Sandwell NHS
Primary Care Trust

Green well
Green recovery
Green dividend

The three greens for health

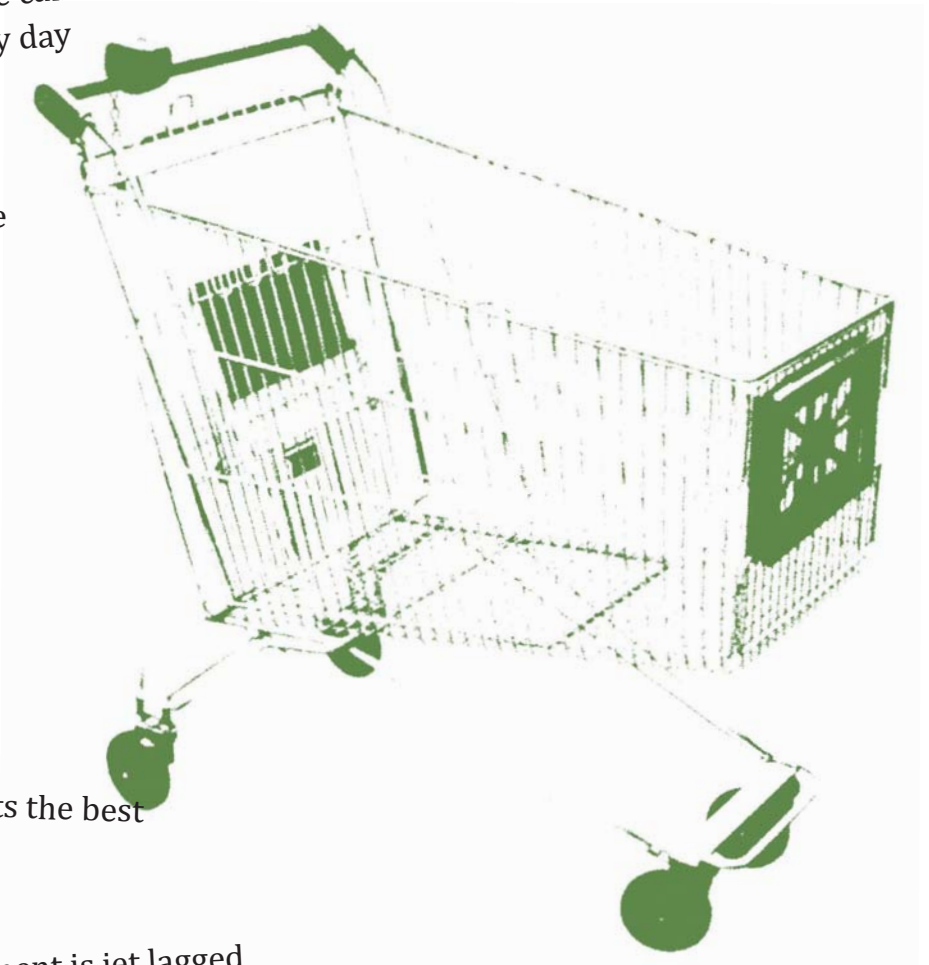
Sandwell
Metropolitan Borough Council

Sandwell Partnership
MAKING CHANGE HAPPEN

Public Health Annual Report 2009/10

Global Village Armchair

By Brendan Hawthorne (Copyright 2010)



It used to be just a Jersey mid
that added exoticism to me life
But now there's more choice than yo've ever sid
an it's causin the planet some strife
Tastes changed with the supermarket
Chose unassuming European wines
Drank gold-top milk topped with country fat
and tried French cheese from time ter time
I liked me tender New Zealand lamb
n me Brussels sprouts on Christmas Day
Had Argentinean beef straight from the can
Ett rainforest fast foods each and every day

N now me waistline has spread as wide
as dateline trans-fat packaging
Me arteries are hardening off inside
with plaque and all its ravagings
I want me taerters from down the road
me opples off a nearby tree
I doe want to wait fer ships to unload
or preservatives ter work on me
I doe want me peaches in Styrofoam
clogging the lungs of the poorly paid
Cos this world is only on loan
n we ay got another I'm afraid
This global market ay anybody's local
though this Black Countrymon still wants the best
But it's time we got real and vocal
and gid this rock a rest

Our nourishment is jet lagged
Processed, signed and dated
There's overkill tagged and bagged
and some of us are sadly fated
Unpackaged food really ay so hard
Cuts the need to recycle to a minimum
Converts our food miles in ter yards
So we can all add up the sum
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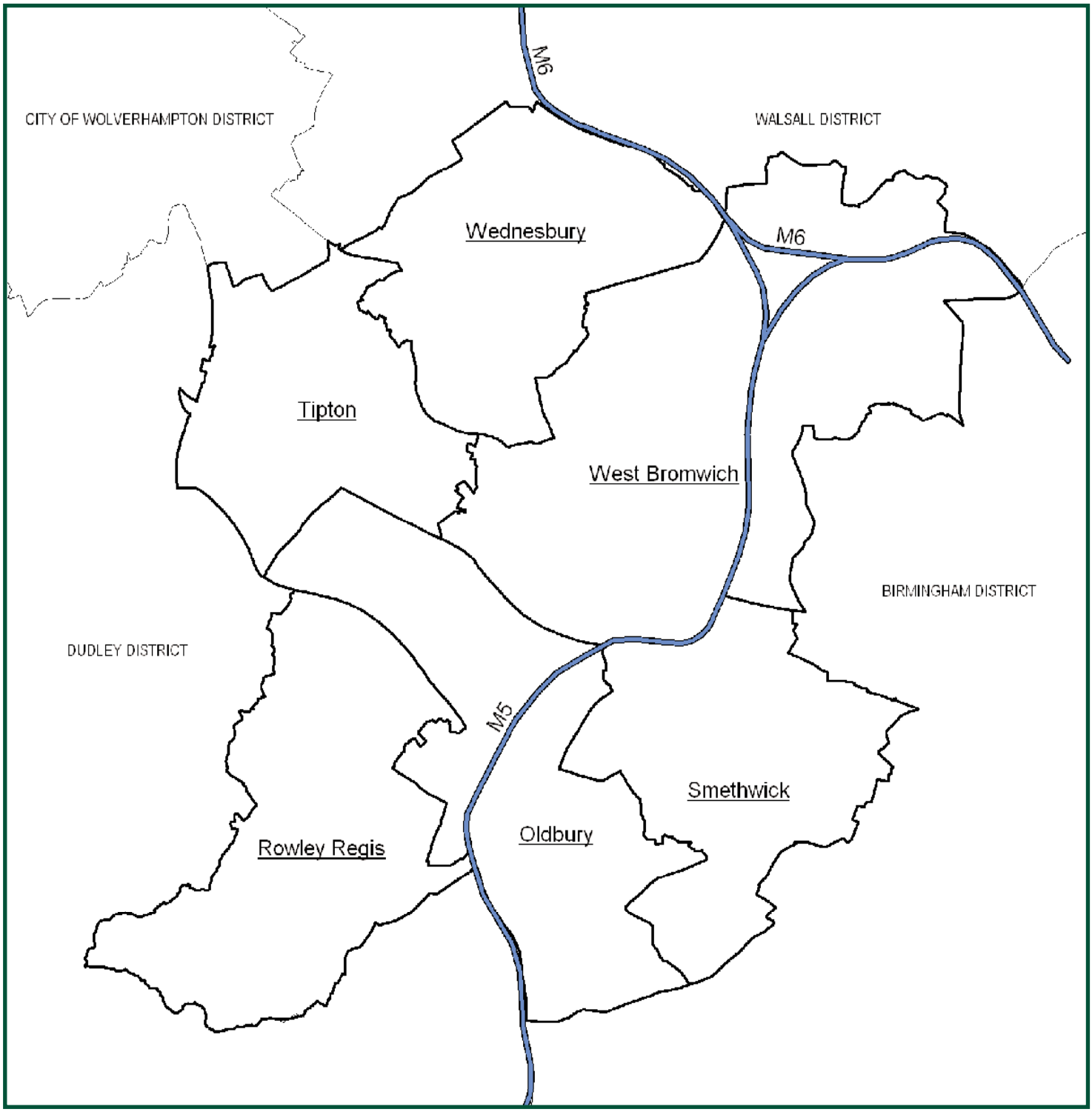
Contents

Map of Sandwell PCT



The following acknowledgement refers to all maps in this report unless otherwise indicated:

"Green promotion is health promotion"

A depressed community...

Dr John Middleton
Director of Public Health

This year's annual public health report focuses on environment and health. This is not the first time we have developed these themes and it will not be the last.

We have chosen to look at some very traditional concerns about environmental problems - the problems that affect people in their everyday lives - nuisances, environmental hazards and physical threats. People have a right to a good quality of environment and while things are definitely getting better in Sandwell, there is still considerable room for further improvement. However, local concerns about issues such as nuisances, antisocial behaviour and littering are immediate, and tackling them makes a real difference to people's lives- their physical and mental health and feelings of wellbeing and security, and whether or not they feel good about themselves and their communities.

People need to take care of themselves, and they also need to take care of the public spaces they share. If we do not look after ourselves, our health will suffer, if we do not look after our environment, we will all suffer. Just as someone who is unhealthy can become depressed, so our community can become depressed, living every day in squalor and surrounded by risks to our collective health. A healthy environment is a key to healthy people. Green promotion is health promotion. A green, clean community will not be a depressed community.

Despite the clear evidence of the effects of poor environment and inequalities in the distribution of those effects we have limited understanding of the distribution, extent, and impact of this in Sandwell. While the Environment Agency's Environmental Quality tool shows large areas of Sandwell to be relatively poor in terms of environmental quality compared to the rest of the West Midlands (figure 1), this tool does not fully reflect the reality of living in Sandwell. My team has worked with partners from the local authority, Environment Agency, University of Birmingham and University of Cardiff, and others to concentrate on those issues of most importance to Sandwell and where we can have an impact. Let us look at some of these environmental hazards as they affect Sandwell people. I am grateful to Dr Patrick Saunders and colleagues for the work they have put into these analyses.

Nuisance

Historically Britain's public health movement was based on addressing the impact of our environment on individual and community health and well-being.

Public health nuisances such as noise, pollution and housing disrepair have direct and indirect health effects and there is evidence of inequalities in their distribution and impact. Assessment of the distribution of, and trends in, levels of nuisance complaints is important for the early identification of a developing or previously unknown problem, for prioritising areas for intervention and monitoring the impact of those interventions.

We have worked with the local authority to develop an innovative new way to identify areas with significantly high levels of nuisance and those with significantly deteriorating levels. More than 20,000 complaints over six years were studied. We found that there is a very strong relationship between high levels of nuisance complaint and deprivation. More than 50 areas experienced very high levels of complaint at some stage with six areas in four wards being particularly affected for two or more years. The areas are shown on the map on page 21. We are working with the local authority on the investigation of these areas and developing response strategies accordingly.

Air Quality

The persistent smogs of the industrial era are a thing of the past, but this doesn't mean that the effects of air pollution are entirely behind us.

Over half of the population of Sandwell lives close to an industrial process and we must continue to work closely with business and the regulators to ensure that Sandwell's industry operates at the highest level of performance. However, the principle source of pollution in the Borough is now Nitrogen Dioxide (NO_2) pollution from road transport. The areas of high levels of NO_2 exceedance are shown in figure 6.

The challenge now is that radical solutions are required to improve air quality further at a local level. We have found that almost 30% of Sandwell families live close to a busy road reinforcing the need for extending 20 mph zones in Sandwell. These zones can also reduce child pedestrian deaths by 70%.

Food Safety

Local Authority Environmental Health Practitioners ensure high and improving standards of food hygiene in food premises across the Borough. Sandwell has pioneered an area based risk assessment to target inspections and we have demonstrated that this has a highly significant effect on improving standards, a strategy we are urging other authorities to adopt as good practice. However, food hygiene is only one aspect of the health impact of food.

Poor quality diets have a major impact on public health and we are working with the local authority to use the routine environmental health food hygiene inspections as an opportunity to increase the availability of healthy fresh foods in local retailers.

Flood Risk

Although landlocked Sandwell is many miles from the coast with no major rivers, it is important not to be complacent about flooding. It is likely that global warming will increase the risk and there remains the potential even now for serious flood events in Sandwell.

There are parts of the Borough subject to flood risk due to heavy rainfall overwhelming local watercourses and drainage capacity. There are surprising numbers of properties (around 8,500) in the Oldbury, Smethwick and West Bromwich areas at risk from surface water flooding and Sandwell, as a national priority area, has been funded by the Department for Environment, Food and Regional Affairs (DEFRA) to develop a Surface Water Management Plan.

Cycling

Cycling has major health and environmental benefits but despite no two places in Sandwell being more than a comfortable cycle journey apart, levels of cycling are low.

Even the current modest levels of cycling are estimated to save two lives each year and there is considerable support for improving cycling opportunities. We want to release this suppressed demand by making all journeys in Sandwell feasible by cycle. This will require expanding cycling training programmes, building on the success of the School Bike Clubs programme, and completing the planned local cycle network extending to link with local centres in neighbouring districts.

We also need to improve safety by adopting a policy of default speed limit of 20 mph in residential areas. It is important that we have an active input to the current consultation on the Local Transport Plan to ensure that the promotion of cycling is taken into account in the development of transport across Sandwell and the West Midlands.

Sandwell Primary Care Trust's Environmental Credentials

Sandwell Primary Care Trust (PCT) is committed to good corporate citizenship and to being socially and environmentally responsible.

As an organisation the environmental impact of our business is a key consideration in everything we do and we recognise the impact we have on the environment, taking steps to minimise this risk wherever possible.

Sandwell PCT was selected to take part in the NHS Carbon Management Programme in 2009. Working with the Carbon Trust, the PCT has developed a Carbon Management Plan leading to our first environmental blueprint. We are using this to manage, control and reduce future exposure to environmental impacts. If we achieve our target of a 25% reduction in carbon emissions by April 2014 we will have avoided total costs of almost a million pounds between 2009/10 and 2013/14.

Already we are seeing the benefits of our strategy and in 2010 the PCT was recognised as one of the top five PCTs in the country for carbon management, a triumph of painstaking work for the Chairman, Shaukat Ali and the corporate citizen group.

Sandwell Council's Green Credentials

Sandwell Council is committed to creating sustainable communities with smaller carbon footprints, less pollution and no reliance on resources that will run out. Leading by example, Sandwell's Climate Change Action Plan sets out how it has been, and will be, reducing its own carbon footprint to the national 34% reduction target by 2016, which is four years ahead of the 2020 UK target. Part of the package included upgrading all of our 13 secondary schools to eco-standard, giving some 18,000 pupils comfortable, stimulating environments in which to develop their talents. Unfortunately the government's recent withdrawal of the 'Building Schools for the Future' funding now limits these improvements to just three schools.

Thousands of households each year are benefiting from the council and its partners investing in their homes and using our influence to reduce their fuel bills. Sandwell's Warmer Homes Partnership Group will continue to help vulnerable residents, by tackling fuel poverty. In 2009/10 alone, the partnership spent £12m upgrading the heating systems and insulation in some 6,500 homes. In addition to this, Sandwell Homes Ltd and Riverside Homes Ltd continued upgrading the energy efficiency of council's stock of 29,000 homes to 'Decent Homes' standard. Through this programme an average of 1,200 homes each year receive energy upgrades, reducing their fuel bills and carbon footprints and solving damp problems, while improving comfort. The UK Low Carbon Transition Plan requires more ambitious eco-upgrades to homes beyond 2015. Progress on this very much depends on the government setting up its 'Green Deal', with funds to enable the local partnership to retrofit thousands of houses to a much higher level of energy efficiency, with associated renewable energy generation and smart metering.

The environmental performance of local businesses and trade is also being influenced by the council. The aim is to strengthen the local economy through the 'Find it in Sandwell' programme and the council's own purchasing policies. Not only do these support hundreds of jobs locally and help prevent money leaking out of the local economy, they also reduce the length of trips required to deliver goods and services, the associated fuel consumption, carbon footprints and air pollution. The council's purchasing policies also favour businesses that can demonstrate that they are working on, and achieving, better standards of environmental management. To help them improve their environmental business management and performance, the council, through 'Business in Sandwell Network of Environmental Support' (BISNES) provides free advice, practical environmental management courses as well as promoting the Sandwell Travelwise scheme.

Green Space

Access to good quality green spaces not only makes the places we live, work and play in more attractive, but also improves health and well-being, especially in deprived communities. A key component of people's local environment is the natural environment – the patch at the end of the street, parks and gardens, woods, rivers, lakes and ponds, wildlife, and the changing seasons.

The impact of the natural environment on people has been demonstrated in many studies. Patients recover from surgery and illness more quickly if they have views of greenery and gardens than if they can only see brick walls; blood pressure and stress levels fall when walking into open spaces[1]. The pull of green spaces is demonstrated all the time as people seek the tiniest town centre scraps to enjoy during breaks from work. At a larger scale we seem to be hard-wired to favour savannah-type landscapes with open views of grass, trees and water. It is no accident that this is the favoured mix for urban parks and the grounds of stately homes all over the world.

There is a surprising amount of green space in Sandwell (25% of the Borough) and we are fortunate to have 15 nature reserves. The achievement of green flag status by many of Sandwell parks is a major success. Likewise resources such as the Sheepwash and Sandwell Valley RSPB nature reserve show the long term benefits of land reclamation and the green regeneration of industrial waste lands in the 1980s. However, not all our green spaces are fully accessible to communities because they are difficult to get to or because people are worried by issues such as personal concerns over security. We must ensure that our green spaces are accessible to, and used by, all the people of Sandwell and we need to encourage those groups that aren't taking advantage of these precious resources. The council also needs to support and encourage local groups which are active in maintaining or developing green spaces for the community's use.

> "Patients recover from surgery and illness more quickly if they have views of greenery and gardens"

Biodiversity

Peter Shirley - Chair of Sandwell Environment Partnership has contributed a guest chapter in this year's annual report about biodiversity in Sandwell.

Sandwell's Natural Environment and Biodiversity

There is enormous biodiversity in Sandwell taking advantage of both our manmade landscapes in working farms, canals, parks and gardens, and also our natural environment including the rivers Tame and Stour and ancient woodlands.

Migrating waders and birds of prey follow the Tame Valley on their journeys to and from Africa or the high arctic. Ring ouzels and wheatears use the open grasslands in the Valley. Oystercatchers and lapwings breed here, and otters are now occasionally seen again on the Stour and in the canals. Eels complete their astounding journey from the Atlantic near Bermuda in the Tame Valley Canal and other waters, and sparrowhawks create havoc amongst the small birds in many gardens. Deer are seen more often than used to be the case, and their numbers will increase, whilst the nationally threatened water vole thrives in some of Sandwell's canals and streams. This biodiversity is a vital part of our environmental capital and we should be proud to enjoy it.

Biodiversity at a local level is difficult to place in the context of health. But there have been major global disasters for health where we have not respected biodiversity and we have not understood ecology. We have had to respond to many health problems caused by how humans have misused our relationship with the animal world. Examples include salmonella contamination of eggs, a product of intensive battery egg production and use of antibiotics; legionnaires disease caused by an otherwise harmless bacterium present in ground water everywhere, liberated by air conditioning and industrial cooling systems; insecticide resistant mosquitoes and drug resistant malaria parasites brought about by mass use of DDT and drug prophylaxis. Biodiversity is essential to avoid the problems of certain species of wildlife becoming dominant. More down to earth with respect to our local environment – we need biodiversity because if we don't have it, we will be overwhelmed by slugs, rats and pigeons. These will limit our food production, threaten food hygiene, and generally create public health nuisances.

Infection Prevention

Health Care Acquired Infections are a potentially devastating cause of disease, particularly in vulnerable groups. We have worked flat out all to maintain our record of success in reducing levels of infection.

There have been several major successes this year, including reducing these infections beyond national targets and our unconditional registration with the agency that monitors the quality of our work. Anna Pronyszyn and Beryl Oppenheim deserve particular mention for their work in overseeing control of healthcare acquired infection in Sandwell.

The Green Dividend

So a healthy environment is a key to healthy people. Green promotion is health promotion. This is true at the local level – but it is also true for the planet.

The idea of thinking global and acting local has never been more important. At a time when the credit crunch is hitting home – in Sandwell, harder than other parts of the country - it is more important than ever for us to think about our environment and do something to protect it. There is work in our environment and there is work in protecting the planet from climate change. The interests of a green agenda are the same as the job creation agenda and save us all money. In these tough economic times when the first reaction of government nationally and locally – is that we can't afford to do things, we should also ask can we afford not to do them?

> "We have to address the green agenda, create jobs and save money."

We have to address the green agenda, create jobs and save money. President Obama has called it 'the Green recovery' Americans have protested in Washington for 'green jobs now!'

It is spending to save. I call it the 'green dividend'. It is the jobs we create, the money we save, the wealth we create by taking the major problem of climate change and making it the driver for a wealthier community, an involved, active and self reliant community.

Six examples of the green dividend...

Green jobs now!

Sandwell still has a manufacturing base - it isn't what it was and nor should we try to recreate that - but we do need to support the manufacturing base to develop and diversify into green technology - for alternative energy production, for energy conservation, for pollution control, for recycling.

All these processes need to be applied in the health sector also - the major parts of the health service carbon footprint are from transport, buildings, and drug prescribing. So there is green job creation potential in working with the health sector to reduce its carbon footprint and to reduce its polluting.

Sandwell Partnership has been very good at chasing government funding for regeneration but has been less successful in straightforward public private partnership development. Jan Britton, now interim Chief Executive for the council made these similar comments at the Sandwell Health's Other Economic Summit this year.

Despite being in times of economic hardship, development in Sandwell needs to look to the private sector. Sandwell Council needs to bring in new senior level experience of private sector partnership working for economic development and needs to see this development open to and able to deliver a green recovery.

Community agriculture

- For healthier food
- For greater knowledge about food growing
- For physical activity
- For better environments
- For jobs
- For a local food supply - not at the mercy of speculators and environmental disasters
- For community activities - for a Big Society

This is no longer a nice project for Sandwell – this is a major necessity and the way to secure our future self-reliance and survival. The price of food worldwide is soaring. Reliance on the traditional bread baskets of the world – Canada, USA, Russia, the Punjab and South Australia has lead us to precarious, badly managed, environmentally polluted agriculture and increasing crop failure. We need to grow more food in Sandwell for our survival, for job creation, for land reclamation and for better health.

The work of Veronica Barry and Laura Davis has shown what is possible in Sandwell through community agriculture - Salop Drive is the test bed and pilot - now we want to develop Barlow Road allotments in Wednesbury. Next we will need to go on to even more ambitious and extensive growing projects.

Sandwell Healthy Urban Development Unit – Healthy Retail

Sandwell's Healthy Urban Development Unit is a partnership between the NHS, local authority and voluntary sectors committed to create and develop healthy and sustainable places and communities. The Lessons to Take Away conference held in Sandwell at THE pUBLIC in June this year, highlighted the many problems of uncontrolled fast food development across Sandwell in terms of nuisances, litter, late night noise, poor parking, deliberate targeting of Sandwell children on the way to and from school.

We also heard about how one London Borough, Waltham Forest, had said no to this and used planning controls to get a grip. The results had been widely welcomed by the community and had led to some closures of the worst offenders and some improvements by the fast food outlets that stayed. The overall result was a reduction in time spent in enforcement and an emphasis on preventive and health promoting work.

Fast food retail is job creating and at a time when our high streets are in decline there is a temptation to fill our shops with anything. In fact though this merely adds to the health damage and an increasingly depressed community.

Sandwell is now looking at supplementary planning guidance for the control of fast food outlets and new measures to limit growth of fast food outlets in proximity to our schools. Angela Blair's work with local food retailers through the 'Eatwell' scheme is now producing considerable economic benefit to local traders as well as providing healthier food supplies to local residents. Her work with Paul Field on the food sector in Sandwell again shows significant potential for jobs in the food industry. Alan Goodman from the town planning, Dene Stevens and Paul Southon are particularly making waves for healthy urban planning in Sandwell.

Cycling

By the same score, people need to be less reliant on cars, and less at the mercy of fuel strikes and the price of oil.

As I have said earlier we want to release the suppressed demand for cycling in Sandwell by making all journeys in the borough feasible by cycle. This will require expanding cycling training programmes, building on the success of the School Bike Clubs programme, and completing the planned local cycle network extending to link with local centres in neighbouring districts.

Promoting cycling can create jobs and be good for industry by creating fitter workers and reducing congestion on roads. Extending 20mph zones in residential areas will save lives and we will be using our input to the current consultation on the Local Transport Plan to ensure that the promotion of cycling is taken into account in the development of transport across Sandwell and the West Midlands.

Housing

Better housing is job creating and health promoting. Providing higher standards of heat and energy saving gives people warmer, healthier homes, saves money and stops us wasting energy heating the sky. In the previous annual report Neeraj Malhotra showed how health improvement could be gained through improved housing conditions - hospital admissions can be avoided through better home heating and better home safety.

Patients who are being discharged home can get there sooner if their homes are safe and warm. The housing and health strategy and the business case for investment are still live and current documents and we have included them on the CD again for reference.

Investment is being made by Sandwell Homes, Urban Living and Sandwell PCT in repairs on prescription and affordable warmth, in some of the areas of very poor housing and very poor health including Soho and Victoria. The schemes are being evaluated through the housing and health research theme of the Birmingham and Black Country Collaboration for Applied Health Research and Care (CLAHRC).

> "We have to reduce our reliance on Russian gas and French nuclear and other imported power sources."

Local power generation

A few years ago, a proposal to use public roof space for energy production failed because there were just too many perverse disincentives in the system to make it economically viable and to find the capital money to set it off . Now those disincentives have gone and putting power into the national grid earns money for the local generator and saves the cost of the power that would have had to be used instead.

We have to reduce our reliance on Russian gas and French nuclear power and other imported power sources. We have to plan for a future not reliant on oil.

We can create 'Solar Sandwell'. We should apply all the stretch target bonuses Sandwell will receive for local area agreement achievements for this purpose. We can set up a company through which all the organisations which made the stretch bonus possible receive a share in the benefits from the energy generation and the energy saving. This is a once in a civic lifetime opportunity.

We have to wake up to the climate change agenda, make ourselves some money from it, create some jobs in it and help Sandwell to better health, independence and self reliance.

Conclusion

My report shows very clearly that deprived communities in Sandwell are disproportionately exposed to environmental hazards. If, as we increasingly understand, there is something biological about being poor that makes people more vulnerable to the effects of those exposures, then this is not just a public health issue but also one of justice.

This does not just apply to the likelihood of an adverse exposure but also to access to positive aspects of our environment e.g. green space. We believe that 'just as social justice requires that life chances are not distributed along class lines, spatial justice requires that they are not distributed geographically'[2].

Environmental justice means a fair geographical distribution of burdens and benefits to groups such as ethnic minority and deprived communities. Unless and until all communities can access environmental resources and feel confident in doing so, many will continue to feel like strangers in their own town[3]. This is a fundamental principle for us and is reflected in Sandwell's Environment Partnership Thematic Plan which states that 'The environment is the dimension of sustainability which supports and enables social progress, and this in turn encompasses economic activity as well as such things as family life, arts and sports, and politics'.

This annual report follows very rapidly on the '5% for health report'. That report had recommended that the PCT should invest 5% of its total budget in public health and health improvement related activities - sadly the PCT has failed to do that in the original operating plan for the year. Two further cost rationalisations have been necessary leading to reduction in public health spend by £900,000, or 9% of the tiny budget we have in Sandwell to prevent ill health. There will be no prospect of improving health or reducing any hospital costs, indeed the trend will continue to be in the opposite direction.

" There is much to enjoy about Sandwell's enviro in environmental quality over recent years, of whi

Conclusion

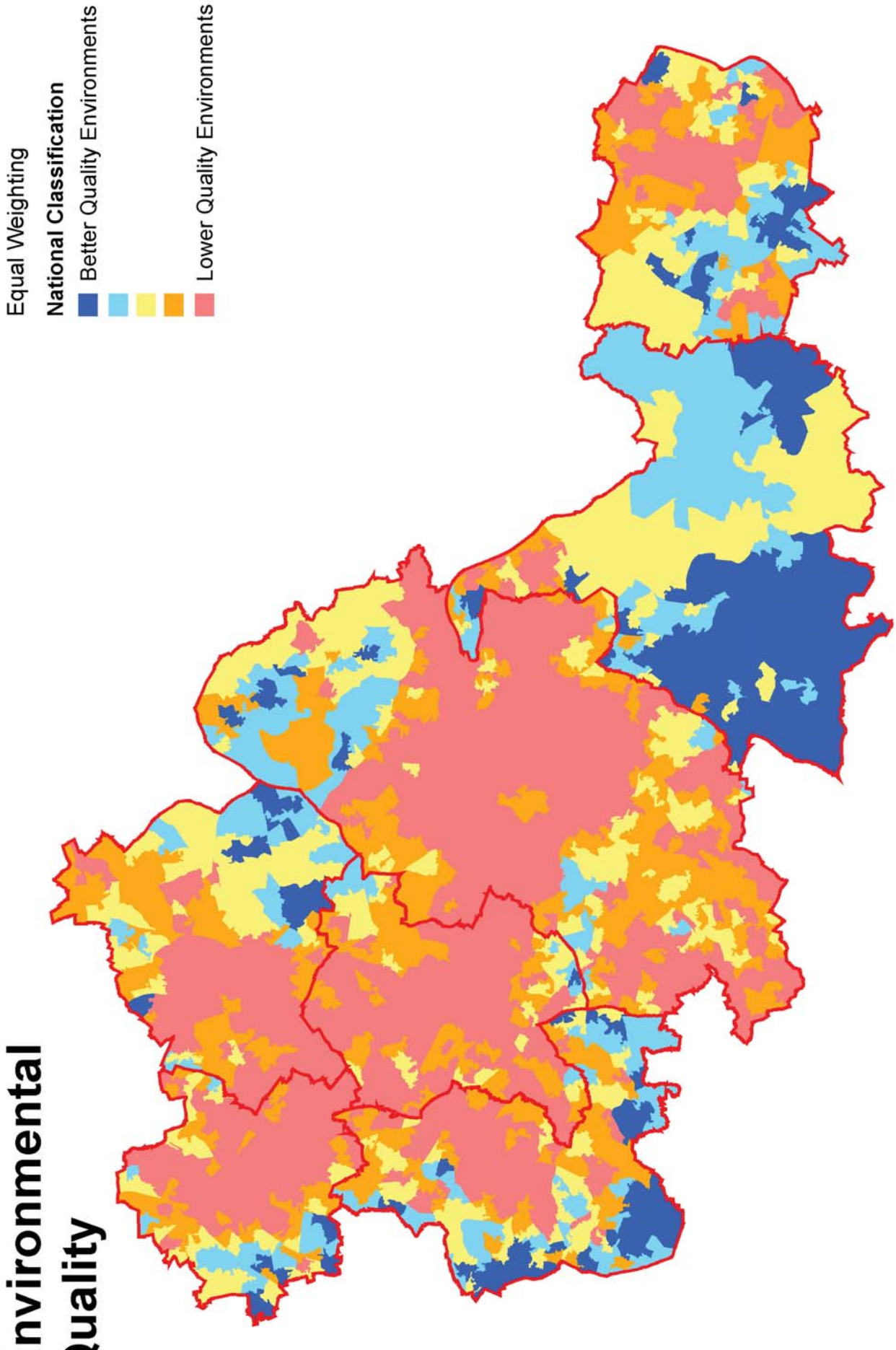
The health service and the new public health service face an uncertain time. The new GP commissioners have yet to emerge to lead the next golden era of the National Health Service. The new public health service will be a national resource but with staff employed by the local authorities. We will work patiently in cooperation with our partners to try to secure the best health outcomes for the people of Sandwell. But Sandwell has already endured the brunt of the credit crunch recession and faces worse in the new year with VAT hikes and further reductions in public spending.

The world faces environmental degradations, further threats of terrorism, shortages of food, water and shelter, and chaos and turmoil in the financial markets to which we are enslaved. We can be optimistic but we cannot exactly be joyful at the prospect before us. There is much to enjoy about Sandwell's environment and there have been major improvements in environmental quality over recent years, of which the regulators can be proud. Highlighting how we can all preserve and take advantage of these resources is as important as identifying areas for improvement, so my report also celebrates Sandwell and encourages us to be campaigners for, and users of, our environment.

John Middleton
Executive Director of Public Health
for Sandwell
September 2010

onment and there have been major improvements ch the regulators can be proud."

Figure 1



Nuisance

Historically the public health movement in Britain has been based on the understanding that the condition of our immediate surroundings determined our broader health and quality of life.

As Dr Simon said in the 1800s "The interests of health and the interests of common physical comfort and convenience are in various cases identical". This led to massive investment in the improvement of basic living conditions throughout the 19th and early 20th centuries and that Victorian legislation still underpins how local authorities, the NHS and the Health Protection Agency protect and improve people's environment.

In particular, great emphasis was placed on dealing with nuisances. In the legal sense these are not simply irritations but things which can be harmful to health or which interfere with normal day-to-day living. There is no single simple definition of a statutory nuisance although some specific examples are described in law (see accompanying CD).

Nuisance includes a very wide range of public health challenges including noise, pollution, smells, rubbish, and housing disrepair. Many of these are direct exposures such as a smoky bonfire or a noisy all night party and almost all will have indirect effects in terms of how we feel about where we live.

In Sandwell there are around 3,500 complaints about nuisances made to the local authority every year. While not all will be legal nuisances the overwhelming majority are genuine complaints and there is emerging evidence that perceived as well as real nuisance is linked to poor health[4].

Local authorities are required by law to monitor their areas for these nuisances and to respond to complaints. If the issue can't be resolved informally, then the authority will serve a legal notice to stop or prevent the nuisance.

While Sandwell MBC provides a highly effective response service, there has been little assessment of the distribution of nuisances, the trends over time and their relationship with other factors. This assessment is a useful method for cost effectively complying with the requirement on local authorities to monitor their areas from time to time for nuisances, important for the early identification of a developing or previously unknown problem, and essential for identifying areas for intervention and monitoring the impact of policies on community satisfaction.

This is not just a question of identifying those areas with the highest number of complaints, important though that is. Areas with the largest populations are probably more likely to register more complaints simply because there are more people to make them.

A more effective and appropriate analysis will identify areas where there are more complaints than there should be and those parts of the borough where the level of complaints is increasing. This type of analysis is routinely applied to examine other aspects of life such as disease patterns and in industry as quality control and marketing tools.

// Nuisance includes a very wide range of public health challenges including noise, pollution, smells, rubbish, and housing disrepair.//

Increasingly the public sector and the NHS have been exploring social marketing as a discipline for targeting and delivering public health resources and this is the first time such techniques have been used to exploit local authority nuisance data. Sandwell PCT has worked with the local authority Regulatory Services to examine the distribution and level of nuisance complaints over the last six years at Lower Super Output Area (LSOA), areas with populations around 1,500.

Sandwell MBC supplied nuisance complaint data for the years 2004-2009 inclusive which have been grouped into four nuisance categories - Total (all causes), Noise, Environmental (air, land and water pollution) and Public Health (infestations, animals and drainage). Post coded incidents (post code of complainant) were used to work out rates of complaints at LSOA level.

This simple presentation of complaint rates provides an initial assessment of areas with high and low levels of complaint taking account of population size. However, this does not clearly identify those areas where there are many more complaints than would be expected. This intelligence is essential for targeting areas for more detailed assessment of the causes of complaint (is the local community simply sensitive or is there a specific, additional or different intervention required?). This type of analysis will also identify those areas where complaints have increased or fallen significantly, information that is potentially powerful for monitoring community satisfaction and examples of good practice.

We have used two methods to do this. Firstly, we have calculated the expected number of complaints in each area using the rate for the whole of the borough and compared this to the actual number of complaints (population weighted method). A simple statistical test is applied to identify those that are highly significantly elevated (99% Confidence Intervals (CI)). The data were then tested to find those areas that had significantly deteriorated or improved over the six years.

The second analysis involves using statistical control charts, a quality assurance technique used in industry and increasingly in NHS management[5,6]. This identifies those areas where the number of complaints is associated with 'special cause variation', that is something more than just chance. These areas are not only significantly higher or lower than expected but are so extreme that there is almost certainly something 'highly unusual' going on which needs dealing with.

The relationship with deprivation was assessed using the LSOA Index of Multiple Deprivation score[7].

Nuisance

"18 areas including some that had been very poor saw a significant decline in complaints."

Results

More than 20,000 complaints over the six years were included in the analysis with 6,523 noise, 3,676 environmental health and 10,053 public health complaints.

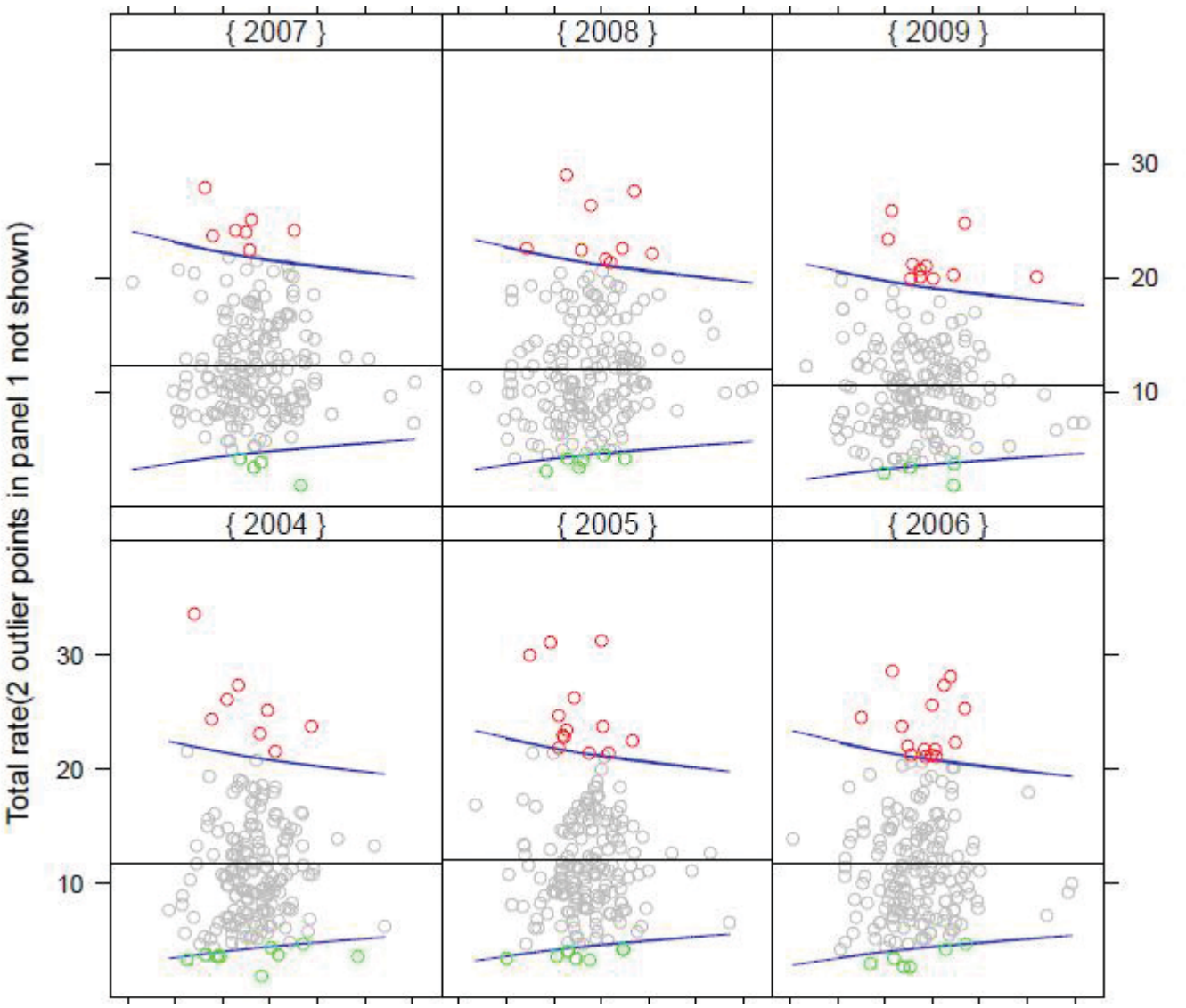
Using the population weighted method 37 different LSOAs had significantly higher levels of total nuisance complaints than expected during the study period; 29 LSOAs high public health complaints, 14 high noise complaints, and two for environmental complaints.

A small number of areas were significantly poor for more than one year; e.g. two areas in Oldbury and St Pauls wards for four years. In addition, 26 areas showed a significant increase in complaints over the period with four areas in Smethwick, St Pauls and West Bromwich Central deteriorating from being average or better to particularly poor. On the other hand, 18 areas including some that had been very poor saw a significant decline in complaints.

The control chart analysis identified all the high complaint areas as above and also captured a further 24 as having excessively elevated complaint levels. These additional areas were all close to significance using the weighed method. 15 areas were consistently poor over the period. Figure 2 shows example control charts for total complaints for the six years (the excessively high areas are in red and exceptionally low areas in green). Figure 3 shows the areas of high complaint levels in Abbey, Soho and Victoria, St Pauls, Smethwick, Oldbury, West Bromwich Central and Greets Green and Lyng wards. Figure 3 also shows the location of those areas with lower than expected levels of complaints in Great Barr, Friar Park, Newton, and Tipton Green wards (data and maps for all nuisance categories and all years are provided on the accompanying CD).

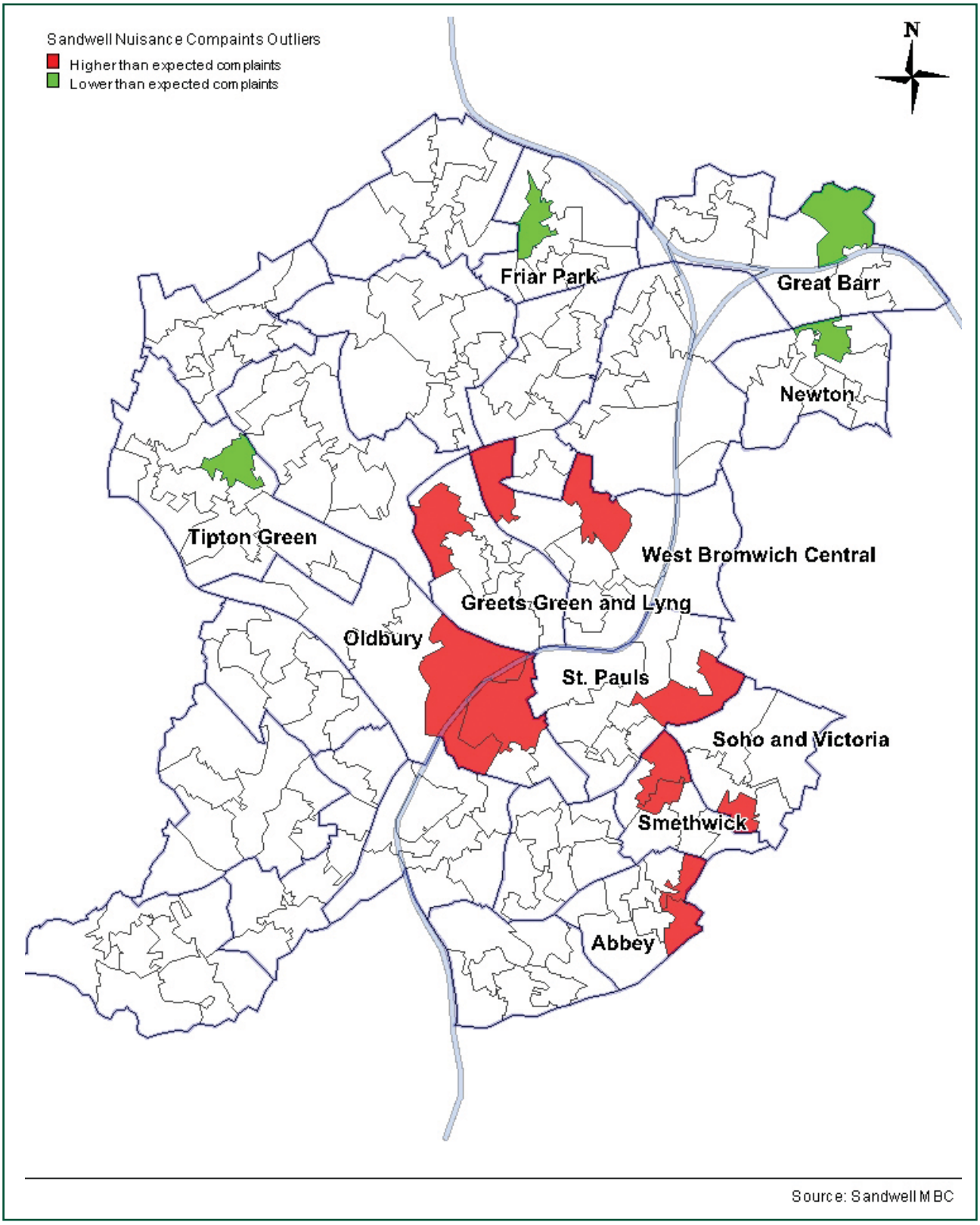
There is a very strong relationship between the number of LSOAs with significantly high levels of nuisance complaint and deprivation ($R^2=0.9$).

Figure 2 Control Chart for Total Nuisance Complaints by LSOA



Nuisance

Figure 3 Map showing areas with exceptionally high and low levels of all nuisance complaints 2009



Discussion

Nuisance complaints are not just a measure of individual or community dissatisfaction with the quality of the local environment; they also in many cases represent a real and direct exposure to a hazard and, in virtually all other cases, are a powerful proxy measure of an exposure. This is reflected in the evidence of poor physical and mental health being associated with perceived nuisance[8].

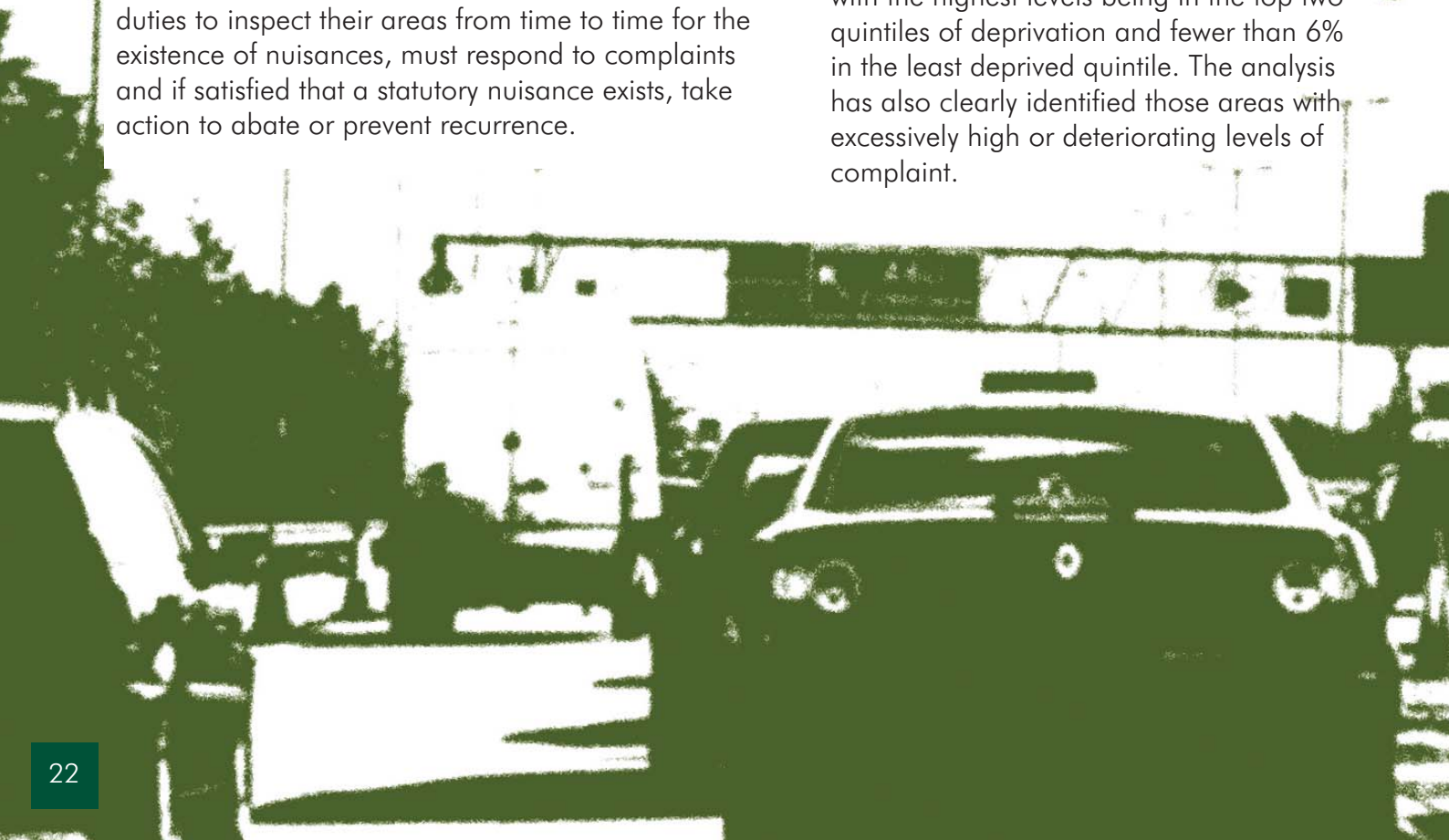
The quality of the immediate environment is important to communities, often much more important than national or international issues such as global warming. It is the immediate environment that directly impacts on their lives on a daily basis. Our public health forebears recognised this when framing and enforcing the great canon of public and environmental health legislation of the Victorian era. That much of this law remains in force is testimony to its utility but also a reflection of the fact that public health nuisances remain an important determinant of health and well being.

However, nuisance in the legal sense is not a vague subjective concept but has a definition and an enormous weight of case law behind it meaning we can do something about it. Local authorities have duties to inspect their areas from time to time for the existence of nuisances, must respond to complaints and if satisfied that a statutory nuisance exists, take action to abate or prevent recurrence.

These are not discretions but duties and being duties means there is a wealth of experience of dealing with nuisances and a wealth of data. To date, little has been done with the latter. This is not particularly surprising given the pressures on local authorities to concentrate on service delivery but is a missed opportunity to use intelligence to satisfy legal duties, target interventions on those areas with most need and most to gain, and to routinely monitor the changing public and environmental health map of the Borough. Despite the legal duties on local authorities, the sources and causes of, and remedies for, nuisances do not simply lie with one agency.

There are key roles for the whole public health family including the NHS. In this case, the PCT has provided analytical skills to complement the MBC data and will continue to do so, routinely enabling the local authority to satisfy its statutory obligation to inspect its area from time to time for the existence of nuisances.

There is a very strong relationship between areas with very high complaint levels and deprivation with over 60% of those areas with the highest levels being in the top two quintiles of deprivation and fewer than 6% in the least deprived quintile. The analysis has also clearly identified those areas with excessively high or deteriorating levels of complaint.



Nuisance

In some cases, such as two extreme outliers in 2004, there will be clear explanations known to the regulator (in this case a particularly troublesome quarry). However, in other cases there is no obvious explanation and so these areas will need further investigation to explore the underlying cause of the problem(s) e.g. are there exceptional cases distorting the analysis, is the local community particularly sensitive and if so what are the reasons for this sensitivity, is something new emerging, or is a combination of stresses generating increasing complaints? This assessment may well require the further involvement of the communities concerned and a coordinated response from several agencies. The PCT will collaborate with the local authority on the investigation of these areas in particular environmental stress, and develop response strategies accordingly.

It is important to recognise that this is the first time these methods have been used in this way and despite being published in the Journal of European Public Health[9] and generating considerable interest from the World Health Organisation (WHO) Collaborating Centre in Cardiff, the outcomes are only as good as the data.

It is important for the robustness of the results to include as many complaints as possible. In this first analysis, many complaints have not been mapped as the post codes were not recorded at the time of complaint. It is also important to acknowledge that significance in this analysis refers to a statistical construct and simply because levels do not exceed this 'standard' does not mean that the experiences of the local communities are not significant in a public health sense.

The use of statistics should be used to complement the professional judgment of Environmental Health Professionals rather than replace it. In addition, the comparisons being made are within Sandwell and we are not able to compare ourselves with other parts of the region or country. This would be useful to enable meaningful and realistic targets for nuisance reduction to be agreed.

Recommendations

- Sandwell MBC will routinely record post code of all complaints where possible.
- Sandwell PCT and local authority will work together to investigate potential causes of poor and/or deteriorating levels of complaints and agree a response strategy.
- Sandwell PCT will work with the local authority on data analysis to routinely generate control chart analysis on an annual basis.
- Sandwell PCT and the local authority will agree target levels of complaint based on local assessment and regional and national comparisons.
- The WHO, Department of Health and the Department of Communities and Local Government should encourage uptake of the Sandwell model nationally to enable comparisons between local areas.

Air quality

The transformation of Sandwell's air quality from the old heavy industry era pollution to today's standards is unquestionably one of the great local environmental and public health achievements.

Until the middle of the last century, industry and homes were largely dependent on energy produced from coal, a grossly polluting process. In places like Sandwell, populations grew alongside polluting industries. Heavy smogs lasting for days and causing serious health problems were common in all industrialised areas. A combination of tight legal controls, technical developments to reduce emissions and the decline of heavy industry in Sandwell has had a dramatic effect in reducing the levels of pollution emitted.

The ferrous foundry sector, for example, so dominant in the 1960s and 1970s with over 50 large foundries in the borough, has now declined to single figures with little prospect of this type of industry being reintroduced. The challenges for Sandwell have changed and it is important that the great advances made are maintained and built on.

Air Quality and Health in Sandwell

The traditional emissions of smoke and Sulphur Dioxide (SO_2) have been effectively regulated out of concern and routine data collected by the local authority show very graphically the scale of that decline over the last 40 years, largely due to the reduction in the use of coal for domestic and industrial heating and the growth in the use of gas and electricity (see Figure 4).

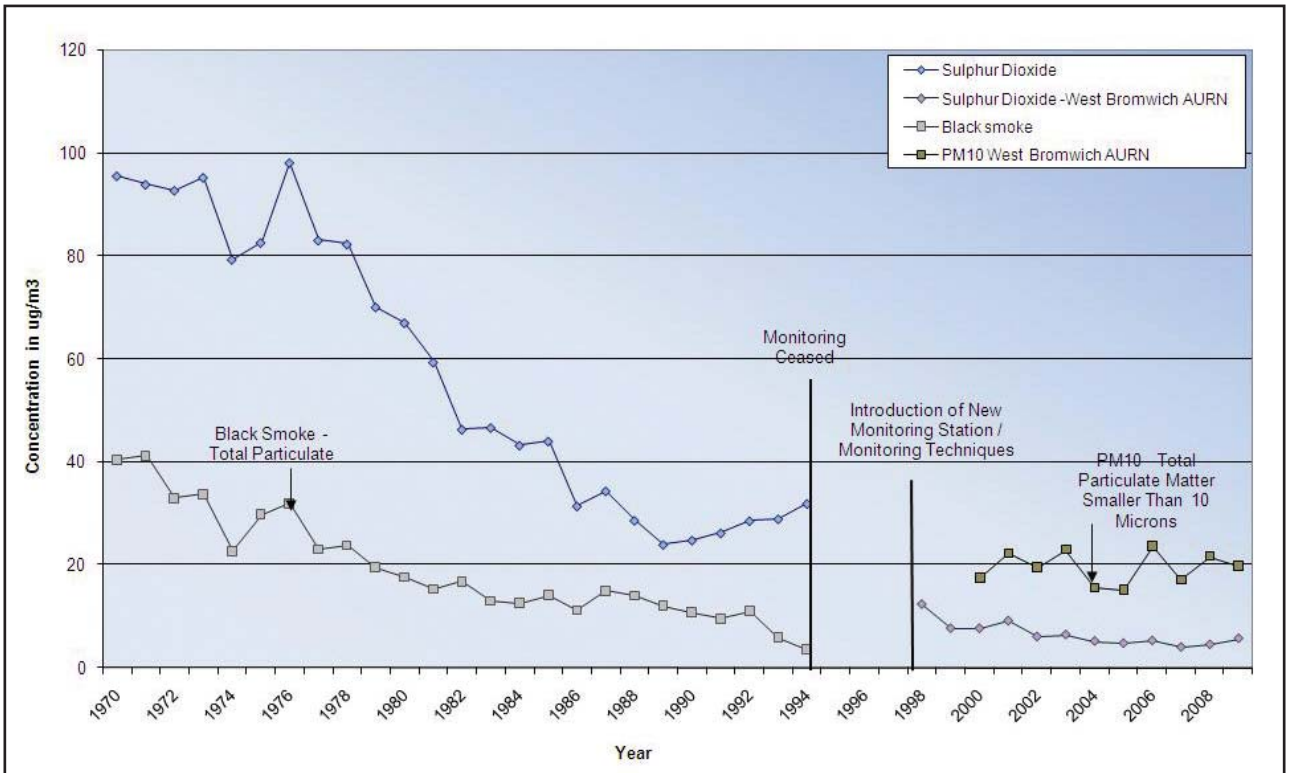
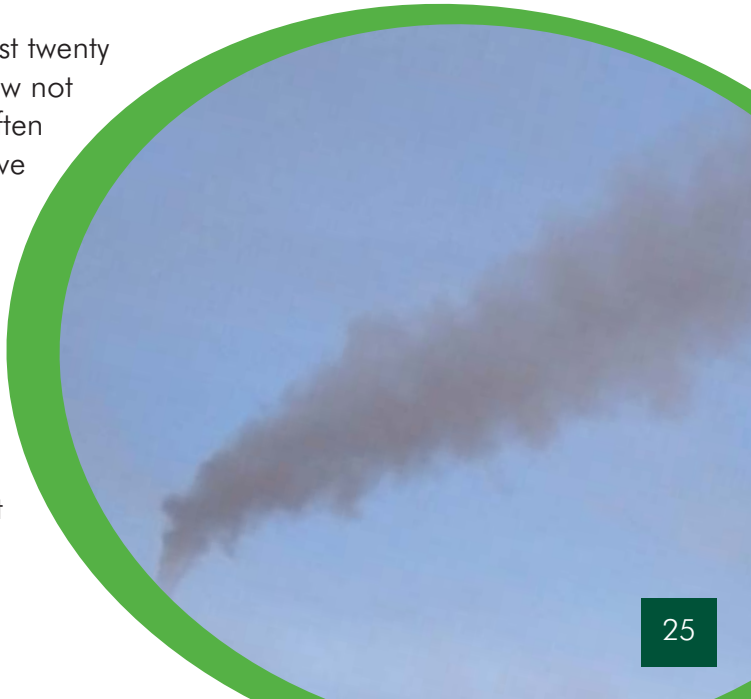


Figure 4 Annual Smoke and SO_2 Concentrations 1970-2009. Source. Sandwell MBC.

The above figure shows that by 1970 major improvements had already been made in the Sandwell area: the annual average concentration of particles measured as Black Smoke had fallen to 40 $\mu g/m^3$ compared with over 200 $\mu g/m^3$ in the early 1950s. When concentrations of smoke and SO_2 were high it was easy to demonstrate that these pollutants had damaging effects on health. Today, when levels of pollution are comparatively low, it is more difficult to do so but these effects certainly persist.

A huge amount of research has occurred over the last twenty years assessing the effects of particulate material (now not measured so commonly as Black Smoke but more often as PM_{10}, see glossary for definition). Such studies have linked day to day changes in concentrations of pollutants with day to day changes in the number of people dying from cardiovascular and respiratory disorders and the numbers admitted to hospital. The Department of Health's Committee on the Medical Effects of Air Pollutants (COMEAP) has combined the results of many studies looking at the link between cardiovascular mortality and exposure to black smoke and $PM_{2.5}$ to produce an average effect of a 1.5% increase in mortality for each 10 $\mu g /m^3$ increase in levels of $PM_{2.5}$.



Air quality

Even more striking than the effects of day to day changes in concentrations are the findings that long-term exposure to particles raises the likelihood of dying from cardiovascular diseases at all adult ages. This is a very important finding and COMEAP has estimated that a 10 $\mu g/m^3$ increase in long-term average concentration of fine particles ($PM_{2.5}$) is associated with a 6% increase in risk of death from cardiovascular disease. This coefficient enables the calculation of the impacts on health of current concentrations of fine particles. The annual average concentration of fine particles ($PM_{2.5}$) in (background) urban areas of the UK is now about 10 $\mu g/m^3$. This is associated with an average loss of life expectancy of about six months. It is inevitable that this loss of life expectancy is distributed across the population with some people losing rather less than six months of life expectancy and others losing considerably more.

Historically effects must have been considerably greater but estimating their size is difficult given that $PM_{2.5}$ has only recently been routinely measured in the UK. However, it is still possible to estimate that the reduction in Sandwell from about 40 $\mu g/m^3$ in 1970 to about 5 $\mu g/m^3$ by 1994 (when measurements stopped) will have resulted in an increased life-expectancy of perhaps of a year or two. This is a major contribution to public health in Sandwell.

Regulating Air Quality in Sandwell

The chemistry of air pollution is complex and regulating and managing air quality effectively requires a flexible and evidence based response. The UK established the first national system of licensing industrial sources of air pollution requiring operators to demonstrate compliance with strict standards, both before establishing an industrial process and during its operation. This system of prior authorisation and active management (Integrated Pollution Prevention and Control (IPPC)) is enforced by the Environment Agency for the larger most complex processes (Part A1) and by the Local Authority for the more numerous lower level processes (Part A2 and Part B processes).

In Sandwell there is a total of 23 part A1, eight Part A2 and 110 Part B processes (see figure 5, details of sites are given in the accompanying CD). There are also many businesses that are not subject to the authorisation system including such industries as non-ferrous foundries, coating processes using solvents and waste oil burners. While these are relatively small scale operations, there remains real potential for the release of hazardous chemicals. The regulators, for example, cannot account for most of the solvent used in England and Wales, which means that significant quantities of these chemicals are being handled by businesses not caught by the permitting system[10]. It is vital that local authorities continue to monitor and regulate this sector.

All local authorities must regularly review and assess air quality within their boundaries. Contemporary legislation is focussed on key health related pollutants. Where pollutant concentrations exceed national objectives the local authority must declare an air quality management area (AQMA) and produce an action plan detailing how they intend to improve air quality within these areas.

The persistent smogs of the industrial era are a thing of the past, but this doesn't mean that the effects of air pollution are entirely behind us. Not only have the sources and quantities of pollutants changed, the nature of those pollutants has as well. While smoke and SO_2 levels have declined in magnitude and concern, traffic related pollutants such as NO_2 and particulate matter have increased in importance during this time. Sandwell's assessment shows general compliance with the objectives in the government's Air Quality Strategy with the exception of a number of areas in which pollutant concentrations have been found to exceed the annual mean NO_2 objective.

Thirteen areas exceeding this objective have been identified and as a result the MBC has declared the whole borough an AQMA. Figure 6 shows the modelled areas exceeding the standard. These data have been confirmed using results from analysers at each of the sites. Sandwell's 2009 Air Quality Action Plan sets out the work currently being undertaken to improve air quality within the areas of exceedance and the borough as a whole[11].

Air quality

People and Industry in Sandwell

Despite the decline in the number of major industrial works in Sandwell and the controls of the planning system, inevitably such processes will remain located in residential areas. Legislative controls ensure as far as possible that the risk associated with such sites is managed, but the co-location of industry and people remains a source of public concern and in some cases controversy.

The direct risk to public health is actually very low given the enforcement of emission standards by the regulators. However, this is not the whole story. Not all emission standards can be entirely protective of health as some chemicals are non-threshold (i.e. there is no proven level of exposure at which effects do not occur) and there is the question of why some communities live near industries and others don't. In many cases it is simply the consequence of historical population movements, of workers moving to employment. In others it is a question of economics - property prices are often lower in such areas making them attractive to some sections of the community. Therein lies an issue - these populations by definition will be predominantly from the more deprived communities.

There is overwhelming international and domestic evidence that this is the case. Studies by the Environment Agency, Health Protection Agency and academics in the UK have clearly shown the relationship between deprivation and residential proximity to industrial sites[12,13]. These, of course, are the same communities which experience higher levels of ill-health and lower life expectancies.

The Chief Medical Officer's 2001 Annual Report showed that while men from relatively affluent populations experience relatively good and similar levels of health, irrespective of geographical region, mortality rates for men from deprived populations showed a marked north-south decrease[14]. Some of the differences in mortality will be due to lifestyle choices such as alcohol consumption and smoking and other confounding factors but the impact of environmental issues is a plausible factor. There is evidence that there is something about the stress of being poor that makes people more vulnerable to the impact of hazardous exposures.

Air quality

This creates a situation where poor people are more likely to live in more polluted areas and are potentially more vulnerable to the effects of exposures. If there are increased risks in these areas and if people are unable to make a real choice about where they live, then location is not simply an inequality (i.e. there is a systematic difference in the character of populations living in different areas) but an injustice.

We have examined the characteristics of populations in the vicinity of processes regulated under IPPC in terms of the distribution of children, deprivation and minority ethnic communities. The designation of such zones of influence has been recognised as essentially arbitrary and in the absence of exposure data, how close people live to a process cannot represent actual exposure or impact, but rather enables a preliminary indication of the distribution of hazards among the population. Based on the experience of planning authorities and WHO recommendations in relation to landfill sites, a buffer zone of 1 km radius was used around each site and populations within these zones selected using postcodes and characterised using data from the 2001 census. Deprivation was assessed using IMD. Given the large area of Sandwell captured using 1 km buffers a second analysis using a buffer of 500m was also used.

91% of the population of Sandwell lives within 1 km of a regulated site. 29% live within 1 km of a part A1 process compared with 10% nationally[12]. More than half (53%) of the population of Sandwell lives within 500m of a regulated site.

There is no significant difference between the level of deprivation or the numbers of minority ethnic communities living within 500m of a site and the population living more than 500m away.

The principle source of NO_2 pollution in the Borough is road transport. Though emission control technology is continually improving emissions from vehicles, these technological advances can only partially mitigate the impact of increased road traffic. As a result, 23 actions to reduce NO_2 levels within the specific areas of exceedance and 30 borough-wide actions have been identified. Assessment of the populations living in these zones using Mosaic Public Sector profiling shows that, unlike other parts of the country, more affluent people in Sandwell are likely to live in areas of poor air quality as measured by NO_2 levels (see figure 7). This profiling compares the proportions of different socio-economic segments in the area of interest, in this case living in zones of high NO_2, with Sandwell as a whole. The bars to the right of the table indicate the level of difference-those to the left of the centre line show that there are fewer in that specific social group as compared with Sandwell as a whole, and those to right show there are more. The width of the bars indicates the degree of difference - the wider the bar the greater the difference.

> "The principle source of NO_2 pollution in the borough is road transport."

Air quality

Heavily Trafficked Roads

Road traffic can cause/contribute to a number of health effects including noise nuisance, respiratory illness (resulting from air pollution) and physical injuries[15]. Living close to a heavily trafficked road can increase those risks, especially to children, and deters or restricts many normal childhood activities such as playing and sports. Work conducted for the WHO has shown children living within 50m of busy roads to be at "high risk" from air pollution, noise and traffic accidents and a recent study found impaired lung development in children living within 500m of a freeway[16].

Previous work conducted by the HPA found that 37% of Sandwell's children live within 250m of a busy road (> 10,000 vehicles per day), the third highest in the West Midlands region and much higher than the regional average of 24%[15].

We have also looked at the number and type of people living within 50m of heavily trafficked roads in Sandwell. Over 27% of Sandwell families live close to busy roads and given the wide distribution of such roads in Sandwell, there's little evidence that any specific groups are more likely to do so. This reinforces the need for extending 20mph zones in Sandwell. The then Department of Children, Schools and Families estimated that these zones can reduce child pedestrian deaths by 70%[17]. This section should also be read with the Nuisance chapter.

Air quality

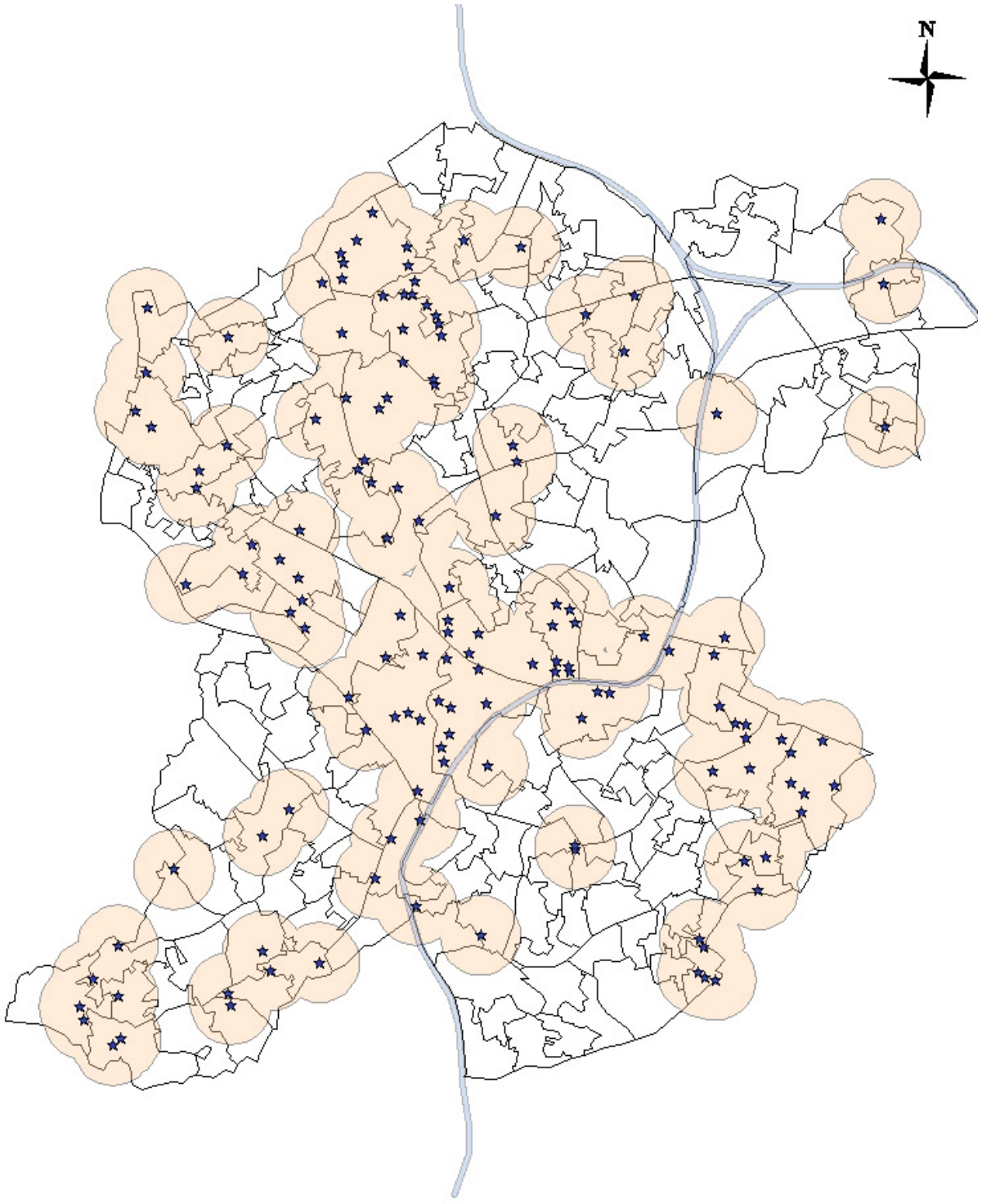


Figure 5 Regulated sites with 500m Buffers Sandwell 2010

Source: Environment Agency, Sandwell MBC

Air quality

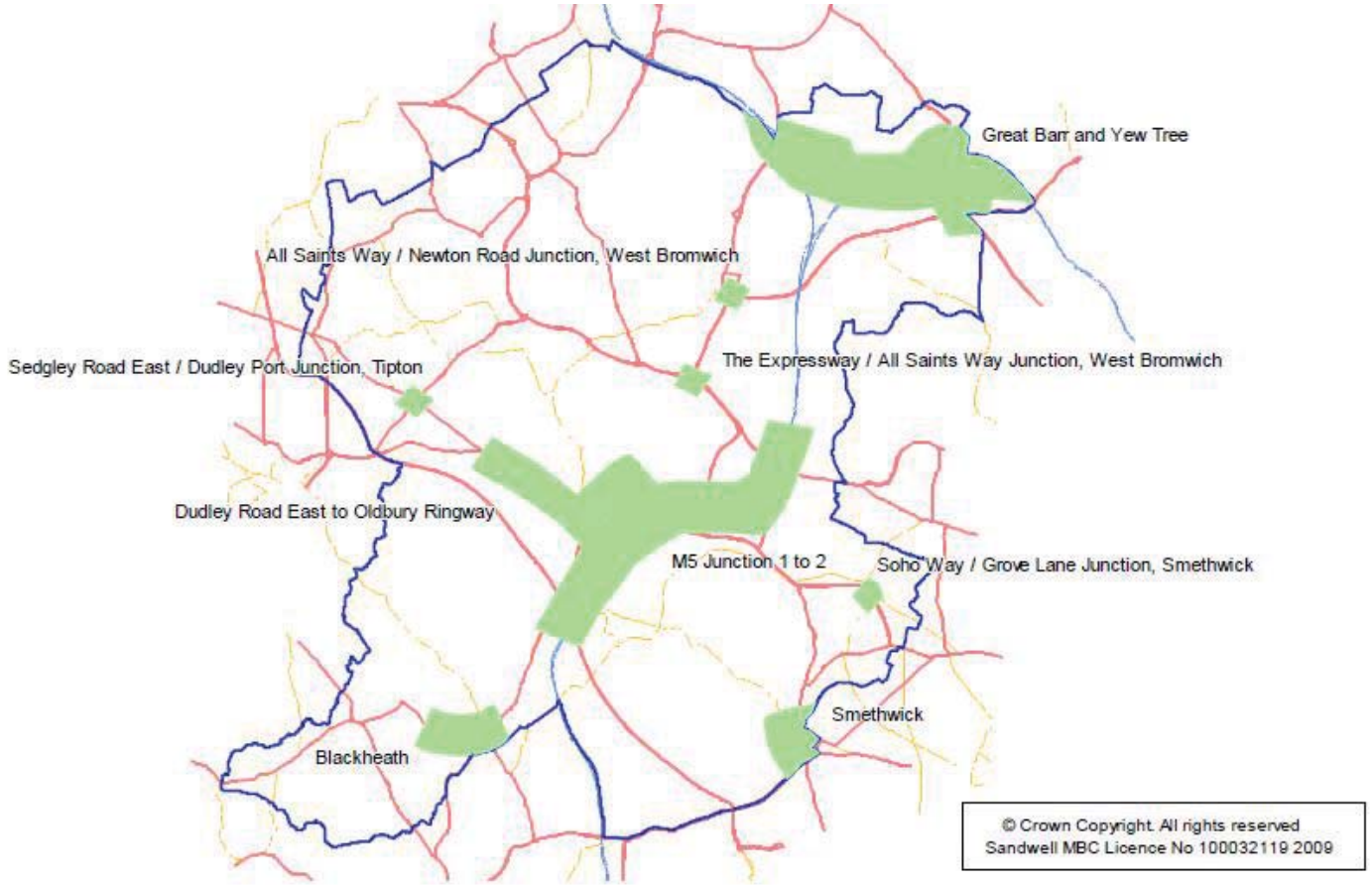


Figure 6 Zones Exceeding NO_2 Standard

Mosaic Public Sector Group - Houshold level data	NO2 Hotspots Count Mosaic Public Sector Group	NO2 Hotspots % Mosaic Public Sector Group	Sandwell PCT Count Mosaic Public Sector Group	Sandwell PCT % Mosaic Public Sector	Index
A Residents of isolated rural communities	0	0.00	0	0.00	NA
B Residents of small and mid-sized towns with strong local roots	26	4.14	6,922	2.40	172
C Wealthy people living in the most sought after neighbourhoods	0	0.00	315	0.11	0
D Successful professionals living in suburban or semi-rural homes	29	4.62	3,615	1.25	368
E Middle income families living in moderate suburban semis	84	13.38	35,801	12.42	108
F Couples with young children in comfortable modern housing	16	2.55	4,465	1.55	164
G Young, well-educated city dwellers	25	3.98	2,397	0.83	479
H Couples and young singles in small modern starter homes	66	10.51	14,445	5.01	210
I Lower income workers in urban terraces in often diverse areas	80	12.74	41,142	14.28	89
J Owner occupiers in older-style housing in ex-industrial areas	51	8.12	35,610	12.36	66
K Residents with sufficient incomes in right-to-buy social housing	97	15.45	73,707	25.58	60
L Active elderly people living in pleasant retirement locations	21	3.34	2,023	0.70	476
M Elderly people reliant on state support	49	7.80	19,606	6.80	115
N Young people renting flats in high density social housing	48	7.64	15,857	5.50	139
O Families in low-rise social housing with high levels of benefit need	36	5.73	32,251	11.19	51
Total	628		288156		

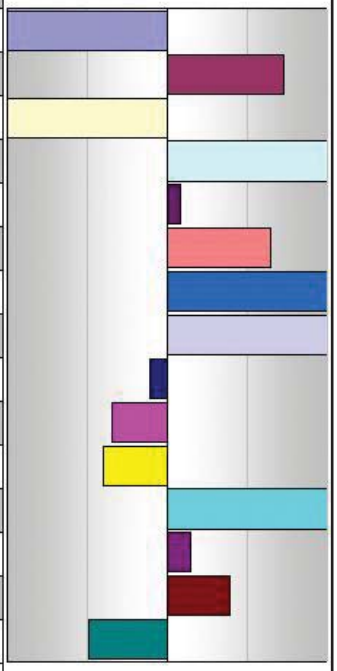


Figure 7 Characteristics of Populations in Sandwell living in areas exceeding the NO_2 standard

Air quality

Discussion and Recommendations

More than half of the population of Sandwell lives close to an industrial process. This makes maintaining high emission standards to protect health even more important and the PCT must work closely with business and the regulators to ensure that Sandwell's industry operates at the highest level of performance. In contrast to other areas, there appear to be no inequalities in terms of deprived or minority communities being more likely to live close to industrial sites. This probably reflects the widespread levels of deprivation in the Borough.

It is also important to recognise that manufacturing industry remains a major employer in the Borough with over 20% of the work force[18] compared to 14% nationally[19].

These jobs are a vital source of income and individual status for thousands of workers and their families and the PCT needs to support the retention and extension of these jobs. Modern industrial methods coupled with effective regulation means that manufacturing processes are not the dominant sources of pollution they once were and these jobs attract higher than average national wages[19].

As the main source of air pollution in Sandwell is traffic, this is where the most effective actions to protect public health can be taken. These include local site specific actions such as improving road networks (including motorways), smoothing traffic flows through junctions, increasing the use of bus showcase routes and extending the Metro.

At a more strategic level, we need to promote eco-driving including providing charging points for electric vehicles, develop a low emissions strategy for planning decisions, and improve awareness of air quality (especially in the more vulnerable groups) through the media and innovative use of the new technologies such as text messaging and social network sites. All of this needs to be underpinned by improved monitored and modelled air quality data.

While air quality has improved dramatically in Sandwell in recent years, there is still room for improvement. The challenge now is that, while existing structures will maintain air quality, radical solutions are required to improve air quality further. This includes moving people away from areas of high pollution where physical, operational and statutory interventions cannot adequately protect populations. Mobile phone technology will soon enable real time monitoring of personal exposure levels to key chemicals. This would not only provide vital intelligence on levels of air quality but could also provide a high level of personal protection for vulnerable individuals such as severe asthmatics and also provide an early warning system for an accidental chemical release or terrorist chemical attack[20]. Technology enables us to involve communities in monitoring and improving environmental quality. Sandwell aspires to lead on the development of this citizen science movement in the UK and is forging links with the well developed community groups in Australia and the US to learn from their experiences[21].

The PCT already works with partners in promoting walking and cycling and has targeted its own transport profile to reduce our carbon footprint.

Summary of recommendations

- Improve road networks (including motorways), smoothing traffic flows through junctions, increasing the use of bus showcase routes and extending the Metro.
- Promote eco-driving including providing charging points for electric vehicles, develop a low emissions strategy for planning decisions, and improve awareness of air quality (especially in the more vulnerable groups) through the media and innovative use of the new technologies such as text messaging and social network sites.
- Move people away from areas of high pollution where physical, operational and statutory interventions cannot adequately protect populations.

Food safety

> " people began to develop a 'taste' for such adulterated foods creating high demand for example for white bread and bitter beer. "

There is a long history of legislation in this country to protect consumers from dangerous, poor quality and contaminated food. Current law and industry quality control procedures owe much to the pioneering work of chemists and doctors of the Victorian era in response to the epidemic of food adulteration of the times.

Food was commonly adulterated to increase bulk, add flavour or disguise taints and to improve presentation. The latter was a particular danger to children as sweets and jellies were routinely coloured using highly toxic lead, copper and mercury compounds. Bakers added ammonium carbonate, chalk, plaster of Paris and sawdust to either whiten or add bulk to their bread. Vinegar was often 'sharpened' with sulphuric acid. Beer was another staple of the Victorian diet that was routinely adulterated with brewers adding strychnine to 'improve' the taste.

While these practices were largely driven by the pursuit of profit, they unfortunately became so widespread that people began to develop a 'taste' for such adulterated foods creating high demand for example for white bread and bitter beer. Indeed, some guides to home brewing specifically recommended adding toxic substances such as sulphuric acid, strychnine and opium to improve the taste of the product[22].

Food safety

Effective legislation and improved quality control essentially made the deliberate contamination of food with acutely toxic substances a thing of the past in the last century and the focus of legislation shifted to the microbiological safety of food. This has defined the development of the inspection and enforcement policies of local authorities. Sandwell Council's Regulatory Services carries out regular checks on all food premises in the Borough, advises industry, investigates food complaints and takes food samples for analysis in order to:

- reduce food borne illness
- limit and monitor the risks to consumers from chemical and radiological contamination
- make it easier for consumers to make informed choices
- protect consumers from food fraud and illegal practices.

During an inspection, officers will check that potential food safety risks have been identified by the business, and that there are adequate controls in place to prevent any problems. They will also look at the training of managers and food handlers to ensure that it is adequate, and they will ensure that the condition of the premises and equipment is satisfactory. Visits to premises are carried out without prior notification as far as possible and are priority programmed according to the degree of potential risk. This ensures that higher risk premises are visited more frequently than those in lower risk categories.

Where practices or conditions are not satisfactory, every attempt is made to resolve the situation by informal means, but where poor conditions persist, or where there is a risk to public health, it may be necessary to resort to formal action. This could involve either the service of legal notice, prosecution, or in extreme cases, closure of the business.

Enforcement policies were reviewed recently (Changes to Local Authority Enforcement Project (CLAE)) to encourage greater flexibility enabling authorities to target resources at high-risk areas and to use a wider range of interventions to support and improve levels of compliance with food law. Enforcers have developed the concept of 'broad compliance' and food businesses are scored on the basis of the:

- Level of compliance with hygiene requirements
- Level of compliance with structural requirements; and
- Level of confidence in management

There have been improvements nationally in most parts of the country with 80% of food premises being broadly compliant in 2007[23]. However, in Sandwell compliance was around 68% of premises. Sandwell has used the flexibility encouraged by CLAE to focus interventions on high risk geographical areas as well as individual premises since April 2008.

> "Visits to premises are carried out without prior notification as far as possible and are priority programmed according to the degree of potential risk."

Food safety

Food Safety Standards in Sandwell

Sandwell Council provided data on food premises' locations in the Borough and the results of the professional assessment of the quality of those businesses based on the three criteria described above. An overall score was calculated and averaged for businesses in each LSOA - see figure 8. The relationship between average area food safety score and deprivation was assessed using area deprivation score (IMD).The impact of Sandwell's policy of area targeting was assessed by comparing the individual premise score before and after the local authority intervention in two areas (zones in West Bromwich and Bearwood) using a Wilcoxon signed-rank test and paired T Test.

There is a clear relationship with deprivation with poorer areas experiencing significantly poorer average food safety scores ($R^2=0.6$). The area targeting approach had a highly significant impact on improving the individual premise score in both areas ($p=0.001$) and has coincided with an increase in overall food premises compliance to over 77% (see figure 9). On average, in the West Bromwich zone, there was an improvement in the hygiene score of 0.5 points on the second visit. This was highly statistically significant ($p<0.001$). In the Bearwood zone the average improvement was higher at 0.95 points, again highly significant ($p=0.001$).

Discussion and Recommendations

Sandwell's policy of targeting high risk areas as well as high risk premises pays dividends resulting in significantly improved food safety scores and should be promoted in other authorities. However, food hygiene is only one aspect of the health impact of food.

Today a poor quality diet is characterised not by too little food or contaminated food but rather by too much food and too much of the wrong sort of food. This has contributed to an epidemic of obesity and of dietary related conditions such as coronary heart disease. Sandwell has been a pioneer in leading initiatives to tackle this by supporting behaviour change and creating a supportive environment. Eatwell[24] for example offers a range of public health nutrition services to support behaviour change (Slimming, Cooking, Supermarket Tours, Early Years, Schools and Food Growing).

Regulatory Services are active partners in delivering Sandwell's Food Policy and are increasingly delivering health improvement work e.g. 'Eat' food hygiene awards, School Meals Audits and Inspections toolkit and the Food Standards Agency healthy catering projects. Sandwell is committed to building on this strong relationship between regulatory services and public health nutrition.

Following the results of a local study of food access, Neighbourhood Renewal Funding was used to develop a support scheme for local shops – known as Shopwell[25]. Forty three neighbourhood retailers signed up for this support, which included price ticketing equipment, training, promotions through a partner cash and carry and links to the PCT's popular healthy eating activities programme for residents[26].

Food safety

This work has now been superseded by the roll-out of the national Convenience Store project run by the Department of Health[27] and shops have been identified regionally for this support. They will also benefit from the national campaign to increase the demand for healthier food.

A vital component of these programmes is reliable and up to date data on the availability and accessibility of fresh fruit and vegetables. Analysis has shown that sources of such foods are limited in deprived areas, the very areas in greatest need. However, the food retailing sector is a rapidly changing one and it is currently not possible or feasible to conduct routine assessments of the amount, range and cost of such foods.

Environmental Health Professionals routinely inspect food retailers for hygiene standards and those inspections represent a real opportunity to collect data on the foods being sold. This would only add a few minutes to each inspection but, given the demanding targets the local authority must meet in terms of numbers of inspections, is not currently realistic. We are negotiating with the local authority to access additional resources to enable the collection of this information during routine inspections without comprising inspection targets.

Summary of recommendations

- Sandwell's policy of targeting high risk areas as well as high risk premises pays dividends resulting in significantly improved food safety scores and should be promoted in other authorities.
- Continue to build on the strong relationship between regulatory services and public health nutrition
- We are negotiating with the local authority to access additional resources to enable the collection of data on the foods being sold during routine inspections without comprising inspection targets.

Food safety

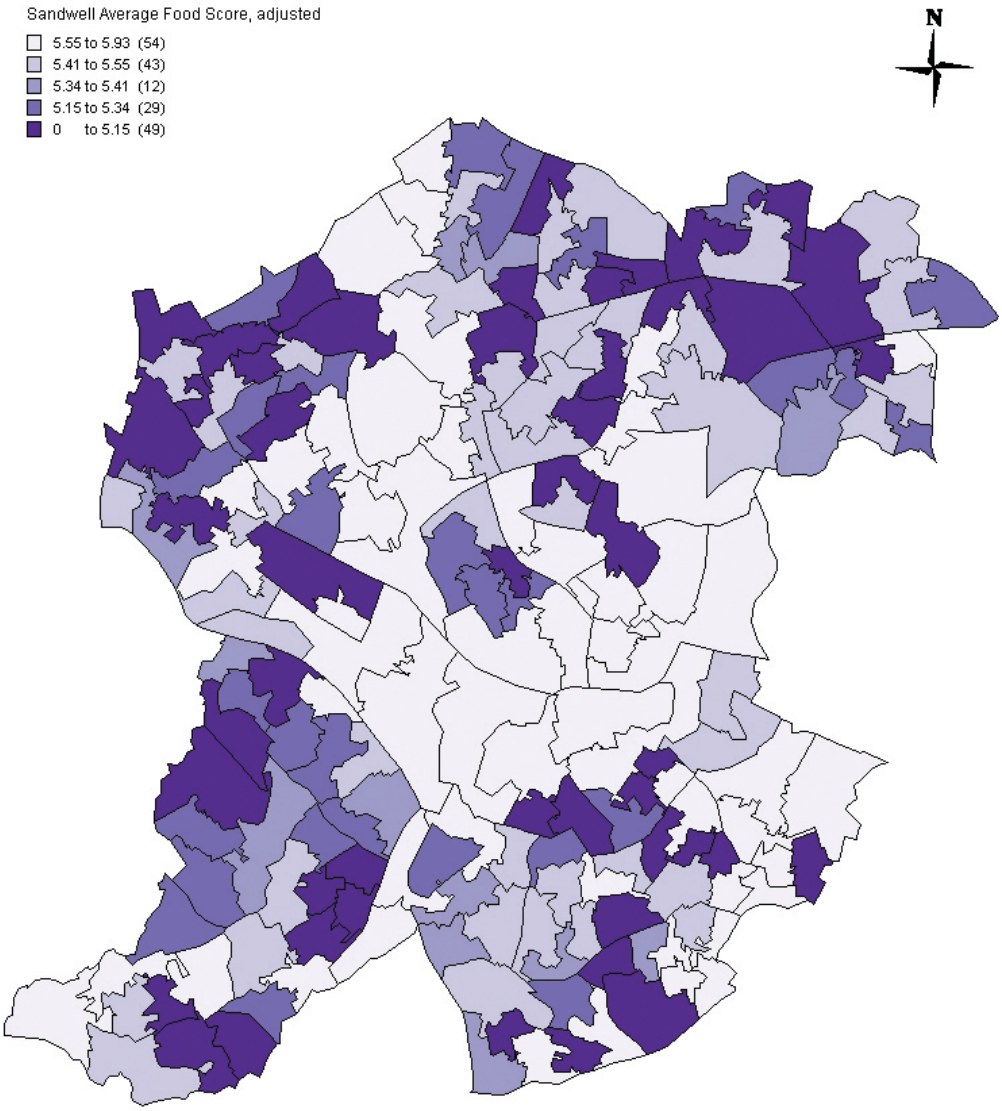


Figure 8 Average Food Safety Scores by LSOA 2009

Source: Sandwell Council

Figure 9 Percentage of Food Premises Broadly Compliant in Sandwell

While Sandwell is many miles from the coast with no major rivers, there are parts of the Borough subject to flood risk. This is because floods can be caused by heavy rainfall overwhelming local drainage capacity, and even minor water courses can in some circumstances become a flood risk.

Risk in Sandwell

The principal risks in Sandwell are from the main river Tame and the Oldbury arm of the Tame. Given the level of risk, these areas have been comprehensively modelled by the Environment Agency. This shows that there are properties in Horseley Heath in Tipton that could quite regularly flood and a significant number of properties at risk from flooding, mainly concentrated in Wednesbury, Tipton and Oldbury. The Environment Agency is also assessing the risk from the Brandhall Brook, where there are known flooding problems. Figure 10 shows those areas of Sandwell at risk of flooding due to a major storm (1 in 100 year risk or a 1% risk of serious flooding in any single year).

Industrialised and developed areas like Sandwell have traditionally used culverting and green corridors to manage the risk of water courses flooding. The majority of minor watercourses within Sandwell are culverted and expected to cope with the modelled risk. While the river Tame floodplain uses the green corridors within the Borough, there are still some properties at risk from flooding in West Bromwich (e.g. the Yew Tree and Hamstead suburbs).

In addition there are surprising numbers of properties (around 8,500) in the Oldbury, Smethwick and West Bromwich areas at risk from surface water flooding (see figure 11) and Sandwell MBC has been funded by Defra to develop a Surface Water Management Plan, as one of the national priority areas.

Serious flood events in the 1990s led to investment in flood defence schemes in the borough and increased maintenance since when there has been no major flooding. However, it is important not to be complacent. It is likely that global warming will increase the risk and there remains the potential even now for serious flood events in Sandwell.

Analysis of the population in the 'at risk area' shows that these are predominantly young people in high density social housing and elderly people on state support.

Recommendations

It is important that people living in vulnerable areas take sensible precautions to minimise the impact of flooding, including making a plan. Although relatively few households in Sandwell are at risk from serious flooding, it is important to ensure that those who are, get the appropriate information as early as possible. The Environment Agency recommends those at risk to:

- Check your insurance cover - ensure it covers flood damage
- Know how to turn off your gas, electricity and water mains supplies
- Prepare a flood kit of essential items such as a torch and wind up radio
- Agree where you will go and how to contact each other
- Think about what you can move to a safe place now (for example photo albums, family videos and treasured mementos/possessions)
- Think about what you would want to move to safety during a flood (for example pets, cars and furniture)
- Create a list of important contact numbers including Floodline 0845 988 1188.

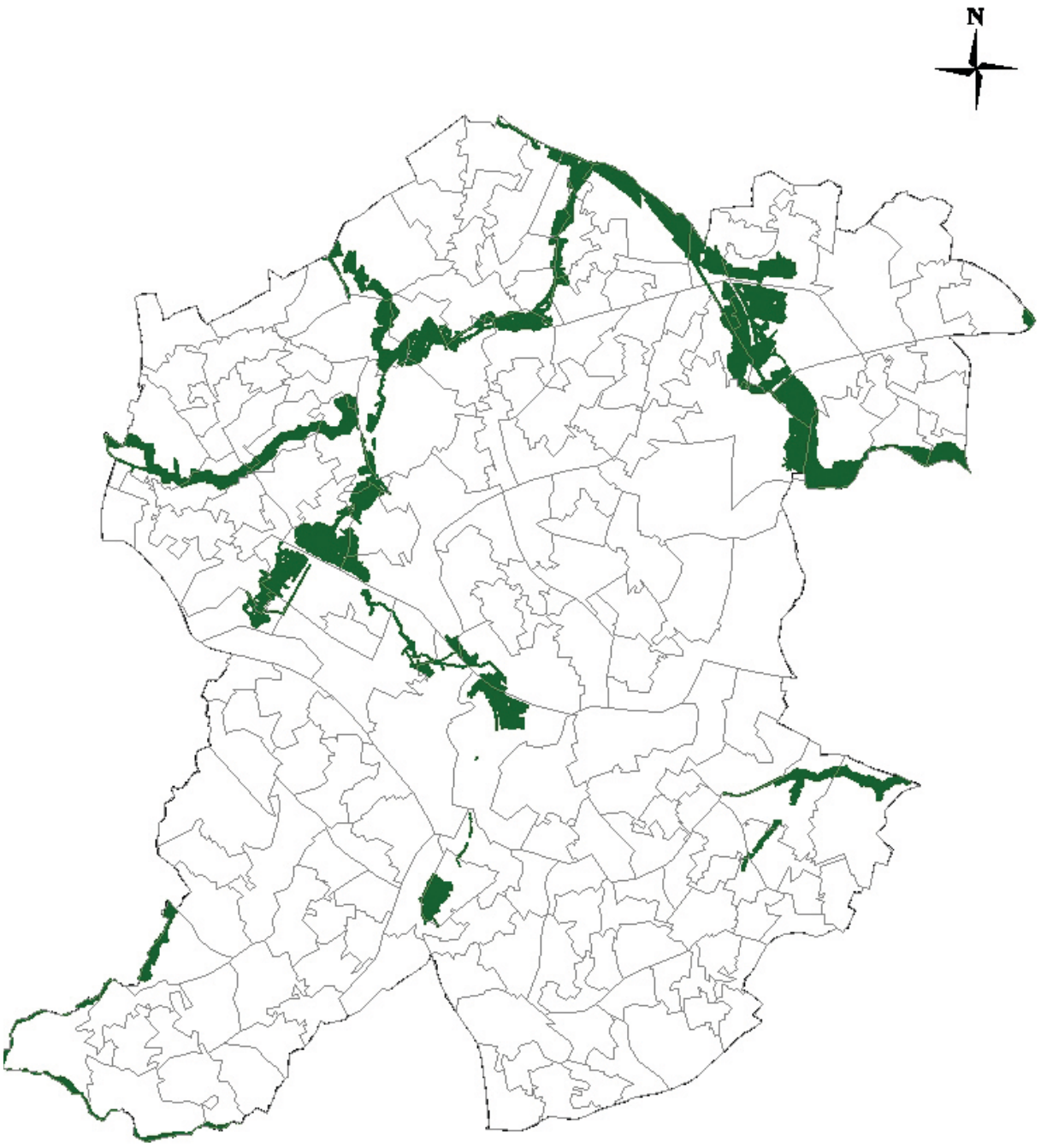


Figure 10 Areas at 1% Risk of Flooding in Any Single Year

Source: Environment Agency

Flood risk

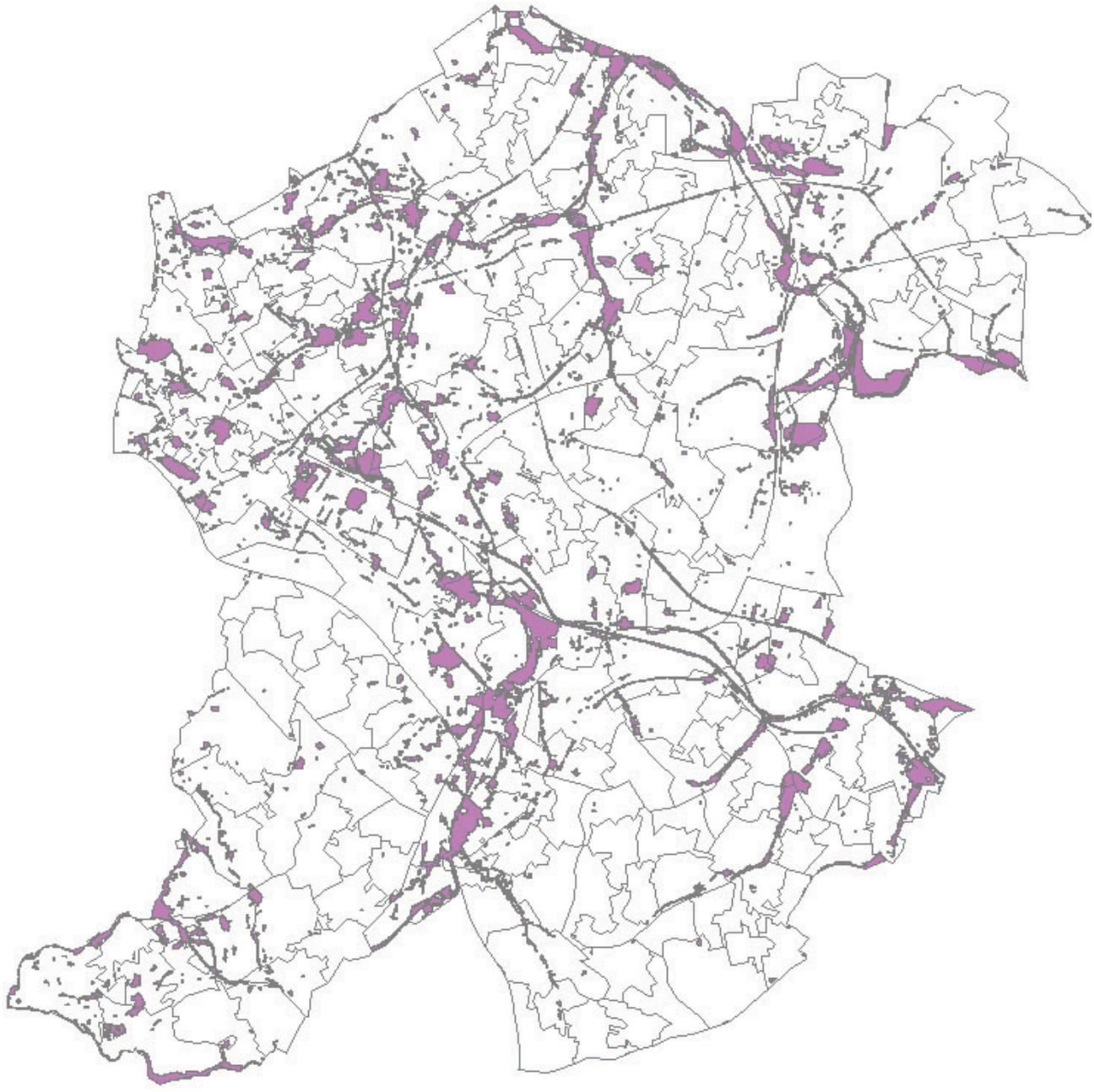


Figure 11 Areas at risk of surface flooding

Source: Environment Agency

Cycling

There is a wealth of evidence showing that active people live longer and also evidence of wider benefits in terms of quality of life e.g. increased activity is linked to improved academic achievement[28].

There are potentially major financial savings through improved productivity and reductions in demands on health care. The Confederation of British Industry (CBI) has estimated potential savings per active employee to be up to £300pa. The WHO's health economic tool estimates an annual saving of £1.3m in Sandwell if we could achieve an average of 4,000 more daily cycling trips of around 5km.

People only need to make small changes to their lifestyles to make major improvements to health and quality of life. Just one extra hour of physical activity a week for example reduces sickness leave by over a third in the long term[29]. This level of activity is readily achievable through changed travel behaviour and cycling is a good way to build physical activity into daily life without having to make separate time for exercise.

" The WHO's health economic tool estimates an annual saving of £1.3m in Sandwell if we could achieve an average of 4000 more daily cycling trips of around 5 km "

Cycling in Sandwell

The scale and economy of cycling related benefits are such as to make its promotion to as many people as possible an imperative, especially as there is safety in numbers for cyclists[30]. Unfortunately in Sandwell, as elsewhere in England, cycle ownership is much higher than cycle use, suggesting that many people would like to cycle more if conditions were right.

Less than 2% of people in the Sandwell population cycle to work[31] and Sport England's Active People survey showed 1.5% of respondents cycling regularly (12 or more days in the previous 4 weeks) and 5.9% having cycled at least once in that period. However, this survey also found that on an average day over 4,000 people in Sandwell cycle for 30 minutes or more. Assuming a typical cycling speed of 10 mph this alone saves 2.3 lives each year in Sandwell worth at least £2.1m. Such achievements make a small but important contribution to the PCT's Invest Well strategic plan to save188 lives per year and £55 million across the Sandwell health economy over the next four years.

In Sandwell, no two places are so far apart that they cannot be travelled between comfortably by bicycle.

> "Unfortunately in Sandwell, as elsewhere in England, cycle ownership is much higher than cycle use"

However, for several decades most people have felt that there is too much traffic, and too much fast traffic, for safe cycling. Inevitably this has led to a decline in cycling skills. If the suppressed demand for cycling is to be released, we have to address this mismatch of skills and environment. People will then be more likely to respond to promotions and incentives to cycle. Adoption of 20 mph limits in residential areas for example, would have many other benefits as well as making cycling safer: fewer traffic related casualties, less community severance, less traffic noise and a more pleasant environment for walking.

There are several examples where major increases in cycling have been achieved. Cycling in London has doubled in less than a decade; Darlington (one of the Cycling Demonstration Towns (CDTs), a European funded programme to promote levels of cycling)[32] achieved a 113% increase in just three years.

The investment in the CDT programme has had a high benefit-cost ratio. This value is derived by using the evidence base to estimate the reduced mortality likely to result from the overall increase in cycling, assigning a financial value to it, then comparing with the cost of all the investment by the CDT programme. Importantly, by using the cost of the whole CDT programme, the majority of factors causing an increase in cycling in the towns are likely to have been captured. The ratio for the CDT programme is estimated to be at least 2.6:1. Much higher benefit-cost ratios have been calculated for individual cycle routes, but this is probably because these calculations have not included the costs of general cycling promotional work that has prompted people to use the new routes, and because all additional journeys on the routes are counted as new journeys, rather than discounting transfer of pre-existing journeys from parallel roads. On the benefit side of the equation, the ratio of 2.6:1 only takes account of likely benefits in reduced mortality. It does not attempt to assign any value to increased quality of life. Therefore we can say with some confidence that the total benefit will be higher when improved quality of life and reductions in traffic congestion, pollution and carbon emissions are all taken into account. Even without this, a value of 2.6:1 compares favourably with most highway improvement schemes.

Cycling

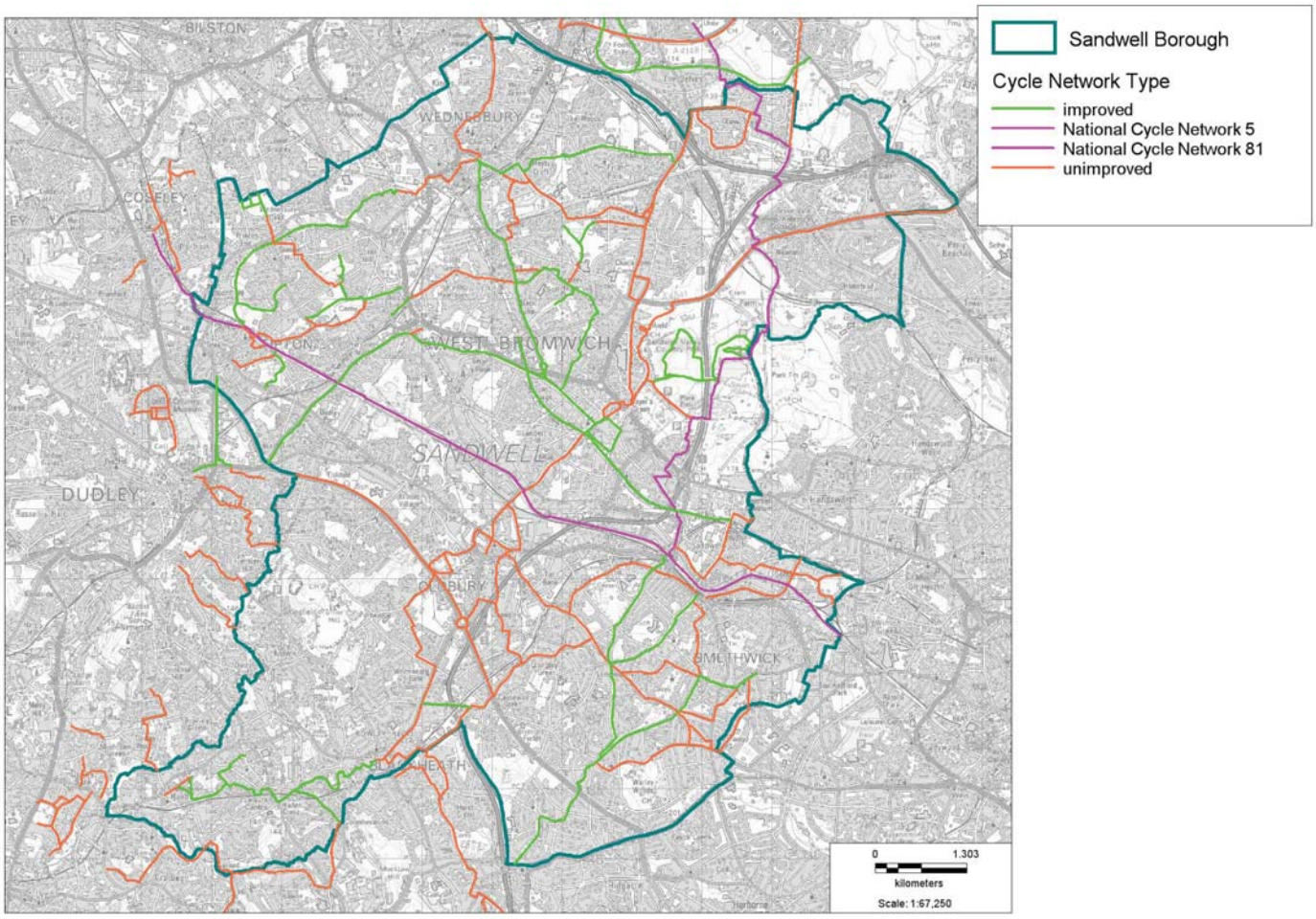
The Department for Transport uses the following scale:

Table 1 Benefit-Cost Ratio	
Benefit-Cost Ratio	Value for money
Less than 1	Poor
Between 1 and 1.5	Low
Between 1.5 and 2	Medium
Over 2	High

Experience from the CDT programme shows that a balanced package of measures is essential to increase levels of cycling, rather than a concentration on one particular approach. A package approach is being pursued in Sandwell. There is a well-established plan for a local cycle route network. This system of routes links 18 local centres in Sandwell and includes safe crossings or 'bridges' between the islands of safer cycling. However, only parts of this network have been improved. One key area for Sandwell is that of appropriate cycle training. Cycling skills are now defined clearly in the national BikeAbility programme[33]. Level 2 covers dealing with all traffic on single lane roads, T-junctions, crossroads and small roundabouts. Level 3 includes large roundabouts, multi-lane roads and filtering past queues of traffic. While some people are being taught level 3 skills, many will never be able or wish to cycle in those conditions.

On the other hand, we cannot create traffic-free cycle paths to the front door of every home, so if people wish to cycle for local journeys, they will need to achieve level 2. Currently there are many areas in Sandwell where level 2 skills are sufficient, 'islands of safer cycling'. However, they are separated from each other by wide roads carrying large volumes of busy traffic, together with junctions that are hazardous for cyclists. Sections of road that discourage cycling are those with multiple lanes, narrow lanes (giving cars little space to overtake a cycle) and high average traffic speeds. Figure 12 shows the planned local cycle route network in Sandwell and the two National Cycle Network Routes that pass through the borough.

Figure 12 Cycle Network Routes in Sandwell 2010



Recommendations

We are committed to make all journeys in Sandwell feasible by cycle using level 2 skills alone. To close the gap between cycling skills and cycling environment we need to:

- Secure more resources to complete the planned local cycle network and turn it from disconnected routes into a connected network. New planning guidance for a 'cycle access standard' will help secure contributions from developers.
- Extend the network to link with local centres in neighbouring districts.
- Consult regularly with users to ensure that improvements are adequate for those with level 2 skills
- Expand the programme of cycle training so that all Year 6 Children have access to level 2 courses, ideally as part of the school curriculum.
- Improve safety within the islands of safer cycling by adopting a policy of default speed limit of 20 mph in residential areas.
- Continue to promote leisure cycling: utilising the large amount of open space in Sandwell, building upon the raised profile of cycle sport in the UK, and expanding the Health and Well-being Unit's successful School Bike Clubs programme. Most new cyclists start by riding for leisure. They deserve support and need to be able to get their bike safely to traffic-free trails.
- Active input to the current consultation on the Local Transport Plan to ensure that the promotion of cycling is taken into account in the development of transport across Sandwell and the West Midlands.

Environmental Credentials

Sandwell PCT is committed to good corporate citizenship and to being socially and environmentally responsible. This is one of the core values of the PCT. As an organisation the environmental impact of our business is a key consideration in everything we do and we recognise the impact we have on the environment, taking steps to minimise this risk wherever possible. We are aware of the major challenges that climate change presents to the NHS both in terms of what we do and how we do it.

The PCT has a responsibility to reduce carbon emissions from our operations, while ensuring delivery of high quality health services to the population of Sandwell for now and for future generations. The UK government has identified the NHS as key to delivering carbon reduction across the UK in line with its Kyoto commitments and the NHS Carbon Management programme is designed in response to this. It helps NHS Trusts save money on energy, releasing resources for patient care, while at the same time making a positive contribution to the environment by lowering carbon emissions.

What the PCT is doing

Sandwell PCT was selected through a competitive process in 2009 to take part in the NHS Carbon Management Programme. Working with the Carbon Trust, the PCT has developed a Carbon Management Plan leading to our first environmental blueprint. We are using this to manage, control and reduce future exposure to environmental impacts. The Plan identifies a range of measures to reduce our carbon footprint over the next five years and beyond, enabling us to comprehensively measure, understand and report on the carbon impacts of our operations. This will not only enable the PCT to achieve national targets to reduce green house gas emissions, but will ensure that we are at the forefront in addressing climate change issues.

The PCT has identified the following strategic themes for action to reduce its carbon emissions:

- Being at the forefront of tackling climate change and environmental issues and contributing to reducing the Borough's carbon emissions
- Reducing carbon emissions across PCT operations by 25% by 2014
- Embedding sustainable development and carbon reduction across the PCT through its policies and practices
- Collaborating with other public sector, statutory and voluntary organisations in Sandwell in raising awareness and tackling carbon management and sharing best practice
- Raising staff and public awareness of their contribution to carbon emissions and how through taking simple practical steps, these could be minimised
- Continuously improving the efficient use of all resources, including energy, water and reducing the consumption and amount of waste produced

Environmental Credentials

The PCT has identified a number of buildings and travel plan related projects, all of which are at different stages of planning. These range from projects that have started, to long term projects for which detailed planning is still being undertaken.

Refurbishment of the PCT headquarters (Kingston House) and the introduction of a flexible working system has been successful in reducing carbon emissions and is contributing around 9% of the overall target. Near term projects including loft and ceiling insulations, draft proofing and refining management systems at different health centres will contribute about 6% towards the overall target. In the long term, upgrading boilers, improving lighting and voltage optimisation will contribute 17% towards the overall target.

Table 2 Reduction in Annual PCT CO_2 Emissions

Carbon Management Plan (2008-2014)	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
	08/09	09/10	10/11	11/12	12/13	13/14
BAU	4552	4584	4616	4648	4681	4714
RES	4552	4297	4057	3830	3616	3414
CO_2 saved tonnes pa	-	287	559	818	1065	1300
Cumulative CO_2 savings tonnes	-	287	846	1664	2729	4029

Reducing carbon emissions makes perfect business sense. It saves money, enhances reputation and helps everyone in the fight against climate change. Table 2 and figures 13 and 14 show the PCT's baseline emissions for the financial years 2008/09 and a comparison of emissions achieved through implementing an active strategy ('Reduced Emissions Scheme' (RES)) with maintaining business as usual (BAU) to 2013. The baseline footprint was calculated at 4,550 tonnes of CO_2 per annum with associated energy costs of around £836k.

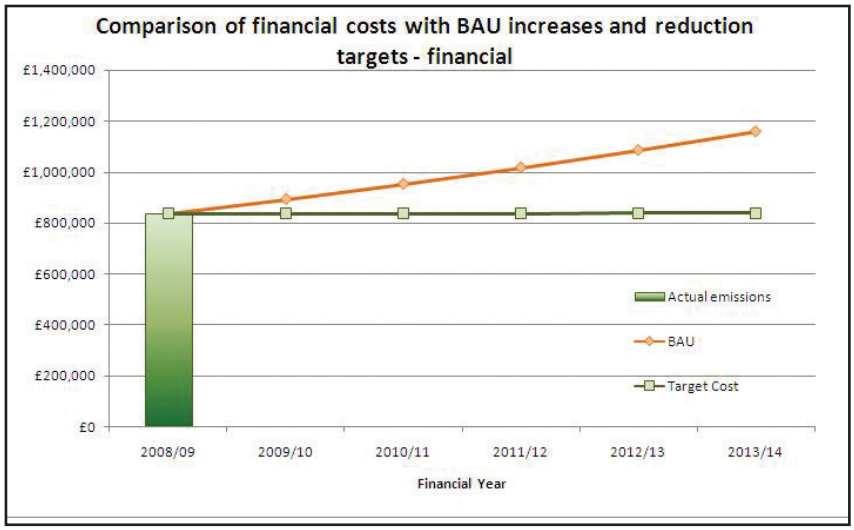
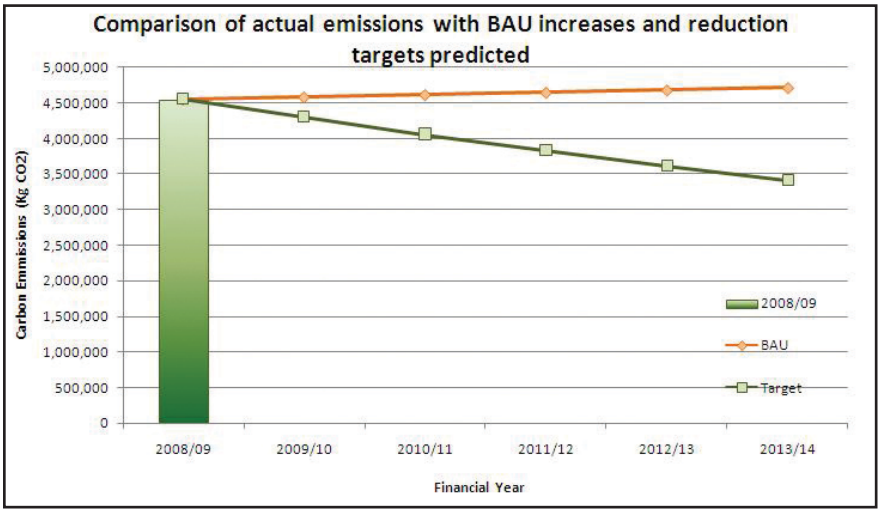


Figure 13 Financial Savings to PCT of Reducing Emissions 2008-14

Figure 14 Reduction in Carbon Emissions by PCT 2008-14



Environmental Credentials

A Carbon Management Team led by the PCT Chair has been established and reports to the Executive Management Team and to the PCT Board.

If the PCT achieves the target of a 25% reduction in carbon emissions by April 2014 it will have avoided total costs of almost a million pounds between 2009/10 and 2013/14. This represents an ongoing annual reduction in carbon related costs of almost £320,000. The total capital and revenue costs associated with implementing measures are estimated at over £280,000.

A number of projects have been identified which will result in significant carbon and cost savings. Of these, most relate to buildings and making the estate more energy efficient, implementing various activities within the travel plan and generally raising awareness. If all projects are implemented fully the PCT will save a total of 4,000 t CO_2 by 2014. This will achieve a carbon emissions reduction of 33% over 2008/09 levels.

The PCT has also been working on embedding the values of 'Good Corporate Citizenship', the NHS sustainable development programme[34], since 2007 and has made significant progress around the six domains:

- Travel
- Procurement
- Facilities Management
- Workforce
- Community Engagement
- Buildings

> "Sandwell has been rated as one of the top five PCTs in the country."

Some of the achievements include:

- Kingston House staff travel survey
- Introduction of staff bus and cycle2work salary sacrifice schemes offering discounts on the purchase of bus passes and bicycles
- Increasing cycle mileage rate from 5p to 24p per mile same as the rate for using public transport for business purposes
- Introduction of 'dump the car days' encouraging staff to leave their car at home and use sustainable modes of transport such as bus, cycle and car share
- Introduction of a mixed recycling scheme in Kingston House and a mobile phone recycling scheme
- Launch of an intranet based staff energy saving ideas/suggestions box
- Agreement with Sandwell Time Bank to encourage staff to volunteer time to local community initiatives
- Embedding sustainability in the procurement strategy
- Introducing a Good Corporate Citizenship award for staff to encourage innovation in helping the PCT reduce its carbon emissions.

The PCT has recently been assessed by the Audit Commission for the effective use of natural resources (energy, clean water, clean air, land and soil, materials, minerals).This required the PCT to show:

- Understanding and quantification of its use of natural resources and identification of the main influencing factors;
- Managing performance to reduce its impact on the environment; and
- Managing the environmental risks it faces, working effectively with partners

Sandwell has been rated as one of the top five PCTs in the country.

Overall the PCT's work on Good Corporate Citizenship and Carbon Management demonstrates practical application of its core value of being socially and environmentally responsible.

Access to good quality green spaces not only makes the places we live, work and play in more attractive, but also has a demonstrable effect on improving health and well-being. Green space is linked to lower levels of several diseases and lower rates of mortality in communities and is an important resource in building stronger communities and reducing the effects of deprivation and inequalities[35, 36]. The potential of green space to deliver these benefits is greatest in areas with large deprived and minority communities which generally experience poorer quality environments. However while these communities appreciate the value of such spaces they tend to underuse them due to concerns about the safety and quality of the spaces[36].

Green Space in Sandwell

Contrary to the perception of Sandwell as an industrialised and built up area, the borough is actually a very green place, with nearly a quarter of all land being green space (see table 3 for definition)[37]. There are 15 designated nature reserves in Sandwell Borough with 1.1 hectares (ha) per 1000 population, exceeding the national standard. Of course, just because there is a lot of green space around doesn't necessarily mean that it is good quality, accessible or actually used by local people. Sandwell council has looked critically at our green spaces to assess these factors. Accessibility was assessed as follows:

- Unrestricted-sites with unrestricted public access although some may have limited access between dusk and dawn
- Limited-publicly or privately owned sites with access limited either by a real barrier such as membership or a perceived barrier such as a feeling that an open space is private
- Not accessible-sites are out of bounds to the general public.

Table 3 Definition of Green Space

Type of Green Space	Description
Allotments	Areas for growing fruit and vegetables
Amenity Green Space	Areas of mown grass around areas of housing or road side verges
Cemeteries and Churchyards	Currently used as burial grounds or closed burial grounds
Green Corridors	Linear open space providing a link to other green space or other local facilities
Institutional Land	School playing fields and hospital grounds
Natural and Semi-natural Green Space	Natural areas such as woodlands and nature reserves such as Sandwell Valley and Warley Woods
Outdoor Sports Facilities	Playing fields and other sports pitches
Parks and Gardens	Formal and urban parks such as Dartmouth and Brunswick Parks
Provision for Children & Young People	Play areas and teenage provision (excluding that on other types of green space)

Green space

This review found that almost 17% of the Borough area is made up of accessible green space and that there is an average of 4 ha of accessible green space for every 1000 people which is considered to be reasonable. The review identified 539 sites, 321 of which had unrestricted access (see figure 15), 170 limited access and 48 being inaccessible. However, there is considerable variation in the amount of green space across the six towns - see table 4.

Table 4 Green Space by Town

Town	Amount of Unrestricted Greenspace (Ha)	Unrestricted Greenspace per 1000 Population (Ha)
West Bromwich	458	6.6
Rowley Regis	233	4.9
Tipton	167	4.8
Smethwick	141	2.9
Oldbury	120	2.6
Wednesbury	81	2.2
Sandwell	1200	4.2

The variation is much greater at Ward level, ranging from more than 17 ha per 1000 population for West Bromwich Central to less than 1 ha per 1000 for Old Warley Ward. There is also considerable variation between the six towns in the quality of green spaces in Sandwell, with Smethwick having the highest average quality score and Tipton the lowest. Individual quality scores using the national standard for parks and green spaces varied from very poor to fair and the Borough average of 34 out of a maximum score of 100 suggests there are considerable opportunities for improvement.

Green spaces were designated as to their significance as resources (see table 5) and the accessibility of unrestricted spaces assessed on the basis of being within 1200, 600 and 400 m straight line unobstructed walking distance.

Table 5 Green Space Designation

Borough	Sites whose significance should attract people from across the entire Borough. Usually large sites with a range of facilities or designated importance for history or nature conservation
Neighbourhood	Sites which perform a function that serves a more immediate community. Unlikely to attract people from across the Borough
Local	Sites which perform a function to a small area – typically areas of amenity green space.

Most areas of the Borough have access within 1200 m to Borough level green spaces. Wednesbury and Oldbury have the least access to Borough level green spaces although there are also small areas of the other towns that have no access to these top level green spaces. Around half of the Borough has access within 600 m to neighbourhood level green spaces although there are areas in all Towns with no access to such sites. Overall there are many parts of the Borough with limited access to green space especially in Wednesbury, Smethwick, Tipton and Oldbury.

When the people of Sandwell were asked, over 70% said they used parks and other green spaces with the most frequently visited being Sandwell Valley, Dartmouth Park, Warley Woods and Haden Hill Park. Only people from Wednesbury thought there was not enough green space, but all areas expressed a need for more children's facilities. People reported that the most important things that stopped them using green spaces were personal safety, anti-social behaviour and dog fouling. This information is vital if Sandwell is to ensure that our green spaces are what people want and will use.

Discussion and Recommendations

Managing this green space resource is a complex process. In the 1980s, for various reasons, what might be called the social management (typically park keepers) was divorced, and often disappeared completely, from physical management which was generally done by contractors with limited interest in local concerns and circumstances. Less money was spent and the quality of many parks and similar places declined. There are now moves to restore proper management, combining the social and physical aspects, to parks and other open spaces. Sandwell's main open spaces (including the Sandwell Valley, Sheepwash and the Rowley Hills) are managed by the Ranger Service based at Park Farm in the Sandwell Valley.

On a more positive note government agencies, especially the Countryside Commission, have encouraged and grant-aided the development of country parks, of which the Sandwell Valley is a prime example. Important as such places are, they are not easily accessible to everyone. There is a parallel with large hospitals here, the main difference being that people have no choice but to get to the hospitals, they often will not make the same effort for the sake of healthy recreation. Even so the Valley is said to be the third most visited attraction in the West Midlands.

Sandwell's Green Space Strategy estimates that between 2003 and 2010 total investment in parks and green spaces was more than £25m, of which about £10m was from sources outside the Council[38]. The strategy recognises the challenge to secure more investment and we are committed to achieving Green Flag status (the national standard for parks and green spaces) for 14 sites.

Summary of recommendations

- Commitment to achieving Green Flag status (the national standard for parks and green spaces) for 14 sites.
- Make Sandwell's green spaces accessible to all parts of the community.

Green space

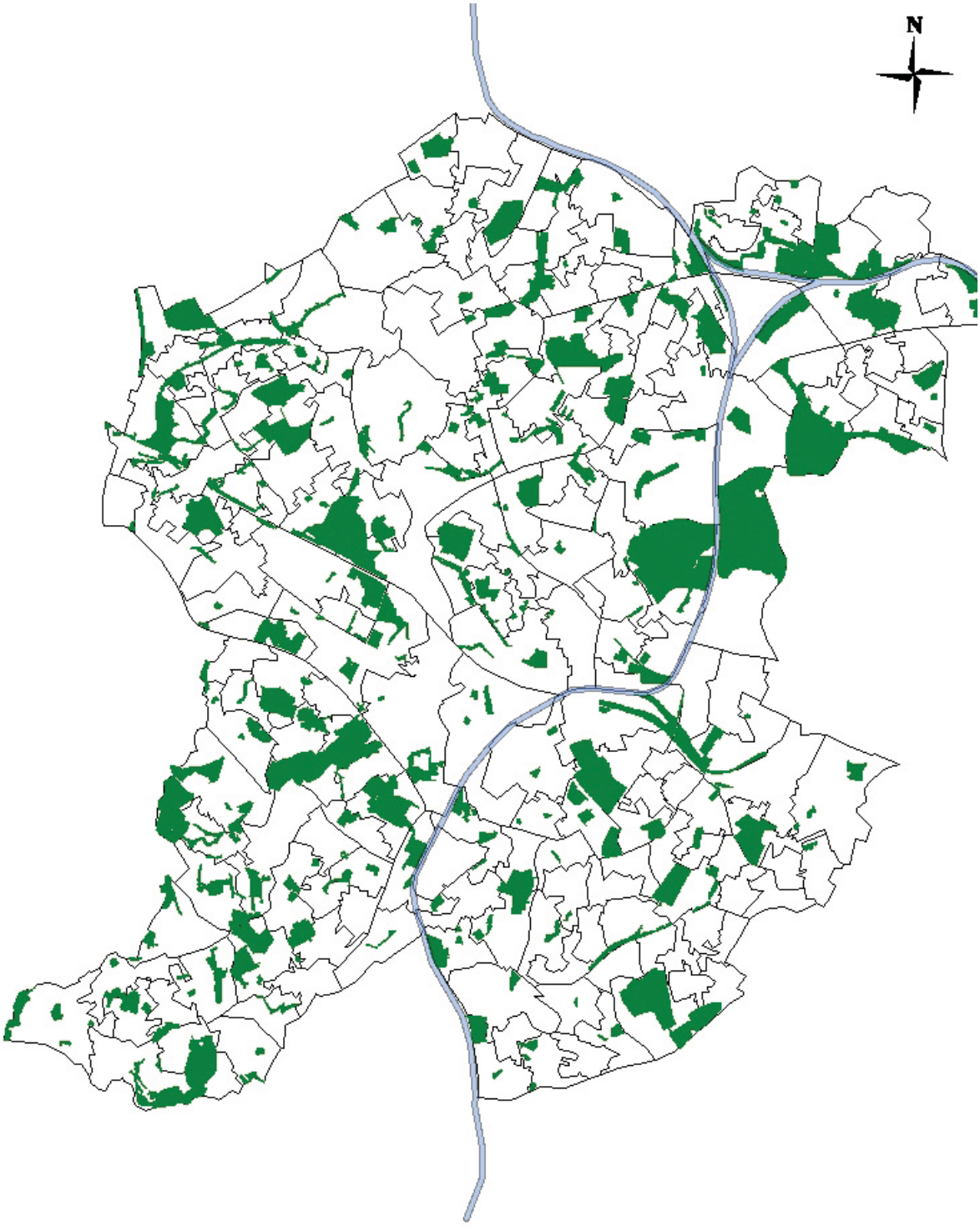


Figure 15 Map of Green Space with Unlimited Access

Source: Sandwell MBC

Sandwell's Natural Environment and Biodiversity

In terms of the places we live, leafy suburbs are much preferred to concrete jungles. Planned open spaces and gardens have always been a feature of cities, from the Hanging Gardens of Babylon to Central Park in New York. The Garden City movement promoted greener towns and cities in the early part of the last century, and industrialists like the Cadburys and the Lever brothers built garden suburbs for their workers. They knew that high quality environments would make those workers more productive, a classic case of enlightened self-interest. Amenity also came through patronage, and in West Bromwich the Earls of Dartmouth gave some of their land, including Dartmouth Park, for the enjoyment of local people.

Complementing our designed landscapes in parks, gardens, institutional grounds and the public realm, we also have fragments of the original countryside. Sandwell still has working farms, the rivers Tame and Stour, ancient woodlands and canals and reservoirs. Some of these elements are as man-made as our factories and houses, but they incorporate the natural environment, reflect history and heritage, and can be a source of wonder and awe to young and old. The dawn chorus, wild geese honking, and the antics of a squirrel – such things lighten people's days. On top of this there are direct health benefits for all from improved air and water quality and the ecosystem services mentioned above. In her Foreword to Sandwell's Green Spaces Strategy Councillor Linda Horton neatly pinpoints the value of green spaces when she describes them as 'A community centre without a roof'[38].

"The dawn chorus, wild geese honking, and the antics of a squirrel – such things lighten people's days."

What we can do

As well as the power to promote environmental wellbeing in general, the Council also has a particular duty 'in exercising its functions, (to) have regard, ... to the purpose of conserving biodiversity '[39]. Taking opportunities to discharge this duty whilst providing recreation and amenity facilities directed towards improving people's health will often enhance those facilities. Within the Local Area Agreement attention has to be paid to the Government's indicator for 'Improved local biodiversity ', and planning guidance is available[40].

There are over 5,000 records of species which are protected, or the subject of a Biodiversity Action Plan (BAP) or of conservation concern. (Biodiversity Action Plans are produced for significant species and habitats, for example those under threat or declining). Priority BAP habitats in Sandwell include Ancient Woodland, Ponds, Rivers and Streams, Floodplain Grazing Marsh, Fen, Hedgerows, Meadows, Calcareous grassland and Heathland.

Policies for green space management are set through a variety of council, statutory bodies (for example Natural England, the Forestry Commission and the Environment Agency) and voluntary sector partnerships, initiatives and planning documents. Chief amongst these are the Unitary Development Plan, the Green Spaces Strategy, the Black Country Biodiversity Action Plan, the Black Country Local Sites Partnership, the Green Spaces Forum, the Environment Partnership, the Black Country as Urban Park initiative, the Black Country Core Strategy, and the Living Landscapes Project.

The key Sandwell Council document is the 2010 Green Spaces Strategy. This deals with all of the parks, nature reserves and other open spaces owned and managed by the Council over 0.4ha and with open access[38].

Nature on the Doorstep

Even a densely populated place like Sandwell, surrounded by similar towns and with no direct access to open countryside, has a significant amount of open space with the potential to provide people with experience of the natural environment. It is important to realise that this is not 'second hand' nature, somehow inferior to that which may be experienced in rural and remote areas. Migrating waders and birds of prey follow the Tame Valley on their journeys to and from Africa or the high arctic. They drop into Sheepwash and the Sandwell Valley to feed and rest. Ring ouzels and wheatears use the open grasslands in the Valley in a similar way. Oystercatchers and lapwings breed here, and otters are now occasionally seen again on the Stour and in the canals. Eels complete their astounding journey from the Atlantic near Bermuda in the Tame Valley Canal and other waters, and sparrowhawks create havoc amongst the small birds in many gardens. Deer are seen more often than used to be the case, and their numbers will increase, whilst the nationally threatened water vole thrives in some of Sandwell's canals and streams. Dragonflies and butterflies brighten many parks and gardens and bats find refuge in buildings old and new.

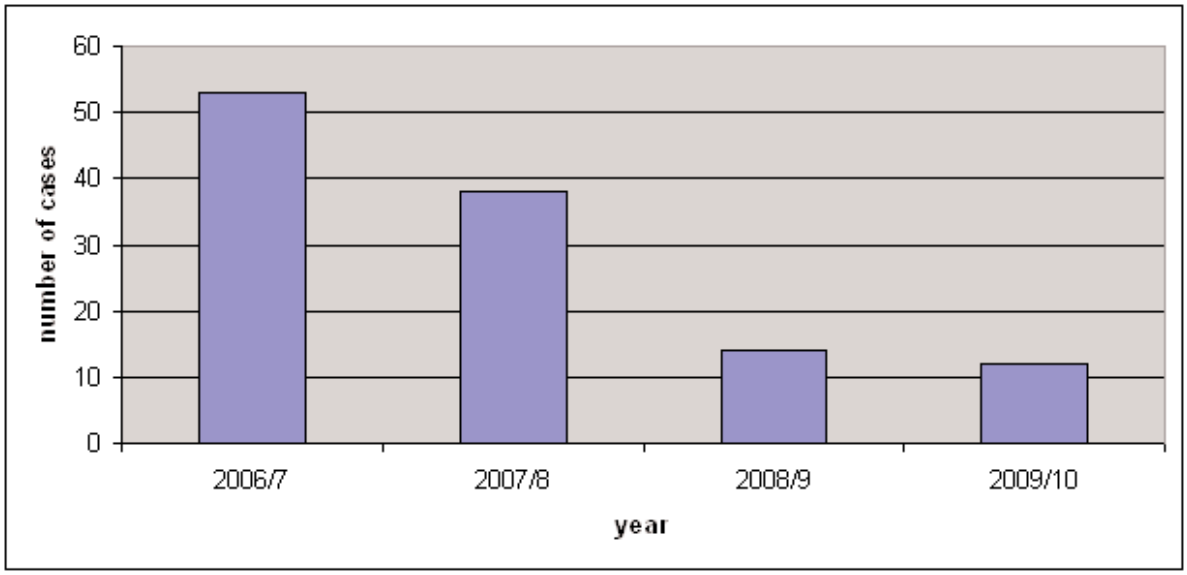
As for the habitats, Sandwell has large areas of grassland as on the Rowley Hills and at Warrens Hall Park, wetlands like Sheepwash, Mousesweet and Thimble Mill Brooks, ancient and new woodlands, including those in the Sandwell Valley, Warley Woods and Hollywood. In hundreds of other places wildlife thrives, bringing enjoyment to many, whether in their garden, local park or just through chance encounters on their daily round.

As well as the Council's operations, voluntary bodies such as the Wildlife Trusts and the Royal Society for the Protection of Birds (RSPB) work to improve and increase people's understanding, enjoyment and access to wildlife and its habitats. The Sandwell Valley Reserve has been amongst the top twenty RSPB reserves nationally for both the number of breeding bird species and the number of human visitors. The British Trust for Conservation Volunteers has provided many people with the opportunity to carry out practical conservation tasks and Groundwork West Midlands has helped many communities to improve local green spaces. The Wildlife Trust's Living Landscapes Project will help people to improve access to sites, engage with and learn about the natural environment and promote healthy lifestyles and active volunteering.

This section describes the levels of, and trends in, key Health Care Acquired Infections (HCAI) in Sandwell during 2009/10, the impact of interventions implemented and managed by the PCT and the challenges facing Sandwell in the future. The key standard that the NHS is judged against is the Health and Social Care Act Code of Practice for the prevention and control of healthcare associated infections[41]. This identifies nine criteria that must be met for formal registration with the Care Quality Commission (CQC) and this section addresses each of these.

Effective management systems

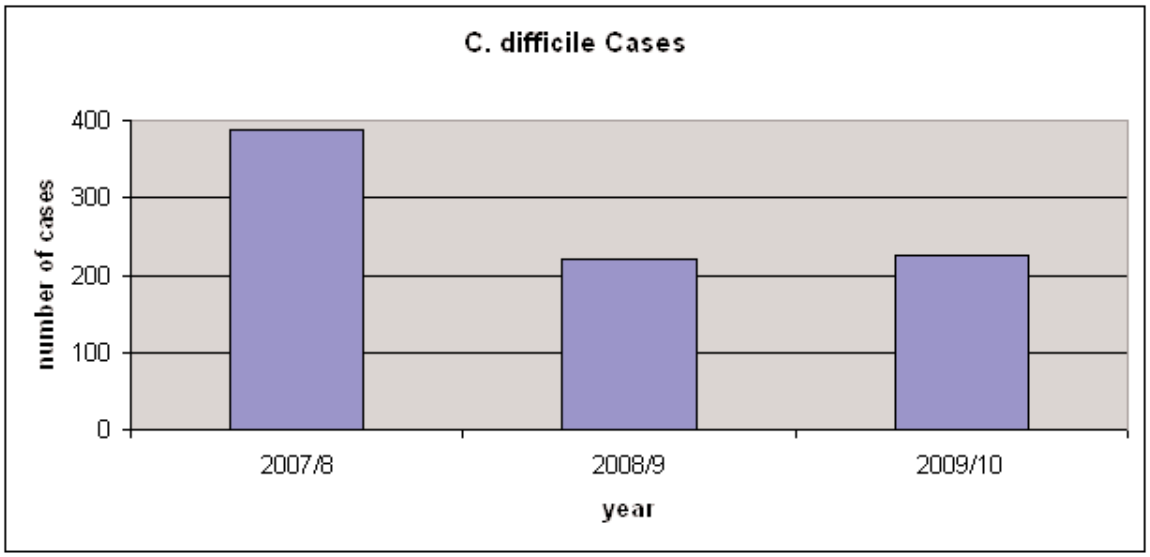
Figure 16 Sandwell PCT MRSA Bacteraemia Counts 2006-10



The PCT has developed and uses clear lines of responsibility and reporting mechanisms for infection prevention and control (IPC). The Joint Infection Prevention and Control Committee (JIPCC) is chaired by the Chief Executive and monitors the Key Performance Indicators outlined in the Health Economy Infection Prevention Strategy 2009-2012. The Director of Infection Prevention and Control (DiPC) oversees the infection prevention programme and reports directly to the Board and Chief Executive and onto the PCT Board. Infection prevention risks and surveillance data are reviewed by expert committees established to ensure best practice. The PCT has invested in enabling Care Homes to comply with the demands of the Health and Social Care Act 2008[42].

During 2009/10 six of the 12 MRSA bacteraemias attributable to Sandwell PCT were pre-48 hours MRSA bacteraemia from five patients. Three C.difficile deaths have been investigated by the PCT as serious incidents. Investigations through root cause analysis and good infection prevention precautions have resulted in the continuous reduction of MRSA bacteraemia (see Figure 16) and the 30% over 3 years target reduction in C.difficile infections set in 2008/09, has already been achieved and staff should be congratulated (figure 17).

Figure 17 Sandwell PCT C.difficile counts 2007-10



Provide and maintain a clean and appropriate environment

The Trust declared partial compliance with this condition acknowledging that older parts of the Estate are difficult to maintain. It was recognised that robust systems and processes are in place and Sandwell was granted unconditional registration. The Patient Environment Action Team (PEAT) ratings improved significantly from 3 (acceptable) last year to 4 (very good) or 5 (excellent). The PCT has invested in a web based audit programme to monitor levels of cleanliness. The system will assess cleaning standards and provide prompt feedback to cleaning staff and contractors to initiate action in real-time if problems are identified.

GP surgeries have made significant improvements in the quality and standard of the environment where minor surgical procedures are performed. The new arrangements of practices for referring patients for minor surgical procedures and joint injections reflect the commitment shown by practices to ensure patient safety and that the environment is 'fit for purpose'.

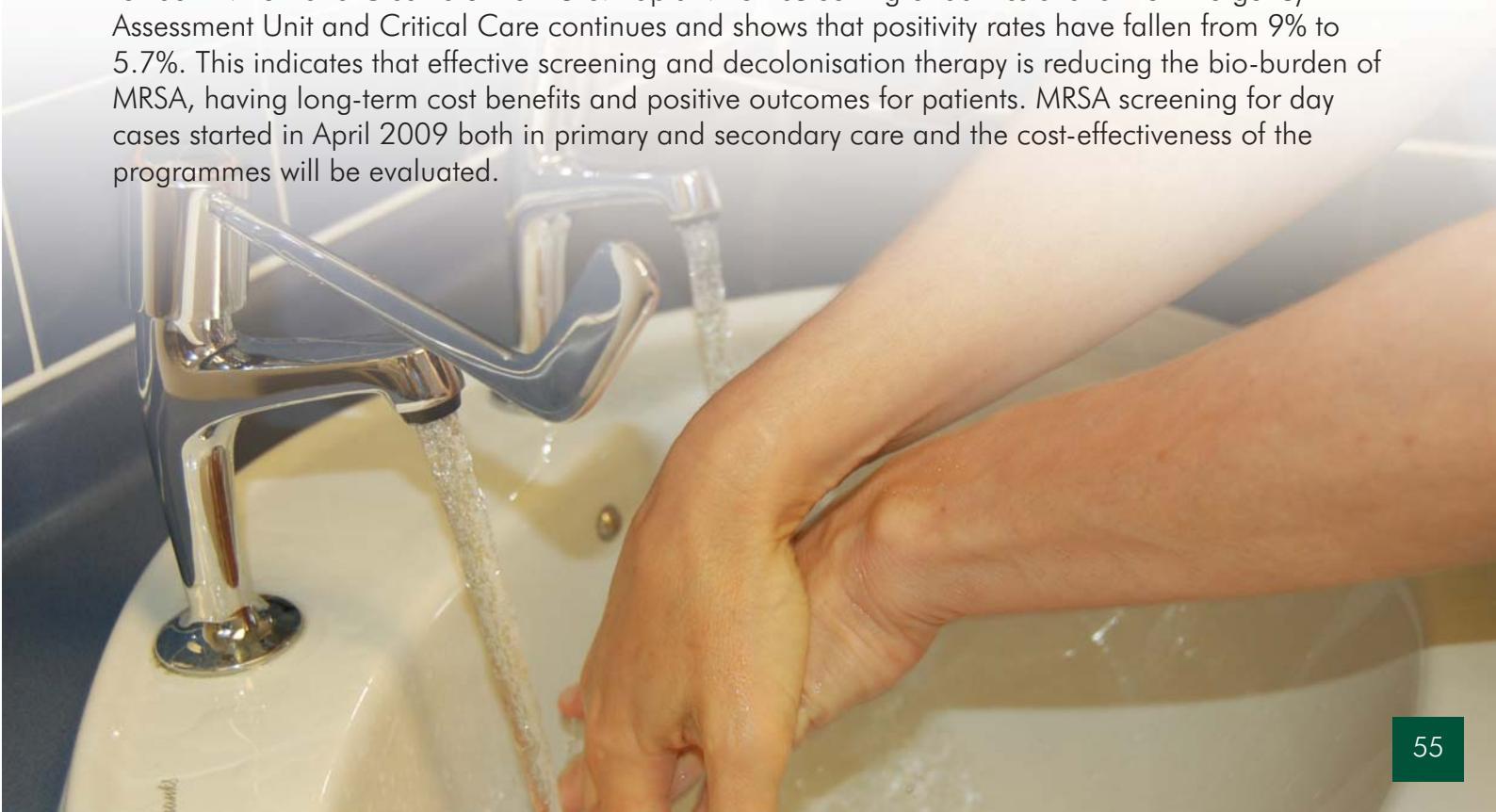
Eight dental practices agreed to participate in the National Dental survey and the PCT is confident that standards will be met by all primary care dental services.

Provide suitable and sufficient information on HCAI to the patient, the public and other service providers.

Effective exchange of information between health professionals remains a challenge but measures are being, or have been, identified to improve the sharing of information.

Ensure that patients presenting with an infection or who acquire an infection during their care are identified promptly and receive appropriate management and treatment to reduce transmission.

The appropriate management and treatment of infection is reflected in the PCT exceeding the targets for both MRSA and Clostridium difficile. Rapid MRSA screening of admissions to the Emergency Assessment Unit and Critical Care continues and shows that positivity rates have fallen from 9% to 5.7%. This indicates that effective screening and decolonisation therapy is reducing the bio-burden of MRSA, having long-term cost benefits and positive outcomes for patients. MRSA screening for day cases started in April 2009 both in primary and secondary care and the cost-effectiveness of the programmes will be evaluated.



The introduction of an improved test during 2009 has enabled the early detection of C.difficile antigen positive cases. Prompt identification of infected patients initiates early treatment/management of patients with milder illness, reducing hospital admissions and the risk of cross infection, and improves patient outcomes.

> "The appropriate management and treatment of infection is reflected in the PCT exceeding the targets for both MRSA and Clostridium difficile."

To further reduce HCAIs it is essential that an intravenous therapy service is delivered in the community to avoid hospital admissions, reduce hospital stays and improve patient satisfaction. We are working with the hospital trust to ensure a service is delivered across Sandwell.

We have been working hard to reduce the unnecessary use of antibiotics, one of the most important measures in reducing the development of resistant organisms. An antibiotic formulary has been produced in collaboration with the hospital trust, providing detailed and up-to-date information for General Practitioners with agreed antibiotic choices spanning both primary and secondary care.

Gain the co-operation of staff, contractors and others involved in the provision of healthcare

The importance of a clean, safe environment cannot be underestimated. It is imperative that infection prevention and control are 'designed-in' at the onset of new contracts and services, at planning and design stages of healthcare facilities and during review of contractual arrangements.

Provide or secure adequate isolation facilities and laboratory support

The provision of isolation facilities at Sandwell hospital and Leasowes has improved. The pressure on side rooms during the 2009/10 H1N1 influenza pandemic and more recently with the high levels of Norovirus has been evident. The use of isolation facilities is robustly monitored and inappropriate hospital admissions are minimised.

Our microbiology services are provided by a fully accredited laboratory. Investments in new and improved methods for testing specimens will aid prompt identification of organisms, management and treatment.

Appropriate policies, protocols and training

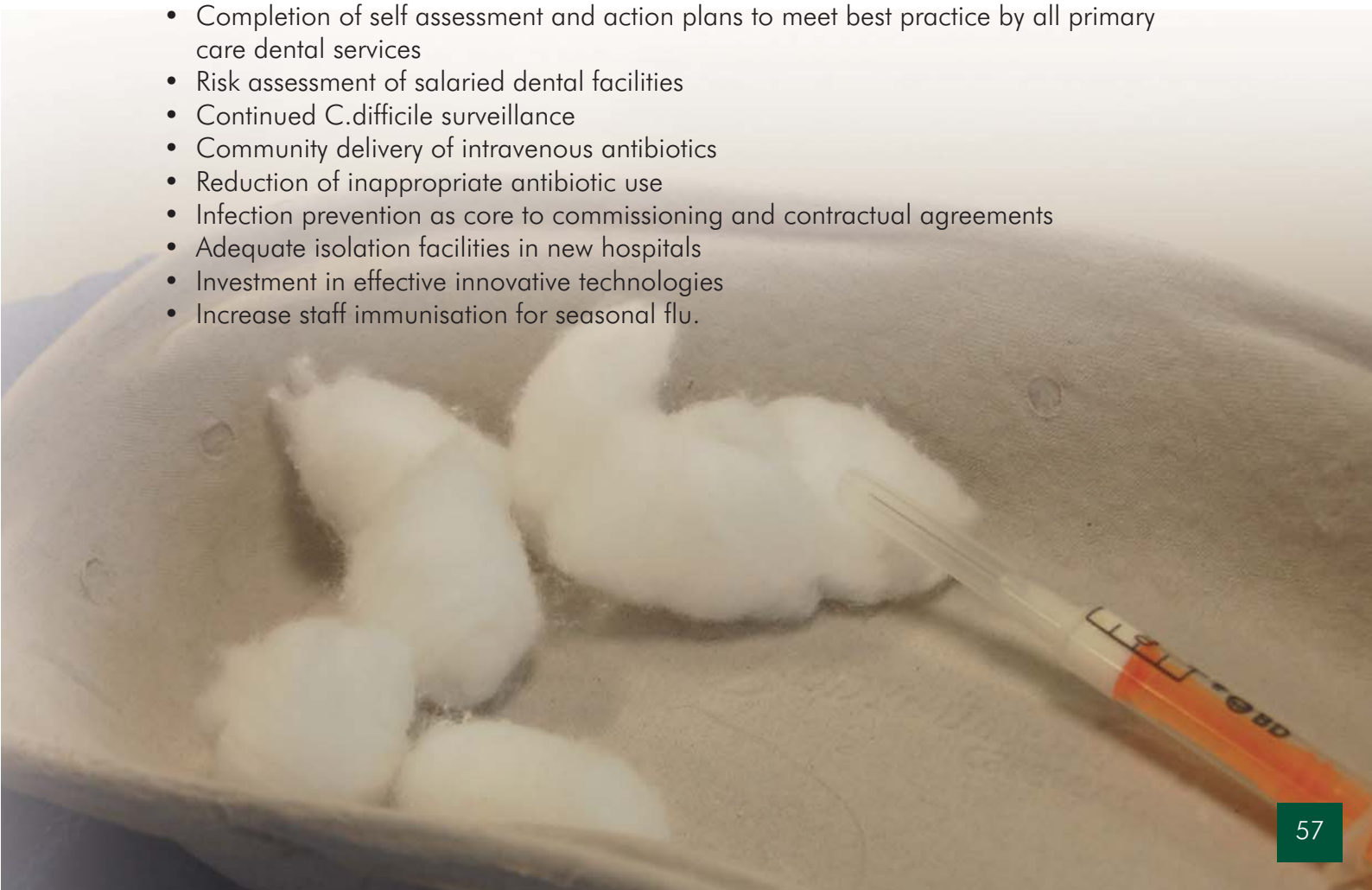
The increasing challenges for infection prevention and control together with the high incidence of H1N1 influenza within Sandwell during this period had a considerable impact on workload and consequently numerous policies required review. These policies have been formulated according to organisational risk.

This year's uptake of seasonal flu vaccination was 23% compared with 9% in previous years. Swine flu vaccination uptake this year has been 46%, one of the highest levels in the region. Infection prevention and control is now included in both the induction and mandatory programmes. Several successful training sessions have been delivered leading to an improvement of appropriate antibiotic prescribing and an increase in faecal samples for C.difficile.

Conclusion

There have been several major successes this year, including reducing healthcare associated infections beyond national targets and Sandwell's unconditional registration with the CQC. These could not have been achieved without the commitment and involvement of key partners and the PCT recognises the critical importance of this collaboration and is committed to building on it. The PCT needs to respond to the demands of the changing regulatory as well as economic environment and needs to secure:

- Representation of GPs and other disciplines at table top reviews
- Adequate resources to support and monitor infection prevention in Care Homes
- A robust system for signing off the infection aspects of capital plans
- Completion of self assessment and action plans to meet best practice by all primary care dental services
- Risk assessment of salaried dental facilities
- Continued C.difficile surveillance
- Community delivery of intravenous antibiotics
- Reduction of inappropriate antibiotic use
- Infection prevention as core to commissioning and contractual agreements
- Adequate isolation facilities in new hospitals
- Investment in effective innovative technologies
- Increase staff immunisation for seasonal flu.



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Sandwell Primary Care Trust:
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Environment Partnership:
Peter Shirley

COMEAP:
Professor Robert Maynard OBE

University of Birmingham:
Dr Mohammed A Mohammed

University of Cardiff:
Professor Gary Coleman, Professor Stephen Palmer

Other:
Dr Paul Field (UK Research Partnership)
Mr Michael Parkes (Consultant)
Sandwell Healthy Urban Development Unit

Awards

Dr John Middleton
First Prize Association of Directors of Public Health, Public Health Annual Report Competition 2010
Appointed as Vice President of the Faculty of Public Health

Dr John Middleton / Dr Carl Griffin / Hamira Sultan
Submission of a research bid to National Institute for Health Research (NIHR) Health Technology Assessment Programme on what is the effectiveness and cost effectiveness of telecare in comparison with normal care on the psychological and physical health of cares of people with dementia

Shaukat Ali
Shortlisted finalist for the Health Service Journal (HSJ) award in the Good Corporate Citizenship category, 2010

Neeraj Malhotra
HSJ submission under partnership category for Housing and Health Strategy, 2010

Anna Smith
Honorary lecturer University of Birmingham School of Dentistry
Chair dental subgroup Investing for Health Project 6

Food Policy Team
Health and Social Care Awards 2009 for Transforming service - Slimwell Adult weight management service

Food Policy Team and Physical Activity Team
Poster award - West Midlands Obesity Observatory – Most innovative Programme 'FAB Tots' early years obesity prevention programme – June 2010

The Walk to Beijing Programme Team
Finalists at the Black Country Sport and Physical Activity Awards 2009, Health and Well-being section

Welfare Rights Team
Runners up "Team of the Year" in Sandwell MBC Adult Services "Shining Stars" awards 2009

Dr Patrick Saunders
Accepted for registration as Consultant in Public Health, UK Public Health Register, September 2010
Appointed Assistant Director of the WHO Collaborating Centre for Chemical Incidents
Appointed to the WHO Collaborating Centre Expert Scientific Committee
Chair EU/WHO UNIPHE Conference Bucharest September 27th-28th 2010

Annette Vickery
Awarded an Advanced Diploma in Professional Studies for Infection Prevention and Control from Birmingham City University

Anna Pronyszyn
Appointed to working party for National Quality Improvement Tools for Infection Prevention

Paul Southon
Sandwell Healthy Urban Development Unit (SHUDU) cited as best practice on Marmot website, http://www.marmotreview.org/implementation/other-local-examples.aspx
Appointed to NICE Public Health Topic Selection Panel

Dr Alexis Macherianakis
Regional funding for cancer awareness training
DH funding for the expansion of the healthy community collaborative project

Sharon Grant
Shortlisted for National Resilience Manager of the year 2010
Sandwell Health Trainer Service included in the Rotary Club/Stroke Association submission to the HSJ Health and Social Care Awards

Publications (peer reviewed journals, annual reports etc)

Dr John Middleton
Middleton J. AAA screening: Dr Heath's breast screening lessons apply to AAA too June 24th 2009. www.bmj.com/cgi/letters/338/jun24_2/b2185#216226
Middleton J. The reluctant cyclist. Ph.com. Newsletter of the Faculty of Public Health June 2009, p20
Middleton J. Sandwellov Zdravstveni Alternativni Ekonomski Samit, 9 – 10 srpnja 2009 misleći globalno, a djelujući lokalno. Hrvatski časopis za javno zdravstvo Vol 5, Broj 19, 7. srpnja 2009. ISSN 1845-3082 (Sandwell Health's Other Economic Summit July 9-10th 2009 : Thinking Global, Acting Local)
Middleton J, ed. 5% for Health. The 20th Annual Public Health Report for Sandwell. West Bromwich: Sandwell Primary Care Trust, 2010

Dr Ishraga Awad
Ishraga M. A. Awad, Palliative and end of life care in Sudan, a case of need. Sudan Journal of Public Health, volume 5, number 1, January 2010 (http://www.sjph.net.sd/current.htm)

Shaukat Ali
PCT Carbon Management Plan 2010

Mary Fairfield
Lifestyle Services review 2009/10

Anna Smith
'Brushing up toolbox' – Corporate Culture and NHS West Midlands

Food Policy Team
Critical Poster presented at Health Promotion Conference in Geneva - School based family food intervention, July 2010

Rosie Edwards
Sandwell Anti Poverty Strategy and Action Plan

Eileen Kibbler / Bashir Ramzan
Working Towards Better Health, Health and Worklessness Programme
Annual Report 2008/09

Hamira Sultan / Carl Griffin
Equity and Excellence Liberating the NHS: An opportunity for CLAHRCs to shine in the new Public Health Service? Hamira Sultan and Carl Griffin, Comment in the BMJ,
http://www.bmj.com/cgi/eletters/341/jul16_1/c3843#239521

Dr Patrick Saunders
Saunders PJ. Use of routine public health nuisance complaint data to map and address environmental health inequalities. European Journal of Public Health 2010; 20 suppl.1:47
Saunders PJ, Kibble, AJ, Burls, A. Investigating alleged clusters. In Oxford Handbook of Public Health Practice, 2nd edition. (Pencheon D, Melzer D, Gray M, Guest C, Eds). Oxford University Press, Oxford (IN PRESS)
Saunders PJ, Mohammed MA. Environmental public health tracking: piloting methods for surveillance of environmentally related diseases in England and Wales. Environmental Geochemistry and Health. 2009;31(2):309-13
Saunders PJ. Using nuisance complaint data to map and respond to environmental and public health inequalities at small area level. HPA September 2010
Health Protection Agency. Children's Environment and Health Action Plan: Pilot Environmental Health Indicators Toolkit 2009

Dr Alexis Macherianakis
Cancer awareness measure article for cancer network newsletter

Presentations (regional, national)

Dr John Middleton
Inequalities in health in Sandwell. Presentation for the National Support Team (Health Inequalities) Sandwell, February 27th 2009
IDEA and Local authorities of Greater Manchester. Partnerships for health improvement, Rochdale, March 3rd 2009
Health and Social Conditions in Sandwell. Presentation for the Chinese delegation from Hubei province, 'Community governance and third sector

health activities'. Presentations for the visit of Hubei Province China government officials, Sandwell PCT, Ideal for All and Birmingham University Applied Social studies international division, March 6th 2009
West Midlands Regional Public Health Observatory. Recession and health: the need for pubic health information March 10th 2009, Birmingham UK
Food policy initiatives in Sandwell. Presentation to the Council of Food Policy Advisers, to the Department of Environment, Food and Rural Affairs, London, March 24th 2009
Black Country Public Health training consortium. Recession and health, 14/04/09
Right Care Right Here Regeneration seminar relaunch. May 8th 2009
Evidence based crime prevention. Campbell Collaboration conference, Oslo, May 2009
Compassionate communities conference. End of life care in Sandwell, THEpUBLIC, West Bromwich, June 26th 2009
Terrorism and public health, MPH international students, Open University, 2/07/09
Has health improved in Sandwell? 20 years of public health initiative. Presentation for the Diabetes UK Sandwell division, July 28th 2009
Healthy town planning seminar West Midlands Government office, Regional Assembly and Teaching Public Health Network, session presenter, September 14th 2009
The challenges of managing community concerns: the role of the PCT Chen J, Middleton J Health protection Agency conference September 14th 2009
Tobacco control and health inequalities in Sandwell. Sandwell Partnership health and wellbeing theme conference, September 17th 2009
Young people's health in Sandwell Major launch of adolescent health strategy CAP centre, Smethwick, February 5th 2010
UK Public Health Association. Three dividends for a healthier world. March 2010
UKPHA Healthy town planning and resilience. March 2010
UKPHA Crunchtime for health, poster paper. March 2010

Dr Ishraga Awad
International Health module, Presentations to MPH Course, Birmingham University, 10th June 2010
Sudan Health Consultancy: Overview of Sudan
Developing Palliative and end of life care in Sudan

Anna Smith
Dental Access programme – Sandwell Overview and Scrutiny Panel

Food Policy Team
Improvement Foundation Presentation (Manchester) – Showcasing weight management services and how these link into Primary Care July 2009

Hamira Sultan
The benefits of research into telecare and informal carers of people with dementia. Dementia Care conference, Botanical Gardens, June 2010
What is the effectiveness and cost effectiveness of telecare in comparison with normal care on the psychological and physical health of carers of people with dementia? poster presentation, Dementia Care conference, Botanical Gardens, June 2010

Dr Alexis Macherianakis
Cancer awareness measure survey presented in national cancer action team event
Social marketing report on cancer awareness and cancer screening presented at regional QA event

Dr Patrick Saunders
Excellence in Public Health 2010: Tackling Childhood Health Inequalities. Masterclass 10. Children and the Environment. Insults, impacts, interactions and interventions. Worcester 10th June 2010
Environmental Health Inequalities in Sandwell: tracking environment and health at local level. Sandwell SHOES Conference 25th June 2010

Dr Jenny Chen
Commissioning To Address Health Inequalities: An Example of Public Health Led Commissioning for Maternity Services in a PCT. UKPHA Conference March 2009
China – Economy and Health. Sandwell SHOES Conference July 2009
Teenage Pregnancy, Population Growth and Climate Change. UKPHA Conference March 2010 (poster presentation)

Conferences organised (regional, national)

Dr John Middleton
Sandwell Health's Other Economic Summit 2010. 'Environmental Justice and Health Inequalities' 'Community governance and third sector health activities'. Presentations for the visit of Hubei Province China government officials, Sandwell PCT, Ideal for All and Birmingham University Applied Social studies international division, March 6th 2009

Anna Smith
Bridging the gap: The role of information in delivering access to dental care, July 2009, Ricoh Arena, Coventry
Toolkit launch to PCTs, Clarendon Suites, Birmingham

Mark Bould
Physical Activity Network West Midlands (PAN WM) – Children, Young People and Physical Activity Regional Conference. September 2009. West Bromwich Albion Football Club

Eileen Kibbler / Bashir Ramzan
Health and Work in Sandwell – Stakeholder Consultation, 9th June, 2010

Glossary

AQMA Air Quality Management Area
BAP Biodiversity Action Plan
BAU Business as Usual
CBI Confederation of British Industry
CDT Cycling Demonstration Towns
CI Confidence Interval
CLAE Changes to Local Authority Enforcement Project
CLARHC Collaboration for Leadership in Applied Health Research and Care
COMEAP The Department of Health's Committee on the Medical Effects of Air Pollutants
CQC Care Quality Commission
Defra The Department for Environment, Food and Regional Affairs
DiPC The Director of Infection Prevention and Control
Ha Hectare
HCAI Health Care Acquired Infections
HSJ Health Services Journal
IMD Index of Multiple Deprivation
IPPC Integrated Pollution Prevention and Control
IPC Infection Prevention and Control
JIPCC Joint Infection Prevention and Control Committee
LSOA Lower Super Output Area
MBC Metropolitan Borough Council
MRSA Methicillin Resistant Stephylococcus Aureus
NO_2 Nitrogen Dioxide
PEAT The Patient Environment Action Team
PM_{10} Particles with an aerodynamic diameter of <10 µm
$PM_{2.5}$ Particles with an aerodynamic diameter of <2.5 µm
RES Reduced Emissions Strategy
RSPB Royal Society for the Protection of Birds
SHUDU Sandwell's Healthy Urban Development Unit
SO_2 Sulphur Dioxide

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Note: All internet references accessed 20 December 2010

cd contents

Tackling health inequalities

1. Sandwell Health and Wellbeing Unit - A Partnership Approach to Tackling Health Inequalities in Sandwell
2. Sandwell Health and Wellbeing Unit - A Partnership Approach to Tackling Health Inequalities in Sandwell (presentation)
3. Summary of PCT Actions and Resources Contributing Towards LSP Priorities/Key Actions
4. Update Report on NST Recommendations for Tackling Health Inequalities
5. Impact of the Recession on Healthcare Utilisation and NAO Life Expectancy Gap Briefing

Cancer services and needs

6. Cancer Awareness Measure Survey in Sandwell - Dr Alexis Macherianakis Consultant in Public Health Medicine, Sandwell PCT Pan Birmingham Cancer Network
7. Pan Birmingham Cancer Network News Issue 6 May 2010-08-27

Health needs assessment

8. Health Needs Consultation with Romany Residents of Batman's Hill/Brierly Lane Residential Site, Tipton August 2009
9. Social Marketing Uses in Sandwell : some examples
10. Town Profiles
11. Sandwell Health Profile 2009

Housing

12. Sandwell's Housing and Health Strategy
13. Housing and Health Business Case
14. LAA Indicators overseen by the Sandwell Housing and Health Group

SHOES environmental justice

15. Powerpoint presentations

Annual report

16. Complete pdf of Annual Report

Misc

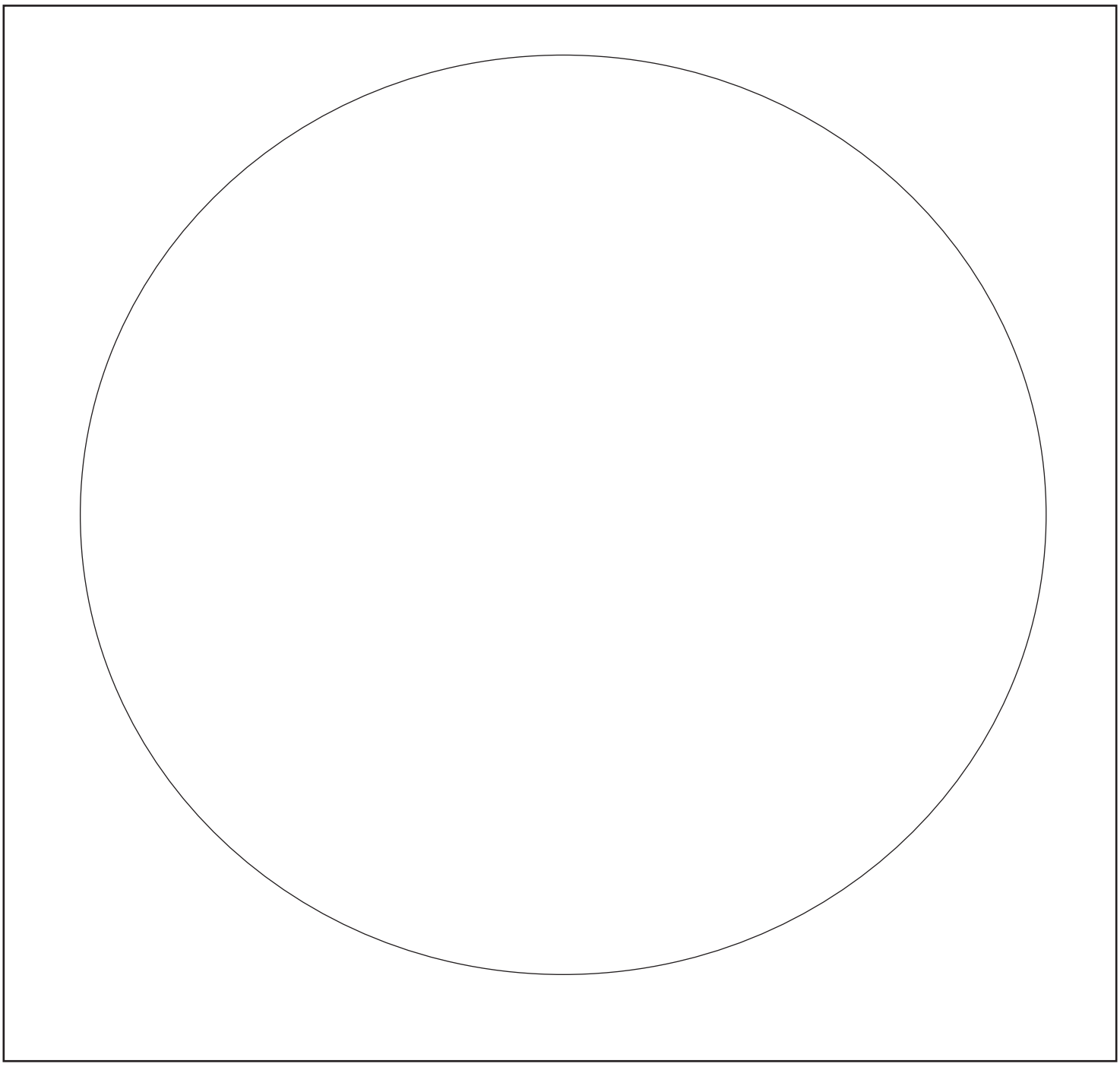
17. Statutory Nuisance Definition
18. Nuisance Maps - links to Nuisance chapter
19. Details of regulated processes
20. Collaborative pilot of Audits and Inspections toolkit in the West Midlands region
21. RCRH carbon footprint
22. NHS West Midlands report on excess winter deaths that benchmarks all WM PCTs against each other and the region - Ralph Smith and George Fowujah

Economic regeneration and health chapters referred to in John Middleton's introductory chapter

23. Good Corporate Citizenship Report - Shaukat Ali
24. Food Sector Study - Field and Blair
25. Community Agriculture Strategy - Laura Davies
26. Health Dividends and Good Corporate Citizenship - John Middleton reprint

Dental Health

27. Bridging the Gap The Role of Information in Improving Dental Access
28. Public Perceptions of Barriers - A review of the evidence



Detailed reports that make up Sandwell's Public Health Annual Report 2009/10 are contained on the attached CD.

If the CD is not attached, you can request a copy by telephoning 0845 155 0500. This document is also available for download on Sandwell Primary Care Trust's website at www.sandwell.nhs.uk and click on 'Publications'.

Responsibility for the opinions expressed in this report rest with the Editor, Dr John Middleton, Director of Public Health for Sandwell PCT. Any errors or points of clarification that need to be further addressed should be forwarded to him at john.middleton@sandwell-pct.nhs.uk

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