Health Inequalities, environmental determinants and fairness

1. Determinants of health:

Until relatively recently, much of the focus of the determinants of health was on the genetic predisposition and other individual level determinants (e.g. diet, smoking, alcohol etc.).

However, in recent years work such as that detailed in the Black Report\(^1\), amongst others, has resulted in a broader view of the determinants of health. These can be summarised in the widely used Dahlgren and Whitehead's Determinants of Health model\(^2\) which depicts the many layers affecting a person’s health:

![Dahlgren and Whitehead's Determinants of Health model](image)

Recent UK policy describes a partnership approach to health, between people and government, with the individual, communities and government all having responsibilities for safeguarding and promoting health. This suggests an acceptance that there is a wide range of influences on health other than the individual level.

The Environmental Health teams in Islington are concerned with raising the living and workings standards of the majority, to reduce stark and unfair differences in health and life expectancy.

The Environmental health profession is concerned with ‘upstream interventions’ which aim to prevent poor health and inequalities before they present as medical conditions in doctors surgeries.

The three Environmental Health teams in Islington deal with: poor housing conditions; environmental factors such as noise and air pollution; the safety and health of workplaces and the safety of and access to good quality nutritious food.

The regulations that Environmental Health Officers enforce directly impacts on the health of our local and wider communities, e.g. regulation of polluters, rented accommodation providers, workplaces, food businesses etc. Environmental Health Officers are key to tackling the wider determinants of health and reducing health inequalities.
2. There is scientific and epidemiological evidence for there being wider determinants of health (including environmental) including:

- The Government's Environmental Audit Committee reported that long term exposure to air pollution may be a contributory factor in the deaths of between 35,000 and 50,000 people each year in the UK.\(^3\)

- It is estimated that 4,267 deaths occur in London each year and the GLA produced a report detailing this and the estimated totals in each ward in the capital.\(^4\)

- The health effects of air pollution are well known causing and contributing to a wide range of respiratory and cardiovascular long term chronic and acute conditions. Recently the risk of sudden cardiac arrest arising from exposure to particulate matter (PM2.5) has been added to that list.\(^5\)

- Comparing a 2008 birth cohort exposed over their lifetimes to 2008 levels of anthropogenic fine particulate matter (PM2.5) with a birth cohort not exposed to anthropogenic PM2.5 at all over their lifetime (which represents the hypothetical removal of anthropogenic PM2.5) shows a loss in life expectancy of about 6 months per person. Adding similar calculations for other cohorts suggests a cumulative overall impact of between 18.2 and 32.4 million life-years lost for the current UK population.\(^6\)

- Defra–led research is looking at the impact of noise and health. Research published in July 2009 showed strong empirical evidence linking noise to heart attacks and other cardiovascular diseases. Evidence was also found between noise and other health effects including mental health, hypertension, development in children and hearing impairment.

- "Effects of Noise on Physical Health Risk in London" the report suggests that each year in London up to 108 heart attacks and nearly 500 cases of heart disease could be caused by prolonged exposure to high levels of road traffic noise. Page 1 of November 2008 Environmental Protection UK bulletin, attached.\(^8\)

- Environmental inequalities arise where specific communities, such as the most deprived, experience a poorer environmental quality. With air quality children (aged up to 14 years) & elderly people over 65 years are deemed more susceptible to the impacts of air pollution. There is evidence that a positive correlation exists between background air pollution and deprivation index in London.\(^9\)

- The relationship between housing and health is well documented with the following examples of how housing can impact on occupants health – damp, poor thermal efficiency and fuel poverty, poor home safety and accidents, and indoor air quality

- The CIEH recently announced that around one million privately let homes in England are so substandard they are dangerous.\(^11\)
Intervening in private sector housing conditions tackles local health inequalities such as winter deaths, bone fractures as a result of falls in the home and burns and scalds from fire. These local health inequalities are referenced in the Islington NHS document "closing the gap" Savings to NHS can be demonstrated using the HHSRS calculator. The diagram below depicts how tackling poor housing contributes to wider public health goals.

Source: Good Housing Leads To Good Health. BRE: 2008

3. The increasing profile of environmental factors on health are referenced in the following documents:

- The Marmot Review : Chapter 2 Health inequalities and the social determinants of health pages 79-81

- The February 2010, the Marmot Review Team published ‘Fair Society, Healthy Lives’ in which one of the six policy objectives was the need to strengthen the role and impact of ill-health prevention, as opposed to treating ill health once it has happened

- GLA health inequalities strategy page 34, 35 and 38.

- Healthy lives: Healthy People White Paper consultation which recognises the importance of housing, air quality, noise and working environments on health
The Institute for Environment, Sustainability & Regeneration (IESR) at Staffordshire University is developing a profile of work which addresses the interface between health, environment and social justice 16

A 2004 research review by the Sustainable Development Research Network on environment and social justice concluded that problems of environmental injustice affect many of the most deprived communities and socially excluded groups.

- Both poor local environmental quality and differential access to environmental goods and services have a detrimental effect on the quality of life experienced by members of those communities and groups.
- In some cases, not only are deprived and excluded communities disproportionately exposed to an environmental risk, they are also disproportionately vulnerable to its effects.

The core relationship between environmental justice and health inequalities is founded on the premise that where there is a "stacking up" of "environmental bads", combined with an absence of "environmental goods", ill health and reduced quality of life result, and that this is evidence of an "environmental injustice". Therefore, tackling health inequalities should take account of the co-incidence of poor health outcomes and poor environmental quality, and consider those local environments as part of the solution to the health problems 17

4. There is increasing expectation on local authorities to deliver public health improvements:

Anne Milton, the Public Health Minister says

"Ministers are looking for improved public health, with the health of the poorest improving fastest. We see local authorities continuing to contribute even more by raising our standards of health protection and health improvement while strengthening joint working with the NHS to ensure the highest standards of healthcare services for local people.

"The new public service is an exciting opportunity for England to turn round its public health performance and tackle deeply ingrained health inequalities.

5. Fairness and health:

In terms of fairness, the most vulnerable members of society are often the most adversely affected by poor environmental health; the young, the elderly and those who already suffer physical or mental health problems.

In terms of environmental pollution, social inequalities may be exacerbated as the most deprived areas are often located in close proximity to major transport axes, such as railway stations or depots, main roads, busy junctions, airports and flight paths. These areas are often at the highest risk from noise exposure as well as from air pollution 18."
Often the poorest and most vulnerable in our community tend to live in the poorest housing conditions which act to exacerbate poor health. This can also be exacerbated by the time spent in the home (i.e. if they have a long term illness or disability). There can be social exclusion issues arising from housing conditions (i.e. those living with damp may be reluctant to invite people to their homes etc) and related to this, poor mental health. By living in poor housing you are more susceptible to illness - lung and bronchial issues are associated with damp and cold weather deaths particularly affecting older people.

In terms of working environments, again it is those in the lower paid jobs that are most at risk of poor working environment and practices.

Finally, with regard to food safety and nutrition, men in Islington have much worse health outcomes than men in the rest of London and they experience the lowest life expectancy of all the London boroughs. Cardiovascular disease is the main contributor to the life expectancy gap between men in Islington and men in the rest of England (38% of premature deaths are caused by CVD) and diet is a major factor in this.

6. Local authorities can respond to the challenges and expectations placed upon them, by, for example:

Local authorities can respond to the challenges and expectations placed upon them to improve as far as possible local environmental conditions (the air we breathe & the noise we are exposed to); to improve local housing conditions; to improve workplace safety & promote healthy options and alternatives to the community.

The council can help promote existing services that assist vulnerable groups & susceptible individuals, such as airTEXT service & walkit service that help raise awareness of air pollution and help individuals reduce their personal exposure. The airTEXT service has been shown to be effective in empowering the lives and choices of those in our community living with respiratory & cardio vascular medical conditions.

Demonstrating the economic and health cost of bad housing and working to raise standards within the privately rented sector in Islington

Working with food businesses to seek improvements in standards of food safety and nutritional content of food, with the aim of reducing the number of people suffering from food poisoning and reducing the risk of diet related condition such as cardiovascular disease, in line with NICE guidance

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