



# Equality Analysis

Heatwave Plan for England 2012

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First published January 2010  
Published to DH website, in electronic PDF format only.  
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# Equality analysis

# *Heatwave plan for England 2012*

Prepared by the Equality and Inclusion Team, Department of Health

# Introduction

The general equality duty that is set out in the Equality Act 2010 requires public authorities, in the exercise of their functions, to have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act.
- Advance equality of opportunity between people who share a protected characteristic and those who do not.
- Foster good relations between people who share a protected characteristic and those who do not.

The general equality duty does not specify how public authorities should analyse the effect of their existing and new policies and practices on equality, but doing so is an important part of complying with the general equality duty. It is up to each organisation to choose the most effective approach for them. This standard template is designed to help Department of Health staff members to comply with the general duty.

Please complete the template by following the instructions in each box. Should you have any queries or suggestions on this template, please contact the Equality and Inclusion Team on 020 7972 5936 or [aie@dh.gsi.gov.uk](mailto:aie@dh.gsi.gov.uk)

# Equality analysis

**Title: Heatwave Plan for England 2012**

## Policy context

The Heatwave Plan has been published annually since 2004. It was initially published in response to the heatwave of 2003 during which over 2000 (mostly elderly) people died - significantly more excess deaths than is normally expected at that time of year. The Heatwave Plan meets a number of key priorities identified in the Department of Health (DH) Business Plan and Government policy documents:

**Department of Health Business Plan 2011-2013** (Section B - Coalition Priorities)<sup>1</sup> includes two the key priorities:

- Promote public health: Create a public health service which rebalances our approach to health, drawing together national leadership with local delivery, and a new sense of community and social responsibility
- Help prepare for emergencies: Work with other departments and public services to ensure that we are prepared for emergencies and other critical events

The Public Health White Paper, **Healthy Lives, Healthy People: Our strategy for public health**<sup>2</sup> makes specific, and more general references to the challenges facing the country from climate change and the responses required, in a number of sections including:

1.16 “Climate change represents a challenge in terms of long-term health services planning and emergency preparedness.”

Para 3.33 Highlights the link between health inequalities, sustainability and climate change and actions which can be taken to “help frame the way healthy communities and places are created”.

3.59 “Local government’s new role in public health presents an opportunity to address this challenge (*of an ageing population*). Public health will be better integrated with areas such as social care, transport, leisure, planning and housing, keeping people connected, active, independent and in their own homes. Neighbourhoods and houses can be better designed to support people’s health, such as by creating Lifetime Homes, and by maintaining benefits such as the winter fuel allowance and free bus travel, which keep people active and reduce isolation.”

The White Paper goes onto discuss **emergency preparedness and response**:

4.68 “The Government will devolve public health leadership wherever possible, but will keep powers and strengthen them where there is a strong case for central leadership. Preparing for and tackling emergencies to protect the population from events from which they cannot protect themselves is a core role that national government should perform.”

<sup>1</sup> <http://tinyurl.com/DH-Business-Plan-2011-13>

<sup>2</sup> <http://tinyurl.com/White-Paper-Public-Health>

4.69 “Public Health England will build on the current arrangements for emergency preparedness, resilience and response. ...”

4.70 “Public Health England and the NHS need to plan, prepare and be able to respond to a range of disruptive challenges – such as ... the health impacts of climate change – in a co-ordinated and effective way both nationally and locally.”

The Public Health Outcomes Framework **Healthy Lives Healthy People: Improving outcomes and supporting transparency**<sup>3</sup> includes a health protection ‘placeholder’ indicator:

- Domain 3: Comprehensive, agreed inter-agency plans for responding to public health incidents (Placeholder)

The development of firm indicator for this ‘placeholder’ is currently under discussion with decisions expected in the Autumn 2012. However, we would expect that a key feature of any such indicator would be that an area could demonstrate that it had robust plans in place to deal with a heatwave (and cold weather) incident.

**The Operating Framework for the NHS in England 2012-13**<sup>4</sup> includes a section on emergency preparedness:

2.45 Emergency preparedness, resilience and response across the NHS continues to be a core function of the NHS, required in line with the Civil Contingencies Act 2004. ... All NHS organisations are required to maintain a good standard of preparedness to respond safely and effectively to a full spectrum of threats, hazards and disruptive events, such as pandemic flu, mass casualty, potential terrorist incidents, *severe weather*, chemical, biological, radiological and nuclear incidents, fuel and supplies disruption, public health incidents and the 2012 Olympic and Paralympic Games. ...

#### **In summary:**

Preparation and response to a Heatwave is a core part of the public health and emergency planning system. These have continued to be emphasised in key Government and DH policy documents and are consistent with the Health and Social Care Act (2012).

#### **What are the intended outcomes of this work?** *Include outline of objectives and function aims*

Many of the deaths as a result of excessive heat exposure are preventable if a few very simple and sensible precautions are taken. The purpose of the Heatwave Plan is to reduce excess summer deaths by raising awareness and triggering actions in the NHS, Social Care, and other community organisations to support vulnerable people who have health, housing or economic circumstances that render them at risk. The Plan is also intended to mobilise communities and neighbours and civil society to help their neighbours, friends, and relatives to protect against avoidable harm to health due to excessive heat in summer. This, in turn, could help to reduce pressures throughout the health and social care system.

<sup>3</sup> <http://tinyurl.com/Public-Health-Outcomes>

<sup>4</sup> <http://tinyurl.com/The-NHS-Operating-Framework>

The Heatwave Plan has been reshaped this year to make it more consistent with the Cold Weather Plan for England, which itself was drafted to take into account the views of stakeholders. The main body of the text is an Action Plan giving individuals, professionals and organisations advice on how to prepare for and respond to a spell of severe heat to protect vulnerable people.

A companion document 'Making the Case' is being published which describes the detailed impacts of severe heat on health (with reference to vulnerable groups) and includes longer term advice about heatwaves and some of the planning which can be done to ameliorate its impact. As in previous years, three supporting documents are also being made available aimed at the general public; health and social care organisations and professionals; and care home managers. The factsheet and advice for the general public remains the same as for 2011, whereas the latter two factsheets have been updated to make them more consistent with the main Heatwave Plan and to take account of changes which have taken place in the NHS and local authorities.

**Who will be affected?** *e.g. staff, patients, service users etc*

The Plan sets out a series of clear actions to be taken by the NHS, social care and other public agencies; professionals working with vulnerable people as well as by individuals and local communities themselves designed to minimise the effects of exposure to severe heat on health.

It provides strategic guidance and a framework which Local Resilience Forums and local organisations can incorporate into their summer planning arrangements. The Plan is consistent with other emergency plans and duties under the Civil Contingencies Act (2004) to warn and inform the public before, during and after an emergency

**Evidence** *The Government's commitment to transparency requires public bodies to be open about the information on which they base their decisions and the results. You must understand your responsibilities under the transparency agenda before completing this section of the assessment. For more information, see the current [DH Transparency Plan](#).*

**What evidence have you considered?** *List the main sources of data, research and other sources of evidence (including full references) reviewed to determine impact on each equality group (protected characteristic). This can include national research, surveys, reports, research interviews, focus groups, pilot activity evaluations etc. If there are gaps in evidence, state what you will do to close them in the Action Plan on the last page of this template.*

1. Abrahamson, V. et al (2008), *Perceptions of heatwave risk to health: interview-based study of older people in London and Norwich, UK*, Journal of Public Health (2008) 31 (1) 119-126 <http://tinyurl.com/perception-heat-risk>
2. Centre for Analysis of Social Exclusion (2004), *Minority Ethnic Groups in Britain*, <http://tinyurl.com/ethnic-minority-geo-distrib>
3. Dear, K. et al (2005), *Effects of temperature and ozone on daily mortality during the August 2003 heat wave in France*, Archives of Environmental & Occupational Health (2005) 60 (4) 205-212
4. D'Ippoti, D. et al (2010), *The impact of heat waves on mortality in 9 European cities: results from the EuroHEAT project*, Environmental Health (2010) 9 (37)

<http://tinyurl.com/heatwave-mortality-women>

5. European Commission (2011) *Eurostat*, <http://tinyurl.com/european-population>
6. Gasparrini, A. et al (2011), *The effect of high temperatures on cause-specific mortality in England and Wales*, *Occupational and Environmental Medicine* (2012) 69 56-61
7. Greater London Authority (2006), *London's Urban Heat Island: A Summary for Decision Makers* <http://tinyurl.com/heat-island-effect>
8. Holstein, J. et al (2005), *Were disabled patients the most affected by the 2003 heat wave in nursing homes in Paris?*, *Journal of Public Health* (2005) 27 (4) 359-365  
<http://tinyurl.com/institution-mortality-heatwave>
9. Johnson, H. et al (2005), *The impact of the 2003 heatwave on daily mortality in England and Wales and the use of rapid weekly mortality estimates*, *Eurosurveillance* (2005) 10 (7) <http://tinyurl.com/heatwave-mortality-Eng-Wales>
10. Joseph Rowntree Foundation (2010), *Demographic Issues, Projections and Trends: Older People with High Support Needs in the UK*,  
<http://tinyurl.com/older-people-high-support-need>
11. Lin, S. et al (2008), *Chronic exposure to ambient ozone and asthma and hospital admissions among children*, *Environmental Health Perspectives* (2008) 16 (12) 1725-1730
12. Michelozzi, P. et al (2005), *The impact of the summer 2003 heat waves on mortality in four Italian cities*, *Eurosurveillance* (2005) 10 (7)  
<http://tinyurl.com/heatwave-mortality-Italy>
13. Carers UK (2004), *In Poor Health: The Impact of Caring on Health*,  
<http://tinyurl.com/carers-in-poor-health>
14. Pirard, P. et al (2005), *Summary of the mortality impact assessment of the 2003 heatwave in France*, *Eurosurveillance* (2005) 10 (7)  
<http://tinyurl.com/heatwave-mortality-France>
15. Rodriguez, C. et al (2007), *The relationship between outdoor air quality and respiratory symptoms in young children*, *International Journal of Environmental Health Research* (2007) 17 (5) 551-360
16. Stollberger, C. et al (2009), *Heat related side-effects of neurological and non-neurological medication may increase heatwave fatalities*, *European Journal of Neurology* (2009) 16 879-882
17. World Health Organization Europe (2005), *Effects of air pollution on children's health and development: a review of the evidence*, <http://tinyurl.com/air-pollution-children>
18. Bouchama, A. et al (2007) *Prognostic factors in heat wave-related deaths: A meta-analysis*, *Archives of Internal Medicine* (2007) 167 (20)



19. Cusack, L. et al (2011) *Heatwaves and their impact on people with alcohol, drug and mental health conditions: a discussion paper on clinical practice considerations*. Journal of Advanced Nursing. 2011 67 (4) 915-22.

20. Lowe, D. et al (2011) *Heatwave Early Warning Systems and Adaptation Advice to Reduce Human Health Consequences of Heatwaves*, International Journal of Environmental Research and Public Health 8 4623-4648

21. Ramin B, Svoboda T (2009) *Health of the Homeless and Climate Change*, Journal of Urban Health: Bulletin of the New York Academy of Medicine (2009), 86 (4) 654-664

**Disability** Consider and detail (including the source of any evidence) on attitudinal, physical and social barriers.

There is a general lack of evidence on the impact of hot weather on people with disabilities, but there is some evidence to suggest that disabled people are vulnerable to the effects of heatwaves, particularly if they suffer from conditions associated with heat-related mortality such as respiratory, cardiovascular or renal disease<sup>5</sup> or if their disability is such that it limits their adaptive responses.

During the 2003 heatwave in France there was a fivefold increase in the number deaths amongst highly dependent older people in residential care<sup>6</sup>. The evidence points to an association between the level of dependency and the likelihood of suffering adversely from heatwaves. It seems that the more dependent a person is the less able they are to cope with extreme temperatures. The available evidence suggests that disabled people who are confined to bed, unable to leave home daily, and who are unable to care for themselves are more likely to be adversely effected by heatwaves<sup>7</sup>.

Disabled people may also be at increased risk of suffering from the adverse effects of high temperatures if they are on medication because there is some evidence to suggest that certain drugs may impede thermoregulation and thirst regulation thus making people more vulnerable to harm from heatwaves<sup>8</sup>.

**Sex** Consider and detail (including the source of any evidence) on men and women (potential to link to carers below).

The increased number of deaths observed during heatwaves in a number of European countries shows that hot weather has a significant impact on women, particularly those aged 75 and over<sup>9 10</sup>.

Whilst gender in itself is not a predictor of suffering adversely from hot weather, women tend to live longer than men and as a result are more likely to experience limiting long-term illness or disability and are at greater risk of being socially isolated<sup>11</sup>. Both of these factors hinder

<sup>5</sup> Gasparri, A. et al (2011) *The effect of high temperatures on cause-specific mortality in England and Wales*, Occupational and Environmental Medicine (2012) 69 56-61

<sup>6</sup> Holstein, J. (2005), *Were disabled patients the most affected by the 2003 heat wave in nursing homes in Paris?*, Journal of Public Health (2005) 27 (4) 359-365

<sup>7</sup> Bouchama, A. et al (2007) *Prognostic factors in heat wave-related deaths - A meta-analysis*, Archives of Internal Medicine (2007) 167 (20)

<sup>8</sup> Stollberger, C. et al (2009), *Heat related side-effects of neurological and non-neurological medication may increase heatwave fatalities*, European Journal of Neurology (2009) 16 879-882

<sup>9</sup> D'Ippoti, D. et al. (2010), *The impact of heat waves on mortality in 9 European cities: results from the EuroHEAT project*, Environmental Health (2010) 9 (37) <http://tinyurl.com/heatwave-mortality-women>

<sup>10</sup> European Commission (2011) *Eurostat*, <http://tinyurl.com/european-population>

<sup>11</sup> Joseph Rowntree Foundation (2010), *Demographic issues, projections and trends: Older people with high support needs in the UK*, <http://tinyurl.com/older-people-high-support-need>

individual ability to adapt to hot weather, and as a consequence, women are at greater risk of suffering harm during heatwaves.

**Race** Consider and detail (including the source of any evidence) on difference ethnic groups, nationalities, Roma gypsies, Irish travellers, language barriers.

There is currently a lack of evidence on the impact of heatwaves on people from minority ethnic groups. Race and ethnicity in themselves are not predictors of suffering adversely from heatwaves. However, ethnic minority groups may be at increased risk of suffering harm in hot weather as significant proportions of these groups live in urban environments<sup>12</sup>.

There is evidence to show that when there is a heatwave the urban 'heat island' effect increases mortality rates. During the England heatwave of 2003, the maximum temperature difference between urban and rural locations reached 9°C<sup>13</sup> and mortality rates in London increased by 42%<sup>14</sup>. The heat island effect and high concentrations of people from ethnic minorities living in towns and cities suggests that minority ethnic groups may be at increased risk of suffering from the adverse effects of hot weather.

**Age** Consider and detail (including the source of any evidence) across age ranges on old and younger people. This can include safeguarding, consent and child welfare.

The age groups most effected by heatwaves are the old and the young, but excess mortality during heatwaves affects all age groups.

### Older people

Older people tend to experience limiting long-term illness and disability, which limits their capacity to adapt to high temperatures<sup>15</sup>. There is clear evidence to show that heatwaves have the greatest impact on older people, particularly those aged 75 and over. During the 2003 heatwave in England and Wales there was a 22% increase in mortality amongst the over 75s and in London there was a 59% increase in deaths<sup>16</sup>. Mortality rates amongst the old were significantly high across a number of European countries and cities during the 2003 heatwave<sup>17</sup>.

It is clear from the mortality figures that because of the heat island effect older people living in towns and cities are at particular risk of suffering from the adverse effects of hot weather.

Whilst the evidence shows that heatwaves have the greatest impact on the very old and the very dependent, there is some evidence to suggest that interventions to reduce the harm from heat should not just focus on those aged 75 and over who are very dependent, but on all older

<sup>12</sup> Centre for Analysis of Social Exclusion (2004), *Minority Ethnic Groups in Britain*, <http://tinyurl.com/ethnic-minority-geo-distrib>

<sup>13</sup> Greater London Authority (2006), *London's Urban Heat Island: A Summary for Decision Makers* <http://tinyurl.com/heat-island-effect>

<sup>14</sup> Johnson, H. et al (2005), *The impact of the 2003 heatwave on daily mortality in England and Wales and the use of rapid weekly mortality estimates*, *Eurosurveillance* (2005) 10 (7) <http://tinyurl.com/heatwave-mortality-Eng-Wales>

<sup>15</sup> Joseph Rowntree Foundation (2010), *Demographic issues, projections and trends: Older people with high support needs in the UK*, <http://tinyurl.com/older-people-high-support-need>

<sup>16</sup> Johnson, H. et al (2005), *The impact of the 2003 heatwave on daily mortality in England and Wales and the use of rapid weekly mortality estimates*, *Eurosurveillance* (2005) 10 (7) <http://tinyurl.com/heatwave-mortality-Eng-Wales>

<sup>17</sup> D'Ippoti, D. et al (2010), *The impact of heat waves on mortality in 9 European cities: results from the EuroHEAT project*, *Environmental Health* (2010) 9 (37) <http://tinyurl.com/heatwave-mortality-women>

people. A study of excess mortality in nursing homes in France during the 2003 heatwave revealed that of those who died, the majority were not considered to be among the most frail. The study concluded that the reason that fewer very dependent people died in residential care settings was because care and support were specifically directed at them thus limiting the number of deaths. More of those who were less dependent died because they received less attention<sup>18</sup>.

A study of the perceptions of heatwave risks amongst older people in London and Norwich in 2008 highlights the challenges of providing information to the elderly about the harmful effects of heat<sup>19</sup>. Interviews with older people revealed that a significant proportion do not perceive themselves as vulnerable and many think that “state intervention is unnecessary, intrusive and unlikely to be effective”. The findings from the study suggest that in order to achieve changes in behaviour that will mitigate against the harmful effects of heat innovative ways of getting messages across to older people need to be developed.

### Adults

Adults are among the least effected by heatwaves because they are generally better able to adapt in hot weather. However, those with existing health conditions, particularly conditions associated with heat related mortality such as cardiovascular, respiratory and renal disease, are likely to be at increased risk of suffering from the adverse effects of hot weather.

There is some evidence to suggest that there is a relationship between low socioeconomic status and education levels and heat related mortality. The relationship was observed in Italy during the 2003 heatwave when the greatest excess mortality was registered among those with low economic status in Rome (+17.8%) and low education levels in Turin (+43%)<sup>20</sup>.

The available evidence suggests that those with existing health conditions, low economic status and levels of education, and who live in urban environments are at increased risk of suffering from the adverse effects of heatwaves.

### Children and young people

There is evidence of the impact of global climate change on the health of children and young people generally, but there is currently a lack of evidence on the direct health impact of

<sup>18</sup> Holstein, J. (2005), *Were disabled patients the most affected by the 2003 heat wave in nursing homes in Paris?*, Journal of Public Health (2005) 27 (4) 359-365 <http://tinyurl.com/institution-mortality-heatwave>

<sup>19</sup> Abrahamson, V. et al (2008) *Perceptions of heatwave risk to health: interview-based study of older people in London and Norwich, UK*, Journal of Public Health (2008) 31 (1) 119-126 <http://tinyurl.com/perception-heat-risk>

<sup>20</sup> Michelozzi, P. et al (2005), *The impact of the summer 2003 heat waves on mortality in four Italian cities*, Eurosurveillance (2005) 10 (7) <http://tinyurl.com/heatwave-mortality-Italy>

<sup>21</sup> Dear, K. et al (2005), *Effects of temperature and ozone on daily mortality during the August 2003 heat wave in France*, Archives of Environmental & Occupational Health (2005) 60 (4) 205-212

<sup>22</sup> Johnson, H. et al (2005), *The impact of the 2003 heatwave on daily mortality in England and Wales and the use of rapid weekly mortality estimates*, Eurosurveillance (2005) 10 (7) <http://tinyurl.com/heatwave-mortality-Eng-Wales>

<sup>23</sup> Rodriguez, C. et al (2007), *The relationship between outdoor air quality and respiratory symptoms in young children*, International Journal of Environmental Health Research (2007) 17 (5) 551-360

<sup>24</sup> Lin, S. et al (2008), *Chronic exposure to ambient ozone and asthma and hospital admissions among children*, Environmental Health Perspectives (2008) 16 (12) 1725-1730

<sup>25</sup> McLaren, C. et al (2005) *Heat stress from enclosed vehicles: moderate ambient temperatures cause significant temperature rise in enclosed vehicles*. Pediatrics (2005) 116 2004-2368

heatwaves on the health of children and young people in developed countries such as the UK.

During the 2003 heatwave in Europe, high temperatures were accompanied by high levels of ozone<sup>21 22</sup>. High ozone levels are known to increase incidences of asthma and respiratory conditions in children<sup>23 24</sup>. Respiratory disease is one of the main causes of heat related mortality so children may be at increased risk of suffering from the adverse effects of heatwaves.

Children may also be at increased risk of suffering from the harmful effects of heat because they are dependent on adults, especially the very young, and are less capable of adopting adaptive behaviours during periods of hot weather. For example, there have been reports in the literature of significant risks to children when left unattended in vehicles during hot weather<sup>25</sup>. Children may be more susceptible to heat stress if adults do not support them to mitigate the harmful effects of heat.

**Gender reassignment (including transgender)** *Consider and detail (including the source of any evidence) on transgender and transsexual people. This can include issues such as privacy of data and harassment.*

There is no evidence to suggest that transgender or transsexual people are adversely affected by heatwaves because of their gender status.

**Sexual orientation** *Consider and detail (including the source of any evidence) on heterosexual people as well as lesbian, gay and bi-sexual people*

There is no evidence to suggest that heterosexual, gay, lesbian or bisexual people are adversely affected by heatwaves because of their sexual orientation.

**Religion or belief** *Consider and detail (including the source of any evidence) on people with different religions, beliefs or no belief.*

There is no evidence to suggest that religious groups are adversely affected by heatwaves because of their religious beliefs.

However, Muslims who observe Ramadan and do not eat and drink during daylight hours may find it difficult to keep hydrated in very hot weather, especially the old and the very young. In 2012 Ramadan falls during the summer from 20 July – 18 August. While there is no evidence to suggest that the Muslim community is particularly vulnerable to the adverse effects of hot weather, it is reasonable to assume that those who fast are, and it is important to raise awareness amongst the Muslim community of the risks to health of fasting during heatwaves, and the mitigating actions they can take. The Muslim Council of Britain has confirmed that under such conditions, breaking fast is allowed under Islamic law.

**Pregnancy and maternity** *Consider and detail (including the source of any evidence) on working arrangements, part-time working, infant caring responsibilities.*

There is currently a lack of evidence on the direct health impact of high temperatures on pregnant women and there is no evidence to suggest that pregnant women are a particularly vulnerable group in terms hot weather. However, they may be at increased risk of suffering from the adverse effects of heat if they have a low socioeconomic and low education status, if they live in an urban environment and /or if they have an existing health condition, particularly a condition associated with heat related mortality such as cardiovascular or respiratory disease.

While pregnant women do not appear to be particularly vulnerable to heatwaves, there is emerging evidence to infer a causal relationship between air pollution and low birth weight, suggesting that the high levels of ozone which often accompany heatwaves may adversely effect the unborn children of pregnant women<sup>26</sup>.

**Carers** Consider and detail (including the source of any evidence) on part-time working, shift-patterns, general caring responsibilities.

There is currently a lack of evidence on the direct health impact of hot weather on carers and there is no evidence to suggest that carers are particularly vulnerable to heatwaves. However, carers may be at increased risk of suffering from the harmful effects of heat if they are old, if they have a low socioeconomic and low education status, if they live in an urban environment and /or if they have an existing health condition, particularly one associated with heat related mortality such as cardiovascular or respiratory disease.

It is known that carers often suffer from poor health because of the stresses and strains of their caring role<sup>27</sup>. It may be the case that if the health of the person they are caring for suffers as a consequence high temperatures, the carers own health may also suffer as a result of the additional pressure of caring for someone whose health has deteriorated because of the heat.

**Other identified groups** Consider and detail and include the source of any evidence on different socio-economic groups, area inequality, income, resident status (migrants) and other groups experiencing disadvantage and barriers to access.

### People with mental illness

There is some evidence to suggest that people with mental health disorders may be vulnerable during hot weather. Conditions such as dementia can alter risk perception and protective behaviours meaning that those with mental health disorders may not be able to cope with extreme heat or alter their physical environment when hot<sup>28</sup>. The available evidence also suggests that psychological conditions such as schizophrenia may directly effect temperature regulation through underlying physical pathologies, and medications such as lithium, various neuroleptic and anticholinergic drugs can alter the body's ability to cope with heat. Such factors infer that people with mental health conditions are at increased risk of suffering from heat related illness during heatwaves.

### Homeless people

There is evidence to suggest that those who are homeless are at increased risk to the health impacts of heatwaves due to the high rate of underlying health conditions<sup>29</sup>. Those with drug and alcohol dependencies may also be at increased risk as they often have poorer overall health, increased social isolation and may be unable to adapt their surroundings.

<sup>26</sup> World Health Organization Europe (2005), *Effects of air pollution on children's health and development: a review of the evidence*, <http://tinyurl.com/air-pollution-children>

<sup>27</sup> Carers UK (2004), *In Poor Health: The Impact of Caring on Health*, <http://tinyurl.com/carers-in-poor-health>

<sup>28</sup> Cusack, L. et al (2011) *Heatwaves and their impact on people with alcohol, drug and mental health conditions: a discussion paper on clinical practice considerations*, *Journal of Advanced Nursing*, 2011 67 (4) 915-22.

<sup>29</sup> Ramin, B. et al (2009) *Health of the Homeless and Climate Change*. *Journal of Urban Health: Bulletin of the New York Academy of Medicine* (2009), 86 (4) 654-664

### Large public events (mass gatherings)

Summer is a time for people to get outside and enjoy themselves. Large scale public events, such as music and arts festivals, sports events, and celebrations are held up and down the country every summer providing enjoyment to millions of people. This year, the year of the Queen's Jubilee celebrations and the Olympics and Paralympics Games means that England and the rest of the UK will be hosting an especially large numbers of outdoor events (mass gatherings).

A recent review of European heatwave plans summarises the public health recommendations for protecting large crowds of people, including tourists, during hot weather<sup>30</sup>. The heatwave plans of countries such as Portugal, France and Belgium currently include a number of different actions to protect those attending sporting events and large gatherings. The evidence and lessons identified from the heatwave plans of other European countries are taken into consideration in the 2012 Heatwave Plan for England<sup>31</sup>.

### Engagement and involvement

Was this work subject to the requirements of the cross-government [Code of Practice on Consultation](#)? (Y/N) No.

#### How have you engaged stakeholders in gathering evidence or testing the evidence available?

The Heatwave Plan is a well-established part of the emergency planning and response apparatus. It has been published annually since 2004 and has been amended each year in light of new research evidence and experience in implementing the Plan. These have been brought together at an annual workshop to review the evidence and experience with different aspects of the Plan which have been run closely with the Health Protection Agency (HPA).

The annual Heatwave Plan seminar was held on 9<sup>th</sup> March 2012 with a range of professional, academic and voluntary and community sector representatives. The detailed issues emerging from the workshop are summarised in the box below.

In addition, a further testing of aspects of the Heatwave Plan specifically in relation to the Olympics were tested at an emergency planning exercise with a wide range of largely NHS staff from across South East Coast and South Central Strategic Health Authorities (SHAs) on 20<sup>th</sup> March 2012. The impact of a scenario of heat emergency, drought and the Olympics coming together were tested for both their impact on vulnerable groups and how the agencies would respond to these events.

The immediate lessons from these events have been brought into the revised Heatwave Plan 2012 which for the first time has general guidance on large public events (mass gatherings) and references to drought. In addition, this summer, overlapping with the Olympics is the Muslim period of fasting known as Ramadan. Specific advice agreed with the Muslim Council of Great Britain has been incorporated into the Heatwave Plan this year to give best advice for

<sup>30</sup> Bouchama, A. et al (2007) *Prognostic factors in heat wave-related deaths: A meta-analysis*, *Archives of Internal Medicine* (2007) 167 (20)

<sup>31</sup> Lowe, D. et al (2011) *Heatwave Early Warning Systems and Adaptation Advice to Reduce Human Health Consequences of Heatwaves*, *International Journal of Environmental Research and Public Health* 8 4623-4648

those who may be fasting during severe heat over the summer.

We have shared the emerging draft of the Heatwave Plan with a small reference group of key stakeholders from both government and the community and voluntary sector to ensure that it has resonance with the community and professionals working in the field, such as emergency responders in health and social care. The 'Heat Health Watch' alert system run by the Met Office has been tried and tested over many years.

However, as part of the ongoing testing, reviewing and development process, the HPA, DH and the Met Office have sponsored a number of further activities in support of developing and monitoring the implementation of the Heatwave Plan include:

- **Syndromic Surveillance** - The setting up and development of syndromic surveillance to allow early alerting and near real-time reporting of health conditions
- **Mortality Surveillance** - Establishing a mortality surveillance system to provide timely data on deaths during heatwaves

#### **Heatwave Plan workshop: 9<sup>th</sup> March 2011**

The aim of the seminar, was to gather feedback to inform the revision of the Plan ahead of its re-launch in May 2012. The aim of the morning session was to review the Plan in light of European and other guidance, and relevant literature published over the last year. During the afternoon session, in view of the upcoming Olympics, Paralympics and Diamond Jubilee events, the organising team decided to focus on mass gatherings and heatwaves. The aim of this was to provide relevant advice that could potentially be incorporated into the 2012 version of the Plan.

The full reports, list of participants and comments made at the 9<sup>th</sup> and 20<sup>th</sup> March workshops will be published on the HPA website at: <http://tinyurl.com/HPA-extreme-weather-events>

#### **How have you engaged stakeholders in testing the policy or programme proposals?**

We engaged stakeholders in both examining the emerging evidence as well as the emerging policies and specific actions throughout the process as outlined above.

#### **For each engagement activity, please state who was involved, how and when they were engaged, and the key outputs:**

The key outputs from the 9<sup>th</sup> and 20<sup>th</sup> March workshops can be accessed from the HPA website on the launch date of the Heatwave Plan. The delegates at the workshop were drawn from a combination of academic, professional and DH strategic partner organisations. They represented the groups identified above, and other consumer organisations or groups who are likely to have a particular interest in heatwave issues. An invitation letter went out to over 200 individuals from a wide range of voluntary, private and public organisations. The seminar was well attended by 50 representatives.

As a direct result of our engagement at the workshop, our review of the evidence and the information received from other ongoing contact we have with professional, community and social stakeholders, we have amended the Heatwave Plan 2012 in a number of ways which are highlighted below.

We will also continue to build upon the developments made last year to improve the wide scale

dissemination and communication about the publication of the Heatwave Plan. Last year we ensured that the notification of the Heatwave Plan made 'The Week' and other journals and reached media outlets run on behalf of the DH as well as direct notification and mailings to the DH strategic partner organisations.

## Summary of Analysis

*Considering the evidence and engagement activity you listed above, please summarise the impact of your work. Consider whether the evidence shows potential for differential impact, if so state whether adverse or positive and for which groups. How you will mitigate any negative impacts. How you will include certain protected groups in services or expand their participation in public life.*

We have extensively amended previous versions of the Heatwave Plan in light of comments made by participants at the engagement events and emerging study findings.

We do not believe that the Heatwave Plan will have a negative impact on any of the equality groups (protected characteristics). Rather, that the Heatwave Plan is being published to help reduce deaths and morbidity and to protect against avoidable harm.

The evidence suggests that the key factors which place people at greater risk from exposure to excessive heat are certain underlying conditions, age, and sex. Sexual orientation, gender reassignment, religion or belief do not appear to raise the risk factors as far as current evidence indicates, although we have taken account of the impact of Ramadan occurring during the middle of the summer.

There is a lack of evidence, or no evidence relating to race, pregnancy and carers except where people are already on low income and living in poorer housing stock which would place them at greater risk of mitigating the impact of an extended spell of severe heat.

Other than age and sex there is a lack of detailed information against which to regularly monitor the situation for the equality (protected characteristics) groups on a regular basis and as noted above there is a paucity of primary research in relation to some groups.

The essence of the Heatwave Plan is to ensure that key public health messages about the dangers of severe heat to health are understood by both the general public and professional staff and community and voluntary workers in touch with such vulnerable people. The Heatwave Plan seeks to ensure that key workers have identified such people and support raise awareness and take action as appropriate. Finally the Heatwave Plan also seeks to ensure that in the event of a period of projected and actual severe heat events, that there is adequate warning to professionals such that they and the wider emergency resilience system can respond.

The Heatwave Plan's key priorities include:

- ensuring that information is targeted/disseminated to protected groups where the evidence has highlighted this to be a priority
- ensuring that access to services is improved or not made worse by the Plan for those in population groups with protected characteristics

*Now consider and detail below how the proposals impact on elimination of discrimination, harassment and victimisation, advance the equality of opportunity and promote good relations between groups.*

**Eliminate discrimination, harassment and victimisation** *Where there is evidence, address each protected characteristic (age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief, sexual*



orientation).

We have no evidence to suggest that, as a result of the Heatwave Plan, we will eliminate discrimination, harassment and victimisation, however we have no reason to believe that this would possibly increase under the Plan. Indeed, the Heatwave Plan seeks to ensure that people from all groups with protected characteristics are better protected from the effects of severe hot weather due to raised awareness and response.

Preventive action should support people of working age from these groups to be able to continue at their jobs without taking significant periods of time off due to reduced illness; and older people will continue to be able to stay fit and not risk becoming socially isolated through illness and disease exacerbated by severe heat events.

**Advance equality of opportunity** *Where there is evidence, address each protected characteristic (age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief, sexual orientation).*

We generally have no evidence to suggest that as a result of the Heatwave Plan that we will advance equality of opportunity per se. The actions from this Heatwave Plan can help to refocus local community action towards those most vulnerable which will help advance equality of opportunity more generally

**Promote good relations between groups** *Where there is evidence, address each protected characteristic (age, disability, gender, gender reassignment, pregnancy and maternity, race, religion or belief, sexual orientation).*

At each Level identified as part of the Heat Health Watch system we have identified some actions for the local community and voluntary groups to take forward. We have focussed on the community's ability to marshal resources and look after vulnerable or frail neighbours both before and during a spell of extreme heat.

We believe that this is an important element of the Heatwave Plan and is consistent with wider government proposals to promote a sense of responsibility across civic society. Outlining roles for communities and third sector organisations who are in touch with many of the key groups of people with protected characteristics is a way of promoting community resilience and indirectly will promote good relations between groups.

**What is the overall impact?** *Consider whether there are different levels of access experienced, needs or experiences, whether there are barriers to engagement, are there regional variations and what is the combined impact?*

We believe that the Heatwave Plan will impact positively on the reduction of health inequalities by reducing the number of excess summer deaths experienced during heatwaves. The Plan attempts to engage and provide good practice for a range of individuals, community, health and social care and other organisations.

In the action levels which accompany the Cold Watch Alert warning system, the very first Level 1 is directed at public sector organisations, particularly emerging multi-agency health and wellbeing boards and Local Resilience Forums to undertake Long Term Planning to ensure that heatwave is owned collectively by local partners

The identification of those people who are susceptible to severe heat and to work systematically with them to improve resilience in a multi-agency manner means that issues such as housing should be part of the local discussions at all stage of the planning and response process.

We believe that the Heatwave Plan will have a positive impact on reducing adverse experiences of severe hot weather for vulnerable groups, including impacting positively on some equality groups, as well as for the wider population.

**Addressing the impact on equalities** *Please give an outline of what broad action you or any other bodies are taking to address any inequalities identified through the evidence.*

This Equality Impact Assessment has examined the evidence relating to the impact of heat on the health of specific groups, including carers, pregnant women, the disabled, and people from different ethnic groups. We have highlighted the need for authorities and professionals to identify and take note of those who may be especially vulnerable to hot weather. We have strengthened the Heatwave Plan 2012 in this respect and highlighted sections which encourage community engagement to ensure an accurate picture of need and community awareness of relevant issues.

**Action planning for improvement** *Please give an outline of the key actions based on any gaps, challenges and opportunities you have identified. Actions to improve the policy/programmes need to be summarised (An action plan template is appended for specific action planning). Include here any general action to address specific equality issues and data gaps that need to be addressed through consultation or further research.*

Please give an outline of your next steps based on the challenges and opportunities you have identified. *Include here any or all of the following, based on your assessment*

- *Plans already under way or in development to address the **challenges** and **priorities** identified.*
- *Arrangements for continued engagement of stakeholders.*
- *Arrangements for continued monitoring and evaluating the policy for its impact on different groups as the policy is implemented (or pilot activity progresses)*
- *Arrangements for embedding findings of the assessment within the wider system, OGDs, other agencies, local service providers and regulatory bodies*
- *Arrangements for publishing the assessment and ensuring relevant colleagues are informed of the results*
- *Arrangements for making information accessible to staff, patients, service users and the public*
- *Arrangements to make sure the assessment contributes to reviews of DH strategic equality objectives.*

### **Actions taken**

1. The national Heatwave Plan 2012 and accompanying support documents will be re-launched spring 2012 and published on the DH website. This will include:

- **Heatwave Plan for England: 2012**
- **Making the Case:** the impact of heat on health - *now and in the future*
- CMO introductory letter- **Heatwave Plan**
- **Factsheets/ Action Cards:** Including 3 publications which summarise the information in the Heatwave Plan and give advice and guidance for both professionals and the general public. We have reviewed the following documents and amended them as necessary:
  - Supporting Vulnerable People Before and During a Heatwave: Advice for health and social care professionals – updated for 2012
  - Supporting Vulnerable People Before And During a Heatwave: Advice for care home managers and staff - updated for 2012
  - Looking after yourself and others during hot weather: The latest advice – information for the general public published 2011 - no changes.

We will also be making available a large print version of the Plan and for the first time, an 'Easyread' version of the Plan as well.

The Heatwave Plan and its accompanying material presents a comprehensive set of advice the general public, the community, professionals and health and social care organisations to prepare for, and be able to respond both in the longer and shorter term for the possibility of severe hot weather

## 2. Summary of key changes to the National Heatwave Plan 2012

- Sections of the Heatwave Plan have been reordered to highlight public health messages and follow-up actions. The main body of the text is an Action Plan giving individuals, professionals and organisations advice on how to respond to a spell of severe heat to protect vulnerable people
- It provides further clarity in the action diagram of responsibilities, in particular emphasising the support community and voluntary sector organisations might provide
- It provides clarity on the operation of the four levels of the Heat Health Watch system and the emergency response
- It includes new sections on large scale public events, drought, heatwaves and Ramadan
- A companion document 'Making the Case' will be published which contains much of the information previously in the main Heatwave Plan as well as updated information about the likelihood of heatwaves in the future and the requirements for long term planning in light of the recent UK Climate Change Risk Assessment: Government Report (<http://www.defra.gov.uk/publications/files/pb13698-climate-risk-assessment.pdf>)
- The Plan has been refocused to ensure that it reflects the latest organisational structures and responsibilities during this transitional year to full implementation of the Health and Social Care Act (2012)
- Two of the three supporting documents 'factsheets' for health and social care organisations and professionals, and care home managers have been updated to ensure that they are consistent with the main Heatwave Plan and to take account of changes which have taken place in the NHS and local authorities.
- For the first time an 'Easyread' version of the Plan will also be published.

## Dissemination and communication plan

- Our dissemination and communication strategy will ensure that the Heatwave Plan is widely communicated using a variety of channels to ensure maximum publicity to health and social care professionals as well as the general public. It will encourage professionals to print and leave hardcopy leaflets for those vulnerable clients they feel would benefit from one.
- It is not proposed to publish any of the elements of the Heatwave Plan in hard copy. This is in line with DH policy which is that all publications should be online only, except in exceptional circumstances when, there might be accessibility or inclusion issues.
- The Heatwave Plan is long-established, mature Plan and it is felt reasonable to offer electronic access as the norm. However, we recognise that some of the vulnerable groups who might be most affected by a heatwave, e.g. older people, may not have access to computer resources to download the advice. The primary source of information on personal protection in addition to the Heatwave Plan remains 'Looking After Yourself in

Hot Weather' leaflet. It is proposed that like last year, the 'Looking After Yourself' leaflet will continue to be provided in an online format, but all professionals from both statutory and community organisations will be made aware of, and have access to, this material and will be able to print it off if necessary. We also have nearly 60,000 unused hard copy leaflets from last year with guidance which is still current, which could be made available to meet any demand from GPs, pharmacists, other institutions and the public if they would like them.

We recognise the need to focus particularly on ensuring that our messages on preparedness and response are reaching some of the most vulnerable groups. Our priorities in terms of raising awareness are twofold:

- Working with professionals, to ensure that all Category 1 Responders under the terms of the Civil Contingencies Act 2004 are aware of and receive as appropriate the Met Office 'Heat Health Watch' system forecasts and alerts. Without this, the Plan has little impact. Evaluations have stressed the importance of this alerting system for professionals which triggers a series of actions based on the Alert Level as described earlier.
- Raising awareness of the effects of severe hot weather on health and how the Plan proposes to deal with these for both professionals and the public. We are taking a number of specific actions in relation to this:
  - **Awareness raising of the Plan and Information Guide** - we will actively disseminate the publication of the plan using the full variety of publication channels available to us: e.g. DH website; NHS Choices; emergency planning routes; and the full range of DH publications which it sends to various staff groups, including social care and public health colleagues. We will advise them of the Heatwave Plan and provide web links to materials to ensure that they know how to download the public information leaflets if they require them for their clients. The Plan will be accompanied by a letter signed jointly senior DH and NHS Directors to emphasise the joint nature of the advice.
  - **Communication to the general public over the entire summer:** We will be working closely with the Met Office over the summer to further raise awareness in a number of ways.
  - **Plan launch:** to organise joint press activity around the Press launch to help raise awareness that the Plan is in place with a focus on what people can do all of the time to protect themselves
  - **Hot weather PR activity:** Often the Met Office will run press releases when a period of severe hot weather, is expected. These are usually only weather based, but from time to time they could include some messaging about the risks of hot weather, or a complimentary press release could be issued from the DH.
  - **During long periods of severe hot weather:** Similar PR activity could be initiated during long periods of hot weather, when Heat Health Watch thresholds are not likely to be met. If the DH is concerned that this weather could cause health impacts, such as in response to mortality surveillance, then an appropriate press release could be issued.
  - We will liaise with major voluntary agencies, such as AgeUK and other groups working with vulnerable groups and those with protected characteristics to ensure that they are aware of the material which is available on the Web. The Plan will be made available in large print and Easyread formats and can, if requested be

translated into a variety of other language formats in line with Department of Health policy.

### **Access to services**

A general challenge for all groups with 'protected characteristics' is to ensure that there is continued, if not improved access to services. The Heatwave Plan should not put any barriers in the way of accessing services generally. Indeed, there would be a generalised hope that if the Plan is successful in raising awareness about severe hot weather to both individuals and organisations, there might be a general reduction of demand on both primary care and hospital based services.

More generally it is the responsibility of public sector organisations such as local authorities and local PCTs to undertake an assessment of the needs of groups and communities as well as those who may use services. Those involved in needs assessment, as well as planning and implementation, of prevention should be aware of the different needs and concerns of those affected by hot weather as outlined in the Plan and in this equality assessment. Designing and developing approaches also needs an awareness of the cultural differences which can inform and reinforce community approaches that support our response to severe hot weather.

We have identified a range of mechanisms to promote the prevention of the impact of severe hot weather and ensure equitable access and delivery:

- Existing mechanisms to improve the identification of the scope and impact of severe hot weather amongst groups with higher risk (e.g. people with certain chronic diseases, older women) and those in marginalised or groups with protected characteristics. This can include Joint Strategic Needs Assessment as well as following the more specific approaches to winter planning and preparedness highlighted in the Heatwave Plan.
- Statutory mechanisms that promote adaptation plans and equality as well as commissioning and needs assessment to ensure equity of access and delivery for all groups in all services and approaches.

**For the record**

**Name of person who carried out this assessment:**

Anh Tran and Carl Petrokofsky

We would also like to acknowledge the contributions of Katie Carmichael, Graham Bickler, and Virginia Murray of the Health Protection Agency in the production of this Equality Impact Assessment.

**Date assessment completed:**

30 April 2012

**Name of responsible Director/Director General:**

Yvonne Doyle, RDPH DHSE

**Date assessment was signed:**

9 May 2012

# Action plan template

This part of the template is to help you develop your action plan. You might want to change the categories in the first column to reflect the actions needed for your policy.

Category	Actions	Target date	Person responsible and their Directorate
<b>Involvement and consultation</b>	The Heatwave Plan 2012 has addressed and reflected the issues raised last year and which were raised in the annual evaluation seminar and evidence base review.	May 2013	Carl Petrokofsky Public Health Directorate
<b>Data collection and evidencing</b>	The Heatwave Plan 2013 will require substantial re-writing to take redrafting to take account of the structural and functional changes which will come into place from April 2013. It is likely that in future the Heatwave Plan will be published by Public Health England working in close association with the Department of Health		
<b>Analysis of evidence and assessment</b>			
<b>Monitoring, evaluating and reviewing</b>			
<b>Transparency (including publication)</b>	Future Plans will continue to address and assess issues of equity and fairness in line with this Equality Impact Analysis.		

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