East Sussex

Addressing the Health Effects and Impacts of Climate Change

Addressing Environment, Climate and Health
A Systemwide Health Impact Assessment for East Sussex (ECH-HIA)

Taking a Whole Systems Approach for Integrating and Advancing Population and Planetary Health in All of Our Approaches

Main Technical Report

Part 4: Conclusion



East Sussex
County Council

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1. Advancing and Integrating Environment, Climate and Health in All of Our Approaches

The 'Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (ECH-HIA)' represents an important shift in how environmental challenges and a changing climate should be understood and addressed both locally across East Sussex and more widely. Traditionally, a changing climate change has often been viewed primarily as an environmental, infrastructure, emergency planning or carbon reduction issue. This Health Impact Assessment has sought to reframe a changing climate as a population health issue, recognising that a changing climate is increasingly one of the most significant threats to health, wellbeing, health equity and community resilience.

This HIA demonstrates the value of embedding health considerations within climate policy and climate considerations within health policy. This approach builds upon the well-established **Health in All Policies (HiAP)** model and extends it to recognise that a changing climate is now one of the most significant determinants of health and health inequality.

This HIA has demonstrated that the environmental challenges, and risks associated with a changing climate affects health through multiple interconnected pathways, including housing, transport, planning, employment, education, food systems, health and care services, the natural environment and the wider social determinants of health. Consequently, addressing a changing climate cannot be the responsibility of environmental teams alone. Rather, it requires coordinated action across all sectors, services, organisations and levels of decision-making.

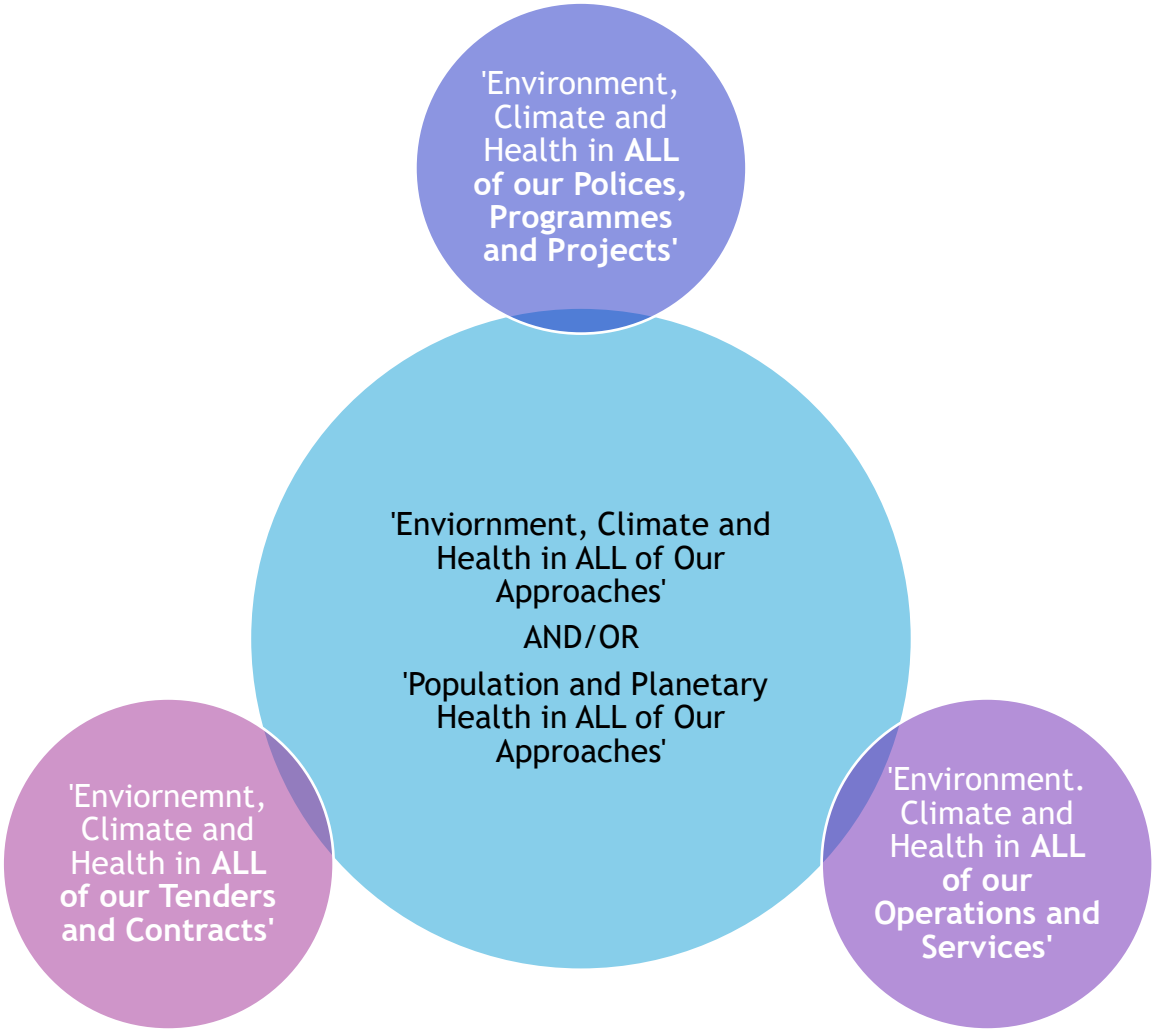
In doing so, East Sussex has progressively moved towards simultaneously delivering:

- Health in All Policies (HiAP)
- Health in All Climate and Environment Policies
- Climate and Environment in All Health Policies
- An "in all of our approaches" approach

Collectively, these approaches champion the principle of **Population and Planetary Health in All of Our Approaches**, recognising that human health and environmental sustainability are inseparable and mutually dependent. The health of people depends upon the health of the ecosystems in which they live, work, play, learn and age.

Environmental sustainability cannot be achieved without addressing health inequalities, social justice and the wider determinants of health.

Drawing upon the findings of this HIA, there is an opportunity to adopt and deliver:



Madigasekera-Elliott 2026

This approach moves beyond viewing environment, climate and health as separate agendas and instead recognises them as interconnected and mutually reinforcing. It seeks to maximise co-benefits, minimise unintended harms and ensure that climate action contributes to healthier, fairer and more resilient communities.

Ultimately, the Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex provides a foundation for a broader transformation in how policies and decisions should be developed across the county. The challenge is no longer simply to integrate ‘health into all policies’, ‘health into climate policy’ or ‘climate into health policy’. The challenge is to adopt a genuinely integrated model of

Population and Planetary Health in All of Our Approaches, where every major decision considers its implications for people, places, communities and the natural systems upon which they depend.

This represents a shift from viewing climate, environment, health, wellbeing and economic prosperity as separate agendas towards recognising them as interconnected components of a single system. By embedding this principle across governance, policy development, investment and service delivery, East Sussex has an opportunity to become a leading example of how local systems can simultaneously improve health, reduce inequalities, strengthen resilience, deliver climate adaptation and support environmental sustainability.

1.1. Why a Population and Planetary Health 'in All of Our Approaches' is Needed

This HIA identified several systemic barriers that currently limit the integration of climate and health considerations across policy, operations and decision-making.

A persistent challenge is the tendency towards short-term decision-making. Health and care systems are often required to respond to immediate operational pressures, service demands and financial constraints. While understandable, this can reduce capacity to address longer-term risks associated with a changing climate, despite growing evidence that climate impacts are already affecting population health, healthcare demand, health systems, and community resilience.

Institutional inertia also presents a significant challenge. Large organisations are designed to provide stability, continuity and risk management. While these characteristics are essential, they can make transformational change difficult to achieve, particularly where climate and health objectives require new ways of working, investment decisions or cross-sector collaboration.

This HIA also identified siloed decision-making as a major recurring barrier. A changing climate, health, transport, housing, planning, economic development and environmental management are frequently addressed through separate governance arrangements and policy processes. This fragmentation can hinder the development of coordinated responses to complex challenges that cut across traditional organisational and geographical boundaries.

The consequence is that opportunities to deliver multiple benefits through integrated action are often missed. Decisions made in housing, transport, planning, education or economic development can have significant impacts on health, health inequalities and climate resilience, yet these impacts are not always systematically assessed.

1.2. A Greater Need for Institutional Strengthening and Governance

Embedding climate and health within governance structures is fundamental to achieving sustained change.

The East Sussex Health and Wellbeing Board provides an important mechanism for strategic oversight and accountability. There is an opportunity for the Board to take a stronger role in overseeing the implementation of climate-health priorities, monitoring progress and ensuring alignment across partner organisations.

Climate and health considerations should be systematically incorporated into existing governance arrangements, rather than being treated as an additional workstream. This includes corporate strategies, service plans, commissioning frameworks, capital investment decisions and partnership programmes.

There is also an opportunity for local leaders to act as advocates for climate-health integration, helping to influence regional and national policy and ensuring that East Sussex continues to be recognised as a leader in this area.

Over time, climate-health integration should become a routine expectation within policy development and decision-making processes, supported by clear accountability mechanisms and reporting requirements.

1.3. A Need to Apply Assessment Tools and Frameworks

This HIA itself demonstrates the value of structured assessment methodologies.

Building on this work, East Sussex should consider adopting a suite of assessment tools that support consistent consideration of climate and health impacts across policy development and service planning. This could include:

- A Climate Change Health Impact Assessments (CCHIAs)
- Health Impact Assessments (HIAs)
- Equality Impact Assessments (EIAs)
- Carbon Impact Assessments
- Climate Adaptation Assessments
- Social Value Frameworks
- Natural Capital and Ecosystem Service Assessments

The long-term ambition should be to create an integrated assessment framework whereby health, equity, climate and environmental impacts are considered together rather than through separate processes.

This would help ensure that climate-health considerations are embedded early within decision-making rather than retrospectively assessed once proposals are already developed.

1.4. The Need to Strengthen Data, Evidence and Local Intelligence

This HIA highlighted the importance of developing a stronger local evidence base and particularly the benefit of doing for local authority settings.

Traditional hierarchies of evidence used within healthcare often prioritise randomised controlled trials and clinical evidence. While important, these approaches are not always sufficient for understanding complex systems-level challenges such as a changing climate.

A broader evidence base is therefore required. This should include:

- Quantitative epidemiological evidence
- Population health intelligence
- Systems modelling
- Community insight and lived experience
- Qualitative research
- Local case studies
- Service data
- Environmental and climate data

This HIA process demonstrated the value of bringing together diverse forms of evidence to understand complex risks and identify opportunities for action.

There is also an opportunity to establish a shared climate-health intelligence function across the East Sussex system. Stakeholders involved in the HIA process highlighted the need for a centralised knowledge-sharing platform or "**shared memory**" to support collaboration, learning and evidence exchange. A **shared digital repository or community of practice** support this ambition and help avoid duplication of effort.

1.5. Strengthen Cross-Sector and Cross-Departmental Working

One of the strongest messages emerging from the journey of undertaking this HIA process is the need for continued interdisciplinary collaboration.

A changing climate and health are inherently cross-cutting issues. No single organisation can address these challenges alone.

East Sussex has already established valuable relationships between public health, environmental services, NHS organisations, local authorities, voluntary and community sector partners, transport planners, housing providers and emergency planning teams etc through the undertaking of this unique HIA and the systemwide process that has been developed.

These relationships should be maintained and strengthened through ongoing collaboration, joint programmes and shared objectives.

The Public Health Healthy Places Team is particularly well positioned to provide leadership because of its focus on the environmental determinants of health and the "Building Blocks of Health" framework. This creates a natural bridge between climate action, place-based approaches and population health improvement.

The challenge moving forward is to shift from project-based collaboration to sustained systems leadership. There is the challenge in translating strategic assessment into operational delivery. Implementing adaptation measures requires sustained investment, cross-sector collaboration and long-term political commitment.

1.6. Workforce Development and Transformation Across Environment, Climate and Health

Achieving a Population and Planetary Health in All of Our Approaches will require **workforce transformation** as well as organisational change.

A changing climate should not be viewed solely as the responsibility of sustainability teams or environmental specialists. Instead, there is an opportunity to '**make every job a climate and health job'** and vice versa a '**health and climate job**'.

This does not mean every employee becomes a climate change or health expert. Rather, it means ensuring that staff understand how climate and public health affects them, their role, the populations they serve and the decisions they make.

Workforce development should therefore focus on:

- Climate-health literacy
- Adaptation and resilience planning
- Systems leadership
- Health inequalities
- Co-benefits of climate action
- Sustainable service design
- Population health approaches

Alongside broader workforce development, dedicated climate-health leadership roles remain essential. Sustained progress requires individuals with the expertise, authority and capacity to drive integration across organisational boundaries.

Dedicated climate-health roles should support policy development, facilitate collaboration, coordinate implementation and monitor progress across the East Sussex system.

1.7. Create Equity, Resilience and Community Voices

The HIA consistently demonstrated that a changing climate is likely to amplify existing inequalities unless adaptation and mitigation efforts are deliberately designed to address them.

A Health and Climate in All of Our Approaches as well as Population and Planetary Health in All of Our Approaches must therefore place equity at its centre.

Climate resilience and social justice should be viewed as mutually reinforcing objectives rather than competing priorities. Communities facing the greatest climate risks are often the same communities already experiencing poorer health outcomes, deprivation, poor housing and social exclusion.

Future work should therefore prioritise the meaningful involvement of communities in decision-making processes. This includes moving beyond consultation towards genuine co-production.

The concept of "rehumanising" climate and health is particularly important. Data and evidence remain essential, but stories, lived experience and community voice are often the most powerful tools for demonstrating why climate action matters and how it affects people's daily lives.

1.8. Monitoring, Accountability and Shared Learning

This HIA should be viewed as the beginning rather than the end of the process.

A Population and Planetary Health in All of Our Approaches requires mechanisms for monitoring progress, evaluating impact and sharing learning.

There is an opportunity to develop a climate-health outcomes framework for East Sussex, incorporating indicators relating to:

- Population health outcomes
- Health inequalities
- Climate resilience
- Adaptation progress
- Carbon reduction

- Community resilience
- Cross-sector collaboration

Regular reporting through existing governance structures would help maintain momentum and ensure accountability.

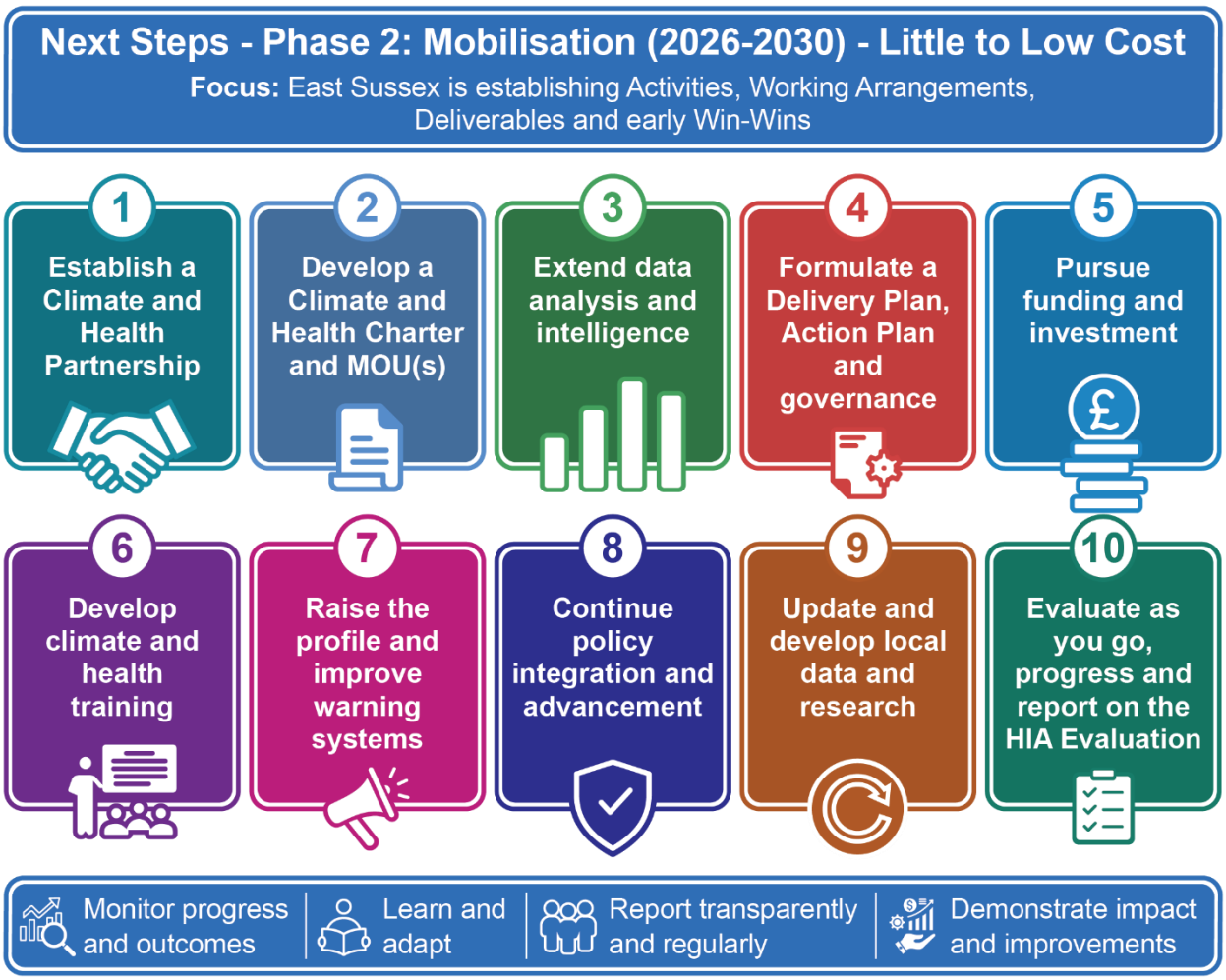
Ultimately, the ambition should be to move from isolated climate-health projects towards a mature system where climate and health considerations are routinely embedded within all major policies, programmes, projects, investments and decisions. In doing so, East Sussex can continue to position itself as a leader in developing a genuinely integrated approach to climate resilience, population health improvement and health equity.

2. Next Steps

East Sussex's Blueprint for a System-Wide Approach (stages, activities and principles)

Principles for delivery of Phase 2 – Putting in 'Place' the Systems and Processes that allow partners to mobilise and work towards addressing the health effects of a changing climate:

a) Continue and grow systemwide stakeholder relationships and engagement
b) Deliver 'No-regrets' interventions
c) Identify and make us of Systemwide Quick Wins
d) Take economic cost saving actions now
e) Implement actions with multiple benefits at every opportunity
f) Continue to alleviate barriers and tensions where possible



Phase 2 Delivery and Implementation: Mobilization (2026-2030) - Little to low cost

Focus: East Sussex is establishing activities, working arrangements, deliverables and early win-wins

Deliverables and Action Steps

1. Develop a Changing Climate and Health Charter and MOU(s) to keep addressing the health effects of a changing climate as a systemwide priority:

a) Raise awareness of this HIA as a key resource/toolbox for action to address a changing climate as well as to advance and integrate climate and health considerations.

b) Continue the 'Climate and Health Conversations' and Systemwide Workshops to support deliver of 'Population and Planetary Health in All of Our Approaches'.

c) Develop a shared memory/library of data, activities and guidance etc.

2. Establish a Climate and Health Partnership across East Sussex. Include the Mayoral Combined Authority

3. Extend data analysis and intelligence of local vulnerabilities, impacts, effects, hazards and risks. For example:

a) UK Climate Risk, Spatial indicators of vulnerability to climate related hazards in the UK (Sayers and Partners) July 2025.

b) Share and map systemwide data bases and intelligence on a changing climate and health. Use this to also map system impacts and vulnerabilities which can be overlayed.

4. Formulate a Delivery Plan, associated Action Plans and establish governance partnership(s):

a) Using the Implementation support tool for considerations, opportunities and action steps (Appendix C) advance and integrate climate and health considerations and opportunities into existing and new partner strategies, implementation plans and budgets. Do not reinvent the wheel where possible.

b) Work with systemwide partners to sequence actions by urgency and feasibility (short-, medium-, long-term). The 'Considerations, Opportunities and Action Steps' can be translated into organisational SMART objectives. SMART i.e. specific, measurable, achievable, realistic and timely:

Specific – outline in a clear statement precisely what is required.

Measurable – include a measure to enable you to monitor progress and to know when the objective has been achieved.

Achievable – objectives can be designed to be challenging, but it is important that failure is not built into objectives. Employees and managers should agree to the objectives to ensure commitment to them.

Realistic - focus on outcomes rather than the means of achieving them.

Timely - (or time-bound) – agree the date by which the outcome must be achieved. Specific, measurable, achievable, realistic and as part of Phase 2 systemwide partners will choose and agree which of the recommendations they will take forward and when they will be achieved by.

5. Develop 'climate and health training' to increase capacity building - build internal capability across sectors. For example:

a) Climate & Health literacy training for policy leads, project officers and planners.

b) Systemwide learning events ("Climate and Health Conversations").

6. Continue policy integration and advancement by embedding climate-health considerations. For example, into:

a) Local Plan revisions (spatial planning, development control).

b) NHS Green Plans and ICS planning.

c) Procurement, transport and emergency planning strategies.

d) Re-review the system polices related to environment, climate and health. Use the policy review tool to assess, update and co-develop policies. Feedback loops.

e) Integrate and advance climate and health considerations into assessments, projects, procurement and emergency planning.

f) Resource toolkits with checklists, case studies and briefing notes.

7. Update and Develop Local Data and Research:

a) Develop and launch a comprehensive, publicly accessible local Climate-Health

Monitoring Dashboard.

b) Collaborate with universities and tech partners on climate-health predictive modelling.

c) Invest in citizen science projects to collect granular local data.

d) Encourage innovation challenges and pilot projects focused on intersectional climate-health solutions.

e) Start the process to prepare and update the data profile in year 4.

f) Start the process to prepare and update the economic evaluation in year 4.

g) Start the process to prepare and update the literature search and review in year 4.

h) Consider evidence-base in relation to key interactions between a changing climate impacts and updates (or an additional layer) to recommended considerations, opportunities and action steps (building on cumulative interactions between a changing climate impacts mapped in Appendix H).

8. Pursue Funding and Investment:

a) Maximise access to national climate adaptation and health funds.

b) Access funding where possible and explore opportunities to develop a local Systemwide Climate-Health Investment Fund to seed cross-sector projects.

c) Ensure transparent and participatory budgeting with equity focus.

9. Raise the profile and improvement of Warning Systems:

a) Raise awareness of warning systems including heat-health warning systems.

b) Seek efficiencies across warning systems and integration where possible.

10. Evaluate as you go, progress and report on the HIA Evaluation

3. Final Overall HIA Conclusion: Key Findings and Messages

3.1. Summary of Key Findings and Commitments

The 'Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (ECH-HIA)' has demonstrated a simple but profound truth: a changing climate is no longer a future environmental issue; it is a current and escalating public health issue affecting the people, places, communities, services and ecosystems of East Sussex today.

The evidence presented throughout this assessment demonstrates that a changing climate is already influencing the conditions in which people are born, grow, live, work, play and age. Increasing temperatures, more frequent heatwaves, flooding, coastal change, drought, poor air quality, biodiversity loss, food system disruption and emerging infectious disease risks are already affecting the health and wellbeing of residents. These impacts are not distributed equally. They disproportionately affect those who are already most vulnerable, including older people, children and young people, people living with disabilities and long-term conditions, low-income households, people experiencing homelessness, gypsy and traveller communities, ethnic minority communities and those living in areas of deprivation.

East Sussex faces particular and unique challenges. The county has one of the oldest populations in England, with 26.5% of residents aged 65 and over compared with 18.7% nationally, alongside a higher proportion of people aged over 85 years. Around 20% of residents report a disability, 56% of the population live in coastal communities, and significant health inequalities exist between communities, with approximately twenty years difference in healthy life expectancy between the most and least deprived areas of the county. These demographic characteristics mean that East Sussex is likely to experience climate-related health impacts earlier, more acutely and more unequally than many other areas.

The evidence is equally clear that the cost of inaction will be substantial.

The economic analysis undertaken as part of this HIA estimates that climate change-related health risks and opportunities carry a combined annual economic value for East

Sussex of approximately **£71 million per year by 2050**, rising to approximately **£85 million per year by 2080 under a 2°C warming scenario**, and almost **£90 million per year under a 4°C warming scenario**. These figures are conservative and represent only those impacts that can reasonably be quantified using available evidence. They do not fully account for losses associated with declining wellbeing, ecosystem degradation, social cohesion, cultural heritage, reduced quality of life or intergenerational impacts.

The cost of inaction will not simply be measured in financial terms.

It will be measured in avoidable deaths during heatwaves. It will be measured in growing pressures on health and social care services. It will be measured in worsening respiratory disease from poor air quality, increasing mental health impacts following flooding events, reduced productivity, damaged infrastructure, disrupted transport systems, food insecurity and growing inequalities between communities. It will be measured in lost opportunities for prevention, resilience and prosperity.

Without action, East Sussex risks becoming a place where climate hazards increasingly shape health outcomes, where health inequalities widen, where vulnerable communities experience repeated shocks and where public services are forced into an increasingly reactive cycle of crisis response rather than prevention and preparedness. The evidence from the Climate Change Committee is clear that adaptation progress nationally remains inadequate, fragmented and too slow. Local systems cannot afford to wait for national solutions to emerge.

However, this assessment also provides grounds for optimism.

The evidence demonstrates that many of the actions needed to address a changing climate are also among the most effective actions available to improve health, reduce inequalities and strengthen communities. Climate action can create warmer homes, lower fuel bills, cleaner air, healthier diets, more active travel, stronger local economies, enhanced biodiversity, improved mental wellbeing and more resilient communities. The transition to a low-carbon and climate-resilient future represents one of the greatest opportunities for improving population health in a generation.

The HIA has shown that East Sussex already possesses many of the assets required to respond successfully. It has strong public services, committed community organisations, significant natural assets, a growing climate agenda, established partnerships and a wealth of local expertise. Perhaps most importantly, it has demonstrated a willingness to work collectively across organisational boundaries.

The process of undertaking this HIA has itself been one of its most significant achievements. It has brought together organisations, sectors and disciplines that do not traditionally work together around a shared agenda. Public health specialists, environmental professionals, NHS organisations, local authorities, housing providers,

emergency planners, voluntary organisations, community representatives and many others have contributed to a common understanding of a changing climate as a health issue. In doing so, the HIA has established a foundation for a more integrated and collaborative approach to adaptation and resilience.

The challenge now is implementation.

This HIA should not be viewed as the end of a process but as the beginning of a long-term programme of transformation. The evidence presented here points towards the need for a fundamental shift in how climate, environment, health and wellbeing are understood and addressed. Climate considerations should be embedded into health policy. Health considerations should be embedded into climate and environmental policy. Both should be embedded across planning, transport, housing, economic development, education, social care, emergency planning and all other aspects of public policy.

The future that East Sussex experiences is not predetermined.

One future sees increasing climate shocks, widening inequalities, rising costs and growing pressure on already stretched public services. Another sees healthier homes, stronger communities, more resilient infrastructure, thriving natural environments, reduced inequalities and a health and care system focused on prevention rather than crisis management.

The difference between these futures will be determined by decisions made today.

The evidence throughout this assessment consistently demonstrates that early action is more effective and more cost-effective than delayed action. International and national evidence suggests that every £1 invested in climate adaptation can generate between £2 and £10 in benefits through avoided losses, reduced demand on services and improved resilience. Waiting is therefore not a neutral option; it is a decision that carries increasing financial, social and health costs.

Climate Change is often described as the defining challenge of our time. This assessment suggests that it may also be one of the defining opportunities of our time. An opportunity to create healthier places, reduce inequalities, strengthen communities, restore nature and build a more resilient future for current and future generations.

The Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex is ultimately a statement of collective ambition and collective responsibility. It demonstrates that addressing the health effects of a climate change is everybody's business. No single organisation, service or sector can achieve this

alone. Success will depend upon shared leadership, shared accountability and shared action.

The message from this assessment is therefore clear.

The health effects of climate change are already here. The evidence is compelling. The costs of inaction are too great. The opportunities are too significant to ignore. The solutions are available. The partnerships exist. The assets are present.

The HIA Part 3 sets out detailed practical considerations, opportunities and action steps.

The question is no longer whether East Sussex should act.

The question is how quickly, how boldly and how collectively it chooses to do so.

Appendices

This section contains details of the appendices to this full technical report. The appendices can be made available upon request.

3.2. Appendix A: Glossary

Appendix A provides a glossary of key terms used in the **Environment, Climate and Health -Health Impact Assessment (ECH-HIA) for East Sussex**. It establishes a common understanding of climate change, health, sustainability, resilience, and Health Impact Assessment (HIA) terminology.

The glossary emphasises:

- The links between **climate change, environmental conditions, and population health**, including climate hazards, risks, impacts, resilience, and adaptation.
- The importance of health equity, prevention, early intervention, and the wider determinants of health in responding to climate-related challenges.
- Cross-sector approaches such as **Health in All Policies**, **Climate and Health in All Policies**, **One Health**, and **Planetary Health**, recognising that health outcomes are influenced by decisions across many sectors.
- Key components of the **HIA process**, including scoping, baseline assessment, evaluation, stakeholder involvement, and systems thinking.
- East Sussex-specific concepts such as **Golden Interactions**—the priority climate-health interactions identified through the assessment—and the role of systemwide stakeholders in delivering climate adaptation actions.

Overall, the glossary supports a **systems-based, collaborative and health-focused approach to climate adaptation**, helping stakeholders use consistent terminology throughout the assessment.

3.3. Appendix B: Methods Statement (Full breakdown of assessment framework and stakeholder engagement process)

(Document in production)

Appendix B is the **methodology document** for the Environment, Climate and Health – A Systemwide Health Impact Assessment (ECH-HIA) for East Sussex. It explains how the assessment was designed, governed, and undertaken, providing transparency about the

methods, evidence sources, analytical approaches, and stakeholder engagement used to develop the HIA findings and recommendations.

The document describes a **new systemwide HIA approach** that combines established Health Impact Assessment principles with systems thinking, climate adaptation, and Health in All Policies (HiAP) approaches. It sets out how evidence was gathered from literature reviews, climate projections, policy analysis, baseline data, stakeholder engagement, workshops, and public consultation to understand the interactions between climate change and health in East Sussex.

A key feature of the methodology is the identification of **37 "golden interactions"**—the priority relationships between climate change impacts and determinants of health that were judged to be most significant for East Sussex. These provide the framework for the assessment and subsequent recommendations.

The appendix also explains the governance arrangements, assessment framework, evaluation approach, and plans for future phases of implementation and monitoring. It demonstrates how the HIA was developed collaboratively across sectors to support a coordinated, evidence-based response to climate change that promotes health, reduces inequalities, and strengthens long-term resilience.

Overall, this appendix serves as the **technical methodology and process record** for the East Sussex Climate Change HIA, enabling readers to understand how the findings, priorities, and recommendations were generated.

3.4. Appendix C: Implementation Support Tool and Impact Evaluation Tool

Appendix C is an Implementation Support Tool and Impact Evaluation Tool developed to support Phase 2 of the East Sussex Environment, Climate and Health - Health Impact Assessment (ECH-HIA). Its purpose is to help organisations and stakeholders translate the HIA's recommendations, considerations, opportunities, and action steps into practical delivery plans, while also providing a consistent framework for monitoring progress and evaluating impact over time.

The tool is structured as a series of implementation templates that organise actions by:

- Climate Change Impact (CCI)
- Wider Determinants of Health (WDH)
- Systemwide Sectoral Stakeholders (SSS)
- Vulnerable Groups (VG)
- Vulnerable Settings (VS)

For each action, the tool captures information on responsibilities, implementation methods, partner organisations, policy links, intended outcomes, performance

indicators, resource requirements, risks, limitations, timescales, reporting arrangements, and implementation status.

As well as supporting implementation, the tool provides a framework for impact evaluation, enabling stakeholders to track whether actions have been delivered, assess progress against outcomes and indicators, and monitor how climate adaptation measures are contributing to improved health outcomes, reduced inequalities, and increased resilience.

Overall, this appendix serves as the practical delivery and monitoring framework for the HIA, helping system partners coordinate action, allocate responsibilities, measure progress, and evaluate the effectiveness of the assessment's recommendations.

3.5. Appendix D: Literature Review and Bibliography (Full scientific evidence base reviewed for the HIA)

Appendix D is the literature review and bibliography that supports the *Environment, Climate and Health – A Systemwide Health Impact Assessment (ECH-HIA) for East Sussex*. Its purpose is to provide the evidence base used to inform the assessment's findings, professional judgements, and recommendations.

The document describes a structured scoping review of academic and grey literature on the relationships between climate change and health. Although not a formal systematic review, it used a systematic search approach to identify and analyse evidence from public health, social science, environmental, and policy research sources. Searches were undertaken using databases such as PubMed and Google Scholar and were supported by specialist literature reviewers.

The review focuses on key themes relevant to East Sussex, including:

- Climate change and health inequalities.
- Mental health, wellbeing, lifestyles and behaviour.
- Social and community impacts.
- Economic conditions and employment.
- Access to health, social care and education.
- Environmental sustainability and the built environment.
- Wind-related climate impacts and health.
- Health Impact Assessment and Health in All Policies approaches.

The appendix consists primarily of a comprehensive bibliography and evidence summaries that draw together current research, policy reports, and guidance from

national and international organisations. This evidence was used to identify risks, opportunities, vulnerable groups, and effective responses to climate-related health challenges.

Overall, this appendix serves as the **research evidence base for the HIA**, demonstrating the sources and scientific literature that informed the assessment and providing a reference resource for stakeholders involved in implementing and updating the East Sussex climate and health programme.

3.6. Appendix E: Policy Review (Detailed review of local policies relevant to the HIA)

Appendix E is the **Strategic Systemwide Policy Review** for the *Environment, Climate and Health – A Systemwide Health Impact Assessment (ECH-HIA) for East Sussex*. Its purpose is to assess how effectively climate change and health considerations are integrated across the policies, strategies, plans, and governance documents that shape decision-making and service delivery within East Sussex.

The document presents a structured analysis of **62 policy documents** from a wide range of organisations and sectors, including local authorities, NHS organisations, housing providers, environmental bodies, emergency planning organisations, and strategic partnerships. Using a bespoke policy analysis framework, the review examines policy coherence, climate change integration, health integration, climate-health interactions, vulnerability, implementation readiness, and opportunities for improvement.

A central focus of the review is understanding whether policies treat **climate change and health as interconnected issues**. The analysis identifies examples of good practice where climate action and health improvement are linked through co-benefits such as active travel, improved housing, air quality, green infrastructure, and inequalities reduction. It also highlights gaps where climate and health are addressed separately or where opportunities for integration have been missed.

The review provides a baseline assessment of the current policy landscape, identifying strengths, weaknesses, barriers, and opportunities for creating a more coherent systemwide approach. It includes recommendations for improving policy wording, strengthening accountability and implementation mechanisms, embedding climate-health considerations in policy refresh cycles, and ensuring that climate adaptation and health equity are consistently addressed across sectors.

Overall, this appendix serves as the **policy evidence base and strategic analysis of the East Sussex policy environment**, demonstrating how climate change and health are currently reflected across local policies and identifying opportunities to develop a more integrated, coordinated, and effective policy framework that promotes health, reduces inequalities, and strengthens climate resilience.

3.7. Appendix F: Checklist Tool to Support Coverage of Climate Change Health Impacts

Appendix F is a **Climate and Health Checklist Tool** designed to help policymakers, planners, service managers, and project teams systematically consider the potential health impacts of climate change when developing or reviewing policies, strategies, plans, programmes, and projects. Its purpose is to ensure that climate-related health risks, opportunities, and co-benefits are consistently identified and addressed across decision-making processes.

The tool is structured around the Health Impact Assessment's priority **"Golden Interactions"**, which represent the key ways climate change can affect health and the wider determinants of health. These include topics such as infrastructure adaptation, food supply, air quality, temperature, flooding, drought, infectious diseases, migration, wildfires, and extreme weather events.

For each climate-health interaction, the checklist provides examples of potential positive and negative health impacts, helping users assess whether these issues are relevant to their proposal. It includes space to record whether an interaction has been considered, along with notes, recommendations, and opportunities to strengthen outcomes or reduce risks.

The checklist highlights both **health risks**—such as overheating, flooding, poor air quality, infectious diseases, housing impacts, service pressures, and social disruption—and **health opportunities**, including active travel, green jobs, improved food security, community resilience, and wellbeing benefits associated with climate action.

Overall, this appendix serves as a **practical screening and quality-assurance tool** for embedding climate and health considerations into decision-making. It helps organisations apply the findings of the East Sussex Climate Change HIA consistently, identify potential impacts early, and support climate adaptation and mitigation actions that also improve health, wellbeing, and equity.

3.8. Appendix G: Workshop Materials (Agendas)

Appendix G contains the **stakeholder workshop materials** used during the development of the *Environment, Climate and Health – A Systemwide Health Impact Assessment (ECH-HIA) for East Sussex*. It documents the programme of engagement undertaken with partners and stakeholders to gather evidence, local knowledge, professional expertise, and feedback throughout the assessment process.

The appendix describes a series of **three stakeholder workshops** that brought together representatives from a wide range of organisations and sectors involved in climate change, health, planning, environment, infrastructure, emergency planning, and

community wellbeing. These workshops were a key component of the HIA's collaborative and systemwide approach.

Each workshop had a distinct purpose:

- **Workshop 1** focused on validating the scope of the HIA, identifying vulnerable groups, assets and protective factors, and exploring current policies, opportunities, and gaps relating to climate and health.
- **Workshop 2** applied a whole-systems perspective to examine the roles of different sectors, identify opportunities for collaboration, and develop potential recommendations and actions.
- **Workshop 3** focused on reviewing, validating, prioritising, and refining draft recommendations, while considering implementation arrangements and future partnership working.

The appendix also contains the agendas and supporting materials used for each workshop, providing a record of the engagement process and how stakeholder input influenced the assessment.

Overall, this appendix serves as the **stakeholder engagement record** for the HIA, demonstrating how multi-sector collaboration, expert input, and participatory workshops were used to shape the assessment's findings, recommendations, and future implementation approach.

3.9. Appendix H: Scoping Tables (record of detailed scoping by climate impact and health determinant)

Appendix G contains the **stakeholder workshop materials** used during the development of the *Environment, Climate and Health – A Systemwide Health Impact Assessment (ECH-HIA) for East Sussex*. It documents the programme of engagement undertaken with partners and stakeholders to gather evidence, local knowledge, professional expertise, and feedback throughout the assessment process.

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3.10. Appendix I: Community Power Learning Story

Appendix I is a **Community Power Learning Story and case study** that documents the development of the *Environment, Climate and Health – A Systemwide Health Impact Assessment (ECH-HIA) for East Sussex*. Rather than presenting technical evidence or methodology, it captures the learning, experiences, relationships, and system changes that emerged from undertaking the HIA process.

The document explains why the HIA was undertaken, describing the need for locally relevant evidence on the health impacts of climate change and a more joined-up response across sectors. It outlines how Public Health acted as a facilitator and convenor, bringing together stakeholders, communities, young people, and professionals from a wide range of organisations to contribute their expertise, lived experience, and local knowledge.

A major focus of the appendix is the importance of **participation, collaboration, and community power**. It describes how stakeholder engagement, workshops, policy reviews, and a community survey helped identify local priorities, challenge assumptions, and build a shared understanding of climate and health risks. The process generated new insights, including issues that were not widely recognised in existing evidence, such as community concerns about extreme wind events.

The document also reflects on the wider impact of the HIA beyond the final report. It highlights how the process strengthened relationships, increased system-wide ownership, encouraged organisations to integrate health considerations into their work,

and created a foundation for future collaboration and policy development. It emphasises that meaningful engagement and relationship-building were as important as producing recommendations.

A key feature of the appendix is its use of the **Four Shifts Framework**, which explores how the HIA contributed to wider system change by:

- Valuing strengths and lived experience.
- Moving from centralised approaches to locally informed solutions.
- Strengthening collaboration across organisations and sectors.
- Promoting continuous learning, reflection, and adaptation.

Overall, this appendix serves as the **learning, reflection, and system-change narrative for the HIA**, demonstrating how a collaborative, community-centred approach can support climate and health action, build partnerships, strengthen local capacity, and create lasting change beyond the assessment itself.

3.11. Appendix J: Data Sources

Appendix J is the **Data Sources and Indicator Mapping Framework** for the *Environment, Climate and Health – A Systemwide Health Impact Assessment (ECH-HIA) for East Sussex*. Its purpose is to identify, assess, and document the datasets, indicators, evidence sources, and monitoring measures that can be used to establish the HIA baseline, monitor implementation, and evaluate progress over time.

The appendix systematically reviews available data relating to the HIA's priority **"Golden Interactions"**, linking climate change impacts, health determinants, health outcomes, organisational measures, and evaluation indicators. It assesses whether suitable data are available, identifies limitations and evidence gaps, and recommends indicators that can be used for future monitoring and impact evaluation.

The document covers a wide range of climate-health topics, including:

- Net zero transition and climate adaptation.
- Food security and food systems.
- Air quality.
- Temperature and heat impacts.
- Infectious and vector-borne diseases.
- Flooding, drought, and coastal change.
- Wildfires.
- Migration.
- Chemicals and environmental contamination.
- Sun exposure and ultraviolet radiation.

For each topic, the appendix identifies relevant national, regional, and local datasets from sources such as the Met Office, UKHSA, ONS, DEFRA, Fingertips, East Sussex in Figures, the Environment Agency, NHS datasets, and local intelligence sources. It records the geographic coverage, update frequency, strengths, limitations, and suitability of each indicator for baseline assessment, monitoring, and evaluation purposes.

A key feature of the appendix is its identification of **data gaps and monitoring challenges**. The review highlights areas where suitable indicators are currently unavailable or limited, such as indoor air quality, overheating in homes and care settings, some climate-health adaptation measures, and certain health protection impacts. It also recommends opportunities for future data collection and analytical development to strengthen long-term monitoring.

Overall, this appendix serves as the **monitoring, evaluation, and evidence infrastructure for the HIA**, providing a comprehensive inventory of data sources and indicators that can be used to track climate-related health risks, measure progress against recommendations, assess outcomes, and support future implementation of the East Sussex climate and health programme.