

Advancing and Integrating Climate and Health Policies in the United Kingdom:

INSIGHTS FROM NATIONAL STAKEHOLDERS



Authors:

Tim Rayner (tim.rayner@uea.ac.uk)

Tyndall Centre for Climate Change Research, University of East Anglia

Elta Smith (elta@eltasmith.com)

Independent researcher, writer and consultant (working with UEA for this project).

Candice Howarth (c.howarth@lse.ac.uk)

Grantham Research Institute on Climate Change and the Environment, LSE

James Graham (james.graham@uea.ac.uk)

Tyndall Centre for Climate Change Research, University of East Anglia

Funding:

This report was funded by the Wellcome Trust (grant number 228255/Z/23/Z).

Cite as:

Rayner, T, Smith, E., Howarth, C. and Graham, J. (2025). *Advancing and Integrating Climate and Health Policies in the United Kingdom: Insights from National Stakeholders*. University of East Anglia and Grantham Research Institute on Climate Change and the Environment. <https://www.doi.org/10.17605/OSF.IO/SQ3R7>

List of abbreviations

COP: Conference of the Parties

DHSC: Department of Health and Social Care

GHG: Greenhouse gas

IPCC: Intergovernmental Panel on Climate Change

NAP: National Adaptation Programme

NDCs: Nationally Determined Contributions

NHS: National Health Service

PHS: Public Health Scotland

UKHSA: United Kingdom Health Security Agency

WHO: World Health Organisation

Cover photos:

Senior citizens cycling. Source: Pexels; credit: Centre for Ageing Better.

Flood warning: Source: Wikimedia commons; credit: Dean Molyneaux.

Londoner in the heat. Source: Creative Commons/ Climate visuals; credit: Christian Julliard.



Abstract

This study examines the integration of climate and health policies in the United Kingdom based on 42 expert interviews. Despite widespread acknowledgment of the growing significance of climate change impacts on human health, practical policy integration remains limited due to siloed decision-making, resource constraints, and short-term thinking, amongst other issues. Opportunities for improvement include emphasizing co-benefits, leveraging the scale of the NHS, and learning from approaches in the devolved governments. Strategies to deliver improved policies and outcomes involve enhanced cross-sector coordination, dedicated resources, development and use of fit-for-purpose evidence, and community engagement. A better resourced, holistic approach addressing wider health determinants and prioritising vulnerable populations could significantly improve UK climate and health policy outputs and outcomes.

Table of Contents

1. Executive summary	1
Current status of national climate and health policy	1
Ideals for climate and health policy	2
Barriers to climate and health policy	2
Opportunities to advance climate and health policy	3
Strategies to advance climate and health policy.....	3
Implications	4
2. Background	5
Climate change is already affecting health in the UK and the effects are set to worsen	5
National public policies, and key actors, at the intersection of climate and health	6
The healthcare system	6
Wider public health policy.....	7
Different approaches across devolved governments.....	8
Public opinion.....	9
Existing criticism of UK progress.....	9
Research questions.....	9
Methods	10
Multinational research context.....	10
Audience.....	10
Caveats and limitations	11
3. Findings	12
3.1 Current status of climate and health policy integration	12
3.1.1. National climate and health policies are linked in principle, but not well in practice	12
3.1.2. There were some notable differences in how climate and health issues were discussed by participants from a public health versus a healthcare services perspective	13
3.1.3. Despite the lack of integrated climate and health policymaking cited by participants in general, the Greener NHS initiative was noted as a relative success	15
3.1.4. The UK has played an important role in bringing health into international climate negotiations, but integration remains limited at a global level and there is a disconnect between international and national level efforts.....	16
3.2. Views about optimal integration.....	17
3.2.1. There was a strong consensus amongst interviewees that climate and health policymaking in the UK should be better linked and more integrated	17
3.2.2. Participants highlighted the need for policies that prioritise the vulnerable populations who are disproportionately affected by climate change.	18

3.2.3. Expectations for the types of evidence required to inform policy and planning should be appropriate.....	19
3.3. Barriers to optimal integration.....	20
3.3.1. Resource constraints were the most frequently mentioned barrier	20
3.3.2. Short-term thinking creates obstacles to sustained attention on climate and health issues	22
3.3.3. Inertia creates resistance to systemic change	23
3.3.4. Siloed decision-making leads to fragmentation and a lack of coordination on climate and healthy policymaking.....	23
3.3.5. Data and evidence barriers are many and varied	24
3.3.6. Interdisciplinary and cross-cutting climate and health expertise is lacking.....	26
3.3.7. Industry influence is viewed as a barrier to more ambitious climate and health policy integration.....	27
3.4. Opportunities to advance integration.....	28
3.4.1. Emphasising co-benefits could support advancement of climate and health policies	28
3.4.2. Co-benefits could be realised in a number of key areas	29
3.4.3. The size of the National Health Service affords opportunities to make change at scale....	31
3.4.4. Efforts undertaken in Wales and Scotland offer models for supporting better integration of climate and health policy	32
3.5. Strategies to advance integration	34
3.5.1. Enhanced cross-cutting coordination is needed to create more coherent policies.....	34
3.5.2. Dedicated roles and resource allocation can support sustained focus and greater expertise	35
3.5.3. Evidence should be fit for purpose to meet the needs of decision makers.....	36
3.5.4. Engaging and empowering communities can generate greater public buy-in	37
4. Summary and potential implications	39
Synthesis of findings	39
Implications	40
Implications for the healthcare system.....	40
Implications for wider policy making and planning	41
Implications for future research.....	41
5. Conclusion.....	43
6. References	44
7. Acknowledgments.....	48
8. Declaration of competing interests	49
9. Appendix: Methods.....	50
Recruitment.....	50

Interviews.....	51
Interview questions	51

1. Executive summary

The Intergovernmental Panel on Climate Change (IPCC) concluded in 2021 that 'it is unequivocal that human influence has warmed the atmosphere, ocean and land.' Climate change has significant and growing impacts on human health, with the World Health Organization (2023) identifying it as 'a fundamental threat to human health'. The intersection of climate and health policies has consequently become a subject of growing importance for policymakers, advocates and researchers.

This study investigates the extent to which and ways in which experts in healthcare, public health and climate change believe climate and health policies are, and should be, integrated in policymaking in the United Kingdom. It is part of a multinational study funded by the Wellcome Trust, including analogous research in Brazil, the Caribbean, Germany, Kenya and the U.S.

To conduct this research, we carried out 42 in-depth interviews with individuals across UK central government and related agencies, devolved governments in Scotland and Wales, local government, Parliament, as well as experts involved in advocacy, academia, advisory and consultancy roles. The interviews were conducted from February to June 2024. Our analysis has also been informed by feedback on our preliminary findings from some of our research participants and other stakeholders in the UK through an online stakeholder webinar attended by over 80 stakeholders.

The findings reflect participant views on the current national status of climate and health policy in the UK, how policy and policymaking could be improved, the barriers to achieving those improvements, and opportunities and strategies for advancing related objectives.

Current status of national climate and health policy

Despite widespread acknowledgment of the significance of climate change impacts on human health, participants observed that practical integration in UK policymaking has been limited due to siloed government departments, insufficient resource allocation, and a lack of cross-cutting / integrated policy frameworks.

The UK has played an important role in bringing health considerations into international climate negotiations, particularly through its leadership as host of the 2021 UN Climate Change Conference (COP26), and subsequent initiatives. However, there is a need for greater efforts to bridge the gap between the domestic and international policy domains to ensure that health becomes a central component of global climate strategies, and that international developments feed back into national action.

Ideals for climate and health policy

Participants widely believed that integration of climate and health policies in the UK is required and that this can be done in the most effective way by adopting a holistic, systems-thinking approach that emphasises prevention, addresses wider determinants of health, and prioritises vulnerable populations. Cross-departmental collaboration and evidence-based policymaking are essential for developing effective and efficient policies. However, there is also an increasingly pressing need to move from evidence gathering to decisive action to meet the urgent challenges of climate change.

Barriers to climate and health policy

Despite the clear need and theoretical acknowledgment of the benefits of integrating climate and health policies in the UK, numerous barriers hinder this optimal integration.

Participants most frequently mentioned chronic underfunding and limited capacity as the most significant barriers to greater climate and health policy integration. A lack of dedicated roles and budgets often results in work on climate and health being done informally, leading to inconsistencies and gaps in effort and focus.

A focus on short-term objectives and lack of long-term decision-making was identified as an impediment to consistent and sustained efforts to address climate and health issues. The health service often reacts to immediate needs, undermining efforts to address longer-term impacts.

Some participants cited resistance to change or inertia within large and bureaucratic systems and institutions, particularly the National Health Service (NHS), as another significant barrier. Such systems are designed for stability and resilience, making it more challenging to implement new policies and practices, especially where large-scale or more transformational efforts are required.

Siloed decision-making was another frequently cited barrier. Government departments (nationally and locally) tend to operate in siloes, focusing on their specific mandates without sufficient cross-departmental coordination and collaboration. Fragmentation hinders cohesive policy development and implementation to address climate and health impacts.

Participants described a variety of barriers relating to data and evidence. For example, several questioned whether conventional hierarchies of evidence, typically privileged in healthcare decision-making, are appropriate for evaluating complex system-wide changes needed in climate and health policy. Participants argued that different types of evidence may be better suited to informing transformational change and ensuring timely and effective policymaking.

Effective integration requires knowledge across climate and health domains, but some participants observed that this is rare and difficult to achieve within existing professional frameworks. Industries reliant on fossil fuels and the house-building sector, whose lobbying power can delay adoption of more ambitious and integrated policies, were also identified as significant barriers.

Opportunities to advance climate and health policy



Hospital bed looking out of sunny window. Source: Pexels; credit: Andrea Piacquadio.

Despite the cited barriers to better integrating climate and health policies, several promising opportunities could facilitate progress in the UK. One recurring theme amongst participants was the potential for significant co-benefits arising through increased integration. For example, action to reduce air pollution could lower healthcare costs associated with respiratory diseases as well as bring down carbon emissions.

The success of initiatives, particularly the Greener NHS programme, demonstrates that integration of climate considerations into the healthcare system is achievable. The sheer scale of the NHS – one of the largest employers and service providers in the UK – offers substantial

opportunities to make impactful change. The NHS can leverage its purchasing power and influence to drive large-scale changes through efforts such as prioritising plant-based foods on hospital menus, alongside other changes including retrofitting buildings to improve energy efficiency. The high proportion of the NHS carbon footprint accounted for by medicines and medical supplies highlights how progress on a more prevention-oriented approach could yield considerable emission reduction benefits.

Finally, learning from the approaches taken in the devolved governments of Wales and Scotland presents another valuable opportunity. The Wellbeing of Future Generations (Wales) Act (2015) offers a pioneering legislative framework focused on sustainable development, which facilitates stronger integration of climate and health policies, and addresses health inequalities that are exacerbated by climate change. Scotland's approach includes the development of a climate emergency strategy within NHS Scotland, providing lessons for capacity building and policy alignment.

Strategies to advance climate and health policy

A multi-faceted approach was promoted by many participants to advance climate and health policy integration in the UK. This includes enhanced cross-cutting coordination across government departments and with health services. Participants emphasised the need for greater interdisciplinary collaboration, with climate and health experts working closely with a variety of sectors such as housing, transport and urban planning, to ensure climate and health outcomes are consistently considered in policy development and implementation.

Establishing dedicated roles and allocating sufficient resources were also widely referenced by participants as essential for sustained focus and expertise on climate and health policy integration. Another critical strategy is ensuring that evidence used in policymaking and delivery is fit for purpose. This can include the development of robust indicators tailored to the needs of policymakers and the adoption of adaptive pathway models for more informed decision-making under uncertainty.

Engaging and empowering communities is an important consideration for advancing climate and health policy. Involving local communities in the co-production of policies ensures that efforts are tailored to the needs of those most affected and enhances public buy-in, building support for change and facilitating implementation.

Implications

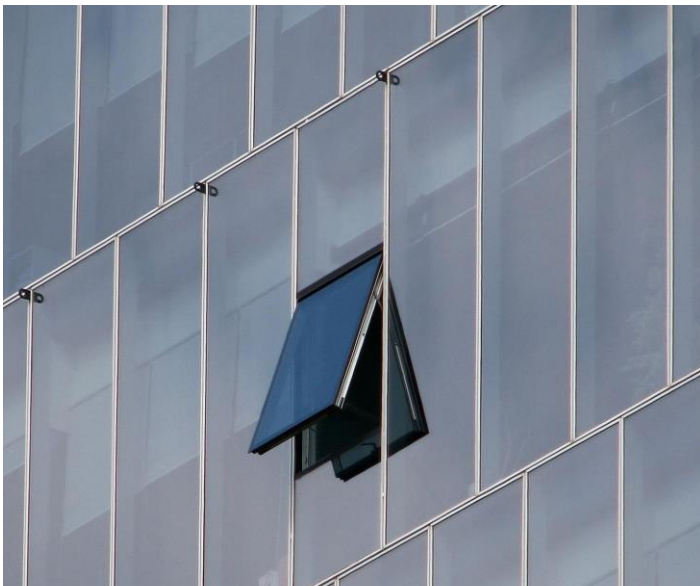
The findings of this report point to several implications and opportunities for advancing the integration of climate and health policies in the UK. The scale of change required demands coordinated action across all policy sectors, ranging from healthcare and urban planning to transport and housing. Cross-national learning, both within the UK and internationally, offers valuable insights into successful approaches for achieving such coordination. There is potential for institutional and legislative reforms, such as establishing a Minister for Adaptation and Resilience or enacting a new Public Health Act that requires all government departments to consider health implications in their policies. The creation of an independent expert body similar to the Climate Change Committee could provide crucial advice on creating a healthier, climate-resilient country. The importance of the health service to the UK's on-going climate policy commitments – lowering greenhouse gas emissions and increasing resilience to worsening impacts – certainly needs to be recognised in the government's forthcoming 10 Year Health Plan for England.

Future research should focus on addressing evidence gaps, identifying how innovative financing mechanisms beyond traditional public funding could support integrated climate and health interventions, developing strategies to more effectively translate existing evidence into policy action, and creating robust processes for policy integration that can withstand political changes. By emphasizing co-benefits, leveraging the scale of the NHS, learning from devolved governments, and fostering greater cross-sector coordination, the UK can make significant progress in developing more integrated and effective climate and health policies. Further research could usefully clarify more precisely where evidence gaps are used to justify inaction, which of them it is feasible to fill, and in which cases a new approach to decision-making ought to be enacted in view of the urgency of action.

2. Background

Climate change is already affecting health in the UK and the effects are set to worsen

The Intergovernmental Panel on Climate Change (IPCC) landmark 2021 assessment concluded that 'it is unequivocal that human influence has warmed the atmosphere, ocean and land.' The World Health Organization (WHO) (2023) has identified climate change as 'a fundamental threat to human health.' In the UK context, climate change is set to have far-reaching impacts, including increased frequency and severity of flooding (Sayers et al., 2021), water scarcity and reduced availability of productive land (Betts et al., 2021).



Open window on glass hospital façade. Source: Pixabay; credit: Eu Eugen

Many of the impacts carry serious consequences for health. Extreme weather and flooding already affect mortality and morbidity in the UK (UKHSA, 2023). Flooding is predicted to increasingly endanger assets, including hospitals, GP surgeries, care homes and emergency services stations (Kovats and Brisley, 2021). The long-term effects of flooding on mental health - depression, anxiety and PTSD - are likely to be significant and require more attention (UKHSA, 2023). Mental health impacts can result from immediate effects such as damage to property, but also disruption, including access to basic needs such as employment, education, health services and wider facilities (UK Climate Risk, 2021).

The health effects from rising temperatures and more frequent and severe heatwaves are also increasingly evident. Heat-related deaths over the summer of 2022 reached over 3000 (ONS, 2023), and greater service disruption and longer emergency response times have also been reported (Howarth et al., 2024). Vulnerable groups are exposed to high temperatures in hospitals and care homes, and while receiving home-based care. Extreme heat affects both physical and mental health, including by reducing the efficacy of certain medications designed to treat physical and mental health conditions. The building stock is not prepared to deal with the impacts of overheating, having been designed historically with a view to warmth in winter. Adaptation measures are required here, alongside decarbonisation efforts, to mitigate the risks of increased heat. Although warmer winters may reduce the burden on services from cold-related health conditions to some extent, even under future climate change, associated deaths are projected to remain high. Preparations for cold weather therefore remain vital.

These increasing, negative health effects of climate impacts fall unevenly across the UK and risk exacerbating existing social inequalities (UKHSA, 2023; Marmot et al, 2010). Those least able to protect themselves, including

people with disabilities, the homeless, and those living in areas with high levels of deprivation, risk being rendered even more disadvantaged than they currently are. The idea that tackling social inequalities in health and tackling climate change must go together is increasingly established in UK policy discourse (Marmot et al, 2010; Munro et al, 2020).

National public policies, and key actors, at the intersection of climate and health

A distinction should be noted between policies relating to the healthcare system, and those that apply to public health more widely. This section outlines where the remits primarily lie for each, within the current UK political system.

The healthcare system

The Department of Health and Social Care (DHSC) is the government department responsible for policy on health and adult social care matters in England, as well as a few elements that are not otherwise devolved to the Scottish Government, Welsh Government or Northern Ireland Executive. DHSC oversees the National Health Service (NHS) in England. Efforts to integrate climate concerns into the NHS healthcare system date back to the Sustainable Development Unit (SDU), established in 2008 and eventually superseded by the Greener NHS programme in 2020. By international standards, both have had significant success at decarbonising healthcare, now further encouraged by the UK's NHS becoming the first health service in the world to have net-zero targets enshrined in law (NHS England, 2022). The UK used its platform as host of the Glasgow UN Climate Summit (COP26) to announce that all four UK health services had pledged to become net zero (and that dozens of other countries had also committed to reducing carbon emissions from their health systems). Greener NHS also has a climate adaptation remit, aiming to provide a resilient service.

Healthcare internationally is estimated to account for 4.4% of global net CO₂ emissions (Pencheon and Wright, 2020). In England, the NHS accounts for 4% of greenhouse gas emissions (NHS England and NHS Improvement 2020; cf. Tennison et al. 2021), with 20% of total emissions attributable to medicines and chemicals. In England, the health and social care system reduced its carbon footprint by an estimated 62% between 1990 and 2020 (ibid). While efforts have focused on decarbonising the NHS estate (building stock), vehicle fleet and energy supply, more significant gains have been made by eliminating specific, potent GHGs from use in anaesthetics (Tennison et al., 2021). The NHS remains committed to a 4% reduction in carbon footprint through a shift to low-carbon inhalers (HM Government, 2023a).¹ As one of the largest single organisations in the world, the NHS has significant procurement power, significantly affecting the UK's broader footprint.

Regarding adaptation, for a decade the WHO has encouraged resilient health systems, defined as “those that are capable of anticipating, responding to, coping with, recovering from, and adapting to climate-related shocks and stress, to bring about sustained improvements in population health, despite an unstable climate” (WHO,

¹ Anaesthetic gases have been calculated to represent 2-5% of NHS emissions. See <https://www.england.nhs.uk/greenernhs/whats-already-happening/putting-anaesthetic-generated-emissions-to-bed/>

2015). The UK's steps towards this objective have been reported periodically under the terms of the 2008 Climate Change Act and are included in the National Adaptation Programme (NAP). The UK's NAP is primarily concerned with England as well as covering UK-wide areas; Northern Ireland, Wales and Scotland also develop their own respective adaptation programmes. The UK government has noted that its efforts to adapt healthcare are shaped by complexity, borne of 'a widely noted fragmentation between tertiary, primary and social care services' (UKHSA and NHS, 2021). It also recognises that a longer-term perspective, dealing with average warming scenarios of both 2°C and 4°C, is still needed to complement a more established Emergency Preparedness Resilience Response Framework, which currently embeds requirements into all NHS-funded organisations (ibid).

There are also signs that the medical profession is taking its role in the governance of climate and sustainability more seriously, including in educating its students. In July 2024, the General Medical Council (GMC), the body regulating professional standards, published a related Position Statement. The inclusion of a sustainability duty in an update to guidance setting out standards of care and behaviour expected of all medical professionals, Good Medical Practice, represents a further potentially significant step (GMC, 2024). However, wide variation in levels of awareness and engagement on climate change is evident among medical professionals (e.g. Cameron, 2021, Fylan and Allison, 2023), including between health organisations such as the Royal Colleges associated with different medical disciplines (Cooke et al, 2021).²

Wider public health policy

Health policy incorporates more than how healthcare should be delivered, to include broader considerations of public health.³ Here, the actions of a wider range of government departments become relevant. For its part, the DHSC implements some policies through several 'arms-length agencies', including executive agencies like the UK Health Security Agency (UKHSA). Since its creation in April 2021 (replacing Public Health England), the UKHSA has worked to harmonize approaches to health within the context of a changing climate (HM Government, 2023b). Working between government agencies, departments and academic institutions, the UKHSA generates evidence and coordinates real-time information gathering on the effects of extreme weather and emerging patterns of disease (UKHSA, 2023). The establishment of the Centre for Climate and Health Security in October 2022, under the auspices of the UKHSA, brings together the relevant fields of expertise across the agency to address climate change. It provides further momentum to help minimize the effects of climate change on health and reduce health inequalities.

In terms of wider public health, active travel, improved access to green spaces, improved air quality, better buildings (including social care settings), and healthier diets can all play a role, and in doing so lower the demand for healthcare and GHG emissions at the same time (CCC, 2023; Jennings, Fecht & De Matteis, 2020). For example, transport emissions, in addition to contributing to climate change, are thought to contribute to 40,000 deaths a year in the UK linked to outdoor air pollution (Marshall & Allen, 2023). Reforms to policy on road

² For the most up-to-date findings, see <https://www.climatehealthscorecard.com/results>

³ Public Health has been defined as "the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals" (Winslow 1920).

transport and building sectors to deliver Net Zero targets have been calculated to deliver nearly 5 million life-years gained in the long run (Walton et al., in press).

Upgrading and retrofitting the UK's housing stock could reduce childhood illness, winter deaths from cold temperatures and respiratory infections, as well as CO₂ emissions. The increasing prevalence of home-based social care makes climate-resilient housing all the more important. Increasing the energy efficiency of properties can also save money and combat fuel poverty but must be done cautiously to avoid overheating during periods of warm and hot weather as a side-effect. The scale of work involved in meeting these challenges would provide hundreds of thousands of quality jobs (CCC, 2019).

Even relatively modest changes to diet can result in substantial GHG reductions and health benefits. For example, if the average UK diet complied with the WHO nutritional recommendations, diet-related GHG emissions would be reduced by 17%, and average life expectancy increase by over 8 months (Milner et al, 2015).

There are further possibilities to combine measures that deliver adaptation and public health benefits. The use of 'blue/green' infrastructure as a more nature-based solution to address flooding, for example, has the potential to bring co-benefits for urban and rural ecosystems, mental health and wellbeing, limiting noise pollution, aiding resilience to extreme weather and addressing issues of social inequality and environmental decline (Natural England, 2023).

These domains for public health-based interventions fall within the remit of a wide range of state actors, national and local, and even private utility companies in the case of blue/green infrastructure to address flooding. Currently, and since the adoption of the Health and Social Care Act (2012), the majority of everyday spending on public health is via grants from central government to local authorities (while the budget for the health service has remained under central government).⁴ Since 2015/16 the public health grant has effectively been cut by 28% per person in real terms and now stands at £3.6bn, around 2% of the NHS England budget (Patel *et al.* 2024). This is despite evidence that expenditure on public health can be three to four times more efficient than healthcare spending (Martin *et al.* 2019), and that public health interventions also carry a significantly lower carbon footprint.

Different approaches across devolved governments

Scotland has been more ambitious in its targets on climate change than England – at least until a reversal in April 2024 (BBC, 2024). Both NHS Scotland (NHS Scotland, 2022) and Public Health Scotland (PHS, 2023) have climate emergency and sustainability strategies to 2026 that strike a more urgent tone. PHS specifically notes the need to address health inequality issues as life expectancies in the more deprived areas of Scotland are falling in combination with an ageing population. NHS Scotland has pioneered efforts to decrease the clinical use of GHGs that are being replicated around the UK.

⁴ The ringfenced public health grant to local authorities funds a range of preventive services in England including health visiting, sexual health services, and drug and alcohol services.



Welsh Assembly/Parliament. Source: Unsplash; credit: Jonny Gios

The Welsh government's adoption of the *Well-being of Future Generations Act* in 2015 included climate-related goals as a central focus, emphasizing wider societal co-benefits. While not specifically aimed at clinical or public health, the Act sets goals for sustainable development, resilience and decarbonisation as well as physical and mental health (Welsh Government, 2024). This act has provided a consistent framework for Welsh policymakers and senior health professionals to follow, nearly a decade ahead of the other UK nations.

Public opinion

The threat of climate change has gained a well-established place in public consciousness, including through the media, and public support for greater policy ambition from government is widespread in the UK. Bretter and Schultz (2023) find that the majority of the UK public supports all four types of emission-reduction policy instrument currently implemented (with almost two-thirds supporting the most stringent). By contrast, there is evidence to suggest that on health, the UK public consider responsibility to be largely a matter for the individual (Marshall & Allen, 2023). Health outcomes are assumed to be determined more by individuals' behaviours than systemic conditions. Likewise, solutions are predominantly seen as being the responsibility of health departments and services, and of individuals themselves. Media narratives reflect and shape these understandings (ibid).

Existing criticism of UK progress

While not undertaking an extensive literature review, we follow the lead of the U.S. report in this project in citing evidence from an international comparative assessment of progress made on climate and health policy integration. The Global Climate and Health Alliance's (GCHA) *Healthy NDCs Scorecard* assesses the extent to which national governments' Nationally Determined Contributions (NDCs) – climate commitments to the UNFCCC – 'recognise and respond to the abundant linkages with health' (GCHA, 2023). NDCs are assessed based on their attention to six categories: integrated governance (reflecting the importance of intersectoral cooperation), health impacts, health sector action, health co-benefits, economics and finance, and monitoring and implementation. With three points available for each category, making a total possible 'health score' of 18, the most recent assessment gives the UK only 4 points (GCHA, 2023).

Research questions

In light of the need for climate and health policy advancement, and the lack of a clear roadmap for how to proceed, this report investigates UK climate and health stakeholders' perspectives on the following questions:

- What is the perceived current state of integration (or lack thereof) of climate and health policy in the nation?
- What do policymakers and other stakeholders see as the ideal relationship between health policy and climate policy, and climate-adjacent policy?
- What barriers currently impede progress toward the ideals?
- What opportunities have the potential to aid progress toward the ideal relationship between climate and health policy?
- Which strategies are seen to be effective for influencing climate and health policy?

Methods

We conducted 42 in-depth interviews with individuals across UK central government, devolved governments in Scotland and Wales, local government, agencies and Parliament, as well as experts working in advocacy, academic, advisory and consultancy roles. Participants identified themselves as working primarily on climate policy, health policy or at the intersection of climate and health policy. In some cases, they worked in what the research team referred to as related ‘climate-adjacent’ areas, including land-use planning, housing, water and food and agriculture. These distinctions were made with a view to identifying possible differences of emphasis or opinion on climate and health-related themes (see also annex 1). The interviews were conducted from January to June 2024. We also received feedback on our preliminary findings from some of our research participants and other stakeholders in the UK through an online stakeholder webinar attended by over 80 stakeholders, which served to further validate and inform our analysis. We analysed the data using qualitative content analysis. Additional details can be found in Annex 1.

In quoting from interviews in this report, it was occasionally necessary to redact text to protect a respondent’s anonymity.

Multinational research context

This research is part of a multinational study funded by the Wellcome Trust and coordinated by the George Mason University Center for Climate Change Communication. We partnered with researchers who conducted analogous studies in Brazil, the Caribbean, Germany, Kenya and the U.S. The teams jointly developed the research design, including interview questions, sampling approach, and analysis methods. The research questions and analysis were also informed by input from stakeholders in the Global Climate and Health Alliance (GCHA). The findings across all regions were assimilated into a [multinational synthesis report](#).

Audience

This report is intended for anyone aiming to understand and advance climate and health policymaking in the UK, including government officials, other professionals working in areas related to climate and health policy, researchers, advisors and advocates.

Caveats and limitations

The research insights presented in this report were primarily extracted from the content of the interviews, rather than wider policy analysis or literature review. This makes coverage of the data and findings interpreted somewhat limited by the categories of people interviewed, and what they chose to highlight. Whilst the interview sample is rich and extensive, considering the somewhat limited range and availability of participants with expertise and knowledge relevant to the scope of this research, it is possible that some views were not captured. It is worth highlighting that the team encountered difficulty in securing interviews with certain types of interviewees, most notably Parliamentarians, UK central government (Whitehall) departments, and policy think tanks. This is due to a number of reasons including timing of the research which coincided with the run up to the UK's 2024 general election.

Participants in this research study were classified according to a number of categories. However, in practice, distinctions between categories became hard to maintain, owing to the wide range of interests and positions held by most individuals interviewed, either simultaneously or over a career. For example, a public health professional might also hold an academic position and serve on an official advisory committee (national or local). Ultimately, the levels of agreement and consensus on the nature of the current relationship between climate and health, and how that relationship could become more effective, were high. For these reasons, and due to the relatively low numbers of interviewees in particular categories (especially parliamentarians), it was decided not to attempt to analyse findings according to interviewee category.

Given that we were dependent on the views of interviewees and lacked the opportunity to test them (beyond the online stakeholder feedback session), as researchers we are reluctant to make firm recommendations or offer 'clear roadmaps' that would overcome the often challenging issues raised. Nevertheless, much of the data and answers to specific questions within the interviews resulted in a high degree of overlap and alignment of views, suggesting an internal validation of many of the insights. We suggest ways in which such issues can form the basis of future research agendas (see section 4).

3. Findings

3.1 Current status of climate and health policy integration

Participants considered how climate and health policies and policymaking are integrated in the UK, both at national scale and in their own experiences. Most believed that the intersection of climate and health policies has become a subject of growing importance in the UK, with interdependencies widely acknowledged, including in policy documents and initiatives. Despite this, participants widely reflected on how the practical integration and implementation of climate and health policymaking is limited due to siloed government departments, insufficient resource allocation, and a lack of cross-cutting policy frameworks.

3.1.1. National climate and health policies are linked in principle, but not well in practice

Most participants observed that while the links between climate change and human health are widely acknowledged, they are not effectively integrated into national policymaking. Health benefits were cited as well-recognised and important outcomes of climate mitigation and adaptation activities but not accompanied by meaningful budget allocations or concrete programme delivery.

“My perception is...there are definitely efforts to [link health and climate], it is definitely there in the documents [but] there’s a lot of superficiality saying we are linking them, we ought to link them, this is how we’re linking them, and it doesn’t actually do it.”

- Academic / policy adviser

“On paper [health and climate policies are] always related to one another. Health is the mysterious and optimal dividend of all of our climate activities... But it is... never... represented in any meaningful way in terms of having a budget or stated objectives, programme delivery and evaluation focused on those endpoints and outcomes.”

- Experienced public health professional

“The health impacts of climate change are increasingly acknowledged, but I would argue that they are acknowledged in a somewhat cursory way rather than integrated into the thinking and therefore the policy solution-type of way”

- Government policy adviser

Participants view government departments as siloed, each focusing on their specific mandates without sufficient cross-departmental collaboration. This fragmentation hinders the development of cohesive policies that address both climate and health impacts.

“If you go to what used to be BEIS [the Department for Business, Energy & Industrial Strategy], they will talk about business, and they don’t give a monkey’s about climate

change or health. If you go to the Department of Health, they'll talk about that climate change might be bad for health, but they've got COVID recovery, and cancer, and four-hour waits... And if you go to anyone else in Treasury, for instance, they don't care about any of the above, they just want things to carry on as it is."

- Academic / policy adviser

The NAP offers one example of silos between different government entities. The NAP is a structured framework that aims to address climate risks across the UK, including those affecting health. It is meant to promote cross-departmental coordination and identifies specific actions to mitigate climate risks. However, participants noted obstacles in translating principles into practice, citing cultures of siloed decision-making and a lack of resources.

"The urgency and the prioritisation of climate and health work isn't there; I don't see it happening yet... [T]he most recent NAP was really disappointing...it's more of the same. There's no commitment to do anything, there's no commitment to action within it, there's no commitment to resource or prioritisation."

- Government policy adviser

Siloed decision-making also occurs between levels of government, pointing to vertical coordination issues in addition to horizontal ones. For example, a participant noted that local and devolved governments may take integrated approaches to climate and health policy but face challenges in aligning these efforts with more fragmented national requirements.

"When it comes to the implementation of policy it starts to fall down those different silos. So in the context of adaptation...locally we've identified that as a priority so we have our range of partners working on a climate risk assessment that's multi-agency. The challenge then is marrying that up with national requirements which are falling down in a very siloed way."

- Public health expert in Devolved Administration

3.1.2. There were some notable differences in how climate and health issues were discussed by participants from a public health versus a healthcare services perspective

Participants underscored that the public health perspective emphasises a holistic approach, focusing on preventing illness and promoting well-being by addressing wider determinants of health, such as housing, transportation, air quality, access to green spaces, mental health, and availability and quality of healthy and nutritious food.

"[F]or us in public health,... I'd say, [health is] a lot more holistic...with a focus on the wider determinants of health...And when you think about climate change [and the] environmental biodiversity crises, there are definitely links to those determinants that we need to be mindful of and probably need to talk about a lot more."

- Civil servant, devolved administration

Conversely, within healthcare services, the focus is narrower, primarily on decarbonizing the NHS, with initiatives like reducing emissions from anaesthetic gases and implementing energy efficiency measures in healthcare settings.

“There is work on decarbonising healthcare...Greener NHS for instance, NHS Sustainability as part of lowering the carbon footprint of healthcare. But in terms of fundamental policy ... [i]n terms of changing transport policy to get people to walk and exercise as opposed to burn carbon, that’s not there. The move to ...local seasonal plant-based diets as a way of mitigating carbon and improving health, that’s not there...healthy heating and insulation of homes to improve health and low carbon, that’s not there...I think there’s talk of it, but I don’t think most people...understand it, and there isn’t really any direct connection between those two sets of policies [i.e. climate and health] at all.”

- Academic / policy adviser

Participants highlighted a growing recognition of the link between climate change and mental health and the lack of national policy discussions on this topic, indicating a significant gap between emerging scientific understanding of the issue and its integration in national policymaking.

“One other thing I would mention would be the mental health effect of climate change. [O]ne of the things we’ve been coming to learn from...is that the main predicted health effect of, say, somebody’s home being flooded is actually the mental health effect.”

- Civil servant, devolved administration

“[A] fair bit of our work recently has focused on the links between climate change and mental health... And I guess the bottom line is they barely are being discussed at all...within climate policy – the degree to which the financial cost of inaction on climate change upon people’s mental health is captured...We have very little in the way of quantitative approaches to understand the impact, for example, of extreme heat on people’s mental health. That stuff is really not...included in, if you like, cost benefit analysis of things like nature-based approaches to tackling climate change.”

- Academic

“I think climate change will...interact with the mental health crisis that we see across many, many countries...but that is particularly challenging for...England’s healthcare system because...people cannot get the help that they need. [Y]ou’re just locking in risks for those down the line as people’s health continues to deteriorate and those risks compound...I think just the complete underinvestment in physical and mental health...is the biggest issue here.”

- Civil servant, local government

Although mental health links were made by several participants, the implications for young people was not singled out specifically. This is despite it emerging as a more prominent concern, and the emergence of related literature (Hickman et al 2021, Lawrance 2022), and probably reflects the interests of the participants who agreed to be interviewed by the researchers.

Variability in awareness and understanding of climate change within public health and healthcare services was also noted by participants.

“There was someone who was working in public health, unbelievably, who the first question she asked me was, ‘I don’t really know what to think about climate change because you hear so many different things about the science,’ and you just think, ‘You are working in public health. Oh my god.’”

Climate and health advocate

Such variability underscores the importance of targeted education and training for health and healthcare professionals to bridge gaps in awareness and understanding.

3.1.3. Despite the lack of integrated climate and health policymaking cited by participants in general, the Greener NHS initiative was noted as a relative success

Building on the efforts of the Sustainable Development Unit (active from 2008 to 2020), the Greener NHS programme has helped to generate interest and understanding amongst healthcare professionals about more sustainable practices. Participants explained that it represents a significant step forward in integrating climate considerations into the healthcare system, emphasising sustainable practices and reducing the carbon footprint of healthcare services.

“Obviously Greener NHS...has been a huge success in generating interest, understanding energy — predominantly amongst healthcare professionals I would say in climate and health, and thinking about what sustainable healthcare looks like.”

- Government policy adviser

“Setting up the...Sustainable Development Unit and the Greener NHS programme, I think are success stories. [T]he carbon footprint of the health system has come down. There is much wider recognition within the health system of its significance.”

- Public health expert / health and climate advocate

“I think there are areas where [health and climate policies] are really well interlinked. I think if you look at our Greener NHS, they’re doing a fantastic job of integrating climate into healthcare systems and ensuring that we are moving towards sustainable low carbon healthcare systems and carrying that across to supply chain resilience.”

- Civil servant, central government / policy adviser

Within the NHS, adopting new practices such as using anaesthetics that are less potent greenhouse gases was highlighted as a noteworthy achievement. This initiative showcases how specific medical practices can be modified to reduce environmental impact while maintaining high standards of patient care.

“Within the NHS...They have done amazing work in trying to change anaesthetics which are much less potent greenhouse gases without compromising patient care.”

- Academic / policy adviser

“[A]naesthetic gases would be an example...internationally it’s been recognised as best practice...a good example of things that you look and think, ‘Well, if there is a gas, an anaesthetic gas that has much, much lower emissions, why would you not use it?’”

- Civil servant, devolved administration

3.1.4. The UK has played an important role in bringing health into international climate negotiations, but integration remains limited at a global level and there is a disconnect between international and national level efforts

Health considerations have begun to receive greater, albeit still limited recognition in international climate negotiations. A significant milestone in this regard was COP26, where as the host nation, the UK made health a particular focus, leading financially as well as diplomatically.

“The UK is now the primary funder of quite a lot of the WHO’s work on healthcare decarbonisation, was responsible for doing quite a lot of the diplomatic heavy lifting when it came to some of the commitments in COP26 [when] it was the host ...”

- Former civil servant, central government

One of the key outcomes of COP26 was the core commitment to sustainable and climate-resilient health systems (WHO 2023). This declaration was driven by the WHO in collaboration with the UK Foreign and Commonwealth Office and later translated into the WHO Alliance for Transformative Action on Climate and Health (ATACH).

“I think you can track the progress back two years to COP26 when we had it in Glasgow and when the UK announced that they were going to decarbonise their healthcare systems. And I think you can see the attention building from there. And the fact that there was now a dedicated day for health at a COP is a real success story of how much attention and advocacy has gone into that.”

- Civil servant, central government / policy adviser

Participants highlighted the UK’s role in embedding health within the global goal for adaptation—viewed as a significant achievement in international negotiations.

“[I]n a sense there’s been a positive impact on the prominence of health in the international climate negotiations and the UK has been quite an important player in that. So we coordinated the health day at COP28, we fielded ministers, we led a lot of that, and that helped to influence, for example, the global goal on adaptation having references to health in. So that’s a broader climate policy that came out of COP28 that has a health reference. Largely that was led by the UK.”

- Government policy adviser

Despite these achievements, participants offered limited insights into exactly how health considerations have influenced the UK’s position in international climate negotiations. They noted that while the importance of integrating health into climate talks has been acknowledged, they could offer few specific examples or detailed insights into the processes and outcomes of these negotiations.

This gap indicates a need for better communication and collaboration between domestic climate and health policy experts and those involved in international policy discussions. It also underscores the importance of operationalising the objectives set out in international agreements to ensure that health considerations are consistently and effectively integrated into climate policies at all levels.

3.2. Views about optimal integration

We asked participants whether and to what extent they believed climate and health policymaking should be integrated. Most expressed a view that they should be strongly linked, and many cited the need for a holistic approach that better reflects their interconnections.

3.2.1. There was a strong consensus amongst interviewees that climate and health policymaking in the UK should be better linked and more integrated

Participants emphasized that climate and health are intrinsically linked, and policies should reflect this interconnectedness to effectively address broader determinants of health and climate resilience. Many advocated for a “climate in all policies” or “health in all policies” approach, underscoring the importance of integrating climate considerations across all policy areas.

“I would say they need to be dealt with together...I don’t know if you’re familiar with the One Health concept...which is a holistic look at the animal, plant, and human health interface and that multi-layer approach to dealing with hazards like climate change and health...I believe in that concept – that we need to understand the interface of them all together as...one thing. So, yeah, I think they should be aligned, and where they’re integral...to good policymaking is understanding health and climate change at the same time.”

- Civil servant, UK regulatory agency

“But it just seems sometimes we slightly miss the wood for the trees and don’t see how the – we need more systems thinking essentially in terms of how these things are all

connected, and we don't often make those links. Because it's difficult, but that's not to say it shouldn't happen more."

- Academic

Many participants stressed the importance of prevention and addressing the wider determinants of health.

They argued that a more holistic approach to health, which includes prevention and public health measures, would not only improve health outcomes but also contribute to decarbonising healthcare.

"For us in public health, I'd say health is looking at the wider piece in terms of preventing illness keeping people healthy, not just making them better when they're sick. So it's, I'd say, a lot more holistic."

- Civil servant, devolved administration

"I mean to reduce the carbon footprint of the NHS obviously the best way to do it is that people don't need to use the NHS at all. So if you had much more emphasis on public health, prevention for want of a better word, and primary care, that would be a much more cost effective healthcare system."

- Public health expert / health and climate advocate

3.2.2. Participants highlighted the need for policies that prioritise the vulnerable populations who are disproportionately affected by climate change.

Participants identified vulnerable populations as a critical focus of climate and health policies. Vulnerable groups include the elderly, children, those with pre-existing health conditions, and poorer communities, including significant proportions of Black, Asian, and minority ethnic groups.

"[S]ignificant proportions of our Black, Asian minority, ethnic communities in London live in poorer communities and there are inequities...[W]e also have rough sleepers who are often comorbid, so they often have dual diagnosis, mental health and drug and alcohol addiction...who are particularly exposed to heat."

- Civil servant, local government

"[I]n terms of communities... and the most vulnerable and how they're being thought through in different policies and approaches, I mean the National Adaptation Programme [made] some progress compared to the previous iteration, but definitely not going as far as we would've liked if we were to have a full plan to make sure that the most vulnerable are...catered for, basically."

- Policy advisor, charity/auxiliary organisation

“We talk a lot about health inequality in our organisation, and we talk about climate justice and the fact that the most vulnerable are going to be hit hardest by climate change...There might be some really good work happening out there on this, but in general I think it’s such a big issue, isn’t it. And I think we do desperately need to be doing more on that as well.”

- Civil servant, devolved administration

Prioritising vulnerable populations was also suggested by some participants to support climate and health resilience and focus resources in the most effective way possible.

“I think by understanding the needs of those most vulnerable, those already living with existing inequalities be that health or environmental, social inequalities, those are the populations that we can often make the biggest difference to...[I]n a resource constrained world where we don’t have all the resources that we might need, we need some targeted interventions [that] can make some of the biggest differences for those community groups.”

- Civil servant, UK regulatory agency

“I think it probably will go back to this idea around ensuring that identifying and addressing the needs of vulnerable groups that continues to be at the heart of government’s resilience policy as a whole. And that would be one of my key ways in which I think that these things should be addressed...[I]n terms of addressing vulnerabilities, what we’re looking at there is understanding groups who are vulnerable, being able to put the needs of those most...adversely affected by a crisis first, and essentially moving towards an approach which is able to take notice of vulnerabilities in an emergency, and be able to address them. And essentially improve, as the other side of the coin, resilience to emergencies.”

– Advocate / policy advisor, charity/auxiliary organisation

3.2.3. Expectations for the types of evidence required to inform policy and planning should be appropriate

The need for policy to be evidence-based was a recurring theme. Some participants called for policies informed by robust scientific data, highlighting the importance of indicators to track the public health impacts of climate change.

“The position we’re advocating is indicators are useful and help track the public health impacts of climate change... to ensure policy and action are evidence-based. And we definitely advocate for the position for, as always, more research, continuing research and ensuring that it’s world class, cutting edge and really contributes to humanity using the scientific evidence basis.”

- Academic / policy adviser

“Particularly as someone who’s trained in public health and worked across a number of different health issues in my career, when you are looking at other health issues like diabetes, there’s quite a lot of precision around the data that’s gathered and the systems that gather the data, and how things are reported and considered. But those systems are not there for climate change and health. There’s a real gap in the metrics and indicator space.”

- Civil servant, national government

While the importance of evidence-based policymaking was acknowledged, some participants argued that sufficient evidence already exists to justify action, and that the focus of effort should shift accordingly. They stressed that immediate and decisive action is necessary to address the urgent challenges posed by climate change and its health impacts.

“[S]o that’s why I’m not writing any more reports on climate change and health because we have the evidence there that we need...We don’t need more reports on it, we just need to act.”

– Academic / policy adviser

“I’m focused only on action now... We don’t need more evidence. Policymakers and people and companies aren’t going to change because of more evidence so I switch much more to action.”

- Academic / policy adviser

3.3. Barriers to optimal integration

We asked participants to describe any obstacles to achieving what they see as the ideal integration of climate and health policies. The two most widely cited were firstly, a lack of resources and secondly, siloed decision-making. Multiple barriers related to data and evidence were also cited, as were challenges related to industry influence, a lack of cross-cutting and interdisciplinary expertise, short-termism in decision-making and inertia.

3.3.1. Resource constraints were the most frequently mentioned barrier

Most participants cited resource constraints as a major barrier to better integration of climate and health policymaking, highlighting a context of chronic underfunding and limited capacity.

“[T]here seems to be quite a lot of handwringing around climate and health, but actually very little resource directed to where it’s needed which is local government, public health teams, local government climate adaptation teams, you know, facilitating their access to good health expertise.”

- Experienced public health professional

Some participants noted a lack of dedicated resources and expertise on climate and health issues, both in terms of individuals and/or teams with climate and health expertise, and supporting budgets. Work in this area is often done in people's own time, without official roles or compensation, leading to inconsistencies and gaps in effort and focus. Financial constraints and limited human resources mean that **policymakers are compelled to prioritise urgent and immediate issues over those that unfold over a longer timeframe**, which often leaves long-term climate and health issues underfunded and understaffed.

“[T]he key barrier is that it is still the case that work on climate and health is done in people's own time within the public health system and health in general. Like for me, 90% of my job is not climate; I spend probably two days a week working on climate, unpaid – completely unpaid.”

- Experienced public health professional

Without dedicated roles and proper funding, efforts to integrate climate and health policies remain fragmented and inconsistent. This means that trade-offs have to be made, with knock-on effects for system capacity and capabilities.

“[T]he thing is...capacity, resource, and funding is always stretched to the max...[T]he ask is generally, “Here's a new thing to deliver but you've got to do it within your existing frameworks.” So that either means diverting somebody off something that they're already doing, adding to somebody's portfolio, and that's when people get overworked and disillusioned, people leave, people move on. People drive agendas differently because resource isn't matched across organisations.”

- Civil servant, devolved administration

Even in areas with more explicit government commitments, such as decarbonizing of the NHS, variability in implementation across the UK and chronic under-funding have created challenges. As a large, complex system under enormous pressure to deal with the needs of acute patients, and systemically underfunded even before the outbreak of COVID-19, staff are frequently expected to take on sustainability roles in addition to their already significant workload with limited support.

“[The] NHS has set up Greener NHS...they're modelling what all the provider trusts and the [integrated care systems] are doing across the country which is task somebody to do sustainability and then everybody else can just crack on with business as usual and totally ignore it...Greener NHS does some great work, don't get me wrong, but they've just been massively cut.”

Climate and health advocate

Similarly, investment required to retrofit and upgrade both buildings and fleet competes with provision of critical care.

In terms of wider public health, resource constraints of a different kind, imposed as part of economic austerity measures, can be noted in particular sectoral policies.

“[A] source of frustration for me is around housing in the UK particularly...10 years ago, there were about two million energy efficiency measures being installed in UK homes which have a clear public health benefit in terms of reducing people’s exposure to living in cold homes, to damp, to condensation, to mould. And the government at the time...basically took away funding that was there to support particularly vulnerable communities...or poorer households to implement some of these energy efficiency policies.”

- Academic

While participants frequently cited public funding constraints as a barrier, none referenced the possibility of alternative financing mechanisms. This gap between identifying funding challenges and developing innovative solutions represents an important area for future research and policy development, drawing on lessons from broader climate finance literature.

3.3.2. Short-term thinking creates obstacles to sustained attention on climate and health issues

Short-term planning and a lack of long-term decision-making are significant challenges. One participant noted an inherent bias against sustained action and investment, which makes it challenging to address long-term climate and health issues effectively.

“I think there’s probably an inherent bias in the system against long-term sustained action and investment which is very, very difficult to tackle...But we definitely see that in public health where you try and make a case for anything that needs to be done over a long period.”

– Advocate / policy adviser

This short-termism leads to decisions that do not fully consider future climate impacts, as vividly noted by one participant.

“[F]or example, we’re still building hospitals on floodplains – new hospitals. It is such a short-term vision of the future that I cannot believe that is the case.”

- Government policy adviser

Another participant further emphasised a lack of long-term planning in the health service and with respect to climate change, specific challenges related to adaptation which are harder to track and measure, compared to mitigation.

“If you look at the health service, we’re often reactionary [sic]. We react [by] sticking plasters on the health service rather than looking at long-term planning and investment. And it’s the same for climate policy. [W]ith mitigation, it’s easier to measure, so we reduce emissions...With adaptation, it’s about a risk-based approach...politically you don’t get the impact straightaway. It will take years. [I]f you retrofit a property it will take years to assess its impact, whereas with mitigation, it’s much quicker.”

- Civil servant, local government

3.3.3. Inertia creates resistance to systemic change

Inertia within healthcare systems and bureaucracies presents another significant barrier. Participants noted that these systems are designed to be stable and resistant to change, making it difficult to implement new policies and practices related to climate and health.

“Healthcare systems and hospitals are usually inert to most forces that try to get them to change...Cost pressure, supply constraint – they are built to be incredibly stable and resilient systems, and they do a very, very good job of resisting the will of a CEO, a CFO, a health minister, a patient, anything.”

- Former government civil servant

“[I]n some ways you might call it inertia...there’s a tendency to carry on in the same old way and not recognise the importance of all of this. I think if people recognised its gravity and its urgency there would be a lot more action.”

- Public health expert / health and climate advocate

This resistance to change is often compounded by the bureaucratic nature of organisations like the NHS, making any transformation a significant challenge.

“Trying to change anything in an organisation, the NHS, which is very bureaucratic, which is very sluggish in its capacity and willingness to change is a monumental task in itself which most people just don’t try.”

- Former government minister

3.3.4. Siloed decision-making leads to fragmentation and a lack of coordination on climate and healthy policymaking

A siloed approach to governance was highlighted by many participants, reinforcing the widely cited lack of climate and health policymaking integration. Climate and health policies are often developed and implemented separately by different departments without adequate coordination, resulting in fragmented responsibilities and inefficiencies.

“[W]ho’s designing climate policy for health in...the UK? I think if you’re speaking to somebody from the Department for Health [and Social Care] you could ask them do they have a team who’s delivering on this? And UKHSA is supposed to be doing climate policy, but they’re not a government department, so they’re not sat at the table with the other well-funded government departments, and the Department for Health [and Social Care] is not well funded, so who’s responsible in government for putting together the adaptation and the mitigation agendas for health?...[D]o those departments with big budgets for delivering on the climate agenda have embedded health expertise? No. Do they have access to good [climate and] health expertise across other parts of government? I’d say no.”

- Experienced public health professional

“[T]hat...goes back to that siloed working thing, because if you don’t have somebody who’s the owner of that portfolio of work and those activities that can gather that data and report it through set mechanisms, then how do you know what’s going on?...It needs to be a formal, funded, structured, aligned programme of work or it just becomes something that gets passed on to somebody that just does it as and when they’ve got time. But that’s not really the most effective way to deliver this thing...particularly when your bread and butter is knee replacements and flu jabs.

- Civil servant, devolved administration

3.3.5. Data and evidence barriers are many and varied

Participants frequently mentioned issues with data and evidence, or a lack thereof. For example, a participant explained the misalignment between research outputs and practical needs, with research sometimes failing to produce actionable data that can inform practical decision-making.

“We have big pieces of research that are merely just stating the same problem in a slightly different way, and in the meantime, I’m working with people at the local government level who entirely lack access to the sorts of evidence and data that helps them to make decisions and do really basic things.”

- Experienced public health professional

Another participant described a disconnect in using evidence from different circumstances, which made it difficult to apply findings outside of the original context.

“I remember thinking ‘how do you deal with fires they were having in apartment blocks?’ Because people were burning open fires because they were so cold ...There wasn’t no evidence, but there was really crappy evidence. And I remember thinking, ‘Oh my God, I have to prove to people with evidence that having an open indoor fire is

wrong.’... But at the same time...you can’t use certain evidence from certain countries because they won’t listen, right?”

- Academic / policy adviser

A third participant explained that the available evidence is not used effectively in policymaking.

“The House of Lords inquiry on behaviour change for climate goals pointed to a lack of effective use of evidence, and skills of civil servants to use evidence in effective policymaking. And so that partly accounts for why they don’t focus more on behaviour change within policy as well, that they just don’t know how to, and the efforts to try to change behaviour are generally misguided and ineffective.”

- Academic

Some participants questioned the prevailing assumptions about what constitutes ‘good evidence’ in climate and health policy. While randomised controlled trials and quantitative cost-benefit analyses are often privileged in healthcare decision-making, several participants argued that different types of evidence may be more appropriate for complex, system-wide challenges.

“I think it’s hard to not feel that the bar for evidence is not equal across different topic areas. It feels to me...that the bar for investing in public health, the evidence bar is higher than for the NHS. Politicians...every year will throw 10, 15, 20 billion pounds extra into the NHS. The idea they would do that on climate change is fanciful, isn’t it?...We spend a lot on the NHS but in terms of its contribution to health outcomes the evidence is not great...I think the bar for evidence is clearly not equal, and the answer to that is politics, clearly.”

– Advocate / policy adviser

“[M]ost of the interventions that we’re talking about...involve transformational or system level change. So evaluating them in the way and providing the evidence that an economist would require is really an unreasonable ask I’d say. [B]ecause actually plenty of good policy is made on the basis of other dimensions...[T]his is a little bit of a deflection by saying that there isn’t enough evidence. I think we need to challenge that as a professional cohort and say well what’s the threshold for evidence required for this type of intervention.”

- Experienced public health professional

In some cases, the evidence to help decision-makers explore trade-offs or otherwise make progress is not available.

“I think people are struggling to identify the good, robust evidence which will help to influence in their circles. [W]hether that’s the key statistic or...key quote or...little statement of fact, people are unsure how to...progress the agenda.”

- Civil servant, central government

“[W]hat we’re finding in so many areas is that we have...the policy...but...very few of them will have any indication of their financial viability...They are all what should be done...And therefore, the policy is an aspiration, and the finance people say... ‘Where’s the evidence? How are we going to afford it? How can that be done?’ And the climate team says ‘Well, we haven’t got that yet, that’s really complicated.’...So we need a way of having a very high level appraisal...And to throw some financial numbers at it, some social value numbers and some environmental numbers...I call it public value return on investment...we can use a holistic framework, like public value, for all of these climate actions and work out from there what to do first, and which one...can move from an aspirational basis to a requirement basis...[and] start implementing things...and having the effect that we so desperately need.”

- Planner, local government

3.3.6. Interdisciplinary and cross-cutting climate and health expertise is lacking

A lack of cross-cutting and interdisciplinary expertise is another barrier mentioned by participants. Effective integration requires knowledge across both climate and health domains, which is seen to be rare and difficult to achieve within existing professional frameworks.

“I think the over simplistic view is that there’s not enough climate expertise amongst public health people, or health people, or there’s not enough health expertise amongst climate people. But you cannot be a public health expert and a climate expert...the depth of those technical areas of professional areas is too much...this idea that we can have a whole new cohort of people who are climate and health experts, that’s not really what needs to happen.”

- Experienced public health professional

“[Y]ou haven’t got many people who have got really good expertise on both climate change and health, or if you have, they’re probably quite rare. So it’s either about climate change people trying to learn about health, or public health, or health people trying to learn about climate change...I think you need people with a good understanding across both really.”

- Civil servant, devolved administration

3.3.7. Industry influence is viewed as a barrier to more ambitious climate and health policy integration

Industry influence was cited by some participants as a challenge to greater ambition on integrated climate and health policymaking. Examples included the fossil fuel and car industries delaying emissions reduction efforts, with knock-on effects for health in terms of air quality and related health issues.

“In climate change clearly we are seeing a lot of influence from the fossil fuel industry, from the car industry, and so we’re quite concerned about what we call the commercial determinants of health, the negative impacts of companies and industries that are influencing and lobbying in some ways legitimately for their commercial interests but potentially in the process causing quite significant harm to public health. So there’s a question for government about the transparency by which it approaches the lobbying of commercial interests and the influence that they have on policy.”

– Advocate / policy adviser

“I think potentially vested interests is the biggest barrier...[There are] too many large corporations who rely too much on fossil fuels. And they have an enormous amount of power. There’s a huge amount of...powerful lobbying that goes on.”

- Academic

The housing and construction sectors were also cited for their lobby efforts to delay improvements to building standards, of the kind that would make homes healthier to live in as well as more climate resilient.

“[T]he first part of the barrier is that until very recently there has been no investigation into the way in which the house builders...are in effect a cartel because there are so few of them that they are able to fix the end price of housing because they know exactly how to reduce the supply to ensure that the demand is never met... Secondly, they buy land in advance... So I tell the government that if they force me to have higher building standards then the price of houses will rise, and that the government doesn’t want for obvious reasons, because electorally that’s unacceptable. But in fact it’s a lie; it has always been – governments have always given way in it.”

- Official policy adviser / advocate

“[T]he Good Homes Alliance has a developer network with ... 10 or 20 or so forward-thinking developers as part of it. But I get the feeling that the...general attitude...is like, ‘We [developers] will do it when we are told to do it by regulation. Meanwhile, we’re lobbying to undermine further regulation’.”

- Planner, local government

3.4. Opportunities to advance integration

We asked participants to describe opportunities to advance climate and health policymaking that could help to overcome some of the identified barriers. Identifying and promoting the co-benefits that could arise from better integration of climate and health policymaking was widely cited in this respect. Expanding the Greener NHS initiative was also suggested, along with emulating groundbreaking legislation and examples of good practice from devolved governments in Wales and Scotland.

3.4.1. Emphasising co-benefits could support advancement of climate and health policies

A recurring theme amongst participants is the potential for significant co-benefits through increased integration of climate and health policies. For example, reducing air pollution through climate policies can lower healthcare costs associated with respiratory diseases.

“[A]ctually having a better indoor air quality and warmer homes, there’s a huge health co-benefit to that, as well as of course reducing emissions from insulating homes and so on...[H]opefully there will be some more policies coming online that do achieve some wider healthcare benefits, but I think still not as much as you’d hope.”

- Academic

“[T]hings like active travel,...better use of green space for health, local food growing... will have health benefits and potentially carbon benefits.”

- Public health expert, local government

Emphasising, or attempting to maximise, these co-benefits could provide compelling arguments for a more integrated approach to policy development, demonstrating how addressing climate change can also improve public health outcomes and reduce healthcare costs. Integrated policies can lead to substantial economic and social co-benefits.

“I think climate change [mitigation] is often seen in negative terms; we’re going to have to stop flying. And the upside of it...doesn’t come through very clearly. I think with health, there very much is an upside, that if we were to drive less, and use public transport, and walk more, and cycle more, that’s very good for our health. If we switch to eating largely a plant-based diet rather than an animal-based diet, that’s very good for the planet and it’s very good for our health. If we...improve the quality of housing, housing is very important to health.”

- Public health expert / health and climate advocate

“If you were to take low carbon policies, let’s say on renewable grids, renewable power generation, better home insulation, less particulate pollution, burning fossil fuels, less road transport due to those with brake, tyre, and...road surface wear, plus the diesel

particulates, and active transport, replacing it with a change in diet to plant-based seasonable, local...and, yes, a reduction in ruminant meat consumption and all those other things, you would get rid of an absolutely vast amount of disease from the health service in one go. You'd...address all the social determinants of health in terms of poverty and equality. You'd have energy security ...[A]ll of these things are wins for health and survival...[and] also economically they're valuable which of course a thriving economy is also important to the health and wellbeing of a nation."

- Academic / policy adviser

The *Lancet* Countdown on Health and Climate Change⁵ was one example of an initiative cited by participants that advocates for more funding for adaptation and mitigation efforts, emphasising the economic savings from improved public health outcomes.

3.4.2. Co-benefits could be realised in a number of key areas

Participants discussed the many co-benefits arising from integrated climate and health policymaking. Promoting a shift towards more plant-based diets, active travel, and housing retrofitting were frequently mentioned areas where significant co-benefits could be achieved. These actions reduce emissions whilst also addressing health issues such as obesity and cardiovascular disease and improving mental health and physical fitness.

"Active travel has obviously significant...physical health benefits and is good for climate. And similarly, a plant-based diet is healthy and good for mitigating climate change...There's a bit of a link as well in terms of low consumption lifestyles and mental health impacts, so higher wellbeing associated with less consumption".

- Academic

"[T]he climate adaptation side of stuff ...links to the mental health piece [in terms of] how can we provide decision-makers with information so they are considering the impacts that climate change will have upon mental health in the way in which they adapt to climate change. [S]ome of the messaging is similar to the co-benefits piece around taking into account the multiple opportunities there are for co-beneficial outcomes when planning policies particularly around things like incorporating green space into urban areas."

- Academic

Many participants highlighted co-benefits for climate change and health arising from improving the quality of housing.

⁵ <https://www.thelancet.com/countdown-health-climate>

“[H]aving a better indoor air quality and warmer homes, there’s a huge health co-benefit to that, as well as of course reducing emissions from insulating homes and so on.”

- Academic

There was a significant focus by participants on the need for retrofitting existing housing stock. This includes measures such as better insulation, installation of energy-efficient heating systems, and improved ventilation, which can reduce carbon emissions, and improve indoor air quality.

“... about retrofitting...our ambition for 28 billion [pounds sterling] a year, and then the public finances have just collapsed, and it’s gone down to four and a half, 5 billion a year. But that is actually still a really significant investment, as is GB Energy. All of these are mould-breaking interventions in the supply of energy in the supply of retrofitting of housing that I think are going to be very significant.”

- Parliamentarian

“[T]here are three broad areas of work that we do in the council housing team on our existing homes which are...divided into three areas summed up by the phrase “safe, decent, and sustainable homes.” [T]he safe one is all about fire safety, damp and mould...the sort of compliance issues that are very related to human health. The decent homes one is a...government target based on ensuring that there are no leaks to the roof, the kitchens in our homes are fit for purpose and habitable, the heating and ventilation system works...The third piece, which is sustainable homes, is about the energy efficiency, the reduction in carbon emissions...which can be thought of as more of the longer term climate change making the planet healthy...in the long run. But it’s also about making homes warmer and making them more affordable in terms of heating so people can afford to heat them to reasonable standards. And those three things have a big crossover to them.”

- Planner, local government

Participants discussed the role of design codes and planning regulations in shaping housing developments. The integration of health considerations into these requirements was mentioned as a way to ensure that new housing developments contribute positively to public health and climate resilience.

“Climate change is here, we’ve got a climate emergency, we need to protect the vulnerable, and there are huge opportunities to retrofit if we’ve got the right funding, the right planning regs. And in terms of new developments, we need to keep putting pressure on making...climate change much more central to the planning framework.”

- Civil servant, local government

3.4.3. The size of the National Health Service affords opportunities to make change at scale

Some participants observed that the size of the NHS offered opportunities to better integrate climate and health policies at scale.

“[I]f the NHS was a country it’d be the 37th biggest country in the world...so the advantages of getting it to net zero are you’re making a significant and serious contribution. You’ve got £170 billion of purchasing power going on there. Now the majority of that is going in staff bills, but you’ve got a workforce there that are potentially advocates.”

- Parliamentarian

“[T]he health service is so big; 10% of GDP – you’ll always find somebody’s doing something absolutely outstanding...[I]t’s one of the most natural crucibles for research in the world...But it’s not usually due to health, it’s due to the fact we’re big and we’re known, and we have a lot people.”

– Advocate / policy advisor

Leveraging the scale of the NHS can result in significant changes for climate and health policy integration, for example, redesigning hospital menus to prioritise plant-based foods.

“...in the hospitals in New York they’ve redesigned the menu. That they put plant-based foods first...But here it tends to be the opposite, that if you want vegetarian food, that’s special. If you look at the list it’ll be sausages, and steak pie, and spaghetti Bolognese or whatever, it won’t be a plant-based option. Whereas in New York they shifted the food consumption quite considerably.”

- Public health expert / health and climate advocate

“So you just say, ‘OK, Committee on Climate Change has said we need to reduce meat and dairy by 20% by 2030, so we’re just going to do that in our kitchens,’ and you use plant-based alternatives, you have one meat-free day a week...And on a population scale, on a catering level scale, these are all little things that have – because of the size of the NHS have a disproportionate impact.”

- Parliamentarian

3.4.4. Efforts undertaken in Wales and Scotland offer models for supporting better integration of climate and health policy

Wales and Scotland were cited by many participants as having taken effective actions to better integrate climate and health policies. Some participants noted that this has been facilitated by their relatively small government size, allowing for easier cross-departmental collaboration which has enabled a better alignment of the health and climate agendas.

Participants widely highlighted efforts in the devolved government in Wales as a model for effectively integrating climate and health policies, primarily through the Wellbeing of Future Generations (Wales) Act (2015). This pioneering legislation promotes sustainable development by integrating climate considerations into public health policy and addressing health inequalities exacerbated by climate change.

“[Y]ou’ll be aware that we have the Wellbeing of Future Generations Act 2015...it’s a groundbreaking, world-leading piece of legislation...[I]t certainly brings legislative responsibility onto public sector organisations...to work on areas around climate emergency and adaptation.”

- Civil servant, devolved administration

The Act has facilitated a holistic approach, able to give consideration to environmental, cultural, social, as well as economic well-being.

“[W]e’ve done a bit of work looking at the Wellbeing of Future Generations Act in Wales which is very much the health in all policies type approach...I think we would point to that example as the way we would like to see England go where you have a government that is committed to taking multiple action across multiple areas, because we know it’s a whole system, whole government, whole public sector, whole country challenge and you can’t simply have action in one area.”

– Advocate / policy adviser

Scotland has focused on building capacity within public health to engage with climate change issues, leading to better policy alignment and more effective implementation of integrated strategies. Public Health Scotland has published its first strategic approach to climate, marking a significant step in capacity building and policy influence. NHS Scotland has also developed a comprehensive climate emergency strategy, overseen by a dedicated climate emergency board including chief healthcare professionals, ensuring high-level engagement in integrating climate considerations into health policy.

“[J]ust under two years ago we produced and published...NHS Scotland’s climate emergency strategy, and we set up...a working group to oversee that and manage it...[W]e’ve got a climate emergency board, and...one of the co-chairs is the Chief Medical Officer in NHS Scotland. So basically the senior clinician in Scotland is a co-chair. Another chair is basically the chief operating officer of NHS Scotland. So we have that

clinical buy-in, and [the Chief Medical Officer] every year he publishes an annual report as to what his priorities are. And his latest one...identified four priorities, and climate was one of them. And all the health-related impacts of climate in the widest possible sense is something that he highlighted. And then across the service we have engagement with other clinicians in NHS Scotland as well as other professional expertise like procurement and facilities and that kind of thing.”

- Civil servant, devolved administration

“Scotland did a really good White Paper on emission reductions and they’re taking a lot more forward action.”

- Academic

One participant noted the joined-up approach to climate and health policymaking taking place in both Wales and Scotland.

“[T]he success and the good we would look to and point to would be a government like in Wales offering that political leadership and putting on a legislative footing the ability for a government to act across multiple areas and join it up in a coherent way...I think Scotland has a similar type approach...there are quite a few examples of countries that have taken that health in all policies approach.”

– Advocate / policy adviser

Participants noted that the approaches taken in Scotland and Wales have facilitated the use of health impact assessments as a successful methodology for better linking climate and health policies.

“[O]ne I’m aware of [is] the use of health impact assessments as a methodology to bridge the gap between climate policy and health policy... Public Health Wales published a climate change health impact assessment...that was trying to bridge some of the health policy areas with the requirements from climate adaptation and the climate risk assessments and trying to reframe that through the lens of wider determinants and health inequalities.”

- Public health expert in Devolved Administration

“The Australians have good things around HIAs, health impact assessments, as well as Scotland.”

- Planner, government department

3.5. Strategies to advance integration

We asked participants to consider what they view to be the best approaches to advance climate and health policy integration, given the barriers and opportunities they identified. Four main themes emerged: enhancing interdisciplinary cooperation; establishing dedicated roles and resource allocation; ensuring evidence is fit for purpose; and engaging and empowering communities.

3.5.1. Enhanced cross-cutting coordination is needed to create more coherent policies

Participants felt there was a need to foster greater cross-sector and cross-cutting coordination between government departments and with health services to create more coherent policies.

“What needs to really happen is for more interdisciplinary work to happen. And that’s not just for researchers, that’s really across the board for us to meet closer to the need of the different policy creation, implementation, whatever step of the system you’re thinking about.”

- Experienced public health professional

“I think maybe the way government is organised here in the UK, or maybe how it tends to develop policies and how funding is also allocated to different departments, it might have to be reassessed. Because I think that the best way of doing policy and research is doing it in a way that is not siloed and that takes into account the different aims and objectives of each department...bringing them together so that we – in some ways we’re not duplicating or replicating efforts.”

– Academic / policy adviser

One participant observed that embedding individuals with expertise and insights on health considerations into all policy areas can help to ensure that health outcomes are consistently addressed for more effective policies.

“[Y]ou can only really embed health in all policies by having that health voice and the health expertise there to help you understand where the opportunities and levers are within your policies.”

- Experienced public health professional

Another explained that this integration goes beyond bringing together climate and health experts to involve experts in other, related areas such as housing and transport.

“The second [way to bring health into climate change policymaking] is integration. So the point when we make policy, that we are bringing either the right people into the right rooms to discuss how climate and health interact, but...not just your climate

experts and your health experts, but bring in your housing, bring in your transport, bring in your green infrastructure people and a bunch of other teams.”

- Civil servant, local government

Three specific institutional or legislative innovations were suggested. One was to introduce legislation in the form of a new Public Health Act that would require all government departments to consider health outcomes in their policies and funding decisions.

“[O]ur view is that government is not being joined up enough on the health agenda. And climate change is a good example where you need several government departments to do things to contribute to the climate change agenda. And what we would like to see is a new public health Act that essentially requires every government department to think about the health outcomes [that] any given policy or funding decision is going to produce.”

– Advocate / policy adviser

A second suggestion was for a cross-departmental body modelled on the Climate Change Committee to provide independent, expert advice on creating a healthier nation and to ensure accountability.

“I would first of all have a Healthier Nation Commission which would be modelled on the Climate Change Committee...[I]t wouldn’t be representative, it would be entirely filled with experts...And its job would be to lay down the programme on a five yearly basis, a programme for making the nation healthier...And I think you need...it constantly raising these things, and saying what it would cost, and saying what it would save, and creating budgets, an annual budget for the Health of the Nation, and I think that will make a huge difference.”

- Official policy adviser / advocate

A third suggestion was that a new Minister for Resilience and Adaptation could oversee integrated climate and health policies, among other areas, ensuring a holistic approach across government departments.

“[O]ne of our policy calls...[is for a] Minister for Resilience who would be overseeing to some extent all of this. And we slightly extended...the call for a Minister for Resilience and Adaptation so that there would be a holistic approach and view on what is being done.”

- Policy advisor, charity/auxiliary organisation

3.5.2. Dedicated roles and resource allocation can support sustained focus and greater expertise

Many participants noted that to ensure sustained focus and expertise, it is necessary to create dedicated roles and resources for climate and health integration.

“[O]n the adaptation side, it is much harder to be clear on what the overall outcome is, either by risk or grouped sets of risks. And my team, working with the [redacted for anonymity purposes], is doing some work to try to develop a systems model for how you think about multiple risks. And you embed ownership as part of a system rather than quite granular individual risks. And so that, we hope, will yield a better framework and greater clarity for risk-owning departments and ultimately lead to greater drive in terms of actions associated with that.”

- Civil servant, central government

“The capability and capacity side of that I think of as investing in your institutions and investing in your staff. And so I think of that as either making sure that you are removing the financial barriers or you’re removing the skills barriers”

- Former civil servant, central government

“[W]hat I think helps us to...bring climate impacts and integrate policy and health is human resources and more money. I think making sure that there is a requirement that everything that we spend, consider how it could be better climate adapted, so we are taking that long view rather than doing like-for-like replacement and often needing to replace things more frequently.”

- Civil servant, local government

3.5.3. Evidence should be fit for purpose to meet the needs of decision makers

A third strategy mentioned by participants to improve climate and health policy integration is to ensure that evidence is accessible and fit for purpose. This can include establishing a focused research agenda that addresses the practical needs of policymakers and developing and using robust and relevant indicators to inform policy decisions.

“[T]here is this whole dimension about usability of data generally, so almost more from a UX web-based and digital accessibility issue [sic] as well...[W]e’ve got a real focus on how people get access to information...[T]hinking through these accessibility issues of people wanting to get access to data and trustworthy data as well.”

- Civil servant, central government

“I’d say one of the very challenging things for adaptation compared to other policy priorities is how difficult it is to measure. For net zero we can set targets and we can monitor progress against those targets...Adaptation, you cannot set a target for...when you are well adapted... That said, we could put in place indicators...that help us to make this clearer across the sector even if targets are very challenging.”

- Civil servant, local government

“One of the gap areas [regarding] what departments need was they want to do more on monitoring and evaluation...Going back to that point on outcomes that are measurable, and indicators that will help to both drive but also indicate where you are being successful and where you’re not.”

- Civil servant, local government

A couple of participants explained that the adaptive pathways model – an approach to guide decision-making under uncertainty (Haasnoot *et al.* 2024) – can help policymakers respond to risks and make more informed decisions even where precise data is not available.

“The adaptive pathways model is probably the best one to go with because it’s very explicit about where the uncertainty sits and allows you to plug in the evidence you have in a way that means that you’re shoring up certainty where you can, but then you’re being explicit about where the uncertainty is.”

- Experienced public health professional

“[I]f you use an adaptive pathways approach, do your win-win or low risk actions first... and then start to look at your more complex interventions that ... Yeah, we see a lot of decision paralysis across organisations who want really precise data. And just moving from that, we can set you in a direction that is not wrong to adapt for, but we cannot tell you exactly where you are going to flood or what days are going to be 45 degrees plus, but we know they are coming. And I think getting used to working with that level of unpredictability is something we’re all going to have to learn and get comfortable with in the next decade.”

- Civil servant, local government

3.5.4. Engaging and empowering communities can generate greater public buy-in

Some participants also explained the importance of engaging and empowering communities through co-production of policies to ensure they are tailored to the needs of those affected by them and have greater public buy-in.

“[W]e talk about a continuum of co-production and getting community groups involved in the whole policymaking process...So I think that’s key to good policymaking and certainly when it comes to climate change.”

“[I]t is really important that every voice is heard...for consensus, you basically need to have an understanding from across the board. But the equity bit comes in about making sure that everyone does have a voice and it’s not those shouting the loudest, or those

with the most influence that are getting heard. [I]t's about...amplifying the voices of those community groups that aren't heard."

- Civil servant, UK regulatory agency

"[I]f you look at some of the big campaigns that have been done...the smoking campaigns and the seatbelt campaigns where [the] public were really involved, that those really made a difference...[A] campaign where the public really are involved in this, are central to this, and lobby their MPs to really make a difference. That's where you are really going to get some change...So we really need to get the public on board."

- Civil servant, local government

4. Summary and potential implications

Synthesis of findings

The growing seriousness of physical and, increasingly, mental health threats from climate change are becoming better recognized in the UK and globally. But despite widespread acknowledgment of the interdependence between climate change and human health agendas, and the UK's prominent international role in drawing attention to it, practical integration in national policymaking has been limited.

A strong consensus emerged from our interviews that a more holistic, systems-thinking approach that emphasizes prevention and addresses wider determinants of health is urgently required in the interests of both climate and health outcomes. Without it, vulnerable populations in particular will be exposed to increasing levels of harm. To enact such a new approach, cross-departmental coordination and collaboration and more appropriately evidence-based policymaking are essential while also recognizing the pressing need to move from evidence-gathering to decisive action to meet the urgent challenges posed by climate change.



HM Treasury, Whitehall. Source: Unsplash; credit: Anya Chernik

Chronic underfunding and limited capacity were identified as the most significant current barriers to policy progress, particularly at a local level. A lack of dedicated roles and budgets often results in work on climate and health being done informally, leading to inconsistencies and gaps in effort and focus. Overly siloed decision-making, perpetuating the lack of cross-sectoral coordination and fragmentation, was another frequently cited barrier (nationally and locally), including the notably limited remit of the Department of Health and Social Care, confined to healthcare rather than wider public health. A focus on short-term objectives and lack of long-term decision-making at multiple levels, reflecting a tone set from the Treasury, was identified as an

impediment to consistent and sustained efforts to address climate and health issues. While the health service needs to react to immediate demands, this over-riding focus undermines efforts to address longer-term impacts.

Resistance to change or inertia within large and bureaucratic systems and institutions, particularly the NHS, can be another significant barrier. The way systems are designed for stability and resilience makes implementation of new policies and practices, especially large-scale or otherwise transformational ones, especially challenging.

More widely, resistance to change on the part of powerful corporate lobby groups was identified as delaying adoption of more ambitious and integrated climate and health policies relating to wider determinants of health (and climate change), in the housing sector and built environment in particular.

Effective integration requires knowledge across climate and health domains, but this is rare and difficult to achieve within existing professional frameworks. A variety of barriers relating to data and evidence exist, but the full picture is nuanced. For example, the ‘high bar’ set for evidence to justify action in climate and health policy compared to other policy areas was seen to affect policymaking and timely implementation.

Addressing the challenges to advancing climate and health policies in the UK described by our interviewees in an effective way requires a multifaceted approach. Adequate funding and dedicated resources, breaking down institutional silos, aligning research with practical needs, fostering cross-disciplinary expertise, and promoting long-term planning are essential steps. Overcoming inertia and resistance to change within bureaucratic systems is also crucial.

Implications

Although the time available, methodological approach adopted, and limited number of respondents in some categories preclude the making of firm recommendations to overcome the thorny issues raised by participants, some strong messages nevertheless emerge that are relevant for particular audiences.

Implications for the healthcare system

Despite the acute strains currently experienced within the healthcare system, the scale of the activities conducted under the auspices of the NHS mean that it remains a key player in national climate policy, both for mitigation and adaptation. Its importance to emission reduction goals and the necessity of enhancing its resilience to climate impacts must be considered as the government prepares its 10 Year Health Plan for England for publication in 2025 (DHSC 2024). This Plan will run until 2035, by which time the NHS in England is committed to having made an 80% reduction in its direct emissions, and climate impacts will be more severe.

The government’s declared priorities for the plan present opportunities to consolidate past achievements and increase future ambition. The prioritization of prevention as one of three headline proposed ‘shifts’ represents a particular opportunity. Prevention can become a headline priority for the NHS, not just left to wider public health efforts, but implementation of this objective will require culture change across the system, including behaviour change amongst healthcare professionals and enhanced coordination with local authorities, in addition to financial investment. It would also benefit from additional research focusing on healthcare demand management: evidence on the impact of disease prevention strategies on GHG emissions is rare in the literature (Or and Seppänen 2024).

At the same time, given varying levels of awareness and engagement with climate issues among health professionals, and the current strains on the system, expectations for the role of the healthcare system should be viewed in the context of the still under-utilised potential of wider public health interventions, both to improve health outcomes and ease pressure on health services, both physical and mental, and help climate policy goals. Likewise, expectations that health practitioners should lead by example should be qualified by the understanding that wider structural changes are needed to facilitate behaviour change (see also Fylan and Allison 2023).

Implications for wider policy making and planning

Opportunities remain to be fully seized in terms of wider public health policy and the co-benefits that can arise from better aligning policies. Participants in our research consistently emphasised that the scale of change required cannot be achieved through isolated departmental initiatives or incremental adjustments but instead demands coordinated policy efforts across all sectors that influence public health and climate outcomes. The reasons for limited progress in this direction, as participants in this research identified, can often be traced to budgetary constraints imposed by successive governments pursuing economic ‘austerity’ agendas, and averse to perceived ‘burdens of regulation’.

The effects of these agendas have been to worsen inequalities and put vulnerable populations at greater risk. Moreover, there is a carbon penalty to such an approach: deteriorating public health leads to an increased burden on healthcare services, which places upward pressure on the carbon footprint of the NHS at a time when it is supposed to be coming down. This strengthens the (already well made) case for raising the budget for public health measures in general such that it becomes significantly more than its current 2% of the NHS budget.⁶

Apart from restoring budgets for public health, leadership in promoting greater climate and health policy ambition will require policymakers at multiple levels to visibly prioritise these agendas, and do more to keep special interests out of politics. New frameworks to facilitate decisions over what programmes and measures offer the most ‘public value’ will be needed, potentially drawing from positive experiences of Health Impact Assessments. Such frameworks will need to identify where significant co-benefits can be obtained, such as through reductions in urban air pollution, and give due weight to the interests of vulnerable groups.

Cross-national learning, within the UK and beyond, offers opportunities to understand what works and what does not in seeking to better integrate climate and health policy agendas. England can learn from Wales and Scotland, for example, where policymakers have pioneered approaches to better align these agendas and demonstrate the value of having less rigidly siloed government departments and where co-benefits are more likely to be achieved. Taking this further still, this report is part of a suite of reports covering several countries worldwide which may share similar governance processes, climate risk profiles and other features to the UK. Lessons could be learned through knowledge exchange regarding good practices, including how more integrated policymaking systems might be successfully developed.

Implications for future research

Themes such as those elaborated above can usefully form the basis of future research agendas.

One theme emerging which suggests a particular need for further reflection and research is the role of data and evidence in informing public health interventions in general, and the integration and alignment of climate and health policies more particularly, both descriptively (how things work currently) and normatively (how could they be improved). While some participants in our research called for more data, others stated there was enough, and what was lacking was *action* based on this already adequate evidence. Some argued that large-

⁶ We are grateful to Kay Leedham-Green, one of the several respondents to the draft of this report, for emphasizing this and other points.

scale or more transformational reforms were stymied by an inability to justify them using standard assessment frameworks and forms of cost-benefit analysis. Further research could usefully clarify where precisely the evidence gaps are that are used to justify inaction, which of them it is feasible to fill, and in which cases a new approach to decision-making ought to be enacted in view of the urgency of action.

A particular area where participants would value more concrete help is in prioritizing where investment in solutions can most effectively be made and demonstrating the ‘public value’ of such interventions, whilst not being held to unrealistically high standards of quantification. The UK Treasury oversees the *Green Book*, which guides appraisals of proposed policy interventions, but was not represented among the interviews for this research. The Treasury could usefully engage with those who would like to apply the available suite of assessment techniques to make headway with climate and health-friendly investments at local authority level as well as national.

Given the limited involvement from key central Government departments in informing this report, there are research gaps to attend to in terms of:

- How health (co-)benefits of climate actions are calculated and considered in the decision-making process;
- What difference these (co-)benefits currently make to decisions being made;
- How innovative financing mechanisms beyond traditional public funding could support integrated climate-health interventions;
- The extent and effectiveness of cross-departmental working to address relevant agendas;
- How processes that could effectively link climate and health policies can be designed to withstand evolving and changing political leadership;
- What data or insights the research community could provide (and in what format) to help increase the chance that health benefits are considered in key decision-making processes.

In addition, implications for young people’s mental health, although not raised by participants specifically, appears to be a growing priority for research that would merit further attention.

Some participants highlighted that the NHS’s resistance to change or inertia, especially to large-scale or more transformational reforms, stems from the intentional design of large bureaucratic systems to ensure their stability and resilience, which is worth also reflecting on further. Resilience is often regarded as a desirable feature of individuals and systems, but there are contexts in which elevating this characteristic as a good in itself becomes counter-productive to the kind of transformative reform that may be required by our current climate predicament. Consideration could be given to examining such aspects further.

Finally, one participant in this research noted how this report had the potential to become a key source of information about the individuals most active at the intersection of climate and health agendas (their names, roles and expertise), and how that would constitute a valuable resource. Given the limitations that we have already noted, the current report cannot be presented in such terms. However, with some additional survey work, it could become a more comprehensive and valuable source.

5. Conclusion

The findings of this study underscore both the urgent need and significant potential for better integration of climate and health policies in the UK.

While there is growing recognition of the intrinsic links between climate change and human health, practical integration in national policymaking remains limited due to siloed decision-making, resource constraints, and a lack of long-term planning, amongst other factors. However, opportunities exist to overcome these barriers through emphasising co-benefits, leveraging the scale of the NHS, learning from pioneering approaches in Wales and Scotland, and fostering greater cross-sector coordination.

A holistic, systems approach that addresses the wider determinants of health and prioritises vulnerable populations will be essential. This may require significant legislative reforms, such as establishing a Minister for Adaptation and Resilience or designing a new Public Health Act. Further research can help to bridge evidence gaps and develop effective prioritisation strategies for interventions. By seizing these opportunities and addressing the identified challenges, the UK can create more integrated and effective climate and health policies.

6. References

- Anglian Water, 2020. Anglian Water's five-point plan for a green recovery. Accessed online: <https://prod.anglianwater.co.uk/SysSiteAssets/household/about-us/green-recovery-five-point-plan.pdf>
- Association of Directors of Public Health, 2023. *ADPH Manifesto 2023*. Accessed online: https://www.adph.org.uk/wp-content/uploads/2023/05/ADPH-Manifesto-2023_Final.pdf
- BBC, 2024. Scottish government scraps climate change targets. April 18th. Accessed online: <https://www.bbc.co.uk/news/uk-scotland-68847434>
- Betts, R.A., Haward, A.B. and Pearson, K.V. (eds.), 2021. *The Third UK Climate Change Risk Assessment Technical Report*. Prepared for the Climate Change Committee, London. Accessed online: <https://www.ukclimaterisk.org/wp-content/uploads/2021/06/Technical-Report-The-Third-Climate-Change-Risk-Assessment.pdf>
- Bretter, C., & Schulz, F., 2023. Public support for decarbonization policies in the UK: exploring regional variations and policy instruments. *Climate Policy*, 24(1), 117–137. <https://doi.org/10.1080/14693062.2023.2273302>
- Cameron, G., 2021. Less than half of the public believe the NHS has a responsibility to reduce its impact on climate change. Does it matter? *BMJ* 2021;375:n2629. <http://dx.doi.org/10.1136/bmj.n2629>
- CCC, 2019. *UK Housing: Fit for the future?* London: Committee on Climate Change.
- CCC, 2023. *Progress in Reducing UK Emissions 2023. Report to Parliament*. London: Climate Change Committee. Accessed online at: <https://www.theccc.org.uk/wp-content/uploads/2023/06/Progress-in-reducing-UK-emissions-2023-Report-to-Parliament-1.pdf>
- Cooke, E. et al., 2022. Climate change and health scorecard: What are UK professional and regulatory health organizations doing to tackle the climate and ecological emergency? *Journal of Climate Change and Health* 8. 100164
- Dear, K.B. and McMichael, A.J., 2011. The health impacts of cold homes and fuel poverty. *BMJ*, 342:d2807.
- Fylan, F. and Allison, G., 2023. “We can't save the planet, we're too busy saving lives”: Exploring beliefs about decarbonizing the NHS. *Journal of Climate Change and Health*, 12. 100241.
- GMC, 2024. Position statement: planetary health and sustainable healthcare in medical education standards and outcomes. UK General Medical Council. Accessed online at: <https://www.gmc-uk.org/-/media/documents/general-medical-council-planetary-health-position-statement--july-2024- pdf-107865433.pdf>
- Haasnoot, M., Di Fant, V., Kwakkel, J. Lawrence, J., 2024. Lessons from a decade of adaptive pathways studies for climate adaptation. *Global Environmental Change*, 88, 102907. <https://doi.org/10.1016/j.gloenvcha.2024.102907>.

Hickman, C. et al., 2021. Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Lancet Planetary Health*, 5, e863–e873.

HM Government, 2023a. *Responding to the Climate Change Committee's (CCC) 2023 Annual Progress Report to Parliament*. October 2023, HC 1919.

HM Government, 2023b. *Government Response to the Climate Change Committee 2023 Report to Parliament – Progress in Adapting to Climate Change* HC 1943. October 2023. Department for Environment, Food and Rural Affairs.

Howarth C. et al., 2024. *Turning Up the Heat: Learning from the Summer 2022 Heatwaves in England to Inform UK Policy on Extreme Heat*. London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science.

IPCC, 2021. Summary for Policymakers Headline Statements, *IPCC Sixth Assessment Report*. Accessed online at: <https://www.ipcc.ch/report/ar6/wg1/resources/spm-headline-statements/>

Jennings, N., Fecht, D. and De Matteis, S., 2020. Mapping the co-benefits of climate change action to issues of public concern in the UK: a narrative review. *Lancet Planetary Health*, 4(9), pp.e424-e433.

Kovats, S. and Brisley, R., 2021. Health, communities and the built environment. In: *The Third UK Climate Change Risk Assessment Technical Report* [Betts, R.A., Haward, A.B., Pearson, K.V. (eds.)]. Prepared for the Climate Change Committee, London. Accessed online: <https://www.ukclimaterisk.org/publications/type/technical-reports/>

Lawrance, E. L. et al., 2022. Psychological responses, mental health, and sense of agency for the dual challenges of climate change and the COVID-19 pandemic in young people in the UK: an online survey study. *Lancet Planetary Health*, 6 (9), e726 – e738

Marmot, M., P. Goldblatt, J. Allen, et al., 2010. *Fair Society Healthy Lives (The Marmot Review)*. London: Institute of Health Equity. Accessed online: <https://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review>

Marshall, L. and Allen, A., 2023. *Health and Climate Change: Complex Problems with Co-benefits*, The Health Foundation. Accessed online at: <https://www.health.org.uk/publications/long-reads/health-and-climate-change-complex-problems-with-co-benefits>

Martin, S., Lomas, J. and Claxton, K., 2019. Is an ounce of prevention worth a pound of cure? Estimates of the impact of English public health grant on mortality and morbidity. *CHE Research Paper* 166. Centre for Health Economics.

Munro, A., Boyce, T. and Marmot, M., 2020. *Sustainable Health Equity: Achieving a Net-Zero UK*. Advisory Group Report for the UK Committee on Climate Change. Report written by Alice Munro, Tammy Boyce, Michael Marmot on behalf of the Health Expert Advisory Group. London: Institute of Health Equity.

Natural England, 2023. *Green Infrastructure Principles: Detailed version*. Accessed online at: <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/downloads/GreenInfrastructurePrinciples.pdf>

NHS England, 2020. *Delivering a 'Net Zero' National Health Service*. Publication reference: PAR133. Accessed online at: <https://www.england.nhs.uk/greenernhs/wp-content/uploads/sites/51/2020/10/delivering-a-net-zero-national-health-service.pdf>

NHS England and NHS Improvement, 2020. *Delivering a Net Zero National Health Service*. Accessed online at: <https://www.england.nhs.uk/greenernhs/publication/delivering-a-net-zero-national-health-service/>

NHS Scotland, 2022. *Climate Emergency and Sustainability Strategy: 2022-2026*. Health and Social Care Finance, Digital and Governance Directorate. Accessed online at: <https://www.gov.scot/publications/nhs-scotland-climate-emergency-sustainability-strategy-2022-2026/documents/>

Office for National Statistics (ONS), 2023. Excess mortality during heat-periods: 1 June to 31 August 2022. Accessed online at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/excessmortalityduringheatperiods/englandandwales1juneto31august2022>

Patel, N. *et al.* (2024). *Options for Restoring the Public Health Grant*. The Health Foundation. Accessed online at: <https://www.health.org.uk/publications/long-reads/options-for-restoring-the-public-health-grant>

PHS, 2023. *Climate Change and Sustainability Strategic Approach 2023–2026: Working Together to Build a Greener, Fairer, Healthier Future*. Public Health Scotland. Accessed online at: <https://ourboard.publichealthscotland.scot/documents/s2735/PHS%20climate%20change%20and%20sustainability%20strategic%20plan%20Paper%2027-23.pdf>

Pencheon D. and Wight, J., 2020. Making healthcare and health systems net zero. *BMJ* 2020;368:m970. Accessed online at: <https://www.bmj.com/content/368/bmj.m970>

Sayers, P.B., Horritt, M., Carr, S., Kay, A., Mauz, J., Lamb, R. and Penning-Rowsell, E., 2021. *Third UK Climate Change Risk Assessment (CCRA3): Future Flood Risk*. Research undertaken by Sayers and Partners for the Committee on Climate Change. London: Committee on Climate Change. Accessed online at: https://www.researchgate.net/profile/Paul-Sayers-2/publication/351360894_Third_UK_Climate_Change_Risk_Assessment_CCRA3_Future_flood_risk_projections/links/6093fa0c92851c490fbdbe0/Third-UK-Climate-Change-Risk-Assessment-CCRA3-Future-flood-risk-projections.pdf

Tennison, I., Roschnik, S., Ashby, B., Boyd, R., Hamilton, I., Oreszczy, T., Owen, A., Romanello, M., Ruysevelt, P., Sherman, J.D. and Smith, A.Z., 2021. Health care's response to climate change: a carbon footprint assessment of the NHS in England. *Lancet Planetary Health*, 5(2), pp.e84-e92.

UK Climate Risk, 2021. *Health and Social Care. Findings from the Third UK Climate Change Risk Assessment (CCRA3) Evidence Report 2021*. Accessed online at: <https://www.ukclimaterisk.org/wp-content/uploads/2021/06/CCRA3-Briefing-Health-Social-Care.pdf>

UKHSA and NHS, 2021. *Third Health and Care Adaptation Report*. Accessed online at: <https://www.england.nhs.uk/wp-content/uploads/2021/12/NHS-third-health-and-care-adaptation-report-2021.pdf>

UKHSA, 2023. *Health Effects of Climate Change (HECC) in the UK. State of the evidence 2023*. Accessed online at: <https://assets.publishing.service.gov.uk/media/659ff6a93308d200131f8e78/HECC-report-2023-overview.pdf>

Walton, H. et al. (in press). Health and associated economic benefits of reduced air pollution and increased physical activity from climate change policies in the UK, *Environment International*, 109283. <https://doi.org/10.1016/j.envint.2025.109283>.

Welsh Government, 2024. *Well-being of Future Generations (Wales) Act 2015: Guidance on our Law to Improve Social, Economic, Environmental and Cultural Well-Being*. Cardiff: Welsh Government. Accessed online at: <https://www.gov.wales/sites/default/files/pdf-versions/2024/7/1/1719821303/well-being-future-generations-act-essentials.pdf>

WHO, 2023. *Climate Change*. Accessed online at: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health> .

WHO, 2015. *Operational Framework for Building Climate Resilient Health Systems*. Geneva: World Health Organization. Accessed online at: <https://apps.who.int/iris/handle/10665/189951>

WHO, 2023. *Operational Framework for Building Climate Resilient and Low Carbon Health Systems*. Geneva: World Health Organization.

Winslow, C-EA., 1920. The untilled fields of public health. *Science* 51:23.

7. Acknowledgments

This research was funded by the Wellcome Trust (grant number 228255/Z/23/Z). We also wish to acknowledge and thank our international partners who helped shape the research protocol:

George Mason University Center for Climate Change Communication: Edward Maibach, Joshua Ettinger, Julia Fine, John Kotcher

Centre for Chronic Disease Control: Poornima Prabhakaran (PI), Samayita Ghosh, Bejo Jacob, and Ishika Jharia

Centre for Planetary Health Policy: Remco van de Pas (PI), Sophie Gepp (PI), Greta Sievert, Maïke Voss, and Dorothea Baltruks

University of Nairobi: Richard Mulwa (PI), Elvin Nyukuri, Kenneth Kigundu, and Elly Musembi

University of São Paulo, Brazil: António Saraiva (PI), Daniela Vianna, and Patricia Zimmermann

University of the West Indies: Mona, Jamaica Georgiana Gordon-Strachan (PI), Natalie Greaves, Shelly McFarlane, Sandeep Maharaj, Madhuvanti Murphy, and Darren Dookeeram.

Additionally, we thank members of the Global Climate and Health Alliance (GCHA) for their feedback on our research questions, preliminary findings, and draft report, and we thank GCHA team members (Jennifer Kuhl and Jeni Miller, PI) for soliciting this feedback and coordinating stakeholder convenings



8. Declaration of competing interests

The authors have no competing interests to declare.

9. Appendix: Methods

Recruitment

In order to create a sample of interview participants representative of the state of the health and climate policymaking ecosystem in the UK, individuals who met both of the following criteria were recruited:

- Currently working or has recently worked on UK climate policies, health policies, or climate and health policies. This includes work on policy implementation.
- Currently working or has recently worked in academia; as a policy advocate; for the UK or devolved government; in parliament; as legislative staff within UK government executive bodies, including local and devolved governments; or at a think tank.

Individuals working on policies strongly relevant to climate and health such as agriculture, water and transportation were also recruited.

Potential participants were recruited initially by sending email invitations to personal contacts of the research team, known political advocates in the sector and authorship teams of key UK reports on health and climate; through snowball sampling with participants (i.e., asking participants for recommendations of other individuals we could potentially interview); and by identifying individuals with relevant expertise through Google search and on LinkedIn.com.

A total of 42 semi-structured interviews were conducted during the period of February 2024 to June 2024. The final sample featured participants from a mix of different sectors (Figure 1), and areas of interest (Figure 2)

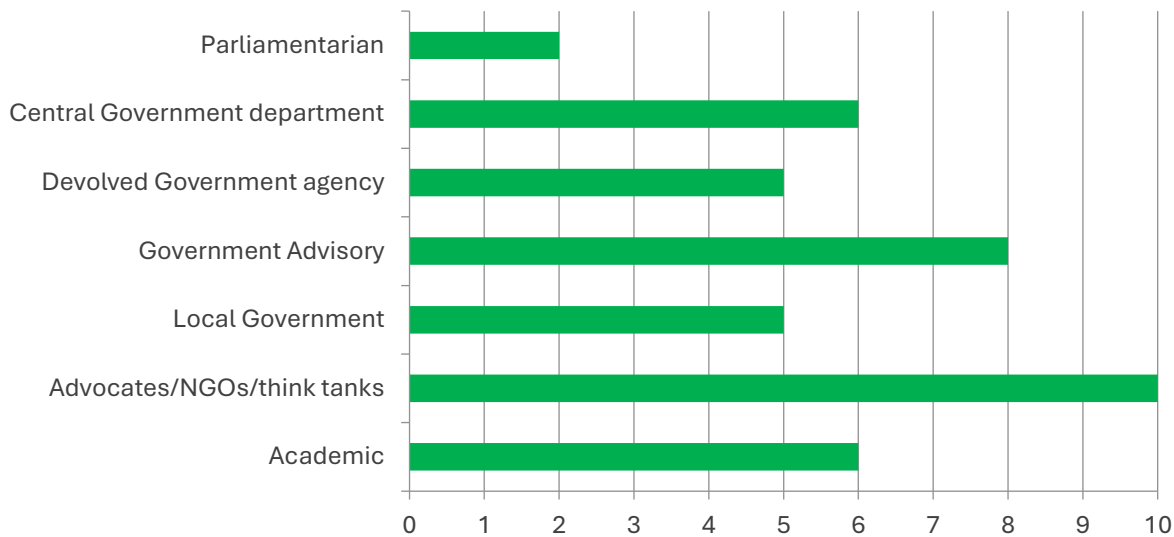


Figure 1: Participants' sectors

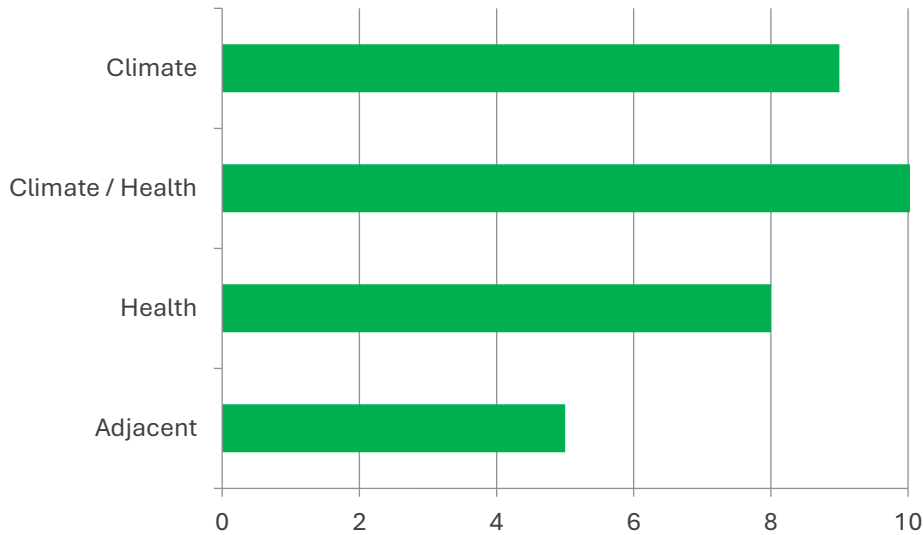


Figure 2: Interviewees' focus areas

Interviews

The interviews were semi-structured using a pre-established interview protocol. Interviewers maintained flexibility to ask additional questions and to ask participants to further elaborate their responses. A list of prepared questions is available in the appendix (see page ##). The questions were divided into categories based on the research questions. They sought to elicit participants' views and experiences related to the current national status of climate and health policies; ideals for the climate and health policy relationship; barriers to advancing and integrating climate and health; and opportunities and strategies for overcoming barriers.

The interviews were conducted over Microsoft Teams by either one or two members of the research team. They were recorded and transcribed by a third party company with the automatic transcript from Teams serving as a backup and each was given a number signifier to allow anonymity from that point.

To obtain informed consent, participants were sent a participant information sheet prior to their interviews. After joining the call and before starting the interview, they were asked to verbally approve the participant information sheet and give consent to proceeding with the interview on that basis. They were also asked to provide their preferred sector and a job description.

The study was approved by the University of East Anglia Faculty of Science Research Ethics Subcommittee in December 2023.

Interview questions

Slightly altered protocols were provided for each of the following groups:

- Participants working on climate policy
- Participants working on health policy

- Participants working on both climate and health policy
- Participants working on a climate-adjacent issue

A short protocol was provided for participants with very limited time (~20 minutes).

Participants were asked to select which sector they were a part of:

- Parliamentarian
- Central Government department
- Devolved Government agency
- Government Advisory
- Local Government
- Advocates/NGOs/think tanks
- Academic

The following protocol is for participants working on both climate and health policy.

1. Could you tell me about a recent example of your work on climate and health?

- a. Follow-up questions (if unanswered):
 - i. What kinds of people or organizations were involved, and what positions were they advocating?
 - ii. Were climate experts and health experts in dialogue with each other?
 1. If so, how did that go?
 2. If not, why not?
 - iii. What were the outcomes?
- b. How typical was this example of your work on climate and health?
What about it was typical or atypical?

2. To what extent are health and climate policies linked, or not, in [their country/region]?

- a. If links are mentioned: In what ways are they linked?
- b. What are the benefits of linking climate and health policy, or of treating them separately?
- c. Do you think incorporating health considerations can build support for climate policies? Why or why not?

- 3.** How could climate and health policy or policymaking procedures be improved in [their country/region]?
 - a. If they don't mention specific policies or policymaking procedures: Are there specific climate and health policies or policymaking procedures that could be created or improved to more fully incorporate health considerations?
 - b. Do any specific success stories come to mind?
 - c. Are there models from other countries that you have used, or are considering using, in your work?
- 4.** What do you think is the biggest barrier to achieving the types of policy changes/ or the more successful implementation of good policy that you described?
 - a. Follow-up: What would it take to overcome this barrier? (such as communication approaches, resources, and other strategies)
 - b. Follow-up: Are there any other important barriers? (If so, ask how to overcome them)
- 5.** What opportunities do you see to achieve the types of policy changes that you described earlier in our conversation?
 - a. Are there any other opportunities you see?
 - b. What would it take to move forward with these opportunities?
- 6.** In your experience, what (if anything) has worked to influence policymakers to support climate and health policies?
- 7.** (if relevant to participant's background) How, if at all, have health considerations influenced your country's positions in international climate negotiations? (such as COP28, for example)
- 8.** Is there anything else that didn't come up in our conversation that you want to share before we end?



Suggested citation:

Rayner, T, Smith, E., Howarth, C. and Graham, J. (2025). *Advancing and Integrating Climate and Health Policies in the United Kingdom: Insights from National Stakeholders*. University of East Anglia and Grantham Research Institute on Climate Change and the Environment. <https://www.doi.org/10.17605/OSF.IO/SQ3R7>