Wales between 2015 and 2017 was 80 years, compared to an average healthy life expectancy at birth in Wales of 62 during the same period (Public Health Wales Observatory, 2019). For men average life expectancy is 78 years and for women, 82 years, however there is a considerable gap in both life expectancy and healthy life expectancy between the least and most deprived areas in Wales; men and women in the most deprived areas spend an average of 19 and 18 fewer years in good health and live on average 9 years and 7 years less, respectively (Public Health Wales Observatory, 2018). In 2015-17, the gap in healthy life expectancy for males had increased, with males in Wales having almost 2 years fewer healthy years than males in England (Public Health Wales, 2020a).

One in ten 16-18 year olds and one in five 19-24 year olds are not in education, employment or training (Public Health Wales Observatory, 2018). Data shows that 74.4% of persons aged 16-64 in Wales report being in work (StatsWales, 2020c) compared with 23% recorded as economically inactive and 3.3% (of those aged 16 and over) as unemployed (Office for National Statistics, n.d.).

In January 2020, there were 2.8 million people on Universal Credit in England, Scotland and Wales, an increase of 100,000 people (2%) since 12th December 2019 (Department for Work & Pensions, 2020). At 9th January 2020, the majority of individuals on Universal Credit in England, Scotland and Wales were female (56%), with 44% male (Department for Work & Pensions, 2020). In Wales, at November 2019, there were 120,648 households claiming Universal Credit (5.2% of the total households in Great Britain claiming Universal Credit) and of these 93% were receiving a payment (Department for Work & Pensions, 2019). Department for Work & Pensions statistics (2018) cited by Welsh Government (2019d) show that in October 2018 there were 62,380 people in Wales on Universal Credit, which was 5% of the total of those on Universal Credit in Great Britain.

In 2018 / 19 there were 78,902 pupils eligible for free school meals in Wales (StatsWales, 2019b).

Housing

Just over a quarter (26%) of all dwellings located in Wales were built prior to 1919, resulting in Wales having the oldest dwelling stock in the UK (Welsh Government, 2020). The latest Welsh Housing Conditions Survey identified that in 2017-18, 69% of dwellings were owner occupied, 18% were in the social rented sector and 13% were privately rented and furthermore that flats made up 30% of all social housing dwellings compared with only 4% of owner occupied dwellings (Welsh Government, 2020). At this time, it was reported only 53% of private rented and 55% of social housing dwellings were considered to have sufficient space for everyday living compared with 68% of owner occupied ones (Welsh Government, 2019e). Household estimates for 2018 show that 37% (500,004) of households were occupied by more than 2 adults (StatsWales, 2019c).

12% of households in Wales live in fuel poverty (Welsh Government, 2019a).

The estimated number of rough sleepers in Wales for 2019-20 was recorded as 405 (StatsWales, 2020d). It has been reported that over a quarter of households with children living in social rented accommodation are overcrowded, which is a higher figure than both for privately rented and owned accommodation (Public Health Wales Observatory, 2018). The fastest growing type of household in the UK over the last two decades is those comprising multiple families, although this is only 1.1% of households (Office for National Statistics, 2019a). In Wales, the most common family type recorded in 2019 was married or civil partner couple families (66.4%), followed by cohabiting couple families (19.1%) and then lone parent families (14.5%) (Office for National Statistics, 2019a).

Physical and mental health and well-being

In Wales over a quarter of children and almost 60% of adults are overweight or obese (Public Health Wales, 2019). Leading causes of Disability-adjusted life years (DALYs) in Wales are neoplasms (cancers) and cardiovascular disease (Public Health Wales Observatory, 2018). For those in Wales, during adulthood the main causes of Years lived with disability (YLD) are mental health and musculoskeletal disorders (Public Health Wales Observatory, 2018).

According to Asthma UK Cymru there are 314,000 people in Wales (1 in 10) currently receiving treatment for asthma, of which 59,000 are children (Asthma UK Cymru, 2020). According to data on the numbers of patients on Quality and Outcomes Framework (QOF) disease registers in Wales, in 2018 / 19 there were 229,475 patients on the asthma register and 76,319 patients on the chronic obstructive pulmonary disease (COPD) register (StatsWales, 2019d). The UK ranks in the top 20 countries for COPD mortality worldwide, and between 2008 and 2012, the death rate from COPD in Wales was slightly higher than in the UK (age-standardised mortality ratio for women was 106 and for men it was 103) (British Lung Foundation, 2020). In 2012, there were 197 people in Wales newly diagnosed with COPD per 100,000, however this was lower than the number of individuals diagnosed with COPD for the first time in Scotland (238 people per 100,000), the north west of England (234 people per 100,000) and the east midlands (209 people per 100,000) (British Lung Foundation, 2020). Results from the Asthma UK survey and the British Lung Foundation survey, both undertaken at the start of April 2020, show individuals are anxious about coronavirus, with 87.9% of the 656 individuals who completed either survey in Wales ranking themselves between 6 and 10 on the scale, which was higher than the anxiety levels of those in the general population in Great Britain reported by the Office for National Statistics on 16th April 2020 (46.9% ranked anxiety between 6 and 10) (The Asthma UK and British Lung Foundation Partnership, 2020).

Data shows that overall there has been a reduction in GP consultations for severe asthma during the coronavirus situation from 256 consultations in week 8 of 2020 to 80 in week 17, however this has not been a steady reduction and in some weeks there have been increases, for example the number of consultations peaked in week 11, at 352 (Public Health Wales, 2020b).

There is a lower percentage of men and women in Wales meeting the recommended physical activity guidelines compared with England and Scotland (Public Health Wales Observatory, 2018). Only around half of adults undertake enough physical activity (Welsh Government, 2019f) and a deprivation gap of 17% exists between the least and most deprived areas (Clifton, 2019). According to the latest statistics on population health and lifestyle released by Welsh Government (2018), 19% of adults reported they smoke and 18% reported drinking more than the weekly guidelines (average weekly alcohol consumption over 14 units).

Although the rates of people reporting high life satisfaction, feeling that life is worthwhile and happiness seem to have increased in Wales between 2013 and 2018, when compared with other UK nations, the rates in Wales are often lower (Public Health Wales, 2020c). Individuals who are employed report higher percentages of positive well-being than those who are unemployed and lower percentages of high mental well-being were recorded for those living in rented properties (Public Health Wales, 2020c).

In 2016 / 17, higher levels of well-being were reported by adults aged 65 and over compared with younger individuals in Wales and in 2018, 75% of individuals surveyed reported a high sense of happiness (Public Health Wales, 2020c). Between 2016 / 17 and 2018 / 19 the average Warwick-Edinburgh Mental Well-being Scale (WEMBS) score for individuals in Wales

Page 10, last sentence – insert the word aged 16 years and over increased from 50.9 to 51.4 (Public Health Wales, 2020c).

Individuals aged 16 and over in Wales who are limited a lot by disability, have a lower age-standardised average score for mental well-being than those not limited by disability (Public Health Wales Observatory, 2019) and therefore do not have as strong mental well-being those not limited by disability. Mental and substance use disorders is the second main cause of years lived with disability (YLD) and is one of the two main causes of YLD during adulthood (Public Health Wales Observatory, 2018).

Data shows that there is a higher percentage of self-reported mental disorders amongst those 16 years and over living in most deprived areas in Wales (13%) compared with those in the least deprived areas (6%) (StatsWales, 2019e). Individuals in Wales aged 16-44 report higher rates of mental disorders than those individuals aged 45-64 or 65 and above (StatsWales, 2019f).

Figures for Accident and Emergency (A&E) attendances across hospitals in Wales for the first 3 months of 2020 show attendances reduced from 76,912 in January to 71,356 in February and then to 57,603 in March (StatsWales, 2020e). The number of A&E attendances in March 2020 was significantly lower than the number of attendances reported in the same month of 2019 (87,374) (StatsWales, 2020e).

Key workers

At the end of September 2019, there were a total of 81,044 National Health Service (NHS) staff in Wales, of which 41% were nursing, midwifery and health visiting staff, 23%, administration and estates staff, 17%, scientific, therapeutic and technical staff, 8%, medical and dental staff, 7%, health care assistants and other support staff, 3%, ambulance staff and 0.1%, other non-medical staff (StatsWales, 2020f).

In 2018 / 19, there were 25,802 qualified teachers across all schools in Wales (StatsWales, 2019g) and 27,101 support staff, across all schools in Wales (StatsWales, 2019h). In 2018 out of an estimated 1,452,100 jobs across all industries in Wales, the majority, 30% (434,900), were within the areas of public administration, defence, education and health, 24% (347,600) were within the wholesale, retail, transport, hotels and food industries, 13% (187,100) were defined as professional, scientific and technical activities; administrative and support service activities and 11% (165,700) were in production (StatsWales, 2019i).

On 30th September 2019, there were 204,815 full-time equivalent (FTE) workers employed across the 43 territorial police forces in England and Wales, as well as an additional 10,039 special constables and 7,740 police support volunteers (PSVs) (Home Office, 2020).

Data held by Welsh Government, suggests there are around 45,450 individuals employed by registered social care settings in Wales and of these an estimated 6.4% (around 2,900 individuals) are non-UK European Union (EU) nationals (Welsh Government, 2019g). In 2018/19 there were 21,071 total staff recorded within local authority social services departments in Wales (StatsWales, 2019j). In Wales, 12% of the total population provide unpaid care (Public Health Wales Observatory, 2018).

There are an estimated 17,000 people in Wales working within childcare (Welsh Government, 2019g).

Employment

The Office for National Statistics annual population survey undertaken in 2019 (Office for National Statistics, n.d), showed that 10.4% of the Welsh population aged 16 and over in employment (152,100 individuals) reported working within caring, leisure and other service occupations. In addition, in 2019 there were 36,000 workforce jobs in the arts, entertainment and recreation industries in Wales (2.5% of workforce jobs in Wales) (Office for National Statistics, n.d.).

In 2018, 24% of workplace employment in Wales (347,600 jobs) was within the areas of wholesale, retail, transport, hotels and food, and this was the second largest sector in Wales (the only sector with a larger number of estimated total jobs was Public administration, defence, education and health, which held 30% of workplace employment (434,900 jobs) (StatsWales, 2019k).

The most common sector of employment for women in the UK, recorded at September 2019, was health and social work (21% of the total jobs held by women in the UK), followed closely by the wholesale and retail trade (14%) and education (12%) (UK Parliament, 2020a). The most common sector of employment for men in the UK is the wholesale and retail trade (14% of all jobs held by men in the UK) (UK Parliament, 2020a). Of those women in professional occupations in 2019, around half were employed as nurses, teachers or other educational professionals (UK Parliament, 2020a).

According to the Office for National Statistics Annual Population Survey data, between October 2018 and September 2019, 14.3% of those in employment in Wales were self-employed, of which the majority were men (UK Parliament, 2020b).

In 2019, 62.4% of employment in Wales was in small and medium sized enterprises (SMEs), which accounted for 37.9% of turnover (Welsh Government, 2019h). Of all active enterprises in Wales in 2019, the majority were SMEs (Welsh Government, 2019h).

The largest sector in Wales in 2019 was wholesale, retail, transport, hotels, food and communication, which had 61,700 enterprises and 404,300 individuals employed (Welsh Government, 2019h).

In 2018, the largest employer in Wales was the NHS, employing more than 90,000 people (in almost 80,000 FTE posts (Welsh Government, 2019i).

In 2018, there were more men who were registered as doctors (156.7 thousand) in the UK than women (133 thousand), although there were more women on the GP register (32.9 thousand) then men (27.3 thousand) (Statista, 2019).

Employment - furloughing

According to the Business Impact of Coronavirus (COVID-19) Survey (BICS), of the 6,150 businesses that responded that were still trading or had temporarily paused trading during the period 23rd March to 5th April 2020, 27% of the workforce had been furloughed and less than 1% had been made redundant (Office for National Statistics, 2020a). During the same period, of those businesses that had temporarily closed or paused trading, 78% of the workforce had been furloughed (Office for National Statistics, 2020a). Most instances of furloughing in businesses that were continuing to trade were in the accommodation and food service activities industry (40%) and construction industries (32%) (Office for National Statistics, 2020a).

In 2018, there were 101,800 individuals in Wales working in the construction industry and 165,700 individuals in Wales working in the production industry (of which 7,800 were working in jobs associated with electricity, gas, steam and air conditioning supply and 12,400 were working in jobs associated with water supply, sewerage, waste management and remediation activities) (StatsWales, 2019l).

Between October and December 2019 there were many more men than women employed in the construction industry (1,135,134 men, 242,662 women) and the transport and storage industry (989,500 men, 274,368 women) in the UK (Office for National Statistics, 2020b).

In Wales, in the year ending 31st December 2019, the total number of individuals employed in all occupations was 1,462,000; just over half of these individuals were male (53%) and just under half were female (47%) (StatsWales, 2020g). Of the total number, 175,100 people were recorded against skilled trades occupations (which include electricians, and construction and building trades), of which 89% (156,100) were male and 11% (19,000) female (StatsWales, 2020g). In addition, 97,200 people were recorded as being employed in jobs within the process, plant and machine operatives category (which includes bus and train drivers), of which 90% (87,000) were male and 10% (10,200) female (StatsWales, 2020g).

Technology

Although between 2012 and 2018 the percentage of internet non-users in Wales decreased from 22% to 10.9%, within the UK population there were still 5.3 million adults (10% of adults) recorded within this category (Office for National Statistics, 2019b). Research undertaken in 2018 by Lloyds Bank (2018), cited by the Office for National Statistics (2019b) found that 12% of 11-18 year olds, (700,000 individuals), in the UK do not have any internet access at home via a computer or tablet, a further 600,000 have no internet access at all and 68% of those in this age category who did have access to the internet at home said it would be difficult to complete school work without it.

Vulnerable groups

Of 6,845 children looked after by local authorities in Wales in 2018, 4870 (71%) had foster placements, 1,065 (16%) were placed with own parents or other person with parental responsibility, 470 (7%) had placements in residential settings, 225 (3%) were placed for adoption, 125 (2%) were living independently and 95 (1%) were absent from placement or other (StatsWales, 2019m).

Out of a total of 45,643 asylum seekers receiving support under Section 95 of the Immigration and Asylum Act 1999 at the end of March 2019, 93% (42,597) were receiving accommodation and subsistence with the remaining 7% (3,046) receiving subsistence only (Home Office, 2019). Most of these asylum seekers were located in England (83%), with 6% located in Wales (Home Office, 2019). A total of 17,304 people were granted protection in the UK in the year ending March 2019, which was an increase of 22% on the previous year, and of these, 40% were children (Home Office, 2019).

Data obtained from the Crime Survey for England and Wales (CSEW) for the year ending March 2019, shows there was an estimated 5.7% of adults aged 16-74 years (2.4 million individuals; 1.6 million women and 786,000 men) who had experienced domestic abuse in the previous year, and there was no change in its prevalence over the last year (Office for National Statistics, 2019c).

In addition, 57% (746,219) of police recorded domestic abuse-related incidents and crimes in England and Wales, in the year ending March 2019, were confirmed as domestic abuse-related crimes, which was an increase of 24% compared to the previous year (Office for National Statistics, 2019c).

COVID-19 – Cases and deaths in Wales

On the 28th February 2020, the first person in Wales was diagnosed with COVID-19 (James et al., 2020). On the 18th March 2020, Public Health Wales began reporting daily confirmed cases using their data dashboard, recording no new cases and 29 previously reported cases (Public Health Wales, 2020b).

The first death in England and Wales due to COVID-19, reported by the Office for National Statistics (2020c), occurred on the 2nd March. The first suspected COVID-19 deaths, in laboratory confirmed cases in Wales, reported by Public Health Wales on their data dashboard, occurred on the 16th March 2020 (Public Health Wales, 2020b).

At 22nd June, there were 15,2951 confirmed cases of COVID-19 and 1,483 suspected COVID-19 deaths in laboratory confirmed cases in Wales (Public Health Wales, 2020) (out of 306,210 confirmed cases and 42,927 deaths in the whole of the UK2 (UK Government, 2020a).

References

Asthma UK Cymru (2020) *Asthma facts and statistics* [Online]. Available at: https://www.asthma.org.uk/about/media/facts-and-statistics/ (Accessed 28 April 2020).

The Asthma UK and British Lung Foundation Partnership (2020) *AUK-BLF Covid-19 Survey Results.* London. The Asthma UK and British Lung Foundation Partnership.

British Lung Foundation (2020) *Chronic obstructive pulmonary disease (COPD) statistics* [Online]. Available at: https://statistics.blf.org.uk/copd?_ga=2.266074127.1295484627.1588153118-235348582.1588153118 (Accessed 29 April 2020).

Clifton, A. (2019) *Devolution 20 – Are we a healthier nation?* [Online] Available at: https://seneddresearch.blog/2019/05/01/devolution-20-are-we-a-healthier-nation/ (Accessed 17 April 2020).

Department for Work & Pensions (2019) *Households on Universal Credit Dashboard* [Online]. Available at: https://stat-xplore.dwp.gov.uk/webapi/metadata/dashboards/uch/index.html (Accessed 28 April 2020).

Department for Work & Pensions (2020) *Universal Credit: 29 April 2013 to 9 January 2020* [Online]. Available at: https://www.gov.uk/government/publications/universal-credit-29-april-2013-to-9-january-2020/universal-credit-29-april-2013-to-9-january-2020 (Accessed 28 April 2020).

Home Office (2019) *How many people do we grant asylum or protection to?* [Online]. Available from: https://www.gov.uk/government/publications/immigration-statistics-year-ending-march-2019/how-many-people-do-we-grant-asylum-or-protection-to (Accessed 23 April 2020).

Home Office (2020) *Police workforce, England and Wales: 30 September 2019* [Online]. Available at: https://www.gov.uk/government/statistics/police-workforce-england-and-wales-30-september-2019 (Accessed 22 April 2020).

James, D., Rhys, S. and Deacon, T. (2020) *Twelve weeks to cripple the world: How Covid-19 started, spread and brought the planet to its knees.* [Online]. Available at: https://www.walesonline.co.uk/news/wales-news/coronavirus-timeline-how-spread-symptoms-17936560 (Accessed 6 May 2020).

Johnson, H. (2020) *Coronavirus: equality issues* [Online]. Available at: https://seneddresearch.blog/2020/04/15/coronavirus-equality-issues/ (Accessed 15 April 2020).

Office for National Statistics (n.d.) *NOMIS official labour market statistics: Labour market Profile – Wales.* [Online]. Available at: https://www.nomisweb.co.uk/reports/lmp/gor/2013265930/report.aspx?town=Wales (Accessed 15 April 2020).

Office for National Statistics (2011) *KS102EW - Age structure* [Online]. Available at: https://www.nomisweb.co.uk/census/2011/KS102EW/view/2092957700?cols=measures (Accessed 28 April 2020).

Office for National Statistics (2012) *2011 Census: Population and Household Estimates for Wales, March 2011* [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/2011censuspopulationandhouseholdestimatesforwales/2012-07-16 (Accessed 28 April 2020).

Office for National Statistics (2019a) *Families and households in the UK: 2019* [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2019 (Accessed 16 April 2020).

Office for National Statistics (2019b) *Exploring the UK's digital divide* [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04 (Accessed 22 April 2020).

Office for National Statistics (2019c) *Domestic abuse in England and Wales overview: November 2019* [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/domesticabuseinenglandandwalesoverview/november2019 (Accessed 28 April 2020).

Office for National Statistics (2020a) *Furloughing of workers across UK businesses: 23 March 2020 to 5 April 2020* [Online]. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/furloughingofworkersacrossukbusinesses/23march2020to5april2020 (Accessed 29 April 2020).

Office for National Statistics (2020b) *EMP14: Employees and self-employed by industry.* [Online]. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employeesandselfemployedbyindustryemp14 (Accessed 29 April 2020).

Office for National Statistics (2020c) *Deaths involving COVID-19, England and Wales* [Online]. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/deathsinvolvingcovid19englandandwales (Accessed 6 May 2020).

Public Health Wales (2019) *Obesity in Wales* [Online]. Available at: http://www.publichealthwalesobservatory.wales.nhs.uk/sitesplus/documents/1208/ObesityInWales_Report2018_v1.pdf (Accessed 16 April 2020).

Public Health Wales (2020a) *Life Expectancy and Mortality in Wales* [Online]. Available at: http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/7c21215d6d0c613e80256f490030c05a/75522ac51cc545a18025852000365842/$FILE/LifeExpectancy-AndMortalityInWales_2020_v1.pdf (Accessed 21 April 2020).

Public Health Wales (2020b) *Coronavirus (COVID-19) data dashboard.* [Online]. Available at: https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary (Accessed 29 April 2020).

Public Health Wales (2020c) *Mental wellbeing in Wales* [Online]. Available at: https://publichealthwales.shinyapps.io/MentalWellbeingInWales/ (Accessed 21 April 2020).

Public Health Wales Observatory (2015) *Ethnicity and health in Wales* [Online]. Available at: http://nww2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/3653c00e7bb6259d-80256f27004900db/a6cabddc045b6c8980257e52003969e1/$FILE/EthnicityAndHealthInWales_2015_v1.pdf (Accessed 15 April 2020).

Public Health Wales Observatory (2018) *Health and its determinants in Wales: Informing strategic planning* [Online]. Available at: http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/85c50756737f79ac80256f2700534ea3/99a9490d-2e6d05268025820b005851de/$FILE/Health&determinantsinWales_Report_Eng.pdf (Accessed 15 April 2020).

Public Health Wales Observatory (2019) *Public Health Outcomes Framework* [Online]. Available at: http://www.publichealthwalesobservatory.wales.nhs.uk/phof (Accessed 15 April 2020).

Statista (2019) *Number of registered doctors in the United Kingdom (UK) in 2018, by gender and specialty* [Online]. Available at: https://www.statista.com/statistics/698260/registered-doctors-united-kingdom-uk-by-gender-and-specialty/ (Accessed 6 May 2020).

StatsWales (2019a) *National level population estimates by year, age and UK country* [Online]. Available at: https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/nationallevelpopulationestimates-by-year-age-ukcountry (Accessed 15 April 2020).

StatsWales (2019b) *Pupils eligible for free school meals by local authority, region and year* [Online]. Available at: https://statswales.gov.wales/Catalogue/Education-and-Skills/Schools-and-Teachers/Schools-Census/Pupil-Level-Annual-School-Census/Provision-of-Meals-and-Milk/pupilseligibleforfreeschoolmeals-by-localauthority-region-year (Accessed 28 April 2020).

StatsWales (2019c) *Households by Type and Year* [Online]. Available at: https://statswales.gov.wales/Catalogue/Housing/Households/Estimates/households-by-type-year (Accessed 16 April 2020).

StatsWales (2019d) *Patients on Quality and Outcomes Framework (QOF) disease registers by local health board* [Online]. Available at: https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Primary-and-Community-Activity/GMS-Contract/patientson-qualityandoutcomesframework-by-localhealthboard-diseaseregister (Accessed 28 April 2020).

StatsWales (2019e) *General health and illness by WIMD deprivation quintile* [Online]. Available at: https://statswales.gov.wales/Catalogue/National-Survey-for-Wales/Population-Health/Adult-general-health-and-illness/genhealthillness-by-wimddeprivation (Accessed 23 April 2020).

StatsWales (2019f) *General health and illness by age and gender* [Online]. Available at: https://statswales.gov.wales/Catalogue/National-Survey-for-Wales/Population-Health/Adult-general-health-and-illness/genhealthillness-by-age-gender (Accessed 23 April 2020).

StatsWales (2019g) *Teachers by local authority, region and category* [Online]. Available at: https://statswales.gov.wales/Catalogue/Education-and-Skills/Schools-and-Teachers/teachers-and-support-staff/School-Staff/teachers-by-localauthorityregion-category (Accessed 22 April 2020).

StatsWales (2019h) *Support staff by local authority, region and category* [Online]. Available at: https://statswales.gov.wales/Catalogue/Education-and-Skills/Schools-and-Teachers/teachers-and-support-staff/School-Staff/supportstaff-by-localauthorityregion-category (Accessed 22 April 2020).

StatsWales (2019i) *Workplace employment by industry and area* [Online]. Available at: https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Jobs/Whole-Workforce/workplaceemployment-by-industry-area (Accessed 21 April 2020).

StatsWales (2019j) *Staff of local authority social services departments by local authority and post title (2014-15 onwards)* [Online]. Available at: https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Social-Services/Staffing/staffoflocalauthoritysocialservicesdepartments-by-localauthority-posttitle (Accessed 22 April 2020).

StatsWales (2019k) *Workplace employment by Welsh local areas and broad industry* [Online]. Available at: https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Jobs/Whole-Workforce/workplaceemployment-by-welshlocalareas-industry (Accessed 6 May 2020).

StatsWales (2019l) *Workplace employment by area and year.* [Online]. Available at: https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Jobs/Whole-Workforce/workplaceemployment-by-area-year (Accessed 29 April 2020).

StatsWales (2019m) *Children looked after at 31 March by local authority and placement type* [Online]. Available at: https://statswales.gov.wales/Catalogue/Health-and-Social-Care/Social-Services/Childrens-Services/Children-Looked-After/childrenlookedafterat31march-by-localauthority-placementtype (Accessed 23 April 2020).

StatsWales (2020a) *National level population estimates by year, age and UK country* [Online]. Available at: https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/nationallevelpopulationestimates-by-year-age-ukcountry (Accessed 20 May 2020).

StatsWales (2020b) *Child poverty (WEL)* [Online]. Available at: https://statswales.gov.wales/Catalogue/Sustainable-Development/Sustainable-Development-Indicators/Child-poverty (Accessed 15 April 2020).

StatsWales (2020c) *Employment - Percentage of people aged 16-64 in work (ECON)* [Online]. Available at: https://statswales.gov.wales/Catalogue/Sustainable-Development/Sustainable-Development-Indicators/labourmarketsummary-by-measure-age-ukcountry-quarter (Accessed 15 April 2020).

StatsWales (2020d) *Rough Sleepers by local authority* [Online]. Available at: https://statswales.gov.wales/Catalogue/Housing/Homelessness/Rough-Sleepers/roughsleepers-by-localauthority (Accessed 16 April 2020).

StatsWales (2020e) *Number of attendances in NHS Wales accident and emergency departments by age band, sex and site.* [Online]. Available at: https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Hospital-Waiting-Times/Accident-and-Emergency/accidentemergencyattendances-by-age-sex-site (Accessed 29 April 2020).

StatsWales (2020f) *NHS staff by staff group and year* [Online]. Available at: https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Staff/NHS-Staff-Summary/nhsstaff-by-staffgroup-year (Accessed 22 April 2020).

StatsWales (2020g) *People in employment by area and occupation (SOC 2010).* [Online]. Available at: https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Persons-Employed/peopleinemployment-by-area-occupation (Accessed 29 April 2020).

UK Parliament (2020a) *Women and the economy* [Online]. Available at: https://researchbriefings.files.parliament.uk/documents/SN06838/SN06838.pdf (Accessed 6 May 2020).

UK Parliament (2020b) *Labour market statistics: UK regions and countries* [Online]. Available at: https://researchbriefings.files.parliament.uk/documents/CBP-7950/CBP-7950.pdf (Accessed 6 May 2020).

Welsh Government (2018) *Population health, lifestyle (National Survey for Wales): April 2017 to March 2018* [Online]. Available at: https://gov.wales/population-health-lifestyle-national-survey-wales-april-2017-march-2018 (Accessed 20 April 2020).

Welsh Government (2019a) *Well-being of Wales 2018-19* [Online]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2019-11/well-being-of-wales-2019.pdf (Accessed 16 April 2020).

Welsh Government (2019b) *Welsh Index of Multiple Deprivation (WIMD) 2019: Results report* [Online]. Available at https://gov.wales/sites/default/files/statistics-and-research/2020-02/welsh-index-multiple-deprivation-2019-results-report.pdf (Accessed 15 April 2020).

Welsh Government (2019c) *National Survey for Wales 2017-18 Poverty and deprivation* [Online]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2019-02/national-survey-wales-2017-18-poverty-deprivation.pdf (Accessed 16 April 2020).

Welsh Government (2019d) *Analysis of the impact of the UK Government's welfare reforms on households in Wales* [Online]. Available at: https://gov.wales/sites/default/files/publications/2019-03/impact-of-welfare-reform-on-households-in-wales.pdf (Accessed 28 April 2020).

Welsh Government (2019e) *Welsh Housing Conditions Survey 2017-18: Assessment of Elements of the Welsh Housing Quality Standard* [Online]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2019-04/welsh-housing-conditions-survey-2017-18-assessment-of-the-welsh-housing-quality-standard-567.pdf (Accessed 16 April 2020).

Welsh Government (2019f) *Heathy weight: healthy Wales* [Online]. Available at: https://gov.wales/healthy-weight-healthy-wales (Accessed 20 April 2020).

Welsh Government (2019g) *Research on Implications of Brexit on Social Care and Childcare Workforce in Wales* [Online]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2019-03/implications-brexit-social-care-and-childcare-workforce.pdf (Accessed 22 April 2020).

Welsh Government (2019h) *Size Analysis of Active Businesses in Wales, 2019* [Online]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2019-12/size-analysis-active-businesses-2019-503.pdf (Accessed 6 May 2020).

Welsh Government (2019i) *Staff directly employed by the NHS in Wales, at 30 September 2018* [Online]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2019-03/staff-directly-employed-by-the-nhs-30-september-2018-167.pdf (Accessed 6 May 2020).

Welsh Government (2020) *Welsh Housing Conditions Survey 2017-18: headline report (updated)* [Online]. Available at: https://gov.wales/sites/default/files/statistics-and-research/2020-02/welsh-housing-conditions-survey-headline-results-april-2017-march-2018-update-570.pdf (Accessed 16 April 2020).

Grey Literature , Contextual Knowledge and Evidence

Key determinants and Groups	Source	Date
Air pollution		
Researchers in New York told the BBC their early results showed carbon monoxide mainly from cars had been reduced by nearly 50% compared with last year. Traffic levels in the city were estimated to be down 35% compared with a year ago. Emissions of carbon monoxide, mainly due to cars and trucks, have fallen by around 50% for a couple of days this week according to researchers at Columbia University. They have also found that there was a 5-10% drop in CO2 over New York and a solid drop in methane as well. An analysis carried out for the climate website Carbon Brief suggested there had been a 25% drop in energy use and emissions in China over a two-week period.	BBC news - https://www.bbc.co.uk/news/science-environment-51944780 Primary source: TomTom: https://www.crainsnewyork.com/coronavirus/city-traffic-levels-plummet-35-following-new-executive-orders Primary source: industry surveys reported by WIND Information	19/03/2020
NASA Satellite Data Show 30 Percent Drop In Air Pollution Over Northeast U.S.	NASA - https://www.nasa.gov/feature/goddard/2020/drop-in-air-pollution-over-northeast	09/04/2020
Satellite images have shown a dramatic decline in pollution levels over China, which is "at least partly" due to an economic slowdown prompted by the coronavirus, US space agency Nasa says.	BBC news - https://www.bbc.co.uk/news/world-asia-51691967 Primary source: Nasa Earth Observatory: https://earthobservatory.nasa.gov/images/146362/airborne-nitrogen-dioxide-plummets-over-china	29/02/2020
Air pollution levels in some cities in the UK have dropped to levels lower than the average of the previous five years as the coronavirus pandemic disrupts travel and work, new research shows.	University of York - https://www.york.ac.uk/news-and-events/news/2020/research/pollutionlevelsinukcitiesdropsascoronavirusimpactsondailylifenewdatareveals/.	25/03/2020
Alcohol		
At times of lockdown during the COVID-19 pandemic, alcohol consumption can exacerbate health vulnerability, risk-taking behaviours, mental health issues and violence.	WHO - http://www.euro.who.int/en/health-topics/disease-prevention/alcohol-use/news/news/2020/04/alcohol-does-not-protect-against-covid-19-access-should-be-restricted-during-lockdown	14/04/2020

Off-licences have been added to the government's list of essential UK retailers allowed to stay open during the coronavirus pandemic.	BBC news - https://www.bbc.co.uk/news/business-52033260 UK Government - https://www.gov.uk/government/publications/further-businesses-and-premises-to-close/further-businesses-and-premises-to-close-guidance	25/03/2020
Children		
Important report from Unicef on the increased risk of harm to hundreds of millions of children globally as an indirect result of Covid-19, who will "likely face increasing threats to their safety and well-being".	Unicef - https://www.unicef.org/press-releases/children-increased-risk-harm-online-during-global-covid-19-pandemic	25/03/2020
Online child abuse warning during lockdown.	BBC news - https://www.bbc.co.uk/news/technology-52067507 Europol - https://www.europol.europa.eu/newsroom/news/catching-virus Report: Catching the virus cybercrime, disinformation and the COVID-19 pandemic.	27/03/2020 03/04/2020
…COVID-19 is likely to have a particularly pernicious impact on the estimated four million children and young people already living in poverty in the UK. …we estimate that 1.7 million children aged 10-17 are living in a household with problem debt and an estimated 2.1 million children of the same age are living in a household where there has been difficulty paying the bills. Although many schools are providing online learning, children whose families cannot afford access to laptops, phones or adequate internet or phone connections are likely to miss out on vital learning. For children who cannot access any such e-learning that schools are providing, there is also an added risk of stigma or shame. We are concerned that the situation for many of the most vulnerable children living in society could get worse over the next few months and potentially over the next few years as a result of COVID-19.	The Children's Society - https://www.childrenssociety.org.uk/sites/default/files/the-impact-of-covid-19-on-children-and-young-people-briefing.pdf	31/03/2020

Chronic illness		
In our recent survey of over 2,300 people, social isolation and loneliness were rated as the biggest social problem they faced, over and above their health condition itself. Isolation was rated a bigger problem than poverty or discrimination. Almost half of respondents with energy limiting conditions reported a comorbid mental health problem.	Disability Wales - http://www.disabilitywales.org/coronavirus-and-chronic-illness/	29/03/2020
Crime		
Covid-19: Community Safety Message from North Wales Police.	Deeside.com - http://www.deeside.com/covid-19-community-safety-message-from-north-wales-police/	21/03/2020
Disability		
Disability Wales, All Wales People First, Wales Council of the Blind, All Wales Parents and Carers Forum, Learning Disability Wales and Mencap Cymru call on the UK and Welsh Governments to act decisively to safeguard the well-being and survival of disabled people and others categorised as being at high risk of contracting the virus in the face of a COVID-19 pandemic.	Disability Wales - http://www.disabilitywales.org/statement-on-covid-19/	19/03/2020
Domestic Violence		
"There has been a 20% rise of domestic abuse in Northern Ireland, 32% in Paris and 40% in New South Wales - and they are significant increases and there will be no doubt that there will be a rise in Wales. An estimated 1.6 million women and 786,000 men experienced domestic abuse in England and Wales in the year ending March 2019.	BBC news - https://www.bbc.co.uk/news/uk-wales-52076789	30/03/2020
Domestic violence victims 'suffering in silence,' police fear	BBC news - https://www.bbc.co.uk/news/live/uk-wales-52086563/page/4	30/03/2020
The National Domestic Abuse helpline has seen a 25% increase in calls and online requests for help since the lockdown, the charity Refuge says.	BBC news - https://www.bbc.co.uk/news/uk-52157620?intlink_from_url=https://www.bbc.co.uk/news/topics/c008ql15dvgt/domestic-abuse&link_location=live-reporting-story Primary source - https://www.refuge.org.uk/	06/04/2020

Refuge, the UK's largest domestic abuse charity says calls to its Helpline have risen by 25% since lockdown measures began. Prior to the lockdown measures being introduced, the National Domestic Abuse Helpline run by Refuge, logged on average 270 calls and contacts per day. During the week commencing 30 March, calls to the National Domestic Abuse Helpline increased by an average of 25%, while hits to the national domestic abuse website increased by 150% during the initial stages of Covid-19 lockdown.	Refuge - https://www.refuge.org.uk/25-increase-in-calls-to-national-domestic-abuse-helpline-since-lockdown-measures-began/	06/04/2020
Refuge sees calls and contacts to National Domestic Abuse Helpline rise by 120% overnight. Following significant media coverage of Refuge's National Domestic Abuse Helpline, calls and contacts logged on the 06th April were up by 120% compared to the previous day.	Refuge - https://www.refuge.org.uk/refuge-sees-calls-and-contacts-to-national-domestic-abuse-helpline-rise-by-120-overnight/	09/04/2020
Refuge sees online traffic to its National Domestic Abuse Helpline website rise by 700%. Traffic to this website, designed by survivors for survivors and which contains valuable information for women on how they can access life-saving support rose by 700% on Monday compared with the previous day. In fact the website visits on Monday alone were greater than the combined number for the previous five days.	Refuge - https://www.refuge.org.uk/refuge-sees-700-increase-in-website-visits/	09/04/2020
UK lockdown: Calls to domestic abuse helpline jump by half. Calls to a national domestic abuse helpline rose by 49% and killings doubled weeks after lockdown, a report by MPs has revealed. Researchers at the Counting Dead Women Project told MPs 14 women and two children had been killed in the first three weeks of lockdown. The figure is the largest number of killings in a three-week period for 11 years and more than double the average rate, they said. Male victims of abuse have also been calling for help in greater numbers, with the Men's Advice Line seeing calls rise 35% in the first week of lockdown.	BBC news - https://www.bbc.co.uk/news/uk-52433520 Primary sources: Report by the Home Affairs Committee - https://committees.parliament.uk/committee/83/home-affairs-committee/news/146162/alarming-signs-of-rising-domestic-abuse-require-urgent-government-response/ - Oral evidence: Home Office preparedness for Covid-19 (Coronavirus), HC 232 - https://publications.parliament.uk/pa/cm5801/cmselect/cmhaff/correspondence/HASC-transcript-15-April.pdf - Counting Dead Women Project - https://kareningalasmith.com/ Respect – Men's Advice Line - https://mensadviceline.org.uk/	27/04/2020 15/04/2020 15/04/2020

Education

The evidence to support the closure of schools to combat Covid-19 is "very weak" and school closures are likely to have minimal impact on the spread of the virus, finds a new study led by Professor Russell Viner (UCL GOS Institute of Child Health).	University College London study - https://www.ucl.ac.uk/news/headlines/2020/apr/school-closures-do-not-have-significant-effect-covid-19-spread https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30095-X/fulltext	07/04/2020
Figures collected by the National Association of Head Teachers (NAHT) suggest that in 94% of schools, no more than 20% of pupils were attending.	BBC news - https://www.bbc.co.uk/news/education-51643556	23/03/2020
We were asked by Government to provide feedback from the sector on whether school and childcare provision for key workers is effective in enabling those in key roles to continue at work. Uptake of school places for this purpose has been lower than expected and Govt needs to understand whether further clarification or policy adjustments are needed.	Tech UK - https://www.techuk.org/insights/news/item/17235-covid-19-childcare-and-key-worker-absences	03/04/2020

Employment

The worst public health crisis since the 1918 flu pandemic has shut down countries and led financial markets to crash, bringing losses for businesses and investors. But it has left millions of poor people around the world particularly exposed. According to a report by the Resolution Foundation think-tank, while 31% of people in finance, insurance and business are able to work from home, fewer than one in ten in the bottom half of the earnings table can.	Reuters - https://www.reuters.com/article/us-health-coronavirus-britain-wealth/for-britains-gig-economy-workers-coronavirus-means-tough-choices-idUSKBN21C2C0 Report: https://www.resolutionfoundation.org/app/uploads/2020/03/Doing-what-it-takes.pdf	26/03/2020
Nearly a million universal credit claims in past two weeks. The Department for Work and Pensions said 950,000 successful applications for the payment were made between 16 March, when people were advised to work from home, and the end of the month. There was a warning on Wednesday that 20% of small businesses could fold in the next month due to the collapse in consumer demand, despite unprecedented government intervention to support jobs.	BBC News - https://www.bbc.co.uk/news/uk-politics-52129128	01/04/2020

In the fortnight since Boris Johnson urged people to stay at home, and the chancellor, Rishi Sunak, announced that the basic allowance in UC was going up by £20 a week, some 950,000 people have applied for the scheme. On one day alone, more than 100,000 did so. That is ten times the normal uptake on any given day, and more than five times the peak of claims that followed the 2007 / 08 financial crisis. The Department for Work and Pensions (DWP), which manages UC, may well not be able to hit the 87% of claims paid in full on time that it had been achieving before the coronavirus outbreak, or the 95% who receive at least a part payment on time. But with a lot of hard work and a touch of luck many more may well be paid promptly than the previous system could have hoped to achieve.	Institute for Government - https://www.instituteforgovernment.org.uk/blog/universal-credit-coronavirus	02/04/2020
The lockdown will hit young workers the hardest. Employees aged under 25 were about two and a half times as likely to work in a sector that is now shut down as other employees. Low earners are seven times as likely as high earners to have worked in a sector that is now shut down. Women were about one third more likely to work in a sector that is now shut down than men. We estimate that, on the eve of the crisis, around one in seven (15% of) employees in the UK worked in a sector that has largely or entirely shut down during the Covid-19 lockdown.	Institute for Fiscal Studies - Sector-shutdowns-during-the-coronavirus-crisis.pdf - https://www.ifs.org.uk/publications/14791	06/04/2020
The Office for National Statistics said 27% of workers had been put on the furlough scheme. Only 1% of 6,000 businesses it surveyed said they made redundancies between lockdown and 5 April.	BBC news - https://www.bbc.co.uk/news/uk-wales-52399268	24/04/2020
About 185,000 firms applied for the scheme on its first day, affecting 1.3 million workers and costing the Treasury £1.5bn. An estimated one in four businesses had shut temporarily within the first two weeks of lockdown, while those that stayed open furloughed an average of 21% of their workforce.	BBC news - https://www.bbc.co.uk/news/explainers-52135342 Data from Office for National Statistics: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronavirustheukeconomyandsocietyfasterindicators/16april2020 (16/04/2020)	21/04/2020
Nearly a third of employees under the age of 25 work in the sectors most affected…The lowest 10% of earners are 7 times more likely to work in these jobs too.	IFS – Twitter https://twitter.com/TheIFS/status/1248868384659271683	11/04/2020

...three quarters of the people working in jobs most at risk of contracting Covid-19 are women – this includes nurses, carers and home-carers.	Justice Studio - https://justicestudionotes.wordpress.com/2020/04/09/why-is-health-a-social-issue/ Primary Source: Autonomy: https://autonomy.work/portfolio/jari/	24/03/2020 24/03/2020
Energy - use		
Home energy use is up by up to 30% during the middle of the day, new analysis by energy firms reveals. The National Grid reports that morning and afternoon electricity demand is down by nearly 20%. But most of that is due to lower demand from large, industrial users like factories. "Households are consuming 21% less electricity than usual at 07:30, as fewer people commute to work, and are taking back the time to sleep later instead," a spokeswoman for Bulb Energy said, based on data from more than 2,000 smart meters. Ovo Energy is seeing similar results from a sample of 230,000 customers. "Morning routines are less structured and therefore the peak has reduced by up to 20%, as many people are working from home or not working at all," a spokeswoman said. Ovo reports seeing up to a 30% increase in the midday period, and Bulb reports a 27% rise. Bulb also says it is seeing a 7% drop in energy use between 21:00 and 23:00. Ovo says that "balancing out the ups and downs", it is only seeing a 6% overall increase in domestic consumption. EDF says it is only seeing a 3% rise.	BBC news - https://www.bbc.co.uk/news/technology-52331534	18/04/2020
Ethnicity		
...coronavirus is having a disproportionate impact on people who are black, Asian and minority ethnic. Research suggests more than a third of patients who are critically ill in hospital with the virus are from these backgrounds. ...34% of more than 3000 critically ill coronavirus patients identified as black, Asian or minority ethnic.	BBC news - https://www.bbc.co.uk/news/uk-52255863 Primary source: Intensive Care National Audit and Research Centre (ICNARC)	12/04/2020
Coronavirus in Wales: Call for action on ethnic minorities virus risks.	BBC news - https://www.bbc.co.uk/news/uk-wales-52347003	20/04/2020

'Growing evidence' coronavirus is having 'disproportionate' impact on ethnic minority communities. He said a team from Welsh Government will be working with Public Health Wales to "gather evidence and data to establish whether there are any identifiable risks or avoidable factors."	ITV news - https://www.itv.com/news/wales/2020-04-21/vaughan-gething-coronavirus-wales-briefing/	21/04/2020
Exercise		
…for many people of all ages benches are vital…	Town and Country Planning Association (TCPA) –Twitter - https://twitter.com/tcpahealth?lang=en	13/04/2020
Finances		
…almost half of Britons (46%) say they have needed to save more money or spend less as a result of the coronavirus outbreak. … 16% say they are using up savings, and another 18% are considering it. …a quarter (25%) of young people say they have already needed to use up their savings, compared with 13% of 35-54s and 11% of 55-75-year olds. … 4% of Britons say they have already taken out a loan in response to COVID-19…	IPSOS - https://www.ipsos.com/ipsos-mori/en-uk/financial-impact-covid-19-already-being-felt-britons-especially-younger-generations	07/04/2020
Food		
More than 1.5 million adults in Britain say they cannot obtain enough food, 53% of NHS workers are worried about getting food, and half of parents with children eligible for Free School Meals have not received any substitute meals to keep their children fed, despite government assurances that they would provide food vouchers or parcels. This means that 830,000 children could be going without daily sustenance on which they usually rely.	Food Foundation (commissioned YouGov poll): https://foodfoundation.org.uk/covid-19-latest-impact-on-food-2/	28/03/2020
The Welsh Government has scrapped plans to introduce a national voucher scheme for children eligible for free school meals during the coronavirus outbreak. …the education minister has decided not to introduce a Wales-wide supermarket voucher system.	BBC news - https://www.bbc.co.uk/news/live/uk-wales-52328353 Welsh Government - https://gov.wales/free-school-meals-coronavirus-guidance-schools	18/04/2020 22/04/2020
The Welsh Government is making £30m available for this in the first instance. This includes the provision of up to £7m to support local authorities to urgently provide financial assistance to families of pupils who rely on free school meals, but are unable to receive them due to school closures.	Welsh Government - https://gov.wales/written-statement-coronavirus-and-local-government	25/03/2020

Gambling		
Gambling addicts may be at greater risk during the coronavirus pandemic despite a lack of top-level sport, the leading UK charity for problem gamblers says.	BBC Sport - https://www.bbc.co.uk/sport/52243820 (Charity is GamCare).	14/04/2020
Garden fires		
Environmental Health departments report increase in bonfire complaints during COVID-19 lockdown. "We have received a significant upturn in smoke complaints regarding domestic garden bonfires causing significant smoke nuisance or ill-health concerns to neighbours – 14 complaints in 10 days."	Chartered Institute of Environmental Health (CIEH) - https://www.cieh.org/public-health-and-protection/2020/april/garden-fires-fuel-anger-among-neighbours/?utm_campaign=11455694_EHN%20Extra%2006.04.2020&utm_medium=email&utm_source=CIEH&dm_i=1RSV,6TJ9Q,JM91EG,RBEEQ,1	03/04/2020
Healthcare		
GPs are seeing just seven in every 100 patients face-to-face because of the coronavirus outbreak, following a "remarkable" shift to online and telephone appointments across England. Concerns have been raised that people who may not have access to smartphones or a computer will be excluded from seeing their GP during the crisis.	BBC news - https://www.bbc.co.uk/news/uk-england-52216222	11/04/2020
…people with cancer may have reduced access to important treatments.	Justice Studio - https://justicestudionotes.wordpress.com/2020/04/09/why-is-health-a-social-issue/ Primary source: https://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(20)30149-2/fulltext	09/04/2020 03/03/2020
Reduction in GP consultations. Consultations for severe asthma have reduced from 352 consultations in week 11 of 2020 to 82 in week 16.	Public Health Wales - https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary	21/04/2020
A new drug for recovering heroin addicts is being rolled out across Wales to prevent them having to make daily trips to over-stretched pharmacies. Wales is the first UK nation to routinely offer the drug. Announcing the roll-out, Health Minister Vaughan Gething said former heroin users were at greater risk of contracting coronavirus because, as a result of their substance misuse, they have poorer immune systems and many have underlying health conditions.	BBC news - https://www.bbc.co.uk/news/uk-wales-52326600 (National Institute on Drug Abuse – COVID-19: Potential Implications for Individuals with Substance Use Disorders - https://www.drugabuse.gov/about-nida/noras-blog/2020/04/covid-19-potential-implications-individuals-substance-use-disorders)	18/04/2020 06/04/2020

Coronavirus: A&E visits drop sharply as calls to 111 double. The coronavirus crisis has led to a huge drop in the numbers of people going to accident and emergency units in England last month compared with March last year, official figures show. At the same time, though, calls to NHS 111 rose to nearly three million, twice as many as in the same month in 2019.	BBC news - https://www.bbc.co.uk/news/health-52232941	09/04/2020
During March 2020, NHS 111 online's average number of users increased by more than 50 times, compared to average usage before the coronavirus (COVID-19) outbreak. Demand for the NHS App grew rapidly over the last month. In March 2020: registrations to use the NHS App increased by 111% the number of repeat prescription requests made via the app increased by 97% the number of patient record views rose by 62% The number of visits to the NHS website has increased dramatically. On 17 March 2020 visits peaked at 3.4 million, the highest daily total ever.	NHS https://digital.nhs.uk/coronavirus/nhs-digital-tech-analytics	08/04/2020
Compared with figures for 2019/20, so far since the 01/03/2020, the 7 day rolling average number of calls to NHS Direct and 111 for all conditions, in Wales, has been higher.	Public Health Wales - https://public.tableau.com/profile/public.health.wales.health.protection#!/vizhome/RapidCOVID-19virology-Public/Headlinesummary	22/04/2020
Housing		
…people living or at risk of living in homelessness face higher risk from COVID-19; while those living in some types of temporary accommodation, such as B&Bs, might struggle to follow the government advice, including being able to isolate themselves if they have symptoms.	Centre for Homelessness Impact - https://www.homelessnessimpact.org/post/covidindex	09/04/2020
… cardiovascular diseases and chronic respiratory conditions are between twice and ten times more common among the homeless population even in comparison to those most in need. …people from deprived backgrounds more generally, but especially those experiencing homelessness, are more likely to have pre-existing conditions such as cardiovascular diseases that puts them at higher risks of suffering severe cases of COVID-19.	Centre for Homelessness Impact - https://www.homelessnessimpact.org/post/covid19risk	03/04/2020

Human rights		
In response to the COVID-19 pandemic, the Government has announced measures which aim to protect individuals' right to life (Article 2 ECHR) and further steps will need to be taken over the coming days, weeks and months.	UK Parliament - https://committees.parliament.uk/work/218/the-governments-response-to-covid19-human-rights-implications/	No date
Human rights are key in shaping the pandemic response, both for the public health emergency and the broader impact on people's lives and livelihoods. Extensive lockdowns, adopted to slow transmission of the virus, restrict by necessity freedom of movement and, in the process, freedom to enjoy many other human rights.	United Nations - https://www.un.org/sites/un2.un.org/files/un_policy_brief_on_human_rights_and_covid_23_april_2020.pdf	23/04/2020
Inequalities		
While older people are clearly more susceptible to the symptoms of coronavirus, they typically have more money at their disposal. But those without savings to tide them through the lockdown, including many younger people involved in the gig economy as well as the self-employed and small business owners, are struggling. Leaving aside those involved in healthcare and other essential jobs, higher-paid desk-working professionals are most likely to have the means, the opportunity and the know-how to work effectively from home. Access to areas of natural beauty is limited in lockdown to those typically wealthier households living in more scenic neighbourhoods.	The Conversation - https://theconversation.com/five-ways-coronavirus-lockdowns-increase-inequality-135767	08/08/2020
For Britain's gig economy workers, coronavirus means tough choices.	Reuters - https://www.reuters.com/article/us-health-coronavirus-britain-wealth/for-britains-gig-economy-workers-coronavirus-means-tough-choices-idUSKBN21C2C0	26/03/2020
Nearly a fifth of all small and medium-sized businesses in the UK are unlikely to get the cash they need to survive the next four weeks, in spite of unprecedented government support. That's according to research from a network of accountants which suggests between 800,000 and a million firms nationwide may soon have to close.	BBC news - https://www.bbc.co.uk/news/business-52114414	01/04/2020

The economic downturn caused by the coronavirus outbreak will disproportionately harm the health of the most vulnerable in society and exacerbate inequality… Emergency hospital admissions per head are 10 times higher among those in their 90s than among those in their 30s, and 1.7 times higher among those from the most deprived areas than among those from the least deprived… … the economic downturn itself would have "persistent negative health effects", prompting a huge increase in chronic health conditions.	City am - https://www.cityam.com/coronavirus-downturn-will-exacerbate-uk-health-inequality/?utm_source=POLITICO.EU&utm_campaign=dc99a9a1a5-EMAIL_CAMPAIGN_2020_04_09_06_03&utm_medium=email&utm_term=0_10959edeb5-dc99a9a1a5-190447337 Institute for Fiscal Studies: https://www.ifs.org.uk/publications/14800	09/04/2020
Key workers		
4,500 retired healthcare workers have signed up to help battle the coronavirus outbreak in the UK.	Sky News - https://news.sky.com/story/coronavirus-4-500-retired-doctors-and-nurses-sign-up-to-battle-covid-19-pandemic-11961685	22/03/2020
Mental Health		
Millions of UK adults have felt panicked, afraid and unprepared as a result of the coronavirus pandemic - new poll data reveal impact on mental health.	Mental Health Foundation: https://www.mentalhealth.org.uk/news/millions-uk-adults-have-felt-panicked-afraid-and-unprepared-result-coronavirus-pandemic-new	26/03/2020
Since lock-down, self-reported compliance with guidelines is very high, depression has slightly increased, but anxiety and some stressors have slightly decreased.	UCL Covid-19 mental health study Twitter Data reports available for download here: https://www.marchnetwork.org/research https://www.ucl.ac.uk/news/2020/apr/stress-over-covid-19-keeping-fewer-people-night https://www.ucl.ac.uk/news/2020/apr/stress-related-catching-covid-19-highest-among-30-59-year-olds https://www.ucl.ac.uk/news/2020/apr/more-people-are-worried-about-food-friends-and-family-getting-ill-covid-19	09/04/2020 17/04/2020 15/04/2020 03/04/2020

A BMA survey finds that nearly a half of UK doctors are suffering from burnout, depression or anxiety amidst continuing shortage of protective supplies. According to the member survey, 44% of doctors say they suffer from depression, anxiety, stress, burnout or other mental health conditions relating to or made worse by their work. The survey also shows that more than half of doctors (51%) do not feel personally supported by the Government or confident everything possible is being done to help them to keep patients safe, despite pledges more PPE was being delivered to the front line.	British Medical Association - https://www.bma.org.uk/news-and-opinion/stress-and-burnout-warning-over-covid-19	19/04/2020
Coronavirus: PPE shortage creating 'immense distress' for nurses. The Royal College of Nursing (RCN) found 54% of those it surveyed have "felt pressured" to care for a Covid-19 patient "without adequate protection". Of the 875 respondents, 49% said they had been asked to reuse single-use PPE.	BBC news - https://www.bbc.co.uk/news/uk-wales-52339103 Primary source: Royal College of Nursing - https://www.rcn.org.uk/news-and-events/news/w-half-of-nursing-staff-under-pressure-to-work-without-ppe-190420	18/04/2020 19/04/2020
Misinformation		
…there's lots of misleading coronavirus advice being shared on social media and in private messages…	BBC news - https://www.bbc.co.uk/news/live/world-52319956 (page 7).	17/04/2020
Coronavirus and a fake news pandemic. Much of the fake news is spreading through private forums - whether chat rooms online or on WhatsApp, a platform for encrypted messages. Some of these messages clearly come from disreputable websites… Traffic to the BBC News website is surging to extraordinary levels. Over the past month, 12 February to 11 March, there have been over 575m page views globally to stories about coronavirus. People want trusted information.	BBC news https://www.bbc.co.uk/news/entertainment-arts-51858555	14/03/2020
Specialist units are operating to combat misinformation about coronavirus and five to ten incidents are being identified and tackled each day. Up to 70 incidents a week, often false narratives containing multiple misleading claims, are being identified and resolved.	UK Government -https://www.gov.uk/government/news/government-cracks-down-on-spread-of-false-coronavirus-information-online	30/03/2020
Coronavirus: BCG rumours and other stories fact-checked. WhatsApp messages claiming the BCG vaccine prevents coronavirus infection are inaccurate.	BBC news - https://www.bbc.co.uk/news/52310194	18/04/2020

Older people

…half a million older people regularly experience protracted periods of isolation, going at least five or six days a week without seeing or speaking to anyone at all. This is being further exacerbated during the COVID-19 pandemic. …there are 1.2 million chronically lonely older people in the UK and that the number of over-50s experiencing loneliness is set to reach two million by 2025/6.	Housing LIN - https://www.housinglin.org.uk/Topics/browse/loneliness-and-isolation/	08/04/2020

Policing

Police checkpoints monitor 'essential journeys'.	BBC news - https://www.bbc.co.uk/news/live/uk-wales-52066856 (page 2).	28/03/2020
Police ridiculed for trying to catch speeding drivers.	Daily Mail - Twitter - https://www.dailymail.co.uk/news/article-8196213/Traffic-police-ridiculed-trying-catch-speeding-drivers-road.html	07/04/2020
North Wales Police- We have also seen an increase in the number of reports being made to us relating to potential breaches of Government guidelines on social distancing and isolation.	North Wales Police - https://www.north-wales.police.uk/news-and-appeals/covid-19-please-use-our-services-wisely	28/03/2020
Six months jail for Isle of Wight man who coughed at police threatening Coronavirus infection.	On the Wight - https://onthewight.com/six-months-jail-for-isle-of-wight-man-who-coughed-at-police-threatening-covid-19-infection/	07/04/2020
Coronavirus: Man who claimed he had COVID-19 and spat at police officers is jailed for six months.	Sky news - https://news.sky.com/story/coronavirus-man-who-claimed-he-had-covid-19-and-spat-at-police-officers-is-jailed-for-six-months-11976852	28/04/2020
South Wales Police responded to over 1,200 Covid-related calls on Easter Saturday.	ITV news - https://www.itv.com/news/wales/2020-04-16/police-responded-to-over-1-200-covid-related-calls-on-easter-saturday/	16/04/2020
Man arrested for breaching Covid-19 regulations.	Western telegraph - https://www.westerntelegraph.co.uk/news/18374745.man-arrested-breaching-covid-19-regulations/	11/04/2020
Man admits breaching lockdown rules six times. The 18-year-old had been served six penalty notices by Dyfed-Powys Police for breaching the regulations designed to limit the spread of the virus.	BBC news - https://www.bbc.co.uk/news/uk-wales-52374414	21/04/2020

Prisoners		
People deprived of their liberty, and those living or working in enclosed environments in their close proximity, are likely to be more vulnerable to the COVID-19 disease than the general population.	WHO - http://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/news/news/2020/3/preventing-covid-19-outbreak-in-prisons-a-challenging-but-essential-task-for-authorities?utm_source=WHO%2FEurope+mailing+list&utm_campaign=0ce5519a7c-EMAIL_CAMPAIGN_2020_03_16_10_53_COPY_01&utm_medium=email&utm_term=0_60241f4736-0ce5519a7c-110541633	23/03/2020

Public attitudes		
New polling shows the British public values the life and health of the nation's older population over longer-term economic prosperity.	The Conversation - https://theconversation.com/coronavirus-polling-shows-british-public-values-compassion-over-economic-stability-135962?utm_medium=email&utm_campaign=Latest%20from%20The%20Conversation%20for%20April%2013%202020%20-%201592315249&utm_content=Latest%20from%20The%20Conversation%20for%20April%2013%202020%20-%201592315249+CID_346a0d82283ab76e3fe26b03b4045dde&utm_source=campaign_monitor_uk&utm_term=national%20health%20ahead%20of%20national%20wealth	09/04/2020
	Primary source: University of Birmingham, The Jubilee Centre: https://www.jubileecentre.ac.uk/2864/character-education	No date
The British public also value of the importance of compassion and care in the current coronavirus crisis. After being compassionate/caring, older people (aged 45+) most value being resilient as important to personal well-being, where young people (18-24) value being motivated. There are regional differences in valuing compassion in others, with London and Scotland valuing compassion and care the least, and the South West and Wales valuing it the most.	University of Birmingham - https://www.jubileecentre.ac.uk/2864/character-education Primary source: https://www.jubileecentre.ac.uk/userfiles/jubileecentre/pdf/news/Character-in-a-Crisis-Online.pdf	No date No date

Rough sleepers

'Unfortunately some of them won't stay indoors. If they're failing to self-isolate, and obviously if the lockdown becomes more stringent, there's a concern that they'll end up being the people who are placed in prison as a result of the new laws. Although equally that might actually get them the support and the companionship they need in a bizarre roundabout way – but it's criminalising them to get to that point which we'd all accept is less than ideal.'	Chartered Institute of Environment Health (CIEH) - https://www.cieh.org/housing-and-community/2020/april/tales-from-the-front-line-for-rough-sleepers-accommodation-is-only-one-part-of-the-issue/?utm_campaign=11455694_EHN%20Extra%2006.04.2020&utm_medium=email&utm_source=CIEH&dm_i=1RSV,6TJ9Q,JM91EG,RBEEQ,1	06/04/2020

Scams

Beware of the free school meals email scam.	Department for Education – Twitter - https://twitter.com/educationgovuk/status/1242493721536606209?lang=en	24/03/2020
Unfortunately there have been reports from across the country of scammers trying to use the COVID-19 coronavirus outbreak to defraud others.	South Wales Police - https://www.south-wales.police.uk/en/newsroom/coronavirus-scams-information-and-advice/	17/03/2020
The number of scams seen in Wales has reached a level "never seen before" as fraudsters exploit the coronavirus outbreak, law enforcement agencies say. Police are concerned that the opportunities available to fraudsters have grown because older people, who are often less computer literate, are turning to the internet during the lockdown.	BBC news - https://www.bbc.co.uk/news/uk-wales-52296936	16/04/2020

Services

Off-licences reclassified as essential businesses for coronavirus lockdown.	Wales Online – https://www.walesonline.co.uk/news/wales-news/supermarkets-tesco-asda-social-distancing-18000351	25/03/2020
The heavy security at Wales' supermarkets as major retailers clamp down with holding pens and protective screens.	Wales Online – Twitter - The heavy security at Wales' supermarkets as major retailers clamp down with holding pens and protective screens.	29/03/2020
Some shopkeepers have been profiteering during the coronavirus pandemic, Trading Standards Wales has found. The Competition and Markets Authority launched a taskforce to crackdown on the profiteers and called for emergency legislation to prevent price hikes.	BBC news - https://www.bbc.co.uk/news/uk-wales-52326594.	18/04/2020
Local government, as a result of the coronavirus outbreak, has had to respond to an increased demand for many of its services, at a time when it has reduced workforce capacity.	Senedd Research - https://seneddresearch.blog/2020/04/23/coronavirus-local-government/	23/04/2020

Social distancing		
Social distancing 'difficult' for vets and animal workers.	BBC news - https://www.bbc.co.uk/news/uk-wales-52156567	04/04/2020
COVID-19: New rules to protect workers during the coronavirus outbreak. New rules to protect workers during the coronavirus outbreak have been announced. The regulations will mean the 2 metre social distancing rule will apply to any workplace, including homes, where work and repairs are being undertaken and outdoor spaces. All businesses will have to take all reasonable measures to ensure the 2 metre rule is maintained between people on their premises whenever work is being carried out.	Welsh Government – Business Wales - https://businesswales.gov.wales/news-and-blogs/news/covid-19-new-rules-protect-workers-during-coronavirus-outbreak Welsh Government - https://gov.wales/taking-all-reasonable-measures-maintain-physical-distancing-workplace	14/04/2020 07/04/2020
Technology		
The Department for Culture Media and Sport have announced recently that they are working with mobile phone companies to improve access for low-income groups.	Joseph Rowntree Foundation - https://www.jrf.org.uk/blog/coronavirus-response-must-include-digital-access-connect-us-all Primary source: https://www.gov.uk/government/news/government-agrees-measures-with-telecoms-companies-to-support-vulnerable-consumers-through-covid-19	06/04/2020 29/03/2020
Residents of a rural village say they feel "cut off" during lockdown due to their slow broadband speeds. The UK government said it was "vital" all areas of Wales had connectivity and said £5bn had been allocated to the rollout of gigabit-capable broadband to the hardest-to-reach areas.	BBC news - https://www.bbc.co.uk/news/uk-wales-52380373	22/04/2020

Volunteering		
Half a million members of the public have also signed up to volunteer for the NHS.	The Conversation - https://theconversation.com/not-perfect-but-positive-the-uk-response-to-coronavirus-134824	26/03/2020
Our North Wales volunteers have been supporting the Welsh Ambulance Service this week during the ongoing Coronavirus Outbreak.	St John Cymru – Twitter	28/03/2020
St John Ambulance, the nation's auxiliary ambulance service is preparing to deploy over 500 staff a day to assist the NHS response to Covid-19. "As a charity, with around 8,500 available health volunteers, and England's auxiliary ambulance service, St John stands ready to offer extra, immediate support to the NHS and the public, as required."	Leading Britain's Conversation - https://www.lbc.co.uk/hot-topics/coronavirus/st-john-ambulance-nhs-support-covid-19/	24/03/2020
St John Ambulance staff join 'largest operation'.	BBC news -https://www.bbc.co.uk/news/av/uk-wales-52269468/coronavirus-st-john-ambulance-staff-join-largest-operation	13/04/2020
St John Cymru Escalates Front-line Services to Support the Fight Against Covid-19.	St John Wales -https://stjohnwales.org.uk/news/st-john-cymru-escalates-front-line-services-to-support-the-fight-against-covid-19/	31/03/2020
Waste		
The hoarders are dumping their "waste" – the food they hoarded – depriving others –what a crime.	Just Resources INT- Twitter - https://twitter.com/justresources?lang=en	28/03/2020
Following yesterday's announcement from the First Minister Mark Drakeford and Foreign Secretary Dominic Raab to extend the lockdown, a decision has now been made not to open our Household Waste Recycling Centres on Monday as communicated earlier in the week.	Merthyr Tydfil County Borough Council - https://www.merthyr.gov.uk/resident/coronavirus-covid-19/refuse-recycling-and-bulky-waste-collections/	17/04/2020
Flytipping reports 'up 88%' in Wales since lockdown began.	BBC news - https://www.bbc.co.uk/news/av/uk-wales-52379248/coronavirus-flytipping-reports-up-88-in-wales-since-lockdown-began	22/04/2020
Fly-tippers fill Newport road with tyres and rubble. App ClearWaste said it had received an 88% increase in tipping reports in Wales since the coronavirus lockdown.	BBC news - https://www.bbc.co.uk/news/uk-wales-52371522 https://clearwaste.com/	22/04/2020

Laura Evans and Liz Green
Last updated May 20th 2020

Section 3
Evidence Review

Results

Overall, there was a scarcity of academic peer reviewed research literature regarding the impacts of prolonged quarantine periods and social distancing on health and wellbeing.

Most of the evidence was drawn from experiences of past infectious disease outbreaks and epidemics such as SARS and Ebola. Most of the evidence available has been about the impact of infectious disease outbreaks, epidemics and pandemics themselves, rather than the impacts of policy responses. A large number of research articles have been published recently in response to the COVID-19 pandemic; the evidence base has been rapidly evolving and growing during the collation of evidence and is likely to have evolved further since the writing of this report. Some of this evidence has been published prior to going through a peer review process, due to the urgent need to disseminate evidence and knowledge.

The research literature identified did not use the term "Stay(ing) at home", although other terms were used such as 'isolation' and 'quarantine' ('quarantine' can be defined as the " separation and restriction of movement of people who have potentially been exposed to a contagious disease to ascertain if they become unwell, so reducing the risk of them infecting others " (Brooks et al, 2020a).

Findings from the literature review have been summarised in the table below.

Area	Key findings
Behaviours and attitudes to quarantine, including quarantine adherence	The use of quarantine measures in a pandemic face a number of ethical and political challenges and can be seen by some as a punishment. Compliance is more likely if there is trust in government and there is a belief that quarantine will be effective. Previous experience from outbreaks has found that non-compliance with social distancing measures has resulted in more stringent regulations and greater enforcement e.g. with SARS outbreak in Singapore (where video links, electronic tags, fines and prison sentences were used), and Ebola in Liberia (where military force was used) (R Katz, 2017). A review of public responses to H1N1 pandemic responses in UK, USA, Japan, Mexico and Argentina has found variation in adoption of social distancing behaviours of between 11 and 69%. Overall there was broad public support for avoiding public gatherings and school closures, although to varying degrees. The UK had one of the lowest uptakes of measures, with 10% avoiding handshaking and 11% avoiding large gatherings. Different countries had different levels of support for measures such as school closures and avoiding public gatherings, highlighting the need for tailored approaches (Steel-Fisher GK, 2012). Experience from the SARS outbreak in Toronto (DiGiovanni et al, 2004) has found that compliance with quarantine is greatly affected by fears about loss of income. Social distancing has been found to be a cause of psychological stress, with 5% of healthcare workers reporting that they were tempted to break quarantine as a result. A third of

| Behaviours and attitudes to quarantine, including quarantine adherence (continued) | healthcare workers were "pretty stressed" by social distancing, but were not tempted to break quarantine. Of note, only 11% did not report being stressed. Criticisms of governmental communication approaches regarding quarantine have included confusion caused by different messages, with different styles and approaches from different government levels and jurisdictions, as well as due to inconsistency in definitions. There has also been confusion related to quarantine being called "voluntary".

A rapid evidence review of home quarantine for small groups of people has found that countries usually rely on inducements and appeals to civic duty rather than use officially sanctioned enforcement (Webster R et al, 2020). The researchers have found that adherence relies on psychological and practical factors, with increased adherence associated with: parents taking time off to supervise children, or being a healthcare worker; greater knowledge and understanding about the infection and quarantine; social pressures and 'following the law' or 'civic duty'; cultural values such as caring for people when ill; having a perceived benefit from quarantine; and a higher perception of risk due to disease transmissibility and seriousness.

More recent research related to COVID-19 (Paakkari L and Okan O, 2020) has identified that health literacy is an important factor in understanding and complying with public health response, including stay at home policies. In another recent study involving 1,032 US participants, researchers have investigated the persuasiveness of messages relating to behaviour change such as social distancing and avoiding public gatherings to reduce the spread of COVID-19. The preliminary study has found that deontological arguments (i.e. those that emphasise action is important because it is a duty and responsibility to protect families, friends and fellow citizens) is a promising approach to slowing the spread of COVID-19 (Everett J et al, 2020).

Measures that can improve adherence to quarantine measures include: shifting perceptions of quarantine so that it is seen as a social responsibility and an altruistic choice; use of incentives and enablers such as protecting employment or paying workers not receiving wages; supportive action such as providing groceries, supporting remote working and schooling and providing safe living spaces (R Katz, 2017; Brooks et al, 2020b).

In March 2020, the UK Government (UK Government, 2020a) identified that over the longer term, adherence to social distancing / stay at home policies may be affected by practical and economic issues such as needing supplies or fearing loss of income. One author has noted that the impact is unclear if different regions / jurisdictions within a country have different approaches to quarantine and enforcement (R Katz, 2017).

The different approaches to quarantine by different countries around the world means that there is opportunity to learn from this variation and identify the most effective measures (R Katz, 2017). |
|---|---|
| Economic impacts | From previous infectious disease outbreaks, we have found limited evidence regarding direct economic impacts of quarantine measures, possibly due to quarantines being for a limited number of people over shorter periods of time. Economic impacts have been mainly seen as a result of the disease itself.

WHO Europe (WHO, 2020) has identified that there is likely to be 3 phases of economic and social impact of COVID-19, with the following economic factors likely to be seen during different phases. Of note, these factors are not specific to social distancing and stay at home policies:

• Phase 1 – employment insecurity and underemployment; job loss; increase in poverty risk and working poor; hunger, with food and fuel insecurity |

Economic impacts (continued)	• Phase 2 – unemployment rises and stays high; increase in poverty risk; firm closures; food shortages; rising levels of not in education, employment or training • Phase 3 – slower recovery and widening economic and health gaps between geographical areas; long-term unemployment The European Commission (2020) has estimated that COVID-19 will reduced global trade by 9.7% in 2020. Economic impacts are likely to be a result of containment measures (e.g. quarantine, travel bans/ restrictions, closure of public places), changes in supply (e.g. due to factory closures and disrupted supply chains, reduced services) and changes in demand (e.g. reduced confidence) (Boone L, 2020; United Nations, 2020a). According to one scenario, economic disruption due to COVID-19 will significantly increase public sector borrowing and debt in the UK. The Office for Budget Responsibility (2020) has identified that whilst government actions to support individuals and business will have significant costs, the cost of inaction would have been higher. In their report, they also highlight that the economic impacts are more likely to be due to public health restrictions and social distancing, rather than from the direct health impacts of COVID-19. Impacts include reduced demand and supply of goods and services, leading to reduced incomes and spending, reduced tax revenues and job losses. Longer term, the Office predicts that public sector net debt as a share of GDP will be permanently higher. There is also a risk of a large structural deficit, if economic disruption lasts for a longer period. In the UK, social distancing and lockdown has had a significant impact on the economy, with the Institute for Fiscal Studies (IFS) (Banks J et al, 2020) identifying that any subsequent economic downturn or recession will have impacts on health for the short and longer term. The IFS highlights that there is debate whether the negative impacts of a recession would be greater that the increase in morbidity and mortality as a result of COVID-19 itself. This would be through mechanisms such as increased unemployment, reduced income and wealth, and greater uncertainty about future income and jobs. The impact will differ for age, socio-economic and geographical groups, with those most affected being women, young workers, low income families and those at greater risk of poor health. Geographical areas likely to be most affected are those with higher deprivation levels, an older population or "older industrial structures", or where there is a greater reliance on travel and tourism or a large hospitality or non-essential retail trade. Specific impacts for health of an economic downturn / recession include (Banks J et al, 2020): • Large and ongoing negative impacts on chronic health and mortality. For example following the 2008 financial crises, the greatest impacts were on mental health conditions. • It is estimated that a fall in employment by 1% leads to chronic illness prevalence increasing by 2%. If there is a similar fall in employment over 1 year as after the 2008 crisis, it would result in approximately 900,000 more working age people having a chronic health condition in the UK. • Those who are most vulnerable to longer term negative outcomes include families with young children or pregnant mothers and low income / socio-economic groups who have health (including mental health) problems. • Unemployment resulting in loss of human capital and for individuals a loss of sense of purpose and mental health impacts. • Potential positive health impacts include a fall in drinking, smoking and unhealthy eating; improved health due to reduced air pollution; reduced traffic or work related accidents.

| Economic impacts (continued) | The authors go on to highlight that even once social distancing measures are lifted, the health impacts of an economic downturn will continue to be felt for a long time.

An analysis by Kadel R et al (2020) has forecast the potential economic impacts of COVID-19 on unemployment rates and longstanding illnesses in Wales. Unemployment rates are projected to increase from 3.8% in 2019/20 to 11% in 2024-25; between 2025-26 and 2030-31, rates are expected to fall to 5%. Following this trend, the proportion of working age people in Wales with a longstanding illness is expected to increase from 46.4% in 2019/20 to a peak of 56.1% in 2025-26; prevalence is expected to fall to 48% by 2030-31. There are expected to be similar patterns in the proportion of working age adults with "2 or more longstanding illnesses", those "limited by a longstanding illness" and those "limited a lot by a longstanding illness", although the greatest increase will be seen in the group with limiting long standing illnesses. Similar trends are projected for a range of chronic health conditions including musculoskeletal complaints; endocrine and metabolic disease; mental disorders; heart and circulatory complaints; and respiratory system complaints. The greatest increase is expected for mental disorders, from 8.8% in 2019-20 to 22.8% in 2030-31. Overall, by 2030-31, the prevalence is likely to return to pre-COVID-19 pandemic levels.

One early study has identified that social distancing measures would have greater economic consequences for those who work part time, are self-employed or are in insecure employment (Selgelid MJ, 2009).

Recent evidence shows that sectors most affected by the lockdown (retail, leisure, transport) employ 15% of the workforce, who are more likely to be young people (nearly a third of under 25s are employed in these sectors); have a low income (a third of employees have the lowest 10% of earnings); and women (17% of women are employed in these sectors compared to 13% of men). A mitigating factor identified has been that many younger people and lower earners live with others e.g. parents who are less likely to have reduced earnings, and as a result are likely to experience smaller reductions in living standards (Joyce R and Xu X, 2020).

Access to paid leave has been found to reduce the likelihood of parents losing pay during the 2009 H1N1 pandemic in Victoria, Australia, where schools were closed and children were quarantined at home for 7 days. Of those that lost pay, 42% were more likely to experience further financial consequences such as being unable to pay bills (23%), pay rent or mortgage (15%), or to borrow money (8%) (Kavanagh AM, 2012).

Some research has found that compensation schemes may help to address any financial and economic consequences of social distancing, as well as helping to promote compliance, address lack of trust in government and promoting justice. The authors have argued that such compensation schemes would help those making a sacrifice for society as a whole (Selgelid MJ, 2009; Ly et al, 2007).

Emerging evidence shows that richer households are likely to make savings during social distancing / lockdowns, due to less spend on some activities. However, as lower income households spend a higher proportion of on necessities e.g. rent, food, bills (55%, compared with 39% of higher income households), any reduction in income is more difficult to manage. (Crawford et al, 2020).

A recent UK survey IPSOS Mori (2020) has identified a range of financial impacts of the COVID-19 pandemic for individuals:

- 46% of British people have needed to save more money / spend less
- Younger people are relying on overdrafts, using savings, relying on personal loans. 25% of young people have already used up their savings, compared |

Economic impacts (continued)	with 13% of 35-54 and 11% of 55-75-year olds. 16% have borrowed from family or friends.
	Within Wales more specifically, it is estimated that COVID-19 has resulted in 1 in 6 people being put out of a job and who have then needed to apply for Universal Credit (Winckler, 2020). Others who will have been applying include those who are working at reduced hours or pay, those who have started a new job in March 2020, those who are unable to work because they are in a vulnerable group or have childcare needs, and some of those who are self-employed.
Ethical and human rights considerations	Quarantine and restricting movement poses the ethical dilemma of balancing the needs and interests of the individual and society, whereby movement of non-infected people is restricted in order prevent harm to others as well as to the individual themselves (Giubilini A et al, 2018). Quarantine has been identified as one of the "most extreme form of action a government takes in the name of public health» (M K Wynia, 2007), which could have harmful effects such as reducing trust, promoting fear and wide-ranging individual and societal consequences including economic impacts, stigma and psychological strain, and reduced access to medical care.

Themes that occur in the literature include the need for a proportional response, whereby the "least intrusive" interventions are balanced with the most effective measure to reduce infection transmission (Timen A and Schroder-Back P, 2016). Lessons from the Ebola outbreak include the need to make decisions based on scientific advice, with judicial oversight (Ulrich MR, 2016). Other considerations promoted in the literature include the need for transparency and treating the public as a partner (M K Wynia, 2007).

In response to the pandemic, the United Nations (United Nations, 2020b) has highlighted that quarantine and movement restriction use should have the aim of reducing infection spread, with the ultimate aim of promoting health, freedom and rights, and that there should be a mechanism for oversight and accountability to allow challenge. Any measures should be in accordance with International Health Regulations (Article 3, 2005), respecting human rights and freedoms of persons, and part of a wider set of interventions to ensure public health and protect society, and in line with the Siracusa Principles (1984) i.e. in accordance with the law; have a legitimate aim; proportionate; and non-discriminatory. Others have also advocated for the importance of accountability to safeguard civil liberties (Pelkas C, 2010).

Furthermore, the United Nations 2020b) articulates how freedom of movement is a fundamental right that supports enjoyment of other rights. The United Nations highlights how other measures (e.g. testing and tracing, targeted quarantine) can mitigate the need for wider and more indiscriminate measures. In its report, the United Nations also raises concerns regarding the use of technologies, such as big data and artificial intelligence for purposes such as surveillance and highlights the potential for abuse and the importance of safeguards.

The UK Parliament's Human Rights Committee has committed to scrutinise where government actions are compliant with human rights including the right to life (Article 2 European Convention on Human Rights (ECHR)), the right to liberty (Article 5 ECHR) and the right to respect for family life (Article 8 ECHR) (UK Parliament, 2020). |
| Social wellbeing | Previous quarantine measures following an outbreak provide insight into the wider societal impacts. For example, family quarantines during the Ebola outbreak resulted in a climate of fear and stigma, as well as speculation about the role of ethnicity, religion and social practices. Measures that were enforced through military means meant that there was a sense of inevitability about contracting the virus, resulting in individuals trying to circumvent restrictions. Whilst locally organised measures were seen to be |

| Social wellbeing (continued) | more socially acceptable, they were not as effective at restricting movement (Pellecchia U et al, 2015).

A study of multi-drug resistant TB patients in China found that self-isolation by patients hindered neighbours and communities providing social support (Chen B et al, 2016).

More recent literature related to COVID-19 has highlighted the key role of mobility as providing independence and freedom, particularly for older people. Restricted movement has resulted in usual family connections being affected, for example with older people unable to see or receive care from children and grandchildren (to whom they may usually provide childcare support), or older adults without children affected by impacts on their social networks (Marston et al, 2020).

A recent survey (Kings College, 2020) has highlighted a strengthening of social bonds during the pandemic, with 40% reporting that they feel a stronger sense of local community and 39% being more in touch with family and friends.

Technology is acknowledged as having a key role in maintaining social contact with loved ones, providing entertainment and supporting community action. However, access to the internet affects populations differently; for example in 2018, whilst 89% of UK adults used the internet every week, less than half of over 75s had access to the internet, with implications for feeling connected to wider society. Also affected are adults with disabilities, where 78% use the internet for socialising, shopping and banking (Marston et al, 2020).

Whilst not the focus of this HIA, the closure of schools is acknowledged as being a more disruptive social distancing measure. There is evolving data regarding the contribution of school closures to reducing COVID-19 transmission, with one model showing that school closures would prevent 2-4% of COVID-19 deaths – less than other interventions (Viner et al, 2020).

In their recent report, WHO Europe (WHO, 2020) has identified that three different phases of social and economic impact to the COVID-19 pandemic, which are not specific to social distancing / stay at home policies. Impacts include increased hunger and food insecurity and food shortages; loss of gender equality gains; increase in poverty risk; rising crime, criminal exploitations, loan sharks and recruitment into organised crime; stigma and xenophobia; and breakdown of social cohesion. |
| Health behaviours | **Physical activity**
Research commissioned by Sport England (2020) has identified that 63% of adults feel that it is more important to be active compared to prior to the pandemic, with 67% identifying exercise as helping with their mental health. However, restrictions are having different effects on different populations, with those more likely to be physically active in the previous week being younger groups, those in higher socio-economic groups, and those living in rural areas. The most popular daily activities included walking (59% of adults), home fitness workouts (25%, 37% of which was with children in the household), informal play and games (18%) and cycling (22% of which was with children in the household).

Healthy eating and food security
Food security (the ability to access and use sufficient food to meet dietary needs for healthy lives) is known to be an issue during emergencies, including pandemics. Those more likely to be affected are those who have low or irregular incomes, poor health, those who are isolated, homeless, elderly, with limited access to transport, and vulnerable children. Causes include issues with food availability e.g. food transport and distribution issues; food access e.g. reduced income, so that household income is |

Health behaviours (continued)	spent on other things; and utilisation issues e.g. limited knowledge about nutrition (Pan American Health Organization, 2009). A recent UK survey (Kings College, 2020) has identified that 42% of respondents value food more and that 38% are cooking from scratch and 33% are throwing away less food. 6% have ordered food from a local farm shop or ordered a local veg box for the first time. The survey has also highlighted that there are an estimated 3 million people in Britain who have experienced food insecurity and poverty since the start of the lockdown measures.
Mental health and mental wellbeing	Most of the literature on the mental health and mental wellbeing impacts of outbreaks and epidemics relates to the effects of the disease rather than social distancing measures (Galea S et al, 2020). For example, one study (Kim SW and Su KP, 2020) has highlighted the increased mortality rate of COVID-19 in those with serious mental health problems. In Korea the first outbreak of COVID-19 was in a psychiatric ward, and resulted in a 7% mortality rate, higher than the rate for the general population (1%). This may have been linked to increased prevalence of health harming behaviours such as smoking, reduced infection prevention and control, or limited health literacy amongst this population. The authors have identified there was a risk that the greater focus on managing the COVID-19 infection could result in the neglect of treatment of mental ill health. In Hong Kong, the SARS outbreak saw an increase in demand for mental health services due to feelings of fear, social networks breaking down and reduced access to other healthcare services, resulting in the mental health system being unable to meet psychiatric needs (Chan SS et al, 2009). Older adults aged over 65 years were found to have a significant increase in suicide rates. Contributing factors included loneliness and disconnectedness as a result of older adults reducing their social contacts and staying at home, with quarantine resulting in weaker social networks. Those who were most affected were older adults in poor health, and those without a close relationship with their children (Cheung YT et al, 2008). In one report, of those who were infected with MERS or SARS, over 50% reported anger, guilt, depression, and stigma (Lunn et al, 2020). A recent report by WHO Europe (WHO, 2020) has identified that increased alcohol consumption and increased stress and anxiety are likely to be seen early during the COVID-19 pandemic. Later possible impacts include rising suicide rates, increased mental health problems, increasing family stress, and alcoholism and addiction. More generally, there is evidence of an association between social isolation and loneliness and increased all-cause mortality (Leigh-Hunt N et al, 2017). Loneliness and social isolation have been found to be associated with increased morbidity such as increased cardiovascular disease and worse mental health; it is thought that the effects may be mediated through changes in blood pressure and the immune system, as well as altered sleep quality and health harming behaviours such as increased alcohol and food consumptions and smoking. In addition, there is evidence that isolation has negative mental health effects (Lunn et al, 2020) such as depression and anxiety. The lack of social contact, loss of freedom and boredom associated with loneliness can result in distress and irritability and have longer term impacts such as substance misuse and depression. There is some evidence relating to mental health impacts of quarantine, although this tends to be for a specified group of people (e.g. those who have been exposed to a disease) for a relatively short length of time. A study examining the impacts of simulating sheltering in place for 48 hours following a "dirty bomb" detonation did not identify negative mental health impacts if there were high levels of cohesiveness within the group (Dailey SF and Kaplan D, 2014).

Mental health and mental wellbeing (continued)	Studies of mental health impacts of SARS in Toronto have found that of those individuals who were quarantined, 28.9% experienced post-traumatic stress disorder (PTSD) and 31.2% had depression, with a strong correlation between social isolation and worsening physical and mental health. Of note, the authors have highlighted that during emergencies, there is often a greater need for people to want to connect with others (Douglas PK et al, 2009). Evidence from the SARS outbreak also highlights that being quarantined results in a deterioration in mental well-being, in addition to feelings of anger and avoidance, and increased stigma; longer quarantine is associated with greater negative impacts (Brooks S et al, 2018). A longer period of time in quarantine, or an extension of quarantine beyond the initial intended period has also been found to be associated with a greater negative impact in a more recent report (Lunn et al, 2020).
	Another recent literature review of the effects of quarantine (Brooks et al, 2020a) has identified links with PTSD, insomnia, low mood and suicides, and anger and confusion. Longer quarantine duration has been associated with worse impacts. Other exacerbating factors include fears about infection, feelings of frustration, concerns about being separated from loved ones, financial loss, and inadequate supplies e.g. of food, medical supplies. Some studies have identified healthcare workers as being at higher risk of longer term negative impacts, such as some individuals experiencing work avoidance 3 years later. Kim SW and Su KP (2020) have also highlighted the association between quarantine and negative mental health impacts such as depression and emotions such as anger, guilt and fear. Quarantine is associated with long term behaviour change such as avoiding public spaces, with a return to normality taking months. Any associated financial loss has been found to have long term impacts and those with lower incomes are more likely to experience PTSD and depression. Where only some individuals have been quarantined, they are more likely to face stigma and be less likely to seek medical help in future. Those individuals who have been unable to engage with social networks remotely are more likely to have experienced longer term distress (Brooks et al, 2020a).
	Another recent review of the evidence by Gurney C (2020) similarly identifies that quarantine and isolation measures from previous epidemics have resulted in long term psychological impacts including post-traumatic stress, anxiety, depression, insomnia, confusion, anger, boredom, anxiety, frustration, isolation and loneliness, with those with previously identified poor mental health having a higher risk. Brooks SK et al (2020a) have reviewed the psychological impacts of quarantine and similarly have found effects such as anger, confusion and post-traumatic stress symptoms. Again, longer quarantine periods have been seen to exacerbate symptoms, as well as issues such as inadequate information, inadequate supplies, financial loss, frustration and boredom, and fears of infection. The restriction to liberty have been seen as the major cause of many of the negative impacts. Recommendations have included ensuring quarantine for only as long as needed and only extending the duration in extreme circumstances, and providing a clear rationale.
	Quarantine has also been found to reduce the ability to participate in religious gatherings, religious festivals, and associated community events and traditions, with impacts on spiritual health (Petric D, 2020).
	Since the start of the COVID-19 pandemic, there has been a growing body of research evidence on the mental health and wellbeing impacts of policy responses to COVID-19. Holmes EA et al (2020) have explored the impact of social isolation and social distancing due to COVID-19 on mental health. The report draws upon the findings of two surveys (Ispos Mori and MQ), which identified that social distancing and isolation have increased stress, depression and anxiety, and exacerbations of pre-existing mental health problems. Early commentary relating to COVID-19 in China (Xiang YT et al, 2020) has identified the impact of contact tracing and the associated 14 day quarantine, including

Mental health and mental wellbeing (continued)	anxiety and guilt related to quarantine. Healthcare workers who have been quarantined have been found to be more likely to experience post-traumatic stress symptoms. Similarly, Brooks SK et al (2020a) have found that healthcare workers are more likely than the general population to experience severe impacts of quarantine such as fear, helplessness, anger, alcohol dependence, post-traumatic stress and avoiding work three years later.

In the UK, a qualitative study using focus groups has found that within a short time of introducing COVID-19 social distancing and isolation measures, there has been negative impacts on mental health and wellbeing (William SN et al, 2020). The loss of social interaction, loss of routines and loss of income has resulted in reduced motivation and sense of self-worth. Participants have expressed worries about uncertainty around the length of the measures, with some having concerns about resuming social contact. Other contributing factors to mental health concerns such as reduced motivation and self-worth have been linked to reduced income, not being able to interact socially in person, and the loss of routines and structures. Similarly, Brooks SK et al (2020a) have identified that financial losses associated with quarantine could have a long term impact and the need for financial support is associated with anxiety and anger, as well as family conflict. Depression and post-traumatic effects are more likely to be seen in those with lower incomes.

The negative mental health impacts of isolation can be mitigated through planning e.g. through developing a daily routine; through social support e.g. having remote social networks; or through greater awareness and therefore preparing for any negative effects (Lunn et al, 2020). Galea S et al (2020) have also identified actions that could help prepare for the mental health impacts of COVID-19, including planning for loneliness as a result of physical and social distancing e.g. through use of digital technology, including online activities to enable continued social connections. They have highlighted the need to ensure inclusion of those who are usually marginalised e.g. homeless or the elderly, and the importance of outreach and screening for loneliness, as well as linked mental health conditions. The authors conclude that the COVID-19 pandemic provides an opportunity to take a population-level approach focusing on prevention of mental health problems and mitigate mental and behavioural problems that follow the pandemic.

William SN et al (2020) have identified that rapid action is needed to mitigate the mental health impacts of isolation and social distancing as a result of COVID-19, including strategies that recognise that people will react differently to lifting of restrictions, with some seeking to continue social distancing whilst others would look to quickly resume social interactions.

In their report, Holmes EA et al (2020) have identified research priorities related to mental wellbeing and COVID-19 including: developing a better understanding of how loneliness is linked to anxiety, depression, suicide; how to achieve a mentally healthy life following social / physical distancing; understand the factors (psychological, physical, structural) that negatively impact or protect mental health. The study has also identified actions to support mental wellbeing, including: identifying ways to deliver mental health services to vulnerable groups including via online clinics; identifying interventions that can promote mental wellbeing and reduce mental health problems, whilst being delivered remotely.

Media and mental health and mental wellbeing
Clear communication is central to helping the population understand risks and impacts and also achieving desired individual behaviours. Social media can be used to enable connection between people as well as with signposting to trusted information sources as well as resources to support wellbeing (Galea S et al, 2020). However, media can |

Mental health and mental wellbeing (continued)	have a negative impact on mental wellbeing. For example, social media use during the MERS outbreak in South Korea showed that use was associated with increased feelings of anger and fear, as well as better compliance with preventative behaviours (Lunn et al, 2020)). During the SARS epidemic in Hong Kong, extensive media coverage of the disease was found to increase agitation and risk consciousness in older adults (Cheung YT et al, 2008). More recently, researchers have highlighted that the media's portrayal of a "unique threat" posed by COVID-19 is further increasing stress and panic (Kim SW and Su KP, 2020; Petric D, 2020). Some authors have advocated for the need to have a balanced media reporting position, with information included on actions people can take to reduce their risk, rather than mainly focusing on the threat posed by COVID-19 (Lunn et al, 2020). There is limited understanding of many areas related to media and COVID-19, including: the effect of repeated media consumption on mental health and wellbeing; understanding the role of the media in increasing stress and anxiety and optimal media consumption patterns to promote wellbeing; and understanding methods to mitigate risk of misinformation and optimise use of different media platforms (Holmes EA et al, 2020).
Environmental – including housing and homelessness	**Housing** Gurney C (2020) has recently commented on the lack of literature related to the meaning of "home" in relation to social distancing measures. The author has highlighted that evidence regarding previous control measures have related to interventions for up to 21 days, and these have only been undertaken at a much smaller scale than COVID-19 social isolation and stay at home policies. The author has examined the interaction between the home and housing and social distancing measures, with considerations including housing conditions, the presence of hazards and habitability; access to outdoors e.g. whether a home had a garden or balcony; household type e.g. shared living. The author has raised concerns about those who don't have secure tenure or who are homeless, as well those who are at risk of, or experiencing domestic violence. The author has highlighted the limited information available relating to the views of home in light of social distancing measures and issues such as increased loneliness and isolation, loss of employment, being furloughed or working from home. The report has noted that the experience of social distancing would be different for those who are living in secure decent housing with a garden and internet access, compared with others who are living in insecure, poor quality crowded homes. Homelessness is a complex issue and grey literature looking at the link with COVID-19 has re-emphasised this complexity. Those who are homeless are unable to safely shelter and are therefore more exposed to COVID-19 (United Nations, 2020a; Campbell S, 2020 has highlighted that finding accommodation for those who are homeless, as part of the pandemic response, has resulted in individuals losing their support network, with key issues such as addressing lack of coping skills, not being addressed. The pandemic has also provided an opportunity to change the homelessness system, with a move away from a crisis service. The pandemic has demonstrated that partner agencies can work quickly in collaboration to address homelessness (Teixeira L, 2020). **Environment** The United Nations (2020a) has identified that the COVID-19 pandemic is likely to have a positive impact on the environment in the short term, with reduced air pollution levels and CO2 emissions as a result of a large reduction in economic activity. However, it goes on to state that these gains will be short lived unless there is a commitment to deliver on sustainable development commitments after the crisis. The United Nations highlights that pollution, deforestation and reduced biodiversity are likely to have contributed to the spread of coronavirus. A recent report has highlighted that the diseases affected by long-term exposure to air pollution are also those conditions that increase COVID-19 mortality risk. A small

Environmental – including housing and homelessness (continued)	increase in long-term exposure to air pollution (PM2.5) can result in a 15% increase the death rate from COVID-19 (95% CI 5%, 25%), with the authors concluding that a small increase in long-term exposure to PM2.5 leads to a large increase in COVID-19 death rate (Xiao W et al, 2020).

An opinion poll in the UK (Kings College, 2020) has identified that 51% of people have noticed cleaner air and 27% have noticed more wildlife since the introduction of the stay at home policy. The survey also identified that people had a greater awareness of the inoperable nature of the health of people and the planet.

There is an increasing amount of commentary in the grey literature about groups who are likely to be most affected by the COVID-19 pandemic as well as by the social distancing / stay at home measures. One author (Tabner IT, 2020) has suggested that the worst effects of social distancing will be seen in the young, those who are poor (e.g. without savings or guaranteed income) and socially disadvantaged, as well as those who don't have access to the internet or who live in crowded homes. The author highlights that the negative impacts such as social division, worse health and inequality could be long term, unless mitigating action is taken. |
| Specific groups | **Children and Young people**
The physical, mental, developmental and social needs of infants, children and young people are unique. Children are less likely to be able to understand negative situations such as disasters and are more likely to respond more to media exposure and experience feelings of anxiety and fear, stress, inability to cope and behaviours such as withdrawal or clinginess. Secondary trauma can affect children after an event, and can last for years or for a lifetime (Disaster preparedness advisory Council and Committee on Paediatric Emergency Medicine, 2015). Literature related to pandemic influenza has identified that children are more likely to need psychosocial support and tailored communication (O›Sullivan T and Bourgoin M, 2010).

The United Nations (2020a) has identified impacts of COVID-19 on children due to wider social and economic impacts including adverse childhood experiences, increasing family stress, and disadvantaged children being less able to catch up with schooling. Banks et al (2020) have highlighted that economic downturns have an important impact on pregnancy and early childhood, and result in lifelong impacts, including reduced life expectancy; supporting vulnerable mothers and children during the pandemic will have long-term impacts on outcomes for children.

School closures as a result of stay at home / social distancing measures have a significant negative impact on children and young people. In addition to loss of education, children experience a loss of emotional support, as well as services that protect and improve health and wellbeing, such as provision of school meals, and the opportunity to learn about virus control measures such as hand hygiene (UK Government, 2020b). The United Nations (2020c) has identified a range of negative impacts on children of school closures in addition to these, including impacts on social and behavioural development due to reduced interaction with others; loss of school meal provision, affecting children's nutrition and family income; a loss of access to a place of safety; increased burden on women and girls' unpaid work; gaps in childcare placing increased pressures on work; and impacts on parents who are supporting learning in the home. The loss of childcare and schools also results in loss of routine and security, as well as loss of safe play areas (Disaster preparedness advisory Council and Committee on Paediatric Emergency Medicine, 2015).

A rapid review of unplanned school closures (Brooks S et al, 2020b) has found that despite public health recommendations to avoid social contact, many children continued to leave the house and mix with others as well as receive care from non-household |

| Specific groups (continued) | members; this was more likely with older children or where parents disagreed with the school closure. Overall, parents agreed with school closures, with disagreements being due to perceptions that there was a low infection risk or there were practical concerns such as financial impacts. The review identified that the evidence was mixed for the relationship between leaving the home and being infectious.

A more recent study by Viner et al (2020) has highlighted that the effectiveness of school closures in coronavirus outbreaks (SARS, MERS and COVID-19) is unclear and that the evidence is "equivocal". Findings from modelling studies suggest 2-4% of deaths would be prevented by school closure measures alone; this is less than with other social distancing interventions. The authors advocated that less disruptive social distancing measures should be considered in schools, should social distancing be required for prolonged lengths of time.

Previous evidence (Leigh-Hunt, 2017) identified that in children, social isolation may be linked to worse educational attainment, poor psychological development, and abuse. However, loneliness or social isolation in parents was not found to be associated with negative parenting behaviours or child abuse. This evidence needs to be treated with caution in applying to the context of social distancing / stay at home policy. The United Nations (2020b) has identified that responses to Covid have included closure of children's care and protection services, which has increased their risk of exposure to abuse, violence and exploitation. Social distancing may mean that there are likely to be reduced mechanisms for surveillance, reporting and intervention in child abuse situations (Galea S et al, 2020).

Older people
Social distancing measure are likely to have a significant effect on older people. The United Nations (2020a) has highlighted that older people not only face a greater risk to their health from COVID-19, they are also less likely to be able to support themselves during isolation. Those who rely on others for care and support or who live alone are more likely to experience problems accessing foods and other supplies (Lloyd-Sherlock P et al, 2020). Those who do not have children to support them, who are also more likely to have smaller social networks, may be more affected. In addition, the need for self-isolation means that grandparents are unable to provide childcare support or to see their family (Marston HR et al, 2020).

Living in poverty
The UK Government (UK Government, 2020b) has identified that policy measures including isolation, staying at home and school closures are likely to impact poorer families and single parents the most. This is a result of increased household costs such as utility bills; a reduction in income, for example not being able to work due to childcare needs; and not being able to access usual support such as free school meals. In addition, as those who live in poverty are already more likely to experience mental health problems, the psychological impact of the stay at home / social distancing policy is likely to be greater.

Disabled people and those with medical conditions
Concern has been raised by advocacy groups about the ability of those who are disabled to follow social distancing measures and take other steps to protect themselves, particularly if they rely on support services being provided to their home. The risk of reduced support and advocacy for persons with disabilities due to social distancing has also been highlighted by the United Nations (2020a). People with disabilities may face a loss of independence if they live in their own home but rely on external support, for example for the provision of essential supplies such as food and medication (United Nations, 2020b). Individuals with disabilities may be more severely impacted by |

Specific groups (continued)	pandemics due to reduced financial resources, requiring input from services / others for daily living support and already experiencing isolation (O›Sullivan T and Bourgoin M, 2010).
	Digitally excluded
	The United Nations (2020a) has identified that digital technology is an enabler during the COVID-19 pandemic, supporting people to connect and maintain their mental wellbeing. In 2018, the majority (89%) of UK adults used the internet every week, although less than half of over 75 year olds had access to the internet. This could have implications for the elderly in feeling connected to others. (Marston HR et al, 2020).
	Stay at home / social distancing measures are more likely to affect those who do not have access to the internet, resulting in issues such as children not being able to access remote schooling, as well as issues with accessing health information and services (e.g. telemedicine) (United Nations, 2020a). The United Nations has advocated for the expansion of internet access to those who are poor or at greatest risk as well as for there to be safeguards when using surveillance, artificial intelligence and big data (United Nations, 2020b).
	Low paid / precarious employment
	William SN et al (2020) identified that those who were in precarious employment or in low paid jobs are more likely to be disproportionately affected by social distancing and isolation measures (Please see 'Economic impacts').
	Women
	The impacts of pandemics on women intersect with the wider determinants of health (O›Sullivan T and Bourgoin M, 2010). A study of women's experiences of the recent Zika epidemic have highlighted how women experienced negative feelings such as fear, uncertainty and helplessness. As a result, women were taking drastic action to avoid the infection, with subsequent impacts including social isolation (including from their partner and family) and further negative impacts on both physical and emotional well-being (Linde AR and Siqueira CE, 2018).
	The United Nations (2020b) has highlighted that women are more likely to have roles such as working in health and care services or providing care in their homes, where they are at increased risk of being exposed to the virus. The report raises concerns that restrictions in movement may result in women being unable to access essential health services e.g. sexual and reproductive healthcare, which is violating their human rights. The stay at home measures also mean that women are at increased risk of abusive relationships and domestic violence.
	Those at risk of / experiencing abuse
	Whilst there is limited academic literature, information from Welsh Women's Aid (2020) has highlighted that disruption from work routines and financial uncertainty could contribute to increased levels of abuse, including violence and control. The stay at home policy makes it more difficult for individuals living with abuse to leave the home.
	BAME groups
	Research relating to an influenza pandemic (O›Sullivan T and Bourgoin M, 2010) has previously identified that ethnicity will affect the likelihood of individuals seeking healthcare, will impact on health literacy due to language and communication barriers and may be associated with stigma related to the origin of an outbreak.
	BAME people form a higher proportion of low paid workers and are often in roles where they are more exposed to COVID-19 e.g. in precarious employment, as well as being

| Specific groups (continued)

48 | more likely to live in poor housing. They are therefore more likely to not be able to adhere to the stay at home policy (Cifuentes R, 2020).

More specifically, migrants and refugees are particularly vulnerable to stigma, xenophobia and intolerance (United Nations, 2020b).

Individuals in closed settings
Some individuals who live in confined spaces where social distancing is difficult to achieve e.g. prisons, detention centres, institutions are at higher risk of contracting the virus (United Nations, 2020a). The pandemic could increase tensions in overcrowded prisons and highlights the importance of adequate healthcare in prisons, as well as the need for increasing non-custodial sentences, as well as other options to reduce prisoner numbers such as early release of those near the end of their sentence (United Nations, 2020b).

Those with multiple vulnerabilities
O Hankivsky, A Kapilashrami (2020) have identified that social isolation and physical distancing affect people with a range of vulnerabilities, such as those living in over-crowded accommodation, who are poor, from minority groups or at increased risk of abuse or violence. The authors advocate for data on areas such as gender, disability, ethnicity, housing, and environmental data to better understand the impacts of COVID-19, and also highlight the need for a cross-sectoral policy response, which addresses the interaction between different vulnerabilities. |

Section 4
Interview questions and matrix

A Rapid Health Analysis of the 'Staying at Home/Social Distancing' policy in response to COVID-19 (Coronavirus) in Wales

Questions and interview guide

What is the role of your organisation / department / team?

Does your organisation have a policy, strategy or specific programme of work for COVID-19?

What are the **key** issues that have been identified?

What **knowledge / evidence / experience** can your team offer to understand the health impact of the policy in relation to COVID-19 in Wales?

What **population groups** do you think are particularly vulnerable in respect to the Staying at Home policy? Do you have particular groups / areas that you are prioritising? Do you have any data / evidence to support this? Are you willing to share, if appropriate? (use Annex I checklist to guide this discussion).

Which **social determinants of health** do you think could be impacted positively or negatively? Do you have any data / evidence to support this? Are you willing to share, if appropriate? (use Annex II checklist to guide this discussion).

What **population health outcomes** do you expect to be impacted? E.g. physical / mental / social health. Do you have any data / evidence to support this? Are you willing to share, if appropriate?

How is your organisation working to **prevent / mitigate the impact** of the Staying at Home policy?

How is your organisation working to **prepare / adapt** to future implications of the Staying at Home policy and social distancing? Have you made progress on this or faced any obstacles?

Are there **gaps in knowledge / evidence or policies** in Wales to support and enable mitigation of the Staying at Home / social distancing policy and future planning – especially in relation to health and well-being?

Annex I – Population Groups

Sex / Gender related groups

- Female
- Male
- Transgender
- Other *(please specify)*

Age related groups *(Could specify age range for special consideration)*

- Children and young people
- Early years (including pregnancy and first year of life)
- General adult population
- Older people

Income related groups

- Economically inactive
- People on low income
- People who are unable to work due to ill health
- Unemployed / workless

Groups at higher risk of discrimination or other social disadvantage

- Black and minority ethnic groups *(please specify)*
- Carers
- Ex-offenders
- Gypsies and Travellers
- Homeless
- Language / culture *(please specify)*
- Lesbian, gay and bisexual people
- Looked after children
- People seeking asylum
- People with long term health conditions
- People with mental health conditions
- People with physical, sensory or learning disabilities / difficulties
- Refugee groups
- Religious groups *(please specify)*
- Lone parent families
- Veterans

Geographical groups and / or settings *(note- can be a combination of factors)*

- People in key settings: workplaces / schools / hospitals / care homes / prisons
- People living in areas which exhibit poor economic and / or health indicators
- People living in rural, isolated or over-populated areas
- People unable to access services and facilities

Annex II – Wider Determinants of Health

PHYSICAL, MENTAL, SOCIAL, ENVIRONMENTAL HEALTH AND WELL-BEING

1. Behaviours affecting health

- Diet/Nutrition/Breastfeeding
- Physical activity
- Risk-taking activity i.e. addictive behaviour, gambling
- Social media use
- Use of alcohol, cigarettes, Electronic Nicotine Delivery Systems (i.e. e-cigarettes)
- Sexual activity
- Use of substances, non-prescribed medication, and abuse of prescription medication

2. Social and community influences on health

- Adverse childhood experiences i.e. physical, emotional or sexual abuse.
- Community cohesion, identity, local pride
- Community resilience
- Divisions in community
- Family relationships, organisation and roles
- Domestic violence
- Language
- Cultural and spiritual ethos
- Neighbourliness
- Other social exclusion i.e. homelessness, incarceration
- Parenting and infant attachment (strong early bond between infant and primary caregiver)
- Peer pressure
- Racism
- Sense of belonging
- Social isolation/loneliness
- Social capital, support and networks
- Third Sector and Volunteering
- Citizen power and influence

3. Mental Health and Well-being

Could there be potential impacts on:

- Emotional well-being, life satisfaction or resilience?
- A sense of control?
- Feeling worthwhile, valued or having a sense of purpose?
- Uncertainty or anxiety?
- Feeling safe and secure?
- Participation in community and economic life?

4. Living and environmental conditions affecting health

- Air Quality
- Attractiveness of area
- Community safety
- Access, availability and quality of green and blue natural spaces
- Housing quality and tenure
- Indoor environment
- Health and safety
- Light pollution
- Noise
- Quality and safety of play areas (formal and informal)
- Road safety
- Odours
- Urban/Rural built and natural environment and neighbourhood design
- Waste disposal, recycling
- Water quality i.e. sea water

5. Economic conditions affecting health

- Unemployment
- Poverty including food and fuel poverty
- Income
- Personal and household debt
- Type of employment i.e. permanent/temporary, full /part time
- Economic inactivity
- Working conditions i.e., bullying, health and safety, environment

6. Access and quality of services

- Careers advice
- Education and training
- Information technology, internet access, digital services
- Leisure services
- Medical and health services
- Welfare and legal advice
- Other caring services i.e. social care; Third Sector, youth services, child care
- Public amenities i.e. village halls, libraries, community hub
- Shops and commercial services
- Transport including parking, public transport, active travel

7. Macro-economic, environmental and sustainability factors

- Biodiversity
- Climate change i.e. flooding, heatwave
- Cost of living i.e. food, rent, transport and house prices
- Economic development including trade and trade agreements
- Gross Domestic Product
- Regeneration
- Government policies i.e. Sustainable Development principle (integration; collaboration; involvement; long term thinking; and prevention)

Section 5
Screening workshop paper and matrix

Health Impact Assessment workshop template/record sheet

Population Groups identified:

Population groups

Sex / gender
Agreement cross cutting across population groups and determinants need to distinguish specific issues applying within given contexts.

Female
On basis that evidence suggests these are more relevant / prevalent to females – in caring roles / lone parents / domestic abuse / lower paid jobs / job security / economic report females more likely to work in the sectors impacted by business closures / home schooling responsibilities / domestic violence

Male
Lower paid un-skilled sector / construction (not covered by Staying at Home policy) / drivers (bus, delivery / HGV) / not from a greater risk of being seriously affected and death perspective but communicating guidance and adhering to guidance?

Age Related Groups

Children
Things to consider – stages of development, different age groupings, settings, circumstances

Issues / points to consider:
- Tailored communications
- Parental-carer support and relationships
- Sensitivities within families
- Break from school environment
- Social and individual relationships and break from them within the context of school / uni etc
- School / care provision mitigation for certain groups remains vulnerable, key workers and special needs
- Free school meals – different replacement schemes across local authorities
- Home schooling different circumstances and consequences – access to it and resources / literacy / ability of parents-carers to support / affordability / home environment-lack of space / (good law project) inequalities (the conversation.Com saved on add lit in covid file 5 ways lockdown increase inequality)) and life chances / long terms effects on key development stages
- A whole generation removed from socialising, education, separation

2-5yrs
- Child development / learning re socialising could be removed for several months.
- Questions to ask what the effect could be short and long term re the lack of socialising / relationships with peers, wider family-friends / key developmental stages
- Consider adverse childhood experiences – stressors in the context of staying at home aces could be one framework to consider this through for this children and young people
- Intergenerational relationships

Older children / young people
- Cancellation of exams
- What are the effects going to be for the most disadvantaged and their life prospects some evidence to show that in mocks and class work those from the disadvantaged backgrounds show lower grades but can improve during exams ?
- Lack of contact with wider family / peers
- Constraints- identity and independence
- Young people more likely to be employed in sectors affected by the closures (a report in the papers in scotland a fruit grower put out a call and students etc have signed up)
- University College London report more negative consequences to school closures than positive (need to refer)

All children and young people
- Intergenerational relationships consequences for all ages to consider
- Domestic violence / aces
- Key differences between age groups in terms of impact on development stages and key stages in education / training
- Exit strategy from staying at home – releasing some restrictions maybe more important for specific groups

General adult population
Distinction between
- Adults with children
- Adults without children
- Single parent families
- Home schooling – parental skills and competencies to support aside from potential lack of access to it

Older people
- Without support networks, with but also consider the different categories highlighted within the staying at home policy i.E. Over 70's or those with certain conditions classed as vulnerable
- Need to make a distinction between loneliness and isolation not the same and not just associated with older people

Groups at higher risk of discrimination or other social disadvantage

- Evidence / publications emerging re greatest impact on the poorest and those experiencing inequities and inequalities
- Those who are experiencing raised discrimination due to their ethnicity / minorities being blamed for the virus

Carers
- Additional pressures looking after cared for in isolation and lack of wider support

Lesbian, gay and bi
- Could be experiencing pressures having moved back home and coming out or supressing and family not accepting

Migrants and asylum communities
- Non english speaking and potential lack of information / hidden from services / less likely to access information

Black and ethnic
- Indirect concerns re disproportionally experiencing certain health conditions and socio economic conditions whilst staying at home is not a direct factor raised concerns / anxieties potential within these households

Cultural factors
- Certain groups have intergenerational households or live and support in close proximity could be both –ve and +ve
- Language issues related to communications and access to information for certain ethnic groups

Faith and religious groups and practices
- Spiritual isolation
- Unable to undertake specific religious / faith rituals
- Direct affects from prevention of attending funerals and the associated traditions / practices prior and after burial etc

Those at risk of domestic violence
- Some emerging evidence available of increased incidents

Mental health conditions
- Lack of access to services
- Concerns re increased risks or incidence of suicide
- Home office / police select committee discussing evidence re impact on vulnerable households / domestic abuse / suicide / mental health

Long-term conditions
- Physical health needs but also concerns re mental health – already know of concerns around individuals not presenting for appointments but also decisions being taken to treat or not treat certain conditions or postponement of treatment
- Access to services

Those with disabilities
- Concerns over 'thresholds' for treatment do-not-resuscitate decisions
- Mitigation – growth in online support also used to being at home for longer periods?
- Access to services

Different acceptance of the staying at home guidance
- +Ve for some and reassuring and accepting of the restriction helping to reduce their risk of catching the virus
- -Ve for some – legal rights right to freedom (some published work on this or being looked at)
- -Ve some more worried because they are in the category of key workers and therefore have to leave home

Socio economic contrasts
- There will be different experiences and opportunities within the socioeconomic groupings
- Work perspective – skilled – unskilled reports and concerns at the beginning of the staying at home on those that were key workers or self employed in such roles as construction / drivers / deliveries / shop workers in those remaining open in addition to nhs and social care workers
- Single parents – key worker but what happens with child care or they become ill or those they care for have special needs?
- Identified vulnerable groups enabled to have home delivery – issues in accessing and eligibility
- Children of divorced / separated parents – children allowed to visit, transmission, existing conflict on parental rights / court orders etc
- Communities in recovery phase of previous vents such as the flooding experienced in south wales communities
- Travellers – requires some insight?

Income related
- Low income – no resources to stock pile and increased costs due to more costs incurred at home such as power, food etc
- Free school meals
- Food banks
- Furloughed or lost jobs, income
- Evidence already shows those on low incomes experience poorer health and mental well-being
- Home and living circumstances – housing quality, space / overcrowding / lack of access to outdoor space

Geographical and / or settings

Urban versus rural:
- Access to services
- Access to open space
- Air pollution decrease / climate change agenda link
- Staying at home guidance
- Behavioural interventions informed some of the policy – unintended consequence and missed in assessing potentially the negative reaction from key workers in having to go rather than staying at home and increased risk of getting virus and the impact on themselves and families more focus on managing the reaction from those having to remain at home
- Look at those who go into work versus those working from home
- Isolated versus over populated areas
- Variation across local authorities in terms of access to open spaces and policing of people outdoors
- Potential rather than closing parks police social distancing more consistently as the closure increases inequalities in terms of access and the opportunity to exercise

Wider Determinants of Health and Well-being Impacts identified

Behaviours affecting health	
Positive impacts / opportunities	**Negative / unintended impacts**
Physical activity	
Some taking more than usual focusing on the opportunity to leave the home	Radio interview 8th Apr concern raised that those working from home may become more sedentary and also using inappropriate seating etc may store up problems for later
No evidence coming through as yet from self isolation or quarantined literature on this but the Public Health Wales survey may provide some insight	
Diet	
Psychological impacts of quarantine +ve impacts reported is you know have a good supply of food	Food security, affordability, access, good supply nutritionally
Some in a position to prepare	Others anxiety when shopping and shelves are bare
	Lack of networks and support to purchase
Breast feeding	
More encouragement to breast feed	Could create more pressure to breast feed and increase worry / anxiety if mother has problems and cannot access support
Gambling	
No emerging evidence currently but with the recent Virtual Grand National the bookies did say they had reflected on concerns and had bared new on-line members from joining and had placed limits on the bets £	
Substance use	
Public Health Wales survey may provide some insight as questions on alcohol use / smoking	Potential relaxation of methadone prescribing and concerns this could lead to additional misuse
	Some insight that post quarantine dependency remains
Sexual activity	Pressures on relationships
Post corona baby boom either or dependent on perspective +ve and / or –ve	Unintended pregnancies reported shortage of condoms
Social media use	
Increase in use and increase in literacy of IT as more first time users for the purpose of keeping in touch with family / friends / social networks / support networks	Increased mis-information
	Increased potentially 'abuse' 'hate responses'
	Not all have access therefore missing certain forms of support and information and key messages and guidance

Social support	Unknown long-term effects if all peer socialising is undertaken through social media and you lose face-to-face contact in terms of development / resilience?
Supports intergenerational relationships	
	Adjustments for very young children following the lifting of restrictions and forming relationships with peers / relatives etc
Balance between social good but potential for causing division	

Social and Community Influences on Health	
Positive impacts / opportunities	**Negative / unintended impacts**
Agreement that all points below are potentially relevant in this situation	Increase in division in some settings / communities
Engagement	
Community support	
Volunteering	
Neighbourliness	
Increased staying in touch with family	
More time to learn new things	
Time to focus	
Community cohesion	
Increase in informal support networks in addition to Government led volunteering	But also potential to cause division
	Dying alone in care setting and hospitals away from loved ones
	Reduced services at funerals and the loss of the ability to undertake rituals and practices surround the death of loved one / family member across different faiths / beliefs
	In the context of the Staying at Home policy not an intended consequence but measures have the potential to have long terms effects in coming to terms with the death of a loved one and all that is associated with this grieving process, not having fulfilled wishes etc. short and long term impacts potentially
Individuals spiritual and religious ethos will be part of their resilience – what are the consequences of the restrictions on gatherings etc	

Mental Well-being

Positive impacts / opportunities	Negative / unintended impacts
Agreement a key factor to investigate potential for both direct and indirect impacts	
Key workers	Certain professions frustrated at their skills not being utilised ie Environmental Health Officers including contact tracing?
Working from home	Issues related to not being able to work in addition to the economic consequences
	Literature shows long term effects for mental health from events / situations like these
	How long will it take for people to adjust following the restrictions? i.e. will there be issues for use of transport, fear of crowds

Living and Environmental Conditions affecting health

Positive impacts / opportunities	Negative / unintended impacts
Some links for housing info: https://www.housinglin.org.uk/Topics/ browse/loneliness-and-isolation/ social distancing and the meaning of home during the COVID-19 pandemic.	
	Housing conditions / opportunities
	For some people ill health could be exacerbated by:
	Poor ventilation
	Over crowding
	Design making it difficult to adhere to guidance on cleaning and prevention measures
	Self-isolating difficulties
Government guidance put in safeguards in terms of evictions etc but unsure how that is working Isolate at home versus being in dedicated isolation units	

Economic Conditions Affecting health

Positive impacts / opportunities	Negative / unintended impacts
Factor identified in population groups as having a major impact	Evidence emerging in terms of hardest hit population groups and inequalities
Evidence emerging in terms of hardest hit population groups and inequalities	Major negative impact for a wide range of groups including from:
Government guidelines and measures put in place to reduce risk and hardship from an economic perspective	Closure of sectors
	Risk of unemployment
	Risk of financial difficulties from recession etc.

Access and quality of services	
Positive impacts / opportunities	**Negative / unintended impacts**
Consider rural versus urban perspective	
Health and Well-being	
Government measures to safeguard for prevention purposes certain vulnerable groups including home deliveries	
Welfare advice and benefits again +ve but also –ve in terms of access and delays	Disparity with access to open spaces for exercise
Shifting to tele health has shown it is possible and reduced the call on Accident & Emergency	Whilst increased use of tele health is helping the situation it has also highlighted issues that need adjusting if this is to become the norm following the reduction in restrictions such as confidentiality
Proof on concept of tele health	
Opportunities to embed and make the most from these new ways of working once restrictions removed where they have shown to be a positive outcome	Lack of access to libraries which are for many a key source of a range of support and information
	Concern a portion of those who have long term conditions or specific conditions are not accessing key appointments out of fear of risk of virus
	Abuse of key workers in certain settings i.e. GP receptionists due to changes in the way the service is delivered and frustrations of patients
Transport movement reduced	
Decrease in emissions and improved air quality	
Macro-economic, Environmental and sustainability Factors	
Positive impacts / opportunities	**Negative / unintended impacts**
Civil liberties in respect of Staying at Home guidance / advice protected	Civil liberties in respect of Staying at Home guidance / advice, need safeguards and review timeframes
Human rights	
Call for evidence from Equality and Human Rights Committee re rights	
Legality / enforcement of legislation	
Exit strategy needed	
Relationship criminal justice policing by consent and balance re enforcement	
Climate change – potential +ve behaviour change.	
Demonstrates we can adapt and move quickly, how will this translate in the future, what can we learn?	
Government economic measures introduced	

References

Banks, J., Karjalainen, H. and Propper, C. (2020). *Recessions and health: The long term health consequences of responses to coronavirus. IFS Briefing notes BN281*. [Online]. Available at: https://www.ifs.org.uk/uploads/BN281-Recessions-and-health-The-long-term-health-consequences-of-responses-to-COVID-19-FINAL.pdf (Accessed 3 July 2020).

Boone, L. *Coronavirus: the world economy at risk. OECD interim economic outlook*. Presentation. 2 March 2020.

Brooks, S. K., Dunn, R., Amlot, R., Rubin, G. J. and Greenberg, N. (2018) 'A Systematic, Thematic Review of Social and Occupational Factors Associated With Psychological Outcomes in Healthcare Employees During an Infectious Disease Outbreak', Journal of Occupational and Environmental Medicine [Online]. Available at: https://www.kcl.ac.uk/kcmhr/publications/assetfiles/2018/brooks2018c.pdf (Accessed 29 May 2020).

Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., Rubin, G. J., (2020a) 'The psychological impact of quarantine and how to reduce it: rapid review of the evidence' *The Lancet.* [Online]. DOI: https://doi.org/10.1016/S0140-6736(20)30460-8 (Accessed 11 May 2020).

Brooks, S. K., Smith, L. E., Webster, R. K., Weston, D., Woodland, L., Hall, I., and Rubin G. J. (2020b). 'The Impact of Unplanned School Closure on Children's Social Contact: Rapid Evidence Review'. *medRxiv.* [Online]. Available at: https://www.medrxiv.org/content/10.1101/2020.03.17.20037457v1 (Accessed 3 July 2020).

Campbell, S. (2020). *Tales from the front line: '*For rough sleepers, accommodation is only one part of the issue'. 6 April. *Chartered Institute of Environmental Health.* [Online]. Available at: https://www.cieh.org/housing-and-community/2020/april/tales-from-the-front-line-for-rough-sleepers-accommodation-is-only-one-part-of-the-issue/ (Accessed 3 July 2020).

Chan, S. S., Lam, L. C. W. and Chiu, H. F. K. (2009) 'The emergence of the novel H1N1 virus: Implications for global mental health'. *Cambridge University Press.* [Online]. Available at: https://www.cambridge.org/core/journals/international-psychogeriatrics/article/emergence-of-the-novel-h1n1-virus-implications-for-global-mental-health/47259590B892DD1E2A802EBC0272D412 (Accessed 3 July 2020).

Chen, B., Peng, Y., Zhou, L., Chai, C., Yeh, H. C., Chen, S., Wang, F., Zhang, M., He, T. and Wang. X. (2016). 'Social support received by multidrug-resistant tuberculosis patients and related factors: a cross-sectional study in Zhejiang Province, People's Republic of China'. *PMC.* [Onine]. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4912324/ (Accessed 3 July 2020).

Cifuentes, R. (2020). 'All in it together? The impact of Coronavirus on BAME people in Wales'. *Bevan Foundation.* 10 April. [Online]. Available at: https://www.bevanfoundation.org/commentary/all-in-it-together-the-impact-of-coronavirus-on-bame-people-in-wales/ (Accessed 3 July 2020).

Crawford, R., Davenport, A., Joyce, R. and Levell, P. (2020) *Household spending and coronavirus. IFS Briefing Note BN279*. April. [Online]. Available at: https://www.ifs.org.uk/uploads/BN279-Household-spending-and-coronavirus-2.pdf (Accessed 3 July 2020).

Dailey, S. F. and Kaplan, D. (2014) 'Shelter-in-place and mental health: an analogue study of well-being and distress'. *Journal of Emergency Management.* [Online]. Available at: https://wmpllc.org/ojs/index.php/jem/article/view/376/0 (Accessed 3 July 2020).

DiGiovanni, C., Conley, J., Chiu, D., Zaborski, J. (2004) 'Factors influencing compliance with quarantine in Toronto during the 2003 SARS outbreak' Europe PMC. [Online]. Available at: DOI: 10.1089/bsp.2004.2.265 (Accessed 11 May 2020).

Disaster preparedness advisory council and committee on paediatric emergency medicine (2015) 'Ensuring the Health of Children in Disasters', Pediatrics [Online]. Available at: https://pediatrics.aappublications.org/content/136/5/e1407 (Accessed 29 May 2020).

Douglas, P. K., Douglas, D. B., Harrigan, D. C. and Douglas, K. M. (2009). 'Preparing for pandemic influenza and its aftermath: Mental health issues considered'. *Researchgate.* [Online]. Available at: https://www.researchgate.net/publication/44568839_Preparing_for_pandemic_influenza_and_its_aftermath_Mental_health_issues_considered (Accessed 3 July 2020).

European Commission (2020). *The impact of the Covid-19 pandemic on global and EU trade.* [Online]. Available at: https://trade.ec.europa.eu/doclib/docs/2020/april/tradoc_158713.pdf (Accessed 3 July 2020).

Everett, J. A. C., Colombatto, C., Chituc, V., Brady, W. J., and Crockett, M. J. (2020). 'The effectiveness of moral messages on public health behavioural intentions during the COVID-19 pandemic'. *PsyArXiv Preprints.* [Online]. Available at: https://psyarxiv.com/9yqs8 (Accessed 22 May 2020).

Galea, S., Merchant, R. M. and Lurie, N. (2020) 'The Mental Health Consequences of COVID-19 and Physical Distancing: The Need for Prevention and Early Intervention' JAMA Network. 10 April. [Online]. Available at: https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2764404 (Accessed 22 June 2020).

Giubilini, A., Douglas, T., Maslen, H., Savulescu, J. (2018) 'Quarantine, isolation and the duty of easy rescue in public health' Oxford University Research Archive. [Online]. Available at: https://ora.ox.ac.uk/objects/uuid:a3feecf3-7f11-44fa-a986-780ce91fe9ec (Accessed 11 May 2020).

Gurney, C. (2020) 'Out of Harm's Way?' UK Collaborative Centre for Housing Evidence. 8 April. [Online]. Available at: https://housingevidence.ac.uk/publications/out-of-harms-way/ (Accessed 11 May 2020).

Hankivsky, O. and Kapilashrami, A. (2020). *Beyond sex and gender analysis: an intersectional view of the COVID-19 pandemic outbreak and response.* [Online]. Available at: https://www.qmul.ac.uk/media/global-policy-institute/Policy-brief-COVID-19-and-intersectionality.pdf (Accessed 3 July 2020).

Holmes, E. A., O'Connor, R., Perry, V. H., Tracey, I., Wesseley, S., Arseneault, L., Ballard, C., Christensen, H., Silver, R. C., Everall, I., Ford, T., John, A., Kabir, T., King, K., Madan, I., Michie, S., Przybylski, A. K., Shafran, R. and Bullmore, E. (2020). 'Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science'. *The Lancet.* [Online]. Available at: https://www.sciencedirect.com/science/article/pii/S2215036620301681?via%3Dihub#! (Accessed 3 July 2020).

Ipsos MORI (2020) Financial impact of COVID-19 already being felt by Britons, especially younger generations. 7 April. [Online]. Available at: https://www.ipsos.com/ipsos-mori/en-uk/financial-impact-covid-19-already-being-felt-britons-especially-younger-generations (Accessed 5 May 2020).

Joyce, R. and Xu. X. (2020) 'Sector shutdowns during the coronavirus crisis: which workers are most exposed?' Institute for Fiscal Studies. [Online]. Available at: https://www.ifs.org.uk/publications/14791 (Accessed 29 May 2020).

Kadel, R., Allen, J., Dyakova, M. and Bellis, M. (2020). Economic Consequences of COVID-19 Pandemic Outbreak on Health Indicators and Health Service Use in Wales Longstanding Illness (LSI) Projection 2020/21 – 2022/23. World Health Organization Collaborating Centre on Investment for Health and Well-being, Public Health Wales. Unpublished.

Katz, R. (2017) 'Shifting the Culture of Quarantine'. *Scowcroft Institute of International Affairs*. [Online]. Available at: https://oak-trust.library.tamu.edu/bitstream/handle/1969.1/158836/Rebecca%20Katz%20Shifting%20the%20Culture%20of%20Quarantine.pdf?sequence=1&isAllowed=y (Accessed 3 July 2020).

Kavanagh, A. M. (2012). 'Leave entitlements, time off work and the household financial impacts of quarantine compliance during an H1N1 outbreak'. *BMC Infectious Diseases*. [Online]. Available at: https://bmcinfectdis.biomedcentral.com/track/pdf/10.1186/1471-2334-12-311 (Accessed 3 July 2020).

Kim and Su (2020) 'Using psychoneuroimmunity against COVID-19', Brain, Behavior, & Immunity. [Online]. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7194899/ (Accessed 29 May 2020).

Kings College et al (2020) *The impact of Coronavirus on food behaviours and attitudes*. [Online] Available at: https://flo.uri.sh/story/262445/embed#slide-0 (Accessed 11 May 2020).

Leigh-Hunt, N.B., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., Caan, W., (2017) 'An overview of systematic reviews on the public health consequences of social isolation and loneliness'. Public Health, 152 (2017) 157-171. [Online] Available at: http://belmont.bme.umich.edu/wp-content/uploads/sites/377/2019/06/2.-An-overview-of-systematic-reviews-on-the-public-health-consequences-of-social-isolation-and-loneliness.pdf (Accessed 11 May 2020).

Linde and Siqueira (2018) 'Women's lives in times of Zika: mosquito-controlled lives?' Researchgate. May. [Online] Available at: https://www.researchgate.net/publication/325067924_Women's_lives_in_times_of_Zika_mosquito-controlled_lives (Accessed 22 June 2020).

Lloyd-Sherlock, P., Ebrahim, S., Geffen, L. and McKee, M. (2020) 'Bearing the brunt of covid-19: older people in low and middle income countries'. The BMJ. 13 March. [Online]. Available at: https://www.bmj.com/content/368/bmj.m1052.full (Accessed 22 June 2020).

Lunn et al (2020) 'Using Behavioral Science to help fight the Coronavirus', *Journal of Behavioral Public Administration*. [Online]. Available at: http://www.journal-bpa.org/index.php/jbpa/article/view/147 (Accessed 29 May 2020).

Ly, T., Selgelid, M. J. and Kerridge, I. (2007) 'Pandemic and Public Health Controls: Toward an Equitable Compensation System', Journal of Law and Medicine. [Online]. Available at: https://ses.library.usyd.edu.au/bitstream/handle/2123/10804/JLM%20pandemic.pdf?sequence=3&isAllowed=y (Accessed 29 May 2020).

Marston, H. R., Musselwhite, C. and Hadley, R. (2020). 'COVID-19 vs Social Isolation: the Impact Technology can have on Communities, Social Connections and Citizens'. *British Society of Gerontology*. 18 March. [Online]. Available at: https://ageingissues.wordpress.com/2020/03/18/covid-19-vs-social-isolation-the-impact-technology-can-have-on-communities-social-connections-and-citizens/ (Accessed 3 July 2020).

Office for Budget Responsibility (2020). *The OBR's coronavirus analysis*. 14 April. [Online]. Available at: https://cdn.obr.uk/The_OBRs_coronavirus_analysis.pdf (Accessed 3 July 2020).

O'Sullivan, T. and Bourgoin, M. (2010) Vulnerability in an Influenza Pandemic: Looking Beyond Medical Risk. [Online]. Available at: https://www.homelesshub.ca/sites/default/files/attachments/Lit%20Review%20-%20Vulnerability%20in%20in%20Pandemic_FINAL.pdf (Accessed 22 June 2020).

Paakkari, L. and Okan, O. (2020). 'Covid -19: health literacy is an underestimated problem'. *The Lancet Public Health*. [Online]. Available at: https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(20)30086-4/fulltext (Accessed 3 July 2020).

Pan American Health Organization (PAHO) (2009) Leadership During a Pandemic: What Your Municipality Can Do. [Online]. Available at: https://www.paho.org/disasters/index.php?option=com_content&view=article&id=1053:leadership-during-a-pandemic-what-your-municipality-can-do&Itemid=937&lang=en (Accessed 22 June 2020).

Pelkas, C. (2010) 'State Interference with Liberty: The Scope and Accountability of Australian Powers to Detain During a Pandemic'. HeinOnline. [Online]. Available at: https://heinonline.org/HOL/LandingPage?handle=hein.journals/flinlj12&div=5&id=&page (Accessed 22 June 2020).

Pellecchia, U., Crestani, R., Decroo, T., Van den Bergh, R., Al-Kourdi, Y. (2015) 'Social Consequences of Ebola Containment Measures in Liberia' PLOS ONE. DOI: https://doi.org/10.1371/journal.pone.0143036 (Accessed 11 May 2020).

Petric, D. (2020) 'Negative mental health effects of COVID-19 pandemic and panic'. Researchgate. [Online]. Available at: https://www.researchgate.net/publication/340081905_Negative_mental_health_effects_of_COVID-19_pandemic_and_panic (Accessed 23 June 2020).

Selgelid, M. J. (2009) 'Promoting Justice, Trust, Compliance, and Health: The Case for Compensation' The American Journal of Bioethics. [Online]. DOI: https://doi.org/10.1080/15265160903197564 (Accessed 11 May 2020).

Sport England (2020) New exercise habits forming during coronavirus crisis. 14 April. [Online]. Available at: https://www.sportengland.org/news/new-exercise-habits-forming-during-coronavirus-crisis (Accessed 22 June 2020).

Steel-Fisher, G. K, Blendon, R. J., Ward, J. R., Rapoport, R., Kahn, E. B. and Kohl, K. S. (2012). 'Public response to the 2009 influenza A H1N1 pandemic: a polling study in five countries'. *The Lancet*. [Online]. Available at: https://www.clinicalkey.com/service/content/pdf/watermarked/1-s2.0-S1473309912702062.pdf?locale=en_US&searchIndex= (Accessed 3 July 2020).

Tabner, I. T. (2020). 'Five ways coronavirus lockdowns increase inequality'. *The Conversation*. 8 April. [Online]. Available at: https://theconversation.com/five-ways-coronavirus-lockdowns-increase-inequality-135767 (Accessed 3 July 2020).

Teixeira, L. (2020). 'Coronavirus: a historic opportunity to end homelessness for good in the UK'. *UK Collaborative Centre for Housing Evidence*. [Online]. Available at: https://housingevidence.ac.uk/coronavirus-a-historic-opportunity-to-end-homelessness-for-good-in-the-uk/ (Accessed 3 July 2020).

Timen A and Schroder-Back P, (2016) 'Skills building seminar: Tackling Antimicrobial Resistance: case studies and ethical reflection', European Public Health Conference. [Online]. Available at: https://academic.oup.com/eurpub/article/26/suppl_1/ckw170.048/2448836 (Accessed 1 June 2020).

Ulrich, M. R. (2016) 'Law and Politics, an Emerging Epidemic: A Call for Evidence-Based Public Health Law', American Journal of Law and Medicine. [Online]. Available at: https://journals.sagepub.com/doi/abs/10.1177/0098858816658270 (Accessed 1 June 2020).

UK Government (2020a). *The role of behavioural science in the coronavirus outbreak*. [Online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873732/07-role-of-behavioural-science-in-the-coronavirus-outbreak.pdf (Accessed 3 July 2020).

UK Government (2020b). *SPI-B insights on combined behavioural and social interventions*. [Online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873726/04-spi-b-insights-on-combined-behavioural-and-social-interventions.pdf (Accessed 3 July 2020).

UK Parliament (2020) The Government's response to COVID-19: human rights implications. April. [Online] https://committees.parliament.uk/work/218/the-governments-response-to-covid19-human-rights-implications/ (Accessed 22 June 2020).

United Nations (2020a). *Shared Responsibility, Global Solidarity: Responding to the socio-economic impacts of COVID-19*. [Online]. Available at: https://unsdg.un.org/sites/default/files/2020-03/SG-Report-Socio-Economic-Impact-of-Covid19.pdf (Accessed 3 July 2020).

United Nations (2020b) *COVID-19 and Human Rights: We are all in this together*. April. [Online]. Available at: https://unsdg.un.org/sites/default/files/2020-04/COVID-19-and-Human-Rights.pdf (Accessed 3 July 2020).

United Nations (2020c) Policy Brief: The Impact of COVID-19 on children. 15 April. [Online]. Available at: https://unsdg.un.org/sites/default/files/2020-04/160420_Covid_Children_Policy_Brief.pdf (Accessed 23 June 2020).

Viner, R.M., Russell, S.J., Croker, H., Packer, J., Ward, J., Stansfield, C., Mytton, O., Bonell, C., Booy, R. (2020) 'School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review', The Lancet Child and Adolescent Health, Volume 4, Issue 5, p397-404, May 01, 2020 [Online]. DOI: https://doi.org/10.1016/S2352-4642(20)30095-X (Accessed 6 May 2020).

Webster, R., Brooks, S., Smith, L., Woodland, L., Wessely, S. and Rubin, J. (2020) 'How to improve adherence with quarantine: Rapid review of the evidence'. *medRxiv*. [Online]. Available at: https://www.medrxiv.org/content/10.1101/2020.03.17.20037408v1 (Accessed 3 July 2020).

Welsh Women's Aid (2020) Survivors and Social Distancing/Self-Isolation. 19 March. [Online]. Available at: https://www.welshwomensaid.org.uk/2020/03/survivors-and-social-distancing-self-isolation/ (Accessed 9 June 2020).

William S., N., Armitage, C. J., Tampe, T. and Dienes, K. (2020) 'Public perceptions and experiences of social distancing and social isolation during the COVID-19 pandemic: A UK-based focus group study' medRxiv. 15 April. [Online]. Available at: https://www.medrxiv.org/content/10.1101/2020.04.10.20061267v1 (Accessed 22 June 2020).

Winckler, V. (2020) Is Universal Credit up to the challenge of the Coronavirus outbreak, asks Victoria Winckler, Director of the Bevan Foundation. 2 April. [Online]. Available at: https://www.bevanfoundation.org/commentary/universal_credit_coronavirus/ (Accessed 22 June 2020).

World Health Organization (2020) *Strengthening and adjusting public health measures throughout the COVID-19 transition phases*. [Online]. Available at: https://www.euro.who.int/__data/assets/pdf_file/0018/440037/Strength-AdjustingMeasuresCOVID19-transition-phases.pdf (Accessed 22 June 2020).

Wynia, M. K. (2007) 'Ethics and Public Health Emergencies: Restrictions on Liberty', The American Journal of Bioethics [Online]. Available at: https://www.tandfonline.com/doi/full/10.1080/15265160701193559?journalCode=uajb20&scroll=top&needAccess=true&#_i4 (Accessed 29 May 2020).

Xiang, Y., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T. and Ng, C. H. (2020) 'Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed'. *The Lancet Psychiatry*. [Online]. Available at: https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30046-8/fulltext (Accessed 3 July 2020).

Xiao, W., Nethery, R. C., Sabath, B. M., Braun, D. and Dominici, F. (2020). 'Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study'. *medRxiv*. [Online]. Available at: https://www.medrxiv.org/content/10.1101/2020.04.05.20054502v2 (Accessed 3 July 2020).

Our Priorities
2018-2030

Working to Achieve a Healthier Future for Wales

Building and mobilising **knowledge and skills** to improve health and well-being across Wales

Supporting the development of a sustainable **health and care system focused on prevention** and early intervention

Protecting the public from infection and environmental threats to health

Influencing the wider determinants of health

Securing a **healthy future** for the next generation

Improving mental well-being and resilience

Promoting healthy behaviours

Our Values: *Working together with trust and respect to make a difference*