

Scottish Directors of Public Health Position Statement: Climate Change and Health

This briefing outlines key health issues around climate change, and identifies where the Scottish Directors of Public Health (SDsPH) and the wider Public Health community could concentrate efforts in terms of climate change mitigation and adaptation.

In this context it is usual to use the following definitions:

- **Climate Change Mitigation** – *actions to reduce Greenhouse Gas Emissions (GHG) and thereby limit the magnitude and impacts of future climate change; and*
- **Climate Change Adaptation** – *actions taken to manage the unavoidable impacts of climate change, including those on population health, ecosystems (goods and services), and infrastructure.*

Key Points

1. Climate change is a major threat to global health in the 21st century

Climate change has direct and indirect impacts on the health of people who live in Scotland:

- **Cold related mortality** is the biggest weather-related issue (currently 2,590-3,890 excess deaths per year). Decreases are anticipated due to warmer weather but this will be offset by an increasingly older population.
- **Extreme weather events (incl. storms and heatwaves) and flooding** are potentially the greatest threat. Storms/flooding causes immediate and post-flood deaths, physical health problems as well as mental health and social problems. Post storm/flood depression, anxiety and stress are predicted to present the biggest burden. Extreme weather events will also affect the ability of the Health and Social Care sector to deliver services due to the impact of events on infrastructure (roads, railways, water and electricity), staff and equipment as well as increased demand.
- **Other direct health impacts** may result from: indoor temperature rises; compromised building fabrics due to moisture, displaced coastal communities due to rising sea levels and coastal erosion; increases in vectors; and reduced water quality & interrupted water supply. A changing climate may have positive impacts on Scotland's crop yields.
- **Indirect effects** are those resulting from climate change outside Scottish borders. The most likely health impacts will result from insecurity of food and water supplies resulting in changes in quality, quantity and price of foods, as well as population migration and climate related conflict. Potential increases in infectious disease linked to migration.

(See: [Climate Change Risk Assessment for UK 2017 Scottish Summary](#) provides the latest evidence on the risks for Scotland, [Lancet Countdown 2017 Report: Briefing for UK Policymakers](#))

2. Climate change is an inequalities issue within and between countries

The most vulnerable are those most exposed and with the least resources to deal with extreme weather events.

- The impact is most acute where there is high social vulnerability to climate change and high exposure to climate hazards '*climate disadvantaged areas*'.
- Deprivation often increases vulnerability to climate change, and climate change increases deprivation.
- Interventions to mitigate climate change can also unduly affect the poor (e.g. levies on consumer energy bills).
- International Climate Justice: The health impacts of climate change in Scotland now and in the future will be much less than those experienced elsewhere in many parts of the planet. Developing countries that emit the least GHGs and have benefited least from economic growth as a result of these emissions will be most affected. Scotland has a moral and ethical duty to curtail activities that result in the release of GHGs and to help poorer countries to adapt to the unavoidable impacts of climate change.

(See: [SNIFFER Differential Social Impacts of Climate Change in the UK](#) and [JRF Climate Change and Social Justice Evidence Review 2014](#))

3. Health Co-Benefits

Tackling climate change presents a great opportunity for population health gain. These are the health benefits arising from technologies, policies and lifestyles changes to reduce greenhouse gas emissions, as well as those that may arise as a result of climate change adaptation actions. These benefits are additional to those that would result from a reduction in projected climate change.

- Mitigation co-benefit examples: renewable energy; active travel; home insulation; lower emissions vehicles; reduce reliance on food from animals; local production of food.
- The increased cost of these mitigation and adaptation policies and actions can be offset in part or whole if the health co-benefits are taken into account. In some cases these policies may also result in economic benefits – "*the triple bottom line*".
- Adaptation co-benefit examples: green space in cities to reduce the 'Urban Heat Island Effect'; sustainable flood risk management.
- Conversely it is important to ensure mitigation and adaptation policies do not have adverse effects on health (e.g. sealing windows increases indoor air pollution if no added ventilation, mental health impacts of disbanding coastal communities).

(See: [BMJ 2016/352:i1781 \(Health and climate: co-benefits, graphic\)](#))

Public Health Action

Mitigation

1. Public Health generally, and the SDsPH specifically, have an important **leadership role** in analysing and communicating the potential negative and positive health opportunities (including the impacts on health inequalities) of proposed climate change mitigation and adaptation actions through tools and decision-support instruments such as Health Impact Assessments (HIA)/Health Inequalities Impact Assessment (HIA), and through the

monitoring and evaluation of the health co-benefits and dis-benefits of these policies once in place.

Key Partners: NHS Health Scotland, Health Protection Scotland, SG policy teams, Local Authorities, Community Planning Partnerships, SG Climate Change Hub, relevant third sector organisations, the public.

2. The **NHS is a major contributor to GHG emissions** and has a statutory requirement to act sustainably and contribute to the Scottish Greenhouse Gas emissions reductions targets and report on this (Scottish Public Bodies Climate Change Reporting, through Climate Change (Scotland) Act 2009). Public health should work with partners throughout the NHS (clinical and corporate) as well as through Community Planning Partnerships, Integrated Joint Boards and Health and Social Care Partnerships to reduce greenhouse gas emissions associated with health related activities.

Key Partners: Health Facilities Scotland, local NHS Sustainability Managers/ Procurement/Waste/Energy, local NHS board Sustainability Champions, SNH, SEPA, NHS/HSCP workforce.

Adaptation

The frequency and severity of climate change related events are predicted to increase. So too will the impacts on health, particularly if we fail to recognise the size of the threat and adapt adequately.

1. Public health has an important role in monitoring the impacts of climate change events on health, particularly vulnerable groups, in Scotland, to inform strategies to reduce these risks and build resilient communities. This includes working with partners in:
 - developing and supporting appropriate surveillance and monitoring systems;
 - testing and evaluating emergency preparedness plans and strategies;
 - working with communities, especially those most vulnerable, to build resilience.

Key Partners: Health Protection Scotland, Community Resilience Partnerships, Climate Resilience Unit (SG), Adaptation Scotland, Health Scotland, SEPA, the public.

2. The delivery of health and social care will be affected by climate change particularly extreme weather events. Public health should support statutory action to assess the climate risk to the NHS and Health and Social Care Partnerships, as well as the development of plans to manage and reduce these risks, and evaluate the effectiveness of the plans.

Key Partners: Health Facilities Scotland, Adaptation Scotland, Local Resilience Partnerships, Integrated Joint Boards/Health and Social Care Partnerships.

3. Public health has an important role in ensuring climate change adaptation actions developed by other sectors (e.g. transport, town planning) maximise health benefits, minimise health dis-benefits and do not widen health inequalities. This can be achieved through collaboration with relevant partners and providing evidence informed advice about health impacts, using decision support tools such as HIA/HIIA and providing inputs to Strategic Environmental Assessments (SEA), and evaluating the health impacts of the adaptation measures.

Key Partners: NHS Health Scotland, Health Protection Scotland, Adaptation Scotland, SEPA, SG Policy Teams, Local Authorities, Community Planning Partnerships, relevant third sector organisations.

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