

Inequalities in life expectancy in Barnet.

Introduction

In November 2016, members of the Health and Wellbeing Board noted an apparent increase in life expectancy inequality when reviewing a borough health profile produced by Public Health England. This paper provides a more detailed analysis and suggests that there has been no significant change. The drivers of health inequalities and actions to address them are also considered.

Nationally

Whilst there have been significant improvements in life expectancy, health inequalities between the most affluent and disadvantaged communities are longstanding, deep-seated and have proved difficult to change (National Audit Office, 2010).

Office of National Statistics (2015) analysis indicates that there has been little change in the level of inequality in England between the most and least deprived for both life expectancy and disability free life expectancy over the past two decades.

Locally

The 2016 Barnet Health Profile indicated that there is a life expectancies gap between deciles of the population defined by deprivation indices of 7.6 years for males and 5.6 years for females. These figures, based on a calculation of difference between deciles with the highest and lowest life expectancies, are subject to considerable random variation. A more robust analysis is provided by a 'slope index' calculation, as in figure 1 below, which provides a calculation of the range in years of life expectancy across the social gradient, eliminating the random variation around estimates for individual deciles.

Figure 1: Slope index of inequality in life expectancy at birth in Barnet (Male)

Period	Value	Lower CI	Upper CI
2010 - 12	8.0	6.6	9.4
2011 - 13	7.3	5.9	8.7
2012 - 14	7.3	6.0	8.7
2013 - 15	7.3	6.0	8.6

Source: <http://fingertips.phe.org.uk/profile/health-profiles/data#page/4/gid/1938132974/pat/6/par/E12000007/ati/102/are/E09000003/iid/92901/age/1/sex/1>

Figures calculated by Public Health England using mortality data and mid-year population estimates from the Office for National Statistics and Index of Multiple Deprivation 2015 (IMD 2015) scores from the Department for Communities and Local Government.

Figure 2: Slope index of inequality in life expectancy at birth in Barnet (Female)

Period	Value	Lower CI	Upper CI
2010 - 12	5.3	4.1	6.6
2011 - 13	5.4	4.2	6.7
2012 - 14	5.0	3.7	6.2
2013 - 15	5.0	3.7	6.2

Source: <http://fingertips.phe.org.uk/profile/health-profiles/data#page/4/gid/1938132974/pat/6/par/E12000007/ati/102/are/E09000003/iid/92901/age/1/sex/2>

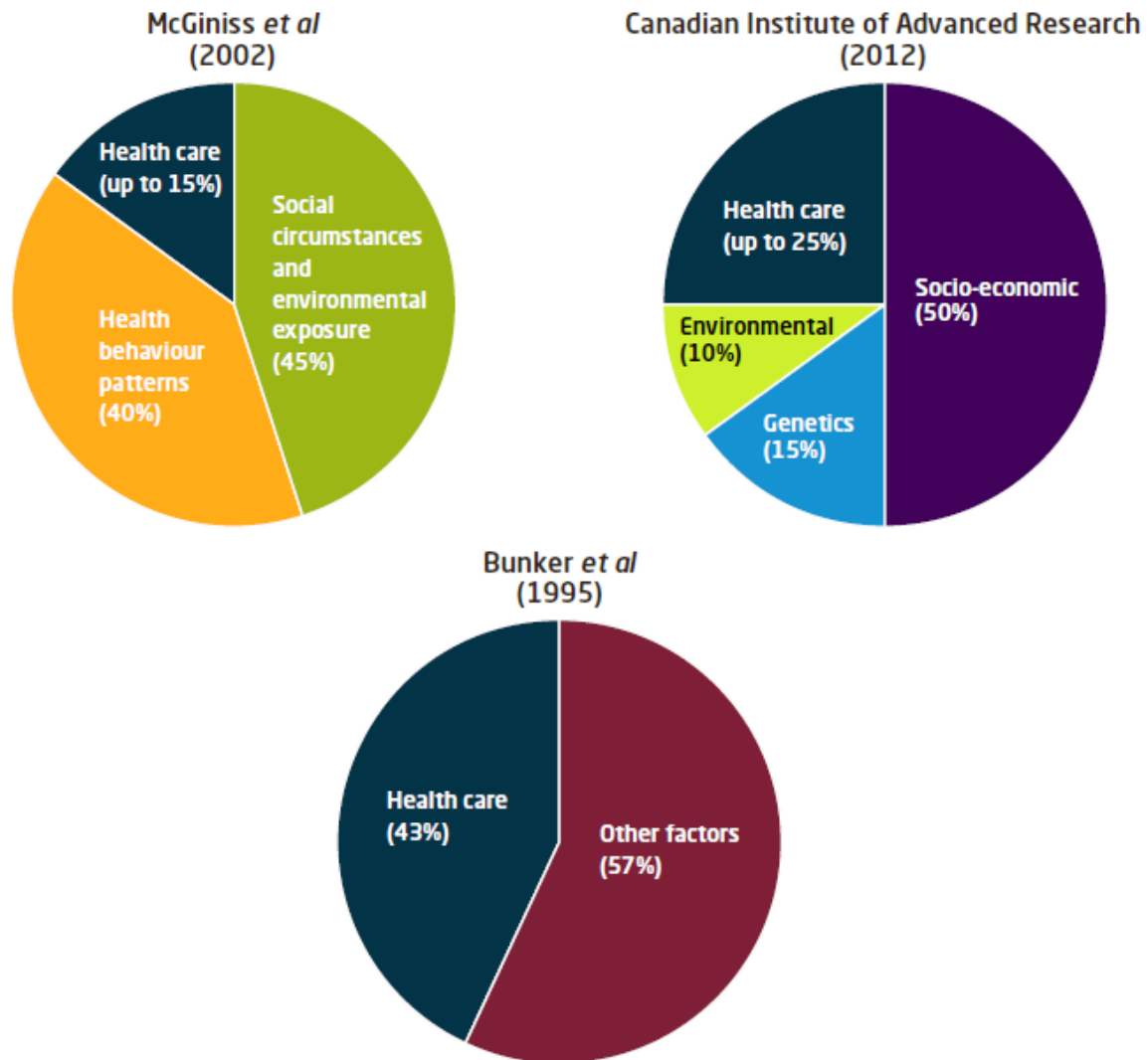
Figures calculated by Public Health England using mortality data and mid-year population estimates from the Office for National Statistics and Index of Multiple Deprivation 2015 (IMD 2015) scores from the Department for Communities and Local Government.

The figures indicate that the life expectancy gap is consistently higher for males than females. The figures do not show any clear trend given the degree of random variation described by the lower and upper confidence intervals. On this basis we would conclude that there is no clear evidence that life expectancy inequality is worsening in Barnet but consistent with the picture nationally, those inequalities are marked and persistent.

Causes of health inequalities

In order to understand health inequalities and the opportunities to address them further it is necessary to look at the factors that drive them. Estimates are summarised in figure 3 below.

Figure 3: Estimates of the relative contribution of different factors to our health



Source: [The King's Fund 2013](#)

There is no clear consensus as to the relative impact of different factors on health status but a wide variety of social, economic and cultural factors have been identified as summarised in figure 4 below.

The causes of health inequalities



Source: National Audit Office literature review

Given this diversity of influences, a wide variety of data is relevant in assessing the potential drivers of inequality in Barnet.

Causes of death

The segment tool (Public Health England, 2016) describes the life expectancy gap by cause of death. It summarises which conditions drive disparities in age specific mortality.

Figures 5 and 6 below shows a breakdown of the life expectancy gap between Barnet's most deprived and most affluent quintiles by cause of death for males and females.

Figure 5: Scarf chart of the life expectancy gap between Barnet's most and least deprived quintile by broad cause of death 2012-14 (males).

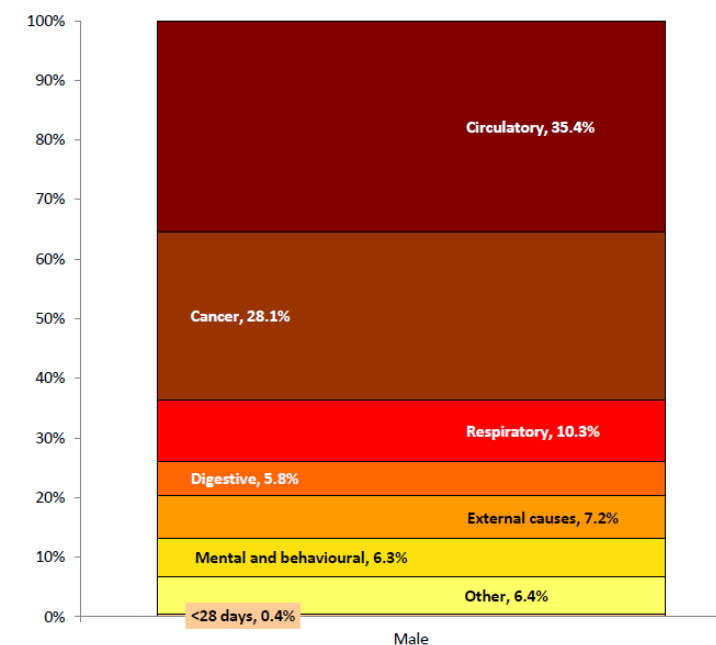
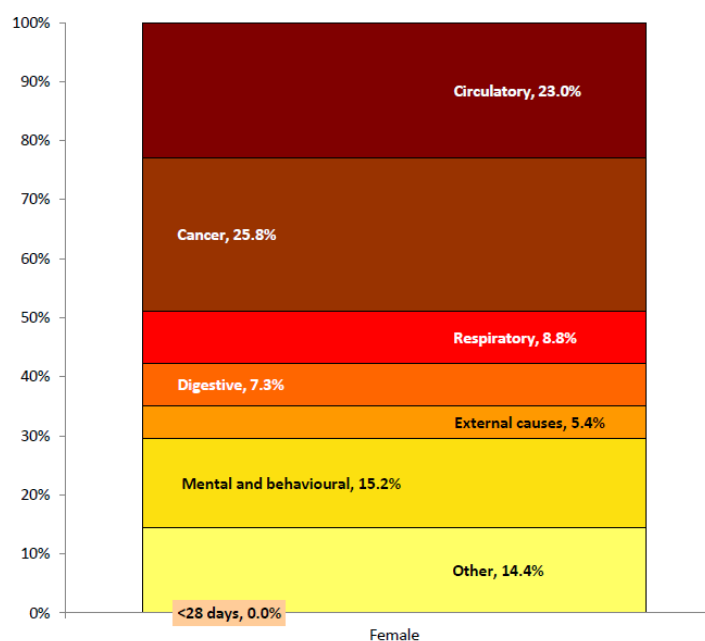


Figure 6: Scarf chart of the life expectancy gap between Barnet's most and least deprived quintile by broad cause of death 2012-14 (females).

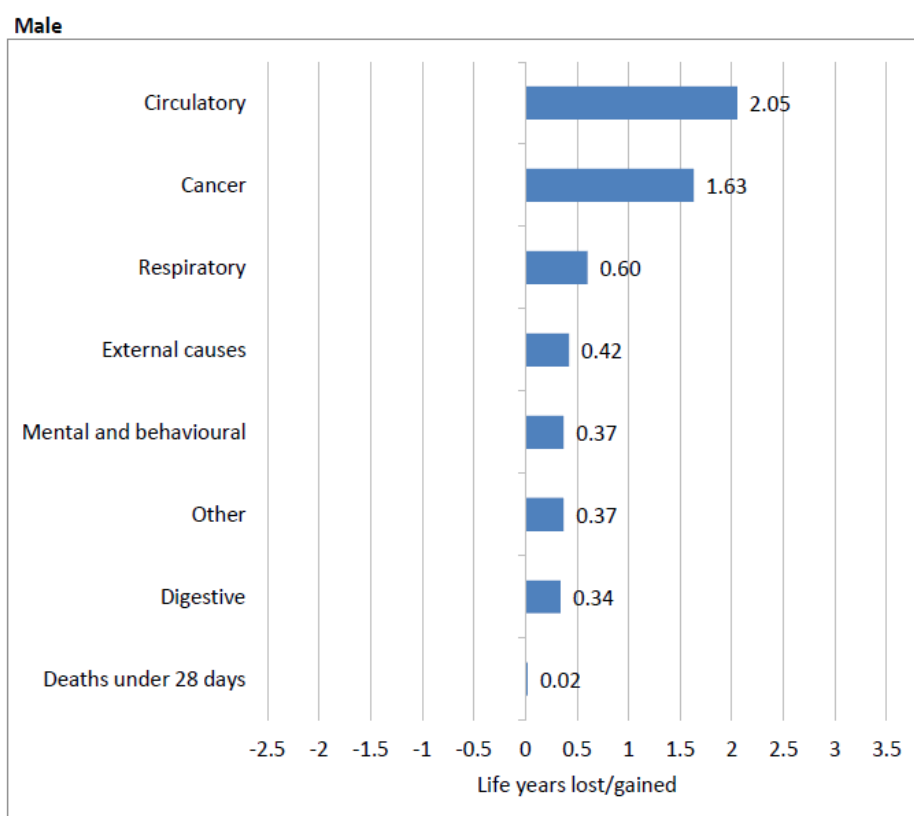


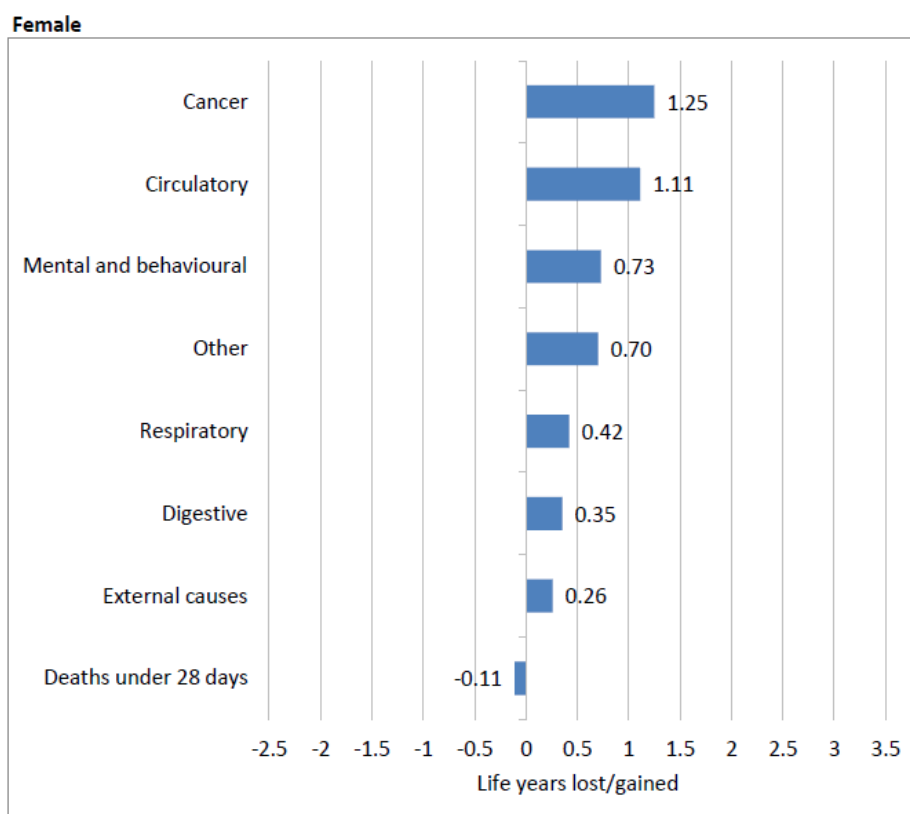
For both males and females, circulatory disease and cancer are the two biggest causes of death that contribute to the gap in life expectancy although for males the

circulatory causes account for a much larger percentage. Mental and behavioural causes account for a higher percentage of the life expectancy gap amongst women.

The figure below show the potential narrowing of the life expectancy gap that could be achieved by tackling this variation in cause of death by condition.

Figures 7: Bar charts showing life expectancy years gained or lost if Barnet's most deprived quintile had the same mortality rates as Barnet's most affluent quintile, by broad cause of death, 2012-2014





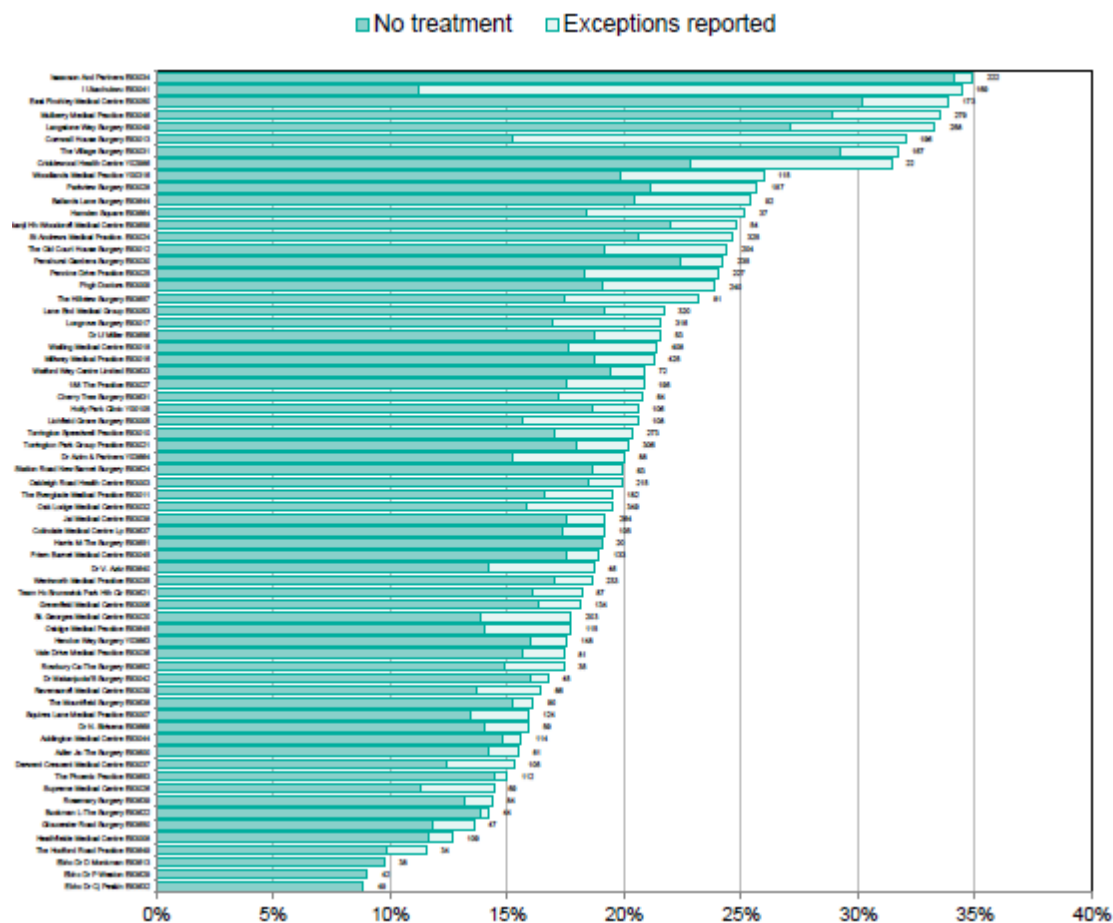
Prevention

The Department of Health (2007) estimated that around 15 to 20 per cent of inequalities in mortality rates can be directly influenced by health interventions which prevent or reduce the risk of ill health, representing thousands of people dying earlier than might otherwise be the case. It identified three key interventions (prescribing of blood pressure and cholesterol medication and smoking cessation) that provide cost-effective means of reducing the gap in life expectancy. Despite this, these remain areas where there is marked variation in practice.

Significant opportunities are available through tackling variation in primary care. Quality Improvement Support Teams (QISTs) are currently being developed and have the potential to deliver significant improvements.

The figure below provides an example of variation in a measure of hypertension management between Barnet practices.

Figure 8: Percentage of patients with hypertension whose last blood pressure reading (measured in the preceding 12 months) is not 150/90 mmHg or less by GP practice



Source: PHE (2016) Primary Care Intelligence Packs – CVD.

Whilst the individual practice detail is not clear at this scale, the figure does show a marked difference in the percentage of patients with managed hypertension between practices that is likely to be beyond anything that might be explained by different patient characteristics.

Lifestyle factors

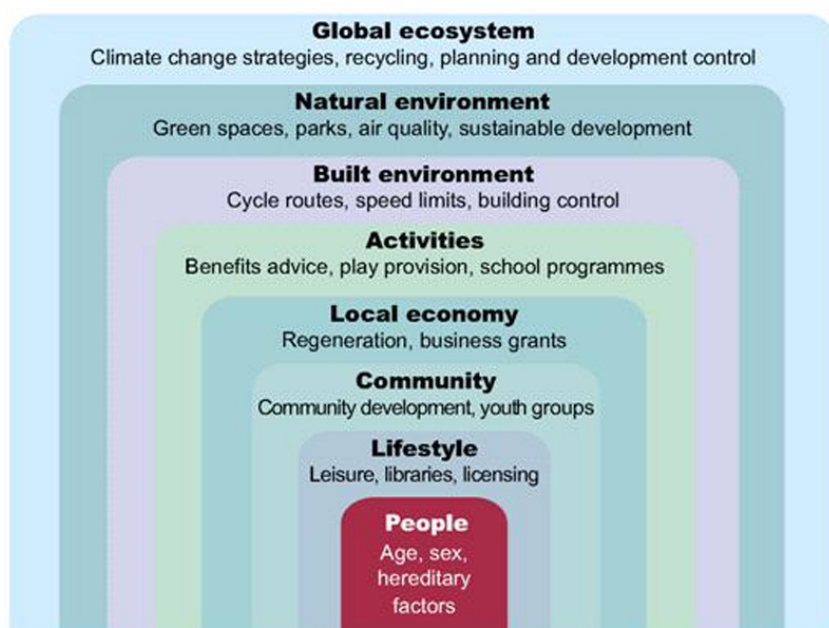
Kings fund analysis (2012) of the clustering of unhealthy behaviours over time found that the overall proportion of the population that engaged in three or four unhealthy behaviours declined significantly, from around 33 per cent of the population in 2003 to around 25 per cent by 2008. However, these reductions were seen mainly among those in higher socio-economic and educational groups. People with no

qualifications were more than five times as likely as those with higher education to engage in all four poor behaviours in 2008, compared with only three times as likely in 2003. These worsening disparities in health behaviours can only exacerbate health inequalities.

Those from a socioeconomically deprived background are more likely to be impacted by harmful drinking and alcohol dependence, and are also more likely to smoke and to be obese, all of which lead to associated negative health impacts. PHE (2013 and 2016) analysis has indicated that alcohol related deaths for the most deprived decile are 53% higher than amongst the most affluent decile of the population. 33% of women with no qualifications are obese, compared to 18% of women with a degree or equivalent level qualification. Action on Smoking and Health (2016) analysis found that 23% of those with an annual income of less than £10,000 are smokers, compared to 11% of those with an income of £40,000 or more

Wider determinants

A very wide range of social, economic and environmental factors impact on health outcomes and health inequalities as the following figure summarises.



PHE (2017) provides borough level analysis of a wide range of indicators. It shows that Barnet fairs very well when compared to both regional and national data with only a few exceptions. These include:

- Unemployment (8.4% as compared to 6.1% for London and 5.1% for England).
- Statutory homelessness: households in temporary accommodation (19.9/1000 and compared to 14.9/1000 for London and 3.1/1000 for England).
- Overcrowded households (10.2% as compared to 4.8% for England but 11.6% for London)
- Young people (aged 16-24) providing 20+ hours/week of unpaid care (1.4% compared 1.3% for England but 1.5% for London).

Public health is currently working with colleagues across the council and beyond on housing/homelessness, employment and carer support and particular attention will be given to ensure that the relationship between these issues and health inequalities are recognised along with opportunities for mitigation.

The Centre for Wellbeing (2016) analysis of inequality across the country indicates that Barnet is amongst the most equal areas, ranking 10th in the country, along with neighbouring boroughs – Enfield (1st) and Harrow (3rd).

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Jeffrey Lake, Public Health Consultant.

Louisa Pavli, Public Health Specialist.