

# Environment and Health

## Health and Well-Being Briefing Paper (no. 3 of 8)

### Introduction

This briefing paper, on tackling the wider determinants of health in relation to environment and health, is one of a series of briefings aimed at local authorities and other local partners in the West Midlands. It was developed using best available national and local evidence and guidance,<sup>1,2</sup> and local case studies are included which demonstrate good and effective current practice in support of the Public Health role of Local Government. The briefing serves as a legacy of the extensive range of work done to date across the West Midlands led by the Regional Public Health Group.

It is cognisant of the needs in the West Midlands and suggests how local areas and Health and Well-Being Boards can work in partnership to tackle local public health issues using innovative and effective approaches in tackling the wider determinants of health and health inequalities. These approaches can help to protect against current and future threats to health and well-being and help improve the efficiency and effectiveness of local partnership working to improve the quality and quantity of people's lives.

### Key Facts: West Midlands

- There is a diverse ecology with many important habitats and species<sup>3</sup> in rural and urban sites<sup>4,5</sup>
- The West Midlands has a significant carbon footprint<sup>6</sup>, and the NHS accounts for roughly 2% of the national ecological footprint in terms of resource consumption and waste generation<sup>7</sup>
- Carbon emissions are 6.8 tonnes CO<sub>2</sub> per resident in the West Midlands which is the same as the England average<sup>8</sup>
- The most recent data indicates that smoking prevalence is 21% in men, 19% in women<sup>9</sup>
- There are high levels of obesity; the most recent figures suggest that as many as 16% boys and 18% girls in the West Midlands aged 2-15, and 25% of men and 26% of women are obese<sup>10</sup>
- 75% of women and 63% of men do not do enough activity to benefit their health and well-being. Only 19% of boys, 20% of girls and 27% of adults eat the recommended amount of fruit and vegetables<sup>11</sup>
- People in poorer communities or areas are more likely to experience certain infectious diseases than those from wealthier communities<sup>12</sup>

### Areas for Partnership Action

#### Health and Well-Being Boards can:

- Promote the benefits of a diverse natural environment for physical and mental health and support the development of green infrastructure
  - Implement initiatives to positively promote health behaviours and lifestyle<sup>13</sup> and adapt the environment to make healthy choices easier<sup>14</sup>
  - Promote community ownership of and protect green space,<sup>15</sup> increase the number of people using the countryside and green spaces, ensure local green space is accessible for all and improve access to land so people can grow their own food<sup>16</sup>
  - Design communities for active aging and sustainability<sup>17</sup>
  - Reverse the trend of rising obesity levels by 2020, particularly in childhood, to enable the maintenance of healthy weight across the population and reduce the number of people in the West Midlands who do no physical activity
- Tackle climate change and its impacts, by reducing emissions of global warming gases and promoting adaptation to climate change
  - Balance freedoms of individuals and organisations with the need to avoid harm to others<sup>18</sup> and ensure excellence, expertise and responsiveness on health protection.<sup>19</sup> For example:
    - Reduce the number of people smoking and ensure others are protected from secondhand tobacco smoke, by enforcement of the national smoking ban
    - Protect people and their environment from threats such as air pollution, land contamination, water pollution and noise pollution
    - Reduce infectious disease rates and tackle inequalities in the distribution of infection risks
    - Prevent deaths through full take-up of seasonal flu vaccinations<sup>20</sup>
    - Develop effective arrangements to minimise the health and environmental impacts of major incidents

## Background

The human impact in the form of intensive agriculture, congested roads, contaminated water resources, new housing and commercial development, along with the impact of the West Midlands' long industrial tradition is placing increased strain on many areas, particularly the rural areas.

The challenges and opportunities include managing and mitigating the effects of climate change on people, wildlife and landscape, and ensuring that sustainable communities<sup>21</sup> are at the heart of new and existing developments, including access to a high quality environment that sustains and promotes health and well-being.

A diverse, respected and accessible environment is good for the health of communities and individuals and a degraded outdoor and indoor environment will affect the physical and mental health and wellbeing both of current and future generations.

## Creating a Rich Environment

The West Midlands' environment is rich and varied. Its nature reserves and conservation areas contain a quarter of the UK's priority species and over half of brownfield sites have potential for green space use.<sup>22</sup>

The economic benefit alone of the environmental economy in the West Midlands has been estimated at 91,000 jobs and £1,425 million gross domestic product<sup>23</sup>. Benefits of the environment also include:

- Opportunities for sport and recreation
- Creating healthier communities
- Supporting and enhancing biodiversity
- Cooling our urban areas in summer
- Reducing the impact of noise and air pollution
- Reducing the risk of flooding

The mental, physical and emotional benefits of access to a good quality environment and green space are increasingly being documented.<sup>24,25,26</sup> It is important for all to have access, to tackle the barriers that people face and to provide appropriate support.<sup>27,28</sup>

## Climate Change

Strong action is required to tackle climate change and make significant cuts in greenhouse gas in order to reduce its potential social, environmental and economic effects.<sup>29</sup> It is necessary to predict and reduce the impacts of climate change on mental and physical health (e.g. heat-related illness and skin cancer); to increase resilience and support the most vulnerable e.g. with winter warmth, fuel consumption and to reduce the impact of heat-waves on them.<sup>30</sup>

The two main components of the West Midlands' "carbon footprint" are domestic energy consumption and emissions from transport.<sup>31</sup> As big consumers of energy and contributors to vehicle journeys health organisations have a major role to play to tackle their emissions and contribute to this reduction.

## Supporting Healthy Lifestyles

Obesity is responsible for more than 30,000 deaths each year (6% of all deaths in the UK) and can decrease a person's life by up to nine years.<sup>32</sup> The causes of obesity encompass behavioural and biological factors in an environmental, cultural and social framework that has led to the "obesogenic" environment, where making unhealthy choices is the default, easy or only option for people.

A co-ordinated approach to tackling the obesogenic environment in which we live is required including changing attitudes and beliefs, providing information, active travel initiatives,<sup>33</sup> healthy eating, cooking skills, and physical activity programmes. Also action on the built and natural surroundings<sup>34</sup> and culture is necessary to make healthy options more attractive and the easier choice by making green space accessible and attractive<sup>35</sup> for example. Targeting those most at risk of obesity will also be beneficial.<sup>36</sup>

## Tobacco

The introduction of smoke free environments has recognised the right to enjoy smoke free air and reduced the risks to health from exposure to second-hand smoke. Encouraging smokers to quit smoking will reduce second-hand smoke and reduce littering of discarded cigarette stubs. The economic cost of fires caused by smoking is estimated to be over £24m and smoking can act as a distraction leading to road accidents.<sup>37</sup> Organisations need to promote smoke free environments and support staff who want to quit smoking.



## Protecting the Outdoor Environment

Air pollution can have an adverse effect on the health of susceptible people such as the young and the elderly and those with pre-existing respiratory disease. There are 16 designated Air Quality Management Areas in the West Midlands where air pollution may exceed Air Quality Standards and Objectives. For 15 of these areas, nitrogen dioxide from traffic is the main problem.

In many urban areas current and previous industrial sites are often the focus for redevelopment, rather than developing greenfield sites, but they may carry a legacy of an industrial past if their clean up is not regulated properly which could represent a potential risk to health for current or future users so it requires careful management.

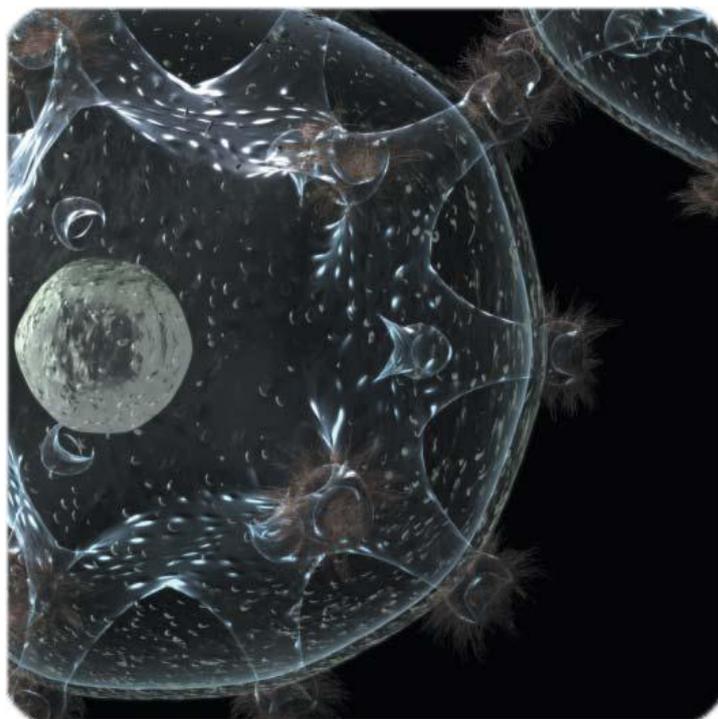
The illegal dumping of waste can have a number of impacts on health including the spread of disease, fire, pollution and health effects from hazardous waste. By reducing the amount of waste we produce, or recycle, we can minimise the amount of waste requiring disposal and thereby reduce the impact on the environment and health and reduce the pressure on landfill space which is fast running out.

## Environmental Sustainability and the NHS

Nationally the NHS produces 600,000 tonnes of waste each year, which is over 1% of all domestic waste produced in the UK and produces about 3.5m tonnes of CO<sub>2</sub> a year.<sup>38</sup> The NHS could cut consumption and waste production, become more sustainable, and thus make cost savings, but there are great challenges.

Waste disposal and Infection Control guidelines should be followed and training given to avoid the cost implications and infection risk from incorrectly disposed waste. Waste should be addressed at procurement and contracting stage, as to how a product can best be purchased to avoid excess waste and how it will eventually be disposed of, as well as the associated packaging. There will be financial benefits from a well run waste system.

Organisations can make a contribution to reducing carbon emissions by efficiency measures and by helping staff, patients and visitors to change behaviour by turning lights off, saving water, adjusting radiators, recycling and re-using and so on which would reduce running costs.



## Infectious Diseases, Inequalities and Environment

Particular infectious diseases show a strong relationship with inequalities, the environment and socio-economic and other circumstances. For example respiratory infections<sup>39</sup> and tuberculosis<sup>40</sup> disproportionately affect deprived rather than more affluent communities and a similar pattern is shown with consultation rates for infectious diseases.<sup>41</sup>

The main approaches for fighting infectious disease include measures to tackle the conditions that foster infectious diseases, effective preventive measures such as food safety and public education about hygiene, ensuring uptake of interventions such as immunisation, and ensuring effective and equal access to early diagnosis and treatment.

## Managing Health Impacts of Major Incidents

A major incident is an emergency that requires special action by one or more of the emergency services. It may affect a large number of people directly and has indirect effects through impact on the environment and the economy. Under the Civil Contingencies Act,<sup>42</sup> services are responsible for putting emergency plans in place to respond to incidents and minimise harm, ensure business continuity and to plan for 'resilience'.

These arrangements are in constant development, in particular to take account of learning from previous incidents and from exercises. For example learning can take place from the H1N1 Swine Flu outbreak which had health and social impacts. Plans should take account of the needs of more vulnerable people.



## Case Studies

### Shropshire Shropshire Outdoors Project

Shropshire Outdoors project engages with people who experience barriers to accessing the countryside. The project aims to gradually improve levels of fitness, and confidence, in the outdoors and focuses on the needs of adults with learning difficulties, people with physical disabilities and people that are experiencing, or recovering from, mental ill-health. The Shropshire Outdoors project promotes health and well-being by working with organisations to provide 'green exercise'.

Project partners include Shropshire County Council and Shropshire Primary Care Trust. The partnership brings together for the first time in Shropshire, two currently separate knowledge and skill sets, that of countryside activity providers and those of staff and volunteers who work with the target beneficiaries in the sector of health and social care.

The project acts as a catalyst to generate a voice for the target beneficiaries and through consultation, participants are supported to be more physically active in 'needs-led' countryside activities such as walking, orienteering, wildlife surveys and practical conservation tasks. This includes promoting progression into mainstream volunteering.

The Shropshire Outdoors project also addresses barriers to countryside access by offering funding so that groups can become self-sustaining, and by undertaking access improvements to countryside sites. To find out more contact the Shropshire Outdoors Project Officer.

See reference sheet and the other briefing papers in the series:

Planning, Transport and Health  
Housing and Health  
Economy, Skills and Health  
Culture, Leisure and Health  
Safer Stronger Communities  
Children, Young People and Families  
Later Life

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### Stafford Staffordshire Local Food Directory

The Staffordshire Local Food Directory, now in its fourth edition, was originally published in 2003 by Stafford Borough Council Local Food Links to support Stafford Borough Council's aims for sustainable development. It now involves a close working relationship with the 'A Taste of Staffordshire Partnership' so that there is greater cross county participation.

It aims to promote the local food sector because buying locally contributes to more sustainable, healthy lifestyles and in particular:

- Supports local farmers, producers and their families and helps to ensure a robust rural economy
- Brings about many environmental benefits e.g. reduces food miles and thus traffic and carbon emissions e.g. helps reduce packaging and waste
- Helps people have better access to fresher, more nutritious food

As well as including details of around 100 local producers there are additional information pages on a range of topical issues that are relevant to health and sustainability including healthy eating, animal welfare, farming and wildlife, packaging, food waste and more. Recipe cards have also been produced that help people to produce meals that have high nutritional value, great taste and are based largely on locally grown ingredients.

The directory has contributed to a more robust rural economy, raised awareness of health and sustainability issues and has provided a practical contribution to improved sustainability, health and wellbeing.

The Directory is funded by local authority partners and sponsors and is produced as a hard copy and available online. The Staffordshire Local Food Directory can be accessed at:

[http://www.staffordbc.gov.uk/live/Documents/LA21/LFD/LFD\\_4.pdf](http://www.staffordbc.gov.uk/live/Documents/LA21/LFD/LFD_4.pdf)

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## Further Information, Organisations and Links

Learning for Public Health <a href="http://www.wmpho.org.uk/lfp">www.wmpho.org.uk/lfp</a>	Department of Health <a href="http://www.dh.gov.uk">www.dh.gov.uk</a>
West Midland Councils <a href="http://www.wmcouncils.gov.uk">www.wmcouncils.gov.uk</a>	West Midlands Regional Observatory <a href="http://www.wmro.org">www.wmro.org</a>
The Chartered Institute of Environmental Health <a href="http://www.cieh.org">www.cieh.org</a>	Health Protection Agency <a href="http://www.hpa.org.uk">www.hpa.org.uk</a>
Environment Agency <a href="http://www.environment-agency.gov.uk">www.environment-agency.gov.uk</a>	Natural England <a href="http://www.naturalengland.org.uk">www.naturalengland.org.uk</a>
Forestry Commission <a href="http://www.forestry.gov.uk">www.forestry.gov.uk</a>	Countryside Recreation Network <a href="http://www.countrysiderecreation.org.uk">www.countrysiderecreation.org.uk</a>
West Midlands Food Website <a href="http://www.foodwm.org.uk">www.foodwm.org.uk</a>	West Midlands Physical Activity Website <a href="http://www.pan-wm.org.uk">www.pan-wm.org.uk</a>
Sport England <a href="http://www.sportengland.org.uk">www.sportengland.org.uk</a>	Department for Environment, Food and Rural Affairs <a href="http://www.defra.gov.uk">www.defra.gov.uk</a>
Sustainability WM <a href="http://www.sustainabilitywestmidlands.org.uk">www.sustainabilitywestmidlands.org.uk</a>	The Marmot Review <a href="http://www.marmotreview.org">www.marmotreview.org</a>
Department for Communities and Local Government <a href="http://www.communities.gov.uk">www.communities.gov.uk</a>	

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