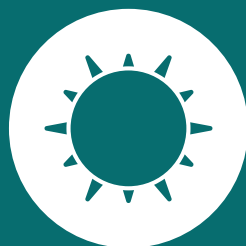


# Climate and health in Newham



# About climate

**Climate change** is a significant global challenge that impacts our communities, ecosystems and economies.

It not only leads to increasing temperatures, but also causes extreme weather events, more floods and droughts, water scarcity, air pollution, a declining biodiversity, new patterns of disease-carrying vectors, and reduced food production.

But the greatest impacts are felt by the most disadvantaged communities due to deep inequalities that only increase as a result. Addressing climate change through actions, such as developing more green urban spaces, energy efficient homes and sustainable travel can yield numerous health co-benefits.

**Prioritising a just transition is key to mitigating the unequal impacts of climate change.**

## Climate change mitigation:

avoiding and reducing emissions of heat-trapping greenhouse gases into the atmosphere to prevent the planet from warming further.



## Climate change adaptation:

altering our behaviours, systems, and lifestyles to protect our communities, economies, and environment from climate change impacts. The more we reduce emissions right now, the easier it will be to adapt to the changes we can no longer avoid.



# How does climate change impact health in the UK?

## Physical health impacts

- Injury and mortality from extreme weather events.
- Heat-related illness.
- Respiratory illness.
- Water-borne diseases and other water-related health impacts.
- Vector-borne diseases.
- Malnutrition and food-borne diseases.
- Non-communicable diseases.

### Did you know?

In the UK, there has been a **21% increase in heat related mortality** among individuals **over 65 years old** between 2004 to 2018.



## Mental health impacts

- Mental and psychosocial health.
- Stress.
- Sleep issues.
- Panic attacks.
- Flood-related mental health impacts.
- PTSD from extreme weather event impacts.

### Did you know?

A study in England found that the prevalence of probable **depression, anxiety, and PTSD** among **flood-affected individuals** was **20%, 28%, and 36%** respectively.



## Public services

- Strain on life-saving public services, like ambulances, police, and fire services.
- Increased difficulty for healthcare professionals to get to work, compromising care delivery.



## Socio-economic impacts

- Damage to economies.
- Projected decline in foreign trade.
- Climate impacts on agricultural sector and related consequences on the economy.



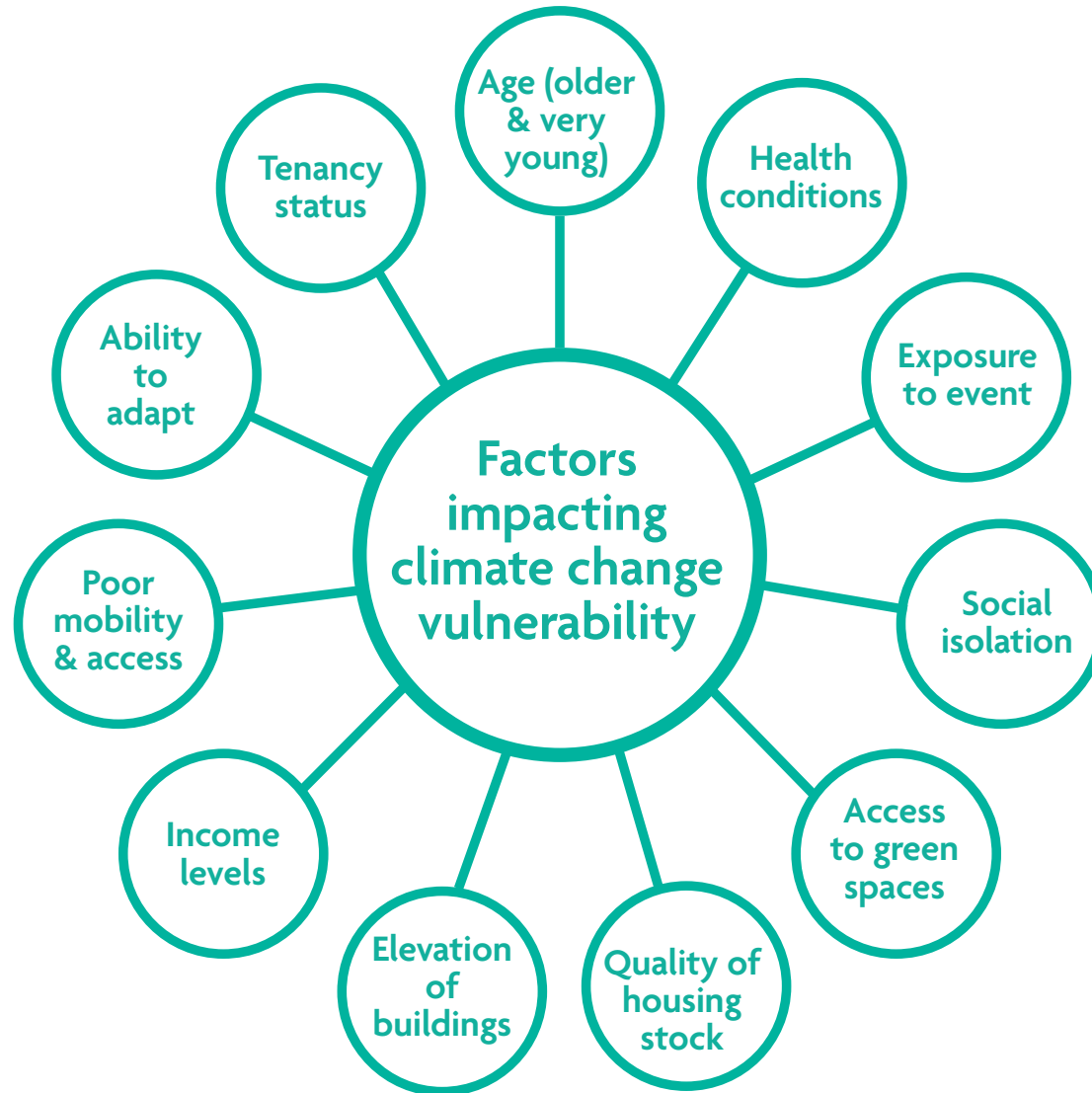
### Did you know?

The **cost of damage from climate change** is projected to **rise from 1.1% to 7.4% of UK GDP** by 2100.



# Who is at risk?

Newham is amongst the top ten most vulnerable local authorities in the UK. Our resident population includes groups with greater vulnerability to climate impacts due to various factors, including personal, environmental and social risk factors.



# Who is at risk?

Newham is amongst the top ten most vulnerable local authorities in the UK. Our resident population includes groups with greater vulnerability to climate impacts due to various factors, including personal, environmental and social risk factors.

## Personal factors

Personal characteristics based on factors including **age**, **health conditions** and **reduced mobility** can heighten an individual's sensitivity to climate impacts.

For example, **young children and infants** can be disproportionately affected by climate change as it can cause potential developmental impacts including **behavioural difficulties**.

Individuals with **cardiovascular diseases**, including coronary heart disease, are **more susceptible to heat** due to factors like decreased sweating mechanisms and inadequate increases in skin blood flow.

## Environmental & geographic factors

Including factors such as **accessibility to green spaces**, **quality** and **type of housing**, and **tenancy status** that can amplify or mitigate exposure to flooding or heat.

For example, neighbourhoods with **limited green spaces** may experience extreme consequences of issues such as heatwaves.

Flats in high-rise buildings can have a **6-fold** difference in temperatures when comparing the ground and the top floors.

**32 neighbourhoods** in Newham are deprived of green space.

## Social & economic factors

Factors including **social isolation**, **deprivation levels** and **unemployment**.

Deprivation levels are based on factors such as **health**, **disability**, **education**, **access to services** and **crime**, which are all exacerbated by climate change.

Newham ranks **3rd worst** on the regional deprivation index for London.

**19.3 % of children under 16 in Newham** are from absolute **low-income families** which puts them at a greater risk.

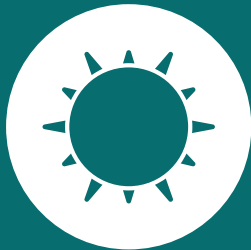


# What does this mean for Newham?

We need to target the most acute and impactful effects of climate change that will be felt by residents. These are the four priority issues that the council can address using positive actions, policy, and governance.



Flooding



Heatwaves



Air  
Pollution



Climate  
Anxiety

# What does this mean for Newham?



## Flooding

### Climate impact

A significant risk for Newham as **one of the six** London boroughs most likely to be hit by 'catastrophic' flooding.

More than 20 places in Newham hit by **flash flooding** in **July 2021** - A&E forced to close.



### Public health impact

Damage or permanent loss of homes, leading to lives being **uprooted** and **residents displaced**.

**Disruptive** impact on **vital services** such as **hospitals, care homes** and **public transport**.

**Psychological** effects of flooding, including **anxiety, depression, and PTSD**.



### Ideas for adaptation

Implementing **nature-based solutions**, like sustainable drainage systems, to reduce flood risks.

**Avoiding inappropriate development** in areas of flood and coastal erosion risk.

Increasing **permeable** and **green surfaces** to provide better water-retention solutions.



# What does this mean for Newham?



## Heatwaves

### Climate impact

Newham is the second-most **vulnerable area** to extreme heat in the UK, with **154** neighbourhoods requiring urgent adaptation.

Record temperature of **40.0°C** recorded in Newham during the unprecedented heatwave of **July 2022**, beating the previous record by 1.3°C.

**40.0°C**  
recorded in Newham

### Public health impact

UK heat-related **deaths expected to triple by 2050**.

**High temperatures** pose a risk to **human health** (i.e. **heat stroke, exhaustion, exacerbation of long term conditions** including **cardiovascular disease, respiratory disease** and **diabetes**).

Disruptive impact on **vital services**, including **overcrowding** in hospitals during heatwaves and **public transport disruption**.

Increased inequalities due to **deprivation levels** - e.g. houses & neighbourhoods that are **poorly adapted** for persistent high temperatures put people at a **higher risk**, specifically targeting those in deprived areas.

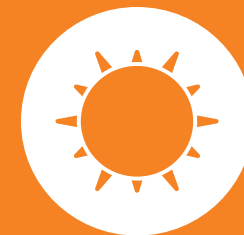


### Ideas for adaptation

**Adapt housing** to be more **heat resilient**, such as by **painting rooftops in a lighter colour** to reduce **daytime temperatures**.

Increase **investment** for **tree planting** and **maintenance**.

Community **awareness** on ways to **stay well** during a heatwave.





# What does this mean for Newham?



## Air Pollution

### Climate impact

Newham has one of the **worst levels of air pollution** in London.

On average, Newham residents are exposed to a level of airborne particulate matter that is **35% greater** than WHO guidelines.

High temperatures worsen **air quality** as they lead to a rise in ground-level ozones which pose serious **threat** to **human health**.

The main sources of greenhouse gases also produce **air pollutants**, including **harmful gases** like carbon monoxide, in the atmosphere.

### Public health impact

In 2021, **6.8% of deaths** in Newham were due to particulate air pollution.

On average, Newham residents are exposed to a level of airborne particulate matter that is **35% greater** than WHO guidelines.



### Ideas for adaptation

**Reduce & decarbonise** vehicles.

Reduce home **wood burning**.

**Pedestrianisation** of urban spaces and implementation of more **low-traffic neighbourhoods**.



# What does this mean for Newham?



## Climate Anxiety

### Public health impact

According to the biggest scientific study yet on climate anxiety and young people, nearly **6 in 10 people** aged **16 to 25** are very or extremely worried about climate change, based on a survey in **10 countries**, including England.

Nearly half **report climate anxiety** to affect their daily lives, and three-quarters agree that **'the future is frightening'**.

Newham already has one of **the highest levels of mental health disorders** in the country, with **23.9%** of residents diagnosed.

**In Newham**, around **15,000 children** and **young people** have a **diagnosable mental health illness**, and **57% of child and adolescent psychiatrists in England** are seeing **patients distressed** about the **environment**.

**Fears** for the future due to climate breakdown, with increasing feelings of **hopelessness, anger** and **abandonment**.



### Ideas for adaptation

More **community climate engagement & involvement**.

**Future ready neighbourhoods programme** - involve local communities to develop neighbourhood-level approaches.

More **active travel** and increase of **green spaces**.

