

## Heatwave Plan

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# 1. INTRODUCTION

## 1.1 Purpose

The Heatwave Plan for England is published by Public Health England and sets out the responses required of health services and local authorities in the event of a heatwave. This plan acknowledged that climate change is becoming a serious threat to the population's health and that heatwaves are likely to become more common in England.

Sussex Partnership NHS Foundation Trust (SPFT) recognise that proper preparedness is essential as in contrast to deaths associated with cold weather, the rise in mortality during a heatwave occurs very quickly – within one or two days of the temperature rising. This means that by the time a heatwave starts the window of opportunity for effective action is very short, and proper preparedness is therefore essential.

The **Department of Health & Social Care (DHSC)** is responsible for strategic leadership of both health and social care systems, but no longer has direct management of most NHS systems. **NHS England** provides national leadership for improving health care outcomes, directly commissions general practice services, some specialist services, and oversees **Clinical Commissioning Groups (CCGs)**. CCGs now commission planned hospital care, rehabilitative care, urgent and emergency care, most community health services and mental health and learning disability services. **Directors of Public Health** in Local Authorities are responsible for population health outcomes, supported by **Public Health England (PHE)**, which provides national leadership and expert services to support public health.

PHE will make advice available to the public and health and social care professionals in affected regions, in preparation for an imminent heatwave, via NHS Choices, and the websites of the Met Office, PHE and the DHSC.

[NHS Choices](#) continues to provide reliable advice and guidance throughout the year on how to keep fit and well. It includes information on [how to stay well in hot weather](#).

## 1.2 Scope

The Heatwave Plan for SPFT outlines how we will work with local partners to ensure health and social care services raise awareness of the risks relating to severe hot weather and prepare organisations and individuals (especially vulnerable groups) to help reduce those risks.

## 1.3 Supporting Documentation

The Heatwave Plan for England is supported by a series of Information Guides published online which aim to provide an authoritative source of additional information about the effects of severe hot weather on health for:

- Looking After Yourself And Others During Hot Weather (for Individuals, families and carers);
- Supporting Vulnerable People before and during a Heatwave: Advice for Health and Social Care Professionals;

- Supporting Vulnerable People Before and During a Heatwave: Advice for Care Home Managers and Staff.
- Looking after children and those in early years settings during heatwaves: guidance for teachers and professionals

These can be found at: <https://www.gov.uk/government/publications/heatwave-plan-for-england>

The risk of Heatwave is currently classified on the Sussex Resilience Forum (SRF) Community Risk Register as a 'Medium' risk for Sussex.

SRF Related Plans:

- Sussex Adverse Weather Response Framework
- Sussex Emergency Response & Recovery Policy and Procedure

## **1.4 Background**

The evidence about the risks to health from heatwave is extensive and consistent from around the world. Excessive exposure to high temperatures can kill. During the summer heatwave in Northern France in August 2003, unprecedentedly high day- and night-time temperatures for a period of three weeks resulted in 15,000 excess deaths. The vast majority of these were among older people.

In England that year, there were over 2,000 excess deaths over the 10 day heatwave period which lasted from 4 - 13 August 2003, compared to the previous five years over the same period.

The first Heatwave Plan for England was published in 2004 in response to this event. Since that time we have had a significant heatwave in 2006 (when it was estimated that there were about 680 excess deaths compared to similar periods in previous years). In 2009 there were approximately 300 excess summer deaths during a heatwave compared to similar periods in previous years.

Climate change means that heatwaves are likely to become more common in England. By the 2080s, it is predicted that an event similar to that experienced in England in 2003 will happen every year.

Excess deaths are not just deaths of those who would have died anyway in the next few weeks or months due to illness or old age. There is strong evidence that these summer deaths are indeed 'extra' and are the result of heat related conditions.

Cities and urban areas tend to be hotter than rural areas, creating urban heat island effects. This is due to increased absorption and reflection of the sun on concrete compared with green or brown spaces; reduced cooling from breezes due to buildings and increased energy production from houses, industry, businesses and vehicles.

## 1.5 Heatwave & PPE Considerations

Wearing personal protective equipment (PPE) in warm/hot environments increases the risk of heat stress. This occurs when the body is unable to cool itself enough to maintain a healthy temperature. Heat stress can cause heat exhaustion and lead to heat stroke if the person is unable to cool down.

Measures to control the temperature of clinical environments and enable staff to make behavioural adaptations to stay cool and well hydrated should be made. Staff may require more frequent breaks and the frequency of PPE changes may increase, with a resulting increase in demand.

Staff working in warm/hot conditions should follow the below advice:

- Take regular breaks, find somewhere cool if you can.
- Make sure you are hydrated (checking your urine is an easy way of keeping an eye on your hydration levels – dark or strong-smelling urine is a sign that you should drink more fluids).
- Be aware of the signs and symptoms of heat stress and dehydration (thirst, dry mouth, dark or strong-smelling urine, urinating infrequently or in small amounts, inability to concentrate, muscle cramps, fainting). Don't wait until you start to feel unwell before you take a break.
- Use a buddy system with your team to look out for the signs of heat stress (e.g. confusion, looking pale or clammy, fast breathing) in each other.
- Between shifts, try to stay cool as this will give your body a chance to recover.
- Ensure that PPE supplies are sufficient to cover a likely increase in demand for certain PPE items during warmer months due to staff changing equipment more frequently.
- Consider whether more staff may be needed per shift to maintain service levels while accommodating increased staff breaks.
- Any actions taken must be aligned with local infection prevention policies.

Guidance from the HSE is also annexed at the end of this plan.

## 2. HEAT – HEALTH ALERT LEVEL SYSTEM

The Heat-Health Watch system operates in England from **1 June to 15 September** each year. During this period, the Met Office may forecast heatwaves, as defined by forecasts of day and night time temperatures and their duration.

A heatwave is defined in the **South East** as **two consecutive days** with temperatures at **31 °C** or more in the **day time**, and with a **night of 16 °C** or more in between (i.e. 31-16-31). The Heat-Health Watch system comprises of five main levels (Levels 0-4), which are outlined in Table 1.

**Table 1: Heatwave Alert Levels**

<p><b>Level 0</b></p>	<p><b>Long – term planning - All year</b>          Includes year round joint working to reduce the impact of climate change and ensure maximum adaptation to reduce harm from heat waves. This involves urban planning to keep housing, workplaces, transport systems and the built environment cool and energy efficient.</p>
<p><b>Level 1</b></p>	<p><b>Heatwave and Summer Preparedness Programme</b>  <i>1 June – 15 September</i>          The heat wave plan will remain at level 1 unless a higher alter is triggered. During the summer months, social and healthcare services need to ensure that awareness and background preparedness are maintained by implementing the measures set out in the heatwave plan.</p>
<p><b>Level 2</b></p>	<p><b>Heatwave is forecast – Alert and readiness</b>  <i>60% risk of heatwave in the next 2-3 days</i>          This is triggered as soon as the Met Office forecasts that there is a 60 per cent chance of temperatures being high enough on at least two consecutive days to have significant effects on health. This will normally occur 2–3 days before the event is expected. As death rates rise soon after temperature increases, with many deaths occurring in the first two days, this is an important stage to ensure readiness and swift action to reduce harm from a potential heatwave.</p>
<p><b>Level 3</b></p>	<p><b>Heatwave Action</b>  <i>Temperature reached in one or more Met Office National Severe Weather Warning Service Regions</i>          This is triggered as soon as the Met Office confirms that threshold temperatures have been reached in any one region or more. This stage requires specific actions targeted at high risk groups.</p>
<p><b>Level 4</b></p>	<p><b>Major Incident – Emergency Response</b>  <i>Central Government will declare a level 4 alert in the event of severe or prolonged heatwave affecting sectors other than health</i>          This is reached when a heatwave is so severe and/or prolonged that its effects extend outside health and social care, such as power or water shortages, and/or where the integrity of health and social care systems is threatened. At this level, illness and death may occur among the fit and healthy, and not just in high risk groups and will require a multi-sector response at national and regional levels. <i>Decision taken at national level coordinated by the Civil Contingencies Secretariat (Cabinet Office)</i></p>

### 3. HIGH RISK FACTORS AND VULNERABLE GROUPS OF PEOPLE

#### 3.1 High Risk Factors:

There are certain factors that increase an individual's risk during a heatwave. These include:

- **older age:** especially over 75 years old, or those living on their own who are socially isolated, or in a care home
- **chronic and severe illness:** including heart conditions, diabetes, respiratory or renal insufficiency, Parkinson's disease or severe mental illness. Medications that potentially affect renal function, the body's ability to sweat, thermoregulation (e.g. psychiatric medications) or electrolyte balance (diuretics) can make this group more vulnerable to the effects of heat.
- **infants** are vulnerable to heat due to immature thermoregulation, smaller body mass and blood volume, high dependency level, dehydration risk in case of diarrhoea
- **homeless people** (those who sleep in shelters as well as outdoors) may be at increased risk from heatwaves. Higher rates of chronic disease (often poorly controlled), smoking, respiratory conditions, substance dependencies and mental illness are more frequent homeless populations than in the general population. These risk factors increase the risks of heat related morbidity and mortality, on top of social isolation, lack of air conditioning, cognitive impairment, living alone and being exposed to urban heat islands
- **people with alcohol dependence and drug dependence** often have poorer overall health and increased social isolation which can increase their risk of heat stress
- **inability to adapt behaviour** to keep cool such as having Alzheimer's, a disability, being bed bound, drug and alcohol dependencies, babies and the very young
- **environmental factors and overexposure:** living in urban areas and south-facing top-floor flats, being homeless, activities or jobs that are in hot places or outdoors and include high levels of physical exertion, children and adults taking part in organised sports (particularly children and adolescents)

#### 3.2 Heat-related illnesses

The main causes of illness and death during a heatwave are respiratory and cardiovascular diseases. Additionally, there are specific heat-related illnesses including:

- **heat cramps** – caused by dehydration and loss of electrolytes, often following exercise
- **heat rash** – small, red, itchy papules
- **heat oedema** – mainly in the ankles, due to vasodilation and retention of fluid

- **heat syncope** – dizziness and fainting, due to dehydration, vasodilation, cardiovascular disease and certain medications
- **heat exhaustion** – is more common. It occurs as a result of water or sodium depletion, with non-specific features of malaise, vomiting and circulatory collapse, and is present when the core temperature is between 37°C and 40°C – left untreated, heat exhaustion may evolve into heatstroke
- **heatstroke** – can become a point of no return whereby the body's thermoregulation mechanism fails. This leads to a medical emergency, with symptoms of confusion; disorientation; convulsions; unconsciousness; hot dry skin; and core body temperature exceeding 40°C for between 45 minutes and eight hours. It can result in cell death, organ failure, brain damage or death. Heatstroke can be either classical or exertional (e.g. in athletes)

*Source: Heatwave Plan for England: Making the Case: the impact of heat on health – now and in the future*

Further information is available in the PHE leaflet for [Looking after children and those in early years settings during heatwaves: guidance for teachers and professionals](#)

### 3.3 Medicines

The following medicines are theoretically capable of increasing risk in susceptible individuals. All individuals prescribed any of the medicines listed in table 2 should be reviewed; assessing the risks and benefits of any changes to their regime (see table 2 overleaf).

**Table 2: Medicines likely to provoke or increase the severity of heatstroke**

Source: PHE, *Heatwave Plan for England: Supporting vulnerable people before and during a heatwave*

Effect		Example medicines
<b>Those causing dehydration or electrolyte imbalance</b>		Diuretics, especially loop diuretics Any medicine which causes diarrhoea or vomiting (colchicine, antibiotics, codeine)
<b>Those likely to reduce renal function</b>		NSAIDs, sulphonamides, Indinavir, ciclosporin
<b>Those with levels affected by dehydration</b>		Lithium, digoxin, anti-depressants, biguanides, statins
<b>Those which interfere with thermoregulation</b>	by central action	Neuroleptics, serotonergic agonists
	by interfering with sweating	Anti-cholinergics: <ul style="list-style-type: none"> <li>• Atropine, hyoscine</li> <li>• Tricyclic anti-depressants</li> <li>• H<sub>1</sub> (first generation) anti-histamines</li> <li>• Certain anti-parkinson medicines</li> <li>• Certain anti-spasmodics</li> <li>• Neuroleptics</li> <li>• Disopyramide</li> <li>• Anti-migraine agents</li> </ul>
		Vasoconstrictors
		Those reducing cardiac output. Eg. beta blockers, diuretics
by modifying basal metabolic rate	Thyroxine	
<b>Medicines which exacerbate the effects of heat</b>		
by reducing arterial pressure		All anti-hypertensives Anti-anginal medicines
<b>Medicines which alter states of alertness</b> (including those in section 4.4 of the British National Formulary)		

Healthcare workers in collaboration with social care workers are in a good position to assess individual levels of risk. Identification and assessment of vulnerable persons known to the Trust will be the responsibility of all healthcare workers. During the “Heat Health Watch” period healthcare staff will need to be mindful of the need to consider all patients they are in contact with, to the potential of their vulnerability in relation to a heat wave. The assessment will be documented in the person’s care plan or notes should they be considered to be in any of the potentially at risk groups as identified in this section.

### **3.3.1 Medicine storage**

Temperatures in clinic rooms and within medicines fridges must be monitored daily and recorded in the 'medicines refrigerator and clinic room temperature log' found within the medicines code. The medicine code is available on the [Policies Microsite](#)

#### 3.3.1.1 Medicines storage in clinic rooms within medicines refrigerators

Medicines requiring storage below room temperature will be marked "Store between 2°C and 8°C, in a refrigerator."

All medicines fridges will be fitted with a digital thermometer (maximum/minimum type) and an audible alarm.

The local pharmacy team must be informed if these temperatures are outside the range, they will then advise on actions to be taken for each medicine affected.

The nurse in charge is responsible for ensuring that any action required following advice from the pharmacy team is taken. If out of hours, please contact the oncall pharmacist.

In the event of a refrigerator breakdown, the estates team must also be contacted by the nurse in charge.

Once the breach has been recorded, the thermometer must be re-set to ensure the next recording is taken accurately. All actions taken should be recorded in the temperature log or ward diary.

#### 3.3.1.2 Medicine storage in clinic rooms at room temperature

In a heatwave the ambient room temperature may rise above 25°C. In the UK most medicines that are stored at room temperature require to be stored at 25°C or below for the manufacturers to guarantee that the medicines remain stable for the duration of their assigned product expiry date. If medicines are stored at higher temperatures for prolonged periods, they may be at risk of degradation.

Most stock medicines should have sufficient turnover and stock rotation to ensure that they are used well before their expiry date is reached.

If the ambient temperature exceeds 25°C for a short period, this will not have an overall damaging effect on the medicines. If however, the temperature is recorded above 25°C for more than 7 days in any 30-day period, contact your local pharmacy team for advice.

After each breach has been recorded, the thermometer must be re-set to ensure the next recording is taken accurately. Consecutive day failures must be identified within the working day of the 7<sup>th</sup> day to avoid calls being made to the oncall pharmacist for room temperature medicines.

The pharmacy team will check each medicines against its Summary of Product Characteristics (SPC) (within the product's manufacturing licence) as to whether

adjustments need to be made to its expiry date. SPCs can be found here by using the search engine for each individual medicine: [www.medicines.org.uk](http://www.medicines.org.uk).

Where there is limited or non-specific information within the SPC, the pharmacy team may advise that any medicines in breach of their storage requirements must have:

- i. a 'red dot' sticker placed on them to indicate they have breached their storage requirements, and
- ii. an additional sticker attached to them to annotate a reduced expiry date to 6 months from the date of the temperature breach. The stickers must clearly state the new expiry date and the initials of the staff member making the annotation.

The nurse in charge is responsible for ensuring that any action required following advice from the pharmacy team is taken. All actions taken should be recorded in the temperature log or ward diary.

## 4. MET OFFICE HEATWAVE WARNINGS

Heatwave warnings will:

- be colour-coded to indicate more easily the National Severe Weather Warning Service (NSWWS) regions affected by a change from one Heatwave Warning level to another (e.g. from Level 2 to Level 3) – this will help responders to clarify what actions in turn need to be taken
- published and sent by the Met Office at 0900 rather than 1000 to aid planners
- indicate which local resilience forum is situated within the NSWWS region
- include a link to Met Office and weather pattern maps
- use social media (e.g. Twitter/Facebook). The alerts are already backed up by tweets, linking to the alert webpage through the Met Office twitter feed. You can subscribe to this feed by following: [@metoffice](https://twitter.com/metoffice). (<http://twitter.com/metoffice>)

Table 3 summarises the Met Office service and notifications during a heatwave period for the summer of 2019.

**Table 3: Met Office service and notifications**

<b>Service</b>	<b>Purpose</b>	<b>Distribution</b>	<b>Timing</b>
<b>Heatwave Warning</b>	To provide early warning of high temperatures. The alert levels have been set with thresholds known to cause ill health from severe hot weather. They are to help ensure that healthcare staff and resources are fully prepared for hot weather periods that might impact and to raise awareness for those individuals who are more vulnerable to hot weather conditions	Email	Alert issued as soon as agreed threshold has been reached and when there is a change in alert level. Issued between 1 June and 15 September.
<b>Heatwave Planning Advice</b>	To provide advice through the summer period relating to high temperatures	Email	Twice a week (9am each Monday and Friday from 1 June to 15 September)
<b>National Severe Weather Warning Service (NSWWS)</b>	To provide warnings of severe or hazardous weather that has the potential to cause danger to life or widespread disruption. These warnings are issues to: <ul style="list-style-type: none"> <li>• The public – to promote consideration of actions they may need to take</li> <li>• Emergency responders – to trigger their plans to protect the public from impacts in advance of an event, and to help them recover from any impacts after the event.</li> </ul>	Email, web, SMS, TV, radio	When required
<b>General Weather Forecasts</b>	To enable the public to make informed decisions about their day to day activities	Web, TV, radio	Every day

## 5. ALERTING CASCADE

The response to a heatwave will be governed by the actions needed at each of the four alert actions. The Met Office will cascade a Heatwave alert to all Heat-Health Watch organisations. The alert levels will act as triggers for initiating internal organisational response arrangements. NHS England will request assurance from organisations as to the impact and mitigation in place during periods of sustained heatwave response at any alerting level.

In Sussex NHS England South East will lead the NHS response to any health incident supported by PHE, CCG and DsPH at Local Authorities.

### 5.1 SPFT Alerting Cascade

SPFT key staff including On Call Managers / Directors and Service Leads should register to receive heat wave alerts and NSWV, who will upon receipt of a heatwave alert will ensure the information is cascaded within their department. If they are new then register by emailing [enquiries@metoffice.gov.uk](mailto:enquiries@metoffice.gov.uk) and request to receive cold/hot weather alerts service. In addition to receive severe weather warnings go [here](#) to register and select preference for South East of England

The EPRR Lead also receives these alerts, who upon receipt will cascade in office hours and to on call personnel where appropriate and provide any multi-agency update where applicable.

## 6. SPFT ACTIONS

This section details the Trust responsibilities for responding at each of the levels of the Heat - Health Watch Alert System.

### **PLEASE NOTE: Portable Fans:**

- Portable fans **are not to be used in any area during any Infection Outbreak** such as Influenza, Sars-Cov-2 (CoVID 19).
- Portable fans need to be used inline with the Trust guidance on the use of portable fans.
- Portable fans are not to be used in any area unless suitable cleaning can be undertaken regularly.
- Where a fan is considered necessary a local risk assessment should take place for each use and reuse.
- **Bladeless fans are not suitable for healthcare because the motor becomes contaminated.**
- Any fans purchased should be bladed, easy to dismantle for cleaning and CE marked as well as being PAT tested by the trust Estates Team.
- Clean according to manufacturer's instructions after each use and between patients.

*Source: IPC Policy, SPFT CoVID Guidance*

## LEVEL 0 LONG-TERM PLANNING

**Includes year round joint working to reduce the impact of climate change and ensure maximum adaptation to reduce harm from heat waves. This involves urban planning to keep housing, workplaces, transport systems and the built environment cool and energy efficient.**

	<b>Action</b>	<b>Responsibility</b>
1	Prior to Heat Health Watch Period ensure the trust intranet is updated to show the current heatwave documents and guidance	EPRR Lead (or Deputy)/Communications Team
2	Prior to Heat Health Watch Period issue advice in conjunction with PHE, NHS E, CCG as appropriate, informing and educating the public about the risks of a heatwave and how they can prepare themselves, especially the identified vulnerable groups (internet and social media)	Communications Team
3	Encourage cycling / walking where possible to reduce heat levels and poor air quality in urban areas.	Care without Carbon/ Communications Team
4	Ensure the environment has suitable arrangements to safeguard temperatures, so they do not exceed for service users in the event of a heatwave.	Estates
5	Ensure there is adequate temperature monitoring in place in all areas, this includes clinical and non-clinical areas and should include buildings that solely house support functions.	Estates (with Guidance from Health & Safety)
6	Prepare / review business continuity plans to cover the event of a heatwave (e.g. storage of medicines, computer resilience, etc.)	Service Managers/Clinical Lead Nurses
7	Prior to Heat Health Watch Period check measures for cooling and keeping cool are in place and operational	Estates & Facilities/Service Leads
8	Liaise throughout the period with the WSCC, ESCC and B&HCC Area Manager for Adult Services to identify people vulnerable to a Heatwave.	Service Directors/Operations
9	Prior to Heat Health Watch Period work with partners (social services) to confirm arrangements for liaison during heat wave period	Service Directors
10	Prior to Heat Health Watch Period ensure all community staff are aware of the Trust's Heatwave Plan and the DHSC/PHE heatwave publications and raise awareness of the impacts of severe heat and on risk reduction awareness	Service Directors/Leads
11	Joint working with Social Care - contact the WSCC, ESCC, B&HCC Director of Adult Services to review the partnership working between the two agencies during the heat health watch period.	Executive Directors (lead)

### **High Risk Groups:**

**Community:** over 75, female, living on own and isolated, sever physical or mental illness; urban area, south facing top flat; alcohol and /or drug dependency, homelessness, babies and young children, multiple medications and over exertion

**Care home or hospital:** over 75, female, frail, severe physical or mental illness; multiple medications, babies and young children (hospitals)

\*Because Level 2 is based on a prediction, there may be jumps between levels. Following Level 3, wait until temperatures cool to Level 1 before stopping Level 3 actions.

\*\* Level 4: A decision to issue a Level 4 alert at national level will be taken in light of a cross-government assessment of the weather conditions, co-ordinated by the Civil Contingencies Secretariat

## LEVEL 1 HEATWAVE AND SUMMER PREPAREDNESS PROGRAMME

The heat wave plan will remain at level 1 unless a higher alert is triggered. During the summer months, social and healthcare services need to ensure that awareness and background preparedness are maintained by implementing the measures set out in the heatwave plan.

	Action	Responsibility
1	Distribution of heatwave plan	EPRR Lead (Or Deputy)
2	On receipt of Met office alerts and planning guidance for Sussex region cascade to key service leads.	In hours (Mon to Fri): EPRR Lead (or Deputy) Weekends/Bank Holiday: On Call Directors/Managers
3	Continue to issue advice in conjunction with PHE, NHS E and CCG informing and educating as appropriate to level	Communications Team
4	Where identified, work with at risk individuals, their families and informal carers to put simple protective measures in place, such as installing proper ventilation and ensuring fridges are available and work.	All staff delivering patient care
5	Identify individuals who are particular risk from extreme heat, especially those aged over 75 and review their medication and care plans	All staff delivering patient care to identify individuals at risk
6	Working with families and informal carers to highlight dangers of heat and promote ways to keep cool	All staff delivering patient care
7	Ensure that all staff assess patients for vulnerability prior to discharge or return home	Matrons within bed-based services
8	Ensure that all assessments and actions taken in respect of heatwave are recorded in the patients notes/care plan/discharge plan	Matrons within bed-based services
9	Check the resilience of the medical equipment and IT systems, to ensure they can be maintained at working temperatures and there is no risk of system failure through overheating.	IT equipment: IT Team Medical Devices: Medical Devices Team/EME
10	Estates to confirm suitable arrangements are in place to hire temporary air conditioning units for use during a heatwave & temperature recording instruments	Estates
11	Cool rooms or cool areas should be created where vulnerable patients could spend time in if required. Use of fans should be managed. <i>(please refer to note about portable fans on page 11)</i>	Estate Managers supported by Service/Clinical leads
12	Liaise with social services managers and children family managers to ensure they are aware of vulnerable people that may need social care during a heatwave	Service Directors/General Manages
<p><b>High Risk Groups - Community:</b> over 75, female, living on own and isolated, severe physical or mental illness; urban area, south facing top flat; alcohol and /or drug dependency, homelessness, babies and young children, multiple medications and over exertion. <b>Care home or hospital:</b> over 75, female, frail, severe physical or mental illness; multiple medications, babies and young children (hospitals)</p>		
<p>*Because Level 2 is based on a prediction, there may be jumps between levels. Following Level 3, wait until temperatures cool to Level 1 before stopping Level 3 actions. ** Level 4: A decision to issue a Level 4 alert at national level will be taken in light of a cross-government assessment of the weather conditions, co-ordinated by the CCS.</p>		

## LEVEL 2 HEATWAVE IS FORECAST - ALERT AND READINESS

This is triggered as soon as the Met Office forecasts that there is a 60 per cent chance of temperatures being high enough on at least two consecutive days to have significant effects on health. This will normally occur 2–3 days before the event is expected. As death rates rise soon after temperature increases, with many deaths occurring in the first two days, this is an important stage to ensure readiness and swift action to reduce harm from a potential heatwave

	Action	Responsibility
1	Cascade Met Office Alert and planning advice to on call personnel	In hours (Mon to Fri): EPRR Lead (or Deputy) Weekends/Bank Holiday: On Call Directors/Managers
2	Monitor the Heat Health Watch website. On receipt of alert level change cascade information to Director of Operations, Area Directors and Deputies and on call managers if going into OOH	In hours (Mon to Fri): EPRR Lead (or Deputy) Weekends/Bank Holiday: On Call Directors/Managers
3	Continue to issue advice in conjunction with PHE, NHS E and CCG informing and educating as appropriate to level	Communications Team
4	Distribution of advice to all those defined as at high risk living at home (key public messages in section 7)	All staff delivery patient care
5	Identify particularly vulnerable individuals (those with chronic/severe illness, on multiple medications, or who are bed bound) who may be prioritised for time in a cool room	Matrons
6	Monitor and record indoor room temperatures used by patients 4x a day	Matrons within Bed Based Services
7	Liaise with social services / community staff to ensure they are aware if any vulnerable patients being discharged	Matron within Bed Based Services
8	Ensure cool rooms/areas are ready and consistently at 26°C or below where this is achievable for vulnerable patients to spend time in if required.	Estates/Clinical Lead Nurse / Matron
9	Prioritise current list of patients at risk	Clinical Leads
10	Monitor staff welfare	Service/General Managers
11	Obtain supplies of ice /cool water. Wards should have cold water dispensers.	Service/General Managers
12	Initiation of home visits/phone calls to vulnerable patients as planned in liaison with General Practices where appropriate	Service Managers
13	Monitor service level to ensure staffing levels will be sufficient to cover the anticipate heatwave period	Operational Servicers: Service/General Managers, Support Services: Department Managers/Leads Both with assistance from HR & Bank Team
14	Review surge capacity and the availability of staff support in the event of a heatwave especially if it lasts more than a few days.	Service Directors/General Managers
15	Identify non-essential activities that could cease if required	Service Directors/General Managers with assistance from Executive Directors where required/Appropriate

### High Risk Groups

**Community:** over 75, female, living on own and isolated, sever physical or mental illness; urban area, south facing top flat; alcohol and /or drug dependency, homelessness, babies and young children, multiple medications and over exertion

**Care home or hospital:** over 75, female, frail, severe physical or mental illness; multiple medications, babies and young children (hospitals)

\*Because Level 2 is based on a prediction, there may be jumps between levels. Following Level 3, wait until temperatures cool to Level 1 before stopping Level 3 actions. \*\* Level 4: A decision to issue a Level 4 alert at national level will be taken in light of a cross-government assessment of the weather conditions, co-ordinated by the CCS.

## LEVEL 3 HEATWAVE ACTION

**This is triggered as soon as the Met Office confirms that threshold temperatures have been reached in any one region or more. This stage requires specific actions targeted at high risk groups.**

	<b>Action</b>	<b>Responsibility</b>
1	Cascade of Met Office Alert and planning advice to on call personnel	In hours (Mon to Fri): EPRR Lead (or Deputy) Weekends/Bank Holiday: On Call Directors/Managers
2	Consider calling a meeting/telecon of Trust colleagues to agree key messages and actions and cascade alert briefing through internal and external communications channels	EPRR Lead (or Deputy)
3	Represent Trust on multi-agency teleconferences	EPRR Lead (or Deputy)
4	Continue to issue advice in conjunction with PHE, NHS E and CCG informing and educating as appropriate to level	Communications Team
5	Consider use of media to get advice out to the general public	Communications lead
6	Reduce internal temperatures by turning off unnecessary lights and electrical equipment	All staff
7	Continue to distribute advice to all those defined as at high risk living at home (key public messages section 7)	All frontline staff
8	Complete an incident form for any heat related incidents concerning patients and staff	Matron within bed Services
9	Discharge planning should reflect local and individuals circumstances so that people at risk are not discharged to unsuitable accommodation or reduced care	Matron within bed Services
10	Ensure that indoor thermometers are in place and recording sheets printed to measure temperature four times a day for all areas with patients in	Estates/Matron
11	Continually review vulnerable individuals for prioritisation in cool rooms	Matron
12	Ensure cool rooms/areas are ready and consistently at 26°C or below where this is achievable for vulnerable patients to spend time in if required.	Estates / Matron
13	Monitor and minimize temperatures in all patient areas and take action if the temperature is a significant risk to patient safety, as high risk patients may suffer undue health effects including worsening cardiovascular or respiratory symptoms at temperatures exceeding 26°C	Estates / Matron
14	Consider moving visit hours to mornings and evenings to reduce afternoon heat from increased numbers of people	General Managers / Matron
15	Reduce or stop non-essential activities; commence daily contact with clients at risk daily visits /phone calls for high risk individuals living on their own who have no regular daily contacts. This may involve informal carers, volunteers and care workers and will be targeted at defined risk groups in coordination with General practices where appropriate.	General Managers/Service Leads
16	Continue to monitor staff welfare Implement appropriate protective factors, including a regular supply of cold drinks	General Managers
17	Continue to monitor service level to ensure staffing levels will be sufficient to cover the anticipated heatwave period	General Managers/Service Managers
18	Use all available resources to maximise frontline staff capacity, be prepared to receive and utilise NHS volunteers	Service Directors/General Managers/Service Managers

<b>19</b>	Liaise with Adult Services BHCC, WSCC or Children and Family community support staff in arranging daily visits to vulnerable people living alone with the involvement of formal and informal carers or volunteers	Service Directors
<b>20</b>	Activate plans to maintain business continuity – including a possible surge in demand	Service Directors/General Managers
<b>21</b>	Promote daily service contact with vulnerable, at risk persons	Executive Director or Deputy
<b>22</b>	Commission additional care and support to ensure adequate staff to provide daily contact as necessary for vulnerable individuals, where no other option for a daily visit is available, work as appropriately and establish joint working to manage extra workload with Director of Adult Service BHCC and WSCC, Director of Children and Family Services and Directors of CCGs.	Executive Director or Deputy
<b>23</b>	Through patient services, advise informal carers to contact GPs with any concerns for patients	Executive Director or Deputy
<p><b>High Risk Groups:</b></p> <p><b>Community:</b> over 75, female, living on own and isolated, sever physical or mental illness; urban area, south facing top flat; alcohol and /or drug dependency, homelessness, babies and young children, multiple medications and over exertion</p> <p><b>Care home or hospital:</b> over 75, female, frail, severe physical or mental illness; multiple medications, babies and young children (hospitals)</p>		
<p>*Because Level 2 is based on a prediction, there may be jumps between levels. Following Level 3, wait until temperatures cool to Level 1 before stopping Level 3 actions.</p> <p>** Level 4: <i>A decision to issue a Level 4 alert at national level will be taken in light of a cross-government assessment of the weather conditions, co-ordinated by the Civil Contingencies Secretariat</i></p>		

## LEVEL 4 MAJOR INCIDENT – EMERGENCY RESPONSE

**This is reached when a heatwave is so severe and/or prolonged that its effects extend outside health and social care, such as power or water shortages, and/or where the integrity of health and social care systems is threatened. At this level, illness and death may occur among the fit and healthy, and not just in high risk groups and will require a multi-sector response at national and regional levels.**

	<b>Action</b>	<b>Responsibility</b>
<b>1</b>	All level 3 heatwave actions to continue	All
<b>2</b>	Obtain regular situation reports from frontline healthcare leads, provide updates and report any concerns to Chief Operating Officer and or Director of Operations	EPRR Lead (Or Deputy)
<b>3</b>	Coordinate response with NHS Health Partners	On Call Manager/Director
<b>4</b>	Situation reports might be requested more frequently by EPRR Lead who will be reporting to multi-agency partners/NHS E	Service Directors
<b>5</b>	Consider declaring a Major Incident and refer to the Trusts Incident Response Plan and Business Continuity Plan	Chief Executive / Director on Call

### **High Risk Groups:**

**Community:** over 75, female, living on own and isolated, severe physical or mental illness; urban area, south facing top flat; alcohol and /or drug dependency, homelessness, babies and young children, multiple medications and over exertion

**Care home or hospital:** over 75, female, frail, severe physical or mental illness; multiple medications, babies and young children (hospitals)

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## RECOVERY

	<b>Action</b>	<b>Responsibility</b>
<b>1</b>	Hold a debrief and discuss any learning outcomes produce a report and action plan	EPRR Lead (or deputy)/ key staff
<b>2</b>	Amend the Trust Heat wave plan as necessary	EPRR Lead (or deputy)

## 7. KEY PUBLIC HEALTH MESSAGES

### Stay out of the heat:

- Keep out of the sun between 11am and 3pm.
- If you have to go out in the heat, walk in the shade, apply sunscreen and wear a hat and light scarf.
- Avoid extreme physical exertion.
- Wear light, loose-fitting cotton clothes.

### Cool yourself down:

- Have plenty of cold drinks, and avoid excess alcohol, caffeine and hot drinks.
- Eat cold foods, particularly salads and fruit with high water content.
- Take a cool shower, bath or body wash.
- Sprinkle water over the skin or clothing, or keep a damp cloth on the back of your neck.

### Keep your environment cool:

- Keeping your living space cool is especially important for infants, the elderly or those with chronic health conditions or who can't look after themselves
- Place a thermometer in your main living room and bedroom to keep a check on the temperature.
- Keep windows that are exposed to the sun closed during the day, and open windows at night when the temperature has dropped.
- Close curtains that receive morning or afternoon sun. However, care should be taken with metal blinds and dark curtains, as these can absorb heat – consider replacing or putting reflective material in-between them and the window space.
- Turn off non-essential lights and electrical equipment – they generate heat.
- Keep indoor plants and bowls of water in the house as evaporation helps cool the air.
- If possible, move into a cooler room, especially for sleeping.
- Electric fans may provide some relief, if temperatures are below 35°C. (*Caution: fans circulate dust into wounds during dressing change or assist in the transmission of infections*).

### (Longer term)

- Consider putting up external shading outside windows.
- Use pale, reflective external paints.
- Have your loft and cavity walls insulated – this keeps the heat in when it is cold and out when it is hot.
- Grow trees and leafy plants near windows to act as natural air-conditioners (see 'Making the Case')

### Look out for others:

- Keep an eye on isolated, elderly, ill or very young people and make sure they are able to keep cool.
- Ensure that babies, children or elderly people are not left alone in stationary cars.

## Heatwave Plan

- Check on elderly or sick neighbours, family or friends every day during a heatwave.
- Be alert and call a doctor or social services if someone is unwell or further help is needed.

### **If you have a health problem:**

- Keep medicines below 25 °C or in the refrigerator (read the storage instructions on the packaging).
- Seek medical advice if you are suffering from a chronic medical condition or taking multiple medications.

### **If you or others feel unwell:**

- Try to get help if you feel dizzy, weak, anxious or have intense thirst and headache; move to a cool place as soon as possible and measure your body temperature.
- Drink some water or fruit juice to rehydrate.
- Rest immediately in a cool place if you have painful muscular spasms (particularly in the legs, arms or abdomen, in many cases after sustained exercise during very hot weather), and drink oral rehydration solutions containing electrolytes.
- Medical attention is needed if heat cramps last more than one hour.
- Consult your doctor if you feel unusual symptoms or if symptoms persist

A '**Beat the heat**' poster and '**Beat the heat: staying safe in hot weather**' leaflet is available and can be accessed from

<https://www.gov.uk/government/publications/heatwave-plan-for-england>

## **8. RESPONSIBILITIES**

**Senior Managers** must authorise deviation from any policy and procedure and ensure that the reasons have been clearly documented.

**All Staff** must seek senior management approval before deviating from any procedure or guideline; AND clearly document the reasons that the procedure or guideline was not followed.

**Bed-based Services** during the Heat Health Watch period, where patients are being discharged from bed-based services, or who attend as a day patient or out-patient will be assessed for their vulnerability to Heatwave prior to allowing them to go home.

Where appropriate staff will before the patient is sent home staff will issue the patients with information on Heatwave and how to look after themselves and arrange for a daily visit either by formal community health or social care staff, informal carer such as relative, friend or volunteer. Any assessment or actions taken in respect of Heatwave management will be noted in the patient's notes / care plan.

## 9. ASSOCIATED DOCUMENTS AND REFERENCES

Public Health England, 2019. *Heatwave Plan for England: Protecting health and reducing harm from severe heat and heatwaves* [online] Available at: <https://www.gov.uk/government/publications/heatwave-plan-for-england> [Accessed 28 May 2021]

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Public Health England, 2017. *Beat the heat: keep cool at home (checklist) 2016*: [online] Available at: <https://www.gov.uk/government/publications/heatwave-plan-for-england> [Accessed 28 May 2021]

NHS Choices, 2016. *Heatwave: how to cope in hot weather* [online] Available at: <http://www.nhs.uk/Livewell/Summerhealth/Pages/Heatwave.aspx> [Accessed 28 May 2021]

Sussex Partnership NHS Foundation Trust – *Infection Prevention & Control Policy* Available at: <https://policies.sussexpartnership.nhs.uk/download/clinical-1/157-infection-control> [Accessed 28 May 2021]

World Health Organisation, 2011. *Europe public health advice on preventing health effects of heat*: [online] Available at: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0007/147265/Heat\\_information\\_sheet.pdf](http://www.euro.who.int/_data/assets/pdf_file/0007/147265/Heat_information_sheet.pdf) [Accessed 28 May 2021]



## Personal protective equipment and heat: risk of heat stress

### Summary

Wearing personal protective equipment (PPE) in warm/hot environments increases the risk of heat stress. This occurs when the body is unable to cool itself enough to maintain a healthy temperature. Heat stress can cause heat exhaustion and lead to heat stroke if the person is unable to cool down.

Measures to control the temperature of clinical environments and enable staff to make behavioural adaptations to stay cool and well hydrated should be made. Staff may require more frequent breaks and the frequency of PPE changes may increase, with a resulting increase in demand.

### Action

Plan now for the summer:

- Assess the risk of overheating in your workplace and consider appropriate control measures to implement.
- Consider collective control measures first (eg remove or reduce the sources of heat and improve ventilation, where possible).
- Consult the [Heatwave Plan for England](#).
- Sign up to receive [PHE/Met Office heat-health alerts](#) so that you know when high temperatures are forecast

Ensure that staff are aware of the risk of heat stress when wearing PPE and know how to reduce their risk:

- Satisfy yourself that there is a cascade in place to ensure that frontline staff receive the alerts.

Staff working in warm/hot conditions should follow the advice:

- Take regular breaks, find somewhere cool if you can.
- Make sure you are hydrated (checking your urine is an easy way of keeping an eye on your hydration levels – dark or strong-smelling urine is a sign that you should drink more fluids).
- Be aware of the signs and symptoms of heat stress and dehydration (thirst, dry mouth, dark or strong-smelling urine, urinating infrequently or in small amounts, inability to concentrate, muscle cramps, fainting). Don't wait until you start to feel unwell before you take a break.
- Use a buddy system with your team to look out for the signs of heat stress (eg confusion, looking pale or clammy, fast breathing) in each other.
- Between shifts, try to stay cool as this will give your body a chance to recover.