



A1 – A3 Additional possible impacts on the determinants of health

This section summarises the evidence appraised on impacts arising from climate change on three social determinants of health that were identified as important by stakeholders in the HIA and are highly relevant to population health in Wales. These are:

- **A1: Alcohol and Substance Misuse**
- **A2: Violence**
- **A3: Intergenerational relationships**

However, limited evidence was identified in the literature to enable assessment of the level of potential impact on Wales, therefore, each of these areas are recommended areas for further research.

A1: Alcohol and Substance Misuse

Drinking alcohol above healthy levels and morbidity and mortality related to alcohol and substance misuse remain significant population health issues in Wales (ONS, 2021; Public Health Wales, 2018; Public Health Wales, 2022; Welsh Government, 2021). Data suggests increased use of alcohol during the COVID-19 pandemic (Hughes et al., 2021; Public Health England, 2021). In March 2020, Wales implemented a minimum unit pricing (MUP) for alcohol (The Public Health (Minimum Price for Alcohol) (Wales) Act 2018) to reduce alcohol related deaths and this, along with the impact of the COVID-19 pandemic and future trade policy (Green et al., 2021) could affect future trends in alcohol use.



Currently, there is limited evidence on which to evaluate how climate change will impact on alcohol and substance misuse in Wales, but potential direct and indirect pathways of impact have been identified from the literature. Higher temperatures may impact directly on the harms from alcohol and substance misuse. A systematic review in 2018 found two studies that identified an increased risk of mortality due to alcohol and substance misuse during heatwave episodes (Thompson et al., 2018; U.S. Global Change Research Program, 2016). In addition, increased temperatures may lead to an increase in “outdoor lifestyles” via which alcohol use may increase (Kovats and Brisley, 2021). Anxiety and worsening mental health linked to climate change may lead to more people “self-medicating” with alcohol (U.S. Global Change Research Program, 2016; W2¹; Int. 1). A small case study in Bangladesh found that increases in drug and alcohol use were evident due to the ‘stress’ and ‘disruption of work-based activities’ that ‘changing climatic conditions’ bring about (Kabir, 2018).

Given that alcohol and substance misuse are important population health issues for Wales, the impacts of climate change warrants further research, monitoring and consideration in alcohol and substance misuse policy development.

¹ Evidence from stakeholders is referenced in the appraisal sections as W1 and W2 for insights from participatory workshops, and Int.1 etc. for evidence from expert interviews

Violence

Prevention of violence is recognised as a public health priority in Wales (Bellis et al., 2017; Wales Violence Prevention Unit, 2021). International peer reviewed research has found that climate change in the form of higher temperatures, drought, heavy rainfall and other extreme weather events can result in increased conflict and violence, including domestic abuse (Castells-Quintana, Lopez-Uribe & McDermott, 2015; Hoegh-Guldberg et al., 2018; Pozarny, 2016; Sanz-Barbero et al., 2018; Zuo et al., 2015). In hot temperatures, increases in discomfort can lead to feelings of hostility and aggression, potentially contributing to an increase in crime or violent actions (Cianconi, Betrò & Janiri, 2020). Alcohol use is frequently a mediating factor in many studies of violence and is likely to be involved in increasing aggression (Cianconi, Betrò & Janiri, 2020).



UK research has identified some associations between rates of violence and seasonality, as well as with higher temperatures (Gray et al., 2017; Lemon and Partridge, 2017; Sivarajasingam et al., 2013). However, evidence on this association has not been extended to climate related changes in weather.

This indicates that further research is needed to understand how the significant changes expected to weather in Wales may influence crime and violence, including domestic abuse.

Intergenerational relationships

Positive, trusting and supportive relationships at an individual, family and community level are essential resources for resilience, whether dealing with the general challenges of life or overcoming major adversity such as a natural disaster (Davies et al., 2019). Connections or bridges between different groups in a community, such as different age or religious groups, also strengthen community resilience (Davies et al., 2019). Intergenerational relationships have been recognised as an area for development by the Welsh Government “Connected Communities” strategy to combat loneliness (Welsh Government, 2020) and the Office of the Future Generations Commissioner (n.d.) in Wales advocates a range of approaches to building intergenerational activities as part of achieving a number of wellbeing objectives for Public Bodies in Wales.



Stakeholders in the HIA identified the potential for a negative impact on intergenerational relationships in the context of climate change stemming from differences in attitudes and beliefs around this important issue (W1 and W2). However, responses to the National Survey for Wales in 2021/22 suggests only minor differences in levels of concern about climate change between age bands² (Welsh Government, 2022), suggesting perhaps that there is not a huge risk of intergenerational division on climate change.

² However, the age bands were 16-44, 45-64 and 65 and above. Further disaggregation of the young age band may reveal greater or lesser differences.

No specific evidence was identified in the literature review on climate change and intergenerational relationships linked to differences in attitudes and beliefs, although strains on social relationships resulting from direct impacts of climate change were discussed (Torres and Casey, 2017).

Adaptation efforts prior to disasters are also found to strengthen community ties by offering opportunities for volunteering within the community, promoting interaction and trust (Torres and Casey, 2017). The concerns regarding intergenerational relationships and justice expressed by stakeholders in the HIA are reflected in a range of policy and academic literature (Sanson and Burke, 2020; Skillington, 2019; Skillington, 2020; United Nations General Assembly, 2013), where issues of intergenerational justice linked to climate change and sustainable development at a macro level are explored.

It is also widely recognised that children will be disproportionately affected by climate change, not only by being more physically vulnerable to the direct effects such as extreme heat, but also due to the dependence of children on adults for their welfare, and increased susceptibility to indirect effects such as displacement and food insecurity (Sanson and Burke, 2020). The United Nations General Assembly (2013) also recognises the need to promote “intergenerational solidarity” as central to sustainable development and the need to account for the needs of future generation as “a universal value shared by humanity” (p.5). However, they also recognise that future generations are political powerless and have no rights to voice or influence political decisions. In Wales, legislation has been used to embed a consideration of the “wellbeing” of future generations into all governmental policy and decision making (Wellbeing of Future Generations (Wales) Act 2015). This presents a clear recognition that the needs of future generations are being actively considered at a policy level in Wales.

Whilst it is not possible to predict the impact of climate change on these important relationships, there is strong evidence that they are important to resilience and wellbeing and that climate change may pose risks to intergenerational relationships at practical, familial, community and political levels. There is a need for further research and action on the potential impacts of climate change on intergenerational relationships.

Reference for this document:

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