# 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



East Sussex
County Council

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# The Role and Use of this HIA Report

'Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (HIA)' provides a structured, evidence-informed framework for identifying, assessing and prioritising the actions needed to reduce the health impacts of a changing climate and strengthen resilience across East Sussex. Rather than simply identifying risks, the HIA provides a practical foundation for implementation, monitoring and continuous improvement, ensuring that actions remain responsive to emerging evidence, local priorities and evolving climate risks.

Drawing together scientific evidence, local intelligence, stakeholder expertise and community insight, the HIA provides a comprehensive understanding of the interactions between a changing climate, the wider determinants of health, health inequalities and population wellbeing. It captures existing strengths and activity across the East Sussex system, identifies future opportunities for action, and highlights where coordinated leadership is needed to maximise health, environmental, social and economic co-benefits. Emphasis is placed on prevention, reducing inequalities and supporting collaborative action that extends beyond the remit of individual organisations.

As both an analytical framework and a practical resource, the HIA contributes to a deeper understanding of the East Sussex system and the complex interactions between a changing climate, the wider determinants of health, health inequalities and population wellbeing. Through the integration of quantitative evidence, qualitative insight and stakeholder expertise, the HIA provides a comprehensive picture of current challenges, vulnerabilities, assets and opportunities across the county.

The HIA also serves as a mechanism for identifying, capturing and communicating sector-, service- and system-wide activity related to health, wellbeing, a changing climate, and environmental sustainability.

As a result, this HIA serves several complementary functions. It provides:

- An evidence base that brings together research, local intelligence, stakeholder perspectives and community insight to inform decision-making.
- A decision-support framework that helps organisations understand the potential health implications of policies, programmes, investments and climate adaptation measures.
- A practical implementation tool for embedding health, equity, climate resilience and environmental sustainability into policy development, commissioning, service planning and delivery.

- A framework for partnership working, enabling organisations to identify shared priorities, align activity and coordinate action across the East Sussex system.
- A mechanism for resilience, learning and continuous improvement, supporting monitoring, evaluation and the refinement of approaches as evidence and circumstances evolve.
- A platform for influencing future investment and policy, ensuring that health and wellbeing remain central to local and regional climate-related decision-making.
- A communication and audit of Actions already underway across systems, organisations, partnerships and communities that are contributing to climate adaptation, mitigation and improved health outcomes.

Collectively, the HIA supports the development of a healthier, fairer, more resilient and environmentally sustainable East Sussex by embedding health, climate resilience and environmental sustainability across policy and practice rather than treating them as separate agendas. It supports the development of a more resilient, equitable and sustainable East Sussex by helping to ensure that health, wellbeing, environmental sustainability and climate resilience are considered collectively and systematically across all areas of policy and practice.

The HIA comes with an established framework for implementing change, monitoring progress and evaluating effectiveness over time, ensuring that actions remain responsive to emerging evidence, local needs and evolving climate risks.

# How to navigate this HIA Report

## A Comprehensive Evidence Base and Practical Implementation Framework

This Health Impact Assessment (HIA) is intentionally comprehensive.

A changing climate is one of the most complex and far-reaching public health challenges facing East Sussex and requires consideration across multiple hazards, health outcomes, sectors, services, population groups and places. No single organisation or discipline can fully understand or respond to these challenges in isolation.

Unlike a conventional Health Impact Assessment, which typically examines the impacts of a single policy, programme or development proposal, this report adopts a **whole-system, place-based and evidence-led approach**. It brings together scientific evidence, local intelligence, stakeholder knowledge, lived experience, policy analysis and implementation opportunities into a single integrated assessment.

The report has been developed not only to understand the health effects of a changing climate, but also to identify practical opportunities for prevention, adaptation, resilience and system transformation across East Sussex.

As a result, the report is necessarily substantial. It has been designed to act as:

- A strategic evidence base for policy and decision-making;
- A reference document for practitioners and partners;
- A practical implementation guide for organisations across the East Sussex system;
- A resource for future Health Impact Assessments and Climate and Health Assessments; and
- A living framework that can continue to evolve as evidence, policy and local priorities develop.

To improve usability, the report has been **divided into four distinct but interconnected parts**. Each part has a different purpose and can be read independently depending on the reader's interests and responsibilities.

Importantly, the report is structured in a way where it can be read sequentially from beginning to end or not. It is structured to help readers to work through it flexibly and for their own purposes. Readers are encouraged to navigate directly to the sections most relevant to their role, organisation or area of interest while recognising that the different parts collectively provide a comprehensive understanding of the changing climate and health across East Sussex.

# The Structure of This HIA Report

## Part 1 – The What, Why and How

**Purpose:** Understanding the context, vision and methodology.

Part 1 provides the strategic foundations for the assessment. It explains why the HIA has been undertaken, the challenges that the changing climate presents for population health, and how the assessment has been conducted.

It introduces the East Sussex Systemwide Health Impact Assessment methodology, Health in All Policies, Population and Planetary Health in All Approaches (PAP-HIAPA), governance arrangements, the voices of residents, key strategic messages and the long-term vision for East Sussex.

Best suited for:

- Senior leaders
- Elected Members

- Policy makers
- Commissioners
- Anyone wishing to understand the purpose and strategic context of the HIA.

## Part 2 – The Evidence

**Purpose:** Providing the evidence that underpins the assessment.

This section contains the detailed evidence base informing the HIA.

It synthesises:

- climate and health data;
- economic analysis;
- policy review;
- literature review;
- stakeholder engagement;
- workshops;
- public consultation;
- local intelligence; and
- evidence synthesis.

This section demonstrates how conclusions have been reached and provides transparency, credibility and traceability for the recommendations presented later in the report.

Readers requiring the detailed evidence supporting specific recommendations should refer to this section.

## Part 3 – Considerations, Opportunities and Action Steps

**Purpose:** Turning evidence into action.

This is the operational heart of the report.

Using the evidence presented in Parts 1 and 2, this section translates findings into practical considerations, opportunities and action steps that organisations can use to strengthen climate resilience, improve health and reduce inequalities.

Recognising the breadth of climate change impacts, Part 3 has been divided into six themed sections to allow readers to quickly locate information relevant to their area of responsibility.

Each chapter follows a consistent structure, enabling readers to move easily from the evidence to practical implementation.

## Part 3A — Climate Hazards

Provides the climate and health context, impacts, responses, considerations, opportunities and action steps for specific climate hazards including heat, flooding, drought, air quality, infectious diseases, food systems, chemicals, displacement and migration, wildfires, extreme winds and other environmental risks. It identifies opportunities to reduce risks and build resilience.

## Part 3B — Wider Determinants of Health

Provides the climate and health context, impacts, responses, considerations, opportunities and action steps for the priority wider determinants that influence resilience and health, including active travel, physical activity, mental health, arts and culture, and climate-responsive sleep and recovery environments. It highlights opportunities to improve health while adapting to climate change.

## Part 3C — Sectors and Services

Provides the climate and health context, impacts, responses, considerations, opportunities and action steps for sectors and services including planning, housing, transport, education, health and social care, emergency services, utilities, business, the voluntary sector and local government for example. It guides, shares and supports sectors and services on the action steps that can or are being taken as part of efforts to advance and integrate climate and health considerations into their areas of work. It provides the information on what others are doing or could be doing and where there may be opportunities for collaboration, alignment, learning, co-development, co-delivery and co-benefits.

## Part 3D — Vulnerable Population Groups

Provides the climate and health context, impacts, responses, considerations, opportunities and action steps for vulnerable population groups and identifies targeted opportunities to reduce inequalities and improve resilience. It supports organisations to identify and consider the climate and health implications for vulnerable population groups.

## Part 3E — Vulnerable Settings

Provides the climate and health context, impacts, responses, considerations, opportunities and action steps to protect vulnerable settings and where climate-related health risks are greatest. This includes the focus on hospitals, schools, care homes, hospices, nurseries and community facilities. It outlines ways to create safer

and more resilient environmental settings as part of climate and health protection and adaptation measures across people and place settings.

### Part 3F — Win-Wins, Co-Benefits and System Resilience

Highlights actions and opportunities that deliver multiple benefits simultaneously across health improvement, climate adaptation, mitigation, biodiversity, sustainability and economic resilience. It promotes integrated approaches that strengthen long-term system resilience.

### Part 4 – Conclusions and Next Steps

**Purpose:** Supporting implementation and long-term system transformation.

The final section brings together the key findings of the assessment and sets out the strategic priorities for implementation and long-term system transformation across East Sussex. It outlines future arrangements for governance, partnership working, workforce development, monitoring and evaluation, institutional strengthening and implementation. It promotes integrated approaches that strengthen long-term system resilience.

The appendices provide supporting and detailed technical resources, including the methods statement, implementation tools, policy review, literature review, engagement findings and supporting practical checklists.

## Understanding the Considerations, Opportunities and Action Steps

Every chapter within Part 3 has been deliberately structured in a consistent way to support implementation.

Each chapter includes:

- Context – why the issue matters.
- Climate and Health Impacts – current and future health implications.
- Evidence Summary – international, national and local evidence.
- Current Responses – what is already happening.
- Gaps, Tensions and Opportunities – where further action is needed.
- Considerations – strategic issues for decision-makers.
- Opportunities – potential interventions and approaches.
- Action Steps – practical actions that organisations may choose to implement.

This common structure allows readers to compare topics and apply recommendations consistently across different policy areas and organisations.

## Using the Report

This report has been designed for a wide range of users.

| Audience | Suggested Starting Point |
|---|---|
| Senior Leaders and Elected Members | Executive Summary, Key Messages, Strategic Considerations, Vision and Roadmap |
| Policy Makers and Commissioners | Parts 1, 2 and relevant sections of Part 3 |
| Public Health Professionals | Entire report, particularly Parts 2 and 3 |
| Planning, Housing and Transport Professionals | Part 3A, Part 3B and Part 3C, together with supporting evidence in Part 2 |
| NHS and Health & Care Organisations | Climate hazards, vulnerable populations, vulnerable settings and implementation framework |
| Community and Voluntary Organisations | Relevant population groups, settings and community resilience chapters |
| Researchers and Academics | Methods Statement, Evidence Review, Appendices and Bibliography |

## A Living Framework for East Sussex

This Health Impact Assessment should be viewed as a **living framework for continual learning and improvement**, rather than a static report.

Climate science, evidence, policy and local priorities will continue to evolve. The considerations, opportunities and action steps presented here should therefore be reviewed, refined and strengthened over time through monitoring, evaluation, partnership working and shared learning.

Ultimately, this report provides both a comprehensive evidence base and a practical roadmap for action. It is intended to support organisations across East Sussex in embedding climate and health into everyday decision-making, strengthening resilience, reducing inequalities and protecting the health and wellbeing of current and future generations.

# PART 1 – The What, Why and How

# 1. Acknowledgements and Citations

The HIA has been undertaken and prepared by:

- Lourdes Madigasekera-Elliott (East Sussex County Council, Public Health – Healthy Places Team)
- Maria Stack (East Sussex County Council, Public Health – Healthy Places Team)
- Ryngan Pyper (Logika Group)

We would like to acknowledge and thank contributions from:

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The suggested **citation**: Madigasekera-Elliott L., Stack M., Pyper R. (2026). "Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (HIA): Taking a Whole Systems Approach for Integrating and Advancing Population and Planetary Health in All Our Approaches."

## 1.1. Audience

This HIA has been developed by the East Sussex system and for the whole of East Sussex to refer to and use. It especially works and speaks to East Sussex's:

- Authorising bodies
- Commissioners
- Communities and residents
- Decision makers
- Developers
- Government departments (including National, Regional and Local)
- Investors
- Local partnerships
- New Mayoral Combined Authority
- Place makers
- Policy makers
- Project boards

This report is also intended for anyone (locally, nationally or internationally) aiming to understand and advance addressing the health effects of a changing climate, climate and health policymaking, including government officials and any other professionals working in areas related to environment, climate and health policy. This may include researchers, advisors and advocates.

## 1.2. Key Informants and List of Stakeholders

The HIA has been co-developed and received contributions from a number of services and organisations. The list of engaged services and organisations is expected to grow during the HIA Phase 2 delivery and implementation, but as a minimum would include the following departments and organisations that have inputted to the HIA:

- Active Sussex
- Adult Social Care
- Blue Heart Project
- Children's Services
- Community Voluntary Sector
- District and Borough Planning Team
- East Sussex Children's and Young People's Board
- East Sussex Community Voice

- East Sussex County Council Climate Emergency Board
- East Sussex Emergency Planning
- East Sussex Energy Partnership
- East Sussex Fire and Rescue
- East Sussex Health and Care Partnership Executive Board
- East Sussex Health and Wellbeing Board
- East Sussex Housing Partnership Board
- East Sussex Planning for Health Working Group
- East Sussex Procurement Team
- East Sussex Public Health Board
- East Sussex Strategic Housing Partnership Board
- East Sussex Voluntary, Community and Social Enterprise Alliance
- East Sussex Youth Cabinet
- Environment Agency
- Environmental Health
- Hastings Borough Council
- Healthwatch and Young Healthwatch
- Lewes and Eastbourne Councils
- Local Government Association
- Local Nature Partnership
- National Health Service (NHS)
- Natural England
- Rother District Council
- South Downs National Park
- South East and Southern Water
- Sussex Resilience Forum
- Sustrans
- UK Health Security Agency
- University of Brighton
- Wealden District Council

The list of services and organisations is simplified to the 14 Systemwide Sectoral Stakeholder groups discussed in Section 8.3.

## 1.3. Governance and accountability

The East Sussex Systemwide Environment, Climate and Health Impact Assessment (HIA) was commissioned by the East Sussex Public Health Board through funding provided by the East Sussex Public Health Grant. The assessment was led by Lourdes

Madigasekera-Elliott, Strategic Lead for Creating Healthy Places within East Sussex Public Health.

The HIA has benefited from strong leadership, oversight and endorsement across the East Sussex system and has been supported by a range of strategic partnerships and governance bodies, including:

- East Sussex Health and Wellbeing Board
- Sussex Health and Care Partnership
- NHS Sussex Integrated Care Board
- East Sussex Health Resilience Partnership
- East Sussex County Council Climate Emergency Board

The development of the HIA has been governed through a multi-layered system of strategic oversight, challenge, support and partnership working. Governance arrangements have included:

- East Sussex Public Health Board – Commissioning body
- East Sussex Health and Wellbeing Board – Strategic endorsement and oversight
- East Sussex Health and Care Partnership Executive Board – Strategic steering and support
- East Sussex County Council Climate Emergency Board – Strategic steering and support
- East Sussex Strategic Housing Partnership – Sector leadership, engagement and support
- East Sussex Planning for Health Working Group – Technical advice, challenge and support
- East Sussex County Council Corporate Management Team – Strategic support and organisational leadership

The HIA was commissioned, enabled and facilitated through the leadership of the **East Sussex Public Health - Healthy Places Team**, whose role has been to convene partners, provide strategic direction, coordinate engagement and ensure that environmental challenges, risks and a changing climate is considered through a population health and health equity lens.

Importantly, whilst Public Health has led and facilitated the process, the HIA is not solely a Public Health document. It has been co-developed and co-produced by organisations, sectors and stakeholders from across East Sussex and therefore represents a genuinely collective piece of work. The assessment has been shaped through extensive engagement, collaboration and shared ownership, drawing upon the expertise, knowledge, experience and perspectives of partners from across the system.

As such, the HIA should be viewed as a document **by the East Sussex system, for the East Sussex system**. It reflects a shared understanding of climate-related health risks, opportunities and priorities, and establishes a collective agenda for action. This shared ownership is fundamental to the success of the HIA because the health effects of a changing climate cannot be addressed by any single organisation acting alone. They require coordinated leadership, aligned decision-making and collaborative action across multiple sectors, services and communities.

The HIA therefore establishes a framework for shared responsibility and collective accountability in responding to the health effects of a changing climate, both now and into the future. Whilst the assessment provides a common evidence base, strategic direction and considerations, opportunities and action steps, responsibility for implementation sits across the whole East Sussex system.

Governance and accountability for delivery of the considerations, opportunities and action steps rests with the organisations, partnerships and sectors that hold the relevant powers, duties, resources, influence and statutory responsibilities. During Phase 2 delivery and implementation (Mobilisation), partners will work collectively to establish implementation arrangements, identify lead organisations, agree priorities, develop delivery plans and embed monitoring and reporting mechanisms.

In this way, the HIA provides both a shared vision and a shared framework for action, enabling East Sussex to respond collectively to one of the most significant public health challenges of the twenty-first century whilst strengthening resilience, reducing inequalities and creating healthier, more sustainable places for current and future generations.

## 1.4. How will we Monitor Progress?

Progress will be monitored by the East Sussex Health and Wellbeing Board on a bi-annual basis. The HIA will be refreshed every 5 years so that the data, intelligence, actions and the considerations, opportunities and action steps continue to be accurate and relevant.

## 1.5. Devolution and Unitarization

This HIA has been developed to support decision-making and action across all levels of governance and public service delivery, recognising the continuing devolution of powers and responsibilities from national government to regional and local systems. As such, it provides a strategic framework that can support the Sussex and Brighton Combined County Authority, future local government arrangements, and system partners in taking coordinated action to address the health effects of a changing climate.

The principles, methodologies, evidence base and considerations, opportunities and action steps set out within this HIA are intentionally transferable, scalable and adaptable. They have been designed to support implementation across different sectors, geographies and levels of decision-making, whilst remaining sufficiently flexible to accommodate future reforms, emerging priorities and changing climate risks. In this way, the HIA provides a resilient and enduring framework capable of supporting long-term transformation, collaboration and collective action, irrespective of how governance arrangements evolve over time.



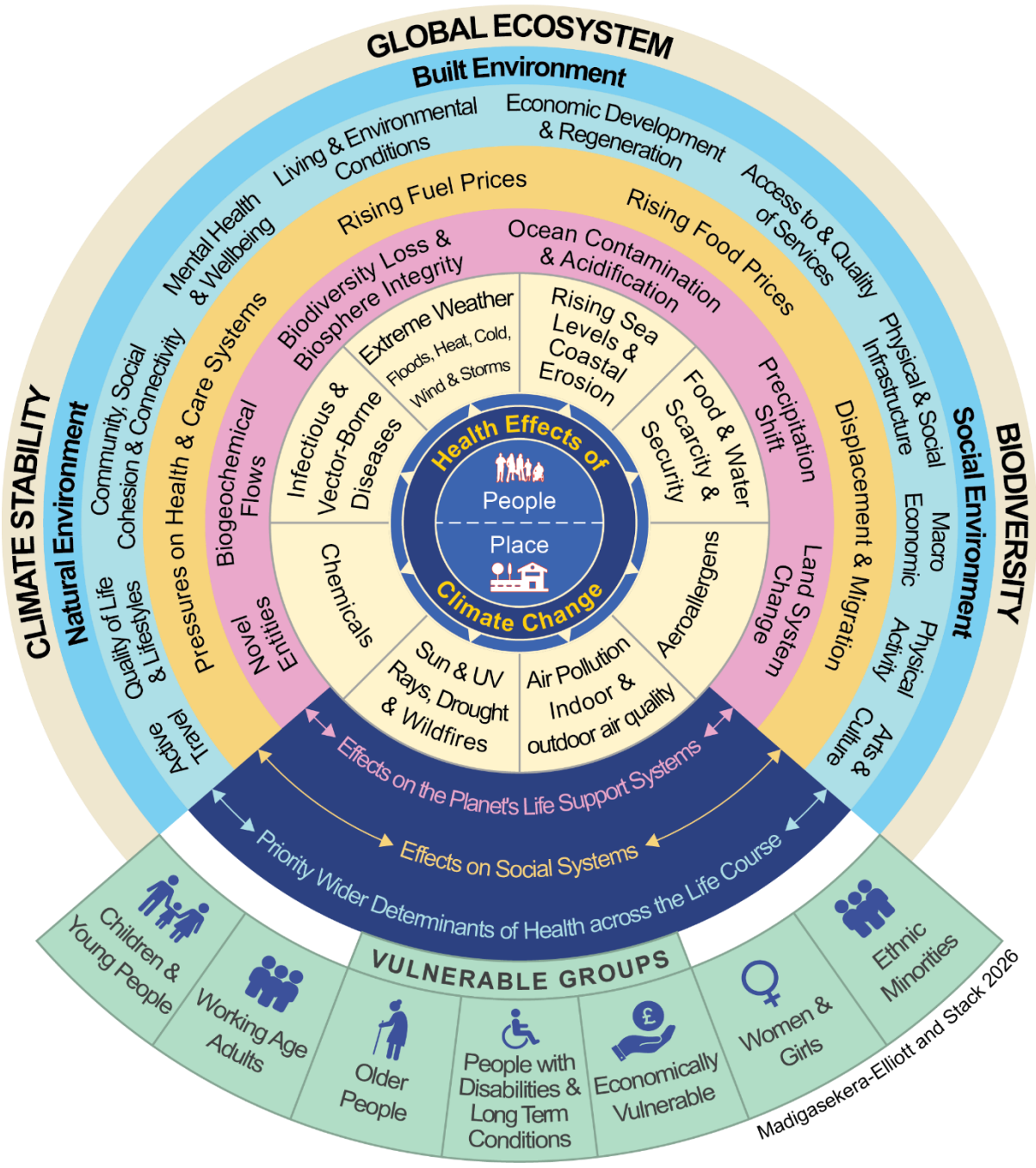
# 2. Abstract

**Background & Context:** In 2023 the UK Health Security published its report on the 'Health Effects of Climate Change in the UK'. It recommended that:

'Public health agencies and professionals can support emergency planning and response, undertake health impact assessments (HIA) and advise on climate-health risks for their population, conduct needs assessments to highlight and address climate vulnerabilities, and contribute to long-term and coordinated planning in terms of infrastructure, emergency response, and continuity of health and social care services'.

**Intervention & Practice:** Health Impact Assessment (HIA) is a public health science-based predictive and collaborative tool that allows the consideration of future scenarios and alternatives, to define the action needed to reach a preferred future outcome. Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (HIA)is a **systemwide health impact assessment**. This HIA provides an evidence-backed strategy for adapting to climate hazards, ensuring that resilience and health equity is embedded into all systemwide approaches, across all sectors and services, including local policies, strategies and operations (across health and social care, housing, planning, transport, energy, water, communities etc). The HIA provides co-developed comprehensive considerations, opportunities, action steps, win-wins and co-benefits for local, national and international contexts. It communicates what must be achieved by working together across political boundaries, geographies, services, sectors and systems to prevent being short sighted on the climate and health crisis, system failure(s), shocks and risks that will manifest along the existing social gradients of health.

**Outcomes & Implications:** The HIA considers how the effects of a changing climate and health can be addressed in the face of such complexity and deliver joint priorities for addressing interrelated issues to do with: health inequalities; safe and cohesive communities; socio-economic conditions; environmental protection and sustainable development. A key strength of the HIA is that is has already helped to create systemwide transformation, build consensus, and create a vision to address the negative health effects of a changing climate across all sectors and services within the system and East Sussex as a place. The processes and methodology of creating a systemwide HIA has also resulted in the production of a climate and health data profile, an economic evaluation, a systemwide policy review and an 80-year road map to advance and integrate climate and health considerations for current and future generations.


GLOBAL ECOSYSTEM
Built Environment
Natural Environment
Social Environment
CLIMATE STABILITY
BIODIVERSITY
Living & Environmental Conditions
Economic Development & Regeneration
Access to & Quality of Services
Physical & Social Infrastructure
Macro Economic
Physical Activity
Arts & Culture
Displacement & Migration
Land System Change
Aeroallergens
Air Pollution Indoor & outdoor air quality
Sun & UV Rays, Drought & Wildfires
Chemicals
Novel Entities
Biogeochemical Flows
Infectious & Vector-Borne Diseases
Extreme Weather Floods, Heat, Cold, Wind & Storms
Rising Sea Levels & Coastal Erosion
Food & Water Scarcity & Security
Precipitation Shift
Ocean Contamination & Acidification
Biodiversity Loss & Biosphere Integrity
Rising Food Prices
Rising Fuel Prices
Pressures on Health & Care Systems
Community, Social Cohesion & Connectivity
Mental Health & Wellbeing
Quality of Life & Lifestyles
Active Travel
Health Effects of
People
Place
Climate Change
Effects on the Planet's Life Support Systems
Effects on Social Systems
Priority Wider Determinants of Health across the Life Course
VULNERABLE GROUPS
Children & Young People
Working Age Adults
Older People
People with Disabilities & Long Term Conditions
Economically Vulnerable
Women & Girls
Ethnic Minorities
Madigasekera-Elliott and Stack 2026

# 3. Executive Summary

The health impacts of environmental risks arising from a changing climate are already being felt across East Sussex. The cost of inaction is real, increasing and being experienced now. Without timely adaptation, climate-related harms to people, communities, infrastructure, services and ecosystems will continue to grow, leading to greater financial costs, service disruption, economic losses, avoidable illness, widening health inequalities and increasing pressure on health and care systems.

East Sussex is particularly vulnerable. 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% live in coastal communities, and there is an approximately 20-year gap in healthy life expectancy between the most and least deprived areas. These characteristics mean climate-related health impacts are likely to be experienced earlier, more acutely and more unequally than in many other areas. The economic implications are substantial. This Health Impact Assessment (HIA) estimates that climate-related health risks and opportunities have a combined annual economic value of approximately £71 million per year by 2050, rising to £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 estimates are conservative and do not fully capture wider impacts on public health, ecosystems, social cohesion and quality of life for future generations.

The evidence consistently shows 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 service demand and improved resilience. Waiting is therefore not a neutral option; it carries escalating financial, social, environmental and health costs.

Whilst reducing greenhouse gas emissions remains essential, decarbonisation alone is no longer sufficient. East Sussex must also adapt to, prepare for and build resilience against the environmental risks to health arising from a changing climate.

Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (HIA) was co-produced by stakeholders across the county and facilitated by East Sussex Public Health. It reflects a shared recognition that no single organisation can address the health impacts of a changing climate alone. Environmental challenges and a changing climate are a systems challenge requiring a coordinated, whole-system response.

The purpose of the HIA is not simply to identify risks, but to support strategic and collaborative action. Through a whole-system lens, it examines impacts across populations, places, services and sectors whilst identifying opportunities to improve health, reduce inequalities, strengthen resilience and deliver environmental, social and economic co-benefits.

A key outcome has been the co-development of a comprehensive set of considerations, opportunities and action steps to be taken forward collectively across East Sussex. These provide a practical framework for prevention, adaptation and resilience-building whilst strengthening coordination and reducing duplication across the system. Ultimately, this assessment is about moving from understanding to action. It provides a foundation for organisations, communities and decision-makers to work together to create a healthier, fairer, more resilient and climate ready future for East Sussex.

# 4. The Voice, Views and Experiences of Residents in East Sussex with a Changing Climate and Health

## 4.1. Results and Implications for East Sussex

Public consultation is a core component of Health Impact Assessment (HIA) and the East Sussex Systemwide Health Impact Assessment. It ensures that the assessment is informed not only by scientific evidence and professional expertise, but also by the experiences, priorities and concerns of the people most affected by environmental change and climate-related health impacts. Engaging residents strengthens transparency, improves the relevance of considerations, opportunities and actions steps as well as provide important insight into how a changing climate is already affecting health, wellbeing and everyday life across East Sussex.

A total of **593 responses** were received.

The consultation provided an opportunity to understand public perceptions of environmental, climate-related health risks, identify issues of greatest concern, and explore where future communication, engagement and adaptation efforts should be prioritised.

Some of the quotes received from the consultation are as follows:

Flooding, storms, heat and impact on children

“The more extreme weather (mainly excessive rain) has led to damage to parts of my house. Extreme weather has impacted travel plans and school runs where flooding has led to diversions and congestion... There is no question the extreme weather lowers your mood and when it is happening for many days back-to-back, it drains you mentally. I am more worried for the impact it will have on my children's health and wellbeing than me.”

Storm damage, flooding, anxiety and chronic illness flare-ups

“Extreme winds bring down trees causing road blocks and power cuts. I do not feel safe when out walking and travelling in very strong winds... excessive rainfall meant that last year our conservatory and kitchen flooded on several occasions. These things all impact my mental health and... stress can bring on flare ups of my Crohn’s disease.”

Flooding and prolonged mental health consequences

“I was flooded in 2000 which resulted in 8 months out of my house and a mental breakdown. Every year since I fear it happening again, which affects my sense of security and wellbeing. It is increasingly difficult to get flood insurance and also difficult to sell because lenders will not lend on properties that have been flooded.”

Multiple impacts: health, housing, food growing, flooding, transport, disease risk

“Mental health due to the burden of worry about climate change and the impact this will have in the immediate, medium and long term, especially regarding what our children will face in the future... We have noticed an increase in mosquito activity... concern about increasing risk of insect-borne diseases... It is harder to get outside and exercise during heat waves... Our house does not feel well equipped to manage the more extreme weather events... We grow some fruit and vegetables, and this can be hindered by unpredictable weather... We experience surface flooding due to inadequate drainage and heavy downpours...”

Severe eco-anxiety and concern for future generations

“I am weary with feelings of depression and powerlessness... I worry all the time about all the children being born now and what their lives will be like, unable to breathe the air or drink the water. I worry about biodiversity loss, our oceans,

rivers, soil and air... I notice the decline in wildlife... At a time when I should be enjoying retirement, all I do is cry, and I am not alone."

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Direct physical and mental health impacts from heat and UV exposure

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"Climate change as a topic and an issue leaves me feeling anxious. I am concerned about the future for my child. I have to make changes to my activities during periods of high UV. I have had skin issues (lesions, basal cell carcinoma) as a result of UV exposure... During heatwaves it has been difficult to sleep, impacting my physical and mental wellbeing. My son gets heat rashes and ENT symptoms during very hot weather."

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Housing, flooding, transport disruption and health impacts

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"I have no control over the maintenance of the property I live in; when we have extreme heat it is unbearably hot. Impacts include reduced breathing, inability to focus and a lack of energy to do anything... Flooding can limit normal life activities such as shopping, getting to and from work, and being able to see family members."

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Water security, food security, pollution and anxiety

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"It impacts everything! I walk to work and avoid main roads due to pollution as it affects my breathing. Having poor crops due to extreme weather will affect food, farmers and food prices. Not enough drinking water for everyone with pressure on water services. The decline of pollinators such as bees. Sewage in waterways and the sea... Affecting my mental health through anxiety."

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Combined impacts on housing, food, family life and future generations

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"Mental health – we live in a very worrying time... Lifestyle changes – outdoor activities affected by storms, especially extremely high winds. Housing – fence and tree damage, roof tiles blown off, rain coming in through the roof. Food – some foods not readily available as harvests abroad have been impacted by climate-related extreme weather events."

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Concern about societal collapse, food security and climate breakdown

"Having to spend my non-working time in activism... Of course I am worried. We won't have enough food and society will break down. We're set to crash through 2 degrees in the next decade or so."

The consultation demonstrates and evidence that a changing climate is already affecting the health and wellbeing of residents across East Sussex, with **extreme wind**, flooding, extreme temperatures and poor air quality identified as the most commonly experienced impacts. Respondents reported that these issues are affecting their daily lives, particularly their lifestyle, mental wellbeing and physical health, and **around 70% expressed concern** about future climate-related health impacts.

The findings support a whole-system approach that integrates climate adaptation, environmental sustainability and public health, while recognising the importance of strengthening community resilience and addressing the psychological as well as physical impacts of a changing climate.

Several important implications emerge from the consultation.

- First, residents are already experiencing the impacts of a changing climate, indicating that adaptation is not solely about preparing for future risks but responding to current health and wellbeing impacts.

- Second, the prominence of **extreme wind** demonstrates the importance of tailoring climate adaptation to East Sussex's local geography and risk profile. Coastal exposure, severe storms and associated infrastructure disruption should receive greater emphasis within local resilience planning alongside heat, flooding and air quality.

- Third, the prominence of **mental wellbeing** reinforces the need for climate adaptation to include psychological resilience, community cohesion and effective climate-health communication, rather than focusing exclusively on physical health.

- Finally, the high level of public concern presents an opportunity. Residents recognise a changing climate as a health issue and are likely to support practical, locally relevant actions that improve health, strengthen resilience and protect communities. Future engagement should therefore emphasise achievable solutions and the health, social, environmental and economic co-benefits of climate action, helping to build confidence, maintain public trust and encourage community participation in creating a healthier, more resilient and climate-ready East Sussex.

According to research on how UK citizens perceive the co-benefits of climate action, framing climate action around improvements in health, wellbeing, cleaner environments, lower household costs and stronger communities is often more motivating than focusing on a changing climate alone. These findings reinforce the HIA approach taken by East Sussex and the need to embed Population and Planetary Health in All Policies and Approaches (PAP-HiAPA), ensuring that climate adaptation is communicated as an opportunity to improve everyday life while protecting current and future generations.

Figure 1 shows the geographical distribution of respondents. Responses were broadly spread across East Sussex, with the largest proportions coming from Lewes (24%), Eastbourne (23%) and Wealden (23%), providing good representation from both urban and rural communities.

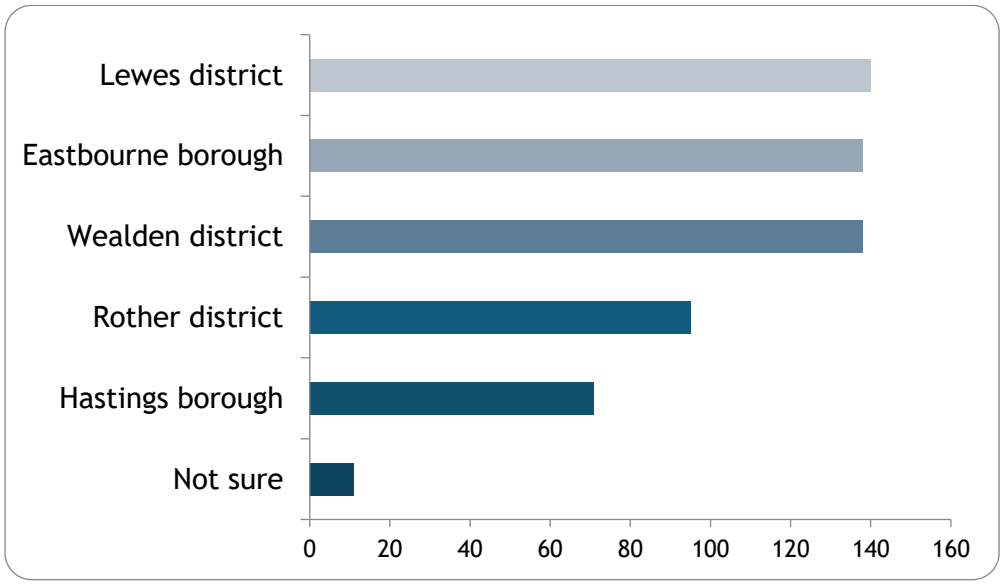



Figure 1 Geographical distribution of respondents to the survey

The findings demonstrate that a changing climate is already affecting many residents across the county.

Figure 2 shows that the most commonly experienced climate-related issue was extreme wind (37%), followed by flooding (35%), extreme temperatures (29%) and poor air quality (29%).

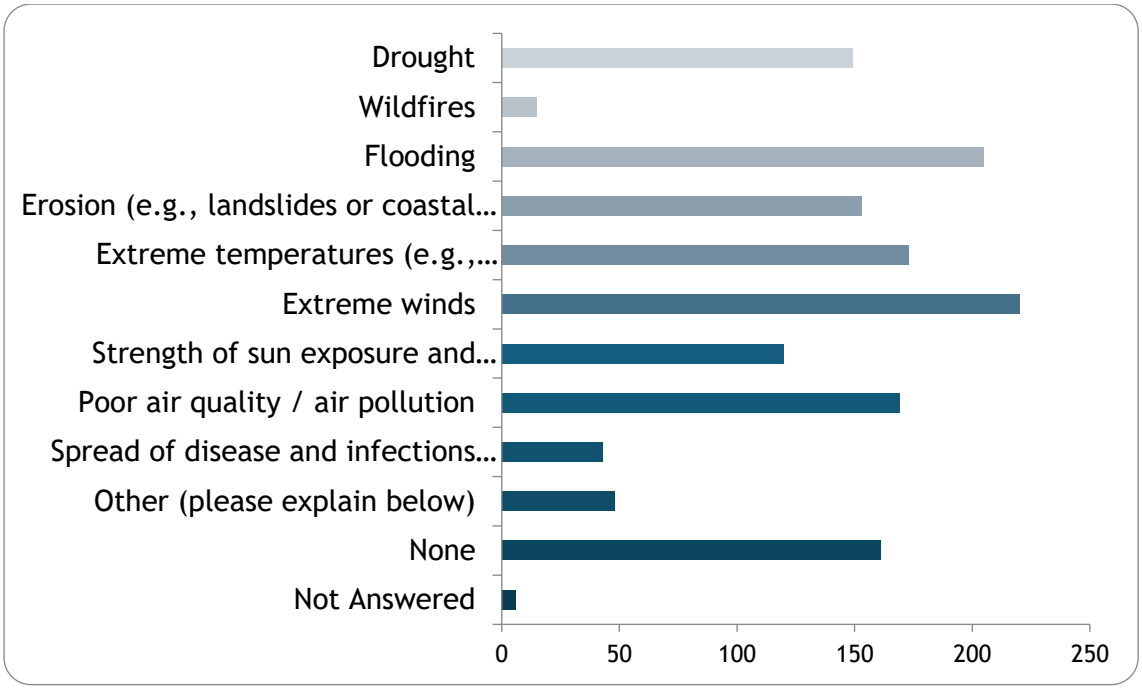



Figure 2 Climate and weather-related impacts affecting residents

The prominence of **extreme wind** is particularly noteworthy. While UKHSA's Health Effects of Climate Change report does not identify extreme wind as a specific health effect, East Sussex residents clearly perceive it as one of the county's most significant climate-related challenges. This reflects the county's coastal geography, exposure to Atlantic storm systems and the increasing disruption caused by severe storms to homes, transport, infrastructure, trees and public safety. These findings support the inclusion of extreme wind as a distinct climate-health consideration within the East Sussex HIA.

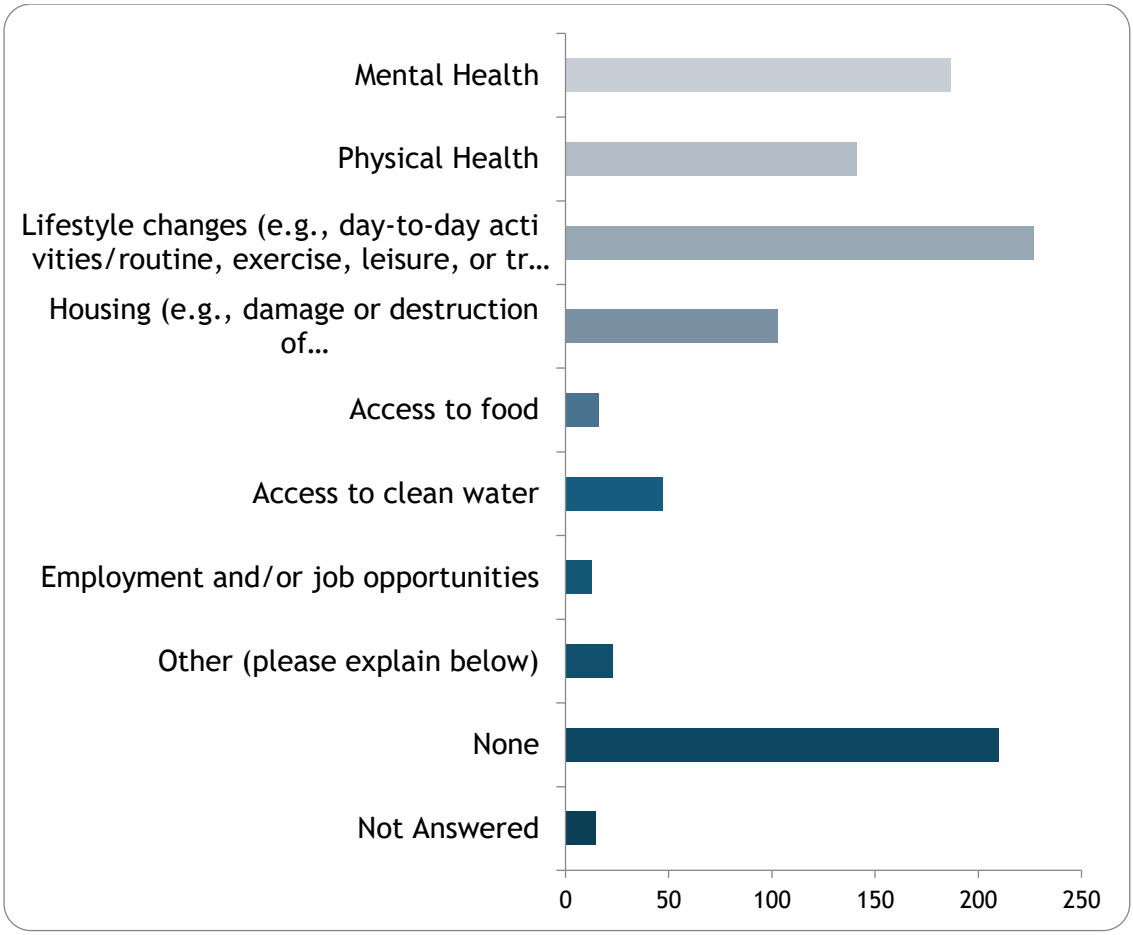



Figure 3 illustrates how a changing climate is affecting people's lives.

Shown in Figure 3, respondents most frequently reported impacts on their lifestyle (38%), followed by mental health and wellbeing (32%) and physical health (24%). These findings reinforce growing evidence that the changing climate is influencing health through multiple pathways. Lifestyle impacts may reflect disruption to travel, outdoor recreation, household routines and social activities, while the prominence of mental wellbeing highlights increasing concern about climate anxiety, stress and uncertainty. Together, these findings emphasise that climate adaptation should address social and psychological resilience alongside physical health.

Public concern about future impacts was also high.

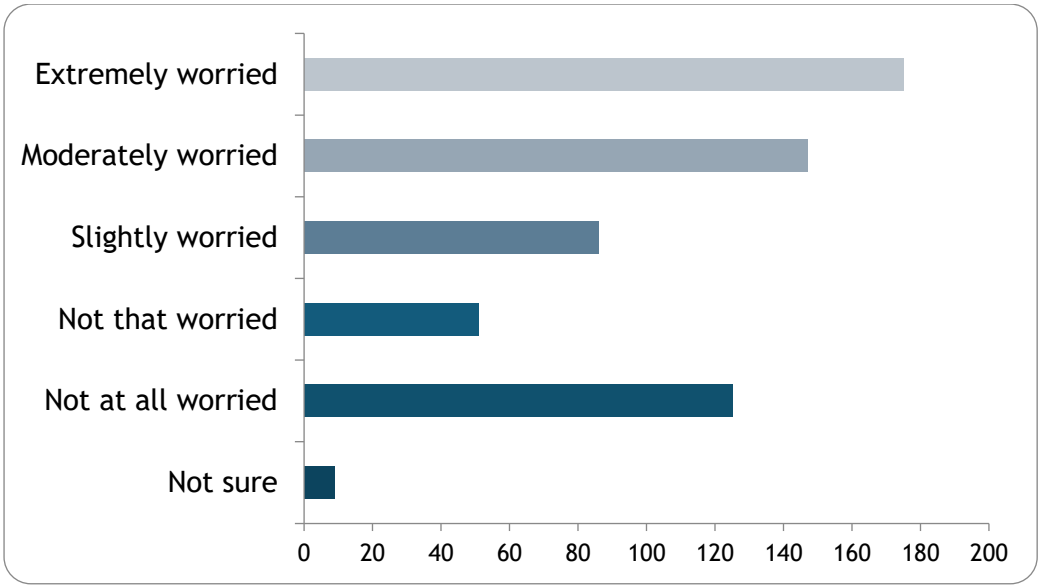



Figure 4 shows the results of how worried people are about the changing climate impacting their health and wellbeing in the future

As shown in Figure 4, approximately 70% of respondents reported being at least slightly worried about the changing climate affecting their health and wellbeing in the future. This suggests strong public awareness of climate-related health risks and provides a clear mandate for continued climate adaptation, public engagement and health protection across East Sussex.

The demographic profile of respondents (Figures 5–7) provides important context for interpreting the findings and should be considered when planning future engagement activities to ensure that the experiences of under-represented communities are fully reflected in subsequent delivery and implementation phases of this HIA.

The survey reflects the demographic profile of East Sussex, where older adults comprise a relatively large proportion of the population. Consequently, the findings provide valuable insight into the concerns of those who are often most vulnerable to the health impacts of a changing climate. However, the underrepresentation of younger age groups means that future engagement should seek a more balanced age profile to ensure climate, environmental and public health strategies are informed by the experiences and priorities of residents across all generations.

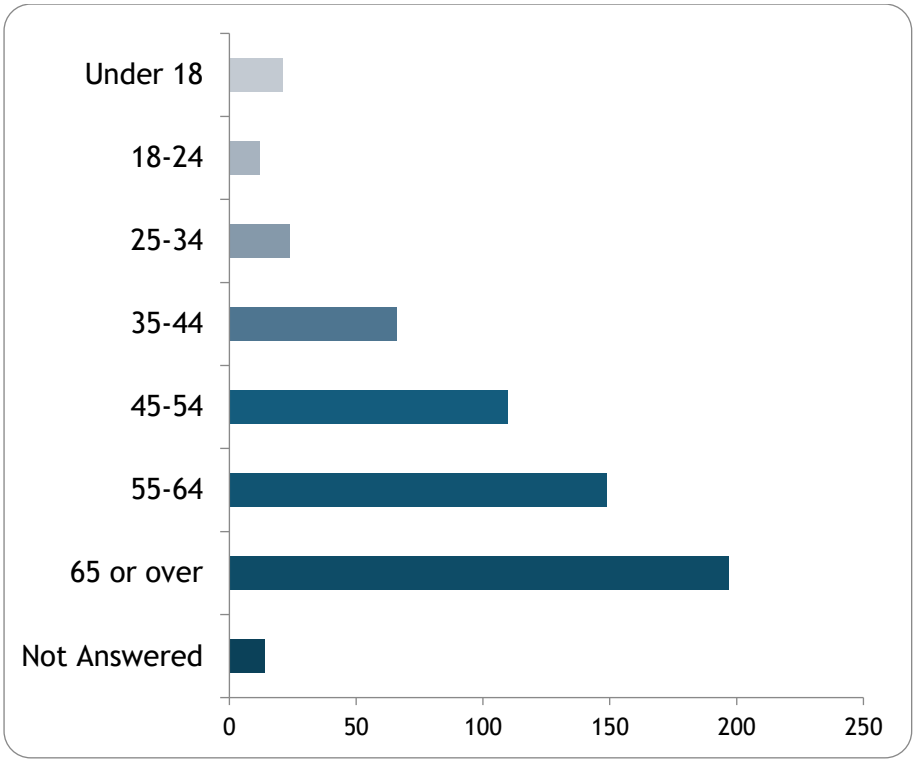



Figure 5 age range of survey respondents

The survey was completed predominantly by women (59%), compared with 33% of respondents who were male. While this provides valuable insight into women's experiences and perceptions of a changing climate and health, it means the findings may not fully represent the views of men or gender-diverse communities, whose participation was very limited.

Research suggests that women are generally more likely to engage in health and environmental surveys, which may partly explain the higher response rate. Research consistently shows that women are often:

- more likely to participate in health and wellbeing surveys
- more concerned about environmental and climate-related risks
- more engaged in community consultation activities

This may partly explain the higher response rate from women.

Consequently, issues such as mental health, wellbeing and environmental concern may be more strongly reflected in the findings, while men's experiences and priorities—particularly those related to occupational exposure to climate risks and adaptation—may be underrepresented.

For East Sussex, the results highlight the importance of achieving a more balanced gender profile in future consultations to ensure climate, environmental and public health policies are informed by a broader range of perspectives. Future engagement

should target underrepresented groups through tailored communications, partnerships with workplaces and community organisations, and a range of participation methods (e.g. online, paper and face-to-face). Monitoring response demographics throughout the survey period would also enable targeted outreach where participation is low.

Overall, while the survey provides valuable evidence of residents' concerns, a more representative gender balance would strengthen confidence that future policies and interventions reflect the needs and experiences of the wider East Sussex population.

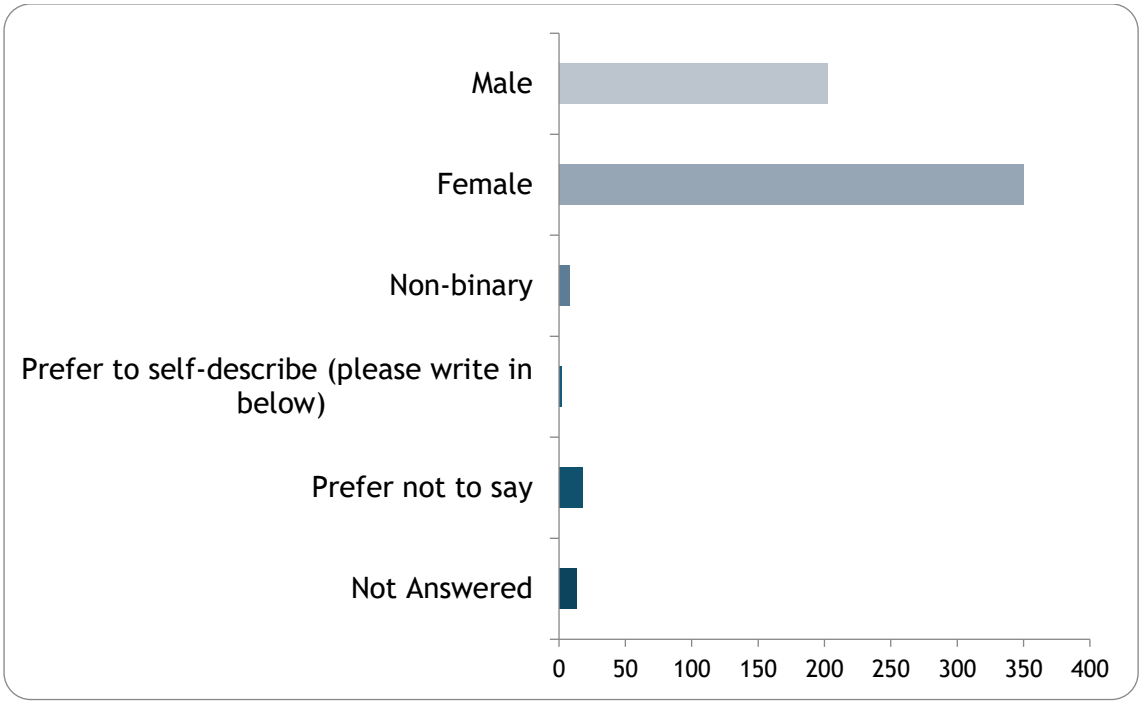



Figure 6 gender of survey respondents

The findings in Figure 7 have several important implications for interpreting the survey results and for planning future engagement activities. The survey was completed predominantly by respondents identifying as **White English, Welsh, Scottish, Northern Irish or British (77%)**, while participation from other ethnic groups was very low. This has several implications:

- **Limited representativeness.** The results may not fully reflect the experiences, priorities and health concerns of people from Black, Asian, Mixed and other minority ethnic communities in East Sussex.

- **Potential underestimation of climate impacts.** Different ethnic communities may experience the changes in climate differently due to factors such as housing quality, occupation, access to green space, health inequalities, language barriers and socioeconomic circumstances. These experiences may therefore be underrepresented.

- **Reduced ability to identify inequalities.** With very small numbers from minority ethnic groups, it is difficult to analyse differences between communities or identify groups that may be disproportionately affected by climate-related risks.

- **Policy implications.** Decisions based primarily on these findings may inadvertently prioritise the views of the majority respondent group and overlook the needs of underrepresented communities.

- **Reduced confidence in subgroup analysis.** The small sample sizes prevent meaningful statistical comparisons across ethnic groups.

Although respondents represented a broad range of ages and districts across East Sussex, the survey sample was predominantly White British (77% of respondents). Participation from other ethnic groups was limited, meaning that the findings may not fully reflect the experiences and priorities of Black, Asian, Mixed and other minority ethnic communities. Future surveys should include targeted engagement with community organisations, translated materials, community champions and alternative methods of participation to improve representation and ensure that the views of all communities are captured.

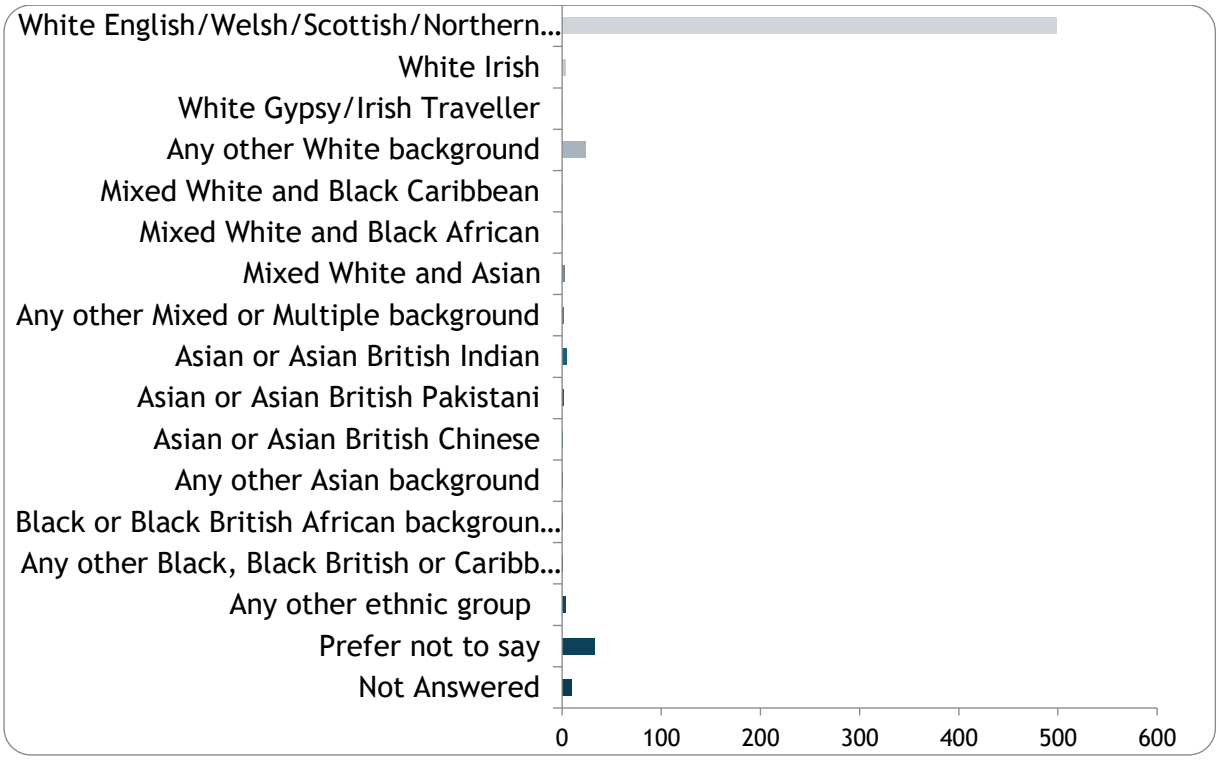



Figure 7 Ethnicity of survey respondents

## 4.2. Summary of the Survey Findings and Conclusion

The public consultation highlighted that a changing climate is already affecting the lives of residents across East Sussex, with 593 responses demonstrating both lived experience of climate-related hazards and concern about future impacts. **Extreme wind** emerged as the most experienced climate issue, followed by flooding, extreme temperatures and drought. Respondents reported that these issues are affecting multiple aspects of daily life, with lifestyle impacts most frequently identified, followed by impacts on mental health and physical health.

The findings indicate that a changing climate is not viewed solely as an environmental issue by residents, but as a significant public health and wellbeing concern. Approximately half of respondents expressed concern about the future effects of a changing climate on their health and wellbeing, reflecting growing awareness of the links between climate risks and health outcomes. This is consistent with wider evidence that climate change can affect both physical and mental health through direct and indirect pathways, including extreme weather events, disruption to daily activities, and anxiety about future environmental change.

The consultation findings also reinforce the importance of taking a whole-system approach to climate adaptation and mitigation. While respondents identified a range of current challenges, evidence suggests there is strong public support for climate action that delivers tangible co-benefits, including warmer and more affordable homes, improved air quality, greater energy security, reduced inequality, enhanced biodiversity, lower risks from flooding and extreme heat, stronger communities and local job creation. These outcomes align closely with the wider objectives of this HIA and demonstrate opportunities to improve population health while responding to climate change.

Overall, the consultation provides valuable insight into public experiences, concerns and priorities. It demonstrates a clear need for coordinated action across sectors to both reduce climate-related health risks and maximise the health, social, environmental and economic benefits that can be achieved through climate action in East Sussex.

## 4.3. Survey Design

The public survey was developed collaboratively with the East Sussex County Council Consultation and Insight Team to maximise accessibility, participation and data quality. Particular attention was given to the length, structure and wording of questions to encourage completion while generating meaningful information for the HIA.

The survey comprised seven questions. The first four explored residents' experiences of a changing climate and its impacts on health and wellbeing, while the remaining three collected demographic information to understand the characteristics of respondents. Multiple-choice responses were supplemented with optional free-text fields, allowing respondents to provide additional comments. All questions were voluntary, and unanswered questions were recorded within the dataset.

The survey was available for six weeks between 10 March and 25 April 2025 through the East Sussex Consultation Hub. It was promoted through East Sussex County Council communication channels, social media and partner organisations across the county, helping to maximise participation and reach diverse audiences.

# 5. Key Messages

"Everything we do to the planet; we do to ourselves."




The World Health Organization has identified environmental challenges and a changing climate as a fundamental threat to human health and wellbeing. A changing climate is not simply an environmental issue; it is fundamentally **a people issue**. It affects the conditions in which people are born, grow, live, work and age, and therefore influences every aspect of health and wellbeing. **The health of our population, the health of our environment and the sustainability of our future are intrinsically interconnected.** Human health depends upon healthy ecosystems, just as climate resilience depends upon healthy and resilient communities. A

changing climate therefore represents one of the greatest challenges facing both human and planetary systems that sustain life, health and wellbeing.

The evidence is clear that environmental challenges and a changing climate is already affecting health and wellbeing in East Sussex. Increasing temperatures, more frequent heatwaves, flooding, coastal change, water scarcity, poor air quality, biodiversity loss, food system pressures and emerging infectious disease risks are influencing the health of residents and placing increasing pressure on services, infrastructure and communities. East Sussex's demographic profile, including an ageing population, significant levels of long-term illness and disability, concentrations of deprivation, extensive coastal communities and rural geography, creates a unique climate-health vulnerability profile that requires a coordinated and locally tailored response.

For many years, efforts to address environmental challenges and a changing climate have understandably focused on reducing greenhouse gas emissions. Whilst mitigation remains essential, decarbonisation alone is no longer sufficient. The climate is already changing, and many impacts are now unavoidable. Alongside mitigation, there is an urgent need to adapt, prepare and build resilience to the climate conditions that communities, services, organisations and ecosystems will increasingly experience over coming decades. The need to adapt to a changing climate must be addressed by all of us doing our part to protect current and future generations and their right to live, work and play in healthy, safe and sustainable places where people can thrive and not merely survive.

The costs of failing to adapt are already becoming apparent. Climate-related impacts on health, infrastructure, communities, ecosystems and public services are increasing and are projected to grow further. Delayed action risks greater disruption, higher costs, widening inequalities and increased pressure on health and care systems. Conversely, early action provides opportunities to reduce risks, protect vulnerable populations, strengthen resilience and realise significant health, social, economic and environmental co-benefits. Evidence consistently demonstrates that early planning is critical, particularly where changes to infrastructure, services, policy, land use, housing, transport systems and population behaviour are required. Early implementation is equally important for strengthening surveillance and monitoring systems, supporting preparedness for emerging threats such as vector-borne diseases and ensuring that East Sussex's communities, organisations, businesses and public services are resilient to future climate-related challenges.

The greatest opportunity for improving health in the context of environment and a changing climate lies in aligning health goals with climate mitigation, adaptation and environmental sustainability. Decisions relating to housing, transport, planning, energy, food systems, biodiversity, green infrastructure and economic development all influence both climate outcomes and health outcomes. When these agendas are

pursued together rather than separately, there is significant potential to improve physical and mental health, reduce health inequalities, strengthen communities and create healthier places whilst simultaneously addressing climate risks. Embedding health considerations into climate action and climate considerations into health policy offers one of the greatest opportunities for delivering transformational improvements in population health in a generation.

It was against this backdrop that 'Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (HIA)' was conceived and developed.

The HIA was established to answer a fundamental question:

**How can East Sussex develop a coordinated, evidence-informed and 'systemwide response' to address the health effects of climate change and build resilience across its people, places, services, sectors and communities?**

This HIA provides a clear, evidence-based and collaborative framework for understanding and addressing the health effects of our changing climate. The need for local authorities to do so was recommended and outlined by the UKHSA Health Effects of Climate Change (HECC) Report.

- 'Public health agencies and professionals can support emergency planning and response, undertake health impact assessments and advise on climate-health risks for their population, conduct needs assessments to highlight and address climate vulnerabilities, and contribute to long-term and coordinated planning in terms of infrastructure, emergency response, and continuity of health and social care services.' (See HECC Report 3.5.7)

- 'Projecting future scenarios requires parameterisation of the links between climate-related hazards and health outcomes, and how these vary across contexts and over time. Understanding how these parameters or links vary is particularly critical for modelling of intervention and adaptation options. Development of improved frameworks and case-studies to support health impact assessment and projection modelling under a range of climate scenarios is needed. Additionally, a more diverse range of health outcomes should be assessed, complementing mortality estimates with consideration of morbidity and other metrics of ill-health such as years of life lost (YLL).' (See HECC Report 4.1.2).

- 'There is insufficient knowledge and skills within the health community to access relevant climate data, which in turn is often not translated, analysed, and produced in formats appropriate to the needs of public health practitioners and researchers. More generally, there is a skills gap in integrating climate sciences with health impact assessment. There is need for improved packaging of climate

data, services, and training to respond to public health priorities. Climate services and data should be oriented towards the content and formatting needs of the public health community.' (See HECC Report 4.3.3)

East Sussex has felt the need to respond and deliver against these recommendations for the benefit of its people and place as part of safeguarding their future.

**This HIA represents the first known attempt to undertake a genuinely systemwide HIA**. As such, it has developed methodologies, processes and approaches designed to support whole-system thinking and action. Led by and facilitated by the East Sussex Public Health - Healthy Places Team and developed with stakeholders from across the county, it has brought together expertise from public health, NHS organisations, local authorities, adult social care, children's services, housing, planning, transport, emergency planning, environmental services, economic development, voluntary and community sector organisations, academia and many others.

Health Impact Assessment is a systematic process that assesses the likely positive and negative impacts of a proposed change, policy, programme or strategy on the health and wellbeing of different population groups. In this case, the HIA considers how East Sussex as a place is responding to environmental challenges, a changing climate and how that response can be aligned with supporting health, wellbeing and environmental sustainability both now and in the future. It is a predictive, strategic and collaborative tool that enables the consideration of future climate-health scenarios, alternative approaches and long-term implications, helping to define the action required to achieve preferred future outcomes.

The HIA is not simply an assessment of risks. It is a framework for understanding gaps, tension, barriers and opportunities to adapt and evolve as a system that needs to pull in the same direction if it is to comprehensively address current and future challenges. Through a comprehensive programme of evidence gathering, policy review, stakeholder engagement, systems analysis and collaborative inquiry, this HIA has sought to understand how environmental challenges and a changing climate may affect vulnerable populations, critical services, infrastructure, the natural environment and the wider determinants of health. It has also explored where opportunities exist for prevention, adaptation, resilience-building and system transformation.

A key component of this assessment has been a systemwide review of policies, strategies and plans relating to health, the environment and a changing climate. This has helped establish an important baseline for understanding the extent to which East Sussex is already advancing and integrating:

- 'Health in All Policies'

- ‘Health in All Climate and Environment Policies’
- ‘Climate and Environment in All Health Policies’ and
- A broader ‘Population and Planetary Health in All of Our Approaches’ model

This benchmarking process provides a foundation for future progress and supports the recommendations made within the UK Health Security Agency's report on The Health Effects of Climate Change, which calls for stronger integration between health and climate policy.

Importantly, the **HIA has been developed as a collective endeavour**. It speaks not from the perspective of a single organisation but from a shared system perspective. It reflects a recognition that no individual organisation, sector or service can address the health effects of a changing climate alone. Environmental challenges combined with the changing climate is a complex systems challenge that requires collaboration across traditional organisational boundaries, sectors and policy domains. The HIA therefore communicates the "art of the possible" by demonstrating what can be achieved when organisations work together towards a shared purpose.

The **ambition** of the assessment has been to avoid fragmented, reactive and short-term responses and instead support a longer-term vision for adaptation, resilience and prevention. The ambition is to take a **‘no-regrets’** intervention approach across all parts of the system which means to avoid being short sighted in a crisis, to advance and integrate climate and health considerations across all approaches (policy formulation, financing, resourcing and service delivery for example). The HIA seeks to understand, identify, analyse, communicate and facilitate a joined-up approach to addressing the health effects of a changing climate whilst helping to address the social gradients and inequalities through which many climate-health impacts are likely to manifest. By strengthening resilience among those most vulnerable today, East Sussex can also strengthen resilience to future climate-related risks.

The assessment therefore provides **more than** an evidence base. It **provides a blueprint for how a whole system can come together** to understand, coordinate and respond to the health effects of a changing climate. It offers a longer-term **roadmap** for building resilience across people, places, communities, sectors, services and policies, whilst maximising the substantial co-benefits that arise when climate action, health improvement and environmental sustainability are pursued together.

Together, these perspectives help ensure that action is coordinated, comprehensive and capable of being implemented across the complexity of the East Sussex system.

## 5.1. Explanation and Purpose for the ‘Considerations, Opportunities and Action Steps’

The ‘considerations, opportunities and action steps’ are the principal output of this Health Impact Assessment (HIA). Rather than representing a simple list of considerations and opportunities or isolated actions, they provide a strategic, evidence-informed framework for guiding how East Sussex can collectively respond to environmental challenges, a changing climate and their impacts on health and wellbeing over the coming decades.

Developed through extensive stakeholder workshops, technical review, evidence synthesis, climate conversations, wider engagement and a robust validation and re-validation process, they have been co-produced by organisations from across the East Sussex system (across services and sectors). As such, they represent a robust, evidence-informed and collectively owned vision for strengthening climate resilience, protecting population health, reducing health inequalities and supporting a healthier, fairer, more resilient and environmentally sustainable East Sussex. Acting as both a shared evidence base and a practical framework for action, they capture existing activity, identify future opportunities and provide a common platform for coordinated action across organisations, sectors and communities.

At its core, the HIA considers how the collective policies, services, infrastructure, organisations and communities of East Sussex influence the health impacts of a changing climate, particularly for the people, places, services and systems most vulnerable to climate-related risks. In doing so, it establishes a shared understanding of where the East Sussex system is today, where it aspires to be in the future, and the collective journey required to achieve that vision. The considerations, opportunities and action steps therefore define the breadth of activity within which organisations will need to work together to anticipate climate risks, avoid shocks to health and wider public systems, strengthen resilience and improve health outcomes over the long term.

The **considerations** and **opportunities** are intentionally framed in a way to avoid immediate obligations. This reflects the recognition that responding to a changing climate is a long-term programme of system transformation rather than a series of isolated projects or short-term delivery plans. Many of the opportunities identified are already underway across East Sussex, whilst others represent emerging priorities or future ambitions. Together they provide a comprehensive picture of the actions, partnerships and system changes required between **2026 and 2080**, recognising that meaningful adaptation, prevention and resilience require sustained investment, collaboration and continuous improvement.

Importantly, the considerations, opportunities and action steps extend beyond identifying new actions. They highlight opportunities to strengthen existing programmes, align organisational priorities, reduce duplication, improve coordination, remove barriers between sectors and identify where collaborative action can deliver greater collective impact than organisations working independently. In many cases, the greatest opportunities lie not in creating new initiatives, but in connecting existing ones, embedding climate and health considerations into current policy and practice, and ensuring that investment decisions maximise environmental, social, health and economic co-benefits. A whole-system approach therefore has the potential to improve outcomes, increase efficiency, avoid unintended consequences, strengthen resilience and reduce the long-term costs associated with climate-related health impacts and pressures on public services.

Recognising that organisations engage with climate change and health from different responsibilities, statutory duties and operational perspectives, the considerations, opportunities and action steps are presented through seven complementary lenses:

1. The Health Effects of Climate Change (Part 3A)
2. Priority Wider Determinants of Health (Part 3B)
3. Systemwide Sectors, Services and Stakeholders (Part 3C)
4. Vulnerable Population Groups (Part 3D)
5. Vulnerable Settings (Part 3E)
6. Systemwide Win-Wins and Co-Benefits (Part 3F)
7. Delivering Assets Based Systemwide Resilience and Protection (Part 3F)

These perspectives provide multiple entry points for implementation whilst supporting a single, shared system-wide ambition. Organisations leading climate adaptation and environmental programmes may find the climate hazard framework most relevant, enabling them to strengthen adaptation and mitigation by embedding health, wellbeing and equity considerations. For health, public health and social care organisations, the wider determinants of health provide a practical framework for integrating climate resilience into priorities such as housing, transport, employment, education, community resilience and health improvement. Sector-specific considerations, opportunities and action steps enable organisations whose primary remit is neither climate nor health to identify how they can contribute through their existing responsibilities, assets, influence and investment decisions, whilst the population and setting perspectives ensure that those most vulnerable to climate-related impacts remain central to planning and implementation. Together, these seven perspectives are designed to complement one another rather than operate independently.

The HIA recognises that environmental challenges and a changing climate is a complex systems challenge. Climate hazards, health outcomes, the wider determinants of health, vulnerable populations, critical infrastructure and public services are highly interconnected. Consequently, many of the considerations, opportunities and action steps contribute simultaneously to multiple objectives, sectors and stakeholder groups. Similarly, barriers, opportunities and solutions frequently cut across organisational boundaries. This overlap is intentional and should be viewed as a strength rather than duplication, creating opportunities for integrated delivery, shared ownership, co-benefits and more efficient use of resources.

The HIA aligns with national climate projections, adaptation pathways and long-term health improvement ambitions, recognising that meaningful change cannot be achieved through isolated projects or short-term funding cycles. This report therefore represents **the first phase of an ongoing programme of work**, rather than an endpoint. Implementation will commence during **Phase 2 Delivery and Implementation – Mobilisation (2026–2030)**, when governance arrangements, organisational leads, delivery mechanisms, priorities and performance measures will be established. An accompanying **Implementation Support Tool** (Appendix C) will support organisations in prioritising actions, coordinating delivery and monitoring progress, with the considerations, opportunities and action steps subsequently translated into a SMART Delivery Plan containing clearly defined actions, lead organisations, timescales, performance measures and governance arrangements.

The considerations, opportunities and action steps are intended to guide the future direction of travel for East Sussex rather than represent immediate obligations. Their implementation will require formal consideration, endorsement and adoption by the organisations, partnerships and sectors with the relevant responsibilities, powers and accountabilities. Ultimately, they demonstrate what can be achieved when organisations work collectively towards a shared goal. They define the collective operating space within which the East Sussex system can anticipate future climate risks, avoid shocks to health and wider public systems, reduce inequalities and build resilience. In doing so, they demonstrate ‘the art of the possible’ showing how coordinated, preventative and collaborative action can accelerate progress, maximise co-benefits and help ensure that East Sussex is prepared not only to respond to a changing climate, but to thrive despite it.

The considerations, opportunities and action steps are also available as a standalone report and are intended to support organisations in embedding climate resilience, health improvement and environmental sustainability into policy, planning, investment and service delivery across East Sussex.

## 5.2. Clarifying Terminology – A Changing Climate

The terms "**climate change**" and "**a changing climate**" are closely related but have different connotations and are often used for different purposes.

**Climate change** and **a changing climate** are closely related terms, but they are often used in different ways. Climate change refers to the long-term alteration of the Earth's climate system, largely driven today by human activities, particularly the emission of greenhouse gases. It is the scientific and policy term most commonly used by organisations such as the IPCC, UK Government and UKHSA when discussing evidence, causes, risks and strategic responses. Because of its technical nature, some audiences may perceive the term as political or abstract. It also tends to emphasise the global scale of the issue and its underlying causes.

In contrast, **a changing climate** is a broader and more accessible term that focuses on the observable changes in weather patterns and climate conditions over time, without necessarily highlighting the cause. It is often used in public engagement and communications because it feels less technical and more relevant to people's everyday experiences. The phrase places greater emphasis on the lived experience of changing weather, local environmental conditions and the impacts communities are seeing in their own areas.

Both terms have value and can be used together depending on the context. 'Climate change' is most appropriate when discussing scientific evidence, policy, causes and strategic planning, while 'a changing climate' can be more effective when describing local impacts, adaptation measures and the experiences of individuals and communities.

For the purposes of this HIA "**a changing climate**" is used more frequently as it is useful when communicating and discussing local experiences. For example:

- Residents are already experiencing the health impacts of a changing climate through more frequent flooding, heatwaves and severe storms.

This also alleviates tensions associated with 'Net-Zero' dominating the climate and health conversation. This phrasing can also feel more relatable because it focuses on observable changes rather than the broader scientific concept.

Many reports use both terms depending on context such as the UKHSA. For example:

- Use "**climate change**" when discussing evidence, policy, causes and strategic planning.
- Use "**a changing climate**" when describing local impacts, adaptation and residents' experiences.

For example:

Climate change is increasing the frequency and intensity of extreme weather events. Across East Sussex, residents are already experiencing the impacts of a changing climate through flooding, extreme wind, heat and poor air quality.

This approach maintains scientific accuracy while making this HIA accessible and engaging for a wider audience.

For these reasons "**a changing climate**" will mostly be utilised but when referring to evidence, policy and cause "**climate change**" terminology will feature.

A **glossary of key terms** is used throughout this report is provided in Appendix A. For clarity, the assessment distinguishes between:

1. Impacts,
2. Effects,
3. Hazards
4. Outcomes

in relation to climate and health. It also speaks to longer-term effects and outcomes that emerge from these interactions. Understanding these distinctions is important because a changing climate affects health through multiple pathways, many of which are indirect, cumulative and interdependent.

'**Impacts**' refer to the changes introduced by climate change or climate-related interventions, compared to current conditions. In this context, it is important to distinguish between:

- **Climate impacts**: Changes in environmental or physical systems (e.g. rising temperatures, increased flooding and changes in air quality).
- **Health system impacts**: Changes in determinants of health arising from climate or policy responses (e.g. housing conditions, access to green space and infrastructure resilience).
- **Climate-health impacts**: The combined or interacting changes in environmental and social determinants that directly influence population health (e.g. increased overheating in homes, disruption to services due to flooding and changes in food systems).

Impacts describe what has changed and can be positive or negative.

'**Effects**' refer to the consequences of impacts, taking into account who or what is affected and their level of vulnerability or sensitivity.

- **Climate effects**: Consequences of environmental change on ecosystems or physical environments (e.g. coastal erosion and biodiversity loss).

- **Health effects**: Consequences for human health, wellbeing, and daily life regardless of cause (e.g. increased stress, reduced physical activity and exposure to pollutants).
- **Climate-health effects**: The specific consequences of climate-related impacts on human health and wellbeing, including both direct and indirect pathways (e.g. heat-related illness, mental health impacts from extreme weather and increased respiratory issues due to poorer air quality).

Effects may be short-, medium-, or long-term, may emerge over time, and can be positive or negative.

**'Hazards'** refer to events or conditions arising from change that have the potential to cause harm to people, infrastructure, ecosystems and economies.

- **Climate Hazards:** Climate hazards are the environmental exposures created or intensified by a changing climate. The hazards may be acute (e.g. heatwaves, storms, flooding) or chronic (e.g. rising temperatures, drought and sea level rise)
- **Health Hazards:** Health hazards are **biological** (e.g. infectious disease and foodborne illness), **chemical** (e.g. air pollution and, contaminated drinking water), **physical** (e.g. heat stress and injury from flooding) a**, behavioural or psychosocial/social factors** (e.g. stress, climate anxiety, social isolation and displacement) that have the potential to cause illness, injury or death. Some health hazards are caused directly by climate hazards, whilst others are worsened indirectly.

Health hazards are therefore the mechanisms through which climate hazards affect health.

**'Outcomes'** refer to the longer-term, often cumulative results arising from impacts and effects, typically at a population level.

- **Climate outcomes**: Long-term changes in environmental conditions (e.g. stabilised or worsening climate risks, ecosystem resilience or degradation).
- **Health outcomes**: Changes in population health status (e.g. disease prevalence, life expectancy, mental health and health inequalities).
- **Climate-health outcomes**: The combined long-term population health and system-level consequences of a changing climate, shaped by both environmental change and societal response (e.g. long-term burden of climate-related disease, resilience of health systems, reduced or widened health inequalities).

Outcomes are often:

- Cumulative and system-wide

- Influenced by multiple interacting factors
- Highly dependent on early action and intervention pathways

# 6. Non-Technical Summary

Health Impact Assessment (HIA) is a structured process used to assess the potential positive and negative effects of a proposed change, policy, programme, strategy or series of actions on the health and wellbeing of a population. It seeks to identify how health benefits can be maximised, how adverse impacts can be prevented or mitigated, and how health inequalities can be reduced. A central principle of HIA is understanding how different groups may be affected differently, with particular attention given to vulnerable populations and both short- and long-term consequences.

In this case, the proposal being assessed is the collective response of East Sussex to environmental challenges, a changing climate and the extent to which climate adaptation, mitigation and environmental action can be aligned with improving population health, wellbeing and health equity. The assessment recognises that a changing climate is not solely an environmental issue but a significant and growing public health challenge that affects the conditions in which people are born, grow, live, work and age.

Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (HIA) represents a significant evolution of traditional HIA practice. Whilst informed by established national and international HIA methodologies and best practice, this assessment has developed and applied a new typology of Health Impact Assessment: the **Systemwide HIA**. This approach extends beyond assessing a single policy or proposal and instead examines the collective readiness, resilience, policies, services, assets, sectors and partnerships of an entire place-based system. Through this process, East Sussex partners have worked together to understand current strengths, vulnerabilities, opportunities and future ambitions in responding to the health effects of environmental challenges and a changing climate. The methodology and processes underpinning this innovative approach are described in detail within Section 8 below.

The HIA aligns with recognised climate projections and adaptation planning timescales, enabling consideration of both current and future risks. It recognises that climate adaptation is not a one-off intervention but a sustained and evolving process requiring long-term commitment, leadership and collaboration. This report therefore represents the first phase of a broader programme of work aimed at strengthening climate resilience, improving health outcomes and supporting sustainable development across East Sussex over the coming decades.

The assessment has been co-produced through extensive engagement with partners from across the East Sussex system, including local government, health and care organisations, emergency planning services, environmental agencies, housing, planning, education, community and voluntary sector organisations, infrastructure providers, academic institutions and local residents. Collectively, these stakeholders have contributed expertise, evidence, local knowledge and lived experience, helping to identify both the challenges and opportunities associated with environmental challenges, a changing climate and health. Their contributions have shaped the findings, opportunities, systemwide action steps and future direction of this assessment. A full list of the partners is included in 1.2 Key Informants and List of Stakeholders.

The HIA has been guided by seven overarching **objectives**:

1. To identify, communicate and champion the urgent need to address the health effects of a changing climate.
2. To identify and communicate local evidence and intelligence relating to environmental challenges, climate, health impacts and vulnerability across East Sussex communities, places, assets and services.
3. To identify opportunities, co-benefits and system-wide solutions whilst addressing gaps, barriers and tensions across sectors and policy areas.
4. To help reduce health inequalities, improve health equity and support social justice.
5. To communicate the collective voice of stakeholders, partners and residents in advocating for positive change and transformation.
6. To advance and integrate Population and Planetary Health in All Our Approaches across policy development, planning, investment and service delivery.
7. To provide clarity, direction and practical action in response to a complex and evolving challenge.

The HIA has also sought to demonstrate how climate action and health improvement can be addressed together rather than separately. By adopting a whole-system perspective, it identifies opportunities to deliver multiple outcomes simultaneously, including improved health and wellbeing, reduced inequalities, stronger communities, environmental protection, economic resilience and sustainable development. This approach recognises that environmental and climate intersects with many of the wider determinants of health and that coordinated action can generate substantial co-benefits for people, places and the environment.

The considerations, opportunities and action steps set out within this assessment have been developed collectively to enhance both population health and environmental resilience across East Sussex. They are intended to inform existing strategies, plans, programmes and investments, whilst also shaping future policy and

decision-making. Importantly, they have been designed with an awareness of the practical realities facing organisations, including financial constraints, workforce pressures, resource limitations and ongoing system transformation such as local government reform.

The HIA provides a framework for collective action. However, its success will ultimately depend on the willingness and ability of partners across East Sussex to translate the considerations and opportunities into meaningful action. To support implementation, an accompanying Implementation Support Tool and Impact Evaluation Tool have been developed to assist organisations in embedding, monitoring and assessing progress over time.

The HIA concludes that a changing climate is one of the most significant threats to the health, wellbeing and prosperity of current and future generations in East Sussex. It also concludes that the county possesses considerable strengths, assets, expertise and partnerships that can be harnessed to respond effectively. The assessment demonstrates that addressing the health effects of a changing climate is not the responsibility of any single organisation, sector or service; it is a shared system-wide challenge requiring shared leadership, shared accountability and shared action.

Most importantly, the HIA concludes that the greatest opportunities lie not only in reducing climate-related harms, but in using climate action as a catalyst to create healthier communities, reduce inequalities, strengthen resilience, protect the natural environment and improve quality of life. By working collectively, embedding Population and Planetary Health in All Our Approaches, and acting early rather than reactively, East Sussex has an opportunity to become a leading example of how places can protect both population and planetary health in a changing climate.

# 7. Vision – The Possible Futures for East Sussex

### What options and alternatives are we going to choose between?

We know that a changing climate represents one of the defining challenges of the twenty-first century. Before considering the detail of the evidence, methods, findings and opportunities contained within this report, it is important to establish a clear vision for the future. What kind of East Sussex do we want to create? What future are we choosing through the decisions we make today?

The future is not predetermined. The choices made now by organisations, communities, businesses and residents will shape the extent to which East Sussex is

able to adapt, thrive and prosper in a changing climate. Environmental challenges, a changing climate and public health presents risks, but it also presents opportunities. The question is not whether change will occur, but how prepared we choose to be.

## This HIA identifies three broad future pathways for East Sussex:

## Option 1: Act, Mobilise, Integrate and Thrive

This pathway involves early action, collective leadership, coordinated investment and system-wide adaptation. Climate and health considerations become embedded across decision-making, services, infrastructure and communities. Organisations work together to maximise co-benefits, reduce inequalities and build resilience. This pathway delivers a healthier population, stronger communities, a more resilient economy and a more sustainable environment.

## Option 2: Hesitate and Incrementally Respond

This pathway is characterised by partial action, fragmented implementation and a tendency towards reactive rather than preventative responses. Some progress is made, but opportunities are missed, adaptation is slower than required and climate impacts increasingly place pressure on public services, infrastructure and budgets. Costs continue to rise as organisations are forced to respond to increasingly frequent climate-related events.

## Option 3: Delay, Fragment and React

This pathway is characterised by insufficient adaptation, limited collaboration and continued reliance on crisis management. Climate risks increasingly affect health, wellbeing, infrastructure, services and local economies. Inequalities widen, costs escalate and resilience is weakened. Public services become increasingly focused on responding to emergencies rather than preventing them.

The preferred future for East Sussex is clearly **Option 1**.

Option 1 offers the greatest opportunity to secure a healthy, prosperous, resilient and environmentally sustainable future. It is the pathway most likely to protect vulnerable populations, reduce future costs, strengthen public services and create places where people can thrive. This HIA has been developed to support the delivery of this future.

## 7.1. Vision for East Sussex

'A united, resilient, prosperous and thriving East Sussex where climate adaptation is embedded across people, places, communities, services, sectors and landscapes, enabling everyone to live healthy, safe and fulfilling lives despite a changing climate. Through early action, collective leadership, coordinated investment and system-wide adaptation, climate and health considerations and opportunities are integrated into decision-making, infrastructure and service delivery. Working together, we prevent and minimise climate-related health impacts and environmental risks, reduce inequalities, strengthen resilience and maximise the social, economic and environmental co-benefits of adaptation. By investing in resilience today, East Sussex creates stronger communities, a more resilient economy and a sustainable environment, securing lasting benefits for current and future generations.'

Achieving this vision will require climate and health considerations to become embedded across all aspects of decision-making. It will require organisations to move beyond traditional boundaries and work collectively to protect and enhance the social, economic, environmental and community assets that underpin health and wellbeing.

This is demonstrated in the graphic vision below:



AI generated image using Microsoft Bing for report.

The detailed route towards this vision is set out through the considerations, opportunities and action steps presented throughout this report in PART 3:

1. The Health Effects of Climate Change (Part 3A)
2. Priority Wider Determinants of Health (Part 3B)
3. Systemwide Sectors, Services and Stakeholders (Part 3C)
4. Vulnerable Population Groups (Part 3D)
5. Vulnerable Settings (Part 3E)
6. Systemwide Win-Wins and Co-Benefits (Part 3F)
7. Delivering Assets Based Systemwide Resilience and Protection (Part 3F)

Importantly, East Sussex is entering a period of significant institutional change through **Local Government Reform and the establishment of a Mayoral Combined County Authority**. Rather than viewing this transition as a challenge alone, it should be seen as a once-in-a-generation opportunity to create an East Sussex renaissance: a renewal of local leadership, partnership working and place-based action.

A new unitary authority, working alongside empowered local communities, town and parish councils, businesses, anchor institutions and voluntary sector partners, presents a significant opportunity to accelerate climate adaptation and health improvement. The reforms create the potential to strengthen strategic planning, align investment, deliver integrated spatial and growth strategies and build resilience at every level of the system. Climate and health should therefore become foundational principles within the future governance, development and prosperity of East Sussex.

## Phases for Delivering the Vision

Delivering this vision will not happen overnight. Climate adaptation, resilience building and system transformation are long-term endeavours that require sustained commitment over decades. The HIA recognises that meaningful change occurs through a series of stages rather than a single intervention.

This report represents the first phase of a longer journey. The future phases of work are designed to support East Sussex in moving progressively from mobilisation and implementation towards full integration and long-term adaptation.

The phased approach mirrors recognised climate projection timeframes and adaptation planning horizons, allowing East Sussex to align local action with evolving evidence, policy developments and emerging climate risks.

- Phase 2 Delivery and Implementation: Mobilisation (2026–2030)
- Phase 3 Delivery and Implementation: Scale-Up (2030–2040)
- Phase 4 Delivery and Implementation: Integration (2040–2050)
- Phase 5 Delivery and Implementation: Adapted and Thriving (2050–2080)

The ultimate ambition is not merely to survive a changing climate, but to create a healthier, fairer, more prosperous and more resilient East Sussex because of the choices made today.

## 7.2. Implementation Road Map, Timelines and Milestones for Delivery

Delivering the vision set out within this HIA will require sustained commitment, partnership working and continuous improvement over several decades. Climate adaptation is not a single intervention but a long-term process of mobilisation, implementation, learning, integration and transformation. Recognising this, the East Sussex Systemwide Environment, Climate and Health Impact Assessment has been designed as a living framework that will evolve alongside emerging evidence, changing climate risks and system priorities.

To support continuous improvement and maintain strategic relevance, the HIA will be formally reviewed and refreshed every five years. The refresh process will commence during the fourth year of each cycle, allowing sufficient time to undertake key components of the HIA methodology, including stakeholder engagement, evidence review, data collection and triangulation, policy analysis, evaluation of progress, identification of emerging risks and opportunities, and report production. This cyclical approach will ensure that the HIA remains responsive to new evidence, changing local circumstances and developments in climate science, health policy and adaptation practice.

The delivery phases set out below, have been intentionally aligned with recognised climate projection and adaptation planning timeframes to facilitate consistency with national climate scenarios, evidence updates and long-term resilience planning. Together, these phases provide a structured roadmap for progressing from mobilisation and implementation towards full integration and long-term adaptation.

The adoption of a **projection to 2080** reflects the fact that environmental risks and a changing climate is a long-term challenge whose impacts on health, communities, infrastructure and services will continue to develop over decades. Risks such as rising temperatures, more frequent extreme weather events, flooding, coastal change and emerging health threats will not occur in isolation but will interact with demographic, social and economic changes over time. A longer-term outlook therefore enables East Sussex to plan for the scale and trajectory of future risks rather than relying on short-term or reactive responses.

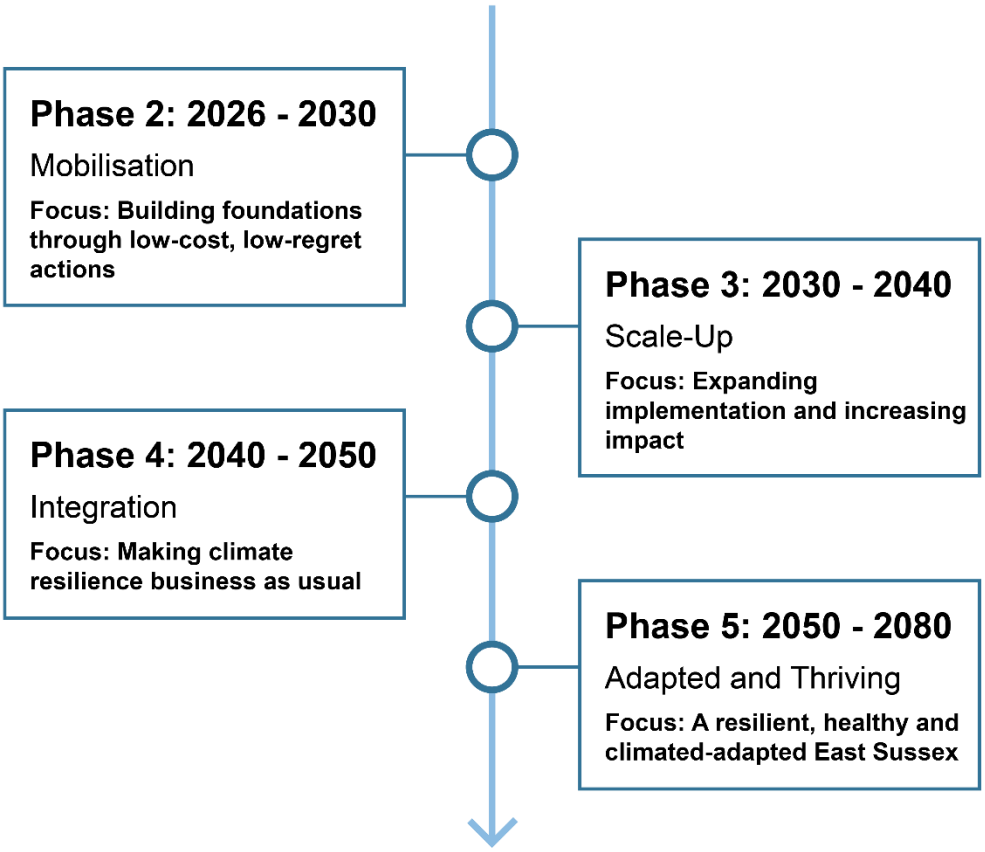
Looking ahead to 2080 also supports prevention and adaptation. Many of the most effective interventions—including housing improvements, infrastructure adaptation, spatial planning decisions and service transformation—require significant lead-in

times before benefits are realised. Early action can reduce future vulnerability, avoid locking in risks and deliver immediate as well as long-term resilience benefits.

The extended timeframe provides a framework for phased action, allowing East Sussex to move progressively through mobilisation, scale-up, integration and ultimately adaptation. It supports better alignment of investment, policy and service planning while allowing flexibility to respond to new evidence and changing climate conditions.

A long-term perspective also strengthens the economic case for action. By making future risks and costs visible, it highlights the benefits of investing early in prevention and resilience rather than paying significantly higher costs associated with emergency response, recovery and system disruption later.

Ultimately, projecting to 2080 recognises that environmental risks and a changing climate is an intergenerational issue. Decisions made today will shape the health, wellbeing and resilience of future populations. Taking a long-term view helps ensure that East Sussex's communities, services and infrastructure are prepared not only to withstand future climate impacts, but to support healthier, fairer and more resilient outcomes for generations to come.



## Phase 2 Delivery and Implementation: Mobilisation (2026–2030)

### Low-cost, low-regret actions with immediate benefits

This phase focuses on building momentum by establishing the governance, partnerships and delivery arrangements needed to embed climate-health considerations across organisational planning and decision-making. Key priorities include developing delivery plans, integrating considerations and opportunities into policies and services, creating climate-health training programmes, developing local data profiles, and identifying early "quick wins" that demonstrate progress and build confidence. The emphasis should be on low-cost, low-regret actions that lay the foundations for long-term implementation while delivering immediate benefits.

Key priorities include:

- Working with partner organisations to establish SMART objectives aligned to the HIA the considerations, opportunities and action steps.
- Developing a system-wide Delivery Plan and populating the HIA Implementation Support Tool (Appendix C).
- Establishing governance arrangements, partnership structures and reporting mechanisms.
- Undertaking detailed thematic assessments where further evidence is required.
- Developing and delivering climate and health training programmes across sectors.
- Continuing to advance and integrate climate-health considerations within policies, strategies and plans.
- Developing a Climate and Health Charter and supporting Memoranda of Understanding (MoUs) between partners.
- Embedding climate and health considerations into service delivery, commissioning, investment and operational practice.
- Producing local Climate and Health Data Profiles to support neighbourhood planning and place-based action.
- Developing a locally adapted Place Standard Tool to support decision-making across communities and places.
- Identifying and implementing "quick wins" capable of demonstrating early progress, building confidence and generating momentum.

The mobilisation phase is intended to focus primarily on actions that are practical, affordable, achievable and capable of delivering immediate benefits whilst laying the foundations for larger-scale transformation.

## Phase 3 Delivery and Implementation: Scale-Up (2030–2040)

### Expanding implementation and increasing impact

This phase focuses on moving from planning and pilot activity to large-scale implementation across the East Sussex system. Successful initiatives will be expanded and embedded across sectors and geographies, supported by stronger cross-sector collaboration. Key priorities include delivering larger adaptation projects, developing supporting action plans, expanding education and workforce development programmes, and integrating climate-health considerations into mainstream service delivery. Successful initiatives developed during Phase 2 will be expanded, strengthened and embedded across sectors and geographies.

Key priorities include:

- Scaling up successful adaptation and prevention programmes.
- Delivering larger cross-sector and place-based climate-health projects.
- Developing supporting action plans across key policy areas and sectors.
- Expanding workforce development, education and climate-health literacy programmes.
- Strengthening partnerships and collaborative delivery arrangements.
- Increasing community engagement and participation in adaptation activity.
- Embedding climate-health considerations into mainstream service delivery and organisational practice.

The scale-up phase aims to accelerate delivery and ensure that climate adaptation becomes increasingly visible within local decision-making, investment and service provision.

## Phase 4 Delivery and Implementation: Integration (2040–2050)

### Climate and health resilience become business as usual

By this stage, climate resilience and health improvement should be fully embedded across the East Sussex system, becoming integral to governance, policy development, investment decisions and service delivery rather than a separate programme of work. Earlier investments and successful innovations will have become business as usual, generating long-term benefits through improved health outcomes, increased community resilience and avoided climate-related costs. Modelling undertaken as part of this HIA suggests that, by 2050, substantial financial savings could be realised through the successful implementation of preventative adaptation measures and the reduction of climate-related health impacts.

By this stage, climate resilience and health improvement should be fully embedded across the East Sussex system. Adaptation is no longer viewed as a separate programme of work but as an integral component of governance, policy development, investment decisions and service delivery.

Key priorities include:

- Embedding climate-health resilience as standard practice across organisations and sectors.
- Integrating governance arrangements across climate, environment, health and wider determinants agendas.
- Aligning policies, assessments, strategies and investment frameworks.
- Scaling and mainstreaming successful innovations and proven interventions.
- Undertaking formal evaluations and using findings to refine future approaches.
- Strengthening monitoring, accountability and performance management arrangements.
- Realising increasing returns on earlier investments through avoided costs, reduced risks and improved outcomes.

By 2050, modelling undertaken as part of this HIA suggests that East Sussex could realise approximately **£50 million in avoided costs and financial benefits** through reduced climate-related health impacts and the successful implementation of preventative adaptation measures. This represents a strong economic case for early action and sustained investment.

## Phase 5 Delivery and Implementation: Adapted and Thriving (2050-2080)

### A resilient, healthy and climate-adapted East Sussex

The final phase represents the long-term vision of a climate-adapted East Sussex, where resilience is fully embedded across communities, infrastructure, services, organisations and governance. By this stage, climate adaptation is no longer about responding to risks but enabling communities to thrive in a changing climate. Decades of preventative action, investment and partnership working will have substantially reduced climate-related health impacts, while earlier investments continue to deliver social, economic, environmental and health benefits. East Sussex is recognised as a resilient county that anticipated change, acted early and successfully protected both population health and the natural environment, with sustained benefits supporting future generations.

At this stage:

- The most significant health impacts of a changing climate have been substantially reduced or avoided through decades of preventative action.
- Climate resilience is fully integrated into how East Sussex plans, invests and delivers services.
- Earlier investments continue to generate health, social, environmental and economic dividends.
- Resources can increasingly be reinvested into sustaining resilience and supporting future generations.
- Communities are stronger, healthier and better connected.
- Natural systems are more resilient and continue to provide benefits for people and place.
- Climate adaptation supports prosperity, wellbeing and sustainable growth.

East Sussex is recognised as a place that anticipated change, acted early and successfully protected both population and planetary health. Rather than simply coping with environmental risks and a changing climate, the county is thriving in a changed climate, demonstrating the value of long-term thinking, collective action and sustained investment in resilience.

The ultimate ambition is not merely to survive environmental challenges, environmental risks and a changing climate but to create a healthier, fairer, more prosperous and more resilient East Sussex because of the decisions made today.

## 7.3. Immediate Next Steps: Phase 2 Delivery and Implementation - Mobilisation (2026–2030)

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

Principles for delivery and implementation 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 use of systemwide quick wins, opportunities and co-benefits

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,

**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**

# 8. Summary of the High-Level Strategic Considerations and Opportunities

The following is a summary of the HIA **high-level strategic** considerations and opportunities co-developed by the East Sussex systemwide stakeholders across its sectors and services. Supporting practical implementation, additional detail on these considerations and opportunities is set out within the HIA in PART 3.

Recognising that organisations engage with climate change and health from different responsibilities, statutory duties and operational perspectives, the considerations, opportunities and action steps are presented through seven complementary lenses:

1. The Health Effects of Climate Change (Part 3A)
2. Priority Wider Determinants of Health (Part 3B)
3. Systemwide Sectors, Services and Stakeholders (Part 3C)
4. Vulnerable Population Groups (Part 3D)
5. Vulnerable Settings (Part 3E)
6. Systemwide Win-Wins and Co-Benefits (Part 3F)
7. Delivering Assets Based Systemwide Resilience and Protection (Part 3F)

## 8.1. Summary by The Health Effects of a Changing Climate

See **Part 3A** for more the more detailed 'considerations and opportunities and associated action Steps.

- **Alert about Aeroallergens:** Develop a coordinated approach to reduce respiratory health risks by creating an evidence-based planting list that balances public health, biodiversity, and climate benefits, alongside implementing a real-time aeroallergen alert system with targeted advice for vulnerable groups.

- **Improve Indoor and Outdoor Air Quality:** Adopt a whole-system, health-centred air quality strategy that applies the prevent → mitigate → avoid hierarchy to reduce pollution at source, lower environmental concentrations, and minimise exposure—while prioritising protection for vulnerable populations. This should include accelerating low- and zero-emission transport and active travel, lobbying for strengthening regulation of industrial, construction, agricultural, and domestic heating emissions, and embedding climate–health considerations in planning and development. Complement these measures by improving indoor and outdoor air quality through ventilation standards, green infrastructure, and targeted clean air zones, while empowering communities and healthcare professionals with real-time air quality information and guidance to reduce exposure. Delivery should be supported by equity-focused interventions in high-risk communities, strengthened monitoring and data transparency, alignment with WHO and UKHSA air quality guidelines, and coordinated cross-sector governance across public health, planning, transport, housing, and environmental systems.

- **Promote Food Systems, Food Supply and Food Security**: Promote a resilient, sustainable, and healthy local food system by investing in research and monitoring, empowering communities, expanding local food production and access, and strengthening connections across the local food economy.

- **Minimise Chemicals:** Protect public health and the environment by adopting a health-first chemical policy, phasing out harmful chemical use in public services, and prioritising soil restoration as a strategic resource for food security, climate resilience, and ecosystem health.

- **Prepare for Drought:** Boost climate resilience by mandating and incentivising rainwater harvesting, retrofitting water-saving infrastructure, and promoting community-scale systems to conserve water, reduce flooding and coastal impacts, and prepare for drought.

- **Prevent Flooding:** Enhance coastal climate resilience by integrating flood-resilient infrastructure, strengthened planning regulations, comprehensive risk assessments, community health and social support, and inclusive adaptation planning with local engagement and education.

- **Respond to Infectious Diseases:** Develop a climate-informed infectious disease prevention and preparedness system that shifts public health from reactive response to proactive risk management, while ensuring equity and environmental sustainability. This should include strengthening integrated surveillance and early warning systems that combine climate data, vector monitoring, and epidemiological intelligence, supported by advanced analytics and AI-driven modelling to anticipate outbreaks of climate-sensitive diseases. At the same time, policies should prioritise equity and protection for vulnerable populations, addressing the social determinants of health, safeguarding precarious workers, and ensuring fair access to healthcare and public health interventions. All preparedness and response measures should also incorporate sustainable and environmentally responsible practices, ensuring that climate adaptation actions minimise ecological harm and support long-term public and planetary health.

- **Plan for Climate-Driven Displacement and Migration:** Plan for climate-driven displacement and migration by integrating domestic and international mobility scenarios into local strategies, assessing infrastructure and housing impacts, and fostering inclusive, resilient communities through coordinated planning, education, and migrant-led initiatives.

- **Protect against Sun and Ultraviolet Rays:** Enhance heat resilience and equity by integrating urban cooling design, ensuring universal access to safe shaded spaces, promoting UV risk awareness, and innovating with sustainable solar-powered shading solutions.

- **Manage Temperatures and Extreme Temperatures:** Advance climate resilience and public wellbeing by expanding climate-smart urban greening, regenerating public spaces for year-round use, and promoting climate-adaptive housing and neighbourhood design.

- **Deliver on Transitioning and Adapting Infrastructure**: Deliver an integrated, inclusive and equitable net zero transition by aligning climate adaptation, infrastructure investment, public health, and economic resilience through community engagement, workforce development, healthy housing, clean energy reform, and transparent communication.

- **Address Vector-borne Diseases:** Strengthen vector-borne disease resilience through localised risk assessment, cross-sector workforce collaboration,

community engagement, sustainable environmental design, and the strategic use of innovation, technology, and governance.

- **Prepare for Wildfires:** Build wildfire resilience through integrated land-use planning, proactive vegetation management, community preparedness, strengthened emergency response, ongoing research and innovation, and continuous learning from past wildfire events.

- **Protect from Extreme Wind and Extreme Winds:** Increase resilience to extreme wind events by strengthening buildings and infrastructure, protecting vulnerable residents, integrating wind risks into emergency planning, investing in nature-based defences, ensuring power continuity, and delivering inclusive public health and safety communications.

## 8.2. Summary by Priority Wider Determinants of Health

See **Part 3B** for more the more detailed considerations and opportunities and associated action Steps.

- **Advance Active Travel:** Further build and develop a climate-resilient, health-promoting active travel system that makes walking, cycling, and other low-carbon transport safe, appealing, and accessible part of daily life all year-round, while integrating emissions reduction, public health, and behavioural change strategies.

- **Arts and Culture**: Position arts, culture and heritage as core components of East Sussex's climate resilience, health improvement and community wellbeing infrastructure by embedding creative approaches within climate adaptation, public health, community resilience and place-based development. Through cross-sector collaboration, creative health, community participation and cultural leadership, harness the power of arts and culture to strengthen mental wellbeing, reduce climate anxiety, foster social connectedness, inspire climate action, support behaviour change and build healthier, more resilient and climate-ready communities.

- **Economic Development, Regeneration, Employment and Skills:** Transform East Sussex into a climate-resilient, low-carbon and inclusive economy by embedding health, climate and sustainability across economic development, regeneration and investment. Integrate climate risk into economic planning, safeguard vulnerable sectors, jobs and infrastructure, strengthen food, energy and resource security, foster green innovation and skills, and co-design healthy, resilient

places. Align public and private investment around shared health, environmental and economic outcomes to drive adapting infrastructure, reduce inequalities, strengthen local resilience and support sustainable prosperity.

- **Support Mental Health:** Build a psychologically resilient society by integrating climate–mental health strategies into education, healthcare, adaptation, and policy—ensuring proactive prevention, equitable support, and community-driven healing in the face of environmental challenges and a changing climate.

- **Adapt Physical Activity:** Create an inclusive, climate-resilient movement ecosystem that ensures safe, equitable, and adaptive opportunities for physical activity across all environments, life stages, and abilities—before, during, and after climate extremes. Ensure everyone can stay active, healthy, and connected in a warming world by building an equitable, climate-resilient movement ecosystem that adapts spaces, guidance, technology, and community support to all abilities and conditions.

- **Promote Climate Responsive Climate-Responsive Sleep and Recovery Environments:** Safeguard sleep health in a warming world by combining climate-adaptive housing design, resilient cooling solutions, and public education to reduce heat and environmental stress impacts on rest and recovery.

- **Enhance Social Connectedness Under the Stress of a Changing Climate:** Strengthen community resilience and wellbeing under climate stress by protecting and enhancing social connectedness and community cohesion. This should involve investing in climate-adaptive public spaces that enable safe social interaction during extreme weather, supporting intergenerational and peer-led community networks that promote physical activity, shared support, and regular wellbeing checks, and leveraging digital tools to maintain communication and mutual aid during climate-related disruptions or disasters. Together, these measures can help reduce social isolation, support mental and physical health, and build stronger, more resilient communities capable of responding collectively to climate-related challenges.

## 8.3. Summary for Systemwide Sectors, Services and Stakeholders

See **Part 3C** for more the more detailed considerations and opportunities and associated action Steps.

- **Agriculture:** Advance a climate-resilient, net-zero, and health-protective land use system by fostering cross-sector collaboration, supporting regenerative local

food production, integrating multi-purpose and adaptive land management, and safeguarding communities from environmental and disease-related risks while strengthening ecosystem services.

- **Community Voluntary Sector:** Empower and integrate the Community Voluntary Sector (CVS) as a central partner in countywide climate–health resilience by establishing a unified vision, building climate–health literacy, fostering grassroots ownership, embedding CVS into statutory systems, leveraging research and lived experience, strengthening emergency readiness, and supporting inclusive, peer-led, and youth-driven initiatives that reach all communities.

- **Economic Development, Regeneration, Employment and Skills:** Deliver and strengthen climate-health-inclusive regeneration that drives Net Zero, health equity, and resilient local economies by embedding health and climate in all strategies, decarbonising and localising economic systems, fostering green innovation, co-designing inclusive developments, and aligning public–private investment around shared indicators that link growth to environmental and wellbeing outcomes.

- **Education:** Champion and transform education systems to equip every learner, educator, and school community with the skills, infrastructure, and practices needed for climate resilience, health, and equity—embedding climate literacy across the curriculum, future-proofing school environments, fostering sustainable travel and nutrition, integrating health and safety measures, and ensuring inclusive, community-connected learning that prepares young people for a net-zero, climate-adapted future.

- **Environmental Services:** Strengthen environmental health resilience by embedding cross-sector governance, sustainable land and water management, clean air and waste systems, and vector control into coordinated local strategies—leveraging nature-based solutions, circular economy principles, data sharing, and inclusive community engagement to protect ecosystems, public health, and climate readiness.

- **Emergency Services:** Build an integrated, climate-ready emergency response system that unifies public alerts, multi-hazard simulation, inclusive community engagement, resilient equipment, interagency resource sharing, and mobile access innovations—while incorporating wildfire-specific training, infectious disease protocols, global best practices, and adaptive routing to protect all populations under increasingly complex and overlapping climate threats.

- **Health and Social Care:** Transform health and social care into a climate-resilient, equitable, and net-zero system by prioritising prevention for the most

vulnerable, embedding climate risk into governance and service delivery, decarbonising and adapting infrastructure, safeguarding mental and physical health, ensuring secure food, water, and energy supplies, protecting against environmental hazards, and strengthening community partnerships, multi-hazard preparedness, and integrated system-wide leadership to maintain care continuity under escalating climate threats.

- **Housing:** Champion, create and foster a climate-resilient, health-promoting, and low-carbon housing systems by prioritising equitable retrofits, embedding climate-smart design in all new builds, integrating active and healthy neighbourhood planning, safeguarding air and water quality, mitigating health and chemical risks, enhancing flood and drought resilience, and preparing adaptable housing solutions to support climate displacement and migration.

- **Media:** Build an inclusive, solutions-focused climate–health communication ecosystem that promotes trust, hope, and action by pairing urgent risks with tangible solutions, amplifying diverse and local voices, using accessible and creative formats, championing equitable climate–health literacy, countering misinformation, and linking storytelling directly to protective behaviours and community engagement.

- **Members of the Public:** Empower individuals and communities to protect health and advance climate resilience by building climate–health literacy, adopting regenerative daily habits, safeguarding personal and neighbour wellbeing during extreme events, fostering inclusive and connected neighbourhoods, and advocating for systemic policies that deliver climate–health equity.

- **Planning:** Further develop and strengthen the embedding of climate–health priorities into all planning policy, design standards, and development processes by mandating resilient, low-carbon, and inclusive urban form; enforcing compliance with climate–health outcomes; integrating nature-based and hazard-specific design solutions; protecting food systems and vulnerable populations; and aligning local planning with national standards to deliver healthier, safer, and more climate-adapted places.

- **Private Industry and Procurement:** Develop a climate-resilient, healthy and sustainable private sector across East Sussex by embedding climate adaptation, environmental sustainability, population health and health equity into business leadership, governance and decision-making. Through collaborative action, responsible investment, resilient workplaces, sustainable operations and innovation, businesses should reduce environmental impacts, protect workforce and community health, strengthen economic resilience, and support the

transition to a fair, low-carbon economy that benefits both people and the planet.

- **Transport:** Expand the delivery of a climate-resilient, net-zero, and health-promoting transport system by decarbonising fleets, expanding active and inclusive travel infrastructure, integrating local food and logistics systems, safeguarding access to health and emergency services, and embedding hazard-specific, climate-adapted design to protect communities, reduce inequities, and maintain mobility under changing climate conditions.

- **Utilities:** Further develop resilient, equitable, and climate-adapted utility systems by accelerating the transition to community-beneficial clean energy, modernising and safeguarding water infrastructure, embedding climate resilience into all utility design and operations, protecting vulnerable households from energy and water insecurity, integrating data and risk-sharing across sectors, and ensuring participatory governance that aligns with health, equity, and environmental goals.

## 8.4. Summary by Vulnerable Population Groups

See Part **3D** for more the more detailed considerations and opportunities and associated action Steps.

- **Adults (25-64 years of age):** Create a climate-resilient workforce and working-age population that is protected from climate-related health risks, empowered to contribute to climate action, and supported by healthy, sustainable and adaptive workplaces that enhance productivity, wellbeing, economic resilience and population health.

- **Children and Young People:** Adopt a child-centred, climate-resilient health approach that prioritises the protection, wellbeing, and future health of children and young people by integrating their needs across climate, public health, education, planning, and environmental policies. This should focus on reducing children's exposure to climate-related risks such as air pollution, extreme heat, infectious diseases, and flooding; creating safe, healthy, and sustainable environments in homes, schools, and communities; and ensuring health systems are equipped to recognise and respond to climate-related health impacts on children. Action should also prioritise reducing inequalities affecting vulnerable children, support mental health and wellbeing in the context of a changing climate, and enable meaningful participation of children and young people in shaping climate and health solutions. Strengthened monitoring, research, and

cross-sector collaboration will be essential to ensure evidence-based policies that safeguard the long-term health and resilience of future generations.

- **Ethnic Minority Groups:** Create a climate-resilient East Sussex where ethnic minority communities are protected from climate-related health risks, experience equitable access to healthy environments, housing, services and opportunities, and benefit fairly from climate adaptation and the transition to a low-carbon economy. Through inclusive decision-making, culturally responsive services and targeted action on environmental inequalities, climate adaptation should contribute to improved health outcomes, stronger community resilience, greater social inclusion and reduced health inequalities.

- **Gypsey and Traveller Communities:** Create a climate-resilient East Sussex where Gypsy and Traveller communities are protected from climate-related health risks, able to access trusted information and services, live in safe and resilient environments, and are actively involved in shaping the policies and decisions that affect them. Through a strengths-based and community-centred approach, climate adaptation should contribute to improved health outcomes, reduced inequalities, stronger community resilience and greater trust between services and communities.

- **Homeless:** Create a climate-resilient East Sussex where people experiencing homelessness are protected from climate-related health risks, have access to safe and climate-adapted accommodation, receive integrated health and support services, and are actively involved in shaping the policies and services designed to protect them. Climate adaptation should contribute to preventing avoidable illness and deaths, improving health outcomes, reducing inequalities and strengthening inclusion health across the county.

- **Low Income Households:** Create a climate-resilient East Sussex where low-income households are protected from climate-related health risks, able to live in safe, affordable and climate-resilient homes, supported by strong community networks and able to benefit from the economic, health and social opportunities created through climate adaptation and the transition to a low-carbon economy. Through targeted investment and inclusive decision-making, climate action should reduce fuel poverty, improve health outcomes, strengthen financial resilience and narrow health inequalities.

- **Older Adults (65+ years of age):** Develop a climate-resilient ageing population by embedding climate adaptation, health protection, accessible housing, community resilience and age-friendly environments across health and care services, housing, infrastructure, emergency planning and local communities. This will enable older adults to maintain their health, wellbeing, independence

and social connectedness while reducing climate-related illness, avoidable hospital admissions, mortality and inequalities.

- **People with Disabilities and Long-Term Health Conditions:** Create a climate-resilient, inclusive and accessible system that proactively identifies, protects and supports people with disabilities and long-term health conditions before, during and after climate-related events. This should ensure continuity of care, safeguard access to essential medicines, medical equipment and support services, strengthen individual and community resilience, and reduce climate-related health inequalities.

- **Women and Girls:** Create a climate-resilient East Sussex where all women and girls can live safely, healthily and equitably in a changing climate, supported by resilient services, climate-adapted homes and communities, accessible infrastructure, responsive health and care systems, and inclusive decision-making processes that reduce gender inequalities and improve health, wellbeing, safety and opportunity.

## 8.5. Summary by Vulnerable Settings

See **Part 3E** for more the more detailed considerations and opportunities and associated action Steps.

- **Care Homes:** Create a climate-resilient care home sector across East Sussex that protects residents, staff and services from climate-related risks while supporting healthy ageing, reducing avoidable illness and mortality, maintaining continuity of care and strengthening resilience across the wider health and care system. Through proactive adaptation, care homes should become safer, healthier, more sustainable and better equipped to respond to the challenges of a changing climate.

- **Community Sports Facilities:** Create a climate-resilient network of community sports facilities across East Sussex that protects public health, supports physical activity and wellbeing, strengthens community resilience and maintains access to sport and recreation despite increasing climate-related challenges. Through resilient buildings, sustainable grounds management, nature-based solutions and adaptive infrastructure, sports facilities should contribute to healthier communities, environmental sustainability and long-term climate resilience.

- **Hospices:** Create a climate-resilient hospice sector across East Sussex that safeguards patient comfort, dignity, wellbeing and quality of care while maintaining continuity of specialist palliative and end-of-life services during

climate-related events. Through resilient facilities, climate-aware clinical practice, strong partnership working and adaptive leadership, hospices should be equipped to protect patients, families, carers, staff and volunteers from climate-related risks whilst strengthening resilience across the wider health and care system.

- **Hospitals:** Create a climate-resilient acute care system across East Sussex that protects vulnerable patients, supports staff, maintains critical services, strengthens hospital infrastructure and reduces climate-related disruption to care. Hospitals should be equipped to anticipate, absorb, respond to and recover from climate-related events while continuing to deliver safe, high-quality and sustainable healthcare.

- **Nurseries and Early Years Settings:** Create a network of climate-resilient early years settings across East Sussex that protects young children from climate-related health risks, maintains safe and nurturing environments, supports healthy child development and ensures continuity of childcare provision during extreme weather events. Through resilient buildings, climate-adapted outdoor spaces, secure infrastructure and long-term investment, nurseries and early years settings should contribute to improved health, wellbeing, resilience and life chances for current and future generations.

- **Nursing Homes:** Create a climate-resilient nursing home sector that proactively identifies and manages climate-related health risks, protects clinically vulnerable residents, maintains continuity of healthcare delivery and strengthens resilience across the wider health and care system. Through climate-informed clinical practice, resilient infrastructure, strong governance and integrated partnership working, nursing homes should be equipped to prevent avoidable illness, reduce hospital admissions and maintain safe, effective and person-centred care during climate-related events.

- **School Buildings:** Create a climate-resilient, healthy and sustainable school estate across East Sussex that protects pupils, staff and educational infrastructure from climate-related risks while maintaining safe, comfortable and effective learning environments. School buildings and grounds should be capable of adapting to future climate conditions, supporting biodiversity, reducing environmental impacts and contributing to wider community resilience.

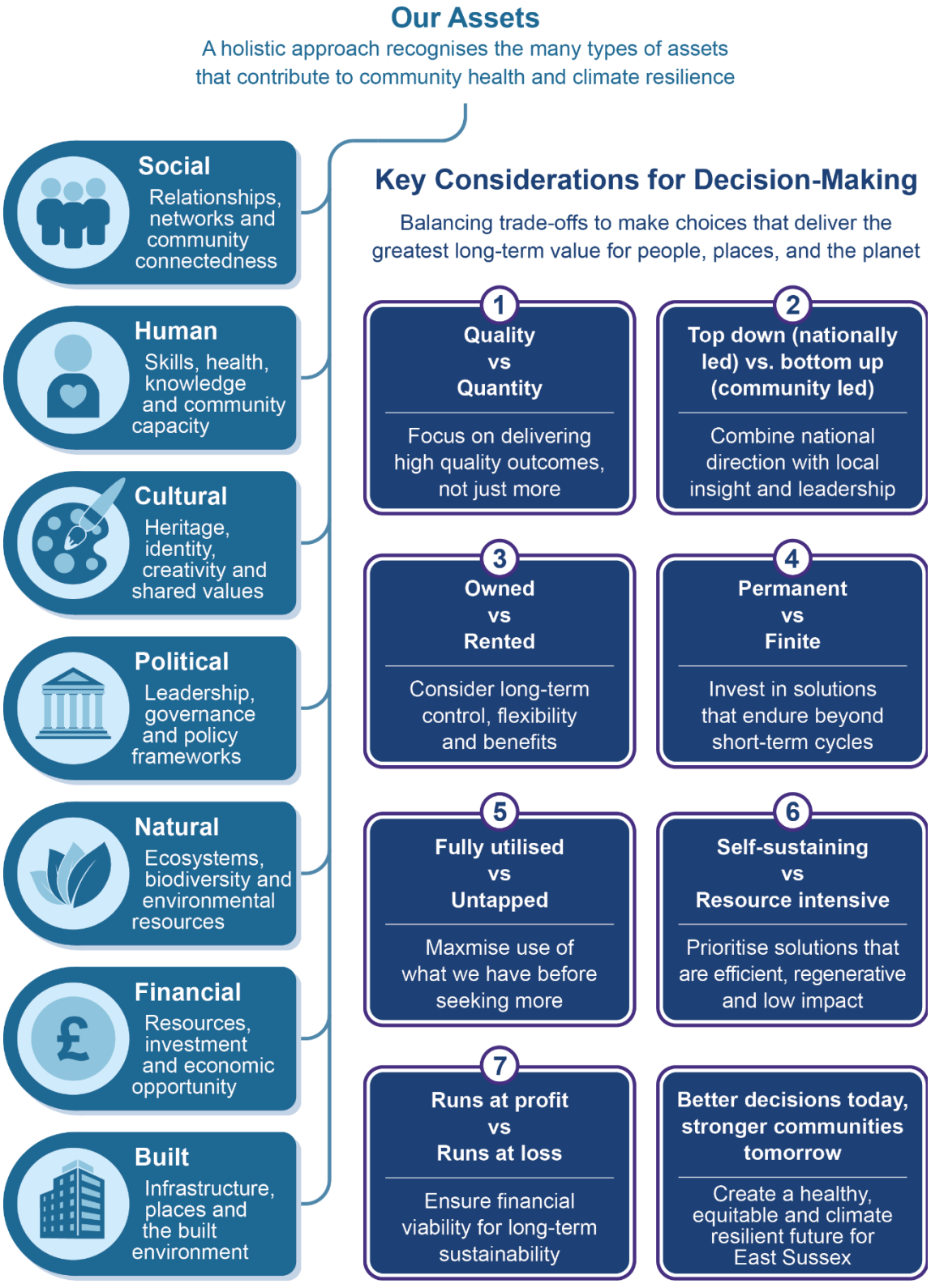
## 8.6. Summary by Systemwide Win-Wins and Co-Benefits

See **Part 3F** for more the more detailed considerations and opportunities and associated action Steps.

- Embed Population and Planetary Health in All Policies and Approaches by ensuring that climate action, health improvement, nature recovery and social equity are planned and delivered together. Systematically identify, maximise and communicate the environmental, health, social and economic co-benefits of climate action, strengthen nature-based solutions and ecological resilience, and adopt integrated climate–health communication and engagement approaches that inspire collective action, improve wellbeing and build healthier, more resilient and sustainable communities across East Sussex.

# 8.8. Summary for delivering Assets Based Systemwide Resilience and Protection

See **Part 3F** for more the more detailed considerations and opportunities and associated action Steps.



- Develop an asset-based approach to climate adaptation by protecting, strengthening and mobilising East Sussex's social, human, cultural, political, natural, financial and built assets to improve population health, reduce inequalities and strengthen whole-system resilience. Through collaborative stewardship, integrated planning, asset mapping and strategic investment, maximise the value of existing assets while ensuring they remain resilient to current and future climate risks.

# 9. Introduction

## 9.1. Climate and Health Implications for East Sussex

A changing climate is now the context within which health protection, healthcare delivery and public health practice must operate. It will increasingly shape how we protect populations from environmental hazards, infectious diseases and future public health emergencies, whilst also introducing new and emerging challenges such as heatwaves, wildfires, drought, flooding, vector-borne diseases and future pandemic risks. Although everyone will experience some degree of climate-related risk, the impacts will not be felt equally. Environmental challenges and risks through a changing climate act as a threat multiplier, amplifying existing inequalities and disproportionately affecting those who are already vulnerable due to age, disability, long-term health conditions, deprivation, poor housing, social isolation or limited access to resources.

National leadership, legislation and policy frameworks provide essential direction, but adaptation must ultimately be delivered locally and shaped by local circumstances. Understanding what climate resilience means for East Sussex, and how it can be achieved in ways that protect health, reduce inequalities and support sustainable development, is the challenge that this Health Impact Assessment seeks to address.

The HIA responds to a critical gap by translating global and national evidence into local intelligence, priorities and opportunities, placing East Sussex in a uniquely informed and empowered position to understand its specific climate-health risks and develop coordinated responses that reflect local people, places, communities and services.

Environmental challenges, risks and a changing climate is no longer a theoretical future threat but an emerging reality whose impacts are already being experienced locally, nationally and globally. The climate in East Sussex is changing and will

increasingly shape the context within which public services, communities, businesses and organisations operate throughout the twenty-first century. The challenge is no longer solely how East Sussex contributes to reducing greenhouse gas emissions and achieving net zero, but how the county collectively prepares for, responds to and adapts to the health, social, environmental and economic consequences of a changing climate.

The evidence demonstrates that climate risks and health impacts will not be experienced equally. There are significant geographical, demographic and socioeconomic differences in vulnerability. Some climate-related risks, including heat-related illness, drought, wildfire risk and emerging vector-borne diseases, are expected to emerge earliest and most significantly in southern regions of England. Other risks, including flooding, coastal erosion and sea-level rise, will disproportionately affect coastal communities, low-lying areas and settlements located within or near floodplains.

East Sussex faces a particularly distinctive climate-risk profile. Uniquely, Eastbourne, Hastings, Lewes, Rother and Wealden—have coastlines, exposing communities, infrastructure, businesses and services to coastal flooding, erosion and sea-level rise. The county also contains nationally significant landscapes, protected habitats and Areas of Outstanding Natural Beauty, which are central to local identity, economic prosperity, biodiversity, recreation and population wellbeing. These natural, environmental and community assets contribute significantly to the health and resilience of East Sussex but are increasingly vulnerable to climate-related pressures. Protecting, conserving, enhancing and adapting these assets will therefore be fundamental to securing the county's future prosperity and resilience.

The East Sussex Climate Risk and Vulnerability Assessment (2024) projects a future characterised by:

- Hotter, drier summers
- Milder, wetter winters
- Risks from heatwaves
- Flooding
- Drought
- Storms
- High winds
- Water scarcity
- Coastal change

Even under the most optimistic global emissions scenarios, these changes are expected to continue for decades to come. The long-term trajectory of a changing

climate means that adaptation is not optional; it is essential. Decisions made today will shape the resilience, health and wellbeing of future generations.

These climatic changes will have implications far beyond the natural environment. They will affect housing, transport networks, healthcare systems, social care provision, food systems, water resources, infrastructure, economic productivity and community resilience. A changing climate will influence the quality of the air people breathe, the availability and affordability of food and water, the safety and suitability of homes, and the ability of public services to operate effectively during periods of disruption. It is increasingly recognised as both a health protection challenge and a wider systems challenge.

The UK Health Security Agency (UKHSA) has identified climate change as one of the most significant threats to future health security. Its report, Health Effects of Climate Change in the UK: State of the Evidence 2023, highlights that the scale and severity of future health impacts. The changing climate is expected to increase risks from flooding, overheating, poor air quality, infectious diseases, antimicrobial resistance, food and water insecurity, and other environmental hazards, creating growing pressures on health and care systems over the coming decades.

The evidence demonstrates that higher warming scenarios substantially amplify these risks. Flood risk, for example, is projected to increase significantly, with the number of people in the UK exposed to significant flooding projected to rise by 61% by 2050 under a moderate warming scenario (+2°C) and by 118% under a high warming scenario (+4°C) compared with current levels. They year **2026 is now recorded as the hottest summer in the UK to date**. According to the MET Office, the UK's highest June temperature on record of 37.7C (99.9F) was set on Friday 26 June 2026 at Lingwood, Norfolk smashing the previous high of 35.6C (96F) set in 1957 and equalled in the infamous 1976 heatwave. A rare red extreme heat warning was issued for parts of England and Wales.

Similarly, projected sea-level rise is highly sensitive to the degree of warming, with approximately one metre difference in expected sea-level rise between lower and higher warming scenarios. These findings are particularly relevant for East Sussex given its extensive coastline, coastal communities and concentration of people, infrastructure and services located within areas vulnerable to coastal and surface water flooding.

A changing climate also presents growing biological and infectious disease risks. Rising temperatures, changing weather patterns and shifting human behaviours are expected to increase the importation, establishment and transmission of infectious diseases and antimicrobial-resistant organisms. This has the potential to exacerbate the already significant challenge of antimicrobial resistance (AMR), whilst creating new public health risks. Higher and more rapid warming is expected to accelerate the establishment of disease vectors, including *Aedes albopictus* mosquitoes and the

expansion of existing *Culex* species populations. This, in turn, could increase the risk of vector-borne diseases such as dengue fever, chikungunya and West Nile virus. Under high-warming scenarios, much of England is projected to become climatically suitable for the establishment of new mosquito species by the 2040s and 2050s.

Evidence gathered through the East Sussex Climate and Health Resident Survey, stakeholder engagement and the wider HIA process demonstrates that many residents are already experiencing the effects of a changing climate. However, the assessment also shows that many of the most significant health impacts projected for East Sussex are not inevitable. Through timely mitigation, adaptation and resilience-building measures, substantial harm can be avoided whilst generating significant health, social, environmental and economic benefits. Rapid action is therefore critical, not only to reduce future risks but also to realise the wider opportunities that climate action can deliver.

The implications are clear: environmental challenges and a changing climate will increasingly become the context within which health protection, healthcare delivery and public health practice operate. Future health systems will need to respond not only to more frequent heatwaves, flooding events and poor air quality episodes, but also to emerging infectious disease threats, changing patterns of illness and growing pressures on vulnerable populations. A changing climate is therefore not simply an environmental issue; it is a health security issue that will influence how East Sussex protects its population, plans services, builds resilience and responds to future public health emergencies throughout the twenty-first century.

The implications for East Sussex's priority outcomes are profound. East Sussex County Council has identified four overarching priority outcomes that guide decision-making and resource allocation across the organisation:

- **Driving sustainable economic growth;**
- **Keeping vulnerable people safe;**
- **Helping people help themselves; and**
- **Making best use of resources now and for the future.**

Importantly, making best use of resources now and for the future acts as the Council's gateway priority, through which all activity, investment and resource decisions must pass. A changing climate and its impacts on health are intrinsically linked to each of these priorities and represent one of the most significant long-term challenges—and opportunities—for their successful delivery.

For **driving sustainable economic growth**: climate resilience is becoming a prerequisite for prosperity. Businesses, infrastructure, supply chains and workforces will all be affected by climate-related disruption. At the same time, the transition to a low-carbon and climate-resilient economy presents opportunities for green

growth, innovation, investment, skills development and employment. Supporting businesses and communities to adapt will be essential to maintaining East Sussex as an attractive place to live, work and do business.

For **keeping vulnerable people safe**: a changing climate acts as a threat multiplier. Older people, children and young people, people with disabilities and long-term conditions, low-income households, people experiencing homelessness and other vulnerable groups are likely to experience disproportionate impacts. Protecting these populations from climate-related risks will be fundamental to improving health outcomes and reducing inequalities.

For **helping people help themselves**: climate adaptation aligns strongly with efforts to build community resilience, strengthen social capital and support independence. Individuals, families and communities will increasingly need the knowledge, resources, skills and support networks required to prepare for and respond to climate-related events. Climate adaptation therefore provides opportunities to improve wellbeing, reduce inequalities and strengthen community capacity.

For **making best use of resources now and for the future**: climate adaptation represents a strong value-for-money proposition. Evidence consistently demonstrates that early action is more cost-effective than delayed action. Investing in prevention, resilience and preparedness can reduce future costs associated with emergency response, infrastructure damage, health impacts, service disruption and recovery. Climate adaptation is therefore not simply an environmental necessity but an essential component of prudent financial stewardship and long-term resource management.

Importantly, a changing climate should not be viewed solely through the lens of risk. It also presents one of the greatest **opportunities for improving population health**, **reducing inequalities and creating more resilient communities**. Many of the actions required to address environmental challenges and a changing climate can simultaneously deliver wider benefits. Improving housing quality can reduce fuel poverty and improve health. Investing in active travel can reduce emissions whilst increasing physical activity. Expanding green infrastructure can improve biodiversity, reduce flood risk, improve mental wellbeing and create healthier places. Strengthening local food systems can improve food security, nutrition and economic resilience.

A changing climate is therefore not the only challenge East Sussex faces, but it may provide a powerful catalyst for addressing many others. As a population, we continue to face challenges relating to obesity, poor nutrition, physical inactivity, mental ill-health and widening inequalities. If planned effectively, climate action offers an opportunity to improve population health, enhance wellbeing, create healthier places, strengthen communities and support sustainable prosperity.

Achieving this vision will require unprecedented collaboration across sectors, services and communities. National leadership remains important, but adaptation must ultimately be delivered locally and shaped by local context. Understanding what climate resilience means for East Sussex, and how it can be achieved in ways that protect health, reduce inequalities and support sustainable development, is the challenge that this Health Impact Assessment seeks to address.

Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex provides a unique opportunity to move beyond understanding the risks and towards identifying practical, coordinated and evidence-based solutions. It places East Sussex in a uniquely informed position nationally, providing the intelligence, partnerships and framework required to implement joined-up action that responds to local climate risks, protects vulnerable populations and delivers lasting benefits for health, wellbeing, prosperity and place.

Ultimately, environmental challenges, risks and a changing climate presents East Sussex with a choice. It can be viewed as an escalating pressure that places increasing strain on communities, services and budgets, or it can be used as a catalyst for transformation. A coordinated, health-focused and system-wide response offers an opportunity to improve population health, reduce inequalities, strengthen resilience, support sustainable economic growth and create a healthier, fairer and more prosperous future for current and future generations.

## 9.2.A Climate Hazards & Health Overview

Achieving net zero will not, in isolation, resolve the climate crisis. The relationship between people, places, the planet and the environments in which we live is both complex and deeply interconnected. Human health does not exist in isolation from the natural world; rather, it is shaped by the quality of our environment, the resilience of our communities, and the social, economic and ecological systems that sustain life. Everything we do to the planet; we ultimately do to ourselves.

As individuals and as a society, we influence and shape our environment through the choices we make, the systems we create and the resources we consume. In turn, the environment influences our health, wellbeing, opportunities and quality of life. The air we breathe, the water we drink, the food we eat, the homes we live in, the places we work and the natural spaces we enjoy all play a fundamental role in determining health outcomes. A changing climate is altering these relationships, often in ways that are complex, interconnected and sometimes unexpected.

The identified East Sussex ‘Climate Impacts and Health Golden Interactions’

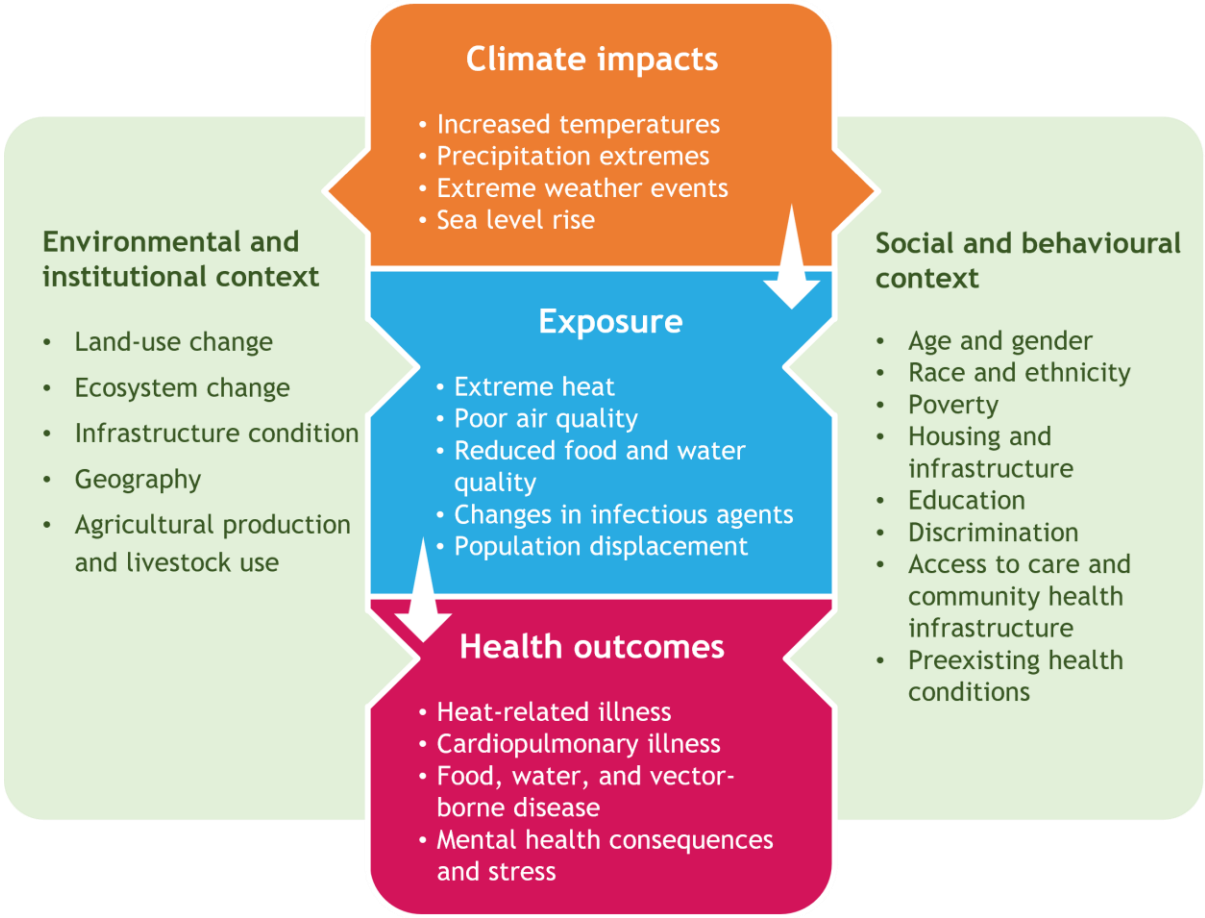
Table: Summary of Golden interactions

**Summary key changing climate/climate hazards and health impacts relevant to the East Sussex**

| | | | |
|---|---|---|---|
| | **Transitioning and Adapting Infrastructure** | | **Infectious Diseases** |
| - | Visual changes | - | More outbreaks and higher transmission |
| + | 'Green' jobs | - | Demand on health services |
| - | Job losses | | **Sun and ultraviolet rays** |
| | **Food Supply** | + | Benefits to wellbeing and vitamin D |
| + | Local healthy food production | - | Sunburn and increased risk of some cancers |
| - | Dependence on imported foods | - | Shade for outdoor spaces and routes |
| - | Agricultural pressures on land use | | **Chemicals** |
| | **Aeroallergens** | - | Greater release of historic contaminants |
| - | Pollen and fungal spores | - | Increased pesticide exposures |
| | **Wildfires** | | **Drought** |
| - | Forests available for recreation | - | Water shortages |
| | **Air Quality** | | **Flooding and coastal impacts** |
| - | Energy efficiency v. indoor air quality | - | Post flood damage, damp and mould |
| + | Sustainable travel health co-benefits | - | Direct flood and erosion risks |
| | **Vector-borne Diseases** | - | Access to local health services |
| - | Tick and mosquito habitat and design | - | Contaminants affecting water quality |
| | **Temperature** | - | Wider access to hospitals |
| + | Improved sports, leisure and recreation | | **Migration** |
| - | Bathing water algal blooms | - | In-migration affecting cohesion and isolation |
| - | Overheating in houses | - | Out-migration cohesion and isolation |

| | Transitioning and Adapting Infrastructure | | Infectious Diseases |
|---|---|---|---|
| + | Improved active travel use | - | Global in-migration pressure on housing and services |
| - | Extremes reducing active travel | - | Global in-migration infectious disease and immunity |
| - | Overheating in care homes | + | Global in-migration staffing boost |
| | | - | National in-migration pressure on housing and services |

The diagram below which has been adapted from the United States Environmental Protection Agency (US EPA, 2016) shows how a changing climate can affect people by changing their exposure to health threats (moving from top to bottom) and by influencing the environmental, institutional, social, and behavioural factors that affect a person's or community's health (moving through the boxes on the sides).




Despite these interdependencies, climate change policy and public discourse have historically focused predominantly on reducing carbon emissions and achieving net zero targets. Whilst decarbonisation remains essential, this focus has sometimes narrowed the conversation and overlooked a critical reality: a changing climate is already affecting people, communities and health systems today. A climate conversation centred solely on emissions reduction risks underestimating the urgent need to understand, prepare for and adapt to the health, social and economic impacts that are already occurring and will continue to intensify over coming decades.

Reducing emissions alone will not eliminate the climate risks that are now unavoidable. People are already experiencing the consequences of a changing climate through extreme weather events, overheating, flooding, food insecurity, poor air quality, changing disease patterns, displacement/migration pressures and disruptions to services and infrastructure. Adaptation and resilience must therefore sit alongside mitigation as equal priorities. We need approaches that not only reduce

emissions but also protect health, strengthen communities and build resilience to future climate conditions.

In this context, there is a need to move beyond a singular focus on emissions reduction toward a more comprehensive approach that embeds Environment, Climate and Health in All Policies and **Population and Planetary Health in All of Our Approaches**. This requires aligning mitigation and adaptation strategies with health improvement, equity, and resilience as core outcomes. Addressing environmental concerns and climate hazards must therefore go hand in hand with reducing health inequalities, ensuring that responses are both just and effective, and that they support healthier, more resilient communities in East Sussex and beyond.

This will require a broader and more integrated approach—one that places health, wellbeing and equity at the centre of climate action. A framework based on **'Population and Planetary Health in All of Our Approaches'** recognises that decisions relating to housing, transport, planning, food systems, energy, education, economic development and environmental protection all have consequences for both climate and health. By aligning these agendas, it becomes possible to deliver multiple benefits simultaneously: reducing emissions, improving health outcomes, strengthening resilience and creating healthier, more sustainable places.

A changing climate both exposes and amplifies existing inequalities. Access to healthy environments, secure housing, healthcare, education, employment, green space and clean air is not distributed equally, leaving some communities more exposed to climate hazards and less able to prepare for, respond to and recover from their impacts. Heatwaves, flooding, storms, drought and poor air quality directly increase health risks, while a changing climate also influences the wider environmental, social, economic and institutional determinants of health. Consequently, those already experiencing disadvantage—through poverty, poor health, inadequate housing or social isolation—often face the greatest climate-related impacts despite having the fewest resources to adapt. A changing climate therefore reinforces existing inequalities, effectively locking vulnerable populations into greater climate vulnerability. It is not simply an environmental issue, but a whole-system challenge that affects every aspect of health, wellbeing and resilience.

This reality of this raises important questions of fairness and social justice. The communities that contribute least to the changing climate are often those who experience its most severe consequences. In East Sussex, significant differences in health outcomes already exist between communities, with substantial variations in healthy life expectancy linked to deprivation and place. Globally, inequalities are even more pronounced. Climate hazards threaten to widen these disparities unless deliberate action is taken to ensure that adaptation and resilience-building efforts prioritise those at greatest risk.

Addressing environmental challenges and risks to population health, a changing climate and addressing health inequalities are therefore inseparable challenges. Climate adaptation that fails to consider health equity risks reinforcing existing disadvantage. Equally, efforts to reduce inequalities that do not account for environmental challenges, risks and a changing climate may prove unsustainable in the face of increasing environmental pressures. By addressing both together, East Sussex has an opportunity not only to reduce climate-related risks but also to create healthier, fairer and more resilient communities.

Ultimately, a changing climate should not be viewed solely as an environmental challenge. It is a public health challenge, a social justice challenge and a systems challenge. How East Sussex responds will influence not only the future health of its environment, but also the future health, wellbeing and prosperity of its people. The opportunity is not simply to avoid harm, but to create a future in which people and places are healthier, more resilient and better able to thrive in a changing climate.

## 9.3. Protecting Our Climate, Health and Health Systems

A meaningful response to climate hazards on our health and wellbeing requires more than an understanding of environmental change alone. It requires a comprehensive understanding of health, wellbeing, the wider determinants of health, and the **health and social care systems** that support individuals and communities throughout their lives. A changing climate is increasingly recognised not only as an environmental challenge, but as a challenge to the resilience, sustainability and effectiveness of health and social care systems themselves.

Traditionally, a changing climate has been viewed through the lens of environmental protection, carbon reduction and infrastructure resilience. Increasingly, however, there is recognition that a changing climate affects the conditions required for good health, the demand for health and care services, the ability of services to operate effectively, and the workforce required to deliver them. Understanding these interactions is essential if health and social care systems are to remain effective in a future characterised by increasing environmental uncertainty.

The World Health Organization (WHO) defines a health system as:

> "All organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities."

Importantly, this definition extends well beyond hospitals and healthcare facilities. It includes social care, public health, voluntary and community organisations, carers, families, educational institutions, housing providers, employers and the many sectors that influence the wider determinants of health. This broader perspective is particularly important when considering a changing climate because many of its impacts emerge through interconnected social, economic and environmental systems.

Health and social care systems perform several critical functions. They diagnose and treat illness, provide care and support, promote healthy behaviours, reduce inequalities, protect populations from health threats and support recovery and rehabilitation. They also contribute to economic productivity, social stability and community resilience. A changing climate has implications for each of these functions.

The challenge is not simply that a changing climate creates new health risks. It also places pressure on the systems designed to respond to those risks. Heatwaves, flooding, storms, poor air quality, infectious disease threats, food insecurity and infrastructure disruption can increase demand for services while simultaneously reducing the capacity of health and care systems to respond. A changing climate therefore represents both a population health challenge and a system resilience challenge.

## 9.4. The World Health Organisation and Health System Building Blocks

The WHO identifies six core building blocks that underpin a well-functioning health system. The changing climate has implications for each of these components.

1. **Health and Care Services**: Services must handle rising demands from heat-related illnesses, flooding, respiratory and mental health impacts, and infectious diseases while staying continuous during disruptions.
2. **Health and Care Workforce**: Staff face heat stress, extreme weather, and higher workloads, requiring specific training and psychological support to maintain resilience.
3. **Health Information Systems**: Systems must track climate-related risks, vulnerable populations, and emerging trends through enhanced climate intelligence and vulnerability mapping.
4. **Medicines, Technologies, and Essential Supplies**: Climate disruptions threaten supply chains, transport, and energy systems, making resilient procurement and resource management vital.

5. **Financing**: Systems need investment for decarbonization, adaptation, prevention, and resilience to reduce costs linked to climate-driven service failures.
6. **Leadership and Governance**: Effective adaptation requires strong leadership, cross-sector collaboration, long-term planning, and embedding climate change into strategic decision-making.

Together these building blocks provide a useful framework for understanding how a changing climate affects not only health outcomes but also the ability of health and social care systems to function effectively.

## 9.5. Working Towards Climate-Resilient Health Systems

Recognising these challenges, the WHO has spent more than a decade advocating for the development of climate-resilient health systems. In 2015, the WHO defined climate-resilient health systems as those that are capable of:

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"Anticipating, responding to, coping with, recovering from and adapting to climate-related shocks and stresses, so as to bring about sustained improvements in population health despite an unstable climate."

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This definition reflects an important shift in thinking. Resilience is no longer viewed simply as the ability to respond to emergencies. It encompasses prevention, preparedness, adaptation, recovery and transformation. A climate-resilient health system is one that continues to protect health despite changing environmental conditions and increasing uncertainty.

Internationally, there is growing recognition that climate adaptation cannot focus solely on hospitals and infrastructure. It must also address workforce resilience, social care provision, community services, public health functions, population vulnerability and health inequalities. A changing climate affects where demand emerges, who becomes vulnerable and how services need to operate.

### The UK Context

In the United Kingdom, adaptation within health systems has been driven by the Climate Change Act 2008, the National Adaptation Programme and the NHS adaptation agenda. Progress has been made in understanding climate risks, improving infrastructure resilience and embedding climate considerations within emergency preparedness arrangements.

However, national assessments have consistently highlighted the complexity of adapting health and care systems. Fragmentation between healthcare, public health and social care remains a significant challenge. Climate change does not recognise organisational boundaries yet planning and service delivery often remain divided across sectors, organisations and funding arrangements.

National policy increasingly recognises that future adaptation requires a broader perspective that extends beyond estates and infrastructure to include population health, social care, workforce planning and community resilience. This reflects growing evidence that the changing climate will influence future demand for services, patterns of illness and health inequalities.

The healthcare profession is also beginning to take a more active role. The inclusion of sustainability responsibilities within the General Medical Council's *Good Medical Practice* guidance represents an important step in recognising that responding to the changing climate is part of professional responsibility. However, evidence continues to demonstrate significant variation in awareness, engagement and preparedness across professions, organisations and sectors.

## 9.6. The 'Climate Change and Health Paradox'

'Climate Change Paradox: The Least Responsible for It Encounters the Most of Its Implications'

Apathy and anomaly, hypocrisy – Social injustice.

One of the most striking findings from this Health Impact Assessment is the existence of a series of interconnected **climate-health paradoxes**. These paradoxes help explain why climate change remains difficult to address despite overwhelming evidence of its impacts on health, wellbeing and health inequalities.

A paradox is a statement or situation that seems contradictory or absurd but, upon closer examination, may reveal a deeper truth or a valid point. It often involves seemingly incompatible ideas or qualities that coexist, challenging our normal expectations.

The '**climate change and health paradox**' refers to the situation where, despite overall improvements in global health, environmental challenges, risks and a changing climate is increasingly undermining these gains through various direct and indirect impacts on human health. While human health has generally improved in recent decades, with increased life expectancy and reduced child mortality, these advancements are threatened by the escalating effects of climate change.

The Climate Paradox is this: the leaders of our economy are knowingly taking steps in directly the opposite direction to that which is required to protect us from the reality of the damage caused by climate change.

The climate change paradoxes refer to counterintuitive or unexpected outcomes of climate change policies and actions. One example is the "Green Paradox," where policies aimed at reducing future emissions, like carbon taxes or renewable energy subsidies, can actually increase the short-term rate of fossil fuel extraction and emissions as resource owners try to get ahead of anticipated future price drops. Another paradox is the "Pollution Paradox," where reducing pollution from aerosols like sulphur dioxide, while beneficial in the long run for human health and the climate system, can lead to increased ocean warming in the short term by reducing the cooling effect of these aerosols.

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‘No good deed goes unpunished – and that includes trying to slow climate change.’

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The "**climate change and health paradox**" highlights the irony that while climate change exacerbates various health problems, efforts to address these health issues often contribute to further climate change.

This creates a cyclical problem. For example, treating heatstroke requires energy-intensive cooling measures, and using certain medications can have a large carbon footprint.

Examples of the paradox:

- **Inhalers**: Many inhalers contain HFCs, which are potent greenhouse gases, according to Inequality.org.
- **Healthcare infrastructure**: Hospitals and other healthcare facilities often have high carbon footprints due to their energy consumption and waste generation.
- **Transportation**: The healthcare system relies on transportation for patients, staff, and medical supplies, contributing to emissions.

Addressing this paradox requires a shift towards sustainable healthcare practices, including:

- **Reducing energy consumption**: Improving energy efficiency in healthcare facilities, transitioning to renewable energy sources, and promoting energy-efficient technologies.
- **Sustainable supply chains**: Choosing environmentally friendly materials and products, reducing waste, and minimizing transportation emissions.

- **Promoting healthy lifestyles**: Encouraging healthy eating, physical activity, and reducing exposure to pollution.
- **Policy and advocacy**: Advocating for policies that support sustainable healthcare and climate action.

This paradox is rooted in the energy-intensive nature of healthcare, which relies on fossil fuels for many operations and processes.

At its simplest, the climate and health paradox reflects the reality that many of the systems that have contributed to improvements in health, prosperity and quality of life are also contributing to environmental change that now threatens those same gains. Over the past century, advances in healthcare, housing, transport, food production, economic development and technology have helped increase life expectancy, reduce mortality and improve living standards. However, many of these achievements have been built upon patterns of consumption, resource use and economic growth that are now contributing to climate change and ecological degradation. As a result, the very systems that have improved health are increasingly undermining the environmental conditions upon which health depends.

This creates a profound challenge for public health. A changing climate is already affecting physical health through heat-related illness, respiratory disease, flooding, food insecurity and changing patterns of infectious disease. It is also affecting mental health through anxiety, trauma, ecological grief and concerns about the future. Yet many responses to these impacts can themselves increase environmental pressures. For example, increased reliance on air conditioning to manage overheating can increase energy demand and emissions; healthcare systems require energy-intensive infrastructure and supply chains; and adaptation measures can sometimes create unintended environmental consequences. This is often referred to as the climate-health paradox: efforts to protect health can, if not carefully designed, contribute to the problem they seek to address.

**A second paradox concerns inequality**. Those populations that have contributed least to the changing climate are often the most vulnerable to its impacts. Globally this is seen between higher-income and lower-income countries. Locally, it is reflected in the disproportionate impacts experienced by older people, people living in poverty, individuals with long-term health conditions, rural communities, coastal communities and those living in poor-quality housing. Climate change therefore acts as a threat multiplier, widening existing inequalities and creating new forms of vulnerability.

**A third paradox relates to prevention**. As described by Rose's Prevention Paradox, the greatest overall population health benefits often come from interventions that affect large numbers of people, even when individual benefits appear small. Climate

adaptation frequently requires population-wide measures such as improving housing quality, increasing urban greening, reducing air pollution, improving transport systems and strengthening community resilience. However, health and care systems are often organised around identifying and supporting those at highest risk. Both approaches are necessary, but balancing universal action with targeted support remains a continuing challenge.

There is also a **'adaptation paradox'**. Adaptation is essential because some climate change is now unavoidable, yet some adaptation responses can inadvertently increase environmental impacts which can then worsen health and social inequalities. For example, increased cooling requirements, additional resource consumption or new infrastructure can reduce immediate risks while creating longer-term sustainability challenges. Similarly, technological solutions may offer significant benefits but can create new demands on energy, materials and infrastructure.

In addition, there exists a **'Poor health and climate adaptation paradox'**. There is a paradox in that measures taken to adapt to climate change are positive, but if done without care can inadvertently result in conditions that worsen population health and widen inequalities. For this reason, this HIA has through its policy review recommended wording be inserted into polices across the East Sussex System to trigger planning and delivery of climate adaptation to be in ways that are also positive for public health.

These paradoxes highlight why climate change cannot be viewed solely as an environmental issue. It is fundamentally a systems issue that affects health, care, housing, transport, education, employment, food systems, emergency planning and community resilience simultaneously. The challenge is not simply to reduce emissions or respond to climate impacts, but to redesign systems so that they support both population health and environmental sustainability.

For East Sussex, these paradoxes are particularly relevant. The county has an ageing population, significant health inequalities, vulnerable coastal communities and growing pressures on health and social care services. Climate change is likely to amplify many of these existing challenges. At the same time, the assessment demonstrates that many of the actions needed to address climate change also have the potential to improve health. Better housing can reduce both emissions and illness; active travel can improve physical health whilst reducing air pollution; access to nature can support mental wellbeing and climate resilience; and stronger community networks can reduce social isolation whilst improving preparedness for climate-related events.

The central lesson is that environment, climate and health should not be viewed as competing priorities. Rather, they are increasingly inseparable. The most effective

responses are those that deliver co-benefits for both people and the environment, while reducing inequalities and strengthening resilience.

Thia assessment also highlights the importance of applying the **Precautionary Principle**. Historically, uncertainty has often been used as a reason to delay action on climate change. Today, however, environmental and climate concerns such as heatwaves are no longer theoretical. Heatwaves, flooding, poor air quality, ecosystem decline and pressures on health and care services are already evident. While uncertainty remains regarding the precise scale and timing of future impacts, there is sufficient evidence to justify action now. The greater risk lies not in acting too early, but in failing to act until opportunities for prevention and adaptation have been lost.

**Ultimately, the climate-health paradox is not a reason for inaction**. Rather, it highlights the need for integrated, long-term and system-wide responses. For East Sussex, this means embedding climate considerations across all sectors, recognising climate change as a determinant of health, and ensuring that adaptation, resilience and health equity become central components of future policy and decision-making. The challenge is substantial, but so too is the opportunity: to create a healthier, fairer and more resilient county that is better prepared for the realities of a changing climate

# 10. Understanding Health Impact Assessment (HIA)

This section provides an overview of HIA, with further detail is set out in the accompanying Methods Statement for this HIA. Please see Appendix B.

## 10.1. What is a Health Impact Assessment in the broadest context?

Impact assessment is a systematic approach that looks across sectors and analyses the consequences of a project, program, plan, policy, or strategy. At the same time, it can also be an administrative tool linked to the decision-making process of that development initiative.

HIA has been selected as an appropriate methodology to support the improved understanding of how East Sussex can address the health effects of a changing climate in ways that protect population health, protect its health and social care system(s), build in resilience at the earliest opportunity and deliver planetary health and sustainability. This reflects the practical focus of generating timely evidence-

based professional judgements to inform decision-making in a coordinated way across sectors.

The HIA uses a broad definition of health, including social and environmental influences, as well as effect to physical and mental health. The HIA is informed by robust guidance from the Institute of Public Health (Pyper et al., 2021) and the Wales Health Impact Assessment Support Unit (Wales Health Impact Assessment Support Unit, 2012), as well as international best practice principles (M. S. Winkler et al., 2021). The HIA follows a logical series of steps that are set out in the referenced guidance. The HIA has also been reflective of its systemwide work and adds to the HIA field with a proposed definition to reflect this. To support quality and future evaluation the HIA has competed a quality review checklist (Appendix B, Section 17.5) and made a statement as to the competence of the experts who have undertaken the work (Appendix B, Section 2.7).

HIA can be 'stand-alone' or it can be integrated into other forms of impact assessment. In this case a standalone HIA was considered appropriate. HIA, like other forms of impact assessment, meets the challenges facing our societies. These challenges include the climate crisis and urbanization, both creating immediate, medium- and longer-term risks to human health and wellbeing. HIA maintains a focus on physical, social, and mental health and on the experiences of, and outcomes for, the most vulnerable in our societies (M. S. Winkler et al., 2021).

HIA can be used on proposals for new laws or policies, and it can also be used to look at proposed changes to services and programmes (Pyper et al., 2021). Typically, a HIA focuses on a single policy, plan or project, with the aim or assessing the potential effects (both adverse and beneficial) on the health of a population. It generates evidence for appropriate actions to avoid or mitigate health risks and promote health opportunities.

HIAs at the legislation, policy, plan or programme level are usually termed 'strategic' HIAs. Usually, when strategic, the level of detail is at a higher level, the conclusions and recommendations and action steps are relatively broad and often focused on alternatives. 'Project' level HIAs are more focused to a specific change and generate detailed considerations, opportunities and action steps, often in relation to refining designs, management plans or mitigation strategies.

The principles for HIA are set out by (M. S. Winkler et al., 2021) and are summarised below. They have been adopted and applied throughout this East Sussex HIA.

- **Comprehensive approach to health**: Considers a broad range of influences on population health.
- **Ethical use of evidence**: Maintains transparency and rigor in the sources of evidence used.

- **Equity and equality**: Identifies who might be more affected and evaluates fairness.
- **Participation**: Centres around the individuals affected by a decision.
- **Sustainability**: Supports the delivery of sustainable development.

HIA can be applied across all departments, agencies, boards, committees, partnerships, organisations, and types of decision making. HIA brings awareness of the population health implications of decisions, particularly decision that are outside of the health sector.

HIA is a structured process used to investigate the potential health effects—both intended and unintended—of a project, program, plan, policy or strategy on the health of a population and the distribution of those effects within the population. HIA provides evidence-based guidance for decision making, ensuring that risks are mitigated while opportunities for health are promoted. A core function of HIA is to enhance health equity, assessing not only the magnitude of health impacts but also their distribution across different population groups. By integrating health considerations into policy and planning processes, HIA contributes to sustainable development and strengthens accountability through frameworks for monitoring, evaluation and performance management (M. S. Winkler et al., 2021).

HIA draws on the concept of determinants of health. These are factors which influence health and wellbeing of individuals and populations, and include the below taken from The Wales Health and Wellbeing Determinants Checklist (Wales Health Impact Assessment Support Unit, 2020):

1. **Lifestyles:**

- Diet/Nutrition/Breastfeeding
- Physical activity
- Risk taking activity i.e. addictive behaviour gambling
- Sexual activity
- Social media use
- Use of alcohol, cigarettes, Electronic Nicotine Delivery Systems (i.e. e-cigarettes).
- Use of substances, non-prescribed medication, and abuse of prescription medication

2. **Social and community influences on health**

- Adverse childhood experiences

- i.e. physical, emotional or sexual abuse
- Citizen power and influence
- Community cohesion, identity, local pride
- Community resilience
- Divisions in community
- Domestic violence
- Family relationships, organisation and roles
- Language
- Cultural and spiritual ethos
- Neighbourliness
- Other social exclusion i.e. homelessness, incarceration
- Parenting and infant attachment (strong early bond between infant and primary caregiver)
- Peer pressure
- Racism
- Sense of belonging
- Social isolation/loneliness
- Social capital, support and social networks
- Third Sector and Volunteering

**3. Mental Health & Wellbeing**

Consider:
- Does this proposal support sense of control?
- Does it enable participation in community and economic life?
- Does it impact on emotional wellbeing and resilience?

**4. Living & environmental conditions affecting health**

- Air Quality
- Attractiveness of area
- Community safety
- Access, availability and quality of green and blue space, natural space
- Housing quality and tenure
- Indoor environment
- Health and safety i.e. falls, home safety, safety of public places
- Light pollution
- Noise
- Quality and safety of play areas (formal and informal)
- Road safety

- Odours
- Urban/Rural built and natural
- environment & neighbourhood design
- Waste disposal, recycling
- Water quality i.e. sea water

**5. Economic conditions affecting health**

- Unemployment
- Poverty including food and fuel poverty
- Income
- Personal and household debt
- Economic inactivity
- Type of employment i.e.
- permanent/temporary, full/part time
- Working conditions i.e. work
- environment, bullying, health and safety

**6. Access and quality of services**

- Careers advice
- Education and training
- Information technology, internet access, digital services.
- Leisure services
- Medical and health services
- Other caring services i.e. social care, Third Sector, youth services, child care
- Public amenities i.e. village halls, libraries, community hub
- Shops and commercial services
- Transport including parking, public transport, active travel

**7. Macro-economic, environmental and sustainability factors**

- Biodiversity
- Climate change i.e. flooding, heatwave
- Cost of living i.e. food, rent, transport and house prices
- Economic development including investments
- Government policies i.e.
- Sustainable Development principle (integration; collaboration; involvement; long term thinking; and prevention)
- Gross Domestic Product

The Institute of Public Health in Ireland - Health Impact Assessment Guidance: A Manual (2021) (Pyper et al., 2021) and the Wales Health and Wellbeing Determinants Checklist (Wales Health Impact Assessment Support Unit, 2020) were used as a starter framework to review every determinant in relation to climate change and health for the literature search as well as this HIA.

HIA is also a decision support process for improving population health and reducing inequalities in health.

This is fundamental, as many potential climates mitigations and adaptation interventions, e.g. largescale renewable energy, flood defences, building retrofits, habitat management and resource management initiatives, could be delivered in ways that increase pressures on both population health and on health and social care services. This would not only be unnecessary and inequitable but also highly financially wasteful. Examples of how climate change responses could be detrimental to public health include: reduced public access to high-quality outdoor spaces; unaffordable costs of indoor thermal conform; reduced hydration and natural cooling opportunities; high exposures to new illnesses and disease vectors; species planting with pollen levels that have widespread exacerbation of respiratory conditions; farming practices responding to changing crops and pests that greatly increase community exposure to chemicals; reduced access to local affordable healthy food production; unaffordable housing insurance in deprived communities; lack of vulnerable population access to key services during extreme climate events; loss of local jobs without transition to alternatives; unmanaged in- and out-migration pressures on community services and staffing; the list goes on.

Although HIA can involve consideration of the healthcare services, typically around 80% of the reasons people are healthy or unhealthy arise outside of the healthcare sector. The focus of HIA is therefore invariably on responding to the influences on population health that are due to the actions or inactions of other sectors. The work of all sectors is framed by a series of polices that they develop and own. Successful policies set out clear expectations for the responsibilities and actions within that sector's remit. HIA can work to influence policies across sectors so that those responsibilities and actions align with supporting improved, rather than reduced, population health. Often until such work is undertaken that sector is not aware of how influential it is for people's health and would not routinely think of itself as a key driver of population health.

A key feature of any HIA (during at screening, scoping and appraisal) is to identify the population groups who could be more impacted (negatively, positively or unintentionally) that others by a policy/project/proposal.

For the purpose of this HIA, the Wales Health Impact Assessment Support Unit's Population Groups Checklist (Wales Health Impact Assessment Support Unit, 2020)

was used as checklist to identify the population groups who could be more impacted by the health effects of a changing climate.

The groups listed below have been identified as more susceptible to poorer health and wellbeing outcomes (health inequalities) and therefore important to consider them in a HIA Screening and Appraisal. In a HIA, the groups identified as more sensitive to potential impacts will depend on the characteristics of the local population, the context, and the nature of the proposal itself.

The list was used as a guide and informed the literature review search criteria. It may be appropriate to focus on groups that have multiple disadvantages. Please also note that terminology can change over time.

Population groups for health and wellbeing consideration:

1. Sex/gender related groups:

- Female
- Male
- Transgender
- Other (please specify)

2. Age related groups:

- Children and young people
- Early years (including pregnancy and first year of life)
- General adult population
- Older people

3. Income related groups:

- Economically inactive
- People on low income
- People who are unable to work due to ill health
- Unemployed/workless

4. Groups at higher risk of discrimination or other social disadvantage:

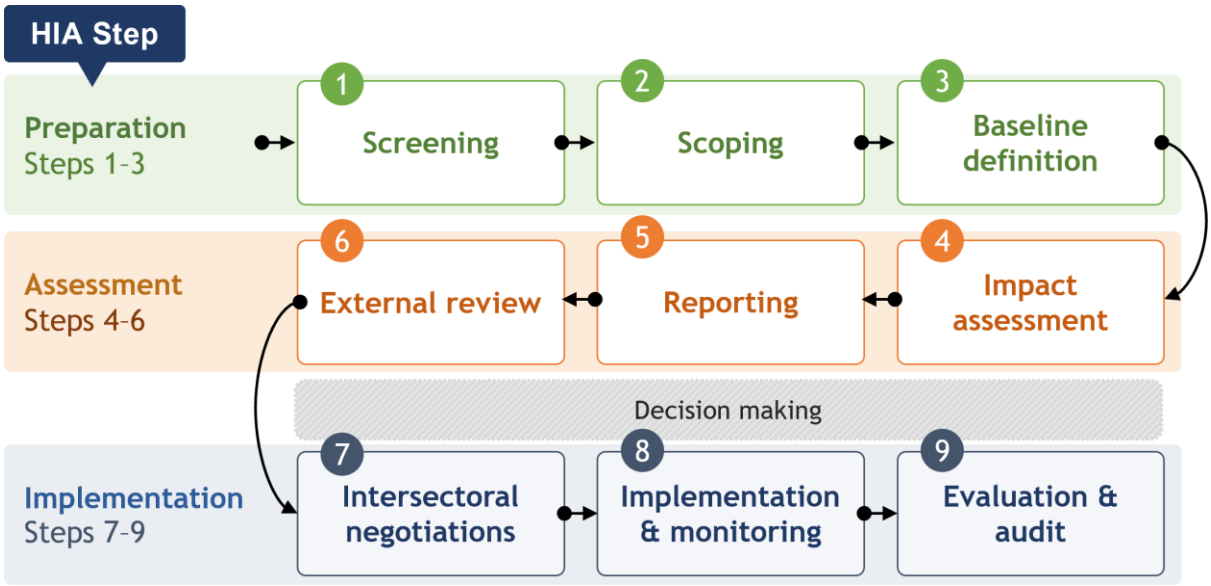
- Black and minority ethnic groups (please specify)
- Carers
- Ex-offenders
- Gypsies and Travellers
- Homeless

- Language/culture (please specify)
- Lesbian, gay and bisexual people
- Looked after children
- People seeking asylum
- People with long term health conditions
- People with mental health conditions
- People with physical, sensory or learning disabilities/difficulties
- Refugee groups
- Religious groups (please specify)
- Lone parent families
- Veterans

5. Geographical groups and/or settings:

- People in key settings: workplaces/schools/hospitals/care homes/prisons
- People living in areas which exhibit poor economic and/or health indicators
- People living in isolated or over-populated areas
- People unable to access services and facilities

The generic steps for HIA development and its process is (Winkler et al., 2021):




## Preparation

1. Screening

The first stage determines whether a Health Impact Assessment is needed for a proposed initiative. This involves considering the scale, nature, and potential health implications of the development.

**Output:** A decision on whether the initiative should proceed to a full HIA.

2. Scoping

If an HIA is required, the scope of the assessment is defined. This includes identifying potential health impacts, setting geographical and time boundaries, selecting methods and tools, and determining the expertise required within the HIA team.

**Output:**

- A clearly defined scope (or terms of reference) for the HIA.
- An appropriately constituted HIA team with relevant disciplines and skills represented.

3. Baseline Definition

A baseline assessment is undertaken to establish the current situation. This involves gathering evidence on existing health conditions, health determinants, health risks, and factors that influence wellbeing using available data and evidence.

**Output:** A description of baseline health conditions and determinants.

## Assessment Phase

4. Impact Assessment

This stage systematically examines the likely positive and negative health impacts of the proposal. The assessment considers the nature, likelihood, distribution, and significance of impacts on different populations.

**Output:** Evidence-based predictions of potential health consequences.

5. Reporting

The findings of the impact assessment are documented. The report outlines methods used, evidence gathered, limitations, recommended mitigation measures for negative impacts, opportunities to enhance positive impacts, and arrangements for monitoring.

**Output:**

- HIA report.
- Health management plan.
- Health monitoring plan.

6. External Review

An independent review is undertaken to assess the quality and robustness of the HIA report and associated management and monitoring plans. This helps ensure credibility and strengthens recommendations.

**Output:** Improved HIA report and management plans.

## Decision-Making

Following the assessment and review stages, the HIA findings inform decision-makers before implementation proceeds.

## Implementation Phase

7. Intersectoral Negotiations

Relevant organisations and stakeholders agree how mitigation, enhancement, and monitoring actions will be delivered. Responsibilities, resources, performance indicators, and monitoring arrangements are established.

**Output:**

- Implementation budget.
- Arrangements for partnership and intersectoral working.
- Agreed monitoring methods and procedures.

8. Implementation and Monitoring

Health mitigation and enhancement measures are put into practice. Monitoring tracks whether interventions are being delivered as intended and whether they are influencing health outcomes.

**Output:**

- Delivery of health promotion and disease prevention measures.
- Monitoring data showing changes in health status and performance.

9. Evaluation and Audit

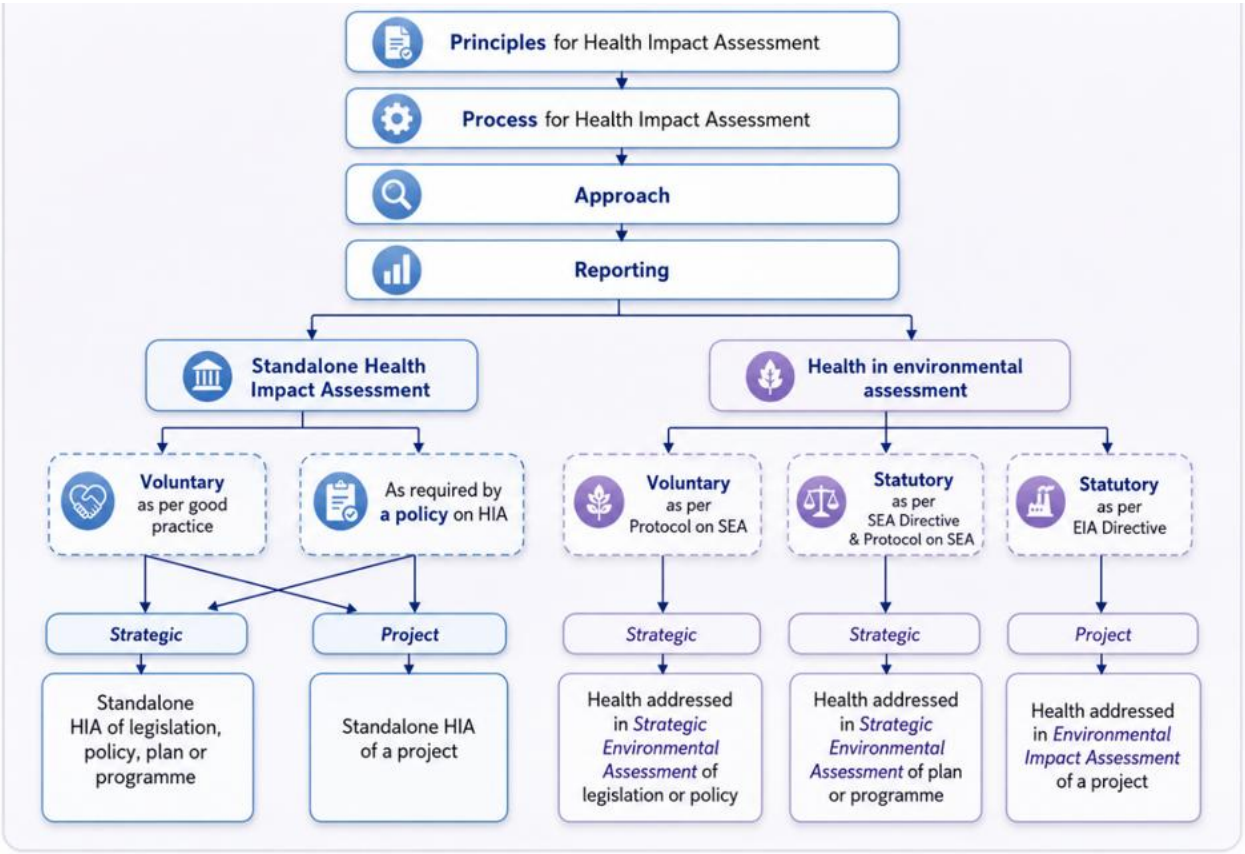
The final stage involves reviewing monitoring data to assess the effectiveness of the HIA process and interventions. Lessons learned are identified, and adjustments can be made if required.

**Output:**

- Audited health management plan.
- Audited health monitoring plan.

- Adapted interventions where necessary.
- Learning to inform future HIAs.

### Health Impact Assessment in its different forms:




Source: adapted from Pyper et al., 2021

## 10.2. HIA Benefits

HIA facilitates and makes **space to 'have the conversation'** around complex health related circumstances and issues in a structured, systematic, transparent, democratic and holistic way.

HIA identifies pre-existing and future anticipated **inequalities**, the unequal distribution of health, social, economic and environmental risks with specific attention to vulnerable and marginalised groups.

Through using HIA, public health is placed on the agenda of sectors, services, agencies, institutions, and individuals outside the health sector. This helps the **risks to human health**, including related social, cultural, economic, and environmental determinants, to be anticipated and mitigated.

HIA identifies opportunities for promoting human health, including that potential **health co-benefits** are identified and strengthened.

Public participation in decision-making is facilitated through stakeholder engagement during HIA.

Where HIA promotes intersectoral action for health and addressing cross-cutting health issues, the **burden on health services is reduced**.

HIA contributes to **healthier, sustainable and resilient communities**, which is essential for healthy and sustainable development.

**Further Benefits of Health Impact Assessment:**

- **Supports cost savings:** By promoting and protecting population health, HIAs can help reduce costs for governments and society through the prevention of ill health and associated impacts.
- **Contributes to the public good:** Improving population health has intrinsic value and supports the responsibility of public bodies to consider the wellbeing of communities.
- **Leads to better policies and decisions:** HIA provides policymakers with a clearer understanding of the potential health implications of their decisions, enabling more informed and effective policy development.
- **Improves understanding of health impacts:** The process uses evidence to identify how proposals may affect health and wellbeing, helping stakeholders understand complex health pathways, interactions, and trade-offs.
- **Provides clarity and actionable recommendations:** HIAs generate clear conclusions and practical recommendations to enhance positive health impacts and mitigate negative effects.
- **Benefits stakeholders across sectors:** Health outcomes influence the objectives of many sectors. HIA helps stakeholders achieve wider goals by identifying opportunities to improve population health through their policies, plans, or projects.
- **Helps address complex challenges:** HIA can be used to tackle cross-cutting issues that span multiple sectors, such as climate change adaptation, sustainable development, transport, housing, and environmental planning.

Most importantly, HIA as a **participatory process** where all are part of the 'public health family and community' have a role and responsibility to protect against the risks to human health, including those related to the social, cultural, economic and environmental determinants so that they are anticipated and mitigated. Participation includes consideration and inclusion for all sections and sectors of society from the public to the private, the privileged and the most disadvantaged.

## 10.3. HIA Methods and Tools

A Health Impact Assessment (HIA) is a structured process that combines a range of procedures, methods and tools to assess the potential health impacts of policies, programmes, plans or projects. As a result, HIAs draw on diverse sources of evidence and multiple analytical approaches to inform the professional judgements reached. The methods used in this assessment include:

- **Literature and policy reviews** – examining both peer-reviewed scientific evidence and relevant grey literature.
- **Pathway analysis** – identifying and illustrating the relationships between climate-related hazards, the wider determinants of health, health outcomes, and the differential impacts experienced by population groups.
- **Secondary data collection and analysis** – reviewing and analysing data from national and local sources, including health statistics, demographic information, climate data and environmental indicators.
- **Stakeholder engagement** – conducting interviews, workshops and focus group discussions with key informants, partners and potentially affected stakeholders.
- **Primary data collection** – gathering information through questionnaires, surveys and field observations where appropriate.
- **Data mapping and spatial analysis** – collating relevant indicators and utilising Geographic Information Systems (GIS) to explore geographical patterns and vulnerabilities.

HIA is not solely an analytical exercise; it is a process intended to support informed decision-making and facilitate meaningful change. Accordingly, this assessment has focused on developing considerations, opportunities and action steps that are practical, achievable and evidence informed. To support this, a comprehensive evidence base has been assembled, and system partners have been actively engaged throughout the process to co-produce the proposed actions and priorities.

To ensure a robust and systematic approach to evidence generation, the following research question was developed:

"How can system-wide considerations, opportunities and action steps be developed to understand and create the conditions for a resilient county-wide East Sussex whole-system response to identified climate change impacts and associated health determinants, through the co-production and delivery of a comprehensive bespoke Health Impact Assessment?"

The HIA is supported by a series of objectives that define the individual workstreams undertaken to address this overarching question.

This assessment is founded on robust methodological principles and draws upon a comprehensive range of quantitative and qualitative evidence sources. It has generated new insights through engagement with expert stakeholders, system partners and members of the public, alongside the analysis of existing evidence. The assessment process and findings have been transparent, collaborative and evidence-based, providing a strong foundation for implementation of the HIA's conclusions.

This HIA adopts the conceptual framework of **population sensitivity**, **impact magnitude** and **health significance** developed by the Institute of Public Health (Pyper et al., 2021). These concepts provide a structured qualitative assessment framework to support the identification, assessment and prioritisation of climate-related public health impacts.

The assessment focuses on 37 identified '**golden interactions**', representing the priority climate-health issues for East Sussex (see Appendix H). These were determined through evidence-based professional judgement by the HIA Programme Management Team and subsequently validated by system-wide stakeholders during Workshop 1. Collectively, they represent the climate-related impacts considered most significant for population health and wellbeing within the county.

Given its central role in prioritisation and decision-making, it is essential that the concept of **significance** is clearly defined and applied consistently throughout the HIA process by practitioners, stakeholders and decision-makers.

Within this HIA, significance reflects the combined consideration of:

- the magnitude and scale of the impact,
- the sensitivity and vulnerability of affected populations,
- the likelihood, timing, and duration of effects, and
- the potential for cumulative or system-wide implications.

A clear and consistent understanding of significance supports transparent prioritisation, robust analysis, and effective decision-making, ensuring that the HIA findings are both credible and actionable.

# 11. The Art of the Possible

## 11.1. The Art and Science

A changing climate is one of the greatest public health challenges of the twenty-first century. It is a transboundary issue that transcends geographical, organisational and political boundaries, affecting the environmental, social and economic conditions that determine health. As recognised by the Royal Society for Public Health (2024), climate change is increasingly being understood as a core public health issue because of its far-reaching, complex and interconnected consequences across virtually every sector of society.

The health effects of climate change cannot be addressed through the health sector alone. The drivers of health are shaped by decisions relating to housing, planning, transport, energy, education, employment, agriculture, environmental protection and economic development. Consequently, the changing climate requires a whole-system public health response that extends beyond traditional healthcare and embraces collective action across all sectors, services and communities.

Public Health plays a crucial role in identifying obstacles, as well as helping to formulate, implement and enforce effective solutions. Public health is uniquely positioned to respond to this challenge because it focuses on prevention, protection and the wider determinants of health. At its core, public health seeks to create the conditions in which people can live healthy, safe and fulfilling lives. It does this through three interconnected functions:

- **Health Improvement** – enabling healthier lives through action on the wider determinants of health, including housing, employment, education, transport, environment and community wellbeing.
- **Health Protection** – protecting populations from environmental hazards, infectious diseases and emergencies that threaten health and wellbeing.
- **Health Promotion** – empowering individuals, communities and organisations to improve health outcomes and reduce preventable harm.

Unlike many services that focus primarily on treating illness after it occurs, public health focuses on prevention and early intervention. This distinction is particularly important for a changing climate. Investing in adaptation, resilience and prevention today can avoid significantly greater health, social and economic costs in the future. Evidence consistently demonstrates that preventative action delivers substantial returns on investment through avoided illness, reduced demand on health and care services, improved productivity and stronger community resilience.

The COVID-19 pandemic highlighted the vital role of public health in protecting populations from emerging threats and maintaining health security. A changing climate presents a similar challenge, but on a larger and longer-term scale. Future risks may include simultaneous environmental, health and infrastructure shocks, such as heatwaves occurring alongside infectious disease outbreaks, flooding events or disruptions to essential services. Building resilience to these complex and interacting risks requires long-term planning, preparedness and coordinated system-wide action.

Whilst Public Health does have the skills and knowledge to prevent expected issues, it must have the resources and capacity to address them. If they are not given support, then we risk irreparably harming the nation's health as our public health services become overwhelmed.

One of the distinctive strengths of public health is its ability to work across organisational boundaries and influence action beyond its formal remit. The Faculty of Public Health (2016) describes this as "**leading without authority**"—the ability to influence, convene, inspire and mobilise action without relying on hierarchical power or statutory control.

'Leading without authority' means:

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'Influencing and inspiring others to achieve common goals without relying on a formal position or hierarchical structure. It's about building trust, fostering collaboration, and demonstrating expertise to motivate action and positive change. This approach is crucial in public health due to the collaborative nature of the field, which often requires working across various organizations and sectors'

(Faculty of Public Health, 2016).

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Leading without authority involves building trust, fostering collaboration, sharing evidence, facilitating partnerships and creating a shared vision for change. It is particularly important in addressing complex challenges such as a changing climate, where responsibilities are distributed across multiple organisations and sectors, and where no single body has complete ownership of the issue.

Environmental challenges, a changing climate and health sit within precisely this type of complex system. Many of the actions required to address climate-related health impacts lie outside the direct control of health services and public health teams. They require coordinated action from local government, the NHS, emergency planners, housing providers, transport authorities, businesses, educational institutions, environmental organisations, community groups and residents themselves.

Public health is therefore well placed to act as a system convenor, helping to bring partners together around shared priorities and common goals. Its cross-cutting perspective enables it to identify connections between issues, highlight co-benefits, facilitate collaboration and support the integration of **Population and Planetary Health in All of Our Approaches**. In doing so, public health can help advance health equity, reduce inequalities and ensure that climate adaptation delivers benefits across multiple sectors simultaneously.

However, effective leadership of this nature requires investment, capacity and support. Limited resources constrain the ability of public health teams to undertake the preventative work needed to prepare for future climate risks. Failure to invest in prevention and resilience today risks substantially higher costs tomorrow through increased illness, service pressures, infrastructure disruption and avoidable harm. As Jacques and Noel (2022) note, underinvestment in public health and prevention ultimately increases long-term costs whilst reducing society's ability to respond effectively to emerging challenges.

Public Health must be able to ‘make health everybody’s business’ and be enabled to facilitate, and ‘**lead with authority**’ as well as ‘without authority’.

The ‘Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (ECH-HIA)’ represents what can be achieved when organisations choose to work collectively towards a shared goal. It demonstrates the **"art of the possible"**—the ability to move beyond organisational boundaries, competing priorities and traditional ways of working to create a common understanding of a complex challenge and a shared commitment to addressing it.

The art of the possible is not about perfection or certainty. It is about recognising opportunities, building partnerships, creating alignment and identifying practical actions that can be taken now to shape a better future. It is about seeing the changing climate not solely as a threat, but as an opportunity to improve health, reduce inequalities, strengthen communities, protect the environment and build resilience across the whole system.

Whilst the HIA has been enabled and facilitated by East Sussex Public Health, it is not a public health document. It is a system document, developed by the East Sussex system and for the East Sussex system. This distinction is fundamental. The assessment is based on the principle that addressing the health effects of a changing climate is a shared responsibility requiring collective ownership, shared accountability and collaborative action.

The HIA deliberately avoids a model of "health imperialism" whereby climate change is viewed solely through a public health lens. Instead, it recognises the expertise, authority, responsibilities and contributions of all sectors and stakeholders. Through co-production and collaboration, it has created a shared platform from which

partners can work together towards common outcomes whilst respecting different roles, perspectives and priorities.

The considerations, opportunities and action steps set out within this HIA therefore represent more than a series of considerations and opportunities. They represent a collective vision of what is possible when health, environment, climate resilience and sustainable development are viewed as interconnected goals. They provide a practical framework for translating ambition into action and demonstrate how East Sussex can work together to create healthier people, healthier places and a more resilient future.

Ultimately, the art of the possible is about turning complexity into coordination, ambition into action and shared responsibility into shared success. It is about recognising that no single organisation can address the health effects of a changing climate alone, but together the East Sussex system has the opportunity to lead, innovate and create a healthier, fairer and more resilient future for current and future generations.

## 11.2. Taking a Whole Systems Approach

Addressing the health effects of a changing climate requires more than individual projects, isolated interventions or organisational responses. Environmental challenges, the changing climate and public health is a complex, interconnected challenge that cuts across traditional boundaries of responsibility, governance and service delivery. Its causes, impacts and solutions are distributed across multiple sectors, organisations, communities and systems. Consequently, effective action requires a systemwide and whole-system approach.

In this context, the East Sussex system refers collectively to the many organisations, partnerships, sectors, services and governance arrangements that influence the health, wellbeing, resilience and prosperity of the county. This includes local government, the NHS, public health, social care, education, housing, planning, transport, environmental services, emergency planning, utilities, businesses, voluntary and community organisations, and the communities they serve. Together, these interconnected actors shape policy development, investment decisions, service delivery and place-making across East Sussex.

Whole-system working recognises that there is no single organisation, intervention or solution capable of addressing complex public health challenges in isolation. As Public Health England (2019) describes:

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"A local whole systems approach responds to complexity through an ongoing, dynamic and flexible way of working. It enables local stakeholders, including

communities, to come together, share an understanding of the reality of the challenge, consider how the local system is operating and where there are the greatest opportunities for change. Stakeholders agree actions and decide as a network how to work together in an integrated way to bring about sustainable, long-term systems change."

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A whole-system approach therefore moves beyond organisational silos and individual responsibilities. It seeks to understand how different parts of the system interact, where opportunities for collaboration exist, and how collective action can achieve outcomes that would be difficult or impossible for individual organisations acting alone.

## Systems Thinking as the Foundation

The methodological foundation of this HIA is systems working, thinking and dynamics.

Systems thinking provides a framework for understanding complexity by examining the relationships, interdependencies and interactions that exist within and between systems. Rather than viewing issues through a linear cause-and-effect lens, systems thinking seeks to understand how multiple factors combine, influence one another and create patterns of behaviour over time.

A system can be understood as a collection of interconnected elements that together produce outcomes that are greater than the sum of their individual parts. These elements may include:

- People and communities
- Organisations and institutions
- Policies, strategies and regulations
- Infrastructure and physical assets
- Funding mechanisms and resources
- Governance arrangements
- Organisational cultures and behaviours
- Power structures and decision-making processes
- Environmental, social and economic conditions

The health effects of a changing climate exemplify a complex systems challenge. Climate risks interact with housing, transport, food systems, energy infrastructure, environmental quality, economic conditions, demographic change and health inequalities. Actions taken in one part of the system often create consequences elsewhere, producing both intended and unintended outcomes. Equally,

opportunities to improve health, reduce inequalities and strengthen resilience often arise through coordinated action across multiple sectors rather than through isolated interventions.

For this reason, the HIA has deliberately adopted a systems-based approach rather than focusing solely on individual policies, programmes or projects. This reflects:

- The complexity and uncertainty associated with a changing climate and health
- The interconnected nature of climate risks and health outcomes
- The diversity of stakeholders, responsibilities and perspectives involved
- The existence of competing priorities, tensions and trade-offs across the system
- The importance of identifying co-benefits and avoiding unintended consequences
- The need for long-term, sustainable and adaptive solutions

The HIA has drawn upon systems thinking principles and tools developed by the UK Government Office for Science (2023), including participatory engagement methods, systems mapping, stakeholder workshops and collaborative analysis processes. These approaches have enabled stakeholders to explore how climate and health issues interact across the East Sussex system and to identify opportunities for collective action.

## System Dynamics

A key component of systems thinking is the concept of systems dynamics. Whilst systems thinking helps us understand the components of a system and the relationships between them, systems dynamics helps explain how those relationships interact over time to create patterns, trends, behaviours and outcomes.

Systems dynamics recognises that systems are not static. They are constantly changing and adapting in response to internal and external influences. A changing climate and health are both dynamic issues that evolve over decades through interactions between environmental, social, economic, political and health-related factors. The consequences of actions taken today may not be realised for many years, whilst the absence of action can create reinforcing cycles of vulnerability, inequality and increasing costs.

Systems dynamics focuses on understanding:

- **Feedback loops** that either reinforce or balance change;
- **Delays** between actions and outcomes;
- **Interdependencies** between different parts of the system;
- Unintended consequences of interventions;

- **Leverage points** where small changes can generate significant system-wide benefits;
- **Emergent behaviours and patterns** that arise from multiple interacting influences.

For example, a changing climate can create a reinforcing cycle whereby increasing temperatures lead to greater demand on health and social care services, which increases pressure on already constrained resources, reducing the capacity available for preventative interventions and adaptation measures. Without intervention, this can further increase vulnerability and future service demand. Conversely, early investment in housing adaptation, green infrastructure and community resilience can create positive reinforcing cycles that improve health outcomes, reduce inequalities, lower service demand and strengthen resilience over time.

The 'Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (ECH-HIA)' has therefore sought not only to identify climate-related risks and opportunities but also to understand the system dynamics that influence how those risks emerge, interact and evolve. This includes examining the relationships between climate hazards, the wider determinants of health, service delivery, governance arrangements, funding mechanisms, behaviours and community resilience.

Applying a systems dynamics perspective helps move decision-making beyond reactive responses towards proactive, preventative and adaptive action. It enables stakeholders to identify where interventions are likely to have the greatest long-term impact, where unintended consequences may arise, and where coordinated action can generate multiple co-benefits across health, environmental, social and economic outcomes.

In practice, this means recognising that climate resilience cannot be achieved through isolated interventions. It requires understanding how the whole East Sussex system functions, how different parts influence one another, and how collective action can shift the system towards healthier, fairer and more resilient outcomes. The HIA therefore seeks to support not only system-wide thinking but system-wide transformation through a deeper understanding of the dynamics that shape climate and health outcomes across East Sussex.

The HIA has therefore applied both **systems thinking** and **systems dynamics** principles. Systems thinking has been used to understand the components, relationships and interdependencies within the East Sussex system, whilst systems dynamics has been used to explore how these relationships influence behaviours, feedback loops, vulnerabilities, opportunities and long-term outcomes over time. Together, these approaches provide a stronger basis for identifying effective

intervention points, avoiding unintended consequences and supporting sustainable system-wide adaptation to the changing climate.

# 12. The East Sussex Approach – A Systemwide HIA and New Methods for Health in All Polices

The 'Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (ECH-HIA)' represents an evolution of traditional Health Impact Assessment practice. Whilst conventional HIAs typically assess the health implications of an individual policy, programme, project or development, this assessment adopts a **whole-system, place-based perspective**, examining the collective and cumulative influence of policies, services, organisations, infrastructure, programmes and communities across East Sussex.

Rather than considering interventions in isolation, the assessment explores how different parts of the system interact, influence one another and collectively affect population health, health inequalities and climate resilience. This broader perspective enables the identification of system interdependencies, synergies, cumulative impacts, gaps, barriers, tensions and opportunities that would often remain hidden through standalone assessments. It also recognises that many of the greatest opportunities for improving health lie not within individual organisations, but through stronger collaboration and alignment across the wider system.

The development of the East Sussex Systemwide HIA has been shaped by:

- The evolving evidence, learning and insights generated throughout the HIA process;
- The application of systems thinking, stakeholder co-production and the **Golden Interactions Methodology**;
- The unique governance arrangements, organisational landscape and culture of East Sussex; and
- The need to respond to complex, interconnected challenges, particularly a changing climate, health inequalities and the wider determinants of health.

The resulting methodology reflects the long-established principle that HIA is a flexible, adaptive and context-sensitive process. Rather than applying a fixed methodology, the East Sussex approach has evolved to reflect local circumstances, emerging evidence and increasing system complexity. The Systemwide HIA therefore represents both an extension and an evolution of traditional HIA practice, providing

a practical framework for understanding, influencing and improving complex place-based systems.

## 12.1. Operational Definition of a Systemwide Health Impact Assessment

As part of the development of the 'Addressing Environment, Climate and Health – A Systemwide Health Impact Assessment for East Sussex (ECH-HIA)', a refined operational definition and methodological framework for a **Systemwide Health Impact Assessment (Systemwide HIA)** has been developed. This reflects the evolving understanding generated through the East Sussex assessment process, the methodological approaches applied, and the practical experience of implementing a whole-system approach within the East Sussex context.

A **Systemwide HIA** is a systematic, evidence-informed and collaborative process that brings together intelligence, data, research, professional expertise and stakeholder insight to investigate, understand, assess and communicate the positive, negative, cumulative, uncertain and unintended impacts on health and wellbeing arising from the collective operation of policies, plans, programmes, projects, services, organisational activities and decision-making across an interconnected system.

Unlike traditional HIAs, which focus on individual interventions, a Systemwide HIA seeks to understand how organisations, sectors, services and the wider determinants of health interact to collectively influence population health, health inequalities, climate resilience and system performance. Operating within environments characterised by multiple stakeholders, complex interdependencies and dynamic feedback loops, it applies systems-thinking principles to identify relationships, cumulative impacts, barriers, opportunities and co-benefits that may otherwise remain hidden. It aims to provide a means to understand, influence and improve how a whole system is contributing to population health and wellbeing and to what extent. It works to respond collectively to complex challenges through facilitating opportunities for system transformation.

Developed by Madigasekera-Elliott, 2026 it is defined as:

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"A 'Systemwide' Health Impact Assessment (Systemwide HIA) is a systematic, collaborative and iterative 'whole-system HIA approach/process' for developing collective understanding, coordination and action(s) across all sectors and services in a place. It works to capture, investigate and shape how all of the policies, programmes, activities and decisions of a whole system(s) work (if at all) to simultaneously influence health, wellbeing, health equity and sustainability.

It examines the actions/inactions, the cumulative, interconnected and potentially unintended impacts arising across systemwide policies, strategies, plans, programmes, services, investments, activities and projects, rather than assessing individual interventions in isolation. Importantly, it recognises that actions or decisions that may appear beneficial, neutral or manageable when considered separately can, through their combined, repeated and interacting effects (across a system), generate significant positive or negative impacts across the wider system and over time.

A Systemwide HIA therefore considers not only individual impacts, but how impacts accumulate, interact, reinforce, amplify or offset one another across sectors, services, populations, places and time. Through analysis of 'whole-system dynamics', it brings together evidence, data, policy analysis, lived experience and stakeholder experiences and knowledge to understand how impacts are generated, transmitted and distributed across a system, its people, populations and place(s). Importantly, it considers how the structures, relationships, policies and ways in which a system(s) operate can themselves act as part of the 'causes of the causes' of health inequalities, with particular attention to communities and population groups experiencing greater vulnerability or disadvantage.

By identifying interdependencies, synergies, co-benefits, cumulative impacts, gaps, tensions, barriers and opportunities across sectors, services, communities and organisational boundaries, a Systemwide HIA develops a shared system voice, intelligence and set of co-designed recommendations to create and deliver a shared vision. It provides the blueprint for collective coordination whereby systems within the system are able is able to pull in the same direction. This develops and supports collective understanding and coordinated action – systemwide action. It enables partners to collectively strengthen policy and decision-making, maximise positive impacts and co-benefits, prevent or mitigate adverse and cumulative impacts, address gaps and unintended consequences, and develop system-generated solutions that embed health, wellbeing and health equity across the whole system.

The ultimate purpose of a systemwide HIA is to move beyond assessing individual impacts to understanding how the whole system collectively produces and distributes health outcomes—and to translate that understanding into coordinated action and positive system transformation, creating healthier, fairer and more resilient people, communities and places."

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The primary purpose of a Systemwide HIA is to advance the integration of health, wellbeing, equity, climate and sustainability considerations across a whole system. It provides a structured framework for understanding how complex interactions

between organisations, sectors, services and policy domains influence population health outcomes, health inequalities and system resilience.

A defining feature of the Systemwide HIA is its ability to operate within environments characterised by high complexity, multiple stakeholders, interdependencies and dynamic feedback loops. Through the application of systems-thinking principles, it enables a deeper understanding of the relationships between social, economic, environmental and health determinants, helping to reveal how cumulative and interconnected impacts emerge across a system.

By intentionally bringing together diverse perspectives, evidence sources and forms of expertise, the Systemwide HIA creates opportunities to develop a shared understanding of system challenges and opportunities. In doing so, it raises awareness of the synergies, interconnections and pressures affecting the wider determinants of health and facilitates more coordinated, transparent and evidence-informed decision-making.

The Systemwide HIA also serves as a mechanism for identifying and co-producing system-generated solutions. It supports the alignment of intersectoral action, encourages collaboration across organisational boundaries and enables stakeholders to collectively identify opportunities for prevention, adaptation, mitigation, transformation and resilience-building. At the same time, it provides a framework for identifying and addressing tensions, gaps, barriers, unintended consequences and cumulative impacts that may otherwise remain hidden within fragmented or siloed approaches.

Importantly, the Systemwide HIA seeks to maximise opportunities for health improvement and health equity by embedding health considerations across all aspects of system activity. In doing so, it advances a **Population and Planetary Health in All Approaches** model that extends beyond traditional policy-focused interventions to encompass services, programmes, operational delivery, governance arrangements and wider system functions.

The Systemwide HIA provides a structured framework for:

- integrating health, wellbeing, equity, climate resilience and sustainability across a whole system;
- understanding how organisations, services and policies collectively influence health outcomes;
- identifying cumulative impacts, system pressures, gaps, barriers and opportunities;
- supporting prevention, adaptation, mitigation, resilience-building and long-term transformation;
- aligning action across organisations, sectors and policy areas; and

- embedding a **Health, Environment and Climate in All Approaches** ethos throughout governance, planning and service delivery.




**Madigasekera-Elliott 2026**

By intentionally bringing together diverse perspectives, evidence and expertise, the Systemwide HIA creates a shared understanding of complex challenges whilst facilitating coordinated, evidence-informed decision-making. It provides a practical mechanism for co-producing system-wide solutions that improve population health, reduce inequalities, strengthen resilience and support more sustainable places.

## 12.2. What Makes a Systemwide Health Impact Assessment Different?

Health Impact Assessment has traditionally been undertaken at two principal levels: **Project HIA** and **Strategic HIA**. Whilst both remain valuable approaches, neither is designed to understand the cumulative interactions that occur across an entire place-based system.




A **Systemwide HIA** represents a broader application of HIA methodology. Rather than focusing on individual projects or strategies, it examines how policies, programmes, services, organisations, sectors and communities collectively influence health across an entire system. Through this approach, the Systemwide HIA supports more coordinated, evidence-informed and equitable decision-making across complex systems.

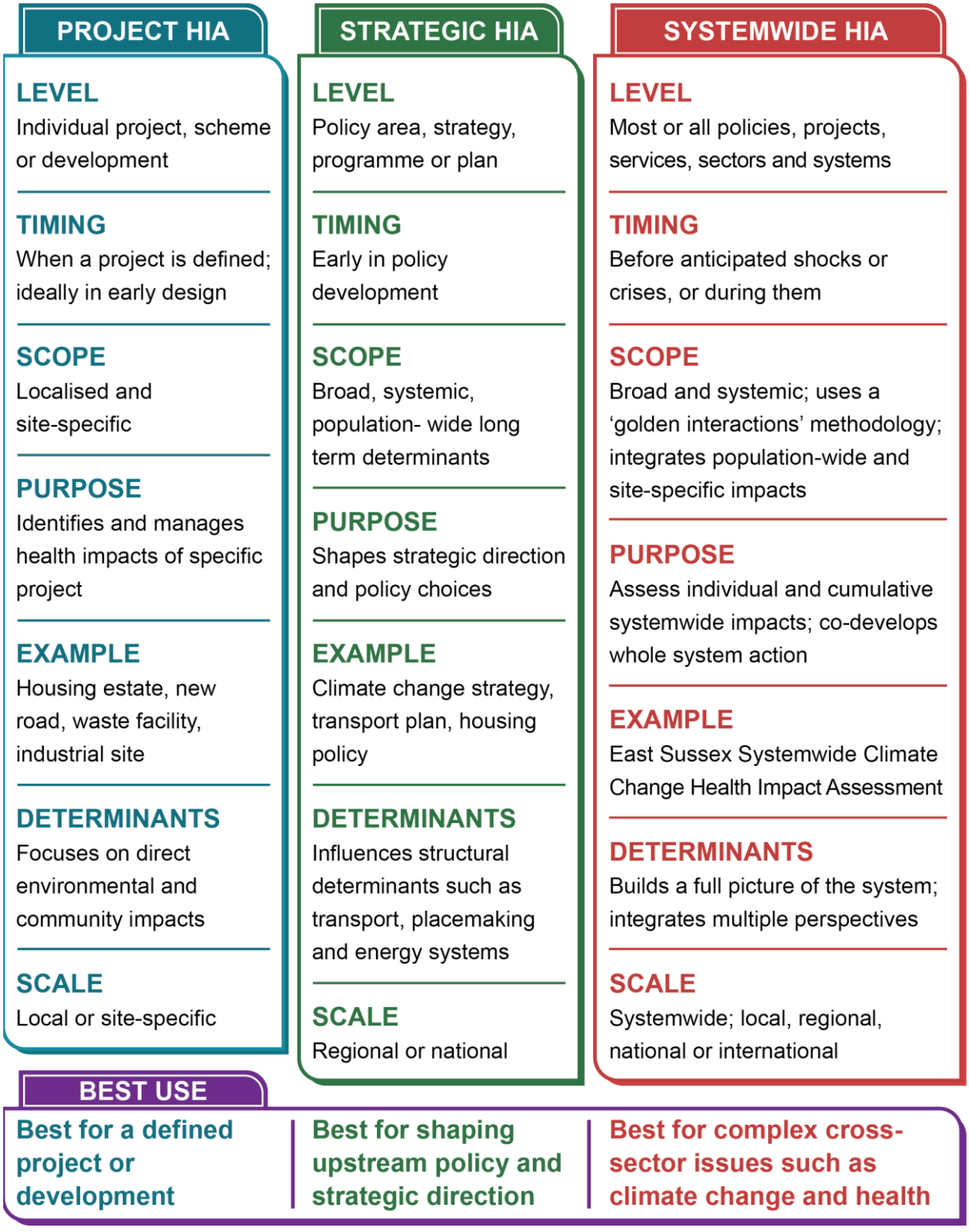
Its distinguishing feature is its emphasis on relationships, interdependencies and cumulative impacts. It considers both population-wide and place-based effects simultaneously, integrating strategic and operational determinants of health through the **Golden Interactions Methodology** to identify system relationships, feedback loops, barriers, opportunities and co-benefits.

This approach enables organisations to:

- Benchmark current prevention and health protection activity;
- Understand cumulative impacts across the whole system;
- Integrate activity across sectors, services and policy domains.
- Align priorities across sectors and organisations;
- Co-develop strategic responses, whole-system responses and coordinated action;
- Identify opportunities for prevention, mitigation, adaptation and resilience;
- Support long-term transformation; and
- Embed a Health, Environment and Climate in All Approaches perspective across policy and practice.

The Systemwide HIA is particularly suited to addressing complex challenges such as a changing climate, where outcomes are shaped by multiple interacting factors and where no single organisation has responsibility for, or control over, the solution.

## Comparing the three forms of Health Impact Assessment



While the above infographics provides a high-level comparison of the three forms of Health Impact Assessment (HIA), several important distinctions warrant further explanation, particularly in relation to the emerging concept of a **Systemwide HIA**.

**Project HIA:** A Project HIA focuses on a specific proposal, scheme or development. It is generally undertaken once a project has been defined and seeks to understand the potential health implications of a particular intervention for affected communities and environments.

**Strategic HIA:** A Strategic HIA operates at the level of policies, plans, programmes and strategies. It is typically undertaken early in the decision-making process to inform strategic choices before implementation and to ensure health considerations are incorporated into future decision-making.

**Systemwide HIA:** A Systemwide HIA represents a broader and more integrated application of HIA methodology. Rather than focusing on a single policy, programme or project, it examines the collective influence of policies, services, sectors, programmes, projects and organisational activities across an entire system.

The distinguishing feature of a Systemwide HIA is its focus on relationships, interdependencies and cumulative effects across a system. It is particularly suited to addressing complex challenges, such as a changing climate, where outcomes are shaped by multiple interacting factors and no single organisation or sector can deliver solutions independently.

## Scope of Impacts

- **Project HIA:** A Project HIA considers localised and site-specific impacts associated with a defined proposal. It examines potential environmental, social and economic impacts on communities directly affected by the project.
- **Strategic HIA:** A Strategic HIA considers broad, population-level impacts and the long-term determinants of health. It assesses how policies, plans, programmes and strategies may influence future health outcomes and inequalities across populations and places.
- **Systemwide HIA:** A Systemwide HIA adopts the broadest scope, assessing both population-level and local impacts simultaneously. It considers the collective influence of policies, services, sectors, programmes, projects and organisational activities across a whole system. Using a Golden Interactions Methodology, it integrates the wider determinants of health, system operations and cross-sector interdependencies to understand cumulative impacts. The approach considers all policy domains related to the building blocks of health and may incorporate complementary assessments such as economic evaluation, system mapping and comprehensive data and literature profiling.

## Influence on Health Determinants

Strategic HIA primarily influences structural and upstream determinants of health, including transport systems, housing, energy systems, placemaking, economic systems and other policy-driven determinants that shape population health over time.

Project HIA focuses more directly on environmental and community-level determinants, such as noise, air quality, traffic, safety, amenity, access to services and other impacts experienced by communities in proximity to a project.

Systemwide HIA takes a fundamentally different perspective. Rather than examining individual determinants in isolation, it seeks to understand how determinants interact across a whole system. It facilitates a shared understanding of how policies, services, sectors and organisations collectively influence health outcomes. Through the Golden Interactions Methodology, strategic and operational determinants are integrated to identify critical system relationships, interdependencies and feedback loops.

This approach enables the identification of tensions, gaps, barriers, facilitators, co-benefits, resource opportunities and financing opportunities that may otherwise remain hidden within organisational or sectoral silos. It also highlights opportunities for prevention, transformation and resilience-building, whilst supporting the protection and sustainability of health and care systems themselves.

## Timing

Strategic HIAs are generally undertaken early in policy development, often before detailed proposals have been developed.

Project HIAs are typically undertaken once a project has been defined, although best practice recommends undertaking them as early as possible during project design and development.

Systemwide HIAs are ideally undertaken proactively before anticipated system-wide pressures, shocks or crises emerge. However, they can also be undertaken during periods of significant change, disruption or crisis response, helping systems understand impacts, identify priorities and coordinate action in real time.

This Health Impact Assessment and its **systemwide approach** examined the collective and cumulative influence of policies, programmes, services, organisations and communities on population health, health inequalities and climate resilience across East Sussex. Rather than assessing individual interventions in isolation, the systemwide approach seeks to understand how different parts of the system interact, influence one another and collectively shape health outcomes. This provides a more comprehensive understanding of the complex relationships between

a changing climate, the wider determinants of health and the resilience of people, places and services.

Furthermore, within the context of this HIA several characteristics distinguish a systemwide HIA from more traditional Health Impact Assessments:

- **Applied systems thinking**, recognising that health outcomes emerge from the collective and interactions (intended and unintended interactions) between organisations, sectors, communities and the wider determinants of health.
- **Assessment of cumulative and cross-sector impacts**, rather than considering individual projects or policies in isolation.
- **Working to integrate policies, programmes, services, organisations and places** within a single analytical framework to understand how they collectively influence health and wellbeing.
- **Consideration for both population-wide and place-based impacts**, recognising that climate risks and vulnerabilities vary across communities and settings.
- **Created and applied the Golden Interactions Methodology** to identify system relationships, interdependencies, priorities and opportunities for collective action.
- **Promoted health equity** by make use of influence, support and enablement as well as through feedback loops.
- Developed and advancing a Health, Environment and Climate in All Policies framework/Population and Planetary Health in All of Our Approaches, embedding health considerations across decision-making **beyond traditional Health in All Policies approaches**.
- **Facilitated collaboration and co-production** across sectors, disciplines and organisations, creating a shared understanding of complex challenges.
- **Provides a practical framework for addressing complex system challenges**, such as climate and health, where responsibility and solutions are distributed across multiple organisations and sectors.

Taken together, these characteristics represent an evolution of traditional HIA practice, providing an approach capable of understanding and responding to hyper complex, interconnected and interdisciplinary challenges at both strategic and operational levels.

To achieve this, the assessment combined systems mapping, evidence synthesis and stakeholder engagement to build a comprehensive understanding of the East Sussex system. This included:

- Mapping key organisations, services, assets, relationships and interdependencies;
- Developing analytical frameworks to understand system dynamics, pathways and cumulative impacts;
- Engaging stakeholders through climate and health conversations, workshops, surveys and collaborative discussions; and
- Bringing together scientific evidence, professional expertise, local intelligence and community insight.

This process enabled the HIA to assess the extent to which organisations, policies, programmes and services are:

- Aligned and committed to addressing environment, climate and health and its associated health impacts;
- Contributing to a coordinated, whole-system response to climate resilience;
- Collaborating across organisational, political and sectoral boundaries;

By developing and adopting this systemwide approach in East Sussex, this HIA has moved beyond assessing individual interventions to provide a comprehensive understanding of system strengths, vulnerabilities, interdependencies and opportunities for collective action. It has established a shared evidence base for coordinated decision-making and supports East Sussex in developing a more resilient, equitable and sustainable response to the health impacts of a changing climate.

## 12.3. Systemwide Health Impact Assessment Advantages and Added Value

A Systemwide Health Impact Assessment (HIA) represents an evolution of traditional project- and policy-based HIAs. Systemwide HIA provides significant advantages over traditional assessment approaches by enabling decision-makers to understand how interconnected policies, services, organisations and communities collectively influence health outcomes. Rather than assessing individual interventions in isolation, it adopts a strategic, place-based approach to understand how policies, programmes, sectors, services, organisations and the wider determinants of health interact across an interconnected system.

This enables decision-makers to assess cumulative impacts, identify opportunities for collective action and align priorities to improve population health, advance health equity, strengthen resilience and support long-term system transformation.

### A Whole-System Understanding

By bringing together quantitative evidence, qualitative insight, local intelligence and stakeholder expertise through evidence review, triangulation and synthesis, the Systemwide HIA develops a shared understanding of how a changing climate influences health across East Sussex. This broader perspective reveals system interdependencies, cumulative impacts, synergies and unintended consequences that are often overlooked when policies or projects are considered independently.

### Understanding Cumulative Impacts

Many of the greatest influences on health arise from the interaction of multiple policies, services and environmental conditions rather than from individual interventions. Unlike conventional HIAs, a Systemwide HIA examines the relationships and interdependencies between organisations, sectors, services, communities and the wider determinants of health. By bringing together quantitative evidence, qualitative insight, stakeholder expertise and local intelligence through a structured process of evidence review, triangulation and synthesis, it develops a shared understanding of how a changing climate influences health across the entire East Sussex system. This broader perspective reveals system interdependencies, cumulative effects, synergies and unintended consequences that are often overlooked when projects or policies are considered independently across housing, planning, transport, healthcare, education, environmental management, economic development and the wider determinants of health, enabling a more comprehensive understanding of risks, opportunities and co-benefits. This helps

organisations to anticipate unintended consequences whilst maximising health, environmental, social and economic co-benefits.

### Enabling Collective Action

A Systemwide HIA is both an assessment and a catalyst for change. By establishing a shared evidence base and common understanding of system priorities, it helps align organisations around shared outcomes, supports collaborative decision-making and directs collective effort towards areas where the greatest system-wide benefits can be achieved. This enables partners to coordinate resources more effectively, strengthen accountability and accelerate action to improve population health, reduce inequalities and build long-term climate resilience.

## 12.4. Benefits Beyond the Assessment

The value of a Systemwide HIA extends far beyond the production of a report. The process itself has strengthened the East Sussex system's collective capacity to respond to a changing climate by acting as a catalyst for learning, collaboration, innovation and organisational development.

This HIA has specifically:

- **Built knowledge, capability and capacity**, improving understanding of a changing climate, health inequalities, public health and the wider determinants of health.
- **Strengthened systems thinking and shared learning** through the creation of a common evidence base, shared language and improved understanding of system interdependencies.
- **Influenced policy and strategic decision-making** by embedding health, climate and environmental considerations into emerging policies, programmes, investment decisions and long-term planning.
- **Strengthened partnership working and Public Health leadership**, demonstrating the value of *leading without authority* to convene partners and facilitate coordinated action.
- **Encouraged innovation, co-production and continuous improvement**, creating opportunities to develop practical, evidence-informed solutions across organisational boundaries.

- **Supported long-term resilience and system transformation**, shifting the emphasis from reactive responses towards prevention, adaptation and resilience-building.

- Raised the profile of health within climate action, advancing a Health, Environment and Climate in All Approaches framework across the East Sussex system.

Collectively, these benefits demonstrate that the value of a Systemwide HIA lies not only in the evidence and recommendations it generates, but also in its ability to convene organisations, strengthen relationships, build shared ownership and create the conditions for sustained system-wide improvement. In doing so, it provides East Sussex with a practical framework for improving population health, reducing inequalities, strengthening climate resilience and supporting a healthier, fairer and more sustainable future.

# 13. Health Impact Assessment and 'Health in All Policies'

Awareness of the links between health and wider policy decisions is a key outcome of Health Impact Assessment (HIA). HIA is one of the principal mechanisms through which a **Health in All Policies (HiAP)** approach can be advanced in practice.

The Helsinki Statement on Health in All Policies defines HiAP as:

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"An approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies and avoids harmful health impacts in order to improve population health and health equity"

(WHO, 2014).

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Health in All Policies recognises that population health is not solely determined by healthcare services or health sector programmes. Rather, health and health inequalities are largely shaped by the social, economic, environmental and commercial conditions in which people are born, grow, live, work and age. Consequently, policies and decisions across all sectors—including transport, housing, planning, education, agriculture, environment, finance and economic development—have the potential to influence health outcomes and health equity.

HiAP is a recognised multisectoral approach that seeks to improve population health and wellbeing by embedding health considerations into policymaking across

government and partner organisations. At its core, it is an approach to integrated governance that promotes health and equity objectives whilst simultaneously supporting the priorities of partner sectors. Through identifying synergies and co-benefits, HiAP aims to create policies that contribute to healthier populations while also advancing wider social, economic and environmental goals.

A healthier population generates benefits far beyond the health sector. Improved health and wellbeing can contribute to reduced sickness absence, increased productivity, reduced demand on high-cost services and infrastructure, greater participation in active travel, increased volunteering and stronger community resilience. As such, considering health within policymaking is not solely beneficial for health services but can also support the core objectives of other sectors.

The importance of HiAP has grown as governments increasingly face interconnected social, economic, environmental and political challenges, including a changing climate, widening inequalities, demographic change and pressures on public services. These challenges are complex, intersecting and cannot be effectively addressed through isolated sectoral action. The Geneva Charter for Well-being highlights that fairer societies are healthier societies (WHO, 2021), reinforcing the need for greater collaboration across policy domains.

The growing emphasis on a "**just transition**" to a low-carbon economy further illustrates the importance of integrated policymaking. Policy objectives do not naturally align, and climate-related policies can generate unintended consequences if health and equity considerations are not incorporated from the outset. For example, decisions relating to housing insulation, energy pricing or environmental interventions may produce adverse health or health equity impacts if not carefully designed and implemented (WHO, 2023b).

Whilst siloed institutions can be effective in delivering focused services and policies, they are often less effective at addressing complex societal challenges that span multiple sectors. Evidence demonstrates that many issues—including nutrition, climate resilience, health inequalities and sustainable development—require coordinated action across policy areas and organisations. Effective responses therefore depend upon collaboration, shared ownership and integrated approaches to decision-making (Haselow et al., 2016).

Failure to collaborate has significant human and economic consequences. Health inequalities arise through complex interactions between policies, institutions and systems, and addressing them requires coordinated action across sectors. The European Parliament has estimated that health inequalities cost approximately 1.4% of GDP across the European Union through lost productivity, reduced tax revenues and increased healthcare expenditure (Mackenbach et al., 2011).

Although all sectors contribute to creating healthy and equitable societies, many organisations have limited awareness of the health implications of their decisions. Equally, some sectors may be reluctant to engage with health stakeholders due to concerns that health objectives could conflict with their own priorities. HiAP seeks to overcome these barriers by creating opportunities for shared understanding, collaborative problem-solving and mutually beneficial policy development.

Whilst HiAP can be applied to specific health issues or disease areas, its broader purpose is to sustain collaboration across sectors on the wider determinants of health and the societal challenges that influence multiple health outcomes simultaneously. Through deliberate consideration of health and health equity impacts, HiAP promotes transparency in policy trade-offs and supports more informed and balanced decision-making.

Several characteristics distinguish HiAP from other forms of intersectoral action:

- Formal governance structures and mechanisms capable of responding to emerging challenges and incomplete evidence.
- Collaboration between health and non-health sectors to jointly identify problems and develop solutions.
- A focus on achieving co-benefits for health, wellbeing, sustainability and development whilst recognising potential conflicts of interest.
- Investment in long-term, trusting relationships that support collaboration across issues and over time.
- An emphasis on upstream action, sustainable development and reducing inequalities in power, resources and opportunity.

HiAP seeks to improve accountability for the health and wellbeing impacts of policy decisions whilst supporting sustainable development through the mutual reinforcement of policies and strategies across sectors. It provides a practical framework for ensuring that health, equity and wellbeing are considered alongside wider social, economic and environmental objectives.

# 14. East Sussex's 'Population and Planetary Health in All Our Policies and Approaches (PaP-HiAPA)

Evolving and progressing use of 'Health in All Policies' in East Sussex

Health in All Policies (HiAP), alongside a range of complementary approaches, has informed the East Sussex Climate and Health Toolkit and the development of this

Systemwide Health Impact Assessment (HIA). The HIA methodology draws upon World Health Organization (WHO) guidance, international HiAP frameworks and evidence-based practice identified within the scientific literature.

However, despite widespread international adoption, there is no single prescribed methodology for implementing HiAP. In practice, HiAP is delivered through different mechanisms, governance arrangements and levels of maturity depending upon the political, organisational, financial and cultural context of a place.

The WHO report *Working Together for Equity and Healthier Populations: Sustainable Multisectoral Collaboration Based on Health in All Policies* (2023) highlights that successfully embedding HiAP requires active collaboration across sectors, joint exploration of policy solutions and the development of governance structures that facilitate long-term partnership working. The report emphasises that health organisations must be outward-looking, open to the priorities of other sectors and committed to building collaborative relationships. It also highlights the need to avoid perceptions of "health imperialism" whereby health is viewed as seeking to dominate the agendas of other sectors.

This presents an important challenge. Whilst the intention of HiAP is collaborative, the terminology itself can unintentionally reinforce perceptions that health is the primary or dominant policy objective. This can create barriers to engagement and ownership amongst sectors whose primary responsibilities may relate to environment, transport, planning, economic development, education or community services.

Yet the role of public health is not to direct other sectors. Rather, it is to:

- Understand the priorities, drivers and decision-making processes of other sectors.
- Facilitate co-design and co-production of policies that generate mutual benefits.
- Build and share evidence to support informed decision-making.
- Foster dialogue, collaboration and partnership working.
- Identify opportunities to improve health, wellbeing and equity.
- Assess the effectiveness of actions and the costs of inaction.
- Promote synergies and negotiate trade-offs between competing priorities.
- Advocate for action on the wider determinants of health.

Similarly, successful HiAP requires public policy actors outside the health sector to:

- Participate in co-design and co-production processes.
- Share policy priorities and identify connections to health and wellbeing.
- Build trusting and transparent relationships.
- Support collaborative decision-making across organisational boundaries.

- Engage constructively in addressing tensions and competing priorities.
- Champion collaborative approaches within their own organisations and sectors.

If public health is expected to lead through influence rather than authority, there is a strong case for evolving both the language and application of HiAP to better reflect shared ownership, equal partnership and contemporary policy challenges.

## From Health in All Policies to Population and Planetary Health in All of Our Policies and Approaches (PAP-HiAPA)

East Sussex has identified a need to evolve both the language and practical application of Health in All Policies as part of a broader effort to create a more inclusive, collaborative and system-wide approach to improving health, wellbeing and sustainability.

Whilst HiAP remains a highly valuable and internationally recognised framework, the term itself can sometimes be misunderstood and interpreted as implying that health should take precedence over other policy priorities. In some circumstances, this can create perceptions of public health "ownership" or "take-over" of wider policy agendas and may unintentionally reinforce concerns about "health imperialism."

Yet improving health outcomes is not solely the responsibility of the health sector. The majority of factors influencing health occur long before individuals come into contact with healthcare services and are shaped by the places where people live, work, learn, travel and spend their lives. As a result, all sectors contribute to creating healthy, equitable and sustainable societies.

Health is intrinsically linked to wider social, economic and environmental objectives, including employment, education, transport, housing, climate resilience, environmental protection, community safety and economic prosperity. The whole-system and cross-sector collaboration promoted through HiAP therefore remains essential for addressing the wider determinants of health and reducing health inequalities.

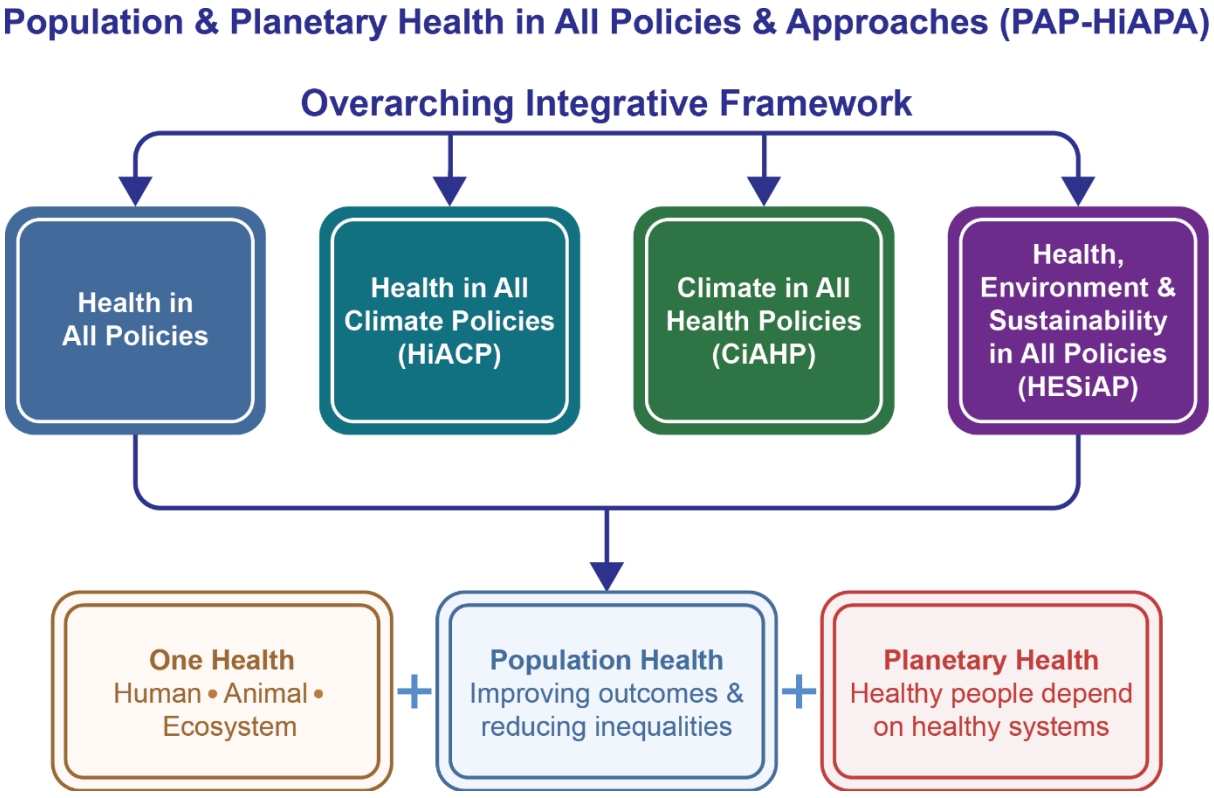
However, East Sussex recognises that placing equal emphasis on environmental sustainability and planetary health can create a more inclusive framework that encourages all sectors to participate as equal partners from the outset.

For these reasons, East Sussex has sought to evolve HiAP towards a broader and more inclusive framework that simultaneously encompasses:

1. Health in All Policies (HiAP).
2. **Health in All Climate Policies (HiACP)** and **Climate in All Health Policies (CiAHP)**, recognising the need for a whole-government and whole-society response to the climate-health nexus.

3. Health, Environment and Sustainability in All Policies (HESiAP).
4. Population and Planetary Health in All Policies and Approaches (PAP-HiAPA).

Together, these approaches provide a comprehensive framework for improving health, reducing inequalities, strengthening resilience, protecting the environment and supporting sustainable development for current and future generations.




East Sussex has therefore sought to evolve the HiAP concept into a broader and more inclusive framework:

## Population and Planetary Health in All Policies and Approaches

This evolution reflects several important realities:

- Most determinants of health lie outside the healthcare system.
- Human health is fundamentally dependent upon environmental health.
- A changing climate is increasingly recognised as a major public health challenge.
- Social, economic and environmental objectives are interconnected.
- All sectors contribute to creating healthy, sustainable and resilient communities.

The intention is not to replace HiAP, but to broaden and strengthen it by placing population health and planetary health on an equal footing. This helps address perceptions of health exceptionalism whilst recognising that improving population health requires simultaneous action on environmental sustainability, climate resilience, social equity and economic wellbeing.

**Strategic Ambition:** The ambition is to move beyond simply 'Health in All Policies' towards **'Population and Planetary Health in All Approaches' (which includes 'in all policies').** The intention is to work towards making health, wellbeing, sustainability and resilience everybody's business.




**Madigasekera-Elliott 2026**

## Definitions and Evolving the Health in All Policies Approach

**Health in All Policies (HiAP) (1986; term formalised internationally from 2006):** Health in All Policies (HiAP) is a public policy approach that systematically considers the health implications of decisions across all sectors. It seeks to identify synergies, avoid harmful health impacts and improve population health and health equity through collaborative policymaking and integrated governance.

The approach recognises that population health is largely shaped by the wider determinants of health and that policies across transport, housing, planning, education, environment, economic development and other sectors all influence health outcomes.

**Health in All Climate Policies (HiACP) (2023):** Health in All Climate Policies (HiACP) is an approach that ensures health considerations are explicitly integrated into climate change mitigation and adaptation policies. It requires governments and organisations to consider the health implications of climate-related decisions in areas such as energy, transport, housing, agriculture, land use and urban planning.

**Purpose**

- To ensure climate action does not inadvertently harm health or widen inequalities.
- To maximise health co-benefits from climate action.
- To strengthen the contribution of climate policy towards improved population health and wellbeing.

Examples include reducing air pollution, increasing active travel, improving housing quality and creating healthier environments whilst simultaneously reducing carbon emissions.

**Climate in All Health Policies (CiAHP) (2023):** Climate in All Health Policies (CiAHP) is an approach that ensures health systems, public health programmes and healthcare policy explicitly consider climate change impacts, adaptation and resilience.

**Purpose**

- To prepare for and respond to climate-related health risks.
- To strengthen the resilience of health and care systems.
- To reduce the environmental and carbon footprint of healthcare services.
- To support the transition towards climate-smart health systems.

Examples include preparing for heatwaves, flooding, vector-borne diseases, air pollution events and other climate-sensitive health risks.

**Health, Environment and Sustainability in All Policies (HESiAP):** Health, Environment and Sustainability in All Policies (HESiAP) extends HiAP by recognising the interdependence of population health, environmental sustainability and economic resilience.

It promotes policy and decision-making processes that protect and enhance the wellbeing of current and future generations by integrating:

- Environmental sustainability
- Social sustainability
- Economic sustainability
- Health equity
- Environmental justice
- Resource stewardship

The approach seeks to balance human wellbeing, economic prosperity and environmental protection whilst safeguarding natural systems and reducing pollution and environmental degradation.

**One Health (2003):** One Health is an integrated and unifying approach that seeks to sustainably balance and optimise the health of people, animals and ecosystems. It recognises that the health of humans, domestic and wild animals, plants and the wider environment are fundamentally interconnected and interdependent. Consequently, many contemporary challenges—including emerging infectious diseases, antimicrobial resistance, food security, biodiversity loss and climate change—require coordinated action across human, animal and environmental systems.

**Population Health:** Population Health focuses on improving health outcomes for entire populations by addressing the wider determinants of health and reducing inequalities between groups.

Rather than focusing solely on healthcare services or individual behaviours, Population Health seeks to influence the social, economic, environmental and commercial conditions that shape health outcomes across communities and places.

**Planetary Health**: Planetary Health is based on the understanding that human health and civilisation depend upon flourishing natural systems and the responsible stewardship of those systems.

The concept recognises that environmental degradation, climate change, biodiversity loss, resource depletion and pollution increasingly threaten human health and wellbeing. Planetary Health therefore seeks to identify and promote solutions that simultaneously protect ecological systems and improve human health outcomes.

As described by Whitmee et al. (2015), Planetary Health is concerned with safeguarding human health in the Anthropocene by ensuring that humanity operates within the environmental limits of the Earth's natural systems.

Added to these definitions is the emerging definition of '**Health Net Gain**': Health Net Gain is the measurable improvement in the health, wellbeing and health equity of a population resulting from a policy, plan, programme or development, ensuring that people and communities are healthier after implementation than they would have been without it.

It is an **emerging concept in planning, public health and place-making** that seeks to ensure that new development leaves the health and wellbeing of people **better than before**—in much the same way that Biodiversity Net Gain (BNG) aims to leave nature in a measurably improved state.

Although there is currently **no statutory definition** of Health Net Gain in England, it is increasingly being developed through planning policy, Health Impact Assessments (HIAs), Healthy Places approaches and Health in All Policies (HiAP).

For East Sussex Health Net Gain is the demonstrable improvement in population health, wellbeing, resilience and health equity resulting from a policy, plan, programme or development. It is achieved by avoiding and mitigating adverse health impacts while maximising opportunities to create healthier, more sustainable and climate-resilient places where people can live well, thrive and flourish.

# 15. Insights, Considerations and Opportunities for East Sussex

The findings of this HIA demonstrates significant opportunities to strengthen the integration of environment, climate, public health and wider policy agendas, as well as approaches across the county. Whilst considerable activity is already underway, future progress will depend upon moving beyond individual initiatives towards a coordinated, whole-system approach that recognises the changing climate as a public health, environmental, social and economic challenge.

Environmental challenges and a changing climate do not affect organisations, sectors or communities in isolation. It influences the environmental, social and economic determinants of health, placing increasing pressure on people, places, services, infrastructure and local economies. Responding effectively therefore requires climate and health to become integrated, mutually reinforcing priorities embedded within governance, policy development, investment, commissioning and service delivery across East Sussex. Equally important is ensuring that national policy, scientific evidence and international best practice are translated into meaningful local action.

This HIA has been developed to support this transition by providing a shared evidence base, a common understanding of climate-health challenges and a practical framework for coordinated action. In doing so, it seeks to:

### Strengthen the Evidence Base and Decision-Making

Develop a robust and evolving understanding of the health effects of a changing climate by bringing together local intelligence, stakeholder expertise and the best available national and international evidence. This evidence supports policy development, commissioning, investment, service redesign and resource allocation, enabling informed decisions that are proportionate to risk, responsive to emerging evidence and focused on areas of greatest need, opportunity and impact.

## Build Resilience, Preparedness and Sustainable Prosperity

**Strengthen the capacity** of people, communities, organisations, infrastructure and public services to anticipate, withstand, adapt to and recover from climate-related shocks and stresses. By embedding climate and health considerations within long-term planning and investment, East Sussex can improve service continuity, reduce future demand on health and care services, minimise disruption to communities and businesses, and support sustainable economic growth.

## Accelerate Prevention and Maximise Collective Value

Provide **clarity in the face of complexity** by identifying the relationships between a changing climate, health, the environment and the wider determinants of health. The HIA enables organisations to align priorities, reduce duplication, strengthen coordination and maximise the value of limited resources through collaborative action. By promoting prevention, early intervention and long-term planning, it supports cost-effective approaches that reduce avoidable harm whilst improving outcomes for people and place.

## Protect Vulnerable Communities and Advance Health Equity

Identify the people, places, services and assets most vulnerable to climate-related health impacts and ensure that they remain central to adaptation and resilience planning. Recognising that climate risks are experienced unequally, the HIA promotes proportionate action to reduce health inequalities, strengthen social justice and improve health equity across East Sussex.

## Enable a Coordinated Whole-System Response

Provide a practical framework for collective action that brings together organisations, sectors, services, communities and stakeholders around a shared vision. By identifying gaps, reducing barriers, resolving tensions, creating opportunities and strengthening collaboration across traditional organisational boundaries. The HIA supports a coordinated approach that simultaneously advances climate resilience, environmental sustainability, population health and community wellbeing.

## Champion and Deliver Population and Planetary Health in All of Our Approaches

Champion a transformative approach in which health, environmental sustainability and climate resilience are routinely considered across governance, policy development, planning, commissioning, investment and service delivery. Moving

beyond siloed approaches enables every organisation to recognise its contribution to both population and planetary health whilst maximising co-benefits across multiple policy agendas.

## Create a Roadmap for Long-Term Transformation

Provide East Sussex with a practical, evidence-informed and system-owned roadmap for addressing the health impacts of a changing climate from 2026 to 2080 and beyond. The HIA establishes a foundation for continuous learning, adaptation, innovation and improvement through its considerations, opportunities, implementation framework and future review cycles.

To conclude, one of the most significant achievements of this HIA has been the creation of a shared system-wide understanding of changing climate as a health issue and the development of a collective framework for action.

The assessment recognises that building climate resilience is not simply about implementing individual recommendations. It requires the gradual development of a mature whole-system approach capable of responding to complexity, uncertainty and long-term change.

This has involved recognising the complexity of a changing climate; developing a comprehensive understanding of existing policies, services and organisational relationships; creating opportunities for shared learning through stakeholder engagement, workshops and climate-health conversations; and strengthening partnerships across environmental, health, social and economic sectors.

The HIA has helped to build trust, create shared ownership and strengthen collaboration by providing safe spaces for organisations to challenge assumptions, explore different perspectives, identify barriers and uncover opportunities for joint working. Through systems mapping and analysis, it has identified patterns, leverage points and opportunities for change, whilst encouraging organisations to view climate resilience through the wider context of population health, health equity and sustainable development.

Stakeholders consistently highlighted that future success depends upon maintaining this collaborative approach. Priorities include strengthening organisational capability, investing in climate and health literacy, improving the integration of health, climate and environmental data, developing meaningful indicators, enhancing monitoring and evaluation, and ensuring that communities continue to shape policy through co-production and meaningful participation.

Ultimately, this HIA demonstrates that responding to a changing climate requires more than integrating health into individual policies. It requires embedding **Population and Planetary Health in All of Our Approaches** across systems, sectors,

services, organisations, and decision-making. The considerations, opportunities and action steps developed through this HIA are therefore not intended to be viewed as isolated actions, but as interconnected components of a broader programme of system transformation.

The strength of a whole-system approach lies in its ability to move beyond fragmented responses towards coordinated action. A changing climate will affect every part of the East Sussex system. Consequently, the response must also come from the whole system. By embracing systems thinking, partnership working and collective leadership, East Sussex is creating the foundations for a healthier, fairer, more resilient and environmentally sustainable future. This will mean our people, communities and our natural environment are not only protected from a changing climate but are enabled to thrive despite it.

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