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Public Health Wales

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

Main Report

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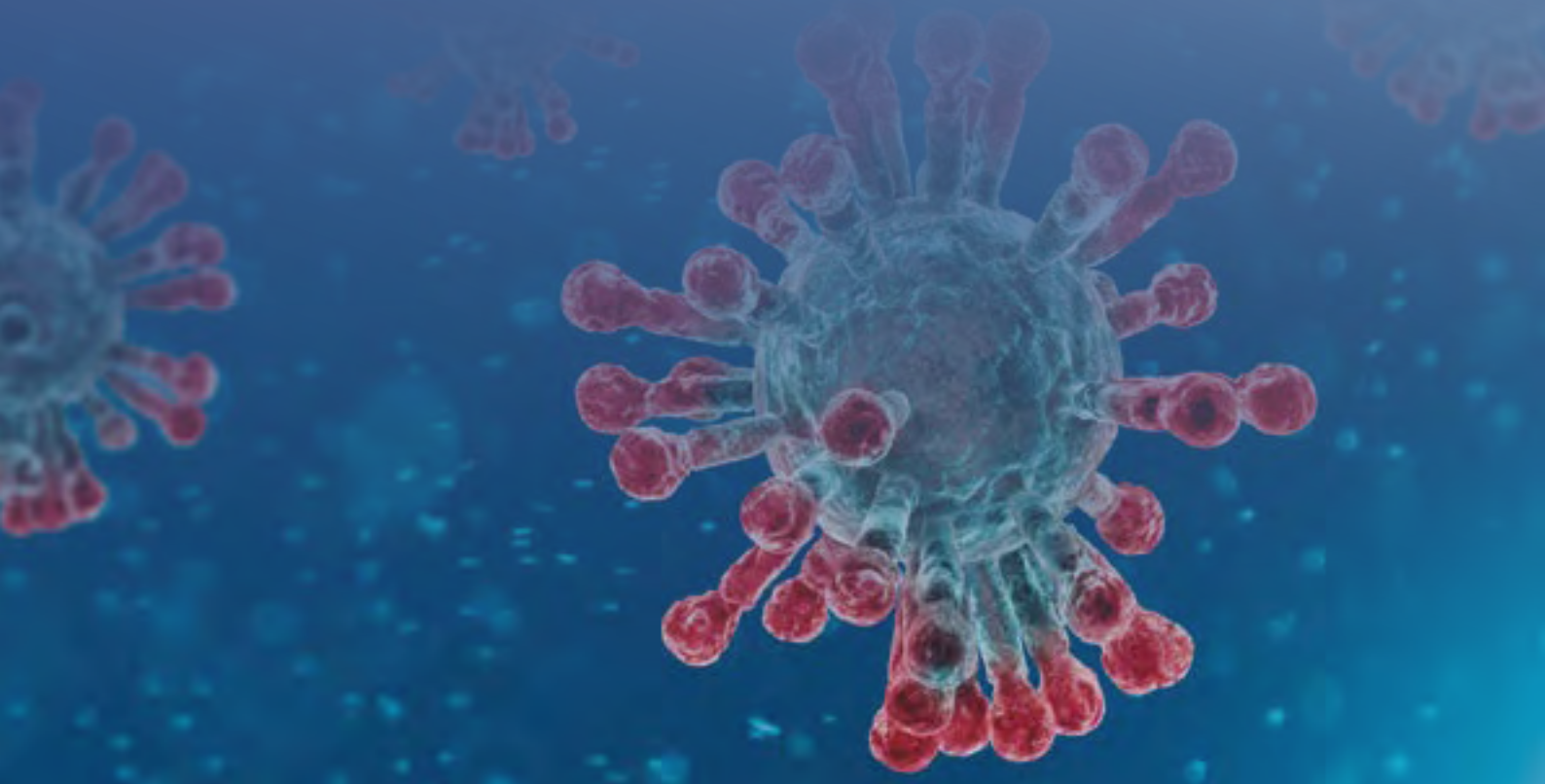

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This Health Impact Assessment is in three parts:

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 (this 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

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Section 1: **Introduction**

The aim of this Health Impact Assessment (HIA) is to improve knowledge and understanding of the wide-ranging impacts on the population in Wales of the Staying at Home and Social Distancing Policy, during a complex and evolving situation. Findings can be used by decision makers to:

- **Identify actions to mitigate negative impacts and enhance positive impacts of the policy;**
- **Inform any continuation of, or adjustments to the policy, including phasing out;**
- **Support preparations for any second or third COVID-19 pandemic waves, where the policy may need to be reintroduced;**
- **Inform future strategies for recovery and renewal.**

The COVID-19 pandemic is a public health emergency that has been described by António Guterres, Secretary-General of the United Nations as the

'greatest test that we have faced together since the formation of the United Nations'

and that

'This human crisis demands coordinated, decisive, inclusive and innovative policy action from the world's leading economies – and maximum financial and technical support for the poorest and most vulnerable people and countries.'

(United Nations, 2020a)

Policies to contain the virus, protect population health, and recover and renew from the pandemic have been varied across the world. These have ranged from 'harder' measures such as implementing strict restrictions on citizens' freedom of movement (China, France) and mandatory 14 day quarantine periods for those arriving in a nation state (New Zealand, Madeira) through to 'softer' policies which have retained more flexible social distancing measures (Sweden) and have involved aggressive testing and contact tracing (South Korea). There is no consistent international approach, with country responses based on the local demographic and geographical context, and ability to respond.

The United Kingdom (UK) and Welsh Governmental response to the rapid spread of causative virus (severe acute respiratory syndrome coronavirus 2, SARS-CoV-2, commonly known as coronavirus) has been to introduce the **Staying at Home and Social Distancing Policy** (Welsh Government, 2020a) - also known as 'lockdown', which has had a profound effect on the everyday lives of all Welsh citizens. Welsh Government's strategy *Unlocking our society and economy: continuing the conversation* (Welsh Government, 2020b) has outlined

the phases by which lockdown measures could be lifted in Wales, as well as stating that measures may need to be re-imposed if transmission of COVID-19 cannot be controlled. Social distancing is at the core of the measures, and is likely to remain until it is considered safe for the population to interact, for example with the introduction of a safe and effective vaccine. As the situation continues to evolve, it has become increasingly clear that both the disease and the policy response are having wide-ranging impacts on the health and well-being of the Welsh population, and that many of these impacts are significant and will extend beyond the short term.

The first confirmed COVID-19 case in Wales was reported on 18th February 2020 and the first confirmed death was reported on 16th March 2020 (Public Health Wales, 2020a). At 22nd June, there were 15,295[1] confirmed cases of COVID-19 and 1,483 suspected COVID-19 deaths in laboratory confirmed cases in Wales (Public Health Wales, 2020a) (out of 306,210 confirmed cases and 42,927 deaths in the whole of the UK[2] (UK Government, 2020a).

Public Health Wales (PHW) has a system leadership role in protecting and improving health and well-being and reducing health inequity. It has a central role in responding to the COVID-19 pandemic, through the provision of vital and important core functions such as health protection and microbiology services. Public Health Wales works closely with Welsh Government, the NHS in Wales, and wider stakeholders to ensure a co-ordinated public health response. To inform Wales' COVID-19 public health response and recovery, Public Health Wales is undertaking international horizon scanning and learning, which involves collating international evidence and experience in relation to transition and recovery approaches. It also undertakes and commissions research into health and well-being matters to strengthen the evidence base, to better inform current and future health policy and action.

HIA … supports organisations to assess the potential consequences of their decisions, policies, plans or proposals on population health and well-being.

A HIA can provide evidence-based insight and information about how a population's health and well-being is (or can be) impacted by such policy responses and / or interventions. HIA is a flexible and systematic process that can identify those population groups who may be particularly affected, and supports organisations to assess the potential consequences of their decisions, policies, plans or proposals on population health and well-being. HIA is currently not statutory in the UK but will become so in Wales as part of the implementation of the Public Health (Wales) Act 2017. This HIA demonstrates Public Health Wales's leadership for HIA and its commitment to carrying out the process as part of the forthcoming HIA statutory duty, and also supports the implementation of the Well-being of Future Generations (Wales) Act 2015 (Legislation.gov.uk, 2020a).

As part of its responsibilities for population health and well-being, the Wales Health Impact Assessment Support Unit (WHIASU) (within the Policy and International Health – WHO Collaborating Centre on Investment for Health and Well-being, in Public Health Wales), has carried out a rapid response HIA of Welsh Government's 'Staying at Home and Social Distancing Policy' (Welsh Government, 2020a) and its implementation. The HIA complements PHW's central health protection role; supports planning for pandemic recovery; and adds value and strategic insight to Public Health Wales' work. The HIA was carried out between 2nd April and 11th May 2020, in tandem with the implementation of the measures, which were still in place at the time of writing. Whilst this HIA was carried out rapidly, it is comprehensive in nature, and sets the scene for future analyses of specific, more defined policy areas.

1 This figure does not include the cumulative number of positive tests (785) from non-NHS Wales laboratories.
2 Data relates to 23rd June 2020, one day later than the Welsh data.

The HIA appraises **evidence** in relation to the Staying at Home and Social Distancing measures, focusing on **impacts across different population groups,** and the potential **positive or negative impacts or unintended negative consequences on the determinants of health and well-being.** It aims to identify the populations more likely to be affected, thus highlighting any potential widening health inequity. The HIA also identifies any actions that could be taken to mitigate negative impacts or enhance positive impacts, and highlights where there is an absence of evidence and further research is needed.

The Staying at Home and Social Distancing Policy can be viewed as an 'umbrella' policy, which has directly led to other policy decisions and actions, such as school closures and the introduction of mitigation policies, such as furloughing of employees and prevention of evictions. Policy impacts will therefore be seen across a breadth of areas including physical, social, mental, environmental, technological and economic well-being.

1.1 Staying at Home and Social Distancing Policy

The Staying at Home and Social Distancing Policy guidance was released on 23rd March 2020 with the aim of reducing the spread of SARS-CoV-2 (coronavirus), and required major changes to the daily lives of the whole population of Wales and the UK (Welsh Government, 2020a).

The measures required people to stay at home except for a small number of defined purposes, and when outside of the home practice social distancing i.e. staying away from another person not from the same household at a distance of at least two metres. The relevant authorities, including the police, were given the powers to enforce the legislation – including through fines and dispersing gatherings.

This policy was revised in Wales on 8th May 2020.

The Coronavirus Legislation

The Coronavirus Act 2020 received Royal Assent on 25th March 2020 (Legislation.gov.uk, 2020b). The Act, together with existing emergency powers contained in the Public Health (Control of Disease) Act 1984 (Legislation.gov.uk, 2020c) (as amended by the Health Protection Act 2008), which apply to both England and Wales, gave the Welsh Government powers to respond to the pandemic in Wales. The Coronavirus Act 2020 conferred new powers on devolved countries in areas such as health and education, for example empowering devolved nations to provide indemnity to medical staff for criminal negligence cases. In order to be able to use its powers under the Coronavirus Act, the Welsh Government first declared a threat to public health as a result of COVID-19 on 29th March 2020.

Using existing powers under the Public Health (Control of Disease) Act 1984, the Welsh Parliament approved The Health Protection (Coronavirus Restrictions) (Wales) Regulations 2020 (Legislation.gov.uk, 2020d), which came into force on 26th March 2020. The regulations:

> gave Welsh Ministers, registered public health officials and police constables the right to detain people infected or contaminated with coronavirus

> required some business premises to close, and required those that were allowed to stay open, such as supermarkets, to put specific measures in place to ensure adequate social distancing

> restricted the movements of individuals so that they were not allowed to leave the place they were living without a 'reasonable excuse'. The regulations included examples of these such as shopping for food, exercising once a day, getting medical help and travelling to work where it was not reasonable and practicable to work from home

> closed places of worship, apart from in limited circumstances such as in relation to funerals

> required Natural Resources Wales, local authorities, National Park Authorities and the National Trust to close public footpaths and access land, where the use of a path or land posed a high risk of spreading coronavirus

The Welsh Parliament also approved other health and well-being related legislation including:

- changes to the rules on Mental Health Tribunals
- changes to social care standards
- changes to abortion treatment
- some aspects of planning restrictions.

The UK Parliament passed regulations in non-devolved areas including:

- changes to statutory sick pay
- changes to claims for Universal Credit and other welfare benefits
- lifting competition rules between supermarkets and suppliers.

Although there has been close coordination in health policy across the UK, with the Chief Medical Officers for each nation working closely to develop a shared evidence base for the four governments, Welsh Government policy has diverged from that in England. Welsh Government policy has included secondary legislation, such as the closure of all caravan parks in Wales to reduce the flow of people to such settings. Under Welsh policy (until 11th May 2020), people were forbidden by law from leaving their home to exercise more than once a day, whereas in England this position was not codified law (BBC Online, 2020a). In Scotland and Wales, companies which were still operating were required to take reasonable steps to ensure employees were two metres apart (ITV, 2020a). No such requirement operated in England and Northern Ireland.

The Welsh Government has previously stated that the lockdown in Wales may remain in place, even if lifted in other parts of the UK (BBC Online, 2020b). The Welsh policy was amended on 11th May 2020, with easing of restrictions in relation to the ability to exercise outdoors more than once a day; allowing garden centres to open where social distancing can be practiced; and permitting local authorities to prepare for the reopening of libraries and municipal waste management facilities. Further policy change on 1st June 2020 meant that people in Wales were able to meet up with members of one other household within their local area, providing they maintained social distancing.

Research from the Severe Acute Respiratory Syndrome (SARS) outbreak in Toronto has highlighted the potential for confusion if there are multiple jurisdictions with differences of approach (DiGiovanni et al., 2004). Clear, consistent communication with the Welsh population will be required, particularly if there is further divergence in policy across the UK, or if there is a need to introduce localised measures within Wales to contain virus transmission.

Section 2: Health Impact Assessment (HIA)

This HIA is:

- comprehensive in nature, although it was carried out rapidly;
- concurrent i.e. it was undertaken as the measures were applied;
- and evidence-based.

This rapid response HIA was carried out between 2nd April and 11th May 2020 and followed the methodology published in the Wales guidance entitled *Health Impact Assessment (HIA): A Practical Guide* (WHIASU, 2012). It followed the process outlined in Box 1.

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.
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?

A full outline of the methodology is included in the Supplementary Information Report (see Section 1).

2.1 Evidence

The Welsh approach to HIA advocates a mixed methodological approach which includes both quantitative and qualitative evidence. Evidence for this HIA was collated through:

- A rapid literature search of peer-reviewed evidence, carried out using Ovid (HMIC, Medline, Psycinfo) and Google Scholar. Of note, some recent literature has been published prior to being peer-reviewed. The Supplementary Information Report provides further information on the search terms used.
- A rapid review of grey literature, including governmental policy.
- Interviews with key Welsh stakeholders from different sectors. The Supplementary Information Report provides further information on the methodology used. A list of stakeholder organisations / those interviewed can be found in the Acknowledgements.
- Identifying relevant data, statistics and health intelligence, including Public Health Wales' *Public Engagement Survey on Health and Well-being during Coronavirus Measures* (Public Health Wales, 2020b).

- A collation of evidence from stakeholder organisations and experts through a variety of channels such as organisational webpages and media channels, including media platforms such as Twitter, reputable news outlets such as BBC News and opinion pieces. This information was used to provide contextual evidence for the HIA.

In terms of weighting the evidence, academic research articles identified through the rapid literature review formed the basis of the HIA. This was underpinned by Welsh data and health intelligence, which was used to identify the relevance and potential impacts on the Welsh population and more specifically, the population groups and determinants of health and well-being. Technical reports, data and statistics, and evidence from grey literature and organisational stakeholders was given lesser weighting and were mainly used to provide contextual information.

Evidence from stakeholder interviews and the HIA screening session was also used to highlight issues and impacts that key agencies in Wales believed were important for population health and well-being; this was used to provide key contextual knowledge and evidence.

Where there were gaps in the published research literature for any of the determinants of health and well-being or population groups considered, contextual knowledge and stakeholder perspectives, alongside data, health intelligence and grey literature were used to assess the nature of the impact.

The evidence was triangulated, synthesised and analysed to produce an overall assessment of type, likelihood, severity and timescale of impact.

2.2 Literature review overview

The full findings of the literature review can be found in the Supplementary Information Report (see Section 3). The main findings have been included in Section 3: Assessment Findings of this report to allow all the available evidence to be included in the analysis and for conclusions to be drawn regarding the potential impacts.

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

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 was 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 and the evidence is rapidly evolving and growing. Some of this evidence has been published prior to the peer review process, due to the urgent need to disseminate evidence and knowledge.

The gaps in the academic research literature are highlighted in Section 4.4: Evidence gaps and future research.

2.3 Key stakeholder interviews – an overview

Thirteen interviews were carried out with representatives of nine stakeholder organisations; four organisations provided written submissions. Participating organisations were from the public and third sector, and included two Non Governmental Organisations (NGOs) and two umbrella organisations. These organisations provide a range of services to people and communities across Wales.

Participants were able to provide good insights (either directly or through their networks) into how the Staying at Home and Social Distancing Policy had impacted the lives of people in Wales. Although some of the evidence was anecdotal, it was useful in building a picture of what was happening 'on the ground' and providing a better understanding of the links between different population groups and emerging issues.

Note on Referencing
In the text, any evidence from interviews carried out for the HIA is referred to as "INT", with the number of the relevant interview i.e. INT6.

The majority of interviewees said they, or their organisations, had developed specific plans to address the COVID-19 pandemic or had adapted their existing plans to focus their response specifically to COVID-19. These plans had been developed and implemented rapidly. Most organisations had initially looked to support the immediate needs of their client base, such as providing online advice (instead of face-to-face), or developing support services and interventions for specific groups, either independently or in partnership with other organisations. Stakeholders were looking at developing plans for how they would adapt and operate once the national response moved to the next phase i.e. from 'Staying at home' to 'Test Trace Protect' (INTs 1, 3, 4, 5, 8, 10, 12, 13) and to address the 'new normal'.

Although stakeholder organisations identified a range of key issues, **mental health and well-being was a concern raised by all participants**. Concerns were highlighted regarding those individuals with pre-existing conditions that could be exacerbated, as well as population groups more likely to experience poor mental health as a result of the pandemic. Other key issues were around '**safety nets**' such as schools, social service provision and health appointments and checks that had been severely disrupted or were no longer available. However, some **good practice** had been noted, for example around support for children and young people (INTs 8, 10, 12, 13).

Stakeholders also raised concerns about populations that fell '**below the radar**' including 'known populations' such as homeless people and refugees and asylum seekers, but also 'unknown populations' such as those who had become unemployed as a result of the pandemic and were accessing the benefits system for the first time. Many of these population groups were unaware of what support was available to them and may consequently have suffered increased hardship as well as associated mental health and well-being effects. Although many stakeholders acknowledged some of the benefits of increased use of **technology**, they were also concerned that most of the information relating to COVID-19 was only available online and that whilst most information was provided in English and Welsh, there was little available in other languages or formats. This excluded populations including older people, rural and poorer communities and populations whose first language is not English or Welsh.

Full findings from stakeholder interviews have been considered as part of the Assessment Findings.

2.4 Community Health Profile

A full community health profile using health intelligence and other data was constructed and used within the assessment. The full profile is contained in the Supplementary Information report, Section 2.

Section 3: **Assessment Findings: By Policy Area and Services**

The assessment focuses on the major impacts on the Welsh population of the Staying at Home and Social Distancing Policy. This section examines and summarises the impacts on different policy areas and population groups identified as being most affected by the Staying at Home and Social Distancing Policy, utilising evidence from a range of sources.

The policy has had an impact on, and implications for, the **whole population** of Wales.

This has been both positive, for example in reducing the rate of virus transmission, and negative, for example in increasing social isolation. There have been wide-ranging impacts on a number of specific population groups and some have been disproportionately negatively affected.

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)**

A summary of the impacts are available in the Executive Summary (Key Findings and Table 1) and this report (see Section 4 and Table 1 on page 69).

3.1 Health and Social Care

3.1.1 Compliance with Legislation

Major confirmed positive short-term impact

To date, the Staying at Home Policy appears to have achieved a high level of compliance and resulted in population behaviour change. This has reduced the transmission of COVID-19, and therefore its direct impact on morbidity and mortality, protecting those in high-risk groups. The policy has helped ensure that the capacity of the National Health Service (NHS) of Wales has not been overwhelmed, thereby protecting staff and patients. To date, the policy and measures also appear acceptable to the majority of the population - a key driver for ensuring compliance (along with enforcement) - and therefore optimising the effectiveness of the policy.

Research from the SARS outbreak in Toronto has highlighted the potential for confusion if there are multiple jurisdictions with differences of approach (DiGiovanni et al., 2004). This could have implications for Wales as COVID-19 policies across the UK diverge, or if there is a need to introduce localised measures within Wales to contain virus transmission.

3.1.2 Mental Well-being

- **Major confirmed negative short to long-term impact particularly in relation to service delivery and support; children and young people, older people, key workers, those on low incomes and at risk of unemployment and those who have existing poor mental health.**

Population profile

In 2018, 75% of individuals surveyed reported a high sense of happiness (Public Health Wales, 2020c). Although the rates of people reporting high life satisfaction, feeling that life is worthwhile and happiness 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 levels of positive well-being, compared with those who are unemployed or 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 (Public Health Wales, 2020c). Individuals aged 16 and over who are limited a lot by disability, had a lower age-standardised average score for mental well-being than those not limited by disability (Public Health Wales Observatory, 2019).

Mental and substance use disorders is the second main cause of years lived with disability (YLD) (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 the most deprived areas in Wales (13%) compared with those in the least deprived areas (6%) (StatsWales, 2019a). Individuals aged 16-44 report higher rates of mental disorders than those aged 45-64 or 65 years and over (StatsWales, 2019b).

Much of the literature on quarantine, social distancing and infectious disease outbreaks has related to individual mental health and psychosocial impacts rather than considering wider mental well-being and resilience as described by Cooke et al (Cooke et al, 2011).

One report (Brooks et al., 2020) found that the impact of being under restrictive measures presented as symptoms such as stress, confusion and anger. Stressors included longer quarantine duration (greater than 10 days), infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma. Some researchers have suggested long-lasting effects from these.

Those who were most at risk of the mental health and psychological impact of quarantine included for example, women and particularly those women with children, those with existing mental health conditions, those on low incomes and healthcare workers. A recent publication (Gurney, 2020) on the impacts of quarantine and isolation in previous epidemics in relation to housing, found a wide range of substantial and long-term negative psychological effects,

including post-traumatic stress symptoms, emotional disturbance, depression, insomnia and feelings of confusion, anger, frustration, boredom, anxiety, isolation and loneliness, to which people with pre-existing mental health conditions were at greater risk. The social isolation of being alone or unable to be with people face-to-face under restrictive measures has been found to have a significant negative impact on physical and mental well-being particularly for older people and children (Leigh-Hunt et al., 2017).

The social isolation of being alone or unable to be with people face-to-face … has been found to have a significant negative impact on physical and mental well-being particularly for older people and children.

For Wales, the evidence points to potential negative impacts across both society and individual mental health and well-being, although there are some positive implications for some groups. Public Health Wales' *Public Engagement Survey on Health and Well-being during Coronavirus Measures* (Public Health Wales, 2020b) reported that 45% of Welsh people surveyed did not worry at all about their mental health under the current restrictions, 35% worried a little, whilst 19% (a fifth of respondents) had been 'worrying a lot'. 20% were worried about losing their job and 65% were worried about their children's well-being. On a scale of 0-10 (where 0 = not at all anxious to 10 = extremely anxious) 20% said that they rated 7-10 on the scale. A similar study carried out by the University College London (2020a) reported that since the implementation of the Staying at Home Policy, self-reported compliance with guidelines was very high, depression had slightly increased, but anxiety and some stressors had slightly decreased (University College London, 2020b). Over 44% of respondents reported that they were worried about getting COVID-19 themselves or that their friends and family might become infected (University College London, 2020c). However, in Wales, Public Health Wales' *Public Engagement Survey* for week 3 reported that 56% were 'moderately' or 'very worried' about getting COVID-19[3]; subsequent PHW survey findings have remained unchanged.

Interviewees identified that mental well-being and the long-term implications of the restrictions were a major concern, as well as the immediate impact that was being felt by the population. Many existing mental health services were diminished as health and social care services were redeployed and mobilised to support the acute response (INTs 4, 5, 8). It was noted by many that those with existing mental health issues were experiencing the restrictions with much more difficulty and acuteness than the general population, with exacerbations and deepening of mental ill health problems (INTs 4, 5, 10). Interviewees also reported that even prior to COVID-19, mental health issues were highlighted repeatedly as the key issue for both employers and employees and that this was likely to be majorly and negatively impacted upon during, and following, the pandemic and the Staying at Home Policy. It was also highlighted that fear and anxiety levels could be high from the uncertainty around the timeframe of the restrictions. The resilience of unpaid carers and shielded groups could also be an issue as the duration of the restrictions was further extended (INT 8).

As many communities have continued to mobilise to form supportive social and community networks, this has promoted both participation in daily life but also provided a sense of control and resilience in an unprecedented situation with an uncertain timeframe. This participation through volunteering or supporting neighbours and other vulnerable groups may be positive, although many have been coming to terms with the loss of their own previous daily routines, ability to go out and work or socialise and the uncertainty around how and when the restrictions would be eased.

3 Week 3 statistics.

3.1.3 Diet and Physical Activity

- **Minimal possible positive short to long-term impact dependent on future policy shifts and continued support for active travel and the promotion of behaviour change.**

Population profile

In Wales, over a quarter of children and almost 60% of adults are overweight or obese (Public Health Wales, 2019).

Data from the National Survey for Wales 2018-19 showed that only 24% of respondents, aged 16 and over, consumed five portions of fruit or vegetables (the guideline amount) in the previous day, demonstrating no significant change from the percentages reported in the previous two years' surveys (Welsh Government, 2019a).

In 2018-19 the number of adults reporting eating the recommended five or more portions of fruit and vegetables a day was lowest for those aged 75 and over (Welsh Government, 2019b).

There is a lower proportion 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 adequate physical activity (Welsh Government, 2019a) with a 17% gap between those taking activity in the least and most deprived areas of Wales (Clifton, 2019).

Initially, the policy included provisions for the population to take physical activity once a day outside of the home and key workers could take active travel to places of employment. Some parks (but not playgrounds) have stayed open, although many have remained closed, along with some country parks. From 8th May 2020, the restrictions were changed to allow people to undertake exercise outdoors more than once a day, although there was still a requirement to not travel a significant distance from home. This provided an opportunity for people to remain physically active, thereby promoting mental well-being.

The introduction of the policy led to the immediate closure of many fast food outlets and takeaways, although many reopened for delivery services across Wales, including local fast food takeaways and larger businesses with drive-through facilities (Costa Coffee, 2020; KFC, 2020).

In terms of evidence in relation to physical activity, diet and nutrition, there is an absence of peer-reviewed academic literature about the effects of quarantine and social distancing on people's behaviour.

Several surveys have been carried out whilst the Staying at Home Policy has been applied. A rolling health and well-being survey carried out by Public Health Wales[4] identified that 38%

4 Week 3 statistics.

were snacking more (crisps / biscuits / cake) (Public Health Wales, 2020b). In terms of physical activity of 30 minutes or more, 23% reported that they took no exercise in the previous 7 days, 49% reported doing so on 1-4 days, and 37% on 5 or more days. 28% of respondents stated that they were taking less physical exercise than before the restrictions were implemented, 46% stated it was the same and 22% responded that it was more than previously. A UK wide survey (Kings College et al., 2020) in relation to the impact of COVID-19 and the restrictions found that there were:

- 6% more people trying takeaway / delivery services
- 14% more people planning meals for the week
- 3% more people growing food
- 42% more people valuing food
- 38% more people cooking from scratch
- 17% more people eating less fruit and vegetables
- 16% more people eating more fruit and vegetables

More meals have been taken in the home and this has had an impact on buying behaviours such as food stockpiling; food industry research (BBC Online, 2020c) indicated that food purchasing behaviours have regressed 10 to 15 years with families undertaking weekly shops and eating less whilst 'on the go' (INT 8). The restrictions have also driven the population to shop more locally and this could have a positive or negative impact on local businesses and future local procurement policies (INTs 7, 11). Whilst some of the changes in behaviours have been relatively small, if they are sustained they could incrementally result in positive or detrimental population health and well-being impacts.

Whilst some of the changes in behaviours have been relatively small, if they are sustained they could incrementally result in positive or detrimental population health and well-being impacts.

The Welsh Government has ensured that for those children who are eligible for free school meals (FSMs), there are alternative mechanisms by which they can still access food. Several interviewees expressed concern for pupils who were usually eligible for FSMs, and for those whose circumstances had changes so that they were newly eligible for FSMs (for example due to a change in parental employment status); concerns were in relation to food insecurity (particularly access), take-up and nutritional quality of FSM replacements for example, food parcels, food vouchers, and Bacs payments. In terms of food parcels, there was greatest concern around take-up of this, and some concern around nutritional content. For example, it was noted that the food may not have been appropriate for those with allergies and food intolerances, or with specific cultural needs (religious, vegetarian or vegan). In terms of food vouchers and Bacs payments, there was concern around the nutritional content of the food being bought and whether funds were being spent entirely on food. In terms of those whose circumstances now meant they should be eligible for FSMs, there was considerable worry about whether claims were being made and processed efficiently and what provision was available in the meantime (INT 8).

3.1.4 Alcohol and tobacco consumption, gambling

Minimal possible positive or negative short-term impact

Population profile

Data on lifestyle behaviours obtained from the National Survey for Wales 2018-19 shows 17% of adults reported currently smoking and 18% reported drinking more than the weekly guideline amount (average weekly alcohol consumption over 14 units) (Welsh Government, 2019a).

Off-licences were added to the government's list of essential UK retailers and as a result have been allowed to stay open during the pandemic (Public Health England, 2020a), with restrictions for licensing and operation eased. However, this could have a potential future negative impact on population health if the previous non-essential classification is not restored once the pandemic response has passed.

The World Health Organization (WHO) published a report, which highlighted that during the COVID-19 pandemic, movement restrictions could potentially increase alcohol consumption and therefore exacerbate health vulnerability, risk-taking behaviours, mental health issues and violence (World Health Organization, 2020a). The report identified that potential later impacts included alcoholism and addiction. No literature was identified examining the impact of quarantine and social distancing on smoking behaviour.

Public Health Wales *Public Engagement Survey on Health and Well-being during Coronavirus Measures* data (Public Health Wales, 2020b) has also provided a snapshot of the populations' behaviour during the implementation of the restrictions in Wales. Of those surveyed, 27% stated that they were drinking more alcohol than the week before[5].

Gambling was highlighted in a number of interviews as being of concern, with the potential for negative health and well-being impacts. It was identified that parents (and children) may do more online gambling or use games with in-game purchases (INT 1). However, there was no available academic literature evidence in relation to the impact of movement restrictions on gambling behaviours.

3.1.5 Sexual health

Minimal possible negative short term impact in relation to curtailment of services

Minimal possible positive long term impact for health improvement and protection messages dependent on policy drivers

In terms of other behaviours that affect health, many sexual health services have been reduced; one survey identified that 54% of services have been closed (British Association for Sexual Health and HIV, 2020). However, the President of the British Association for Sexual Health and HIV has stated that the restrictions could present an opportunity to reduce Sexually Transmitted Infection (STI) transmission across the population by limiting activity between partners (BBC Online, 2020d).

5 Week 3 compared to week 2.

3.1.6 Health, Well-being and Social Care services

- **Major confirmed negative short to long term impact on health care services as many operations and appointments were cancelled or suspended; impact on Health and Social Care staff in terms of mental well-being impacts**
- **Major confirmed positive short to long-term impact in the resilience of health and social care sector to adapt to deliver services via different mechanisms, remotely and effectively**
- **Major confirmed opportunity for long-term policy change in the redesign and reconfiguration of services**

Population profile

The Office for National Statistics annual population survey undertaken in 2019 (Office for National Statistics, no date), 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, no date).

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, 2019c).

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

A positive impact of the Staying at Home Policy has been the ability to protect the capacity of the NHS and Social Care systems in Wales and their workforces.

... many services which have remained open and operational have seen a fall in utilisation ...

Whilst the restrictions have been in place, it has been noticeable that many services which have remained open and operational have seen a fall in utilisation compared to before the pandemic. For example, the number of visits to Emergency Departments (ED) in Wales has fallen significantly; attendances reduced from 76,912 in January 2020 to 57,603 in March 2020 (StatsWales, 2020a). The number of ED attendances in March 2020 was significantly lower than the number of attendances reported in the same month of 2019 (87,374) (StatsWales, 2020a). The decrease could be attributed to a number of factors, such as fear of using services due to the risk of contracting COVID-19.

In Wales, it has been reported that since 1st March 2020, the average number of calls to NHS Direct and 111 for all conditions, has been higher than the same period in 2019/20 (Public Health Wales, 2020a). In England, the demand for the NHS App grew rapidly in March 2020 with the number of registrations to use the App increasing by 111%; the number of repeat prescription requests made via the app has increased by 97% and the number of patient record views has risen by 62%. The number of visits to the NHS website has also increased dramatically. On 17th March 2020, visits peaked at 3.4 million, the highest daily total ever (NHS Digital, 2020a).

It has been reported that General Practitioners are seeing just seven in every 100 patients face-to-face because of COVID-19 (BBC Online, 2020e). This change in behaviour demonstrates that a rapid shift to tele-health is possible.

A potential negative impact of this is that many may not have access to smartphones or a computer and therefore would be excluded from accessing services during the restrictions. A report published in British Gerontology (British Society of Gerontology, 2020) highlighted that whilst for some older people digital connection made access to information easier, many relied on others to provide this information if they did not have digital access themselves. Therefore, whilst technology during the restrictions has facilitated access to healthcare services, this has not been the case for some populations, such as the elderly who may not have sufficient health or digital literacy to understand health information or who do not have the skills to utilise different digital platforms such as Skype or Zoom.

Interviewees identified opportunities to embed and utilise these new ways of working as a platform to future proof and protect NHS capacity and the workforce, once restrictions were removed (INTs 4, 8). There was concern about negative impacts, as many 'non-essential' healthcare interventions (such as elective surgery and mental health services), and those interventions that increased an individual's vulnerability to COVID-19 (such as cancer treatments) were suspended (INTs 4, 5).

Some individuals with long-term conditions were not accessing or attending key appointments out of fear of exposure to and increased risk from the virus (INT 4). Issues raised by stakeholders included those around availability of Personal Protective Equipment (PPE) and virus testing, and healthcare services capacity (INTs 4, 10). It was also noted that there was good work taking place communicating messages from Public Health Wales to stakeholders and the public, including addressing issues around fake news on social media and producing guidance with Cardiff University for journalists (INT 4).

3.1.7 Screening services, vaccinations and services for women and children

Minimal possible negative short-term impact in respect to service provision

Screening services and vaccinations have been suspended in Wales until it is deemed 'safe to do so' (BBC online, 2020f). Many of these services directly affect women, babies, children and young people, for example cervical and breast cancer screening and childhood vaccinations.

Changes to service provision in relation to women, those about to become a parent(s) and babies, children and young people was noted in several interviews (INTs 4, 8, 11, 13). This included reduced willingness to access antenatal care, late presentation of sick children in primary and secondary care, and missed immunisation appointments within the routine childhood immunisations schedule. Many antenatal and preschool groups have also been closed (INTs 11, 13). Interviewees also noted that the move to providing care virtually,

particularly with some services like health visiting could impact the quality and effectiveness of contacts (INT 13). There were fewer contacts with health visitors for many families within the revised Healthy Child Wales Programme and it was less likely that families would have access to a named health visitor (INT 13). However, it was stated that services were risk assessing these contacts and would provide face-to-face appointments where there was a compelling need to do so (INTs 11, 13).

It was highlighted that the implications of the reduced provision of community public health services such as health visiting and immunisation may not be fully understood for some time (INT 13).

3.1.8 Those with poor mental health

- **Major / moderate probable negative short to long-term impact in relation to policy change, service reconfiguration / reduction and exacerbating existing conditions**
- **Minimal possible positive or negative short to long-term impact in relation to future service support and reconfiguration and policy**

Several published research reports have recognised the impact that quarantine and social isolation can have in exacerbating existing mental health and well-being conditions (Brooks et al., 2020; Lunn et al., 2020; Gurney, 2020). A recent publication (Kim and Su, 2020) noted that quarantine and isolation could have an accelerating detrimental impact on those with mental health problems, who also tend to have increased prevalence of health harming behaviours, poor health literacy and who may neglect infection prevention measures. It reported that over 50% of those infected with SARS or Middle East Respiratory Syndrome (MERS) experienced mental well-being distress and that anxiety, depression, guilt, stigma, anger and other emotional problems may compromise immunity and recovery (Kim and Su, 2020).

Wales has been the only UK nation to date to have commenced regulations in the Coronavirus Act (Clifton, 2020) relating to mental health.

Wales has been the only UK nation to date to have commenced regulations in the Coronavirus Act relating to mental health (Clifton, 2020). The regulations have meant that the Mental Health Review Tribunal for Wales has no longer had to comply with certain requirements such as having at least three members to constitute a tribunal, or in specified circumstances, cases may have been determined without a hearing where this was impractical, or where it was detrimental to the health of the patient. Mental health charities, such as Mind and Rethink Mental Illness, have expressed concerns about how other changes to powers under the Mental Health Act could impact on the rights and safety of people detained in hospital for mental health treatment, or that individuals could be released early without the appropriate medical treatment or support because of pressures on the workforce or wider NHS capacity (Clifton, 2020).

Interviewees noted the negative implications of the restrictions on those with diagnosed mental health conditions, and the potential for an increased incidence of suicide. Many interviewees identified the important impact that the restrictions could have in relation to mental health and well-being in the future. This could be in a range of areas such as mental health crises, obesity (especially among children related to lack of exercise), lack of access to fresh and good quality food due to a rise in poverty, a rise in alcohol abuse / dependence and exacerbations of pre-existing and new onset ill-health as people have avoided or have been unable to access treatment (INTs 4, 5, 8).

3.1.9 High risk groups

i.e. those with long-term health conditions such as respiratory diseases; diabetes, cardiovascular disease, conditions affecting immune response including those being treated for cancer.

Moderate possible positive or negative short-term impact for those with respiratory conditions (housing / environment dependent)

Moderate / minimal probable negative short-term impacts on those who need to access services or treatment for existing conditions which may have been postponed / delayed

Population profile

In 2018/19 there were 229,475 patients with asthma and 76,319 patients with chronic obstructive pulmonary disease (COPD) on the Quality and Outcomes Framework (QOF) disease registers in Wales (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 2019, the rate of cancer diagnosis in Wales was 611.9 incidences per 100,000 people (StatsWales, 2019e). In 2018-19 there were 100,805 patients recorded on the cancer register in Wales (StatsWales, 2019d).

In 2019 there was an estimated 340,000 people in Wales with heart and circulatory diseases (British Heart Foundation Cymru, 2019).

National Survey for Wales 2018-19 data shows that 13% of adults aged 16 and over reported having heart and circulatory illness and 7% reported having endocrine and metabolic diseases (StatsWales, 2019f).

In 2018-19 there were 198,883 patients aged 17 and over recorded as being diagnosed with diabetes mellitus in Wales (StatsWales, 2019d).

The Staying at Home and Social Distancing Policy has aimed to protect those with pre-existing long-term conditions such as respiratory disease, diabetes, cardiovascular disease or an impaired immune system, from an increased morbidity and mortality risk due to COVID-19. No published research has been identified on the impact of such a policy or quarantine on those with pre-existing health conditions, except for those with mental health conditions.

Whilst COVID-19 has posed a high risk for those with respiratory conditions, the improvement in air quality as a result of restrictions on travel, and the economic shutdown in Wales has had a positive impact on air quality in some geographical areas. There have been reports of a decrease in the number of GP consultations for asthma (Public Health Wales, 2020a), although this may have reflected a wider trend in patients being less willing to seek or less able to obtain medical help more generally.

Results from an Asthma UK survey and a British Lung Foundation survey, both undertaken at the start of April 2020, showed individuals were anxious about coronavirus. 87.9% of 656 individuals surveyed in Wales with respiratory conditions had anxiety levels of between 6 and 10 (where 10 equated to extremely anxious and 0 equated to not at all anxious) compared with the general population of Great Britain, where 46.9% reported anxiety levels between 6 and 10 (The Asthma UK and British Lung Foundation Partnership, 2020).

3.2 Business and Economy

3.2.1 Economic factors

- **Major confirmed negative short to long-term impact in relation to economic output and the impact on those sectors closed down**
- **Major confirmed positive short-term impact in relation to governmental economic support for the population and the economy**
- **Moderate possible long term positive / opportunity to review economic policy drivers in Wales**

Evidence from the literature has shown that economic downturns and crises significantly affect the determinants of health such as income, employment and living standards. However, predicting health outcomes is complex and difficult. The strongest evidence has been in relation to negative impacts on mental health (WHO, 2011). Evidence regarding previous economic crises has highlighted that policy interventions can be effective in reducing or mitigating the impacts on mental health and well-being (WHO, 2011). A report by Elliott et al (no date) on the impact of the 2008 economic downturn on health in Wales made the distinction between an economic recession, which may be over a relatively short period of time, and the longer term ramifications of recession or economic depression, which may have negative effects on specific population groups and communities over a much longer timeframe.

More recently, *The Public Health Implications of Brexit in Wales* (Green et al., 2019) explored how economic recession, downturn or new trade agreements could impact the Welsh economy and population. This highlighted that populations that were vulnerable were those that rely on one employer, geographic areas of deprivation, those on low incomes, farmers and farming communities and young people.

From previous infectious disease outbreaks, there has been limited evidence regarding direct economic impacts of quarantine measures, possibly due to previous quarantines being for a limited group of people over shorter periods of time. Economic impacts have mainly been seen as a result of the disease itself. The WHO (2020b) has identified economic impacts of COVID-19 (although these are not specific to Staying at Home policies) including: rising unemployment; an increase in poverty risk and working poor; firm closures; and widening economic and health gaps between geographical areas. The European Commission (2020) has estimated that COVID-19 would reduce

global trade by 9.7% in 2020. The global economy could shrink by 4% (more than $6 trillion), although this has assumed that recovery will start by the last 2 quarters of 2020 (Bosley, 2020).

At a UK level, 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 be higher. In their report, they also highlighted 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. The subsequent impacts include reduced incomes and spending, reduced tax revenues and job losses. Unemployment could increase to a level where there are an additional 2 million people out of work (10% unemployment rate) (Office for Budget Responsibility, 2020). The Bank of England has warned that the UK could see economic output drop by up to 30% in the first six months of 2020 as a result of the pandemic and restrictions (Bank of England, 2020).

It has been reported that 20% of small businesses could cease trading permanently during the restrictions due to the collapse in consumer demand, even though there has been unprecedented government intervention to support employers and jobs. This would have a major negative impact for Wales, as the country is highly exposed in this respect with high levels of micro and small businesses operating (Welsh Government, 2019d).

The Staying at Home Policy has had an accelerated direct negative impact on sectors such as tourism in Wales and led to a resulting negative impact on the economic circumstances and incomes of many population groups.

Crawford et al (2020) have highlighted that even once social distancing measures are lifted, the health impacts of an economic downturn will continue to be felt for a long time.

The impact of the Staying at Home Policy needs to be seen in the context of the UK's withdrawal from the European Union (commonly known as 'Brexit'). Any future negotiated Free Trade Agreements (FTAs) with the European Union or the United States of America (USA) will also have an important impact on health and well-being, positively or negatively, and provide opportunities and risks for the Welsh economy. When considered in the context of the current restrictions and the subsequent long-term impacts on the economy and society, these FTAs will become more important than ever to all negotiating parties.

Interviewees have provided a range of insights on the impact of the pandemic on the economy. The pandemic and the Staying at Home Policy has exposed risks associated with over-dependence on international supply chains. It has been suggested that an increased focus on more localised production of some strategically important products could create local job opportunities (INT 10). The pandemic could provide an opportunity to invigorate tourism in Wales towards more eco-sustainable tourism.

The future retail economy in Wales may radically change, as the impact of the Staying at Home Policy further shifts purchasing habits away from high streets to more online shopping. Dramatically reduced demand for food suppliers to school catering services has disrupted food chains and could lead to local food manufacturers and suppliers ceasing to be viable businesses. Once restrictions are relaxed and schools reopen, these local food manufacturers and suppliers may not be able to meet demand again (INT 12).

The effects have been wide ranging on the finances of the working population, and whilst some individuals have saved more (less purchases, no holidays, less costs for commuting) some have struggled to make ends meet and have faced financial hardship. Many individuals in Wales had no financial resilience pre-COVID-19 - there are an estimated 250,000 people in Wales who have

applied for welfare benefits who have not done so before. For one organisational stakeholder interviewed, 50% of those seeking advice were asking about welfare benefits and legal advice, with one in four service users having experienced a drop in their income since the restrictions were implemented. Seven percent had experienced a drop in income of 80% or more (INT 3).

It must be noted that the Staying at Home Policy has had a positive impact in protecting the workforce from the direct health impacts of COVID-19. A healthy workforce is required to drive economic development and output and enable a prosperous Wales for future generations. The recovery and renewal period will have to carefully balance both protecting health and minimising the impact of any economic downturn or recession and the long-term vulnerable and mental well-being impacts that low incomes, poor working conditions, unemployment and poverty can have.

3.2.2 Employment

- **Major confirmed negative short-term impact for some sectors and workers but a confirmed positive for others such as supermarket and food retailers**
- **Moderate possible positive or negative long-term impact dependent on economic recovery and renewal and governmental drivers**

Population profile

In Wales, the total number of individuals employed in all occupations is 1,462,000 (53% male, 47% female) (StatsWales, 2020b).

The sector with the largest number of total jobs is public administration, defence, education and health, which forms 30% of workplace employment (434,900 jobs) (StatsWales, 2019c). The second largest sector, employing 24% of the workforce (347,600 jobs) is within the areas of wholesale, retail, transport, hotels and food (StatsWales, 2019c).

The largest employer in Wales is the NHS, employing more than 90,000 people (in almost 80,000 FTE posts) (Welsh Government, 2019c).

10.4% of those in employment (152,100 individuals) work within caring, leisure and other service occupations. 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, no date).

175,100 people are in skilled trades occupations (which include electricians, and construction and building trades), of which 89% (156,100) are male and 11% (19,000) female (StatsWales, 2020b). 97,200 people are employed in jobs within the process, plant and machine operatives category (which includes bus and train drivers), of which 90% (87,000) are male and 10% (10,200) female (StatsWales, 2020b).

In Wales, in November 2019, there were 120,648 households claiming Universal Credit, and of these 93% were receiving a payment (Department for Work & Pensions, 2019). The majority of individuals on Universal Credit in England, Scotland and Wales are female (56%) (Department for Work & Pensions, 2020).

A recent WHO report on Health Equity (World Health Organization, 2019) has identified income, social protection, employment and working conditions as critical conditions which promote health inequity across Europe. There is considerable evidence relating to the impact of economic downturns on employment, health and well-being. Elliott et al (no date) identified that following an economic downturn, those of lower socio-economic status were at more risk of losing their jobs than those of higher socio-economic status. Men were more likely to become unemployed. The link between the wider impacts of mass unemployment events on health was recently explored in the Public Health Wales report *Mass Unemployment Events (MUEs) – Prevention and Response from a Public Health Perspective* (Davies et al., 2017).

… those of lower socio-economic status were at more risk of losing their jobs than those of higher socio-economic status …

There has been very limited academic literature published on the direct impact of quarantine and social distancing on employment. Two previous studies identified that social distancing measures would have greater economic consequences for those who worked part time, were self-employed, in low paid jobs, or were in insecure employment (William et al., 2020; Selgelid, 2009). At an individual level, compensation schemes may help to address any financial consequences of social distancing, as well as helping to promote compliance, address lack of trust in government and promote justice (Selgelid, 2009; Ly et al., 2007). Research on public compliance with quarantine during SARS in Toronto found that fear of loss of income was of paramount importance, and especially so for those who were unconvinced that quarantine was necessary (DiGiovanni et al., 2004). A recent analysis by Kadel 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 and following this trend, the proportion of working age people in Wales with a longstanding illness is expected to increase from 46.4% to a peak of 56.1% over the same timeframe.

Recent evidence has shown 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 25's 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) (Joyce and Xu, 2020).

According to the Business Impact of Coronavirus (COVID-19) Survey, of the 6,150 businesses that responded that were still trading or had temporarily paused trading between 23rd March and 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). This has had a negative impact for both business and employees. Many employees have had to wait for payment after being furloughed, resulting in increased financial stress and anxiety.

Most instances of furloughing in businesses that have continued to trade have been in the accommodation and food service industry (40%) and construction industries (32%) (Office for National Statistics, 2020a). In Public Health Wales' *Public Engagement Survey on Health and Well-being during Coronavirus Measures*, 24% of respondents stated[6] that they or a household member had been furloughed, 12% of respondents stated that they or a household member had experienced reduced income or reduced hours, and 11% stated that the Staying at Home Policy had financially impacted on their household (Public Health Wales, 2020b).

6 Week 3 reporting.

3.2.3 Working conditions and practices and the Welsh workforce

Moderate confirmed positive or negative short-term impact dependent on the sector, level of exposure to the virus, enforcement of legislation to protect the workforce, nature of the employment, and availability of PPE

In relation to the impact of a pandemic on working conditions and the working environment, most of the evidence identified was in relation to healthcare workers, with impacts including stress and anxiety from working in close contact with individuals with the infectious disease (McMahon et al., 2016).

Although the Staying at Home Policy has ensured that many workers have remained at home and have been protected from contracting COVID-19, the policy has forced many businesses and workplaces to close, furlough employees or comply with strict social distancing rules. Positively, Welsh Government has published guidance (Welsh Government. 2020b) to support workplaces to protect the health and safety of their staff.

... health and safety was raised as an issue, particularly for those who could not work from home.

In interviews with key stakeholders, health and safety was raised as an issue, particularly for those who could not work from home. Those who were working outside of the home faced issues in relation to non-compliance with social distancing regulations, lack of or inappropriate provision of PPE (including sizing not suitable or not safe), lack of hand washing facilities, moving workers to sites other than their normal place of work, lack of hygiene with shared equipment, and fear of contagion due to poor adherence to all of the above (INTs 10, 11). It was highlighted that there were stress and mental health impacts due to fear of infection for self or loved ones, a fear of losing jobs if workers complained to employers about non-compliance with regulations, and a lack of understanding of employment rights for those not in a trades union (INTs 10,11).

Several interviewees also highlighted challenges for those in the workforce such as some older people experiencing more difficulties in relation to access to, or expertise with, IT or other necessary equipment to do their jobs; those with caring responsibilities for example, working parents and particularly women; and those with autism who encountered difficulties due to lack of working structure and routine (INTs 10, 11).

Positively, there has been support for workers, and information and resources available from a range of organisations including the Trades Union Congress (TUC) and the Citizens Advice (Wales TUC Cymru, 2020).

3.2.4 Home Working

- **Major confirmed positive short to long-term impact in enabling employees to remain working flexibly**
- **Major confirmed negative short to long term impact for those who cannot work from home; have other pressures and responsibilities for example home schooling; and for those on low incomes who may be at risk of food or fuel poverty**

The policy has led to some of the workforce in Wales to move to working from home. Of note, no research evidence was identified in relation to home working under quarantine or social distancing / isolation measures. More generally, research carried out in a non-quarantine situation has shown that home and flexible working can have many benefits including promoting a sense of control over where and how one works, increased productivity, and reduced stress levels (Chimote and Srivastava, 2013) but the converse can also be true. Home working has been promoted as a flexible and agile way of working over recent years which benefits work life balance and increases job satisfaction and productivity (Chimote and Srivastava, 2013), and has accelerated in recent times since the development of digital capacity and the availability of Broadband. It can allow employees to work where, when, and how they wish whilst still fulfilling their job roles. However, whilst it can be a positive tool and have a positive impact for organisations and their employees and promote the ability to work interactively with colleagues in an effective way, there can also be negative impacts which the Staying at Home Policy has brought sharply in focus in relation to home working.

The absence of physical interconnectedness and 'water cooler' conversations can have a negative impact in relation to mental well-being and resilience.

Digital access can be variable and not all platforms and systems are compatible with each other. There is also a need to ensure different digital platforms are secure and safe and allow exchange of data and confidential information, particularly in the health and care systems. The absence of physical interconnectedness and 'water cooler' conversations can have a negative impact in relation to mental well-being and resilience. Work is recognised as being important to health and well-being in many ways, including contributing to the health, economic and social lives of the population and individuals. Mental and emotional connections which have developed over a number of years and the trust that comes with this can be a positive force. Regular check in or daily video or teleconference calls may appear to be an essential means of communication but they do not actually always enable connectedness that a workplace can promote. Many home workers may live on their own and seeing and connecting in person provides a very important function in their lives. Similarly, those who have challenging experiences at home may find work a welcome distraction, or escape, or a place of safety.

Interviewees identified challenges for some groups who, whilst having access to digital platforms, may not have had the skills or enhanced knowledge to use them without support, leading to stress and anxiety (INTs 10, 11).

In interviews with key stakeholders, workforce health and safety was raised as an issue. Those working from home could face potential cumulative impacts such as increased isolation, postural changes, altered physical activity levels, changes to mental health, altered productivity and changes to the relationship with the employer (INTs 4, 10, 11). A lack of ergonomically designed spaces and desks could increase musculo-skeletal conditions, for example, some may have been working from a kitchen table. However, for some individuals home working could potentially improve health for example, by reducing stress and enabling a better work-life balance, and reducing commuting to and from work (INTs 4, 11).

However, for some individuals home working could potentially improve health for example, by reducing stress and enabling a better work / life balance, and reducing commuting to and from work

The Staying at Home Policy has also led to a change in energy usage patterns, with companies registering approximately a 3-6% overall increase in domestic consumption (Ovo Energy, EDF referred to in BBC Online, 2020g). For those on low incomes, fuel can be a large proportion of household expenditure; a small increase in consumption could lead to a major increase in household costs and bills and have a negative financial impact, leading to stress and anxiety, at a time of existing financial stress.

3.2.5 Digital Media Use

- **Moderate probable positive short to long term impact as individuals, families and communities stay connected and informed**
- **Moderate possible negative short-term impact for those who do not use social media and may be excluded from information streams and community connections**

Population profile

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, 2019a). Research published in Wales in 2019 (Davies, et al., 2019) highlighted that 'more than 1 in 10 people in Wales do not have access to the internet at home' and noted that access is lower amongst older adults, those living in more deprived areas, and those with poorer health.

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 (Lloyds Bank, 2018 cited in Office for National Statistics, 2019a). A further 600,000 have no internet access at all and 68% of those in this age category who do have access to the internet at home said it would be difficult to complete schoolwork without it (Lloyds Bank, 2018, cited in Office for National Statistics, 2019a).

Clear communication is central to helping people understand risks and impacts of COVID-19 and also to achieving desired individual behaviours. Research has shown that media channels, including social media such as Twitter, Facebook and Instagram, can enable better communication between the public and authorities; enable connection between family members, friends and the wider community; and provide signposting to trusted information

sources as well as resources to support well-being (Galea, Merchant and Lurie, 2020).

The use of social media has increased in Wales during the restrictions.

Social media use can also have a potential negative impact through disseminating misinformation, enabling increased discrimination, fraud messages and hate crime (INTs 1, 4, 8, 9). Social media use during the MERS outbreak in South Korea 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 et al., 2008). Researchers have recently highlighted that the media's portrayal of a 'unique threat' posed by COVID-19 has further increased stress and panic (Kim and Su, 2020; Petric, 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).

The use of social media has increased in Wales during the restrictions, with Public Health Wales' *Public Engagement Survey on Health and Well-being during Coronavirus Measures* reporting that 42% of respondents[7] were using social media more than usual, 36% reporting using it the same amount as usual, and only 7% reporting less use than usual (Public Health Wales, 2020b).

Not everyone in the Welsh population has access to social or digital media (Davies et al., 2019); this population may be missing some important forms of support, information, key messages and guidance as many agencies and organisations use social media to quickly disseminate information to a wide range of people. Not everyone is 'health literate', with the ability or knowledge to 'translate' or understand health information, nor may they have the skills to use platforms on which the information is held. There are also unknown potential long-term impacts of socialising via social media, instead of through interpersonal face-to-face meetings. This could have a potential impact on the way people connect in the future and could affect individual and community connectedness and resilience.

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3.2.6 Key workers

- **Major probable negative short to long-term impact in relation to mental well-being for front line services with high exposure to patients and public**
- **Moderate possible positive short to long-term impact for key workers not previously recognised as providing an important and essential function in society for example, delivery drivers, food retailers / supermarket workers**

Population profile

In 2018/19, there were 25,802 qualified teachers (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% (18700) were defined as professional, scientific and technical activities including administrative and support service activities; and 11% (165,700) were in production (StatsWales, 2019i).

On 30th September 2019, there were 204,815 workers (FTE) 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 (Home Office, 2020).

There are 81,044 NHS staff in Wales, of which 41% are nursing, midwifery and health visiting staff; 23% administration and estates staff; 17% scientific, therapeutic and technical staff; 8% medical and dental staff; 7% healthcare assistants and other support staff; 3% ambulance staff; and 0.1% other non-medical staff (StatsWales, 2020c).

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 EU nationals (Welsh Government, 2019e). 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, 2019e).

Key workers in a range of roles and sectors have been recognised as essential in the continuation of the delivery of health and social care services, the criminal justice system, the protection of vulnerable people and in ensuring that access to food and other essential items for daily life is available. As a sign of growing societal recognition of this, key workers have been allocated dedicated time slots in supermarkets, ensuring that they could access food and other supplies.

Front line staff in Wales have been tested for coronavirus since 7th March 2020 (Welsh Government, 2020c). On 18th March, the Chief Medical Officer for Wales announced that testing would be available for all NHS staff with symptoms (Welsh Government, 2020d). Following this, on 18th April 2020, Welsh Government published a policy on key (critical) worker

testing, which outlined access to testing for symptomatic critical workers[8] (or a symptomatic household member living with a critical worker) (Welsh Government, 2020f).

The Staying at Home Policy and guidance has had unintended negative consequences for key workers who, by the nature of their work, have been unable to work from home and were at an increased risk of becoming infected by the virus. This has heightened anxiety in the key worker workforce and their families as they face the practical and mental health challenges of working and protecting themselves, their home and family environments from infection. The key worker workforce numbers have decreased due to shielding, illness or needing to isolate through the restrictions, and this has increased pressure and stress on those remaining in the system (Grierson, 2020).

... heightened anxiety in the key worker workforce and their families as they face the practical and mental health challenges of working and protecting themselves, their home and family environments from infection.

Key workers are regularly exposed to patients and the public whilst undertaking their duties. Evidence has shown that key workers such as health and social care professionals have experienced increased anxiety and distress from carrying out their duties at the time of a pandemic. Research on the mental well-being effects of outbreaks on healthcare workers found that distress was higher amongst nurses than doctors and allied healthcare workers (Brooks et al., 2018). A rapid review of the research literature highlighted that healthcare workers were particularly at risk of the negative mental health impacts of working through an infectious disease outbreak. Being required to quarantine or self-isolate led to anger, fear, worry and work avoidance up to three years later. The review also noted that healthcare workers in some studies were affected more severely by quarantine / isolation, leading to an increase in post-traumatic stress behaviour such as alcohol dependency (Brooks et al., 2020). Experience from the SARS outbreak in Toronto (DiGiovanni et al., 2004) found social distancing caused psychological stress, with 5% of healthcare workers reporting that they were tempted to break quarantine as a result. A third of healthcare workers were 'pretty stressed' by social distancing, but were not tempted to break quarantine. Of note, only 11% did not report being stressed.

A British Medical Association (BMA) survey carried out mid-April 2020 found that nearly half of UK doctors were suffering from negative impacts amidst continuing shortages of PPE supplies this (British Medical Association, 2020a). According to the survey, 44% of doctors in the UK stated that they were suffering from depression, anxiety, stress, burnout or other mental health conditions relating to or made worse by their work. The survey also reported that 51% of doctors did not feel personally supported by the Government or confident everything possible was being done to help them to keep patients safe, despite pledges more PPE was being delivered to the frontline (British Medical Association, 2020a). Reported delays in PPE have exacerbated stress and anxiety (BBC Online 2020h; Nursing Times, 2020). A Royal College of Nursing survey of 13,605 UK nurses carried out in mid-April 2020 found that during the COVID-19 pandemic, 70% of respondents had raised concerns about PPE and only 21% felt their concerns had been fully addressed (Royal College of Nursing, 2020). In addition, a BMA survey on the views of NHS doctors identified that for 20% of respondents, PPE shortages or quality was their top concern and priority (British Medical Association, 2020b).

8 Key workers include non-NHS staff and are defined by Welsh Government: https://gov.wales/coronavirus-key-critical-workers.

Some charities, for example Mind Cymru, have launched services for frontline workers (Mind Cymru, 2020). During interviews, it was noted that there was an issue around fear and anxiety and what would happen to frontline workers themselves and their loved ones in the longer term. Some healthcare staff raised difficulties around defining what a 'NHS hero' was and reflected that there was a lot of pressure around this and exactly who / what it meant (INTs 3, 4, 5).

Interviewees noted that whilst the key worker workforce is diverse and contains a plethora of skills and knowledge, the focus has been primarily on the NHS and social care sector, which is a positive recognition of the challenges they face and the work they do. There was thought to be a possible positive effect on the perceived status of health and social care workers, many of whom were individuals from Black, Asian and Minority Ethnic (BAME) backgrounds, including more respect in the longer term (INTs 4, 10).

A negative impact identified was that other key critical workers such as supermarket workers, delivery and HGV drivers, utilities workers and the police may have been forgotten and not recognised to the same extent. They were strongly acknowledged as being part of the essential fabric needed to be able to continue to respond to the pandemic. Without these workers, supply chains would break, food and other essentials would not be delivered, stocked, picked nor sold over the counter and the restrictions would not be enforced (INT 10).

3.3 Equality; Justice and Law

3.3.1 Violence Against Women, Domestic Abuse and Sexual Violence (VAWDASV)

- **Major confirmed negative short to long-term impact particularly in relation to women and children and young people exposed to Adverse Childhood Experiences (ACEs) such as domestic abuse**

Although the policy has allowed an individual to leave home to move to a place of safety, significant concerns have been raised about increased risks of VAWDASV during the restrictions. Since the introduction of the Staying at Home and Social Distancing Policy, there has been a marked increase in the number of domestic abuse reports, with a 25% increase in calls to the Domestic Abuse Helpline in the first two weeks (BBC Online, 2020i; Refuge, 2020). The Wales Violence Prevention Unit (WVPU) reported in its *COVID-19 and Violence* monitoring survey (Wales Violence Prevention Unit, 2020) that South Wales Health Board data for March-April 2020 saw a 33% increase in individuals reporting to ED with an injury as a result of domestic abuse. This was despite an overall 55% reduction in ED assault attendances in April compared with the previous month.

Several interviewees raised the issue of violence, domestic abuse and sexual violence particularly in relation to women, ACEs, and older people. For older people, it was noted that they may have lived with domestic abuse for many years, not have recognised it as a form of violence, and therefore be reluctant to reach out for support. One interviewee reported that recent statistics on those who were dying from domestic homicide included a number of women in the older age ranges, who had been in very long-term relationships (INT 1; Smith, 2020). Domestic violence and abuse is one of a number of recognised ACEs, which have been associated with an increased risk of poor health and well-being across the life-course (INTs 1, 2, 3, 4, 5, 7, 8, 9, 12, 13).

3.3.2 Community Safety and Crime

Moderate probable positive short-term impact in relation to policing and enforcement of the policy

The social impacts of the pandemic identified by the WHO Europe (World Health Organization, 2020b) include rising crime, criminal exploitation, an increase in loan sharks and recruitment into organised crime.

The implementation of the policy has reinforced the relationship that the criminal justice system has with the Welsh population and the ideology of 'policing by consent'. This balance has been evident in Wales and the UK in the way that the legislation has been enforced and complied with in the main. Divergence in the four nation's policies in May 2020 has led to complications and misunderstanding about the legislation in difference jurisdictions (INT 1).

According to the *Public Health Wales Public Engagement Survey on Health and Well-being during Coronavirus Measures*, 81% of people interviewed[9] trusted the police to use their new powers to restrict people's movement sensibly (Public Health Wales, 2020b). At the end of April 2020, the police in Wales reported that they had fined 229 individuals in Wales for breaching the restrictions between 27th March and 27th April 2020. Police forces across Wales have regularly communicated that they have received some reports of breaches (North Wales Police, 2020; South Wales Police via ITV News site, 2020b).

Police forces across the UK have also been reporting a decrease in reported crime across several categories including burglary, rape and assault. Dyfed Powys Police said that overall crime compared to the same period in 2019 is down 35% (Walesonline, 2020a). The Wales Violence Prevention Unit has published data that shows swings in reported violent crime figures during the implementation of the Staying at Home Policy (WVPU, 2020).

Police forces across the UK have also been reporting a decrease in reported crime across several categories including burglary, rape and assault.

There have also been reports across Wales of some criminals trying to exploit vulnerable people, such as older people, those on low incomes or who are in receipt of FSMs, particularly in relation to scams (Department for Education, 2020). Police forces have been trying to address this, for example by alerting the public across several media platforms (Deesside.com, 2020a; South Wales Police, 2020). Partnerships have been formed to tackle this, for example, the Older People's Commissioner in Wales has been working with the police, Welsh Government and third Sector organisations (INT 1).

3.3.3 Ethical considerations

Major confirmed positive short-term impact in quick response and legislation compliance

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 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*' (Wynia, 2007), which could have harmful effects

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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. Furthermore, the United Nations (2020b) has articulated how freedom of movement is a fundamental right that supports enjoyment of other rights. The United Nations has highlighted how other measures, such as testing and tracing and targeted quarantine, could mitigate the need for wider and more indiscriminate measures.

Themes found in the literature include the need for a proportional response, whereby the '*least intrusive*' interventions have been balanced with the most effective measure to reduce infection transmission (Timen and Schroder-Back, 2016). Lessons from the Ebola outbreak have included the need for decision-making to be based on scientific advice, with judicial oversight (Ulrich, 2016). Other considerations promoted in the literature have included the need for transparency and treating the public as a partner (Wynia, 2007) and the importance of accountability to safeguard civil liberties (Pelkas, 2010).

In response to the pandemic, the WHO (WHO, 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 (cited in Wynia, 2007) for example, in accordance with the law and have a legitimate aim; proportionate; and non-discriminatory.

Safeguards have been established in the UK; for example 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).

3.3.4 Women

● **Major confirmed negative short to long-term impact across all groups**

Population profile

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

On 9th January 2020, the majority of individuals on Universal Credit in England, Scotland and Wales were female (56%) (Department for Work & Pensions, 2020).

Data obtained from the Crime Survey for England and Wales (CSEW) for 2018-19 shows there were an estimated 1.6 million women (compared with 786,000 men) aged 16-74 years who had experienced domestic abuse in the previous year; the prevalence was unchanged from the previous year (Office for National Statistics, 2019b).

There is little in the academic literature in relation to the impact of quarantine or social distancing on women. A rapid evidence review found that for women with children, younger less educated females with children, and those with pre-existing mental health conditions, quarantine or isolation exacerbated or had a negative impact on psychological and mental well-being (Brooks et al., 2020). A report examining the effect of the Zika outbreak on women in the Americas noted that it had primarily impacted on the emotional well-being of women, resulting in feelings of fear and a sense of helplessness and increased social isolation; women were affected by the uncertainty that arose from having to take drastic action to avoid infection (Linde and Siqueira, 2018). However, the study did not look at the impact of quarantine or social distancing.

The Staying at Home Policy has, by limiting population movement, had a major negative impact on women in Wales. According to an Institute for Fiscal Studies report, women were about one third more likely than men to work in a sector that had shut down (17% of women compared with 13% of men) (Joyce and Xu, 2020). Workers in these sectors have also tended to have lower pay.

The Staying at Home Policy has, by limiting population movement, had a major negative impact on women in Wales.

As a group, women are known to be disproportionately affected by domestic abuse and violence. Information from Refuge reported a 25% increase in calls to the National Domestic Abuse Helpline and a 150% increase in visits to the National Domestic Abuse website at the start of the UK lockdown (BBC Online, 2020i). This was reinforced in several interviews (INTs 1, 2, 4, 8, 10, 13). Welsh Women's Aid identified that self-isolation and social distancing could increase violence against women, domestic abuse and sexual violence and that community response and social solidarity were vital to tackle the issues. Welsh Women's Aid has published a toolkit containing advice and information for concerned neighbours, volunteers and others (Welsh Women's Aid, 2020). The Mental Health Foundation has raised concerns that the pandemic situation may make things worse for women with children and stated that there were already reports of a rise in the number of those in difficulty (Mental Health Foundation, 2020a).

Women are more likely to hold caring roles – either as professional carers in care settings - or be responsible for familial care, including any home schooling responsibilities during the restrictions and supporting older and higher risk relatives (Engender, 2020; Carers UK, no date). They also do more of the household chores and administrative responsibilities (Barr, 2019; Office for National Statistics, 2016). Women are more likely to be working in the supermarket and food retailing environment and health and care services, where they are at increased risk of being exposed to the virus (INTs 2, 10; WHO, 2020b).

Movement restrictions and social distancing has also meant that women are more likely to not be able to access essential sexual and reproductive healthcare services (World Health Organization, 2020b). In interviews, the impact on working mothers was identified as a negative impact, particularly due to nursery closures and the increased risk of unemployment as a result (INTs 10, 13).

3.3.5 Men

- **Moderate confirmed negative short-term impact for some employment subgroups for example, construction workers and drivers**
- **Moderate possible negative long-term impact for some employment subgroups highly exposed to an economic downturn, for example, housing, manufacturing and hospitality industries.**

Population profile

There are 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).

Of the total number, 175,100 people are in skilled trades occupations (which include electricians, and construction and building trades), of which 89% (156,100) are male and 11% (19,000) female (StatsWales, 2020b). In addition, 97,200 people are 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) are male and 10% (10,200) female (StatsWales, 2020b).

Men are more likely than women to experience worse direct health effects and are more likely to die from COVID-19 (Office for National Statistics, 2020c). Whilst the Staying at Home Policy will have had a major protective impact for men's health, the restrictions have also had a potential negative impact for some of the male population.

Men are more likely than women to experience worse direct health effects and are more likely to die from COVID-19.

Many men work in the construction sector, which is not covered by the policy. The majority of drivers across the transport sector such as public transport drivers, delivery drivers and HGV drivers and tradesmen, for example, plumbers and electricians are men. Many of the latter are both self-employed (a category missed in the first economic measures for furloughing employees) and have had contracts to fulfil with the construction industry. These roles are public facing and have increased their exposure to COVID-19 on a daily basis (INT 10).

The number of calls to Men's Advice Line for male domestic abuse survivors has also increased (Men's Advice Line (2020) cited in BBC Online, 2020i).

3.3.6 Income related groups

- **Major confirmed negative short-term impact on those sectors that have closed down and those who have been furloughed, currently on low incomes faced with increased food and fuel poverty as a result of the policy**
- **Moderate probable negative long-term impact dependent on economic recovery and renewal**

Population profile

High levels of relative deprivation exist within the cities and valleys of South Wales and coastal and border towns in North Wales (Welsh Government, 2019f). Newport local authority has the largest number of Lower Super Output Areas located within the most deprived 10% in Wales and Monmouthshire has the least, with no areas located in the most deprived 10% in Wales (Welsh Government 2019f).

The average life expectancy at birth in Wales is 80 years (78 years for men and 82 years for women); the average healthy life expectancy at birth in Wales is 62 (Public Health Wales Observatory, 2019). 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 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%) (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).

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). 74.4% of persons aged 16-64 in Wales report being in work (StatsWales, 2020d) compared with 23% recorded as economically inactive and 3.3% (of those aged 16 and over) as unemployed (Office for National Statistics, no date).

Those on low incomes or who live in areas of deprivation experience worse health and mental well-being than more affluent individuals and communities (Public Health Wales, 2020b; StatsWales, 2020e; StatsWales, 2019a; Public Health Wales Observatory, 2018).

WHO Europe (World Health Organization, 2020b) has highlighted the economic and social impacts of COVID-19, although these are not specific to social distancing and staying at home policies. In relation to those living in poverty, likely impacts include: increased employment insecurity and underemployment; job loss and long term unemployment; increasing poverty and working poor; hunger, with food and fuel insecurity; firm closures; rising levels of those not in education, employment or training; and widening economic and health gaps between geographical areas.

Evidence has emerged that the greatest impact from the COVID-19 pandemic and response is on the poorest and those already experiencing inequities. The Office for National Statistics has reported that there were more deaths per 100,000 population from COVID-19 in areas described as most deprived compared with more affluent areas (Office for National Statistics, 2020d). Recent research has identified that those on low incomes were more at risk of the mental health and psychological impact of quarantine, such as post-traumatic and depressive symptoms, anger and anxiety, which could be associated with the financial impact of the restriction and the loss of any financial support (Brooks et al., 2020).

The UK Government (2020b) also identified that policy measures including isolation, staying at home and school closures were likely to impact poorer families and single parents the most. This was 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 FSMs. In addition, as those living in poverty were already more likely to experience mental health problems, the psychological impact of the Staying at Home and Social Distancing Policy was likely to be greater.

Emerging evidence has shown that richer households were likely to make savings during social distancing, as they would be spending less on some non-essential activities. However, as lower income households spend a higher proportion of spending on necessities such as rent, food and bills (55%, compared with 35% of higher income households), any reduction in income would be more difficult to manage (Crawford et al., 2020). The reduced resilience of those with the lowest incomes to any financial impact has also been highlighted in interviews. Interviewees have also identified that poorer households have less disposable income to enable them to stockpile or bulk buy for the imposed restrictions (INTs 2, 7, 10, 12). Furloughing or having reduced income could have a further major impact on their financial situations.

The reduced resilience of those with the lowest incomes to any financial impact has also been highlighted …

Findings from a recent UK survey (Ipsos MORI, 2020) showed that as a result of the COVID-19 pandemic, 46% of British people needed to save more money due to being furloughed or having a reduced income, or spending less due to not commuting, buying non-essentials etc. It found that younger people were relying on overdrafts and personal loans and using savings to remain financially viable. 25% of young people had already used up their savings, compared with 13% of 35-54 and 11% of 55-75 year olds. 16% had borrowed from family or friends.

Around one in seven employees in the UK work in a sector that has largely or entirely shut down during the COVID-19 restrictions. It has been estimated that the restrictions will hit the youngest workers and low earners the hardest (employees aged under 25 are two and a half times more likely to work in a sector that has shut; low earners are seven times as likely as high earners to have worked in a sector that is now shut down) (Crawford et al., 2020). In the UK, it has been estimated that there could be an additional 2 million people out of work (10% unemployment rate) (Office for Budget Responsibility, 2020). Within Wales, it is thought that COVID-19 has resulted in 1 in 6 people becoming unemployed (either temporarily or permanently), who have then needed to apply for Universal Credit (Winckler, 2020).

There has been an increase in the numbers of Universal Credit claims in the UK; 950,000 successful applications for the payment were made between 16th March 2020 (when people were advised to work from home) and 31st March 2020 (The Department for Work & Pensions, 2020 cited in BBC Online, 2020j).

Interviewees identified that furloughed workers and those on reduced income and their families have been disadvantaged by the fact that remaining at home, as a family, could increase food and fuel bills. Stockpiling by others could lead to reduced access to essential foodstuffs and over the counter medicines for those who cannot pre-buy them. Families living in poverty and low incomes may not have wanted, or have been able to access food banks and although FSMs were available in Wales for vulnerable children, some families struggling day to day may not have been eligible for these (INTs 2, 7, 10, 12).

Food security (the ability to access and use sufficient food to meet dietary needs for healthy lives) is known to be an issue during pandemics, particularly for those who have low or irregular incomes (Pan American Health Organization, 2009). Causes include issues with food access, for example, reduced income, so that household income is spent on other things; and utilisation issues, for example, limited knowledge about nutrition.

3.3.7 Black, Asian and Minority Ethnic (BAME) Groups

- **Major probable negative short to long term impact**
- **Major possible positive / opportunity for future research to inform policy**

Population profile

4.4% of the Welsh population identify as Black, Asian or other ethnic minority group (BAME) (Welsh Government, 2019g). The 2011 Census shows that 93.7% of the population in Wales is White British or Irish (Public Health Wales Observatory, 2015). Wales is less ethnically diverse compared to the regions in England, with the exception of North East England (Public Health Wales Observatory, 2015). Those reporting as not White British or Irish in Wales are concentrated in urban centres (Public Health Wales Observatory, 2015).

COVID-19 has had a disproportionate impact on people from BAME Groups. Recent research has shown that more than a third of patients critically ill in hospital with COVID-19 were from BAME backgrounds (Intensive Care National Audit and Research Centre cited in Public Health England, 2020b). A recent report identified that Black and Asian ethnic groups had the highest death rates, with people of Bangladeshi ethnicity having twice the risk of death compared with those who were White British; people from Chinese, Indian, Pakistani, Caribbean and Other Black ethnicity had 10-50% higher mortality rate (Public Health England, 2020b).

The reasons for this are unclear, but may be partially explained by a higher prevalence of certain health conditions, such as diabetes or cardiovascular disease and also in relation to socio-economic conditions. The Welsh Government has announced an urgent investigation into the impact of COVID-19 on ethnic minorities (Welsh Government, 2020g). The British Medical Association has advocated for the use of real-time data and measures to address the issue (British Medical Association, 2020c).

No academic research literature has been found examining how quarantine or social distancing restrictions impact specifically on BAME groups. Black, Asian and ethnic minorities have a strength in their cultural traditions of intergenerational households and familial and social support, but conversely this could have had negative impacts of increasing viral transmission from younger household members to more vulnerable older household members.

There has been an increase in reported hate crime in respect to those from BAME backgrounds. Some of this may have been due to perceptions about ethnicity and beliefs about the origination of the virus and its transmission. BAME individuals may face heightened hidden discrimination and prejudice (Lovett, 2020).

A further negative impact of the Staying at Home Policy and the guidance is that for some communities, where English is not their first language, there could be mistranslation of information, and an inability to access important information or support services (INTs 2, 6, 8, 10).

3.3.8 People with physical, sensory or learning disabilities / challenges

- **Moderate probable negative short-term impact to access support services**
- **Minimal possible positive short to long-term impact / opportunity for employment through home working**

In a recent survey of over 2,300 people with disabilities, social isolation and loneliness were rated as the biggest problem, over and above physical health problems (Disability Wales, 2020). Isolation was rated a bigger problem than poverty or discrimination and almost half of respondents with life limiting conditions reported having a comorbid mental health problem (Disability Wales, 2020).

A recent report noted that people with disabilities experienced a wide range of impacts as a result of COVID-19 (United Nations, 2020c). A higher proportion of disabled adults than non-disabled adults were worried about the impact of COVID-19 on their well-being (Office for National Statistics, 2020e). It was noted in interviews that for this group, spending too much time alone could lead to an increase in loneliness and isolation.

Access to support services for disabled people and carers was identified as being problematic under the restrictions and there were also concerns about access to assisted technology during the pandemic. For those with learning disabilities, it was highlighted that the restrictions risked compromising human rights because of reductions to social care and disability benefits and an increase in existing abuse. Interviewees reported that for those with disabilities, a 'trusted organisation', i.e. organisations specific to a disability (such as the British Deaf Association) were best placed to take the lead on raising awareness and disseminating information (INTs 2, 6, 10).

One stakeholder group identified that the restrictions made no specific provision for people with autism or other learning difficulties. The National Autistic Society has called for clarity on the issue (Walesonline, 2020b) with potential negative impacts arising from stress and anxiety due to the need for routine, and for children particularly to have the ability to exercise or take activity out of the home more than once a day (INTs 2,12,13).

One positive impact identified was that home working could enable people with disabilities to join the workforce (INT 10).

3.3.9 Faith Groups

- **Minimal confirmed negative short-term impact for delivery of services / faith customs**
- **Minimal possible positive long-term in relation to digitalisation or facilitating new methods to deliver services or faith customs**

Positively, many church and faith organisations have continued to connect with the communities they serve whilst the restrictions have been in place. Digital platforms have been used to broadcast services. Television has also broadcast services to support those without technological access, resources or digital literacy. For many individuals, spiritual and religious beliefs have been a positive element of their resilience to the restrictions. There have been some reports of increased access to religious or spiritual support online. In Public Health Wales' *Public Engagement Survey on Health and Well-being during Coronavirus Measures*, 17% reported that they had prayed as normal, 8% stated that they had prayed more than usual, and only 2% prayed less[10] (Public Health Wales, 2020b).

The restrictions may have resulted in some individuals feeling spiritually isolated resulting in negative impacts on mental well-being, with some faith groups unable to carry out some specific religious or faith rituals – particularly if there has been a bereavement in the family or community. A direct consequence of the policy has included restricting numbers at funerals and other such services. This has had a negative impact on the associated traditions and practices prior to and after burial (INT 10).

A negative impact has been in relation to recent religious events such as Easter or Ramadan taking place under the restrictions. Although guidance has been published in relation to Ramadan, observing Ramadan may have still been challenging (INT 10).

3.3.10 Asylum seekers and refugees

- **Minimal possible negative short-term impact**

Population profile

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).

There is limited research evidence available regarding the impact of the Staying at Home and Social Distancing Policy on asylum seekers and refugees. However, there have been interventions to support these groups such as translated information about COVID-19 (Wales Strategic Migration Partnership, 2020).

Of note, the Welsh Refugee Council (along with 60 other organisations) has called on the UK Government to raise the asylum allowance by £20 for the next 12 months, in line with the increase in Universal Credit rates for others entitled to the benefit (Welsh Refugee Council, 2020).

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3.4 Communities and regeneration

3.4.1 Volunteerism and the charitable / Third sector

- **Major confirmed positive short-term impact as numbers of volunteers increase and more support is garnered from the charity sector**
- **Moderate possible long-term positive or negative impact dependent on organisations retaining the increased numbers of volunteers and reconfiguring their structures and systems and retention of funding streams.**

Positively, the COVID-19 pandemic and the Staying at Home Policy has enabled many people to volunteer and support others in their communities through the restrictions. The UK NHS Volunteers' Scheme had over 750,000 people sign up via its phone app (Butler, 2020), and another 250,000 register via other sites by 13th April 2020. Volunteering Wales had over 40,000 people visit a dedicated page for registering to volunteer as part of the NHS Volunteering Scheme in March 2020 (BBC Online, 2020k; Volunteering Wales, 2020).

The Public Health Wales *Public Engagement Survey on Health and Well-being during Coronavirus Measures* (Public Health Wales, 2020b) found that 27% of respondents were volunteering or supporting their community through the restrictions and emergency situation. This ranged from volunteering in the local hospital, delivering essentials and medicines to vulnerable friends and family, or doing shopping for older neighbours. The Cardiff Food Appeal reported that 229 people had volunteered to support its work (Cardiff Council, 2020). Those interviewed noted that there had been many benefits derived from the excellent community and voluntary efforts during restrictions, including helping neighbours and relatives with shopping for example (INTs 3, 5, 6, 8).

Whilst the increase in volunteering has been highly positive, there have also been issues. Some organisations have been deluged with volunteers, which has caused challenges in itself, for example in processing the large numbers of new volunteers coming forward, safeguarding both volunteers and vulnerable populations from transmission of COVID-19, and the availability of PPE. In addition, whilst there has been some flexibility with the Disclosure and Barring Service (DBS) process, organisations have still needed to demonstrate due diligence

and safeguarding. The Third sector has been a valuable resource to many individuals and communities and whilst this has had many positive impacts, it has also had unintended negative impacts for the organisations themselves. Increased demand for advice or support has led to increased pressures on organisations to ensure that they have been able to match capacity to demand and have sufficient resources, particularly if there is the anticipated further increase in demand in future (INT 6). The move from face-to-face to remote based working has highlighted some issues for third sector organisations in respect of the internal and external digital platforms used.

Some organisations have voiced concern that the restrictions could have had a negative impact on future funding, for example limiting fundraising opportunities such as through retail trading. Other challenges have included ensuring the sustainability of the social capital created, the retention of volunteers to provide new and amended services, and the fact that online support often cannot replace face-to-face or interpersonal contact – particularly for vulnerable individuals or groups, or those without online access or expertise to use it (INTs 3, 6). The third sector has a major positive role to play in the future recovery and renewal phases of the pandemic – it is embedded in communities and can facilitate communication when, for example, people do not want to be stigmatised or '*don't want to bother the doctor*' (INTs 4, 6).

3.4.2 Community cohesion, resilience and networks

Moderate probable positive short-term to long-term impact as communities connect to support each other

There has been a visible mobilisation of family and community networks and relationships to provide mutual support through the pandemic and the restrictions being implemented. The Public Health Wales *Public Engagement Survey on Health and Well-being during Coronavirus Measures* found that 69% of respondents thought that neighbours would support them if needed, and 44% had support from a community network[11]. In interviews, it was noted that community cohesion and resilience was overall a positive impact of the policy and that peer support was very important in relation to citizen power and influence (INT 8). Community cohesion may not have benefitted some groups in society such as individuals with dispersed family members, where international travel was needed, particularly if there was no technology available to connect to them (INTs 6, 8).

… community cohesion and resilience was overall a positive impact of the policy …

3.4.3 Social Division

Minimal possible negative short to medium term impact due to divisions in society

The evidence also points to potential negative impacts in relation to social division. In their recent report, WHO Europe (World Health Organization, 2020b) identified the breakdown of social cohesion as one of the potential social impacts of the pandemic (although this was not specific to the Staying at Home and Social Distancing Policy). A research project looking at the social consequences of outbreak containment and isolation measures in Liberia noted that the quarantine of families sparked fear and stigma amongst neighbours and divisions in communities (INT 4; Pellecchia et al., 2015).

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There have been a number of calls and online messages to enforcement agencies to report those breaking the restrictions (ITV, 2020b), which may have caused division and neighbourhood disputes (Taylor, 2020). Feelings of resentment and conflict in communities may have occurred due to differing levels of adherence to the restrictions. There is also potential for negative attitudes in communities towards tourists, visitors and second homeowners, and this may deter future visitors, harm relations, and local economies.

3.4.4 Geographical settings

- **Moderate confirmed negative short-term impact for rural communities as a result of loss of tourism or poor access to Broadband / the internet or accessible services**
- **Minimal possible negative short-term impact for urban settings in relation to physical activity (space to take exercise)**
- **Moderate possible short to long-term positive impact on tourism in Wales across both rural and urban settings with more people visiting Wales if cannot fly outside of UK for holidays.**

There have been geographical differences across Wales in both the rate of transmission and the number of confirmed cases and reported deaths from COVID-19 (Public Health Wales, 2020a) with the highest numbers of confirmed cases seen in South East Wales initially. However, there is currently no published academic research literature comparing the impacts of quarantine and social distancing restrictions on urban and rural areas. Theoretically, there is a reduced risk of viral transmission in rural communities due to a lower population density enabling individuals to practice social distancing.

There is much more access to open green and blue space in rural areas. However, much of this is only accessible by car or bicycle. Welsh Government introduced guidance on physical activity on 27th March, which aimed to limit the number of visitors to rural open spaces and National Parks (BBC Online, 2020l); this was amended on 24th April 2020 to clarify that physical activity could only be taken once a day in Wales, taken locally and should not be accessed by a car where possible and further amended on 10th May (Welsh Government 2020h; Welsh Government, 2020i). It was noted by one stakeholder that access, availability and the quality of green and blue natural spaces could have a major impact and whilst for some it was positive, it could also be a negative for others. For example, some disadvantaged / low-income populations had less access to local green space, which is significant when the Staying at Home Policy approach is that people can only exercise locally (INT 7). There has been a variation across local authorities in terms of allowing access to open spaces and municipal parks. This may have increased inequalities for those living in dense, urban areas and who did not have access to a garden or shared open space, for example by reducing opportunities to exercise in pleasant surroundings. A recent survey (Sport England, 2020) found that nearly two thirds of adults felt that exercise was even more important during the pandemic and that exercise was helping with their mental health. However, those living in urban areas were more likely to have done less exercise (Sport England, 2020).

Police have been enforcing the restrictions for those accessing green space in more remote, tourist friendly areas by car. Many who have tried to do so have been fined (Deeside.com, 2020a; ITV, 2020b). Interviewees identified that there could be a greater feeling of isolation in rural communities and that advice could be tailored further for rural areas. Interviewees also highlighted that if people still travelled to rural areas, there may be implications for local health services (INTs 4, 8).

Home and remote working has provided a positive opportunity for those living in rural areas of Wales or with long commutes to work. This may have been hampered by poor Broadband performance in some areas (BBC Online, 2020m) which limited digital access to educational resources and the ability to work effectively and efficiently in rural locations. Some communities in isolated parts of Wales with limited digital access have complained of being 'cut off' during the restrictions due to their slow broadband speeds. This has made communication with families and vulnerable populations difficult (BBC Online, 2020m).

Some communities in isolated parts of Wales with limited digital access have complained of being 'cut off' during the restrictions due to their slow broadband speeds.

Many communities and families across Wales have experienced the restrictions at a time when they were still recovering from previous events, such as flooding in many south and mid-Wales communities in February and March 2020. This has meant that for many, the Staying at Home Policy has had a negative cumulative impact and occured in houses that were still drying out or needed to be redecorated.

3.4.5 Adults in care and carers

Moderate possible negative short to long-term impact in relation to assessment and support

In relation to people in care, the implementation of the Coronavirus legislation in Wales has meant that local authorities have not been required to carry out needs assessments for adults and adult carers; have no longer had a duty to meet eligible adults' care and support needs, nor adult carers' needs for support; and have not been required to carry out financial assessments. However, where a local authority has not charged a person for their care during the pandemic, there are powers to apply charges retrospectively in certain circumstances. There has been concern that an individual could be charged for services retrospectively, even if services were inappropriate and did not meet their needs (INT 8).

Although guidance has been issued in England, the British Association of Social Workers (BASW) Cymru has identified that the lack of Welsh guidance means that '*social workers in Wales currently have no framework or guidance on which to base their practice and decision making*' and that there is anecdotal evidence that this is already happening, given the urgent need to free up space in hospitals (Clifton, 2020).

Members of the Welsh Parliament's Health, Social Care and Sport Committee previously raised concerns about unpaid carers with the Minister for Health and Social Services (Welsh Parliament, 2020) as have several interviewees (INTs 4, 5, 8) in relation to increased stress and anxiety and exposure to the virus.

3.5 Older People

- **Major confirmed negative short-term impact in relation to isolation and loneliness, disconnection from social support**
- **Minimal possible long-term negative or positive impact in relation to the operation of care home settings and operation and policy**

Population profile

The Public Health Wales Observatory (2018) reported that in 2016, 20% of the population in Wales was aged 65 and over, higher than for the UK overall (18%). Population estimates for 2020 indicate that the number of individuals aged 65 and over has increased slightly to 651,993 (21%) (StatsWales 2019k).

Compared with the rest of the UK, Wales has the largest proportion of older people, and many of these individuals live in rural areas, where there are high levels of deprivation (Clifton, 2019).

Those aged over 70 are more likely to be hospitalised if they acquire COVID-19 and the majority of those dying as a result of the virus are in this age group (Office for National Statistics, 2020c). Mortality rates increase with age, with those aged 90 years and over having the highest age-specific mortality rate (Office for National Statistics, 2020f). Many of these deaths have been in care home settings for older people (The Health Foundation, 2020; Office for National Statistics, 2020g). Care homes in England and Wales have seen the largest increase in deaths from any cause, with a 99% increase from 2,471 to 4,927 deaths between weeks ending 13th March 2020 and 10th April 2020 (The Health Foundation, 2020).

The guidance for the Staying at Home and Social Distancing Policy has classified those aged over 70 as more vulnerable and at risk from COVID-19 and recommended that they should only go out of the home or garden if it is considered essential. Whilst this was intended as a protective measure, it could have led to unintended negative impacts for example on mental well-being.

Older people who live alone are more likely to rely on others for care and support. Movement restrictions and social distancing measures could make the provision of care and access to essential supplies more difficult (Lloyd-Sherlock et al., 2018). Movement restrictions have resulted in usual family connections being affected, for example with older people unable to see or receive care from children and grandchildren or being isolated from their social networks (Wales Centre for Public Policy, 2020). Research on the SARS outbreak in Hong Kong found that older adults reduced their social contacts and stayed at home and were more likely to experience feelings of loneliness and disconnectedness, with a significant increase in suicide rates in those aged over 65 years. Older adults who were most affected were those in poor health or without a close relationship with their children (Cheung et al., 2008).

It was highlighted in interviews that the restrictions may have led to increased feelings of isolation for those in care home settings due to lack of family visiting. Residents may have experienced increased anxiety, particularly as closed settings have had higher rates of virus transmission. Interviewees noted that there was also the potential for trauma or anxiety if others in care homes were passing away, and there may have been fear associated with advanced care planning decisions (INTs 4, 5, 8).

With only 49% of those aged 75 and over in the UK reporting that they accessed the internet for personal use in 2018-19, there are implications for older people feeling connected to wider society (Wales Centre for Public Policy, 2020; Welsh Government, 2019a). In Public Health Wales *Public Engagement Survey on Health and Well-being during Coronavirus Measures* , 3% of respondents reported they had 'always' felt lonely in the last week, 6% 'often', 25% 'occasionally', and 66% 'never'.[12] In the same survey, when asked how isolated the person had felt in the last week, 6% responded 'always', 14% 'often', 37% occasionally, and 43% 'never'. The survey's specific report on demographics highlighted that of those respondents aged 70 and over, 74% were self-isolating (Public Health Wales, 2020b).

Many older people regularly shop online. However, during movement restrictions, there was a marked increase in applications for delivery slots for supermarkets in Wales across all age ranges, leaving many older and vulnerable people unable to access or book delivery slots. Welsh residents were impacted by being unable to register as vulnerable with the UK online register for vulnerable and priority groups listing for supermarkets and obtain priority delivery slots in the first weeks of the restrictions. This promoted stress and anxiety about obtaining access to good quality food and essential supplies (INTs 5, 6).

Older people who are actively ageing well have been potentially affected in a negative way by being confined to the house or by being 'shielded'. This could potentially have impacted their confidence, their mental well-being and have led to them becoming less active - especially if living in a home without a garden or access to space in which to take physical activity, or if digitally excluded (INT 8).

A number of support services, networks and community groups have been established to help support those in older age groups including through local authority services and Volunteering Wales (INT 6).

It was also noted in interviews that older people who were experiencing domestic abuse or forms of violence were also of particular concern as they may have lived with this for many years, may not have recognised it as violence, and were therefore reluctant to report and seek help. Recent statistics on the age of those dying from domestic homicide has included a number of women in the older age categories who have been in very long-term relationships (INT 1; Smith, 2020).

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3.6 Education; Babies, Children and Young People

Population profile

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, 2020f).

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, 2020g).

In 2018/19, there were 78,902 pupils eligible for FSMs in Wales (StatsWales, 2019l).

Of 6,845 children looked after by local authorities in Wales in 2018, 4,870 (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 (StatsWales, 2019m).

Research undertaken in 2018 by Lloyds Bank (2018), cited by the Office for National Statistics (2019a), found that 12% of 11-18 year olds (700,000 individuals) in the UK did not have any internet access at home via a computer or tablet, a further 600,000 had no internet access at all. 68% of those who did have access to the internet at home said it would be difficult to complete schoolwork without it (Lloyds Bank, 2018, cited in Office for National Statistics, 2019a).

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).

3.6.1 Education

- **Major confirmed short-term negative impact on educational service delivery and the well-being of children and young people, and specifically for some groups, their future educational and employment prospects**

Schools and childcare settings were closed to most children on 20 March 2020 in Wales, although they remained open to vulnerable children and the children of key workers. One interviewee stressed that these settings may not have been the usual schools of either the children or the teachers, and the opening times may have been longer than usual (INT 12). Arrangements for children receiving meals while attending school were determined locally.

There has been a rapidly growing body of evidence around the impact of school and childcare setting closures on virus transmission and the health and wellbeing of children, their families, the wider community and the economy. This report does not seek to appraise the evidence on the impact of school closures on coronavirus transmission. One report stated that there were more negative consequences to school closures than positive (University College London, 2020d). A rapid systematic review of the evidence (Viner et al., 2020) examined school closures and noted that recent modelling of COVID-19 suggested that school closures alone would prevent only 2-4% of deaths, which was much less than other social distancing interventions. It concluded that *'other less disruptive social distancing interventions in schools require further consideration if restrictive social distancing policies are implemented for long periods'*. Another study by the Office of National Statistics (2020h) has shown that children were just as likely to contract COVID-19 as adults.

As previously described in Section 3.2 and 3.4, the evidence of the impact of school and childcare setting closures in relation to children and young people's development, routines, educational attainment and socialisation could have a long-term negative impact and could affect their long-term employment prospects and social relationships.

the impact of school closures … could have a long-term negative impact and could affect their long-term employment prospects and social relationships

One interviewee flagged that the Healthy Schools scheme had been suspended while schools and settings are closed but nevertheless, some useful health-focussed materials for settings, children and families have been circulated (INT 12). Another interviewee was concerned about inequalities in parental education that would affect how children were home schooled and the potential inequalities in availability of resources to support a rich home learning environment, for example books, toys, IT equipment (INTs 9, 12).

Tertiary education was also identified as being negatively affected, with concerns around the potential loss of income as a result of the restrictions, and for the long-term sustainability of such organisations (INT 12).

3.6.2 Familial and close relationships

Moderate / minimal probable positive or negative short-term impact particularly in relation to mental well-being dependent on family situation, financial circumstances

Home working, school closures and home education, and furloughing which have come about as a result of the Staying at Home Policy, have potential positive and negative impacts on familial relationships and close friendships.

The Public Health Wales *Public Engagement Survey on Health and Well-being during Coronavirus Measures* (Public Health Wales, 2020b) identified that 25% of respondents were talking to friends and family more than before the restrictions were implemented, although 21% said that they were speaking to them less frequently.[13] 94% reported that they had family support if they needed it.

Smart phones and online platforms such as Zoom have enabled many families to stay connected. As previously highlighted, less than half of those aged over 75 have access to the internet. This can make the difference in connecting to family video calls and social events under the restrictions. Grandparents in social isolation have been unable to provide childcare for grandchildren. In addition, much of the health and care system has depended on the support adult children provide for their parents, for example taking them to medical appointments. However, over one million of those aged over 65 do not have children to support them and they also tend to have smaller social networks than those with children (British Society of Gerontology, 2020).

Smart phones and online platforms such as Zoom have enabled many families to stay connected.

The extra time spent together could have led to conflict and stress but may also have brought families closer together. Domestic abuse and other challenging domestic situations have an adverse negative impact, as households members have been forced to remain at home together.

There has been an unintended negative impact for those who have experienced bereavement during the lockdown, particularly for those who have had a family member or loved one die in an environment in which they could not visit at the end of life, such as a hospital. The policy has also placed restrictions on the numbers allowed at a funeral and faith services. This, along with further restrictions on rituals and practices surrounding the death of a loved one linked to different faiths and beliefs, could have had a negative mental well-being impact in the short and long term for individuals, with a major impact on the grieving process.

There is increasing evidence of the importance of relationships on children's development during pregnancy and to a child's second birthday - often described as the first 1000 days (Parent-Infant Foundation, 2020). The evidence suggests the relationship between the parent

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and child, between the child's parents, and also the relationships with their wider family and social network, are key components influencing children's well-being. A child's experiences of early attachment and parenting styles in the first years of life can influence their sense of self, their ability to regulate their emotions and their relationships in the future (INT 13). Secure trusting attachment between parent and baby develops naturally for the vast majority of parents but it may be disrupted where, for example, there are health problems or stressful family circumstances such as movement restrictions or bereavement (Harvard University, 2020). These circumstances can disrupt relationships and make it challenging to develop the nurturing environment that children need in order to thrive. For some groups for example, separated parents or one parent families this could have an impact in terms of losing regular contact with a child(ren) (INT 13). The Staying at Home and Social Distancing Policy may have resulted in an increase in the number of sources of conflict in families, including increased stress from financial pressures, housing, employment or mental health problems (Conti, 2020; Nuffield Foundation, 2020).

3.6.3 Babies, Children and Young People / Adults

- **Major confirmed negative short-term impact in relation to educational accessibility, quality of learning and socialisation / mental well-being**
- **Major probable negative long-term impact for some sub groups dependent on their age and stage of development and educational progress; mental well-being; future academic or employment prospects**

Whilst the prevalence of COVID-19 in children and young people is not fully understood, a recent pilot study in England found that approximately 0.27% of people in the community had COVID-19 (95% confidence interval: 0.17% to 0.41%) and that there was no difference in prevalence for those aged 2 to 19 years compared with other age groups (Office for National Statistics, 2020h). However, illness and mortality is rare in this group.

The impact of the Staying at Home and Social Distancing Policy on children and young people has been both positive and negative, although it must be noted that there are key differences in terms of impact between age groups, relating to their development and educational stages. For example, impacts are likely to differ between those aged 0-2 years, 2-5 years and primary and secondary school age children.

Evidence from academic literature identified that children were less likely to understand negative situations (such as disasters), leading to feelings of anxiety and fear, stress, inability to cope and behaviours such as withdrawal or clinginess. Traumas were likely to affect children after an event, and could last for years or for a lifetime (Disaster preparedness advisory Council and Committee on Paediatric Emergency Medicine, 2015). Literature related to pandemic influenza identified that children were more likely to need psychological support and tailored communication (O'Sullivan and Bourgoin, 2010).

Social support, engaging plans and routine may reduce the negative effects of isolation (Lunn et al., 2020), which is particularly important for children and young people who can be negatively affected by changes to routines. Longer periods in isolation increase negative impacts, as does extending a quarantine or isolation period beyond expectations (Brooks et al., 2020; Leigh-Hunt et al., 2017). There is some evidence that social isolation in children may be

Social support, engaging plans and routine may reduce the negative effects of isolation

associated with abuse, poorer psychological development, or worse educational achievement (Leigh-Hunt et al., 2017). Those who are most at risk of the mental health and psychological impact of quarantine or isolation are women with children and younger, less educated females with children (Brooks et al., 2020). Young people aged 18 to 24 years have been found to be most anxious about being separated from friends and family if they had to self-isolate (Mental Health Foundation, 2020b).

Welsh Government has published guidance relating to children in care (Welsh Government 2020j) and for schools making provision for children of critical workers and vulnerable children (Welsh Government, 2020j). Supporting and safeguarding 'vulnerable pupils', those eligible for FSMs and those with Special Educational Needs has also been prioritised.

The major impact for children and young people has been in relation to education.

The major impact for children and young people has been in relation to education. The restrictions have kept several hundred thousand children and their families in Wales at home. Schools and childcare settings were officially closed in Wales on 20th March. This led to parents being required to care for and educate their children at home, and also for many, at the same time, move to working from home alongside these caring responsibilities. For the children of key workers, for those children and young people regarded as vulnerable, for example those with special needs, school and childcare settings remained open. The Welsh Government has recognised that social distancing within education and childcare settings with very young children would be harder to maintain. Guidance on health and welfare in schools remaining open has stated that schools should try to follow the social distancing guidelines, with class sizes kept as small as possible, although this would depend on the number of teachers available. Guidelines have included staggering lunch times, break times and the movement of pupils around the school to reduce large groups of children gathering. Staff have been advised to implement the above measures as far as they are able, whilst ensuring children are kept safe and well cared for within their settings (Dauncey, 2020).

Children in receipt of FSMs have been catered for and a scheme implemented across Wales (Welsh Government, 2020k). This has ensured that access has remained to both education and food. Whilst access to school and childcare has remained for many children, many have not taken up the provision. According to a National Association of Head Teachers (NAHT) survey of more than 3,000 members, 94% of schools opened to provide emergency cover in the UK had less than 20% of their usual children attending and almost six out of 10 (58%) had less than a quarter of their usual teaching staff (The Guardian, 2020).

Online educational resources have been released (BBC, 2020) and these can provide support for both parents / care providers and children and young people. Welsh Government (BBC online, 2020n) announced provision of technology to children and young people in specific circumstances, for example families on low income or living in poverty, so that they could carry out their studies. However, this was not announced until one-month post the restrictions were imposed and schools closed.

The Staying at Home and Social Distancing Policy has strengthened many familial bonds, relationships and support throughout the restrictions, and Public Health Wales' *Public Engagement Survey on Health and Well-being during Coronavirus Measures* (Public Health Wales, 2020b) reported that people were speaking more with family and friends than before the restrictions, including with their children and grandchildren[14]. Social media and digital

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technology has enabled many to stay connected. The policy has also ensured that the children of divorced / separated families are permitted to continue to visit both parents where shared responsibilities exist and there has been clear guidance for this.

Education settings provide an important role in children and young people's lives. This is not only in relation to education and learning, but also accessing facilities and services that protect and improve health and well-being, providing a routine, and socialising with peers and authority figures. This loss of socialisation with friends, loss of emotional support and interpersonal connectedness can have a major negative impact in terms of mental health and well-being, impact on social and behavioural development and result in a sense of loss and isolation from friends and family (UK Government, 2020b; United Nations,2020d). Other potential impacts of school closures include 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. A recent rapid review of unplanned school closures (Brooks et al., 2020) found that despite public health recommendations to avoid social contact, many children continued to leave the house and mix with others; this was more likely with older children or where parents disagreed with the school closure.

For children in low-income households, who may not be able to afford the necessary equipment or those with reduced access to information technology, or space to study, home schooling will have a major impact on their ability to learn and their quality of learning. This could have a major negative impact on future life chances or key stages in education and potentially increase any inequalities (Learning and Work Institute, 2020). For children in poverty, a report by the Children's Society (2020, p.2) has stated that '*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'*. Lack of access to e-learning could lead to stigma, shame and 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, 2020, p.9). The United Nations (2020e) has identified that disadvantaged children would be less able to catch up with schooling. Even when social distancing measures come to an end, the health impacts of the economic downturn will continue to be felt, and those who are most exposed are likely to be low-income families with young children (Crawford et al., 2020).

Older children and young people scheduled to take their exams in 2020 are likely to have experienced anxiety. Whilst educational boards have stated that the predicted grades would be awarded, this could negatively affect the mental well-being of those where predicted grades may not have identified the child's true potential and could lead to potentially perpetuating inequality (Lough, C, 2020; INT 12).

The United Nations (2020e) has identified that responses to COVID-19 have, in some countries, 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 et al., 2020). The loss of childcare and schools could also result in loss of security and a loss of safe play areas for children (Disaster preparedness advisory Council and Committee on Paediatric Emergency Medicine, 2015). A report from UNICEF (2020) has noted that there is an 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';* this is also likely to be true in the UK and Wales. Europol has also warned of the potential for increased online child abuse during the restrictions (Europol, 2020). There will be many children who will continue to be exposed to ACEs during this time. ACEs include domestic violence, physical and mental abuse or exposure to drugs. The National Youth Agency (2020, p.12) reports that across the UK *'over a million young people are at risk from any of the so-called 'toxic trio' of addiction, mental health, and domestic abuse.'* However, *'despite this, child protection referrals have plummeted by 50% in some areas'* (National Youth Agency, 2020, p.12). There has also been a notable increase in the number of calls to the National Society for the Prevention of Cruelty to Children (NSPCC) and Childline during April 2020 (NSPCC, 2020).

For older children and young people, the restrictions and policy has had a double impact. They have lost social connections and networks and at the same time any financial independence. Young people are more likely to have been employed in sectors affected by the closures such as the leisure and retail sectors (Crawford et al., 2020).

Interviewees highlighted that many children's and young people's experiences of the Staying at Home Policy have clearly exposed inequalities (INTs 1, 7, 9, 12, 13). They also identified challenges for some specific sub-populations including looked after children – who may have had reduced contact with social services especially in relation to domestic abuse and exposure to ACEs; pregnant women and their families; children aged up to 2 years of age and their parents in terms of bonding and development; and parents in shielding groups (INTs 8,10,13).

For older children and young people, the restrictions and policy has had a double impact.

It was also highlighted that children with learning disabilities and neurodiverse children may have suffered without their established routine, which may include going out. The amended guidance for the restrictions published on 11th May 2020 has been helpful for the latter group, as it has allowed more frequent episodes of physical activity out of the home setting (INT 12).

3.7 Housing; Public Sector

3.7.1 Housing

- **Moderate probable positive or negative short-term impact dependent on quality of housing and access to space and the indirect impact on mental well-being**
- **Moderate possible positive impact on future housing policy to adapt to the needs of potential future emergencies such as COVID-19 and climate change**

Population profile

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, 2018). 69% of dwellings in Wales are owner occupied, 18% are in the social rented sector and 13% are privately rented (Welsh Government, 2018). Flats form 30% of all social housing dwellings compared with only 4% of owner occupied dwellings (Welsh Government, 2018).

Only 53% of private rented and 55% of social housing dwellings are considered to have sufficient space for everyday living compared with 68% of owner occupied ones (Welsh Government, 2019h). 37% (500,004) of households are occupied by more than 2 adults (StatsWales, 2019n). Over a quarter of households with children living in social rented accommodation are overcrowded, which is a higher figure than for privately rented and owned accommodation (Public Health Wales Observatory, 2018).

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, 2020h).

The Staying at Home Policy has forced the population to remain at home at all times except in specific circumstances. However, the type, size and quality of housing can impact positively or negatively on an individual's or family's experience. For those who do not have a home of their own or who are homeless, the enforcement of the restrictions has been particularly challenging. There are a number of hidden homeless in Wales ('sofa surfers'), making isolating or social distancing both mentally and physically challenging.

A recent review (Gurney, 2020) highlighted that no previous research studies have focused specifically on the meaning of home in relation to social distancing measures. The report examined the interaction between 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; and household type e.g. shared living. The report noted that experiences of social distancing would be different for those living in secure decent housing compared with others living in insecure, poor quality crowded homes. The paper highlighted that those most at risk from the policy in relation to housing (as a determinant) were those who were homeless or in supported accommodation, experiencing visible street homelessness, and those in coercive / controlling relationships where there was no escape from the household. In relation to those who were homeless or visibly street homeless, Local Authorities have powers to clear the streets, which could force individuals into unsafe situations.

The nature of housing can also inhibit an individual's ability to self-isolate. Whilst national guidance expects households to self-isolate as a dedicated unit (NHS Digital, 2020b), there is not always the space or separate facilities available to remain apart from others in a household unit, nor use separate facilities to prepare food, cook or wash. This also poses a challenge and can have a negative impact on those who reside in homes of multiple occupation.

… there is not always the space or separate facilities available to remain apart from others in a household unit …

For some, remaining at home in poor quality housing or small spaces can exacerbate existing poor health conditions such as asthma; overcrowding and poor design can make it difficult to adhere to guidance on cleaning and prevention measures. Lack of access to gardens and pleasant, accessible and nearby open space for recreation and physical activity could compound the impact of the Staying at Home Policy for many groups including children and those who have poor mental health.

It was highlighted in interviews that increased time spent in poor quality housing could have a negative impact on children in relation to respiratory issues from damp housing, an increased risk of childhood injuries for example from trips / falls in unsafe housing, an impact on gross motor skills development due to cramped or overcrowded housing and mental health (INTs 9, 12, 13). For the home working population there could be respiratory impacts, mental health and well-being issues and cramped housing could lead to poor posture and increased musculo-skeletal issues (INT 11).

It was also noted in interviews that when financial protections are lifted, there could be further issues around housing affordability, including for those living in rented accommodation and the nature and siting of housing. Interviewees also advocated that this should be considered in future housing policy (INT 11).

3.7.2 Municipal and other services

- **Moderate possible negative short to long-term impact for service disruption and closure of some services**
- **Moderate probable positive short to long-term opportunity for resilience and to adapt and future proof service delivery**

The Staying at Home and Social Distancing Policy has resulted in the wide-ranging curtailment of many local authority services to communities and individuals across Wales. Whilst essential services have continued operating (albeit with altered timetables, staffing and resources) some services, for example libraries have been closed. Waste management facilities and recycling centres were also closed, leading to an increase in the incidence of fly tipping (INT 8; Clear Waste, no date; BBC Online, 2020p). Virtually all leisure and retail services were closed to the public. However, on 8th May 2020 the First Minister announced that from 11th May, garden centres and municipal recycling centres could reopen with social distancing measures in place. He also stated that local authorities could prepare to reopen community facilities such as libraries (Deeside.com, 2020b).

Leisure and retail sectors and services provide a large benefit to the economy of Wales, as well as to the health and social and mental well-being of the population. Cinemas, theatres, restaurants and bars promote cultural opportunities for sharing and learning and social connectedness. They provide opportunities for families, friends, and communities to come together in a relaxing and informal way.

The restrictions have had a major negative impact for health and well-being, as well as the economy as a whole. Industry figures show that footfall in high streets, retail centres and shopping malls was 80% lower in April compared to the previous month (March), which was 41% lower than the previous month (February). Large towns, cities and shopping centres were affected most but the local high streets did not see such dramatic falls (BBC Online, 2020q). These retail and leisure sectors employ a wide range of population groups – from young people who have left school, to those who need flexible employment such as women who have childcare commitments, to older people who have retired and returned to work for financial or social reasons.

Many crucial local authority services such as welfare advice and access to work related benefits have been operational, although there have been reports of problems with access and delays. It was noted in interviews that overall, there has been a significant reduction, remodelling or repurposing of council services, as local authorities respond to COVID-19 pressures (INTs 3, 4, 8).

The conversation has moved onto how to sustain services once restrictions are removed, for example in relation to those who are homeless and who have been provided with temporary accommodation. It is also important to recognise the unique position of local authorities, who are providing a range of key services and who play a central role in public health and health improvement (INTs 4, 8).

3.7.3 Homelessness

- **Moderate probable positive short-term impact in relation to being housed / provided with accommodation**
- **Minimal possible negative short-term impact in relation to accessing support services**

Population profile

The estimated number of rough sleepers in Wales for 2019-20 was recorded as 405 (StatsWales, 2020h).

Local authorities have acquired hotel space to accommodate those who are homeless

Local authorities have acquired hotel space to accommodate those who are homeless – effectively ending street homelessness and sofa surfing. Interviewees noted that veterans formed a significant proportion of the homeless population and were already suffering higher levels of poor mental health and post-traumatic stress disorder (PTSD). Concern was raised about the accessibility of face-to-face support services. The future sustainability of housing individuals in temporary accommodation was raised as a concern, along with the challenge of identifying a more permanent and sustainable solution (INTs 7, 8).

Homeless charity Llamau reported that it has been 'challenging' for them to keep in touch with many of the young people it provides with education. The charity identified that problems with keeping in touch with pupils via the internet and other technology during lockdown may have had a 'potentially significant' effect on their life chances in the longer term (BBC Online, 2020r).

3.8 Environment and Climate Change; Transport

3.8.1 Air Quality and Noise

- **Major confirmed short to long term positive impact, however this could be transient and temporary once economic recovery gains momentum and transport movement increases**
- **Major possible long-term positive / opportunity in relation to policy drivers for environment and health**

There is considerable evidence relating to how the home and wider environment we live in and climate change can have a positive or negative impact on population health and mental well-being (Braveman et al., 2011; Glasgow Centre for Population Health, 2013). However, no research evidence has been identified linking previous pandemics or infectious disease outbreaks to any impact on the environment or climate change. This is likely to be due to previous quarantine measures being of short duration.

In relation to the environmental determinants of health and the associated impact on climate change, there is evidence emerging that the Staying at Home Policy in Wales, the UK and at an international level has had a positive impact on the environment and potentially climate change via economic shut downs, the severe curtailment of transport and movement of people. The United Nations (2020f) 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 CO_2 emissions as a result of a large reduction in economic activity (United Nations, 2020f, page 11). The United Nations (2020f) has highlighted that pollution, deforestation and reduced biodiversity are likely to have contributed to the spread of coronavirus by reducing the amount of natural habitat available to wildlife and increasing the contact between the humans, wildlife and domesticated animals.

Recently published research (University of York, 2020) demonstrated that air pollution levels in some cities in the UK have decreased to levels lower than the average of the previous five years as the restrictions have been implemented. The same study also revealed that ozone levels have increased in the UK since the policy was been implemented. This is reportedly due

to a reduction of chemical interactions in the air which normally result in the production of NO_2 and the small particles which minimise ozone levels. Data for Cardiff shows that between mid-February and end of March 2020, levels of pollutants such as Particulate Matter 2.5 and NO_2 demonstrated significant reductions compared to the same period over the last five years (University of York, 2020). It has been noted that the majority of the pre-existing conditions that increase the risk of death for COVID-19 are the same diseases that are affected by long-term exposure to air pollution (BBC Online, 2020s).

It has been highlighted by a key stakeholder that an analysis of data from some continuous air quality monitoring sites across Wales suggests that concentrations of some air pollutants have fallen since the COVID-19 pandemic interventions including the Staying at Home policy. However, more data are required over a longer period to confirm and quantify this. Establishing the impact of the lockdown on air quality, and people's exposure to it, is complex and challenging. Measured reductions in transport-related air pollutant emissions (resulting from most people staying at home more and travelling less) may be offset by increases in other outdoor pollutants as well as potential increases in exposure to indoor air pollutants (Brunt, 2020).

The radical implementation of the Staying at Home measures demonstrates that decarbonisation can be applied extremely quickly and thus result in improved air quality (as seen in the NASA satellite maps of NO_2 over Europe) (NASA, 2020), reduced levels of vehicle traffic and air travel, reduced noise pollution levels, and promote climate and planetary health renewal. However, this improvement may be temporary and once the restrictions are eased or removed and movement of the population and economy restarts, any gains may be lost at a local, regional, national and global level.

There are future opportunities including developing recovery and renewal responses that sustain and enhance any environmental benefits gained during this period. There are also future opportunities to engage with the European Union's Greener Deal (European Commission, 2019).

3.8.2 Transport

- **Major confirmed positive short-term impact in reduction of car and vehicle traffic and the retention of public transport service for key workers to get to work**
- **Moderate probable negative short to long-term impact on the use of public transport and transport hubs**
- **Moderate possible positive / opportunity for long-term impact on sustainable transport policy**

Transport operators continue to provide services to ensure that key workers and those who do not have access to a car or live remotely can still work or access services and essentials such as food and medicines.

Overall, there have been a reduced number of journeys by car and public transport, and planes have been grounded. Whilst

this has had a positive impact on the environment, it has also caused financial impact in the airline industry. The pandemic and potential increased risk of COVID-19 led to a reduction in flight bookings and / or cancellations - for example, the airline Flybe, which at the start of the pandemic in March 2020 and pre lockdown went into administration (BBC Online, 2020t). The grounding of airplanes had negative implications for Cardiff Airport, where over 50% of the flights to and from Cardiff were operated by Flybe.

The reduction in car use has had a positive impact on the natural and built environment and may have led to a reduction in road traffic and other transport accidents and encouraged active travel (INT 8). However, as of the date of publication, the number of car journeys was starting to increase once more.

The successful messaging of the Staying at Home measures has made many members of the population more risk averse to gatherings of people, and may have an unintended consequence of reducing public transport use and increasing the number of people journeying by car both now and in the future (INT 7).

No evidence was found in the peer reviewed literature in relation to active travel and quarantine or social distancing; this is likely to be due to previous quarantine measures being of short duration. The impact of the policy regarding physical activity can be found in Section 3.1.3.

Section 4:
Key Findings

The evidence gathered in this report provides a 'snapshot' picture of the potential impacts of the Staying and Home and Social Distancing measures in Wales, in a landscape where policy is rapidly changing and the evidence is continually evolving.

The Staying at Home and Social Distancing Policy has affected nearly every aspect of daily life for all the Welsh population. As a result, the impacts have been wide-ranging, although only those identified as affecting population health and well-being have been included in the report.

Evidence from previous infectious disease outbreaks, where quarantines and social distancing have been used, provides an indication of potential impacts of the policy. However, the evidence from academic research is limited, as no previous modern-time application of this policy has occurred on such a large scale, or for such a length of time. The strength of the HIA process is that it allows current available evidence from a range of sources to be analysed and reviewed in a systematic way to enable timely decision-making.

Nevertheless, with staying at home restrictions anticipated to be eased in the coming weeks and months, with social distancing measures likely to be in place for some time, and with the potential for these measures to be reintroduced in the future, the findings of this report can be used by decision makers to mitigate negative impacts and make the most of opportunities to improve population health and well-being. The uncertain timescales for these measures has made understanding the type, likelihood, intensity, and duration of impact difficult to ascertain; overall, evidence available indicates that longer implementation of the policy will have more severe and longer lasting effects.

Many of the impacts are a direct result of the policy, for example the reduced rate of coronavirus transmission or the increase in loneliness associated with social distancing. The Staying at Home and Social Distancing Policy can be considered an 'umbrella' policy, which has directly led to other policy decisions and actions, each with their own impacts. Examples of these indirect impacts include the closure of schools, which has affected children's education, or businesses suspending activity, which has resulted in financial hardship for many. This has made assessing impacts challenging, along with separating out the impact of the policy from the impact of the disease itself. Further research and analysis is needed to better understand the indirect impacts of the policy.

4.1 Positive impacts of the policy

Overall, the policy has achieved its aim and had a direct positive impact on health and well-being by: reducing the transmission of coronavirus and subsequent directly associated morbidity and mortality; and helped to ensure that use of acute healthcare services has, at the time of writing, not exceeded capacity. Those who are more vulnerable to the direct negative health effects of COVID-19 such as the elderly or those with long term health conditions are likely to have benefited more than the general population from the protective health measures.

Other significant positive impacts of the policy (not in any priority order) include:

- Mobilisation of society as a whole to protect those who are more vulnerable, for example through volunteering, increased participation in neighbourhood and community initiatives or supporting family and friends. Such actions have helped to increase community cohesion and resilience.
- A rapid increase in the use of digital technology, which has helped people to stay connected with loved ones, continue working, continue with their education or learn new skills, and access key services (such as healthcare).
- The strengthening of family and friendship bonds, either through being able to spend more time together in the home or through increased contact via social media and digital technology.
- Home working has provided greater flexibility for some individuals, reducing commuting times and enabling individuals to achieve a better work-life balance.
- There has been rapid action to place those who are homeless in accommodation.
- The continued protection of those who are vulnerable, for example by providing food for children who are eligible for FSMs.
- A reduction in overall crime rates.

- Reduced car use and traffic, along with improved air quality and reduced NO_2 emissions.
- An increased appreciation of the importance of physical activity, including in promoting mental well-being. For some of the population, physical activity levels have increased.

4.2 Negative impacts of the policy

Overall, the Staying at Home and Social Distancing Policy has had an unintended negative impact for nearly all population groups and determinants of health and well-being examined.

Key examples (not in any priority order) include:

Population groups

Low-income households are disproportionately affected in a number of ways, including economic and financial impacts such as: increased employment insecurity and job loss; reduced income resulting in increased poverty levels and fuel and food insecurity; and increased risk of mental health impacts such as depression and anxiety. This is compounded by the fact that those who live in deprived areas have a higher mortality rate from COVID-19. Some impacts have been partially mitigated by the national financial support measures such as furloughing.

All groups are being affected by reduced interpersonal and social contact, resulting in feelings of isolation and loneliness. Those who have limited access to digital technology such as the elderly or those living in remote areas are at increased risk of not being able to maintain social relationships.

Worsening of mental well-being for the whole population (such as depression and feelings of confusion, anger, anxiety and loneliness), as well as an exacerbation of mental health conditions. Those most at risk of mental health impacts include women, women with children, those on low incomes, healthcare workers, those who have been shielded and those with existing mental health conditions. Previous outbreaks have been associated with worsening of mental health amongst older people.

Those who work in sectors which have closed due to the restrictions, resulting in people being furloughed or losing jobs.

Women and children who are more likely to be experiencing violence including domestic abuse and sexual violence. Women are also more likely to have increased caring responsibilities, for example undertaking home schooling or caring for vulnerable older relatives.

Those who usually rely on others to provide care and support in the home, such as the elderly, but who may face difficulties in obtaining this due to movement restrictions.

Babies, children and young people (including young adults) who have had their education interrupted, have lost their routines and structures and are experiencing reduced opportunities for socialising with peers. Children from low-income households are more likely to be adversely affected.

The closure of childcare settings and schools has also meant that some children have lost access to a place of safety. Children may be at greater risk of ACEs due to a range of factors including changes in home life circumstances, for example, children being in the home for longer periods or not being able to access support services.

Key workers who have continued working since the policy was implemented and who, due to the public-facing nature of their role, are at increased risk of contracting COVID-19 and are likely to experience mental health impacts such as anxiety and distress

Black, Asian and Minority Ethnic (BAME) Groups, who are more likely to have worse health outcomes as a result of contracting COVID-19, and who may also have experienced an increase in hate crimes.

Determinants of health and well-being

Negative impacts on the economy will result in reduced income and spending, increased unemployment, and closure of small businesses; the subsequent health impacts will be felt even once measures are lifted.

Public transport use is likely to remain lower than prior to the introduction of the policy, and the number of car journeys is likely to increase through fear of exposure to the virus. This could impact on achieving active and sustainable travel policy goals.

Reduced use of some health and care services, such as hospital Emergency Departments, and the suspension of a number of healthcare interventions may lead to increased morbidity and mortality from non-COVID-19 health conditions.

An increase in health harming behaviours such as snacking and an increase in alcohol consumption.

Social media use has increased the spread of misinformation and feelings of stress and panic.

Crowded or poor housing conditions, with a lack of access to a garden has meant that for some the policy could exacerbate existing health conditions and negatively impact on mental well-being.

4.3 Opportunities for the future

This HIA has identified a number of areas where there are opportunities to promote and protect population health and well-being and reduce health inequity. For the foreseeable future, COVID-19 will affect all areas of policy and planning and therefore needs to be seen as a 'lens' which informs future decisions. In addition there are a number of 'pre-pandemic' urgent issues for Wales, such as entrenched deprivation, the implications of Brexit, and the climate emergency, which still need to be addressed; these all require an integrated approach so that recovery and renewal in Wales incorporates solutions that have co-benefits across these issues. The Well-being of the Future Generations (Wales) Act 2015 provides a policy framework to support such an approach, placing sustainable development at the heart of pandemic recovery.

Other opportunities for the future (not in any priority order) include:

Increased digital technology use

The Staying at Home Policy has accelerated the use of digital technology across many aspects of our lives. Technology has facilitated a large section of the population to work from home and enabled access to a range of services such as General Practice (GP) appointments, education, retail, as well as helping individuals to maintain and develop connections with family, friends and members of the community. There is a need to ensure that these gains benefit all those in Welsh society, including those who may not currently have access to the internet or equipment. See Sections 3.2.4 and 3.2.5 for full analysis.

Home working

There are opportunities for organisations in Wales to promote and move towards more agile ways of working, which includes more employees working from home. However, this needs a balanced approach, as home working may not suit all. Any changes need to be supported by organisational policies that can facilitate the choices of all its employees – including those who wish to have the flexibility to work from home or work flexible hours and those who prefer the safety, and personal connectedness that comes from working alongside colleagues in a work environment or a mix of both these approaches. See Section 3.2.4 for full analysis.

Sustainable economic development

The pandemic has exposed the interconnectedness of human health and well-being, the environment, and the economy. The Staying at Home Policy has shown that, for the Welsh population, health needs to be at the forefront of decision-making. The pandemic offers an opportunity for Wales to develop an economic recovery model, with other factors contributing to population well-being (environmental, social and cultural) at its core. The pandemic has highlighted that not only is a new approach possible, it is needed. See Sections 3.2.1 and 3.8.1 for full analysis.

Harnessing the role of the third sector

The pandemic response has relied on the third sector to support the most vulnerable individuals and communities in Wales. The pandemic has seen an increase in the volunteering workforce, promoting community cohesion and resilience. There is an opportunity to build on this mass participation in volunteering; this would ensure greater resilience in Wales to the ongoing pandemic response, as well as supporting the sustainability of the third sector and in the longer term help to promote individual and community well-being. See Section 3.4.1 for full analysis.

Promoting healthy behaviours

The Staying at Home Policy has resulted in a greater awareness amongst the population of the importance of health promoting behaviours. There have been clear messages about the added risk smoking poses to those who contract COVID-19, and there is evidence that there is an increased appreciation of physical activity, including in promoting mental well-being. The ongoing pandemic response provides an opportunity to enhance messaging around the connection between alcohol, tobacco, diet and physical activity, physical health and mental well-being. See Section 3.1.3 for full analysis.

Transport and active travel

The ongoing need for social distancing risks leading to an increase in car use and deterring public transport use. This will not only have a negative impact on long-term health (by reducing physical activity levels and increasing air pollution), it will also further contribute to climate change. There is an opportunity to address this through approaches such as increased public transport provision that enables social distancing and promoting opportunities for active travel by building and enhancing cycling and walking infrastructure. See Section 3.8.2 for full analysis.

Protecting against future outbreaks

A range of measures such as reinforcing whole system approaches to health protection and well-being in schools and improving health literacy on hygiene measures can help to protect against future outbreaks, whether COVID-19 or other infectious diseases.

4.4 Evidence gaps and future research

We are currently experiencing a unique situation of facing a pandemic (a relatively rare event), caused by a novel virus, that is being addressed through policies such as Staying at Home and Social Distancing, which have previously not been used to such a scale or for such a prolonged period.

This means that there are considerable gaps in the research literature, although evidence is rapidly building. Through this HIA, the following evidence gaps and research needs have been identified; the answers to these questions will improve understanding of pandemic impacts and mitigate against adverse effects of policies in future.

Overall population morbidity and mortality

Whilst there is ongoing collation of data and evidence regarding the direct impacts of COVID-19 on morbidity and mortality, there is limited evidence regarding the indirect impacts, including the impacts of mitigation policies and measures in the short, medium and longer term. For example, there is limited understanding of the impacts of reduced use of health and care services or the impact on the determinants of health and well-being, such as increasing levels of poverty or living in poor quality housing.

Mental well-being

Mental health and well-being is one of the main negative impacts which has been identified as a result of the Staying at Home and Social Distancing Policy. Whilst there is some evidence on the impact of quarantine on individual mental health, there are considerable gaps including:

- Factors and population level interventions which can enhance mental well-being during quarantine, isolation and social distancing
- The longer term mental health and well-being effects of the policy
- The impact on the mental health of specific groups, such as children and young people, women, low-income groups and key workers
- The impact on the mental health and well-being of older people, those with health conditions and those who are shielding, who are advised to stay at home for a prolonged period of time
- The links between individual mental well-being and wider social well-being and how social resources can be used to improve resilience for individuals and the community
- Understanding mental health impacts on health behaviours such as diet or physical activity, and vice versa
- A Mental Well-being Impact Assessment (MWIA) could be utilised to further explore these evidence gaps.

Babies, children and young people

The Staying at Home and Social Distancing Policy is having a profound immediate effect on the lives of babies, children and young people in many ways. Further research is needed as to the social and psychological impact of closing childcare settings and schools and applying social distancing in schools, and the long-term impact on children and young people's social and emotional development. This will be particularly important for early years and primary schools, where children are learning emotional and behavioural self-regulation and physical self-care as part of foundation phases.

Influencing behaviours

There are clear gaps in the literature around the impact of isolation, quarantine and social distancing on behaviours affecting population health and well-being. There is little research evidence on approaches that promote adherence to policies whilst minimising negative impacts of mental well-being. There is also an evidence gap regarding impacts of isolation and social distancing on health behaviours such as physical activity, food and alcohol consumption, and smoking. More data is needed about those groups that have been identified as being most affected, for example those with a low income, women, children and young people, older people and those with protected characteristics.

Access to and use of services

There is little understanding regarding the reason for, and the impact of, fewer people using medical services, particularly in hospital settings following the introduction of the policy. As pandemic response is likely to be ongoing for a prolonged period of time, further evidence can help to inform whether proactive approaches are needed to ensure that medical care is accessible to, and used by, those in need.

Social media use

Further evidence is needed regarding the impacts of social media use during quarantine, isolation and social distancing. There is emerging evidence that social media use is increasing levels of stress and panic about COVID-19. However, little is known about why this is the case and which approaches to social media use promote well-being and connectedness.

The role of housing

A better understanding is needed on the impact of housing type (owner occupied, privately rented, social housing) and housing quality on physical and mental well-being during the Staying at Home Policy.

Employment

A significant proportion of the Welsh population are facing uncertainty regarding jobs and income as a result of the policy. Whilst there is a considerable amount of activity underway to safeguard jobs and provide income protection and benefits support, further evidence is needed about how individuals and communities can be supported, and how the long term impacts on health and well-being can be mitigated. This could build on previous research undertaken on mass unemployment events (Davies et al., 2017).

Variation in experiences between rural and urban areas

An individual's experience of the policy is likely to have differed considerably, depending on whether they live in an urban or rural area of Wales. It is assumed that those in rural areas will have been better able to access outdoor green space for exercise than those in urban areas. However, a better understanding of the differences in impacts is needed, for example regarding use of the internet to remain connected to others, or the use of active travel or public transport. These are all likely to have significant impacts on health and well-being in the longer term.

Impact on Black, Asian and Minority Ethnic groups

There is increasing evidence that individuals who are from BAME backgrounds have worse morbidity and mortality rates as a result of COVID-19. However, the scale of the issue in Wales and the reasons for this disparity are not understood.

Impact of Lifting Policies

Whilst there is growing understanding of the effects of the recent policies, less is known about the impacts of lifting or reversing these policies. For example, there is no evidence relating to behaviours that may occur following the lifting of prolonged social distancing measures. Similarly, little is understood about the impact of lifting some of the mitigation measures such as furloughing. These are all important to understand in order to protect and improve health and well-being for the longer term.

Table 1: Key impacts of the 'Staying at Home and Social Distancing Policy' in Wales

Policy Area	Determinant of health & well-being / population group	Positive / opportunity			Negative			Rationale
		Likelihood	Intensity	Duration	Likelihood	Intensity	Duration	
		Confirmed	Major	Short term (S)	Confirmed	Major	Short term (S)	
		Probable	Moderate	Medium term (M)	Probable	Moderate	Medium term (M)	
		Possible	Minimal	Long term (L)	Possible	Minimal	Long term (L)	
Health and Social Care	**Compliance with legislation**	Confirmed	Major	Short				**Positive:** The policy has had a high level of compliance and resulted in population level behaviour change. Impact on reducing direct morbidity and mortality from COVID-19, and ensuring use of health services has not exceeded capacity. See Main Report, Section 3.1.1 for full analysis.
	Mental well-being				Confirmed	Major	Short - Med - Long	**Negative:** Whole population impact, but particularly in relation to children and young people and young adults, older people, key workers, those on low incomes and at risk of unemployment, and those who have existing poor mental health or who are shielding. See Main Report, Section 3.1.2 for full analysis.
	Diet and nutrition - food consumption	Possible	Minimal	Short - Med - Long	Possible	Minimal	Short - Med - Long	**Positive or Negative** for example some individuals are snacking more, whilst others have returned to cooking 'from scratch'. Opportunity to reinforce and support healthy eating behaviours. See Main Report, Section 3.1.3 for full analysis.

	Diet and nutrition - patterns of purchase and supply	Possible	Minimal	Short - Med - Long	Confirmed	Minimal - Moderate	Short	**Positive:** Families undertaking weekly shops and eating less whilst 'on the go'. Opportunity for an increase in cooking 'from scratch' and sourcing food locally, thereby increasing trade for local businesses. **Negative:** Stockpiling of food and increase in food waste. See Main Report, Section 3.1.3 for full analysis.
	Diet and nutrition - school meal provision	Confirmed	Minimal - Moderate	Short	Possible	Minimal - Moderate	Short	**Positive:** Continued access to free school meals for those who were eligible. **Negative:** Change in delivery mechanisms (the supply of food parcels) may not take into account individual needs. For food vouchers and Bacs payments, there are concerns around the nutritional content of the food being purchased. See Main Report, Section 3.1.3 for full analysis.
	Physical activity	Confirmed	Moderate	Short - Med - Long	Possible	Minimal - Moderate	Short - Med	**Positive:** Policy includes provision to take physical activity (initially once a day, then increased). Some individuals are taking more physical activity than before restrictions were implemented. **Negative:** Reduction in physical activity levels - policy encourages individuals to stay safe at home. Closure of some parks has reduced the green spaces in which individuals can exercise. See Main Report, Section 3.1.3 for full analysis.
	Alcohol - consumption patterns				Possible	Minimal	Short	**Negative:** Public Health Wales' Public Engagement Survey has shown an increase in the amount of alcohol being consumed by those who drink alcohol. See Main Report, Section 3.1.4 for full analysis.
	Alcohol - access to alcohol	Possible	Minimal	Short	Possible	Minimal	Short	**Opportunity** to promote and reinforce reduced alcohol consumption to low risk levels. **Negative**: Off-licences are included on the government's list of essential UK retailers that are allowed to stay open, thereby enabling ease of purchasing of alcohol. See Main Report, Section 3.1.4 for full analysis.

	Sexual health	Possible	Minimal	Short - Med -	Possible	Minimal	Short	**Positive:** Opportunity to reduce STI transmission across the population as non-household contacts are unable to engage in sexual activity. **Negative:** Reduced access to sexual health services. See Main Report, Section 3.1.5 for full analysis.
	Health, well-being and social care services	Confirmed	Major	Short - Med - Long	Confirmed	Major	Short - Med - Long	**Positive:** Increased resilience of health and social care sector through delivering services via different mechanisms such as tele-health. **Opportunity** for long-term redesign and reconfiguration of services to enhance sustainable service provision. **Negative:** Routine services such as operations and appointments have been cancelled or suspended. Some individuals are not accessing health services / accessing services late, due to fear of exposure to the virus. Impact on physical and mental well-being of Health and Social Care workforce. See Main Report, Section 3.1.6 for full analysis.
	Screening services; vaccinations; and services for women and children				Possible	Minimal	Short	**Negative:** Screening services and some adult vaccinations have been suspended in Wales. Varied levels of willingness to access antenatal care. Missed immunisation appointments within the routine childhood immunisations schedule. Impact on older people, women and children in particular. See Main Report, Section 3.1.7 for full analysis.

Health and Social Care - Population Groups	**Those with poor mental health**	Possible	Minimal	Short - Med - Long	Probable	Moderate /Major	Short - Med - Long	**Opportunity** to provide enhanced mental well-being services or reconfigure mental health service models. **Negative:** Reduced access to mental health services. Exacerbation of existing mental health conditions. See Main Report, Section 3.1.8 for full analysis.
	High risk groups, for example those with long-term health conditions	Possible	Moderate	Short	Probable	Minimal - Moderate	Short	**Negative:** Reduced access to services or treatment for existing conditions. **Positive** or **Negative** short-term impact for those with respiratory conditions dependant on the type and quality of housing and environment they live in. See Main Report, Section 3.1.9 for full analysis.
Business, Economy and Innovation	**Economic factors - economic inactivity**	Confirmed	Major	Short	Confirmed	Major	Short - Med - Long	**Positive:** UK Government economic support measures for employers and individuals and the economy more broadly. **Negative:** Economic downturn, potential for recession. Some sectors have closed down during the pandemic, have ceased trading and are not receiving income. See Main Report, Section 3.2.1 for full analysis.
	Economic factors - policy	Possible	Moderate	Long				**Positive:** Opportunity to review economic policy drivers in Wales particularly in tandem with Brexit and climate change, with a greater focus on well-being. See Main Report, Section 3.2.1 for full analysis

	Employment - job availability and health and well-being of workforce	Confirmed	Major	Short	Confirmed	Major	Short	**Positive:** Protection of population and workforce's health and well-being. Introduction of furloughing to protect jobs. Positive impact for some sectors such as supermarkets and online retailers who have seen an increase in demand. **Negative:** Cessation of trading for some sectors due to decrease in consumer demand and resulting loss of jobs and possible income for some workers. Those furloughed may have had to wait for payment and this may have caused stress and anxiety. Those on low incomes may be at increased risk of food / fuel poverty. Moderate **Positive** or **Negative** long-term impact dependent on the nature of the economic recovery and renewal (either a bounce back or recession / downturn) and governmental levers for the future economic direction. **Opportunity** to develop an economy based on good, fair work. See Main Report, Section 3.2.2 for full analysis.
	Working conditions and practices	Confirmed	Moderate	Short	Confirmed	Moderate	Short	**Positive** or **Negative** dependent on the nature of the employment and associated virus exposure risk, social distancing implementation, and availability of Personal Protective Equipment (PPE). See Main Report, Section 3.2.3 for full analysis.
	Home working	Confirmed	Major	Short - Med - Long	Confirmed	Major	Short - Med - Long	**Positive:** Some of the workforce have been able to work flexibly and remotely, protecting them from virus exposure and improving work-life balance. **Negative:** Working from home is not feasible / challenging for some individuals for example, those with responsibilities for home schooling children. See Main Report, Section 3.2.4 for full analysis.

	Digital media - patterns of use	Probable	Moderate	Short - Med - Long	Possible	Moderate	Short - Med	**Positive:** Increase in use of social media to stay connected with family, friends and the wider community. Mechanism to disseminate robust and correct information quickly to the population (for example, on behavior patterns and resilience). **Negative:** Impact on those who do not use / do not have access to social media and may be excluded from information streams and community connections. Mechanism for the sharing of misinformation, increasing discrimination, fraud and hate crime. Unknown long-term impacts of socialising via social media (for example on behavior patterns and resilience). See Main Report, Section 3.2.5 for full analysis.
Business, Economy and Innovation - Population Groups	**Key workers**	Possible	Moderate	Short - Med - Long	Probable	Major	Short - Med - Long	**Positive:** Increased recognition of key workers as providing an important and essential function in society for example, delivery drivers, food retailers / supermarket workers. **Negative:** Mental and physical well-being impacts on those who deliver frontline services with high interaction with public and patients. See Main Report, Section 3.2.6 for full analysis.

Equality; Justice and Law	**Violence against women, domestic abuse and sexual violence (VAWDASV)**				Confirmed	Major	Short - Med - Long	**Negative:** Women, babies, children and young people with increased exposure to Adverse Childhood Experiences (ACEs) and VAWDASV. Increase in risk of VAWDASV during the restrictions as individuals remain at home with the perpetrator. Increased risk of harm due to reduced opportunity to seek support. See Main Report, Section 3.3.1 for full analysis.
	Community safety and crime	Probable	Moderate	Short				**Positive:** Reported decrease in crime across several categories including burglary, rape and assault. See Main Report, Section 3.3.2 for full analysis.
	Trust in the police	Probable	Moderate	Short				**Positive**: Public Health Wales' Public Engagement Survey reported 81% of respondents in Wales trust the police to use their new powers to restrict people's movements sensibly . See Main Report, Section 3.3.2 for full analysis.
	Ethical considerations	Confirmed	Major	Short				**Positive:** Rapid implementation of policy to protect population health and protect those who have increased morbidity or mortality risk from COVID-19. **Opportunity** for recovery and renewal phases to improve health equity and develop healthy and sustainable policies. See Main Report, Section 3.3.3 for full analysis.

Equality; Justice and Law - Population Groups	**Women**				Confirmed	Major	Short - Med - Long	**Negative:** Impact across all age groups. Women are more likely to work in services and sectors which have closed during restrictions. Women are disproportionately affected by VAWDASV, which is reported to have increased during the restrictions. Women are more likely to hold caring roles (employed or voluntary), be responsible for familial care and do more of the household chores and life administrative responsibilities, all of which have increased during restrictions. See Main Report, Section 3.3.4 for full analysis.
	Men				Confirmed	Moderate	Short - Med - Long	**Negative:** Short-term impact for some employment sub-groups such as construction workers (89% are men compared to 11% women) and drivers. Many men are working in a range of roles which are not covered by the restrictions e.g. construction sector, transport drivers (public and private), tradesmen. Many are self-employed (a category missed in the first round of economic measures for furloughing employees) and have contracts to fulfil with the construction industry. Potential long-term impact for some employment subgroups highly exposed to an economic downturn, for example, housing, manufacturing and hospitality industries. See Main Report, Section 3.3.5 for full analysis.
	Income related groups				Confirmed	Major	Short - Med - Long	**Negative:** Impact on those working in sectors that have closed down; those who have experienced reduced income; those previously on low incomes. May experience increased food / fuel poverty. Impact size and duration dependent on economic recovery and renewal. See Main Report, Section 3.3.6 for full analysis.

	Black, Asian and Minority Ethnic (BAME) Groups				Probable	Major	Short - Med - Long	**Negative:** COVID-19 is having a disproportionate impact on people who are from BAME backgrounds. More than a third of patients who are critically ill with the virus are from BAME backgrounds. Increase in reported hate crime in respect to those from BAME backgrounds. For some communities, English is not the first language. Impact as a result of cultural traditions of intergenerational households and familial and social support. See Main Report, Section 3.3.7 for full analysis.
	People with physical, sensory or learning disabilities / challenges	Possible	Minimal	Short - Med - Long	Possible	Moderate	Short	**Positive:** Impact arising from increased home working facilitating employment opportunities. **Negative:** Reduced access to support services. Impact on those with autism not recognised in the initial guidance. See Main Report, Section 3.3.8 for full analysis.
	Faith groups	Possible	Minimal	Short - Med - Long	Confirmed	Minimal	Short	**Positive** or **Negative** short to long-term impact dependent on ability to participate in services or faith customs and rituals. **Negative:** Reduced access to services leading to some feeling spiritually isolated. Some faith groups have not been able to carry out specific religious / faith rituals which can have an impact on mental well-being. See Main Report, Section 3.3.9 for full analysis.
	Asylum seekers and refugees				Possible	Minimal	Short	**Negative:** Reduced access to support services under the restrictions. Limited evidence in relation to impact. See Main Report, Section 3.3.10 for full analysis.

Communities and Regeneration	**Volunteering and the Third sector**	Confirmed	Major	Short	Possible	Moderate	Short - Med - Long	**Positive**: Increase in numbers of volunteers and more support for the Third sector. **Positive or Negative** short to long-term impact dependent on organisations retaining the increased numbers of volunteers and reconfiguring their structures and systems. **Negative:** Uncertainty over future funding and concern that the restrictions will impact on future funding for some. Reduced fundraising ability for organisations who rely on retail trading. Challenges for organisations including the sustainability of the social capital created, the retention of volunteers to provide new and amended services. See Main Report, Section 3.4.1 for full analysis.
	Methods of working				Possible	Major	Short - Med - Long	**Negative:** Challenges in remote working – a move to online / remote working has resulted in reduced interpersonal contact, with greater impact on those who are vulnerable / do not have online access or skills to use it. See Main Report, Section 3.4.1 for full analysis.
	Community cohesion, resilience and networks - support provided to others	Probable	Moderate	Short - Med - Long				**Positive:** Visible mobilisation of family and community networks to support each other through the public health emergency and the restrictions being implemented. Opportunity for long-term impact as communities connect to support each other. See Main Report, Section 3.4.2 for full analysis.
	Social division				Possible	Minimal	Short - Med - Long	**Negative:** Impact due to divisions in society created by non-compliance. Increase in reports of neighbourhood disputes under the restrictions and reports made to enforcement agencies of those breaking the law. Deterring visitors to areas may cause resentment, conflict and division in communities and deter future tourists. See Main Report, Section 3.4.3 for full analysis.

	Geographical settings	Possible	Moderate	Long	Confirmed	Moderate	Short	**Positive:** Impact on tourism in Wales across both rural and urban settings with more people visiting Wales if international holidays are not feasible. **Negative:** Impact for rural communities as a result of loss of tourism. Poor access to Broadband / the internet or accessible services e.g. amenities, public transport impacting on work, community sustainability. Possible minimal negative short-term impact for urban settings in relation to limited space to exercise outdoors safely. See Main Report, Section 3.4.4 for full analysis.
Communities and Regeneration – Population Groups	**Adult care and carers**				Possible	Moderate	Short - Med - Long	**Negative:** Reduced availability of assessments and support. See Main Report, Section 3.4.5 for full analysis.
Population Groups	**Older people**	Possible	Major	Long	Confirmed	Major	Short	**Opportunity** to improve provision of care and support to older people. **Negative:** Mental health and well-being impacts such as increased experience of isolation, loneliness and disconnection from families and wider support networks. Challenges with obtaining food and essential supplies may cause stress and anxiety. See Main Report, Section 3.5 for full analysis.

Education and skills; Children and families	**Education – closure of settings**				Confirmed	Major	Short - Med - Long	**Negative:** Impact of childcare and school closures on babies, children and young people's development, routines, educational attainment and socialisation plus mental well-being and future educational and employment prospects. Differences in parental support and availability of educational resources affecting how children are home schooled. See Main Report, Section 3.6.1 for full analysis.
	Familial and close relationships	Probable	Minimal - Moderate	Short	Probable	Minimal - Moderate	Short	**Positive** or **Negative** short-term impact particularly in relation to mental well-being dependent on family situation; for example, exposure to ACEs, financial circumstances. See Main Report, Section 3.6.2 for full analysis.
Education and skills; Children and families - Population Groups	**Babies, children and young people and young adults**				Confirmed	Major	Short - Med - Long	**Negative:** Reduced access to education (including early years education), reduced quality of learning environment, and reduced opportunity for socialisation. Potential long-term negative impact for some sub-groups dependent on their age and stage of development and educational progress; worsening mental well-being; negative impacts on future academic or employment prospects. **Negative:** Reduced access to education (including early years education), reduced quality of learning environment, and reduced opportunity for socialisation. Potential long-term negative impact for some sub-groups dependent on their age and stage of development and educational progress; worsening mental well-being; negative impacts on future academic or employment prospects. See Main Report, Section 3.6.3 for full analysis.

Public Sector; Housing	**Housing**	Probable	Moderate	Short	Possible / Probable	Moderate	Short	**Positive** or **Negative** dependent on quality of housing and access to space. Indirect impact on mental well-being. **Negative:** Those particularly at risk include those who are homeless or in supported accommodation, those in poor quality housing or overcrowded accommodation and those in coercive / controlling relationships where there is no escape from the household. See Main Report, Section 3.7.1 for full analysis.
	Housing - policy	Possible	Moderate	Med-Long				**Positive:** Opportunity to influence future housing policy to adapt to other emergencies such as climate change. See Main Report, Section 3.7.1 for full analysis
	Municipal and other services e.g. libraries, waste management services, leisure and retail services	Probable	Moderate	Short - Med - Long	Confirmed	Moderate	Short - Med - Long	**Opportunity** to adapt and future proof service delivery, for example by building on increased use of digital technology. **Negative:** Service disruption and closure of some services, which may have affected the health, social and mental well-being of the population. See Main Report, Section 3.7.2 for full analysis.
Public Sector; Housing - Population Groups	**Homelessness**	Probable	Moderate	Short	Possible	Minimal	Short	**Positive:** Impact in relation to being housed / provided with accommodation. Local Authorities have been acquiring hotel space to accommodate those who are homeless. **Negative:** Reduced access to support services e.g. face-to-face support for addressing health harming behaviours. See Main Report, Section 3.7.3 for full analysis.

Environment and Climate Change; Transport	**Environmental conditions - including air quality, noise, pollution and climate change**	Confirmed	Major	Short - Med - Long				**Positive:** Reduction in levels of vehicle traffic and air travel, noise and pollution. Data shows positive impact on environment. Reduction in GP consultations in Wales for respiratory conditions. Impact may be transient and temporary once economic recovery gains momentum and transport and industrial activity increases. There is a long-term opportunity to further embed environmental sustainability and health in policy. See Main Report, Section 3.8.1 for full analysis.
	Transport – transport movements and use	Confirmed	Major	Short	Probable	Moderate	Short - Med - Long	**Positive:** Reduction in car and vehicle traffic and planes grounded. Retention of essential public transport services for key workers to get to work. **Negative:** Reduced use of public transport and transport hubs and therefore a potential future increase in levels of car use, if cars are perceived as protecting against virus transmission. See Main Report, Section 3.8.2 for full analysis.
	Transport – policy	Possible	Moderate	Med-Long				**Opportunity** to strengthen long-term sustainable transport policies. See Main Report, Section 3.8.2 for full analysis

Section 5:
Next Steps

The Staying at Home and Social Distancing Policy has already had a profound effect on the health and well-being of the Welsh population. Below are a range of policy considerations that can: support better understanding of the longer term impacts of control measures on population health and well-being; help mitigate negative impacts and enhance positive impacts; inform decisions regarding continuation of, or adjustments to (including phasing out) the policy; support any reintroduction of the policy, for example in the event of second or third COVID-19 pandemic waves; and inform strategies for recovery and renewal.

1. Mitigate against worsening health inequity as a result of the policy through: monitoring the impacts on different population groups over the short, medium and longer term; and ensuring that any support measures and interventions are targeted proportionately at individuals and communities who are most affected.

2. The policy has negatively impacted on the mental well-being of the whole population. Ongoing mental health and well-being support is needed for individuals and communities particularly affected even when policy restrictions are lifted, as this phase may cause further uncertainty and fear. Mental well-being needs to be a key consideration of policy changes and integral to the recovery and renewal phases.

3. The needs and views of babies, children and young people should to be central to decision-making on issues such as the re-opening of childcare settings and schools, provision of services for children, and supporting children's mental health and well-being. Early action across the whole system is needed to support babies, children and young people from low-income households who have been most affected by the Staying at Home and Social Distancing Policy, in order to mitigate long-term impacts on their life chances.

4. The jobs and livelihoods of a significant proportion of the Welsh population have been affected, with ongoing uncertainty about how many more will be impacted. Mitigation measures should be targeted at specific groups with greater need, such as individuals and families on low income, those living in areas of deprivation, and those who have / or are at risk of losing their jobs. The health and well- being impacts of an economic downturn need to be considered in conjunction with the potential impacts of Brexit and negotiated Free Trade Agreements.


5. There is little evidence regarding the potential impacts of phasing out and reintroducing the policy. Decision makers should identify how easing restrictions or introducing measures in future will impact on health, well-being and equity. This should include identifying population-level impacts, for example on excess morbidity and mortality. HIA should be embedded in policy- making and planning processes, particularly for areas where there is limited evidence on impacts, to allow policy adaptation or for mitigation measures to be introduced at an early stage.

6. A number of opportunities for improving population health and well-being have emerged as a result of the pandemic and the policy response, such as increased home working or use of digital technology. Recovery planning should build on learning from the emergency pandemic response, including the rapid scale and speed at which collaborations have been forged and action taken, and the unique opportunity for Wales to embed the Sustainable Development Principle and tackle other emergencies such as climate change.

7. Both retrospective and prospective analyses of evidence, data and health intelligence can provide timely insights into the impacts on the Welsh population of the virus and the policy response measures. For example, Public Health Wales' *Public Engagement Survey on Health and Wellbeing during Coronavirus Measures* can support decision makers to prioritise areas of concern for the Welsh public, as well as gain insight into the acceptability and effectiveness of future policies and plans, for example in the event of further pandemic waves. Monitoring the population health and well-being impacts of COVID-19 and response measures is being undertaken by Public Health Wales and can be used by decision makers to identify the optimal balance between COVID-19 control measures and minimising unintended negative impacts over the longer term.

Section 6: **Conclusion**

The Staying at Home and Social Distancing Policy has had major positive and negative intended and unintended impacts on the population of Wales. Whilst protecting the population from COVID-19, the repercussions for the economy, environment, society and a spectrum of vulnerable population groups has been wide-ranging. Moreover, the longer term impacts of both COVID-19 and the response measures on population morbidity and excess mortality are unknown. Population groups such as women, those on low incomes, key workers on low pay (for example retail workers and carers), and babies, children and young people have been particularly negatively affected. Many of the impacts are likely to increase health and social inequity in Wales; monitoring is necessary to better understand these impacts for the longer term and inform future decisions about reintroducing control measures.

The pandemic has placed a spotlight on a wide range of important issues for Wales, such as poverty and deprivation, the impact of Brexit and Free Trade Agreements, and climate change. The response to, and recovery from the COVID-19 pandemic requires an integrated approach to population health and well-being, health inequity, sustainable development, economic recovery, and climate change. The Well-being of Future Generations Act provides the policy framework to support such an approach, placing sustainable development at the heart of pandemic recovery.

Limitations

This HIA was carried out in a very short timeframe between 2nd April and 11th May 2020, whilst the Staying at Home and Social Distancing Policy was still being implemented.

Evidence was gathered from a wide range of sources. Of note, there was limited peer-reviewed research literature in relation to population health and well-being impacts of pandemics, isolation, quarantine, and social distancing measures. Some of the research literature used in this report was published prior to the peer review process.

Public Health Wales' *Public Engagement Survey on Health and Wellbeing during Coronavirus Measures* data was self–reported.

Undertaking this HIA under the policy meant that the process was adapted to use digital technology i.e. interviews were carried out remotely rather than in person; this was challenging but proved to be highly effective.

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Our Priorities 2018-2030

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

Influencing the wider determinants of health

Improving mental well-being and resilience

Working to Achieve a Healthier Future for Wales

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

Promoting healthy behaviours

Protecting the public from infection and environmental threats to health

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

Our Values:

Working together with trust and respect to make a difference

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

WHIASU
Wales Health Impact Assessment Support Unit
Uned Gymorth Asesu Effaith ar Iechyd Cymru

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