

Update on climate and health input to the Joint Strategic Needs Assessment Report of the Director of Public Health, Communities & Prosperity

Please note that the following recommendations are subject to consideration and determination by the Committee before taking effect.

1) Recommendation

(a) That the Health and Wellbeing Board agree that the first full iteration of a climate change Joint Strategic Needs Assessment (JSNA) is paused while the UK Health Security Agency (UKHSA) develops a national set of indicators.

(b) In the interim a first outline JSNA is formed around those indicators where data available that could be used, or the indicator is currently in use, that directly inform policy within the Council.

2) Background

The UK government is required under the Climate Change Act 2008 to monitor progress on adaptation. The UKHSA carried out a 'Climate change and public health indicators: scoping review'ⁱ in September 2023. This review included working with local authority stakeholders from public health, emergency planning, and adaptation officers, to inform the review. The UKHSA report reviewed the current sets of environmental and public health indicators that could be used to monitor progress in climate change adaptation and mitigation in the UK. It should be noted the focus was on priorities for the UKHSA. Additional indicators may be developed either locally, in conversation with the Office for Health Improvement and Disparities (OHID), or others to inform local action.

Our specific aim for Devon would be to develop a JSNA that informs local climate, health, and equity as part of a Health in All Policy approach. Although the ideal would be to design the JSNA around priority indicators first, this may not be possible due to lack of availability. A pragmatic approach will be taken to develop a tool with available indicators that meet priority need, and seek to influence creation of adoption of further indicators deemed most important.

3) Main Body / Proposal

The indicators explored by the UKHSA are presented in Table 1. We will seek to influence the prioritisation of availability of indicators, and integration into local JSNA dashboards to inform Health and Wellbeing and other local strategy updates. Given that a National data

set and dashboard is being developed it would seem prudent to pause development of a Devon Climate JSNA. This will reduce potential for duplication of effort, and ensure the Devon indicators are robust and comparable to a larger dataset. Consideration also needs to be given as to the data behind the indicators, and whether they can be directly linked to the JSNA dashboard.

It is noted that a number of indicators need new processing of existing data or are not currently feasible. This situation would also apply should we aim to develop indicators around health and climate change plans ourselves. It is therefore good that UKHSA are taking the initiative in developing these nationally. We will however look at potential gaps in areas we may wish to report in and seek to address these with the UKHSA and others. In the interim it is proposed to build a first iteration considering the indicators in section 4, where these can be incorporated into a dashboard.

In exploring indicators we will also consider other existing or emerging evidence. Having drawn evidence together for Public Health Annual Reports and the Devon Climate Emergency¹ the data used will be considered for longer-term indicators. Other tools will also be considered to inform a narrative around indicators. One of the key tools being developed is the 'Local Climate Adaptation Tool' (LCAT²) which brings together complex climate models, adaptation options, and health impacts. This type of tool will help translate global issues into local policy and actions to support population health. The primary focus is to look at indicators that inform public health prevention in relation to climate mitigation and adaptation.

Available Indicators³

The following indicators that are available now will be particularly useful in informing policy around current future climate change impacts in Devon. We do not have an timetable for the release of further indicators, but will work closely with UKHSA as these develop.

Exposure of solar ultraviolet (UV) radiation (H1)

Exposure to ultraviolet radiation from the sun is the most important factor in relation to skin cancer. The southwest of England, including Devon, has experienced higher levels of skin cancer than elsewhere in the UK. Evidence suggests that climate change is likely to contribute to increasing prevalence. The risks are not just in summertime; with interaction with sunlight on the atmosphere, pollutants, and angle of sunlight, risks can occur in other months.

UKHSA undertakes assessments of UV and illuminance to assess risk of causing sunburn, and provided in a simplified UV index. The Met Office currently provides UV forecasts and will be incorporating factors to account for changes in ozone, that affects exposure, across the seasons. With climate change public health UV warnings may need to be extended, particularly starting earlier in the year. Any indicator should inform current levels of potential

¹ <https://devonclimateemergency.org.uk/studies-and-data/health-impacts-of-climate-change/>

² <https://www.lcat.uk/>

³ UKHSA (2023) Climate change and public health indicators: scoping review

exposure and work with partners to promote remedial measures; from health promotion encouraging use of skin cream to increasing shading within the built and working environments. These measures would need to be sensitive and appropriate for differing socio-demographic groupings.

Public Health have previously supported local and national campaigns, such as; 'Be Clear on Cancer' seeking to encourage people to tell their GP if they noticed unusual or persistent changes to their skin, and 'Cover Up, Mate' seeking to inform men in agriculture, construction, gardening, or sports on risks of exposure to sun, and protect themselves by using sunscreen.

Annual heat illness (H4)

Exposure to heat can exacerbate existing conditions, such as renal disease and diabetes. Other population groups may also be particularly prone to the effects, such as young children, or older adults, as they may not be as able to regulate heat physiologically, or by moving to cooler location. Due to the rapid onset of complications, and symptoms not always recognised, mortality risk can be higher than morbidity risk. The UK Health Security Agency (UKHSA) has published its first Health Effects of Climate Change (HECC) report, one of the main factors is around increasing impacts of heat. Although we will continue to see increasing impacts on health through cold winters (due to increasing and aging populations), the effects of heat will become increasingly significant. The higher temperatures that will be experienced will have unequal impacts. The JSNA should consider populations most susceptible to temperature-related health risk. Evidence of any variation in geographic or social vulnerability will need to inform any targeted interventions.

UKHSA collects information around heat illness on a real-time basis which permits immediate remedial messaging and measures. However, in adapting to heat a wider approach will need to be taken through various areas of the authority, through planning for adult social care to planning for changes within built environments. This latter area will need cross-working with districts and the new devolved authority.

Public Health Devon and Devon County Council currently promote any warnings from the UKHSA and contribute to local adverse weather and health planning.

Use of outdoor space for physical activity (H5)

Use of outdoor space for physical activity is one key example where joined-up planning in developing, or utilising existing, amenities is key. Planning, transport planning, and natural environment team play a key role in optimising the utility of outdoor space for activity. There is strong evidence linking greenspace with physical and mental wellbeing. We should also consider enabling people to be active as part of their everyday life, such as walking to their local shops, park, or public service. As an authority we have direct influence of transport planning, work with district planners, as a devolved authority, and key partnerships, such as the Local Nature Partnership. Together these can pay dividends in return on investment by enhancing public health and wellbeing through existing activities of the authorities. A Health in All Policy approach can optimise the returns.

The Public Health Outcomes Framework can provide indicators on accessing greenspace, access to woodland, and utilisation of outdoor space for exercise or health reasons. In addition we may look to colleagues monitoring delivery of specific areas of work – for example Devon’s Tree and Woodland Strategy assessed natural capital at just under £360 million per annum, this figure includes indirect health benefits of climate regulation and economy, and direct benefits in relation to mental and physical health⁴.

Fuel poverty (C2)

Living in a cold home can contribute to respiratory illnesses, such as asthma, and worsen cardiovascular disease and other conditions, such as arthritis. Lack of heating in the home may lead to condensation and damp, providing conditions for harmful mould to grow.

Fuel poverty in England is measured using the ‘Low Income Low Energy Efficiency (LILEE) indicator. This considers those living in an energy efficiency rating of band D or below, and that when they spend enough to heat their home they are left with a residual income below the poverty line. The key factors are household income, household energy requirements, and fuel prices. However, fuel prices and the energy efficiency of the home can also influence whether a household is in fuel poverty. The current indicators from the Public Health Outcomes Framework on fuel poverty may be used. Although Devon is starting to experience warmer winters, this is not foreseen to positively influence fuel poverty in the near future.

Alongside fuel poverty we would be working with colleagues in the Energy Saving Partnership and Devon Energy Group to ensure that those in most need are able to access retrofitting to improve home insulation, and reduce impacts of energy prices through increasing domestic sustainable energy networks. Other indicators that demonstrate improved health outcomes, for example reduction in respiratory disease, may also be considered. However, to demonstrate any causality, as with many indicators, specific research and evaluation may be required – here we are interested in links with health due to internal environments. Specific local surveys have explored the scale of issues around fuel and food poverty in Devon⁵.

Proportion of households that are food insecure (FS7)

Linked to fuel poverty is food insecurity, where people may have a choice of ‘heat or eat’, or an inadequacy of both. Food poverty is when an individual cannot afford or access food. The implication is that most are not able to meet UK dietary guidelines. This means that people are missing meals and eating unhealthy foods that may be cheaper, resulting in an increase in non-communicable diseases. Climate dependent food prices, and availability, may exacerbate existing food inequalities in food consumption⁶, with increased issues of diet related non-communicable diseases more prevalent in more deprived communities. The Office of National Statistics provides some indicators around food expenditure as a

⁴ [Environment websites - DTWS Full-Mar 2024 Accessible Version.pdf - All Documents \(sharepoint.com\)](#)

⁵ <https://www.devonhealthandwellbeing.org.uk/library/topic-overviews/food-and-fuel-insecurity-2023/>

⁶ It is noted current concerns being raised around food production due to the recent wet winter.

proportion of household spend, and food security. This may provide some indication of impacts on food poverty due to climate change, and impacts on health.

Public Health and others within Devon County Council have contributed to the Devon Food Partnership. The Partnership enables collaboration and communication between food stakeholders across the County in tackling food poverty. The main aim is to ensure that nutritious, local, sustainably produced food is available, and affordable, for everyone in Devon.

Active travel (M3)

The public health benefits of regular physical activity is growing in evidence. Regular physical activity reduces the risk of several non-communicable diseases, including some cancers, diabetes, obesity, hypertension, and depression. Increasing levels of physical activity is central to improving the health of people in Devon. Active travel seeks to replace some journeys by motorised travel with more active alternatives, primarily walking, as well as cycling. Doing so means 'exercise' is not a separate activity, but one that fits in with everyday life. As active travel replaces some motorised journeys it has a 'co-benefit' in reducing emissions that contribute to climate change, as well as poor air quality affecting health directly.

The current public health outcomes framework provides indicators around percentage of adults who walk at least three times a week, and a similar one for cycling. Other indicators look at overall levels of activity. Although high level indicators can provide overall direction of travel, additional indicators may be considered. A well-designed transport system should contribute to health, equity, and climate through a Health in All Policy approach. We may look to more specific measured indicators, such as the World Health Organisation 'Health Economic Assessment Tool' (HEAT) and the Department for Transport 'Active Mode Appraisal Toolkit' (AMAT). These tools look to assist economic health impact assessments and can be used to assess specific interventions, or indicative societal benefits of active travel within some geographies, for factors such as health improvement and carbon reduction. Providing an economic assessment for overall impact of active travel can inform policy decisions.

Potential climate change and public health indicators from UKHSA

Indicator	Name of indicator	Availability
H1.	Exposure to solar ultraviolet (UV) radiation	A*
H2.	Proportion of housing stock with overheating risk	P
H3.	Annual heat-related mortality	P
H4.	Annual heat illness	A*
H5.	Use of outdoor space for physical activity	A
H6.	Health impacts of wildfires	NF
H7.	Spatial planning measures for urban cooling	P
H8.	Local heatwave plan	P
H9.	Extreme heat in the local risk register	P
C1.	Proportion of housing stock with low indoor temperature	P
C2.	Fuel poverty	A*
C3.	Annual cold-related mortality and morbidity	P
C4.	Proportion of homes with (retrofit) energy efficiency upgrades by type	P
F1.	Number of floods or populations flooded	P
F2.	Flood warnings by populations affected	NR
F3.	Populations with estimated frequency of flooding of more than a 1% chance in any year	P
F4.	New properties built on land with an estimated frequency of flooding of more than a 1.3% chance in any year	P
F5.	Proportion of households without flood insurance	P
F6.	Death or injury from flood events	P
F7.	Estimated number of people suffering flood related adverse mental health impacts	NF
F8.	Number of people displaced from home for more than 30 days because of flood damage	NF
F9.	Local Authority planning policy and guidance to minimise new dwellings and assets in flood risk areas	P
F10.	Proportion of dwellings with property-level flood resilience	P
F11.	Monitoring of the Flood and Coastal Erosion	P
E1.	Rate of coastline loss due to coastal erosion	A
E2.	Population at risk of inhabitability within 20 years because of coastal erosion	P
E3.	Population at risk of coastal flooding or erosion without insurance or compensation scheme	NF
E4.	Number of camping and caravan sites with evacuation flood or erosion plans in place	P
E5.	Coastal risk management plans	P
V1.	Seasonal temperature profile compatible with survival of disease vectors	P
V2.	Weekly tick activity	NF
V3.	Fortnightly mosquito activity	NF
V4.	Invasive species	NF

V5.	Tick bite species at veterinary practices	NF
V6.	Number (rate) of Lyme disease cases	P
V7.	Autochthonous cases of vector-borne disease	P
V8.	Implementation of monitoring and reporting system for vectors	P
FS1	Pollinator abundance	P
FS2	Yields per hectare and livestock or productivity by crop and livestock group	P
FS3	Foodborne outbreaks and or reported concerns and alerts	P
FS4	Proportion of food waste along the value chain	P
FS5	UK food imports and exports by food group	P
FS6	Frequency and length of disruptions in supply by food group	NF
FS7	Proportion of households that are food insecure	A*
FS8	Healthy (sustainable) diets and dietary diversity score	P
FS9	Rate and frequency of foodbank use	P
FS10	Food price change by food group	P
FS11	Incidence of foodborne diseases	P
FS12	Development and implementation of national and or local food strategy	P
FS13	Development of dietary guidelines that embed climate change adaptation	NF
W1.	Population affected by water supply disruption	NF
W2.	Population supplied by private wells	P
W3.	Drinking water quality	P
W4.	Bathing water quality	P
HS1	Hospitals overheating incidents	A
HS2	Health services flooded	P
HS3	Trust Green Plans that consider adaptation	P
HS4	Health care facilities adapted to be climateproof	NF
SC1	Care home overheating incidents	NF
SC2	Care homes flooded	P
M1.	Mortality attributable to PM2.5 by sector	NF
M2.	Indoor air quality	NF
M3.	Active travel	A*

A - indicates 'Yes, data available that could be used, or the indicator is currently in use' (* are those suggested for first interim iteration).

P - indicates 'Needs new processing of existing data'.

NF - indicate 'No feasible data available'.

NR - indicate 'Indicator not recommended'.

Table 1. Source: <https://www.gov.uk/government/publications/climate-change-and-public-health-indicators-scoping-review>

4) Options / Alternatives

- a) Preferred: Pause overall development of tool and consider existing and emerging evidence further to inform design. In interim take key available indicators highlighted

in the UKHSA scoping report, and influence earlier adoption of indicators most useful to local government. Consider additional information that become available and construct a narrative between indicators and areas of work we may influence.

b) Wait until UKHSA has completed the National dashboard to inform indicators.

5) Consultations

Consultation on the creation of the indicator set was carried out through a scoping exercise by UKHSA, with the National Institute of Health Research. Some internal consultation on the initial dashboard has been carried out. As we proceed this will be broadened out to additional audiences once there is a tangible draft.

6) Strategic Plan

The updated Joint Strategic Needs Assessment will address existing public health concerns with additional indicators around climate change. These climate change indicators will inform the Health and Wellbeing Strategy update, as well as being available to planners, community bodies, and others with an interest. It is intended to be 'evergreen', in that the dashboard may be adapted to encompass future indicators, or needs of users.

7) Financial Considerations

The creation of the local dashboard will be within existing budgets, with staff resource being released for other work as UKHSA are developing the main indicators.

8) Legal Considerations

There are no specific legal considerations.

9) Environmental Impact Considerations (Including Climate Change, Sustainability and Socio-economic)

The JSNA will seek to address public health impacts of climate change, and inform co-benefits of adaptation and mitigation.

10) Equality Considerations

Consideration will be given as to how the indicators may be presented with other indicators to determine populations at particular risk, including those considered more vulnerable, in

greater deprivation, and, where possible, intersectional. However, this Report has no specific equality, sustainability or legal implications that are not already covered elsewhere within the Authority.

11) Risk Management Considerations

If for any reason the UKHSA is significantly delayed in publishing appropriate indicators we will review whether to develop interim indicators to inform current plans.

12) Reasons for Recommendations

Given that UKHSA are now developing indicators it would be more efficient and effective to wait for these to become available, and seek to work alongside in their development.

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ⁱ UKHSA (2023) Climate change and public health indicators: scoping review
<https://assets.publishing.service.gov.uk/media/64e8756763587000d1dbf6b/climate-change-and-public-health-indicators-scoping-review.pdf>