

Sustainable social care: climate change

Key messages

- Climate change threatens the health and wellbeing of current and future generations
- There is still a chance to reduce the extent and impacts of global warming, but swift action is vital. Commissioners, providers and users of care services can all play a part in mitigating climate change and adapting to its effects.
- Actions to address climate change can also have 'co-benefits' for people's health, the resilience of communities and the sustainability of care services.
- Since 1900, the average global temperature has increased by 0.74 degrees Celsius, and has been rising at about 0.2 degrees Celsius per decade over the past 25 years. Most scientists agree that temperatures will rise further, with predicted rises of between 1.8°C and 4°C by 2100. The extent of this depends on future emissions of greenhouse gases.
- There are likely to be more intense and frequent extreme weather events, such as the 2003 heat wave and the 2007 summer floods, when the UK experienced the hottest temperatures and the wettest summer on record.
- The Climate Change Act 2008 set a legally-binding target of at least an 80 per cent cut in greenhouse gas emissions by 2050, and of at least 34 per cent by 2020 (both against a 1990 baseline).

The Sustainable Social Care Programme encourages commissioners of adult social care to promote sustainable development across the sector, particularly to reduce carbon emissions and adapt to climate change. Sustainable development requires us to consider social, economic and environmental outcomes simultaneously. It also means having regard for the needs of future as well as present generations. For further information about the programme and related resources, please visit www.scie.org.uk/adults/sustainable-social-care/index.asp

Climate change and health

The climate is not static. Over the millions of years of earth's existence, it has changed many times in response to natural causes. When people talk about 'climate change' today, however, they mean the changes in temperature over the last 100 years. During this time, the average temperature of the atmosphere near the earth's surface has risen by 0.74° C. The Intergovernmental Panel on Climate Change says it is very likely (>90%) that human-generated greenhouse gas emissions caused most of the observed temperature rise since the mid 20th century.

In Europe, as around the world, changes such as rising sea levels, retreating glaciers, longer growing seasons, and shifts in species ranges are already evident.

The health implications of climate change are already manifest and impact more greatly on vulnerable groups. Health depends on a wide variety of determinants, and many of them (for example, temperature, pollution levels, access to food and water, and stress levels) will be affected by climate change. In the UK the positive effects of a warmer climate, such as a reduction in cold-related deaths, are likely to be outweighed by a series of negative impacts:

- an increase in heat-related deaths – predicted to reach 20,000 a year in the UK by 2050 due to more frequent and severe heat waves
- increased cases of skin cancer and cataracts

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- injuries and infectious diseases as a result of increased flooding – a Foresight report predicted that by 2080 over three million people in the UK could be at risk from flooding
- anxiety and depression linked to physical and economic insecurity – flooding increases the risk of depression fourfold
- respiratory disease, insect-borne disease, and food poisoning are also expected to increase.

The August 2003 heat wave was associated with a large short-term increase in mortality. Overall, there were 2,139 (16 per cent) excess deaths in England and Wales. Worst affected were people over the age of 75 years. The impact was greatest in London where deaths in those over the age of 75 increased by 59 per cent. See health impacts of 2003 European heat wave at <http://ec.europa.eu/health>

The purpose of the Government's Heat wave plan for England 2009 is to enhance resilience in the event of a heat wave. It is an important component of overall emergency planning, and will become increasingly relevant in adapting to the impact of climate change.

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_099015

In support of this plan, SCIE published *SCIE Guide 15: Dignity in Care (Nutritional Care – Hydration)* (Cass et al, 2009).

What is a 'carbon footprint'?

A 'carbon footprint' measures the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product. The footprint considers all six of the Kyoto Protocol greenhouse gases including Carbon dioxide (CO₂) and Methane. A carbon footprint is measured in tonnes of carbon dioxide equivalent (tCO₂e). The carbon dioxide equivalent (CO₂e) allows the different greenhouse gases to be compared on a like-for-like basis relative to one unit of CO₂. CO₂e is calculated by multiplying the emissions of each

of the six greenhouse gases by its 100 year global warming potential (GWP).

And how much is one tonne of CO₂?

One tonne of CO₂ weighs as much as 10 baby elephants or an adult giraffe and would take up the same space as a 10m wide, 25m long and 2m deep swimming pool.

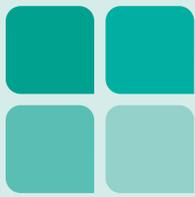
Mitigation and adaptation

Climate change mitigation is any action taken to permanently eliminate or reduce the long-term risk and hazards of climate change. This largely means action to reduce carbon emissions or our carbon footprint. Climate adaptation refers to the ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damage, to take advantage of opportunities, or to cope with the consequences. This includes the work of Local Resilience Fora, which work to ensure effective emergency planning and response, in preparing for extreme weather events; and commissioners and service providers designing buildings and services to take account of changes in climate overall. Some of these measures help address climate change in both ways. For example, health and care buildings designed with green spaces provide healing views, assist in cooling and flood run-off, and are also more energy efficient.

Co-benefits for health and climate of mitigation

The UCL Lancet Commission on Climate Change (www.thelancet.com/climate-change) has provided evidence that action to combat climate change can lead to improvements in health. For example:

- Improvements in household energy efficiency could have net benefits for health, mainly through improved indoor temperatures and air quality, as well as helping to address fuel poverty.
- Meeting targets to reduce greenhouse gases will require more walking and cycling and less



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motor vehicle use, bringing substantial health benefits from reduced cardiovascular disease, depression, diabetes and dementia.

- Changing methods of electricity generation to reduce CO₂ emissions would reduce particulate air pollution and deaths.
- The food and agriculture sector contributes 10–12 per cent of total global greenhouse gas emissions, with additional contributions from land use. A reduction in animal source foods could have great benefits for cardiovascular health as well as the environment.

Business case

'The costs of stabilising the climate are significant but manageable; delay would be dangerous and much more costly.' The Stern Review (2006) www.hm-treasury.gov.uk/sternreview_index.htm

There are business benefits to tackling climate change.

Financial savings

Increasing energy efficiency and reducing overall energy consumption can have significant and long-term financial benefits.

Complying with legislation

The Climate Change Act 2008 has set challenging carbon reduction targets, and local authorities, the NHS and service providers have obligations with regard to these.

Reputation

Taking action against climate change helps set a leading example and raise public profile. Under the Carbon Reduction Commitment Energy Efficiency Scheme (see page 4), an organisation's success in achieving carbon reduction will be published and compared with others'.

Improving population health and reducing health inequalities

This can be achieved by helping to mitigate the negative health consequences of climate change, reducing the direct negative health

impacts of carbon-intensive lifestyles (e.g. from air pollution); and reducing the indirect negative health impacts of carbon-intensive lifestyles (e.g. inactivity resulting from high levels of car use rather than cycling or walking).

Risk management and good governance

With volatile energy costs, decreasing dependency on fossil fuels will reduce the vulnerability of the social care sector to future price rises. Care services can improve both efficiency and health while making a contribution to reducing carbon emissions.

Policy and legislation

Climate Change Act

The Climate Change Act 2008 introduced the world's first long-term legally binding framework to tackle the dangers of climate change. The Act aims:

- to improve carbon management, helping the transition towards a low-carbon economy in the UK
- to demonstrate UK leadership internationally, signalling that we are committed to taking our share of responsibility for reducing global emissions.

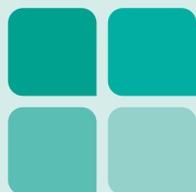
Provisions in the Act include:

- a legally binding target of at least an 80 per cent cut in greenhouse gas emissions by 2050, to be achieved through action in the UK and abroad. Also a reduction in emissions of at least 34 per cent by 2020. Both these targets are against a 1990 baseline
- a carbon budgeting system which caps emissions over five-year periods, with three budgets set at a time and running from 2008–12, 2013–17 and 2018–22.

A number of policies and strategies are in place to help deliver on the Act.

Adapting to climate change programme

Co-ordinated by the Department for the Environment, Food and Rural Affairs (DEFRA), the Adapting to climate change programme



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co-ordinates and drives forward the Government's work assessing and managing the risks from climate change. In March 2010, individual Government Departments published Adaptation and Mitigation Plans. Some of these were combined as Climate Change Plans, including the Department of Health's Climate Change Plan.

www.defra.gov.uk/environment/climate/programme/doh.htm

Local authorities and Local Strategic Partnerships (LSPs)

An average county council produces 30,000 tonnes of CO₂ per year, but its local community can generate 10 million tonnes. Councils therefore must not only lead by example but facilitate action where the greatest savings can be made. For example, 28 per cent of emissions are generated by transport and 27 per cent by domestic users.

From April 2010, the mandatory Carbon Reduction Commitment Energy Efficiency Scheme (CRC) will operate as a 'cap and trade' mechanism, providing a financial incentive to reduce energy use by putting a price on carbon emissions from energy use. The scheme will cover large public and private sector organisations, which are responsible for about 10 per cent of the UK's emissions. This will affect around 20,000 organisations including local authorities and the larger NHS organisations.

For local authorities and LSPs, five National Indicators relate to the effects of climate change:

- mitigation of council emissions (NI 185)
- mitigation of community-wide emissions (NI 186)
- tackling fuel poverty (NI 187)
- adaptation to climate change (NI 188)
- flood planning (NI 189).

However, wider health and social care Indicators are also relevant, because of the positive inter-relationship between health, being physically active and access to a good quality environment including housing and green space.

The NHS

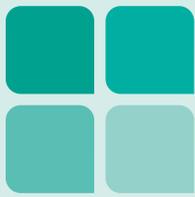
The NHS in England alone is responsible for more than 21 million tonnes of CO₂ each year. This is 25 per cent of total public sector emissions in England and 3.2 per cent of total carbon emissions in England. *Saving Carbon, Improving Health: NHS Carbon Reduction Strategy for England* (January 2009) www.sdu.nhs.uk/page.php?page_id=94 provides a framework for action to reduce carbon emissions across energy use, procurement and food, travel and transport, water and waste, designing the built environment, organisational and workforce development, partnerships and networks. The strategy encourages NHS organisations to sign up to the Good Corporate Citizenship Assessment Model (see page 5).

Taking action and resources to help

The Nottingham Declaration www.energysavingtrust.org.uk/nottingham has been signed by over 300 English local authorities as well as Local Strategic Partnerships and partner organisations. All Scottish and Welsh councils have signed their own versions. The Declaration is a statement of commitment to act on climate change, and is supported by a web-based gateway to information and advice on taking action at the local level.

Guidance and good practice in achieving National Indicator targets, including a directory of national and regional support, is published by the Improvement and Development Agency. www.idea.gov.uk/idk/core/page.do?pagelid=14422425

Down to zero from think-tank The Local Government Information Unit <https://member.lgiu.org.uk/whatwedo/Publications/Pages/downtozero.aspx> offers practical suggestions that will help local authorities tackle climate change in three stages – as an organisation, as a service provider and a community leader.



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The Carbon Trust provides specialist strategic and practical support to business and the public sector to help cut carbon emissions, save energy and commercialise low carbon technologies. www.carbontrust.co.uk

The Good Corporate Citizenship Assessment Model devised for the NHS provides guidance and tools for putting sustainable development into practice and is applicable to other public service organisations. www.corporatecitizen.nhs.uk/pages/about.html

Case studies

There are many examples of good practice from commissioners and providers of care services. In addition to regional plans, a number of local authorities and primary care trusts are working together to assess the potential impacts of climate change on services and devise strategies to respond.

Hampshire's Climate Change Commission of Inquiry looked at how services could adapt to become more resilient to the social, economic and environmental impacts of climate change. www3.hants.gov.uk/climatechange/climatechangecommissionof.htm

Hertfordshire County Council and Hertfordshire NHS Environment Group carried out a study into the impacts of climate change on health and adult care services. www.hertsdirect.org/infobase/docs/pdfstore/nhsacsstudy1.pdf

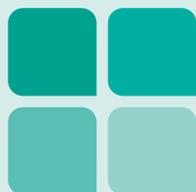
The housing and care home sectors have a major part to play both in reducing carbon emissions and adapting to the effects of climate change. *Future health: sustainable places for health and wellbeing* (CABE, 2009) www.cabe.org.uk/publications/future-health shows how good planning can have a positive impact on health, how health trusts can cut carbon and costs by co-locating services, and how designers can influence people's wellbeing.

Third Sector providers of care have recognised the particular importance to their beneficiaries of tackling climate change, and are directly involving people who use services in developing appropriate responses.

The Greener and Wiser Taskforce was composed of ten older people from around the country and supported by Green Alliance, Age Concern and Help the Aged and Natural England. The taskforce debated green issues, with each other and with experts, and developed a positive manifesto for change. www.green-alliance.org.uk/grea1.aspx?id=2954

Annie Ashby, Taskforce member, commented 'Our lifestyles lend themselves to more ecologically friendly activities, such as public transport use and more economical consumption. If we promote them it's a win-win situation for people and the planet.'

The Big Response project delivered by the National Council for Voluntary Organisations, Global Action Plan and Green Alliance explored the relevance of taking action on climate change for non-environmental charities. It helped develop understanding of impacts on beneficiaries, and strategies to respond suitable for their core purpose and client group. www.ncvo-vol.org.uk/thebigresponse



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Further information

Below is just a small selection of places to go for further information, including the sources on which we have drawn for this publication.

Directgov: Understanding climate change

Directgov is the UK government's digital service for people in England and Wales.

www.direct.gov.uk/en/Environmentandgreenerliving/TheWiderEnvironment/Climatechange/index.htm

UK Climate Impacts Programme

UKCIP helps organisations assess how they might be affected by climate change.

www.ukcip.org.uk/index.php

Cass et al 2009. *SCIE Guide 15: Dignity in Care (Nutritional Care – Hydration)*

The health impact of climate change: promoting sustainable communities – guidance document (DH 2008) contains advice for public health professionals on what can be done to mitigate and adapt to climate change and promote sustainable communities.

www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082690

The Sustainable Development Commission's Healthy Futures programme helps the NHS and wider health sector explore how it can promote improved health and stronger, healthier and more sustainable communities.

www.sd-commission.org.uk/pages/health.html

The Improvement and Development Agency offers wide-ranging information and guidance for local authorities on climate change and the environment.

www.idea.gov.uk/idk/core/page.do?pagelId=80829

This briefing draws on a number of sources, and we are especially grateful to our partner organisations the UK Sustainable Development Commission and the Improvement and Development Agency for their guidance and support. In particular, we draw on the SDC's Healthy Futures 7, *The NHS and climate change*.

SCIE's At a glance summaries have been developed to help you understand as quickly and easily as possible the important messages on a particular topic. You can also use them as training resources in teams or with individuals.

We want to ensure that our resources meet your needs and we would welcome your feedback on this summary. Please send comments to info@scie.org.uk, or write to Publications at the address below.

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