Swindon Inequalities: Research Report

Swindon Health and Wellbeing Board

Swindon Borough Council

Contents

Executive Summary

An 8-page Summary Report accompanies this Research Report and summarises the findings and area for further consideration.

This report examines socio-economic inequality in Swindon with a primary focus on how this affects health and wellbeing outcomes. Health inequalities are differences between people or groups due to social, geographical, biological or other factors.

Inequalities do exist in Swindon and these differences have a huge impact, because they result in people who are worst off experiencing poorer health and shorter lives. Lifestyle, behaviour, access and uptake of health services also influence health inequalities, and in many cases are linked with the social determinants of health. This highlights the need to concentrate efforts in targeting interventions to reach those most in need. These interventions are not merely health based and need to address wider determinants of health such as income, education, housing and the environment.

The cost to the taxpayer of health inequalities in Swindon has been estimated at around half a billion pounds per year (£122-£130 million in productivity losses; £79-£126 million in lost taxes and higher welfare payments and £21 million additional NHS healthcare costs).

The main measures of deprivation within Swindon are the Indices of Deprivation 2015. The key findings arising from them are:

- Swindon is less deprived than the average Upper Tier Local Authority (UTLA)
- Overall, relative deprivation levels in Swindon have changed little since 2010.
- There are pockets of severe deprivation in Swindon.
- Swindon's relative deprivation is most severe in the education, skills and training domain.

Life expectancy at birth is often used as a measure of the health of a population and the gap in life expectancy as a key measure of health inequality. The gap in male life expectancy between the most and least deprived areas of Swindon has grown from 7.2 years in 2010-12 to 9.7 years in 2012-14 and is larger than the gap in female life expectancy which has shrunk from a peak of 6.5 years in 2004 06 to 4.0 years in 2012-14. Analysis shows that the biggest contributions to these gaps are cancers for males and respiratory conditions for females. Circulatory diseases make the second highest contribution for both males and females.

At a national level there are many examples of health inequalities across the spectrum of health and wellbeing, for example:

- Wider determinants of health such as road collisions,
- Health improvement measures such as childhood obesity
- Health protection issues such as incidence of TB
- Healthcare outcome metrics such as mortality from preventable diseases.

It is very likely that the same inequalities also exist in Swindon.

Inequality also leads to increased service usage. People from more deprived areas of Swindon attended A&E more often and were admitted in an emergency more often than those from less deprived areas. Around 3,000 A&E attendances (out of around 50,000) and 1,400 emergency admissions (out of around 22,000) could be avoided if rates in the most deprived 30% of Swindon were the same as the overall Swindon rate in 2015/16.

There are a number of key national inequalities publications with direct relevance for Swindon:

- The Marmot Review (2010) proposed an evidence based strategy to address the social determinants of health, the conditions in which people are born, grow, live, work and age and which can lead to health inequalities. It stated that reducing health inequalities will require action on six policy objectives:

    - Give every child the best start in life
    - Enable all children young people and adults to maximise their capabilities and have control over their lives
    - Create fair employment and good work for all
    - Ensure healthy standard of living for all
    - Create and develop healthy and sustainable places and communities
    - Strengthen the role and impact of ill health prevention

- The Social Mobility Index shed light on which are the best and worst places in England in terms of the opportunities young people from poorer backgrounds have to succeed. Overall, Swindon is ranked 141st out of 324 authorities (where 1 = the most socially mobile) but is ranked 324th and last on the proportion of young people eligible for Free School Meals (FSM) at age 15 who enter higher education by age 19.

- The Lancet paper on the Global Burden of Disease shows that known potentially preventable risk factors taken together explain 40% of ill health in England of which unhealthy diet and tobacco are the two largest contributors. The picture for the most deprived quintile of the South West population is slightly different. Tobacco, not dietary risks, is the leading cause of disease and alcohol and drug use makes a larger contribution than high blood pressure.

There has also been local research carried out in Swindon into several aspects of inequality, poverty, deprivation and social exclusion, for example:

- The Benefits Strategy and Welfare Reform (BS&WR) Group in Swindon has explored what effects debt and worklessness have on households in Swindon. One of its main discoveries was that working singles and working couples with moderate incomes are one of the key groups struggling financially.

- Household types who might be likely to experience loneliness have been identified and mapped to show high density clusters in Highworth, Rodbourne Cheney, Haydon Wick and Wroughton.

There is now a large and growing body of evidence around best practice to reduce inequalities and health inequalities, this includes:

- A local government briefing summarising the National Institute for Health and Care Excellence's (NICE) recommendations for local authorities and partner organisations on population health and health inequalities. These are organised into information gathering, tackling harmful behaviours and planning and commissioning services and are based on the best available evidence to help plan, deliver and evaluate successful programmes.

- A NICE guideline covering community engagement approaches to reduce health inequalities, ensure health and wellbeing initiatives are effective and help local authorities and health bodies meet their statutory obligations. It makes recommendations on a number of key aspects and includes information on implementation and evaluation.

- The Health Inequalities National Support Team (HINST) produced documents, guides and tools highlighting ways of improving outcomes, especially for patients and communities who often experience the poorest health and premature death.

- A joint regional workshop held by Public Health England (PHE) and NHS England (NHSE) encouraged Clinical Commissioning Groups (CCGs) to provide leadership to promote GP practices to do at least one thing to enhance the delivery of systematic care in order to address the vulnerabilities of people registered who have two or more risk factors likely to lead to exclusion from the full benefits of NHS care:

- Out of the Marmot Review came a series of papers for local authorities about action on the wider determinants of health. The papers include evidence, practical points and case studies on approaches and actions that can be taken by local authorities on a range of issues to reduce health inequalities. They bring together key evidence and expert advice to provide practical information that can be applied in local work to reduce health inequalities.

There are already a range of programmes and interventions in Swindon to reduce health inequalities, these are a mixture of targeted (e.g. health ambassadors and breastfeeding peer support) and universal (e.g. population level public health campaigns and the stop smoking service).

This report identifies a number of areas for further consideration which includes how to fully investigate, understand and continue to address the extent and causes of deprivation in parts of Swindon experiencing the most extreme deprivation. It also identifies education, skills and training, especially in relation to teenagers as a key area in relation to deprivation and inequality in Swindon.

Areas for further consideration

Continue to investigate, understand and address the extent and causes of deprivation in the Swindon LSOAs experiencing the most extreme deprivation (i.e. the eight LSOAs that are in the most deprived 10% nationally).

Continue to investigate, understand and address the extent and causes of deprivation in the Swindon LSOAs experiencing persistent deprivation (i.e. eight of the 10 most deprived LSOAs in 2007 were still in the 10 most deprived areas in 2015).

Continue to investigate, understand and address the extent and causes of education, skills and training deprivation in Swindon. On the ID 2015 this is the domain that Swindon's deprivation appears most severe on, especially the children and young people's indicators. Swindon is also picked out by the Social Mobility Index as weak for education for disadvantaged children and particularly low proportions of young people from deprived backgrounds going onto further or higher education.

The Penhill part of Penhill and Upper Stratton ward is arguably the most deprived part of Swindon and this is largely unchanged since 2007. If this is to change by the next version of the Indices it appears a transformative approach to the local area needs to be developed and implemented.

Further investigate why the life expectancy gap for males between the most and least deprived areas in Swindon is much larger than for females. Initial analyses suggest this could be connected to a recent rapid rise in life expectancy in the most affluent groups, possibly driven by very low infant mortality.

Investigate the specific reasons for health service usage being higher in more deprived communities and address them.

Use intelligence gathered on the Mosaic groups and types most likely to face different kinds of inequality (and exclusion and poverty) to design and implement local services.

Local authorities are uniquely placed to tackle health inequalities, as many of the social and economic determinants of health, and the services or activities which can make a difference, fall within their remit. They should use NICE guidance and other best practice to guide local work to tackle inequalities.

Consider how to evaluate current services and interventions in Swindon that are designed to reduce inequalities so that effectiveness and cost-effectiveness can be determined and compared.

Swindon Inequalities: Research Report

Introduction

Inequalities definitions and scope of this report

This report examines socio-economic inequality in Swindon with a primary focus on how this affects health and wellbeing outcomes. It does not attempt to describe racial, ethnic or gender inequality.

Health inequalities are differences between people or groups due to social, geographical, biological or other factors. Some differences, such as ethnicity, may be fixed. Others are caused by social or geographical factors and can be avoided or mitigated[1].

Economic inequality, also known as income inequality and wealth inequality, is the difference found in various measures of economic well-being among individuals in a group, among groups in a population, or among countries. Economists generally focus on economic disparity in three metrics: wealth, income, and consumption[2].

Social and natural resources are unevenly distributed in most societies and may contribute to social status. Norms of allocation can also affect the distribution of rights and privileges, social power, access to public goods such as education or the judicial system, adequate housing, transportation, credit and financial services such as banking and other social goods and services.

Importance of inequalities

Reducing health inequalities is a matter of fairness and social justice. People with higher socioeconomic position in society have a greater array of life chances and more opportunities to lead a flourishing life. They also have better health. The two are linked with the more favoured people are, socially and economically, the better their health. This link between social conditions and health is not a footnote to the 'real' concerns with health in terms of health care and unhealthy behaviours. It should become the main focus[3].

Inequalities do exist in Swindon and these differences have a huge impact, because they result in people who are worst off experiencing poorer health and shorter lives. Lifestyle, behaviour, access and uptake of health services also influence health inequalities, and in many cases are linked with the social determinants of health.

The social determinants of health are the conditions in which people are born, grow, live, work and age, including the health system. These circumstances are shaped by

[1] Health inequalities and population health, NICE local government briefings, LGB4: https://www.nice.org.uk/advice/lgb4/chapter/introduction
[2] https://en.wikipedia.org/wiki/Economic_inequality
[3] Fair Society, Healthy Lives. The Marmot Review: www.instituteofhealthequity.org/projects/fair-society-healthy-livesthe-marmot-review/fair-society-healthy-lives-full-report

the distribution of money, power and resources at global, national and local levels. The social determinants of health are mostly responsible for health inequities[4]. Local authorities are uniquely placed to tackle health inequalities, as many of the social and economic determinants of health, and the services or activities which can make a difference, fall within their remit. The challenge is to reduce the difference in mortality and morbidity rates between rich and poor and to increase the quality of life and sense of wellbeing of the whole local community. A range of local authority services can help reduce social inequalities and improve people's health and wellbeing, such as environmental health, planning, schools and transport.

Focusing solely on the most disadvantaged will not reduce health inequalities sufficiently. To reduce the steepness of the social gradient in health, actions must be universal, but with a scale and intensity that is proportionate to the level of disadvantage. This is called proportionate universalism[5].

The Government has recognised the importance of health inequalities in the Public Health Outcomes Framework. One of the two high-level outcomes to be achieved across the public health system and beyond is to reduce differences in life expectancy and healthy life expectancy between communities. This focuses attention on reducing health inequalities between people, communities and areas in society.

Aims of this report

Information gathering is vital for the joint strategic needs assessment and to help develop the health and wellbeing strategy. It provides a means for local authorities and their partners to allocate resources effectively to reduce variation in service access and uptake[6].

The main aims of the report are:

- To explain the main measures and sources of inequality data and intelligence both nationally and locally.
- To summarise what is known about inequalities for and within Swindon.
- To highlight local services and interventions that are in place to tackle inequality or that could potentially be introduced.
- To highlight the most important data gaps that impinge on the understanding and monitoring of inequalities in Swindon.

Acknowledgements

The data and intelligence in this report has been compiled with the assistance of the members of the Intelligence team at SBC and NHS Swindon CCG. The report has been reviewed and agreed by the JSNA Steering Group.

[4] World Health Organisation (WHO). Social determinants of health. http://www.who.int/social_determinants/en/

[5] Fair Society, Healthy Lives. The Marmot Review: www.instituteofhealthequity.org/projects/fair-society-healthy-livesthe-marmot-review/fair-society-healthy-lives-full-report

[6] Health inequalities and population health, NICE local government briefings, LGB4: https://www.nice.org.uk/advice/lgb4/chapter/introduction

Measuring inequality

Health is a multi-dimensional concept, and therefore there are many ways in which both health, and hence health inequality, can be measured. Using the correct measurement is important to ensure inequalities are identified and monitored.

Inequalities can be measured between groups of individuals defined by a shared characteristic or between populations in defined geographical areas such as local authorities or LSOAs. In either case usually a socio-economic classification will have been applied. This can be in the form of an index for an area (e.g. the IMD) or a single variable for an individual (e.g. socio-economic position based on occupation, income, education or housing).

There are also different choices of indicators to measure health and wellbeing. These can be from routine health data such as mortality or disease prevalence or data from surveys such as quality of life scores.

Using a measure of differences in life expectancy has significant advantages since the data is collected routinely, and the reported measure is meaningful to lay people and professionals alike. However as a measure this does not capture issues relating to quality of life or the prevalence of chronic ill health. Because a significant proportion of illness is linked with socio-economic disadvantage, the pattern of health inequality is remarkably consistent irrespective of the particular indicator/marker chosen.

Inequality can be expressed in relative or absolute terms. Absolute inequality reflects the magnitude of difference between two subgroups and retains the same unit of measure as the indicator. Relative inequality measures show proportional differences in health among subgroups. Often presenting inequalities using a combination of absolute and relative measures provides the most information.

The individual methods and measures uses to assess inequality are described in the relevant sections of the report.

Indices of Deprivation

Introduction

The government, through the Department for Communities and Local Government (DCLG), has produced a set of data to aid the assessment of relative levels of deprivation across England: 'The English Indices of Deprivation 2015' (ID 2015) were released on 30 September 2015 and update the indices previously presented in 2000, 2004, 2007 and 2010.

Domains and LSOAs

Lower Level Super Output Areas (LSOAs) contain around 1,500 people and are standard geographical units created and used by the Government and Office for National Statistics (ONS). There are about six LSOAs in each electoral ward in Swindon, however, LSOA boundaries are sometimes not the same as ward boundaries and some LSOAs overlap more than one ward.

The Indices provide scores and ranks for all 32,844 LSOAs in England for seven domains of deprivation and for a combined Index of Multiple Deprivation (IMD). The seven domains are: Income; Employment; Health Deprivation and Disability; Education, Skills and Training; Barriers to Housing and Services; Crime, and Living Environment. There are also two supplementary indices for income deprived children and older people. Each of these domains is based on a basket of indicators. As far as is possible, each indicator is based on data from the most recent time point available; in practice most indicators in the Indices of Deprivation 2015 relate to the tax year 2012/13.

The LSOAs are ranked with 1 being the most deprived and 32,844 being the least. In Swindon, the rankings go from 1 being the most deprived to 132 being the least deprived. For many analyses the LSOAs are categorised into deciles (10ths) or quintiles (5ths).

Measuring deprivation

The neighbourhood-level Indices provide an assessment of area level deprivation areas, but this description does not apply to every person living in those areas. Many non-deprived people live in deprived areas, and many deprived people live in non-deprived areas. Those areas that are not identified as deprived by the neighbourhood-level Indices are not necessarily affluent areas. It may also be the case that some highly deprived areas contain pockets of affluence; that is, an area might contain both deprived and affluent people. This is because the IMD is designed to identify aspects of deprivation, not affluence.

Relative and absolute change

Changes in deprivation levels over time are relative to other areas. For example, it would be valid to state that an area showed an increased level of deprivation, relative to other areas, if it was ranked within the most deprived 20% of areas nationally based on the 2010 Indices but ranked within the most deprived 10% according to the 2015 Indices. However, it would not necessarily be correct to state that the level of deprivation in the area had increased on some absolute scale, as it

may be the case that all areas had improved, but that this area had improved more slowly than other areas and so been 'overtaken' by those areas.

Similarly, the overall rank of an area may not have changed between the 2010 and 2015 Indices, but this does not mean that there have been no changes to the level of deprivation in the area. For example, in the situation where the absolute levels of deprivation in all areas were increasing or decreasing at the same rate, the ranks would show no change.

The Indices measure area deprivation but people can move areas between versions of the Indices. Therefore, the socio-economic status of individuals in an area may improve or worsen but if these people leave then the area deprivation may remain unchanged. Likewise individuals moving into a community can improve or worsen the area deprivation.

Uses

This report outlines the main results from the ID 2015, including the overall IMD 2015. The Indices can be used very widely for a variety of purposes, including:

- Identifying places for prioritising resources and targeting funding.
- Developing the evidence base for local strategies and service planning, including helping understand current need and model future demand for services.
- Helping assure the equality of access to local health and other services.
- As an analytical resource to support commissioning by local authorities and health services, and in exploring inequalities.
- Assessment of programme reach and impact e.g. to identify whether the most disadvantaged areas are receiving more support under various programmes than others; and assessment of the impact of programmes.

Simple guide

The following simple guide has been produced to assist users of the ID 2015 in Swindon. http://swindonjsna.co.uk/Files/Files/Simple_guide_to_IMD.png

Indices of Deprivation 2015 – summary

Main findings

- Swindon is less deprived than the average Upper Tier Local Authority (UTLA) and lies in the second least deprived quintile of these authorities.
- Overall, relative deprivation levels in Swindon have changed little since 2010. However, further analysis is required to explore changes in individual domains and at smaller geographical levels.

- There are pockets of deprivation in Swindon. Eight Swindon Local Super Output Areas (LSOAs) are in the most deprived 10% nationally (compared to nine in 2010).

- The most deprived LSOA in Swindon is Penhill north in Penhill and Upper Stratton ward. Please see Figure 1 for further details.

- Swindon's relative deprivation is most severe in the education, skills and training domain where it is 47th most deprived out of 152 UTLAs. The driver appears to be children and young people's indicators. Penhill central LSOA in Penhill and Upper Stratton ward ranks 33rd most deprived in England in this domain.

Swindon is less deprived than average

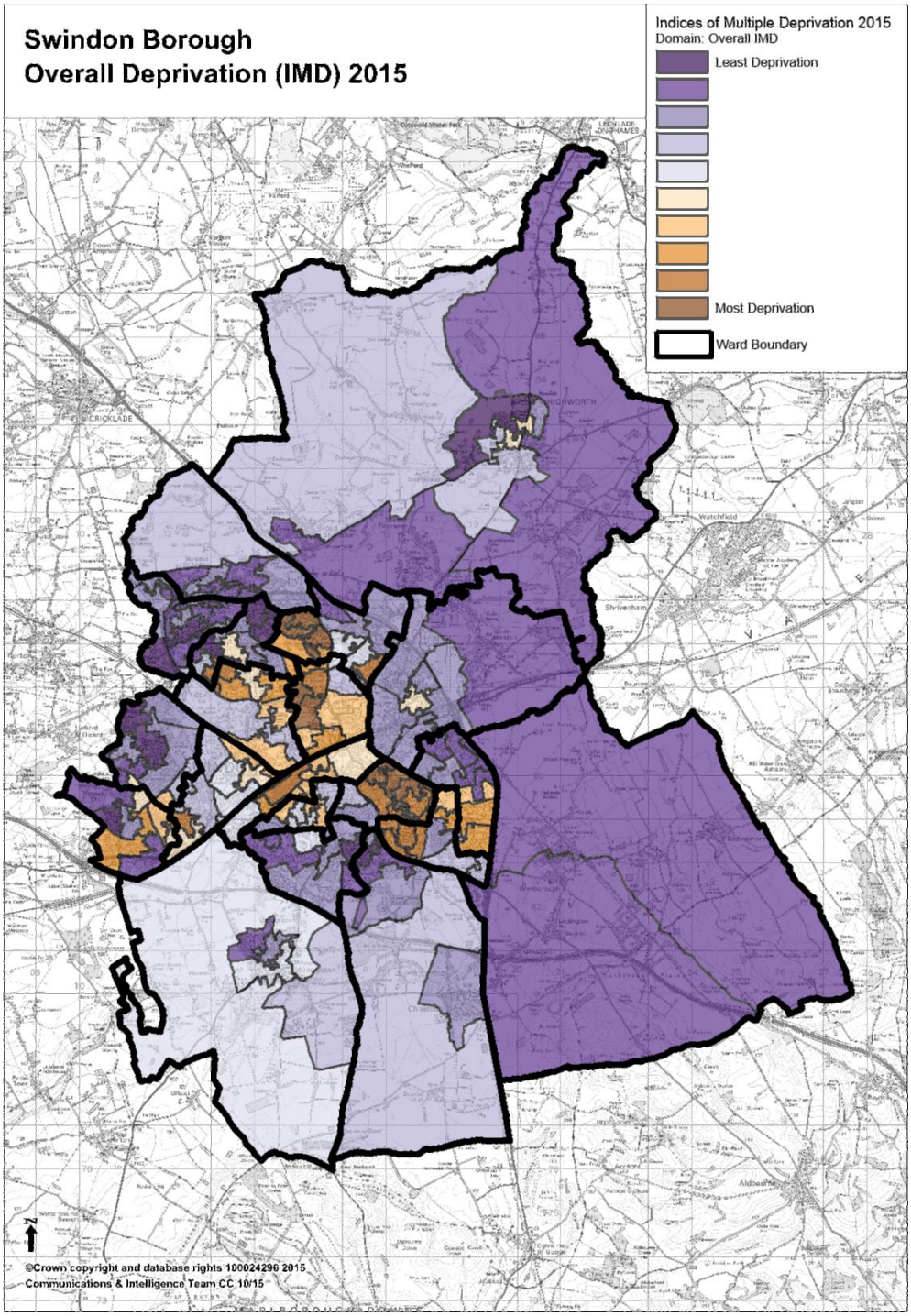
The key message to take from this dataset is that whilst pockets of deprivation do exist, on the whole Swindon is shown to be less deprived than the England average.

Using the average score summary measure, which is the most often quoted, Swindon is ranked as the 108th most deprived area out of 152 Upper Tier Local Authorities (UTLAs), i.e. there are 107 more deprived UTLAs and 44 less deprived. This places Swindon in the second least deprived quintile in England. The position is essentially unchanged from 2010, where Swindon was ranked 109th out of 149.

Swindon LSOA and Small Area Analysis

While Swindon is considered to be relatively prosperous, there are pockets of deprivation that are often hidden in official statistics. The ID 2015 goes some way in identifying where deprivation exists in Swindon and in measuring its severity.

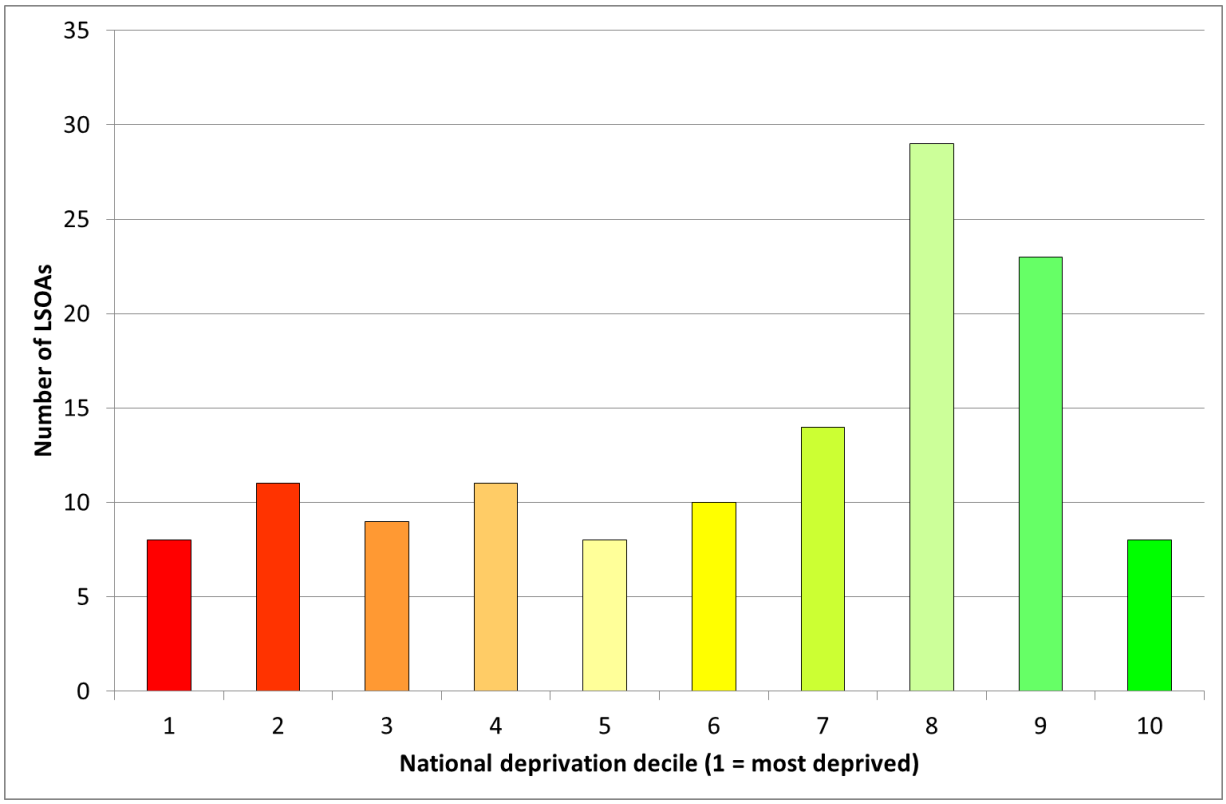
Figure 1: Swindon's LSOAs by national IMD decile 2015



Penhill north in Penhill and Upper Stratton remains the most deprived LSOA in Swindon. It is ranked as the 1,049th most deprived LSOA in England.

In 2015, there are eight Swindon LSOAs in the most deprived 10% nationally (compared to nine in 2010). Walcot East south west and Park South central LSOAs are no longer in the top 10% but Pinehurst south has entered the top 10%.

Figure 2: Swindon LSOAs by National Deprivation Decile, IMD 2015



Three of the Eight LSOAs in Swindon which are in the 10% most severely deprived LSOAs in England are found in Penhill and Upper Stratton ward, a further three are found in Walcot and Park North ward and the remaining two in Gorsehill and Pinehurst ward.

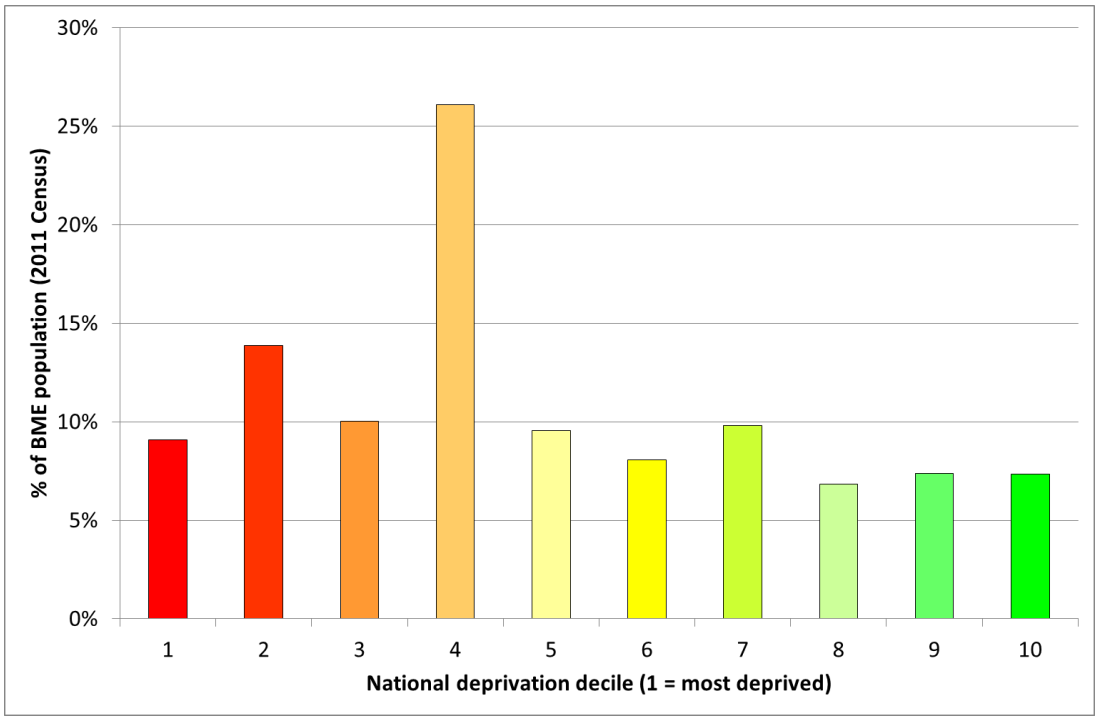
Swindon only had one LSOA (Greater Blunsdon in Blunsdon and Highworth ward) which is in the 10% most deprived nationally on the barriers to housing and services domain and one LSOA (Faringdon Road in Central ward) which is in the 10% most deprived nationally on the living environment domain.

Ethnicity

The IMD score was compared with the percentage of Black and Minority Ethnic (non-white) population for each Swindon LSOA. Figure 3 shows that overall there are slightly higher percentages of BME population in the more deprived decile and a large spike is apparent in the 4th most deprived decile. This decile contains three LSOAs from Central ward, which has the largest BME population in the borough. This does not mean that the BME population is more deprived at an individual level. It means that BME people are more likely to live in areas of higher deprivation. It also does not show that higher percentages of BME population in any way lead to areas having more relative deprivation. Research has suggested that income deprivation measures based on means-tested benefits may underestimate deprivation in neighbourhoods with large minority ethnic populations due to the low take-up of benefits among poor families in some ethnic groups[7].

[7] http://cresh.org.uk/2015/12/04/income-deprivation-and-ethnicity/

Figure 3: Distribution of BME population across IMD deciles in Swindon



Comparing the ID 2015 with previous ID versions

Area deprivation is a persistent phenomenon and many LSOAs remain relatively similarly deprived over long periods of time. 92.3% of LSOAs which were in the most 20% deprived areas of Swindon in 2010 were still there in 2015. There was more mobility in the other quintiles but overall 72.7% of LSOAs were in the same quintile as five years previous.

Indices of Deprivation 2015 - Domains and sub-domains

Income Domain

The Income Deprivation Domain measures the proportion of the population in an area experiencing deprivation relating to low income. In addition an Income Deprivation Affecting Children Index (IDACI) and an Income Deprivation Affecting Older People Index (IDAOPI) were created, respectively representing the proportion of children aged 0-15, and people aged 60 and over, living in income deprived households.

Penhill central in Penhill and Upper Stratton ward is the most deprived Swindon LSOA in the income deprivation domain. It ranks 817th in England and 39.7% of individuals in the area are considered income deprived. Eight LSOAs in Swindon are in the 10% most deprived LSOAs nationally on this domain.

Penhill central LSOA is also the most deprived in Swindon on the IDACI, it ranks 454th in England and 53.2% of children in the area are considered income deprived. Manchester Rd LSOA in Central ward is the most deprived in Swindon on the IDAOPI, it ranks 974th in England and 48.7% of older people in the area are considered income deprived.

Employment Domain

The Employment Deprivation Domain measures the proportion of the working age population in an area involuntarily excluded from the labour market.

Pinehurst West in Gorsehill and Pinehurst ward is the most deprived Swindon LSOA in the employment deprivation domain. It ranks 1,648th in England and 27.6% of individuals are considered employment deprived in this area. Eight LSOAs in Swindon are in the 10% most deprived LSOAs nationally on this domain.

Income and Employment deprivation

As may be expected there are more income and employment deprived people living in the most deprived areas of Swindon (according to the overall IMD). Table 1 quantifies this.

Table 1: The proportion of the population that are income or employment deprived, for all LSOAs in Swindon, grouped by their IMD rank

Ward	% of people who are income deprived	% of people who are employment deprived	% of children who are income deprived	% of older people who are income deprived
1% most deprived areas	37.5%	25.5%	51.8%	32.4%
5% most deprived areas	35.6%	25.6%	46.2%	34.5%
10% most deprived areas	31.5%	23.3%	40.8%	35.3%
20% most deprived areas	27.4%	20.5%	35.8%	30.8%
20%-40% areas	14.3%	11.2%	19.0%	19.0%
40%-60% areas	8.5%	7.7%	11.2%	9.9%
60%-80% areas	7.2%	6.1%	11.4%	8.7%
80%-100% (least deprived) areas	4.8%	4.4%	6.7%	7.9%
All areas in Swindon	12.5%	10.0%	17.2%	15.3%

Table 1 shows a similar picture to England overall but with a higher percentages income or employment deprived in the 20% most deprived areas overall. In Swindon, people living in the most deprived 5% of areas are more than seven times as likely to be income deprived as those in the least deprived 20% of areas. In the most deprived 1% of areas over 50% of children are income deprived.

Education, Skills and Training Domain

The Education, Skills and Training Domain measures the lack of attainment and skills in the local population.

Penhill central in Penhill and Upper Stratton ward is the most deprived Swindon LSOA in the education, skills and training domain. It ranks 33rd in England. 21 LSOAs in Swindon are in the 10% most deprived LSOAs nationally on this domain.

The education, skills and training domain is further broken down into adults and children and young people. 24 Swindon LSOAs are in the 10% most deprived LSOAs nationally for children and young people and 18 Swindon LSOAs for adults.

13 Swindon LSOAs are in the 10% most deprived LSOAs nationally for both sub-domains: four of these are in Penhill and Upper Stratton, three in Gorsehill and Pinehurst and three in Walcot and Park North, two in Liden, Eldene and Park South and one in Rodbourne Cheney.

On average, each year, 98.2% of under 21 year olds did not enter higher education in Penhill central LSOA in Penhill and Upper Stratton ward. This is the 20th highest in England (out of 32,844 LSOAs). This indicator measures those not starting a full-time, first degree in the data period and is not equivalent to the percentage not in higher education at any one time.

Health Deprivation and Disability Domain

This domain measures premature death and the impairment of quality of life by poor health. It considers both physical and mental health.

Walcot East south west in Walcot and Park North ward is the most deprived Swindon LSOA in the health and disability deprivation domain. It ranks 2,786th in England. Interestingly, overall on the IMD it is only the 12th most deprived LSOA in Swindon. Only two LSOAs in Swindon are in the 10% most deprived LSOAs nationally on this domain.

Crime Domain

Crime is an important feature of deprivation that has major effects on individuals and communities. The Crime Domain measures the risk of personal and material victimisation at local level.

Penhill north in Penhill and Upper Stratton ward is the most deprived Swindon LSOA in the crime domain. It ranks 294th in England. Fourteen LSOAs in Swindon are in the 10% most deprived LSOAs nationally on this domain, four of which are in Central ward, four in Gorsehill and Pinehurst and three in Penhill and Upper Stratton.

Barriers to Housing and Services Domain

This domain measures the physical and financial accessibility of housing and key local services. The indicators fall into two sub-domains: 'geographical barriers', which relate to the physical proximity of local services, and 'wider barriers' which includes issues relating to access to housing such as affordability.

Greater Blunsdon in Blunsdon and Highworth ward is the most deprived Swindon LSOA in the barriers to housing and services domain. It ranks 2,929th in England and is the only Swindon LSOA in the 10% most deprived LSOAs nationally on this domain.

Greater Blunsdon in Blunsdon and Highworth ward is also the most deprived Swindon LSOA in the geographical barriers sub-domain. It ranks 1,194th in England. Manchester Rd in Central ward is the most deprived Swindon LSOA in the wider barriers sub-domain. It ranks 6,840th in England.

Living Environment Domain

The Living Environment Domain measures the quality of the local environment. The indicators fall into two sub-domains. The 'indoors' living environment measures the

quality of housing; while the 'outdoors' living environment contains measures of air quality and road traffic accidents.

Faringdon Rd in Central ward is the most deprived Swindon LSOA in the living environment domain. It ranks 2,459th in England and is the only Swindon LSOA in the 10% most deprived LSOAs nationally on this domain. Faringdon Rd in Central ward is also the most deprived Swindon LSOA in the indoors sub-domain. It ranks 1,594th in England and along with Regent's Close (also in Central ward) are the only Swindon LSOA in the 10% most deprived LSOAs nationally on this sub-domain. Gorsehill east in Gorsehill and Pinehurst ward is the most deprived Swindon LSOA in the outdoors sub-domain. It ranks 5,257th in England.

Mannington south in Mannington and Western ward is the most deprived Swindon LSOA on the housing in poor condition indicator and ranks 866th nationally. A property fails the Decent Homes Standard if it fails to meet any one of four separate components. Eastleaze in Shaw ward is the most deprived Swindon LSOA on the houses without central heating indicator and ranks 783rd nationally.

Mosaic analysis

Mosaic is a geodemographic segmentation tool that categorises households into groups and types based on shared characteristics derived from multiple large datasets. The Mosaic data has been combined with the ID 2015 to explore how these datasets inter-relate.

Table 2: Mosaic composition of the most deprived IMD decile in Swindon

Mosaic group/type	Households in most deprived decile		Total Households		Ratio (most deprived decile : all Swindon)
	Number	%	Number	%	
E Suburban Stability	17	0%	10,097	11%	0.03
F Senior Security	27	0%	8,890	10%	0.05
H Aspiring Homemakers	69	1%	16,652	18%	0.07
J Rental Hubs	<5	0%	6,697	8%	0.00
K Modest Traditions	349	6%	6,451	7%	0.93
L Transient Renters	530	10%	8,029	9%	1.13
M Family Basics	2,166	40%	7,676	8%	4.83
M53 Budget Generations	255	5%	1,523	2%	2.87
M54 Childcare Squeeze	297	5%	1,826	2%	2.79
M55 Families with Needs	1,482	27%	2,581	3%	9.83
M56 Solid Economy	132	2%	1,746	2%	1.29
N Vintage Value	895	17%	6,810	7%	2.25
N57 Seasoned Survivors	213	4%	1,420	2%	2.57
N59 Pocket Pensions	41	1%	1,604	2%	0.44
N60 Dependent Greys	280	5%	1,622	2%	2.96
N61 Estate Veterans	361	7%	1,415	2%	4.37
O Municipal Challenge	1,355	25%	3,818	4%	6.08
O62 Low Income Workers	861	16%	1,970	2%	7.48
O63 Streetwise Singles	494	9%	1,688	2%	5.01
Total	5,410	100%	92,649*	100%	1.00

Note: Total households includes Groups and Types not shown in this table.

The ratio in Table 2 shows how many more households there are in IMD deprivation decile 1 than if the Mosaic Groups and Types were evenly distributed. E.g. there are 4.83 times as many M – Family Basics households as expected and 6.08 times as many O – Municipal Challenge as expected. This information can provide a deeper understanding of the characteristics of people and households in deprived areas.

The analysis also shows that there are many households in non-deprived areas that fall into one of the Mosaic categories normally associated with deprivation. For example there are 435 households in N – Transient Renters and 101 in M – Family Basics in the least deprived quintile on the IMD in Swindon. It is important these households, that probably contained deprived people, are not overlooked simply because of the affluence of the area they are in.

An average IMD decile can be calculated for Swindon households in each Mosaic Group and Type. This highlights Mosaic Types that are significantly more or less deprived than the overall Group they belong. For example, the following Types appear less deprived than their overall Groups:

H34 – Contemporary Starts v H – Aspiring Homemakers
I39 - Ageing Access v I – Urban Cohesion
L52 – Midlife Stopgap v Transient Renters
N58 – Aided Elderly v Vintage Value

However, the following Types appear more deprived than their overall Groups:

H33 – New Foundations v H – Aspiring Homemakers
I38 – Asian Heritage v I – Urban Cohesion
M55 – Families with Needs v M – Family Basics

The distribution of Mosaic Groups and Types also varies over the different deprivation domains. In Table 3 this is shown by splitting up the Mosaic Groups into 3 categories which can broadly be considered as more deprived (L to O), less deprived (A to F) and averagely deprived (G to K).

Table 3: Percentage of households in most deprived decile by ID 2015 domain

ID 2015 Domain	Mosaic Groups		
	A to F	G to K	L to O
IMD	1%	8%	91%
Income	0%	6%	94%
Employment	1%	6%	93%
Education, Training and Skills	5%	15%	79%
Health and Disability	0%	6%	94%
Crime	2%	36%	61%
Barriers to Housing and Services	68%	28%	4%
Living Environment	0%	32%	68%
Income Deprivation Affecting Children	0%	6%	94%
Income Deprivation Affecting Older People	1%	30%	69%

This shows the diversity of factors that make up a deprived area. The majority of deprivation on the Barriers to Housing and Services affects households that according to Mosaic would not be considered very deprived overall. Similarly, Table 3 also shows that Crime, Education and Living Environment deprivation are all found in abundance in households considered averagely deprived on the Mosaic scale and that income deprivation is dispersed for older people but not for children or overall.

Resources

Swindon JSNA website – Indices of Deprivation

The Swindon Joint Strategic Needs Assessment (JSNA) website has a section dedicated to the Indices of Deprivation: http://swindonjsna.co.uk/dna/ID. The website will host data, reports and guidance about the ID 2015.

Apps and externally produced resources

Oxford Consultants for Social Inclusion (OCSI) have created a blog to highlight Indices of Deprivation resources and 'related delights'. It is a free resource for any users and aficionados of the Indices of Deprivation and brings together in one place case studies and examples of how the Indices have been used: http://indicesofdeprivation.co.uk/

Postcodes: the following tool can be used to obtain deprivation data for a list of postcodes: http://imd-by-postcode.opendatacommunities.org. The output file lists the postcodes entered, the LSOA that each postcode falls within, and the deprivation data for that LSOA. To download a list of postcodes and deprivation data for all neighbourhoods within a specific local authority district or county select a local authority or county and the output file will list all the postcodes within the selected area, the LSOA that each postcode falls within, and the deprivation data for those LSOAs.

Overall measures of inequality

Life expectancy at birth is often used as a measure of the health of a population. It is calculated as the average number of years a new-born baby might be expected to live based on current trends. Life expectancy in England has increased over the last century and this general trend is continuing as health services and the wider determinants of health generally improve. This pattern is also reflected in Swindon.

Healthcare services contribute to an estimated third of the improvement in the population's life expectancy. The remaining two-thirds has been attributed to public health activities aimed at changing people's lifestyle behaviours and tackling health inequalities[8]. As average life expectancy has increased, thanks largely to advances in public health activities aimed at improving people's health, so the demands on services that deal with the chronic diseases of old age have also increased. (These diseases include, for example, dementia, diabetes and arthritis.) Lifestyle choices are also leading to a rise in the incidence of diseases that are linked to the way we live. For example, as rates of obesity and alcohol consumption have increased, there has been a corresponding rise in the incidence of arthritis, diabetes and chronic liver disease, in particular, among those who are the most disadvantaged[9].

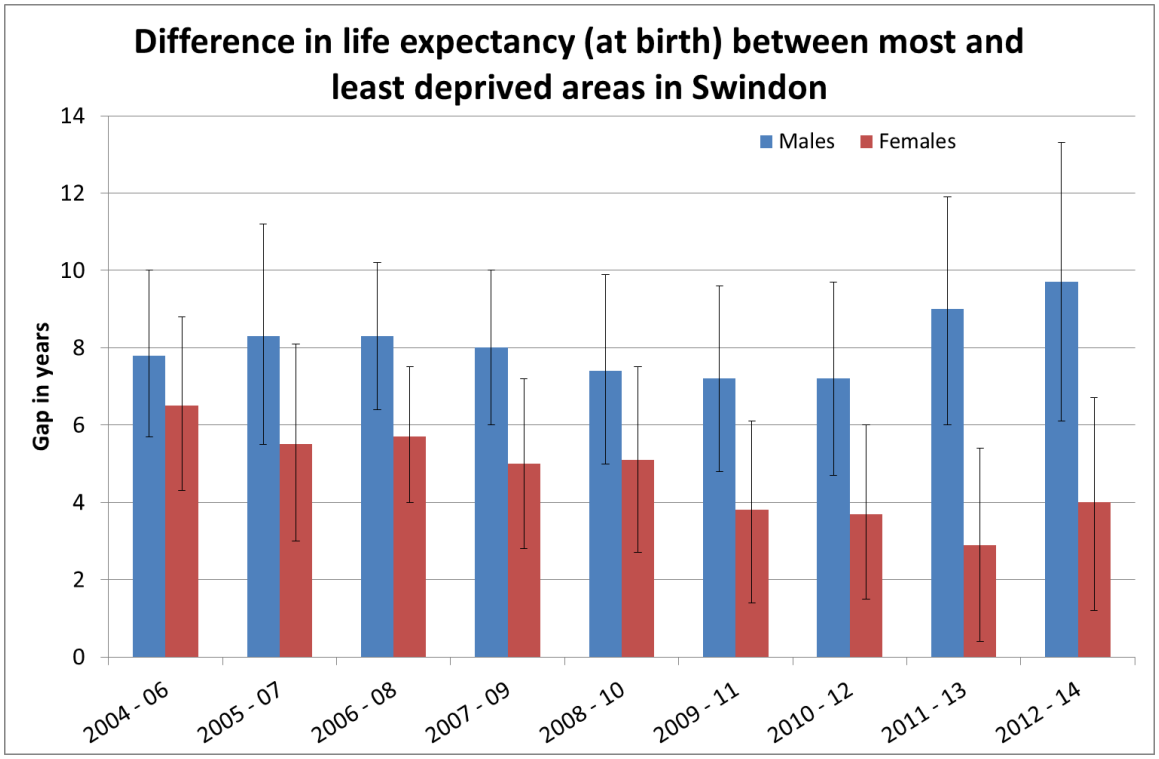
The Slope Index of Inequality (SII) in Life Expectancy at birth

The SII gap summarises the social inequality in life expectancy. It is a single score representing the gap in life expectancy between the most deprived 10% and the least deprived 10% of the Swindon population. SII scores are aggregated into rolling 3 year time periods and published on the Public Health Outcomes Framework website (www.phoutcomes.info); the latest figures cover the period 2012-14.

SII score is obtained from an analysis of the relationship between life expectancy (at birth) and deprivation score (2010 Index of Multiple Deprivation) within the borough. Confidence intervals are used to show the degree of uncertainty resulting from the calculations. Public Health England (PHE) intend to update these statistics using deprivation data from the 2015 Index of Multiple Deprivation.

[8] Healthy Lives: healthy people: Our strategy for public health in England 2011
[9] Health inequalities and population health, NICE local government briefings, LGB4: https://www.nice.org.uk/advice/lgb4/chapter/introduction

Figure 4: Gap in life expectancy in Swindon



England Values: The England SII value itself is not a valid comparator with local authority areas, as England's overall range of deprivation is likely to be larger than the individual areas that constitute it. The median value of local authorities could be used as a comparator but the Public Health Outcomes Framework does not currently seek to compare in this manner. If calculated the median value should not be regarded at the SII value for England.

Figure 5 and Figure 6 therefore compare Swindon to other authorities in the South West.

Figure 5: Slope index of inequality (SII) in life expectancy, male, 2012-14

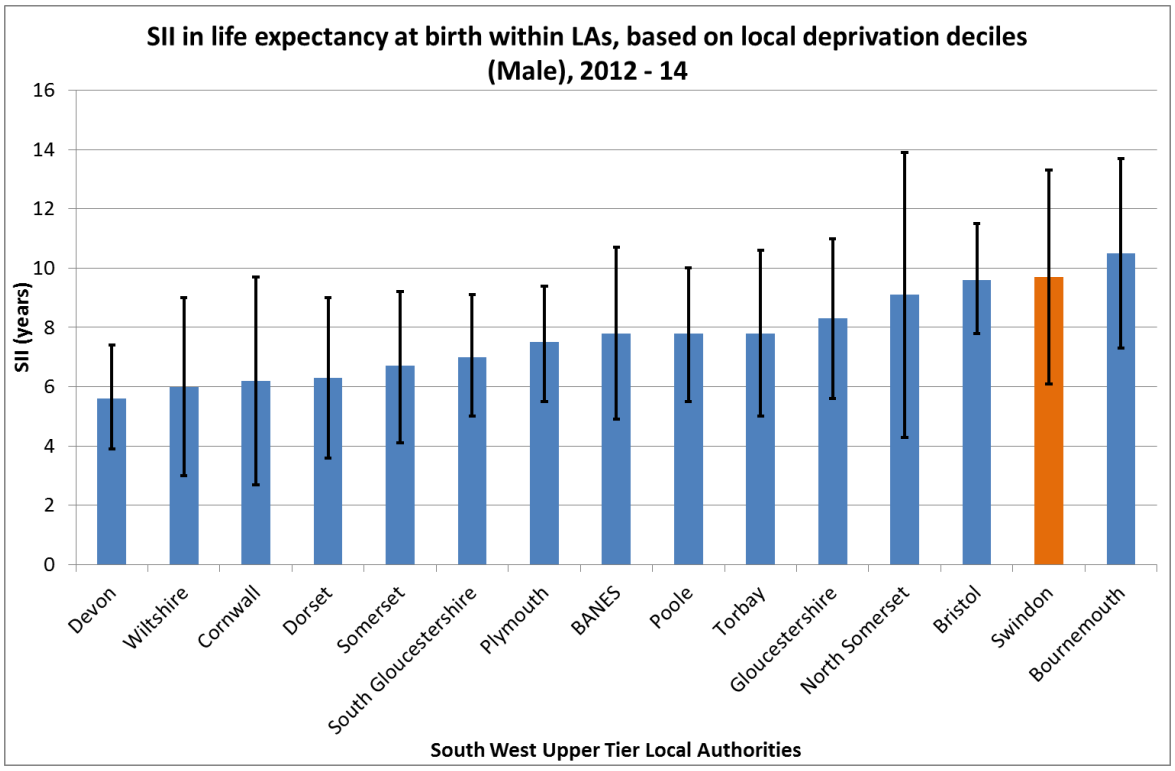
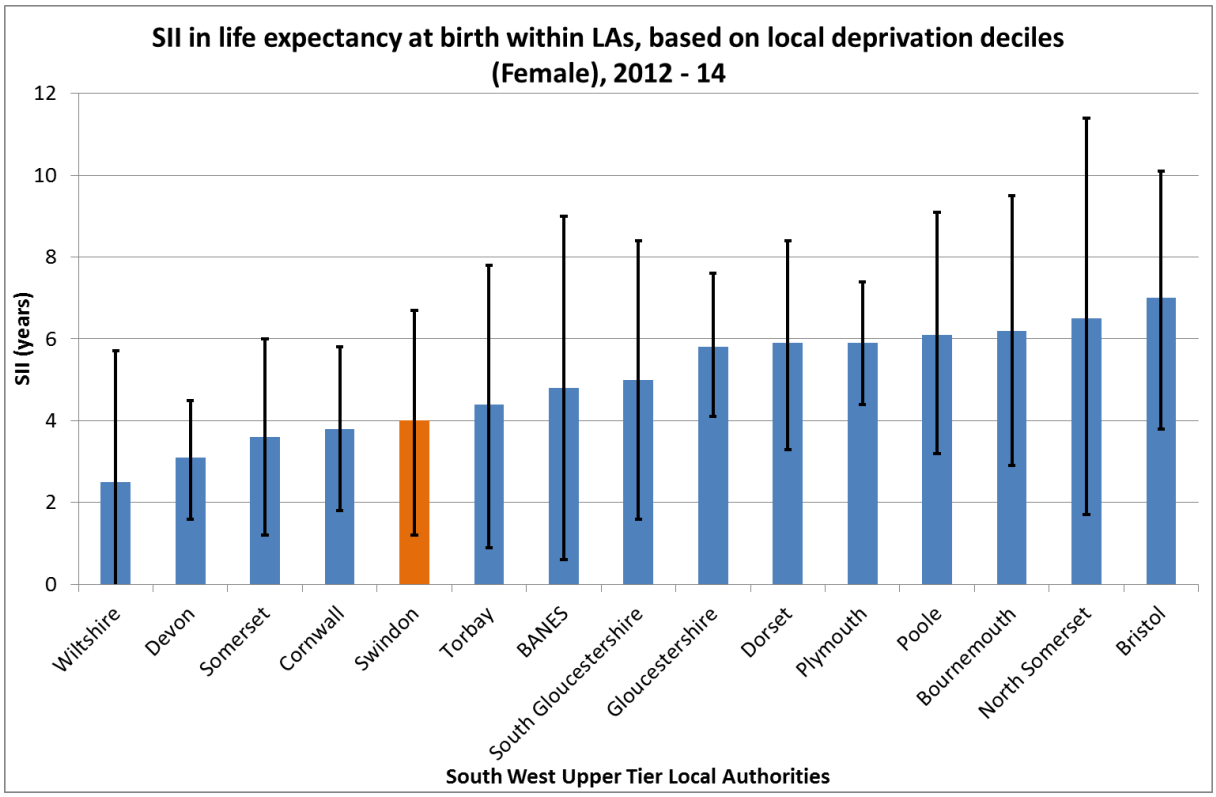


Figure 6: Slope index of inequality (SII) in life expectancy, female, 2012-14



The gap in male life expectancy between the most and least deprived areas of Swindon has grown from 7.2 years in 2010-12 to 9.7 years in 2012-14 and is now the second largest gap in the South West. In contrast, the gap in female life expectancy has shrunk from a peak of 6.5 years in 2004-06 to 2.9 years in 2011-13

and 4.0 years in the latest data for 2012-14. This places Swindon in the third of authorities with the smallest gaps in the South West.

Investigations into the large and growing gap in male life expectancy are ongoing but initial findings point to a sudden increase in life expectancy in the least deprived decile as the biggest contributor to the change, possibly driven by very low infant mortality. However, the reasons for such a quick rise are not clear and the effects of natural or random variation in mortality figures are hard to quantify precisely or rule out.

Causes of inequality in life expectancy

PHE have developed a tool that provides information on life expectancy and the causes of death that are driving inequalities in life expectancy at national, regional and local area levels. This is important because targeting the causes of death which contribute most to the life expectancy gap should have the biggest impact on reducing inequalities.

The tool calculates the contribution of different causes of death to the life expectancy gap between the least and the most deprived quintiles of Swindon's population which is shown in Table 4 and Figure 7.

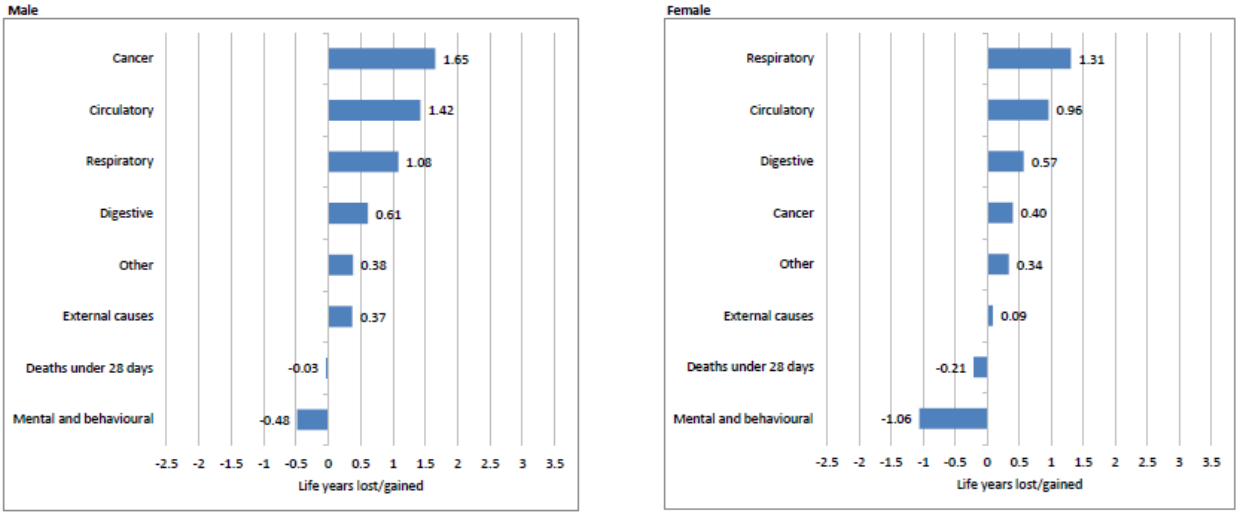
Table 4: Breakdown of the life expectancy gap between Swindon most deprived quintile and Swindon least deprived quintile, by broad cause of death, 2012-2014[10]

Males				
Broad cause of death	**Number of deaths in most deprived quintile**	**Number of excess deaths in most deprived quintile**	**Number of years of life gained/lost***	**Contribution to the gap (%)**
Circulatory	184	62	1.42	25.8
Cancer	199	80	1.65	30.0
Respiratory	122	62	1.08	19.7
Digestive	44	28	0.61	11.0
External causes	42	18	0.37	6.7
Mental and behavioural	19	-51	-0.48	..
Other	62	8	0.38	6.9
Deaths under 28 days	2	-1	-0.03	..
Total	**673**			**100**
Females				
Broad cause of death	**Number of deaths in most deprived quintile**	**Number of excess deaths in most deprived quintile**	**Number of years of life gained/lost***	**Contribution to the gap (%)**
Circulatory	164	35	0.96	26.2
Cancer	154	19	0.40	11.0
Respiratory	105	55	1.31	35.7
Digestive	51	24	0.57	15.5
External causes	15	-1	0.09	2.5
Mental and behavioural	32	-76	-1.06	..
Other	63	2	0.34	9.1
Deaths under 28 days	1	-3	-0.21	..
Total	**585**			**100.0**

Notes:
* A positive figure indicates that life expectancy years would be gained if the most deprived quintile of the local authority had the same mortality rate as the least deprived quintile (i.e. the mortality rate in the most deprived quintile for the cause is higher than that of the least deprived quintile). A negative figure indicates that life expectancy years would be lost if the most deprived quintile in the local authority had the same mortality as the least deprived.
.. The calculated contribution to the gap is negative

[10] PHE Segment tool: http://fingertips.phe.org.uk/profile/segment

Figure 7: Life expectancy years gained or lost if Swindon most deprived quintile had the same mortality rates as Swindon least deprived quintile, by broad cause of death, 2012-2014[11]



Footnote: Circulatory diseases includes coronary heart disease and stroke. Respiratory diseases includes flu, pneumonia and chronic obstructive airways disease. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide. Mental and behavioural includes dementia and Alzheimer's disease.

Analysis by Public Health England Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2015

Analysis calculating the life expectancy years gained or lost if Swindon most deprived quintile had the same mortality rates (2012-14) as Swindon least deprived quintile show that cancers would make the biggest contribution for males (1.65 years gained) and respiratory conditions for females (1.31 years). Circulatory diseases make the second highest contribution for both males and females. Deaths due to mental and behavioural causes are higher in the least deprived quintile than the most deprived quintile.

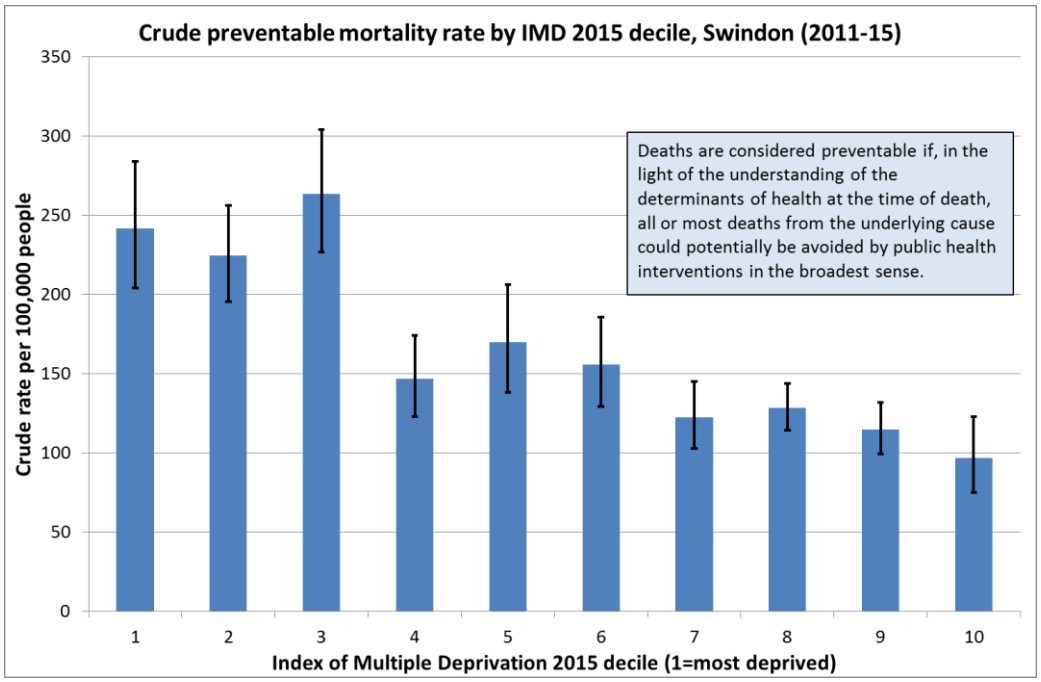
If Swindon's most deprived quintile had the same mortality rates (2012-14) as Swindon least deprived quintile for alcohol specific deaths 0.16 life expectancy years would be gained by males and 0.20 by females.

An important concept in reducing the life expectancy gap is preventable mortality. The basic concept of preventable mortality is that deaths are considered preventable if, in the light of the understanding of the determinants of health at the time of death, all or most deaths from the underlying cause (subject to age limits if appropriate) could potentially be avoided by public health interventions in the broadest sense. Preventable mortality overlaps with, but is not the same as 'amenable' mortality, which includes causes of deaths which could potentially be avoided through good quality healthcare.

Analysis of mortality data for Swindon from 2011 to 2015 suggests there were around 1,600 deaths that could be considered preventable out of a total of around 8,000. However, these were not equally distributed between deprived and non-deprived areas as Figure 8 shows. The preventable mortality rate in the 30% most deprived areas was over twice that in the least deprived 40%, a statistically significant difference.

[11] PHE Segment tool: http://fingertips.phe.org.uk/profile/segment

Figure 8: Distribution of preventable mortality by deprivation



Costs of inequality

Poor health affects the economy and local services. The Marmot Review[12] calculated that every year health inequalities cost the taxpayer in England:

- Productivity losses of £31-33 billion
- Lost taxes and higher welfare payments in the range of £20-32 billion
- Additional NHS healthcare costs well in excess of £5.5 billion

Every year health inequalities cost the taxpayer in Swindon*:

- Productivity losses of £122-130 million
- Lost taxes and higher welfare payments in the range of £79-126 million
- Additional NHS healthcare costs well in excess of £21 million

*Pro rata for Swindon's population (2010)

Taking specific measures would also save money, for example, tackling tobacco use alone would save local services millions a year. For example:

- £160 million in a city such as Liverpool, where there are high levels of deprivation and inequality
- £61 million in a deprived London borough such as Newham
- £24 million in a less deprived local authority such as South Oxfordshire District Council

[12] Fair Society, Healthy Lives. The Marmot Review: www.instituteofhealthequity.org/projects/fair-society-healthy-livesthe-marmot-review/fair-society-healthy-lives-full-report

Specific measures of inequality

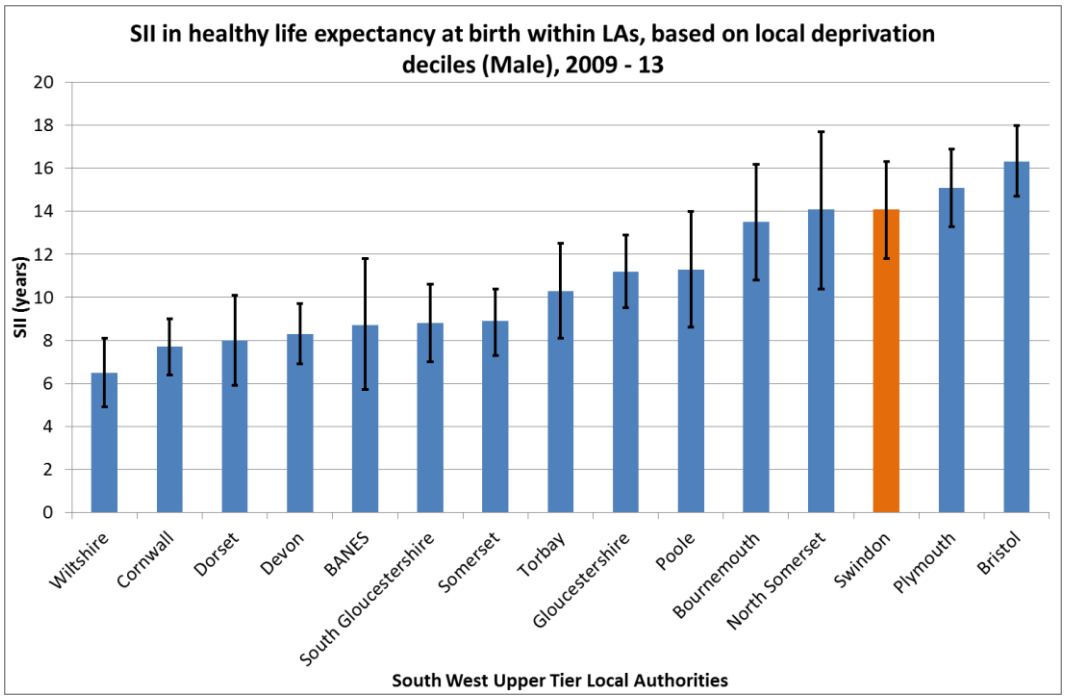
The lifestyle factors which influence health inequalities are sometimes referred to as the "proximate" causes of health inequalities, because they are the immediate precursors of disease, as opposed to the 'distal', 'upstream' or 'wider determinants', such as poverty, housing or education. They include; smoking, alcohol consumption, physical activity etc.

Gap in Healthy Life Expectancy

Healthy life expectancy is a measure of the average number of years a person would expect to live in good health based on contemporary mortality rates and prevalence of self-reported good health.

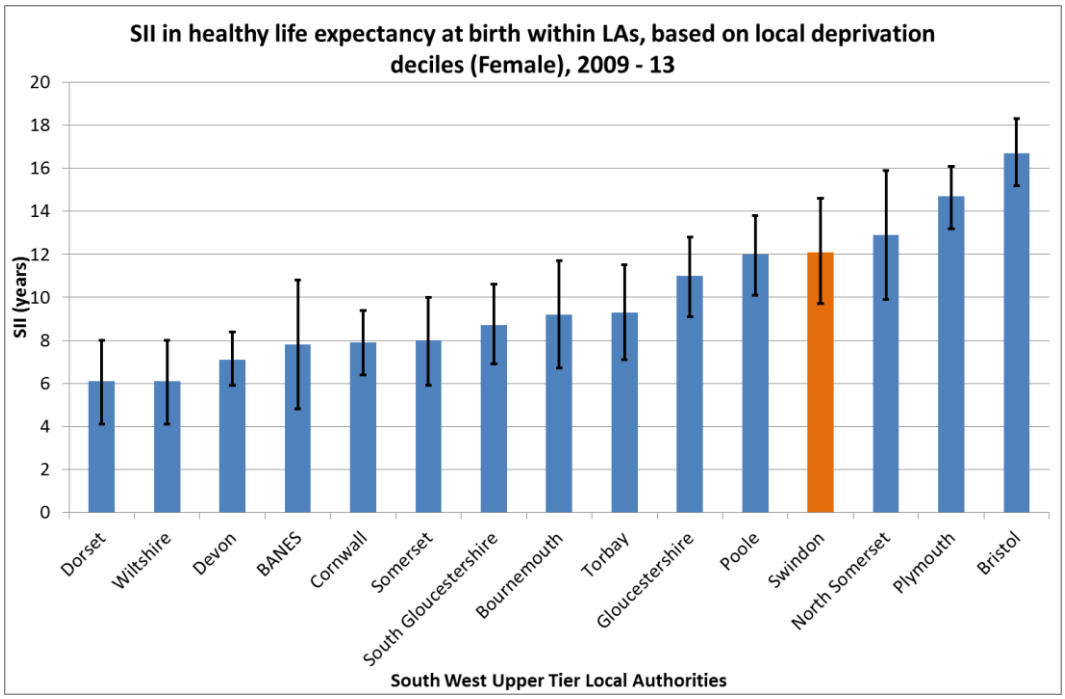
The PHOF contains an indicator showing the socio-economic gap in healthy life expectancy within local authorities[13] Healthy life expectancy at birth has been calculated for each middle super output area (MOSA) and then the slope index of inequality (SII) calculated based on these figures. The SII is a measure of the social gradient in healthy life expectancy, i.e. how much healthy life expectancy varies with deprivation. It takes account of health inequalities across the whole range of deprivation within the local authority and summarises this in a single number. This represents the range in years of healthy life expectancy across the social gradient from most to least deprived, based on a statistical analysis of the relationship between healthy life expectancy and deprivation across all middle super output areas. Figure 9 and Figure 10 show the SII for males and females for 2009-13.

Figure 9: Slope index of inequality (SII) in healthy life expectancy, male, 2009-13



[13] http://www.ons.gov.uk/ons/rel/disability-and-health-measurement/health-expectancies-at-birth-by-middle-layer-super-output-areas--england/inequality-in-health-expectancies-using-imd-2015-small-area-deprivation-scores--2009-13/index.html

Figure 10: Slope index of inequality (SII) in healthy life expectancy, female, 2009-13



The gap in healthy life expectancy between the most and least deprived areas of Swindon is estimated as 14.1 years for males and 12.1 for females in 2009-13 and Swindon has the third largest gap for males and fourth largest for females in the South West.

Examples of health inequalities - England

At a national level there are many examples of health inequalities across the spectrum of health and wellbeing, for example:

- Wider determinants of health such as road collisions,
- Health improvement measures such as childhood obesity
- Health protection issues such as incidence of TB
- Healthcare outcome metrics such as mortality from preventable diseases.

Many of these are evidence in the PHE fingertips tool: http://www.phoutcomes.info/ and some examples are summarised in Table 5. These are all likely to exist in Swindon. Table 5 shows the absolute and relative gaps between the least and most deprived 20% of England (as defined by the Index of Multiple Deprivation). The relative gap shows how much worse (normally) the measures are for people in the most deprived decile compared to the least deprived decile.

Table 5: England health inequalities based on PHOF indicator data

Indicator	Most deprived decile	England average	Least deprived decile	Absolute gap	Relative (to least deprived) gap
1.02i school readiness: % good level of achievement at end of Reception	62.3%	66.3%	70.3%	8%	11.4%
1.04 First time entrants to youth justice system	484 per 100,000	409 per 100,000	284 per 100,000	200 per 100,000	70.4%
1.10 Killed or seriously injured in road collisions*	36.1 per 100,000	39.3 per 100,000	42.6 per 100,000	-6.5 per 100,000	-15.3%
1.12i hospital admissions for violence	75.0 per 100,000	47.5 per 100,000	24.2 per 100,000	50.8 per 100,000	209.9%
1.17 Fuel poverty	14.2%	10.4%	7.7%	6.5%	84.4%
2.03 Smoking status at time of delivery	12.7%	11.4%	8.2%	4.5%	54.9%
2.04 Under 18 conceptions	30.2 per 1,000	22.8 per 1,000	15.4 per 1,000	14.8 per 1,000	96.1%
2.06i Excess weight in Reception Year	25.5%	21.9%	17.1%	8.4%	49.1%
2.11i % meeting 5-a-day	43.1%	52.3%	57.3%	14.2%	32.9%
2.13ii - Percentage of physically active and inactive adults - inactive adults	31.3%	27.7%	23.8%	7.5%	31.5%
2.14 Smoking prevalence	21.4%	18.0%	15.1%	6.3%	41.7%
2.18 Alcohol related admissions	792 per 100,000	641 per 100,000	496 per 100,000	296 per 100,000	59.7%
2.20i Breast cancer screening coverage	66.6%	75.4%	77.9%	11.3%	14.5%
2.22v People receiving a Health Check*	22.5%	18.6%	16.7%	5.8%	-34.7%
2.24i - Injuries due to falls in people aged 65 and over	2,594 per 100,000	2,125 per 100,000	1,998 per 100,000	596 per 100,000	29.8%
3.05ii - Incidence of TB	31.5 per 100,000	13.5 per 100,000	6.4 per 100,000	25.1 per 100,000	392.2%
4.01 - Infant mortality	5.2 per 1,000	4.0 per 1,000	3.1 per 1,000	2.1 per 1,000	67.7%
4.03 - Mortality rate from causes considered preventable	251.4 per 100,000	182.7 per 100,000	144.8 per 100,000	106.6 per 100,000	73.6%

Indicator	Most deprived decile	England average	Least deprived decile	Absolute gap	Relative (to least deprived) gap
4.04i - Under 75 mortality rate from all cardiovascular diseases	104.9 per 100,000	75.7 per 100,000	58.9 per 100,000	46.0 per 100,000	78.1%
4.05i - Under 75 mortality rate from cancer	173.7 per 100,000	141.5 per 100,000	123.1 per 100,000	50.60 per 100,000	41.1%
4.11 - Emergency readmissions within 30 days of discharge from hospital#	13.1%	11.8%	10.5%	2.6%	24.8%

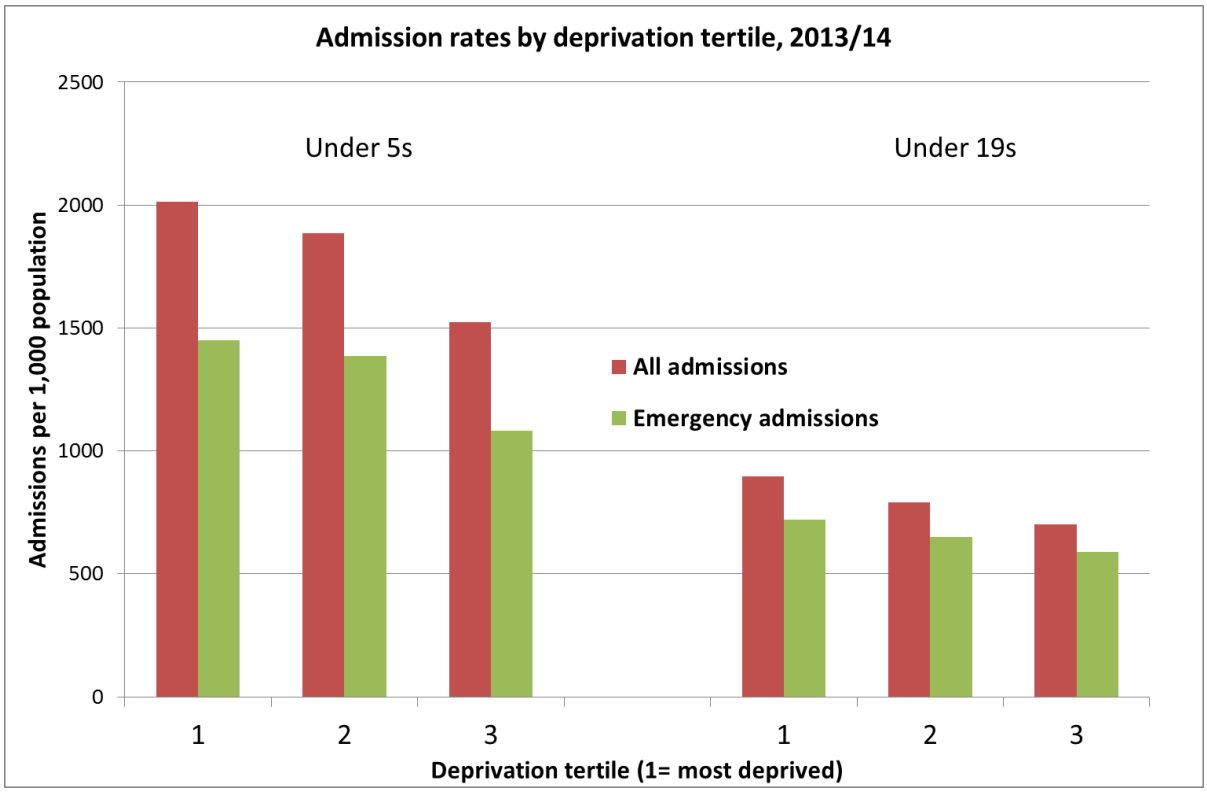
'* - reverse gradient, i.e. least deprived decile has worse outcomes or performance
'# - data from quintiles not deciles

Appendix A contains charts for each of the indicators in Table 5 showing the distribution across all the deciles.

Examples of health inequalities - Swindon

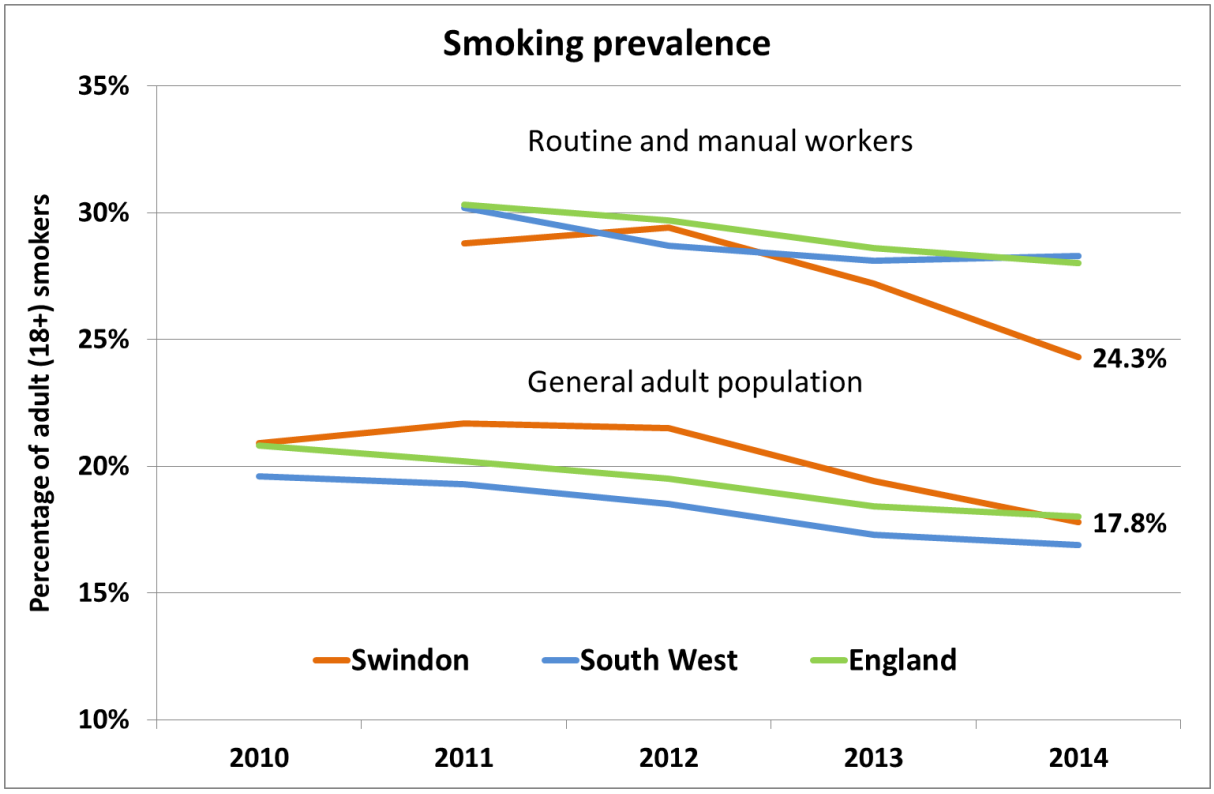
Local data has enabled inequalities to be examined, in Swindon, for some similar measures as contained in Table 5.

Example 1: under 19 admission rates by deprivation tertile, 2013/14, Swindon CCG residents



The highest rates of emergency admissions in both the under 5 and under 19 age groups were in the most deprived tertile and were statistically significantly higher than the Swindon rate for the under 19s (but not for the under 5s). They were 34% higher than in the least deprived tertile for the under 5s and 22% higher for the under 19s. Rates in the least deprived were statistically significantly lower than the Swindon rate.

Example 2: smoking prevalence in routine and manual workers compared to the general population.

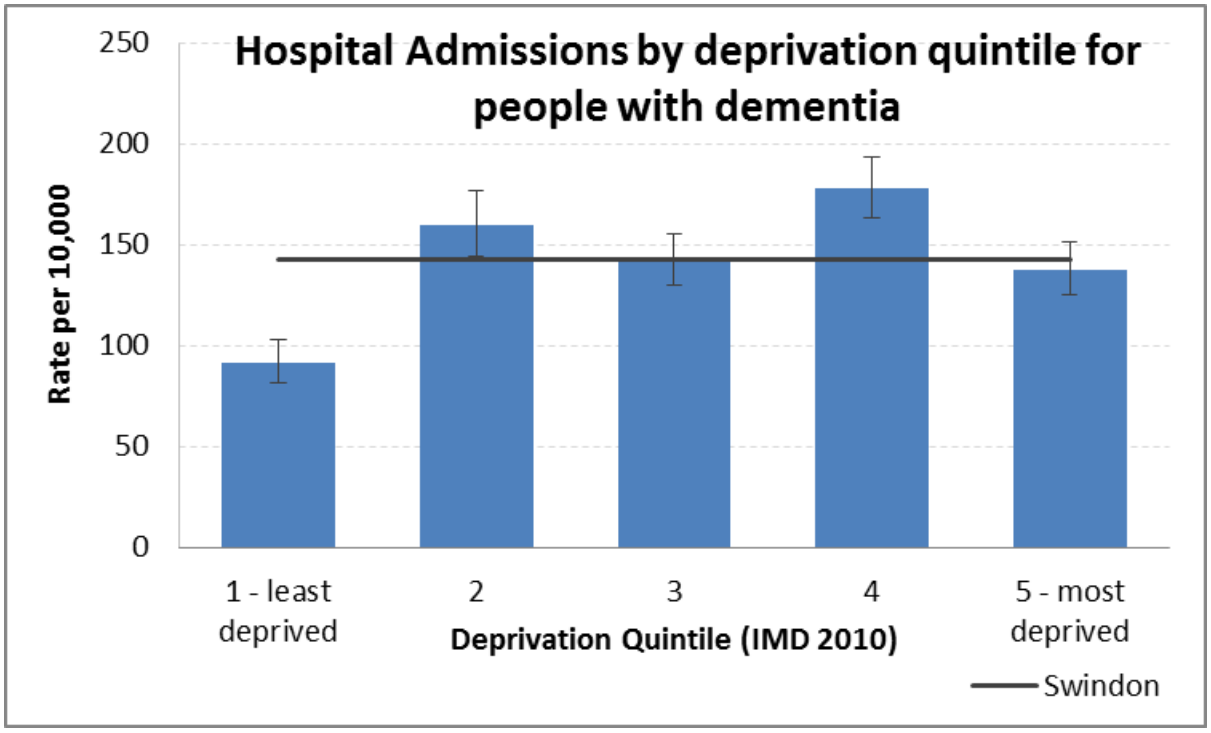


Smoking prevalence is higher in routine and manual workers than the general population both nationally and locally. However, the continued focus on this group in Swindon has begun to hasten the decline in smoking in routine and manual workers at a quicker rate than in the overall population.

Example 3: hospital admissions for people with dementia

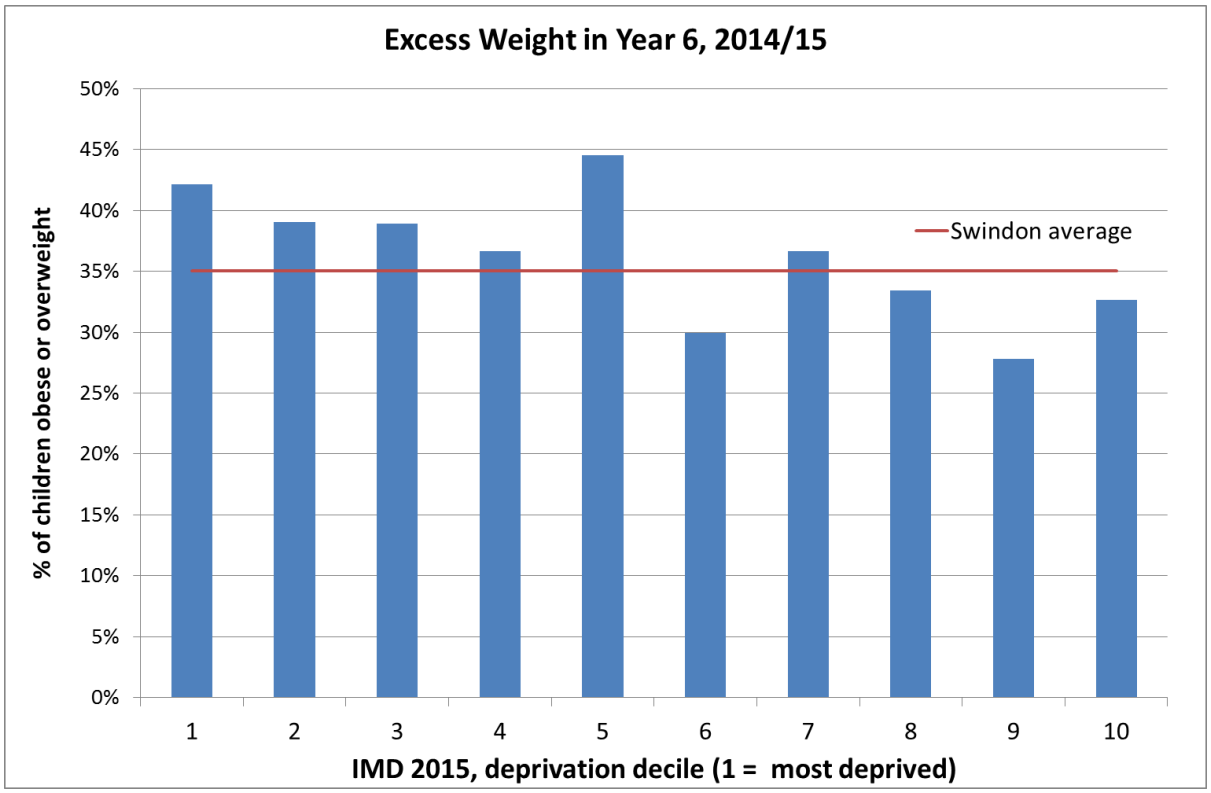
Although there is little evidence that the prevalence of dementia varies by socio-economic status or deprivation, there is some suggestion that access to services may vary. For example, national research[14] has found that being a homeowner is a stronger predictor of receiving prescribed drugs for dementia than actual severity of dementia for cholinesterase inhibitors.

[14] Cooper C, Blanchard M, Selwood A, Livingston G Antidementia drugs: Prescription by level of cognitive impairment or by socio-economic group? Aging & Mental Health 2010 14(1); 85-89



Hospital admissions data does suggest that people with dementia living in the least deprived areas of Swindon are less likely to be admitted to hospital.

Example 4: children in Year 6 who are obese or overweight



Note: Data may not match other publications due to exclusion of pupils who could not be assigned to a deprivation quintile.

There is a strong relationship between deprivation and childhood obesity. Analysis of Swindon's data for 2014/15 from the National Child Measurement Programme (NCMP) (see Example 4 chart on previous page) shows that prevalence of excess weight (obese or overweight) among children in Year 6 increases with increased socioeconomic deprivation. The same is true for children in Reception Year.

Examples where health inequalities are not apparent

Although deprivation related inequalities are commonplace amongst health and wellbeing measures it is also worth considering the cases where there is little or no correlation between deprivation and the issue under consideration.

The Public Health Outcomes Framework (PHOF) indicators presented in the PHE fingertips tool: http://www.phoutcomes.info/ provide some examples which are listed in Table 6.

Table 6: PHOF indicators with little or no correlation with deprivation

Indicator reference	Indicator name
2.09i	Smoking prevalence at age 15 (current smoker)
2.12	Excess weight in Adults
2.19	Cancer diagnosed at early stage
3.01	Fraction of mortality attributable to particulate air pollution
3.03	Population vaccination coverage (in 0 – 5s)
4.10	Suicide rate (very slight correlation)
4.12	Preventable sight loss (very slight correlation)
4.15iii	Excess winter deaths index (3 years, all ages)

The reasons why each indicator does not correlate with deprivation are complex and varied. E.g. an affluent lifestyle may not be associated with a healthier lifestyle in all dimensions; exposures to some risks may be society wide or genetic rather than environmental or behavioural and issues around health service access and utilisation may mask underlying inequalities.

Impact of deprivation on usage of acute health services (GP level analysis)

NHS Swindon CCG conducted an investigation into conditions and procedures where deprivation (as measured by the IMD) appears to have a significant impact on acute usage. The analysis was carried out at GP level and focused on services where explanatory factor of IMD was strong and not dependant on outlier GP practice with particularly high IMD that therefore had undue impact.

The results showed that outpatient attendances are strongly correlated with deprivation for:

- Ophthalmology
- Respiratory medicine
- Nephrology

In each case higher activity was associated with higher deprivation but only for follow up appointments.

Out of the elective admissions, deprivation was only strongly correlated to admissions for 'Hepatobiliary and Pancreatic Surgery' and it was considered that this was driven by gallstone surgery.

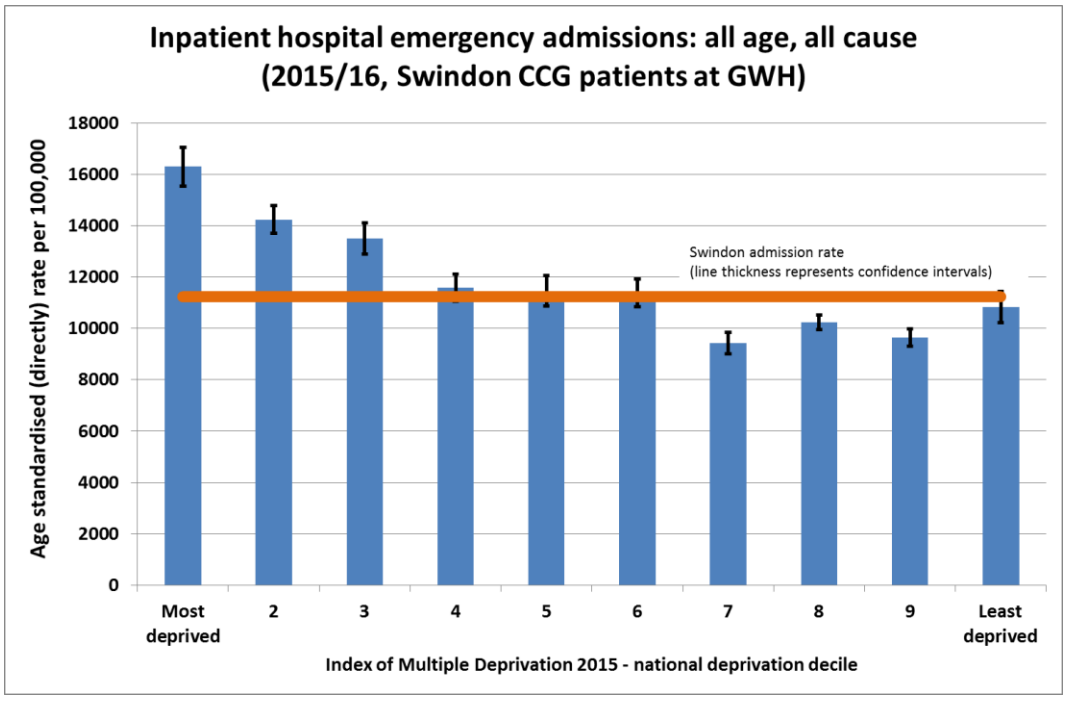
Overall, emergency admissions are strongly correlated to deprivation but when individual conditions were investigated only emergency admissions for 'Mouth, Head, Neck and Ears procedures and disorders' showed the same correlation and this was considered to be driven by procedures to address haemorrhage from respiratory passages.

Impact of deprivation on usage of acute health services (patient analysis)

SBC Public Health, using NHS Swindon CCG data from 2015/16, conducted an investigation into the association between deprivation (as measured by the IMD) and emergency hospital admissions and A&E attendances.

The overall finding was that people from more deprived areas of Swindon were admitted in an emergency more often than those from less deprived areas. This was true for both the all age and under 75 age groups which showed very similar distributions as the example in Figure 11 illustrates.

Figure 11: Emergency hospital admissions by deprivation

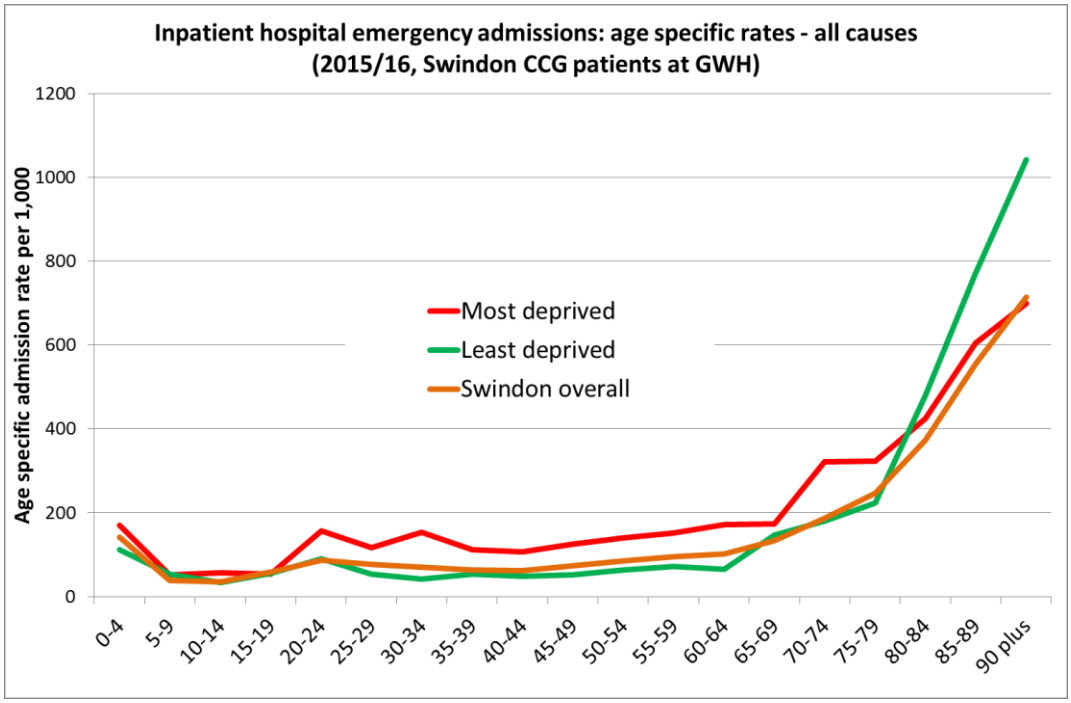


The emergency admission rate in the 30% most deprived areas was statistically significantly higher than the overall Swindon rate. There would have been around 1,400 less emergency admissions (out of around 22,000) in 2015/16 if the rate in this 30% of Swindon had been the same as the overall Swindon rate.

The relationship between deprivation and admission rates changes with age. The admission rates are higher in the most deprived decile in Swindon for children under 5 and adults aged 20 to 75. However, the admission rates are higher for the least deprived decile for those aged 80 and over. Indeed for the 80 plus age groups the

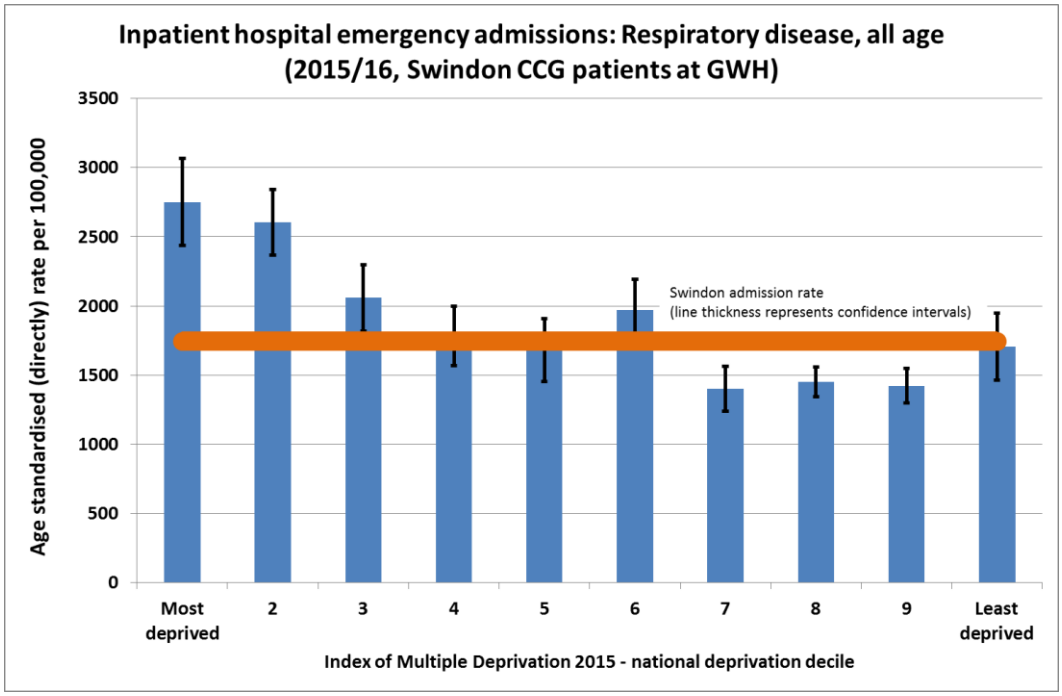
admission rate for the least deprived decile is much higher than even the 2nd and 3rd least deprived deciles.

Figure 12: Emergency hospital admissions by age and deprivation



Similar analyses were undertaken for specific reasons (diagnosed conditions) for admission. Figure 13 shows the emergency admissions for respiratory conditions by deprivation decile.

Figure 13: Emergency hospital admissions for respiratory conditions by deprivation



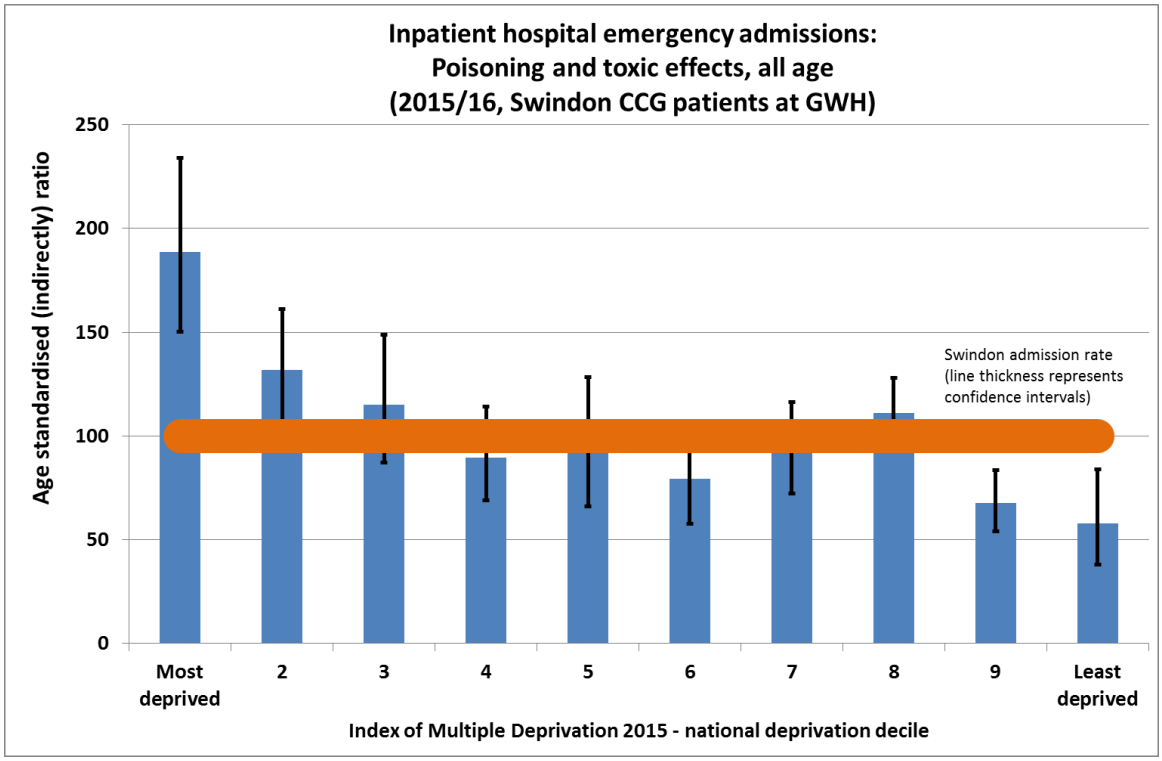
Note: ICD10 codes I00-I99 and R04, R05, R06, R070-R072 and R090

A similar pattern to overall emergency admissions can be seen and the rate in the 30% most deprived areas was statistically significantly higher than the overall Swindon rate. There would have been around 300 less emergency admissions (out of around 3,500) for respiratory conditions in 2015/16 if the rate in this 30% of Swindon had been the same as the overall Swindon rate.

In general emergency admissions for digestive conditions were more evenly spread over the deprivation deciles. The exception was the most deprived decile where the admission rate was 3,034 per 100,000 compared to the Swindon overall rate of 1,776 per 100,000.

Emergency admissions for poisoning by drugs, medicaments and biological substances or for toxic effects of substances chiefly nonmedicinal as to source also showed a correlation with deprivation as Figure 14 shows.

Figure 14: Emergency hospital admissions for poisonings by deprivation

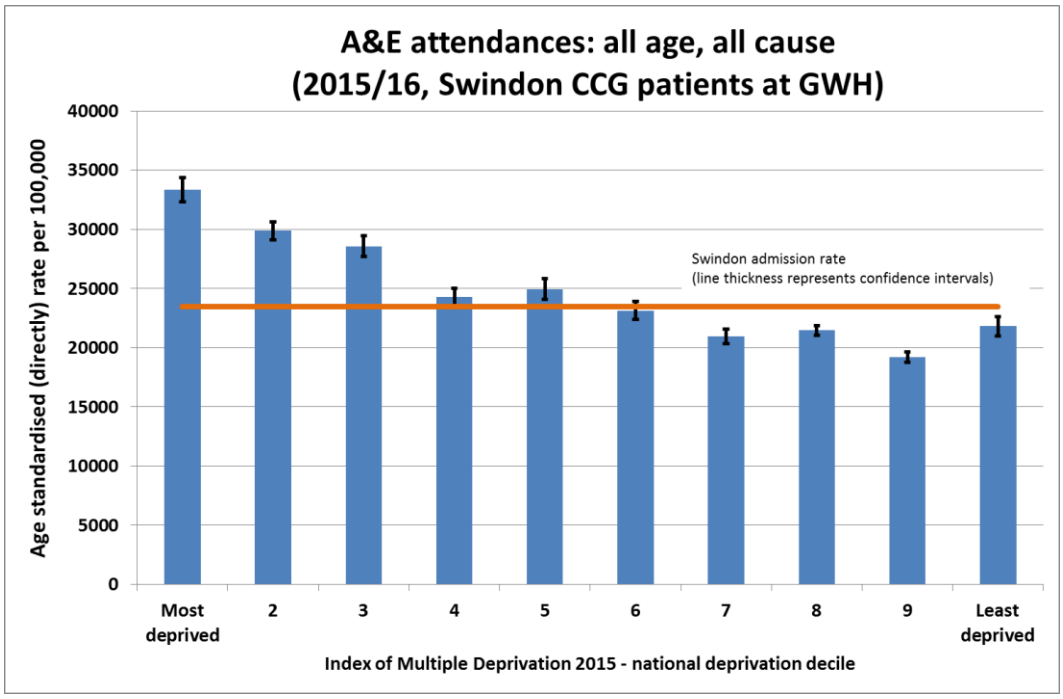


Note: ICD10 codes T36-T65

The emergency admission rate in the most deprived decile is almost double the overall Swindon rate.

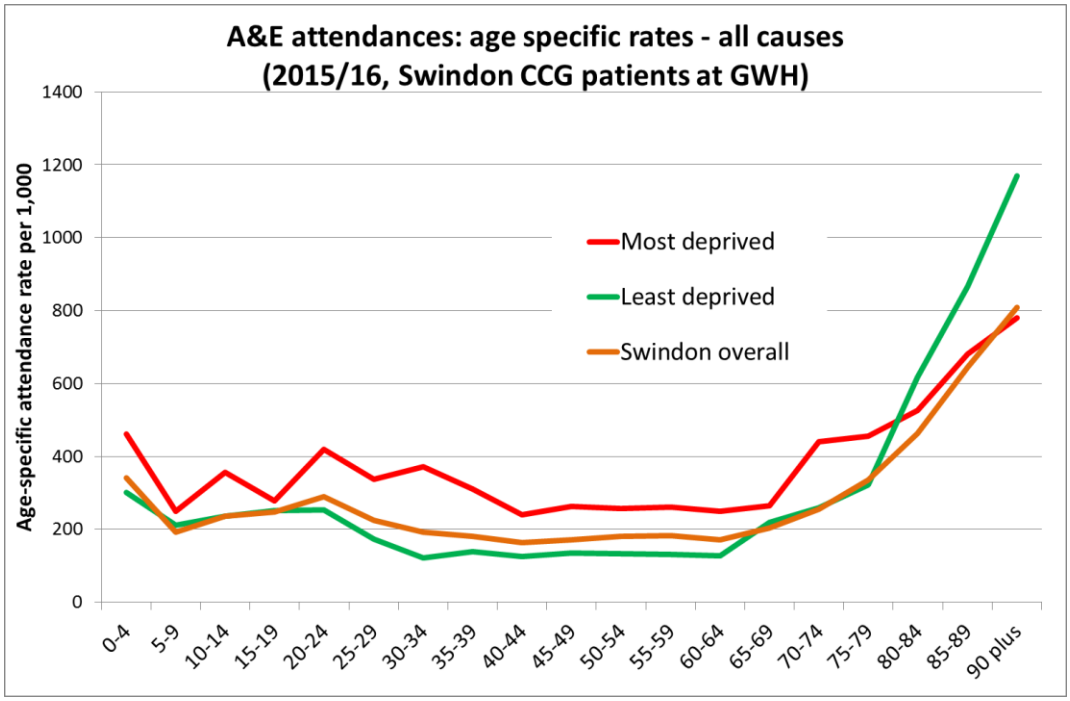
The analysis of A&E attendances also showed a correlation with deprivation as shown in Figure 15. The A&E attendance rate in the 30% most deprived areas was statistically significantly higher than the overall Swindon rate. There would have been around 3,000 less A&E attendances (out of around 50,000) in 2015/16 if the rate in this 30% of Swindon had been the same as the overall Swindon rate.

Figure 15: A&E Attendances by deprivation



The relationship between deprivation and A&E attendances changes with age (see Figure 16). The attendance rates are higher in the most deprived decile in Swindon for every age group up to and including 75-79. However, the attendance rates are higher for the least deprived decile for those aged 80 and over. Indeed for the 80 plus age groups the attendance rate for the least deprived decile is much higher than even the 2nd and 3rd least deprived deciles.

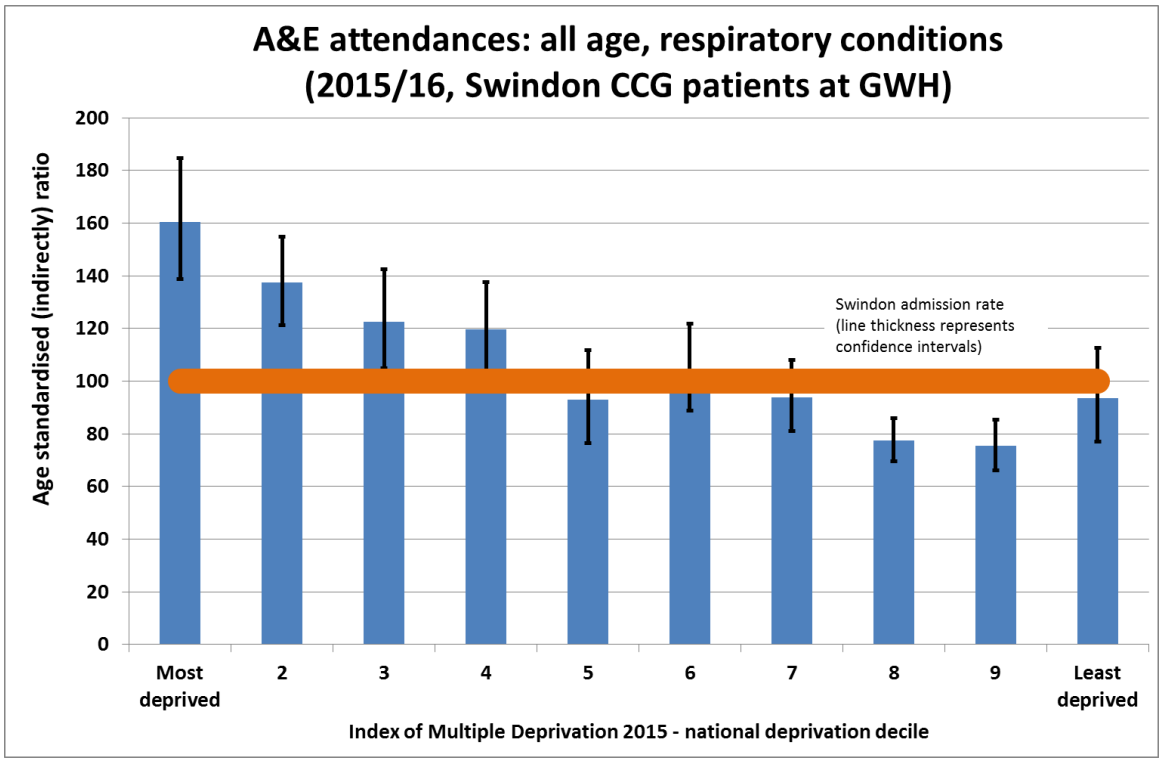
Figure 16: A&E attendances by age and deprivation



Further analysis was conducted for specific diagnoses and reasons for attending A&E. However, the diagnosis details in this dataset were often incomplete, particularly when the patient was streamed (i.e. not seen in A&E but transferred to the Urgent Care Centre), or if the patient left A&E without being seen. This should be taken into consideration when examining the next set of figures.

A&E attendances for respiratory conditions were correlated to deprivation (see Figure 17) and the rate in the 30% most deprived areas was statistically significantly higher than the overall Swindon rate. There would have been around 175 less A&E attendances for respiratory conditions in 2015/16 if the rate in this 30% of Swindon had been the same as the overall Swindon rate.

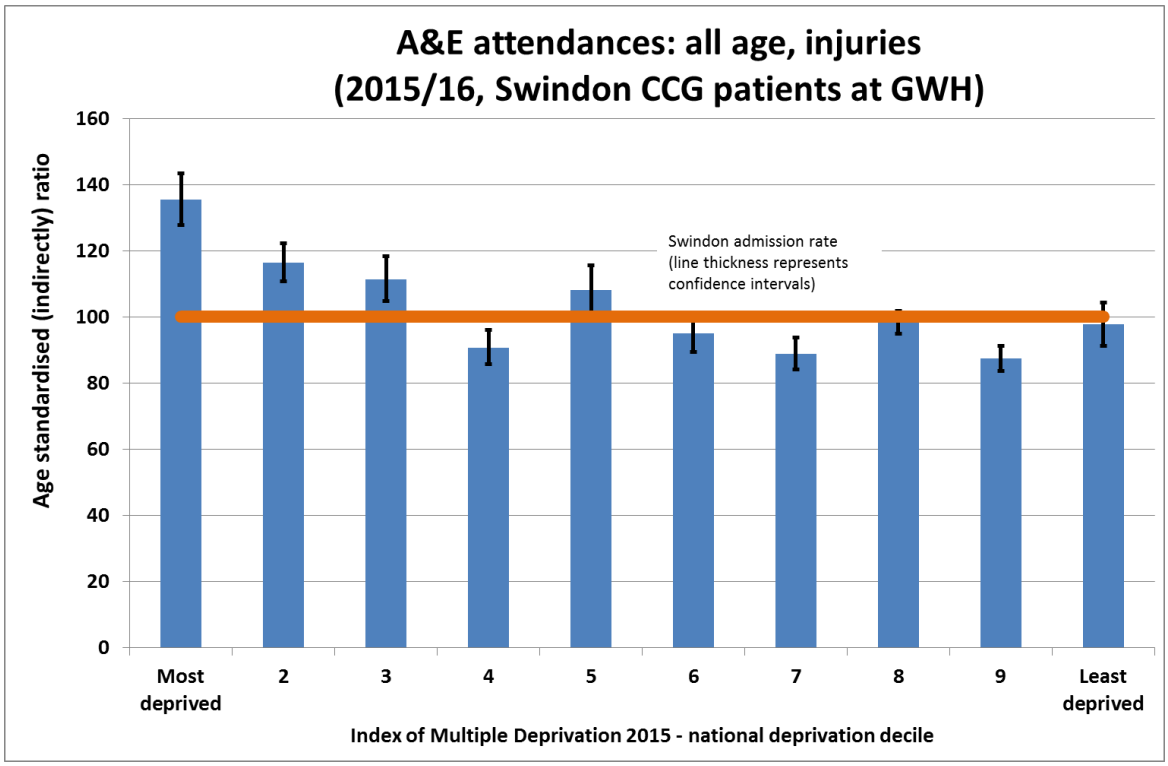
Figure 17: A&E attendances for respiratory conditions by deprivation



Note: ICD10 codes J00-J99

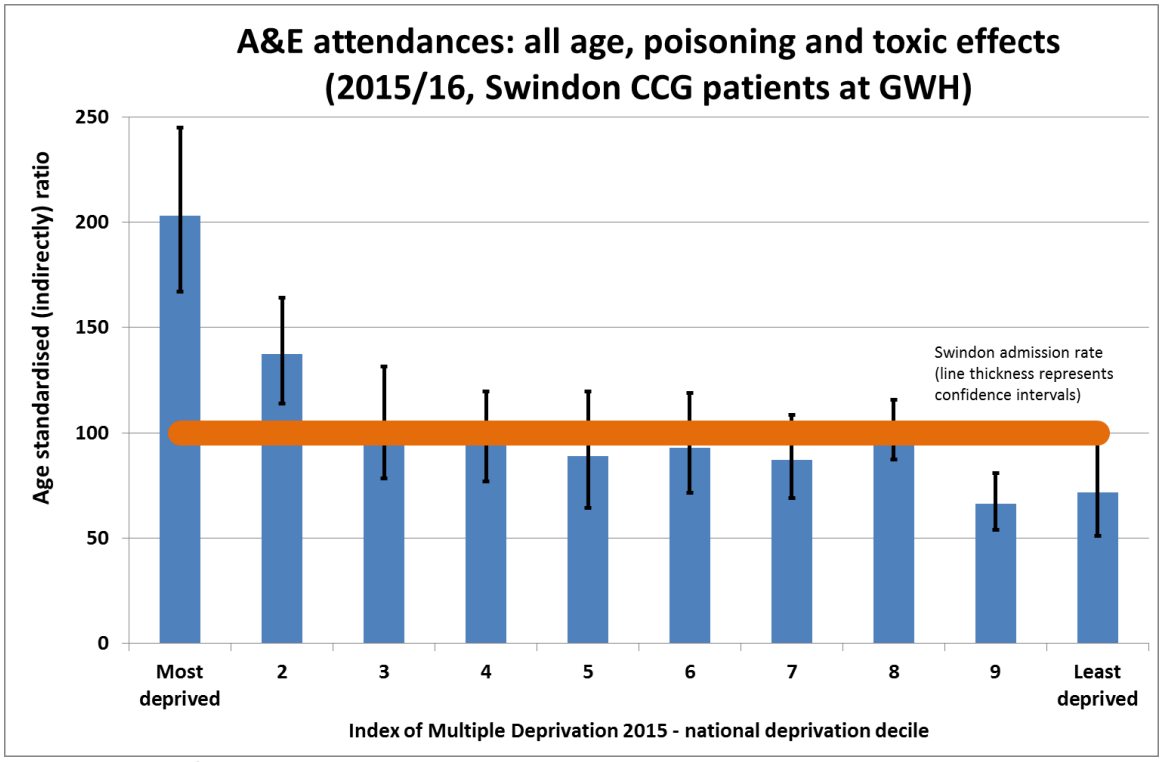
A&E attendances for injuries and for poisoning by drugs, medicaments and biological substances or for toxic effects of substances chiefly nonmedicinal as to source also showed correlations with deprivation. In both cases this can chiefly be seen in the most deprived decile where rates are statistically significantly higher than Swindon overall (almost double the Swindon rate for poisonings) as Figure 18 and Figure 19 show.

Figure 18: A&E attendances for injuries by deprivation



Note: ICD10 codes S00-T14

Figure 19: A&E attendances for poisonings by deprivation



Note: ICD10 codes T36-T65

National research into inequality with relevance for Swindon

Marmot Review

The Marmot Review into health inequalities in England is the seminal work in the inequalities arena in the last decade. It was published in 2010 and proposed an evidence based strategy to address the social determinants of health, the conditions in which people are born, grow, live, work and age and which can lead to health inequalities. It drew further attention to the evidence that most people in England aren't living as long as the best off in society and spend longer in ill-health. Premature illness and death affects everyone below the top.

Key messages

1. Reducing health inequalities is a matter of fairness and social justice. In England, the many people who are currently dying prematurely each year as a result of health inequalities would otherwise have enjoyed, in total, between 1.3 and 2.5 million extra years of life.

2. There is a social gradient in health – the lower a person's social position, the worse his or her health. Action should focus on reducing the gradient in health.

3. Health inequalities result from social inequalities. Action on health inequalities requires action across all the social determinants of health.

4. Focusing solely on the most disadvantaged will not reduce health inequalities sufficiently. To reduce the steepness of the social gradient in health, actions must be universal, but with a scale and intensity that is proportionate to the level of disadvantage. This is termed proportionate universalism.

5. Action taken to reduce health inequalities will benefit society in many ways. It will have economic benefits in reducing losses from illness associated with health inequalities. These currently account for productivity losses, reduced tax revenue, higher welfare payments and increased treatment costs.

6. Economic growth is not the most important measure of our country's success. The fair distribution of health, well-being and sustainability are important social goals. Tackling social inequalities in health and tackling climate change must go together.

7. Reducing health inequalities will require action on six policy objectives:

    - Give every child the best start in life
    - Enable all children young people and adults to maximise their capabilities and have control over their lives
    - Create fair employment and good work for all
    - Ensure healthy standard of living for all
    - Create and develop healthy and sustainable places and communities
    - Strengthen the role and impact of ill health prevention

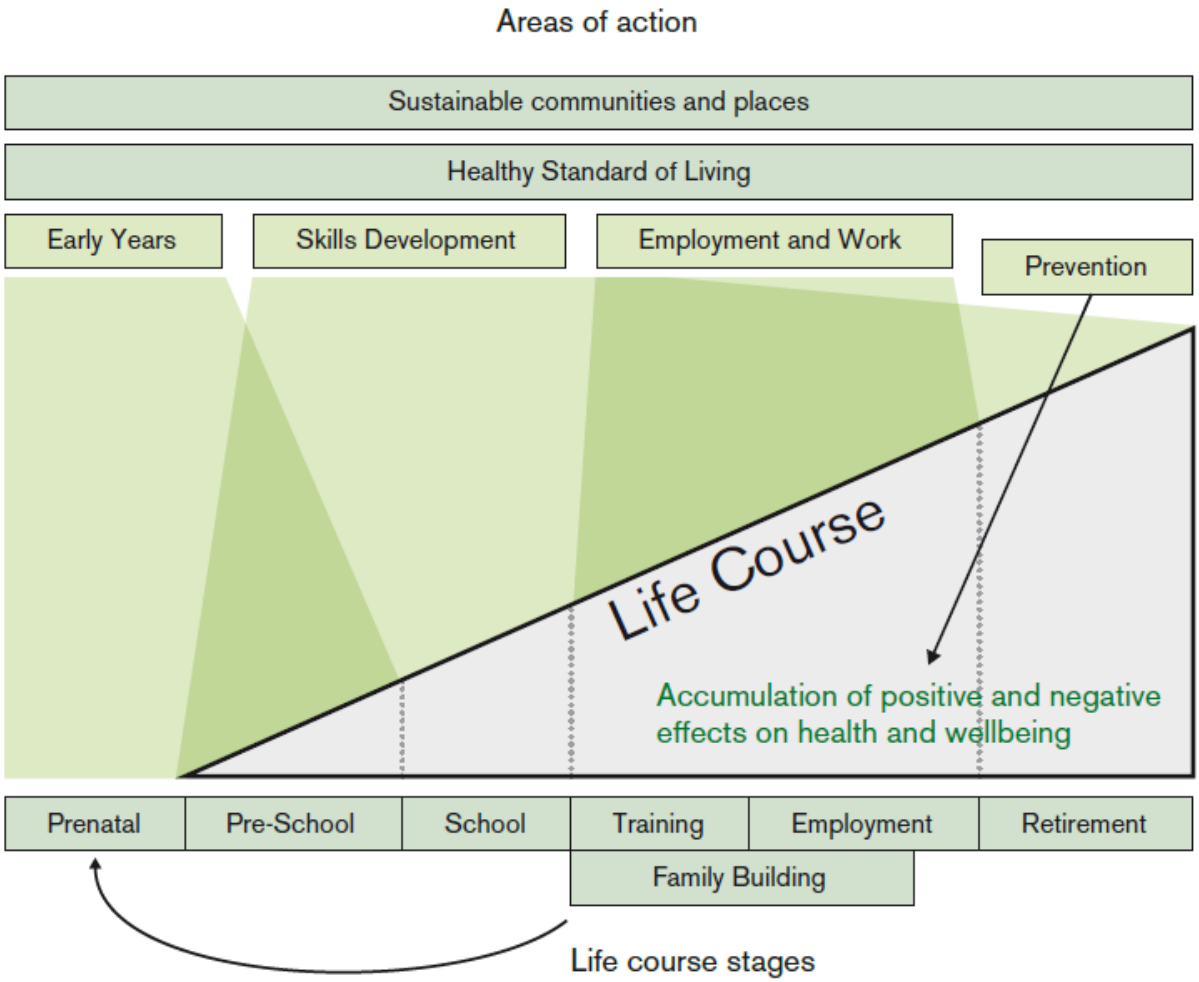
8. Delivering these policy objectives will require action by central and local government, the NHS, the third and private sectors and community groups. National policies will not work without effective local delivery systems focused on health equity in all policies.

9. Effective local delivery requires effective participatory decision-making at local level. This can only happen by empowering individuals and local communities.

The Marmot Review emphasised the actions that need to be taken across the life course to reduce inequalities, as shown in Figure 20.

Figure 20: Action across the life course

Figure 5 Action across the life course



This highlights the role of prevention at all stages of life and the cumulative nature of the protective effects.

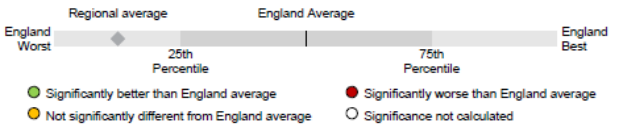
Marmot indicators

Launched by the Institute of Health Equity, the Marmot Indicators 2015[15] are a new set of indicators of the social determinants of health, health outcomes and social inequality that broadly correspond to the six policy recommendations proposed in Fair Society, Healthy Lives: Give every child the best start in life.

Many of the Marmot Indicators have been calculated and published since 2012 and allow inequalities over time to be examined at England and local level.

Figure 21: Marmot Indicators for Local Authorities in England, 2015 - Swindon

The chart below shows key indicators of the social determinants of health, health outcomes and social inequality that broadly correspond to the policy recommendations proposed in Fair Society, Healthy Lives. Results for each indicator for this local authority are shown below. On the chart, the value for Swindon is shown as a circle, against the range of results for England, shown as a bar. For three indicators, local authority figures are not available and so only the regional value is reported.



Health outcome indicators

	Period	Local value	Regional value	England value	England worst	Range	England best
Healthy life expectancy at birth - Male (Years)	2011 - 13	63.9	65.3	63.3	53.6		71.4
Healthy life expectancy at birth - Female (Years)	2011 - 13	62.8	65.5	63.9	55.5		71.3
Life expectancy at birth - Male (Years)	2011 - 13	79.3	80.1	79.4	74.3		82.6
Life expectancy at birth - Female (Years)	2011 - 13	82.8	83.8	83.1	80.0		86.2
Inequality in life expectancy at birth - Male (Years)	2011 - 13	9.0		-	17.3		2.4
Inequality in life expectancy at birth - Female (Years)	2011 - 13	2.9		-	11.4		0.6
People reporting low life satisfaction (%)	2014/15	5.4	4.6	4.8	8.7		2.8

Giving every child the best start in life

	Period	Local value	Regional value	England value	England worst	Range	England best
Good level of development at age 5 (%)	2013/14	60.6	62.4	60.4	41.2		75.3
Good level of development at age 5 with free school meal status (%)	2013/14	44.2	43.5	44.8	31.7		68.1

Enabling all children, young people and adults to maximise their capabilities and have control over their lives

	Period	Local value	Regional value	England value	England worst	Range	England best
GCSE achieved 5A*-C including English and Maths (%)	2013/14	53.1	56.7	56.8	35.4		74.4
GCSE achieved 5A*-C including English & Maths with free school meal status (%)	2013/14	27.2	29.3	33.7	16.0		62.6
19-24 year olds not in education, employment or training (%)	2014		12.9	15.9			

Create fair employment and good work for all

	Period	Local value	Regional value	England value	England worst	Range	England best
Unemployment % (ONS model-based method)	2014	5.4	5.0	6.2	12.5		2.9
Long term claimants of Jobseeker's Allowance (rate per 1,000 population)	2014	4.0	3.7	7.1	23.5		1.3
Work-related illness (rate per 100,000 population)	2013/14		4270	4000			

Ensure a healthy standard of living for all

	Period	Local value	Regional value	England value	England worst	Range	England best
Households not reaching Minimum Income Standard (%)	2012/13		20.4	24.4			
Fuel poverty for high fuel cost households (%)	2013	9.8	11.5	10.4	18.9		5.6

Create and develop healthy and sustainable places and communities

	Period	Local value	Regional value	England value	England worst	Range	England best
Utilisation of outdoor space for exercise/health reasons (%)	Mar 2013 - Feb 2014	17.5	22.2	17.1	0.3		30.8

The indicators show that Swindon's life expectancies and healthy life expectancies are similar to England. However, Swindon's position compared to other local

[15] http://www.instituteofhealthequity.org/projects/marmot-indicators-2015

authorities in regard of life expectancies has deteriorated since 2008-10. Additionally, for males there is a 9.0 year gap (in 2011-13) between the most and least deprived in life expectancy.

Swindon is highlighted as having significantly worse outcomes in the "Enabling all children, young people and adults to maximise their capabilities and have control over their lives" domain which is measured by GSCE achievement. However, Swindon does compare well to other places in terms of long term claimants of Jobseeker's Allowance and on fuel poverty for high fuel cost households.

Social Mobility Index

Introduction

The Social Mobility Index[16] compares the chances that a child from a disadvantaged background will do well at school and get a good job across each of the 324 local authority district areas of England. It examines a range of measures of the educational outcomes achieved by young people from disadvantaged backgrounds and the local job and housing markets to shed light on which are the best and worst places in England in terms of the opportunities young people from poorer backgrounds have to succeed.

Methodology

The index uses a suite of indicators that are related to the chances of experiencing upward social mobility. It focuses on two types of outcome:

- Educational attainment of those from poorer backgrounds in each local area – from the early years, through primary and secondary school, to post-16 outcomes and higher education participation.

- Outcomes achieved by adults in the area – average income, prevalence of low paid work, availability of professional jobs, home ownership and the affordability of housing. This measures the prospects that people have of converting good educational attainment into good adulthood outcomes.

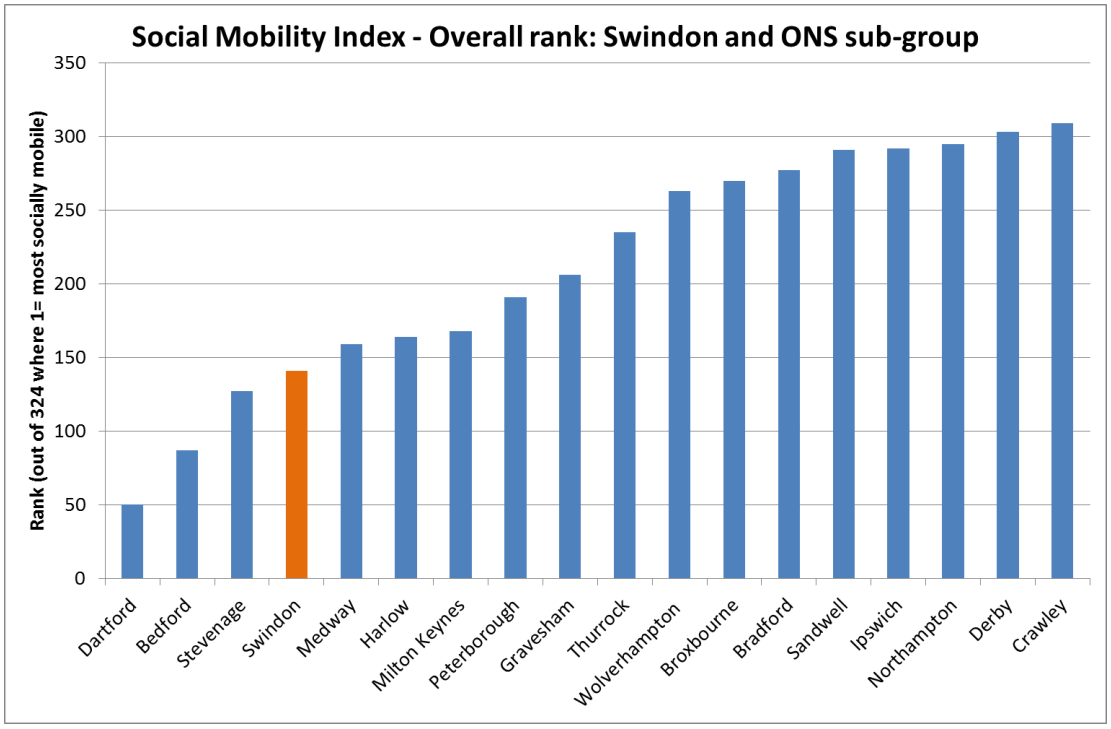
Indicators were developed for four life stages (early years, school, youth and adulthood) and a standardised score for each life stage produced alongside an overall standardised Social Mobility Index score (positive score indicates better than average). This was used to develop rankings of the different local areas and categorise them as "social mobility hotspots" (top ranking 20 per cent of authorities) or "social mobility coldspots" (lowest ranking 20 per cent of authorities).

[16] The Social Mobility Index, Social Mobility and Child Poverty Commission: https://www.gov.uk/government/publications/social-mobility-index

Results

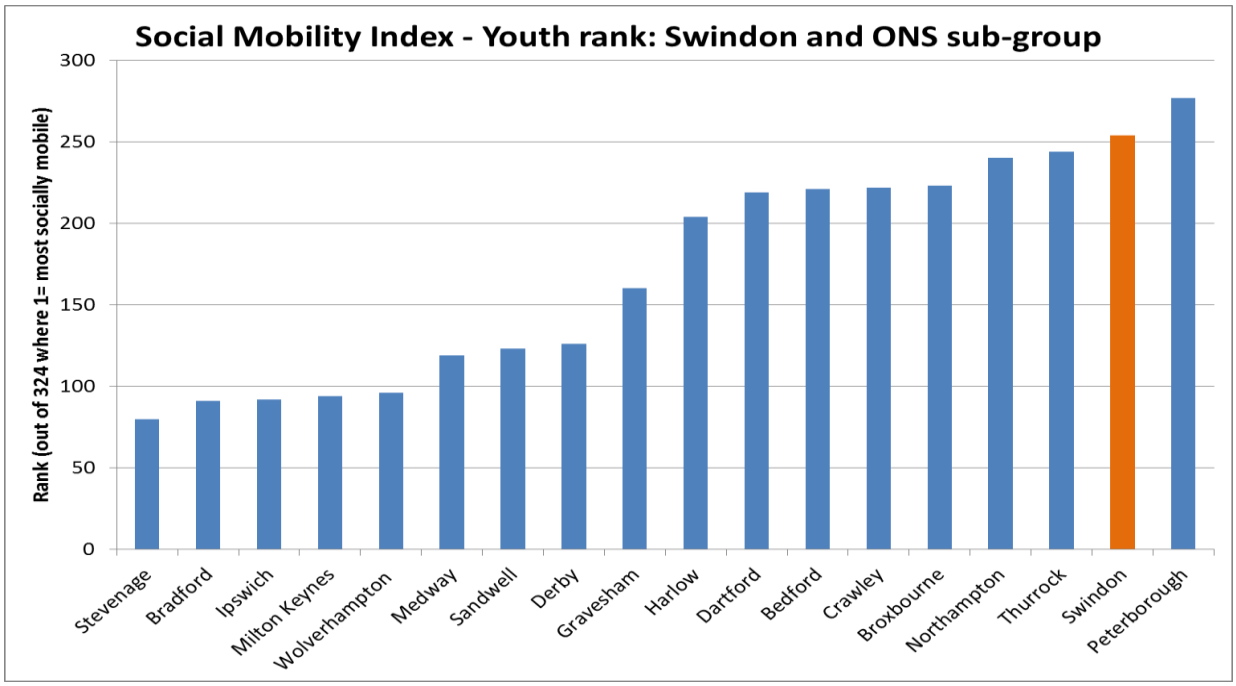
On the overall Social Mobility Index Swindon is ranked 141st out of 324 authorities (where 1 = the most socially mobile).

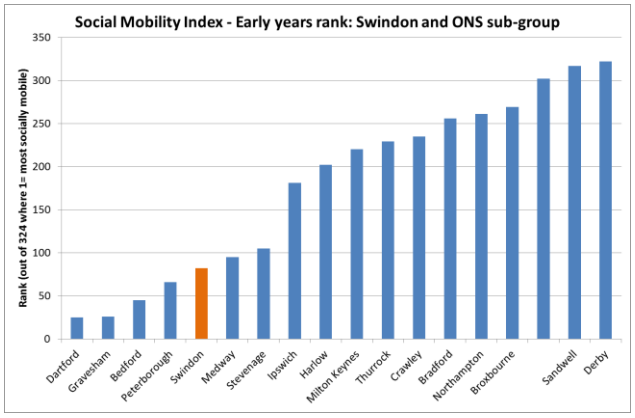
Figure 22: Social Mobility Index – overall rank

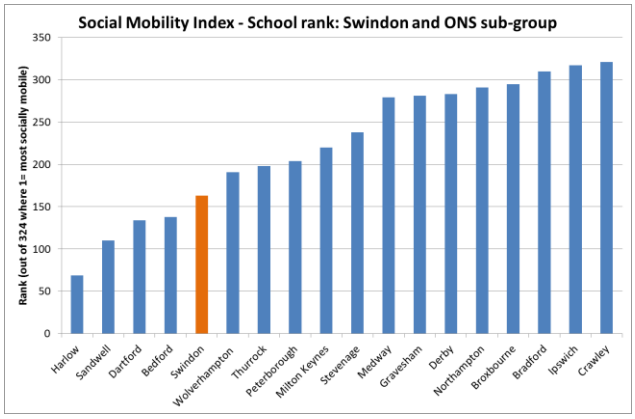


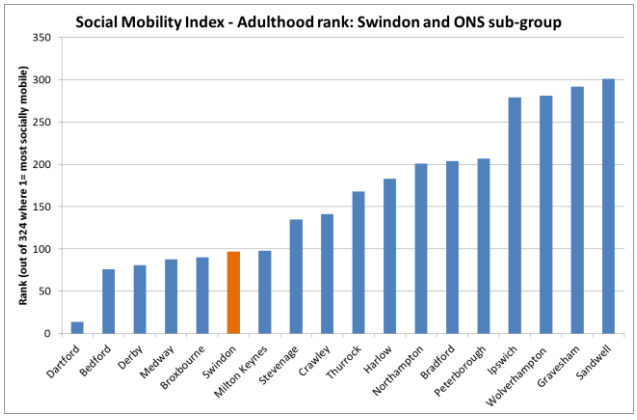
The Social Mobility Index is an aggregate measure that combines outcomes across a number of life stages. As such, the overall index masks a lot of variation across how well authorities do across the different components of the index. Many local areas that do well on the index overall do relatively badly on some aspects. Similarly, many local areas that do badly on the index overall do have areas of real strength. Comparison of performance on the education components of the index with performance against the adulthood component of the index identified four broad categories of performance. Swindon falls into the "Good performance on adulthood measures but weaknesses in education for disadvantaged children" category. Those from disadvantaged backgrounds do relatively badly at school but a strong labour market or low housing costs may help them convert this into good outcomes as an adult or, alternatively, be symptomatic of significant inequalities between rich and poor. Swindon's poor performance can be pinpointed to the Youth domain of the Index as shown by the charts in Figure 23.

Figure 23: Social Mobility Index: domain rankings









The years following school are important for social mobility for two key reasons: 1) this is likely to be the first time that young people will make key choices about their life; and 2) what young people have achieved at this point in their lives has a significant impact on their life chances as adults. The importance of being 'on the right track' during this period cannot be overstated: for those young people that are

NEET (not in education, employment, or training) at 16, almost half will remain NEET aged 17, and many will continue to feel the consequences of being NEET into adulthood: those unemployed at a young age will spend on average an additional two months per year (8.4 weeks for men, 10.7 weeks for women) out of work between the ages of 26 to 29 than they would have had if they had a more complete work history

The indicators that considered by the Index for this life stage are:

- The proportion of young people eligible for Free School Meals (FSM) who are not in education, employment, or training one year after finishing KS4.
- The average points score per entry for young people eligible for FSM who are entered for a level 3 qualification.
- The proportion of young people eligible for FSM at age 15 who achieve 2+ A-levels or equivalent qualifications by age 19.
- The proportion of young people eligible for FSM at age 15 who enter higher education by age 19.
- The proportion of young people eligible for FSM who enter higher education at one of the third most selective universities by age 19.

Swindon ranks between 153rd and 231st on the first three of these but is 301st on the last indicator and is **ranked 324th and last** on the proportion of young people eligible for FSM at age 15 who enter higher education by age 19. Nine percent of 15 year olds eligible for FSMs in Swindon enter higher education by age 19 compared to a crude average of 18% in England overall and 51% in the highest performing area (Kensington and Chelsea).

Rural deprivation and inequality

Access to information and data regarding the rural share of deprivation has historically been very difficult. One of the standard tools for looking at deprivation is the Indices of Deprivation. However, this approach was primarily developed with urban centred deprivation in mind and as such does not provide a clear picture of rural deprivation. Analysis of the Index of Multiple Deprivation 2007 identifies only 50 of the 3,248 most-deprived 10% of areas across England as being rural, and only 143 of the 6,496 most deprived 20% of areas – in other words only just over 2% of the most deprived 20% of areas in England are rural. However, the proportion of deprived people living in rural areas is substantially larger than this. In fact, 17% of the 5,310,000 households living on less than 60% of median income across England are in rural areas (for context, 19% of England's population live in rural areas). Put simply, rural areas are substantially more deprived based on the location of deprived people than based on the location of deprived areas. This level of understanding is a critical tool in influencing resource allocation for small rural communities and supporting local action such as Community Led Planning[17].

Throughout the income distribution, households in rural districts have, on average, a slightly greater income than households in urban districts. Anecdotally, it is sometimes said that the income distribution of households in rural areas is

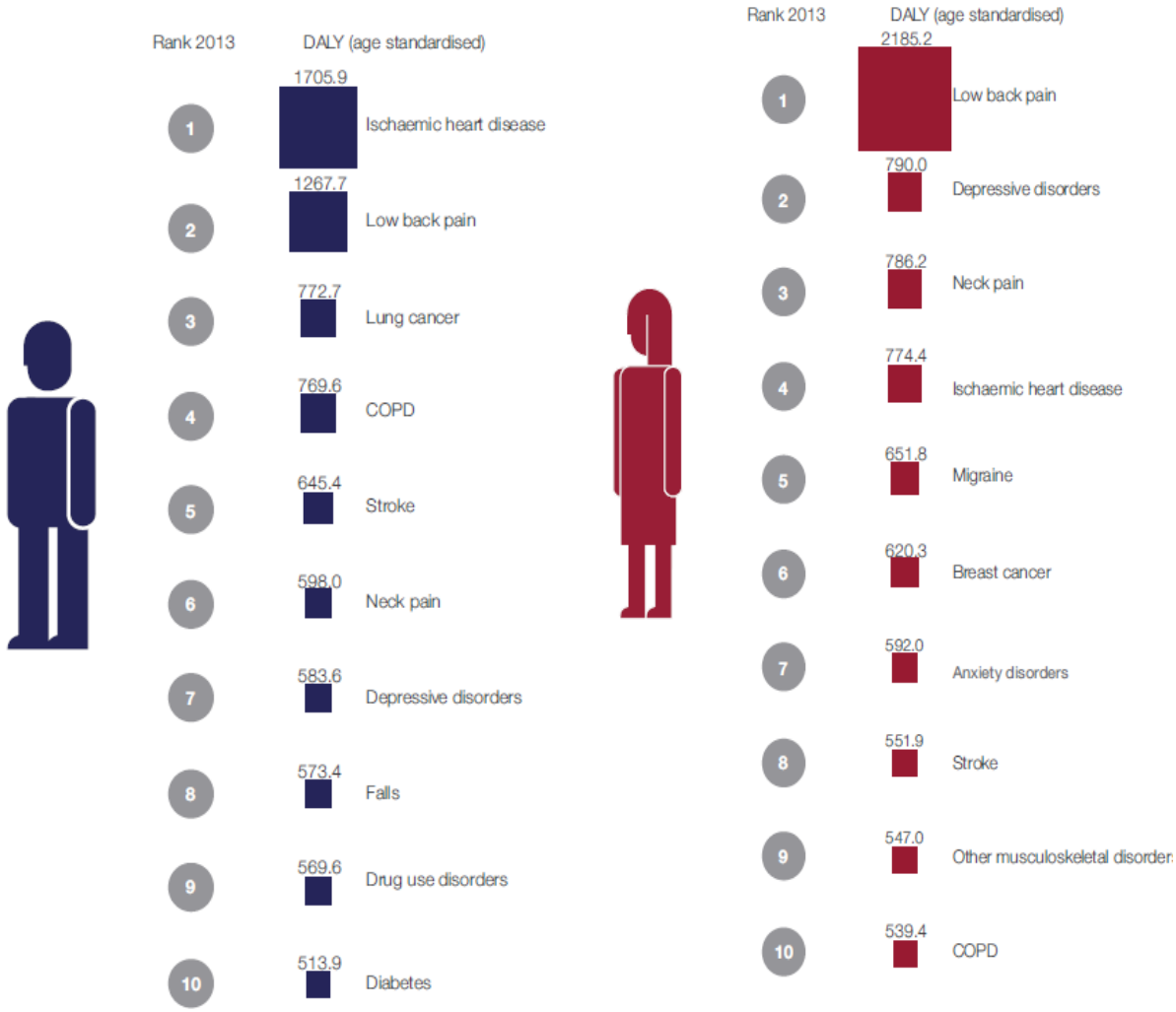
[17] http://www.rural-evidence.org.uk/pages/about/

'U-shaped', with lots of rich people, lots of poor people and relatively few in-between. Analysis of the income distribution does not really support this view: whilst slightly more than 20% of the population in rural districts in England are in the UK's richest fifth, somewhat less than 20% of the population in these districts are in the UK's poorest fifth[18].

Global burden of disease - England[19]

The Lancet paper on the Global Burden of Disease showed that mortality rates had decreased substantially over the last 20 years. It also provide insight into morbidity and Figure 24 shows the leading causes of disability adjusted life years in England which takes into account illness and premature mortality. It shows that heart disease is the leading cause for males but only the 4th largest cause for females. Low back pain is the leading cause for females and also second largest for males.

Figure 24: Leading causes of disability adjusted life years (DALYs), 2013, England



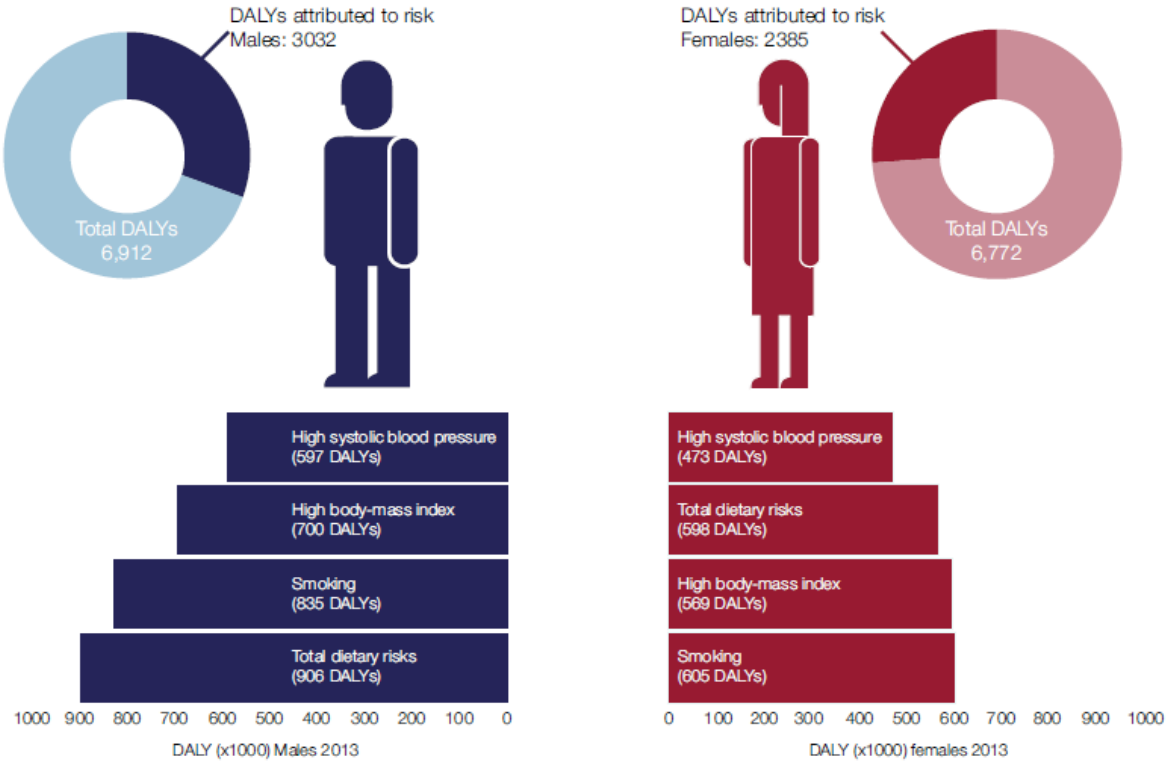
Note: A DALY is a measure of the overall burden of disease - it adds the years of life lost due early death and years spent living with disability or ill-health together. It is the sum of years lived with a

[18] http://www.poverty.org.uk/r09/index.shtml
[19] Institute for Health Metrics and Evaluation (IHME). GBD Compare - Public Health England. Seattle, WA: IHME, University of Washington, 2015. Available from http://vizhub.healthdata.org/gbd-compare

disability, illness or injury (YLD) and years of life lost (YLL) (i.e. death before living expected number of year).

The study also identified the leading risk factors for DALYs and these are shown in Figure 25. High blood pressure, smoking, poor diet and excess weight are the four main risk factors for males and females (although in a different order).

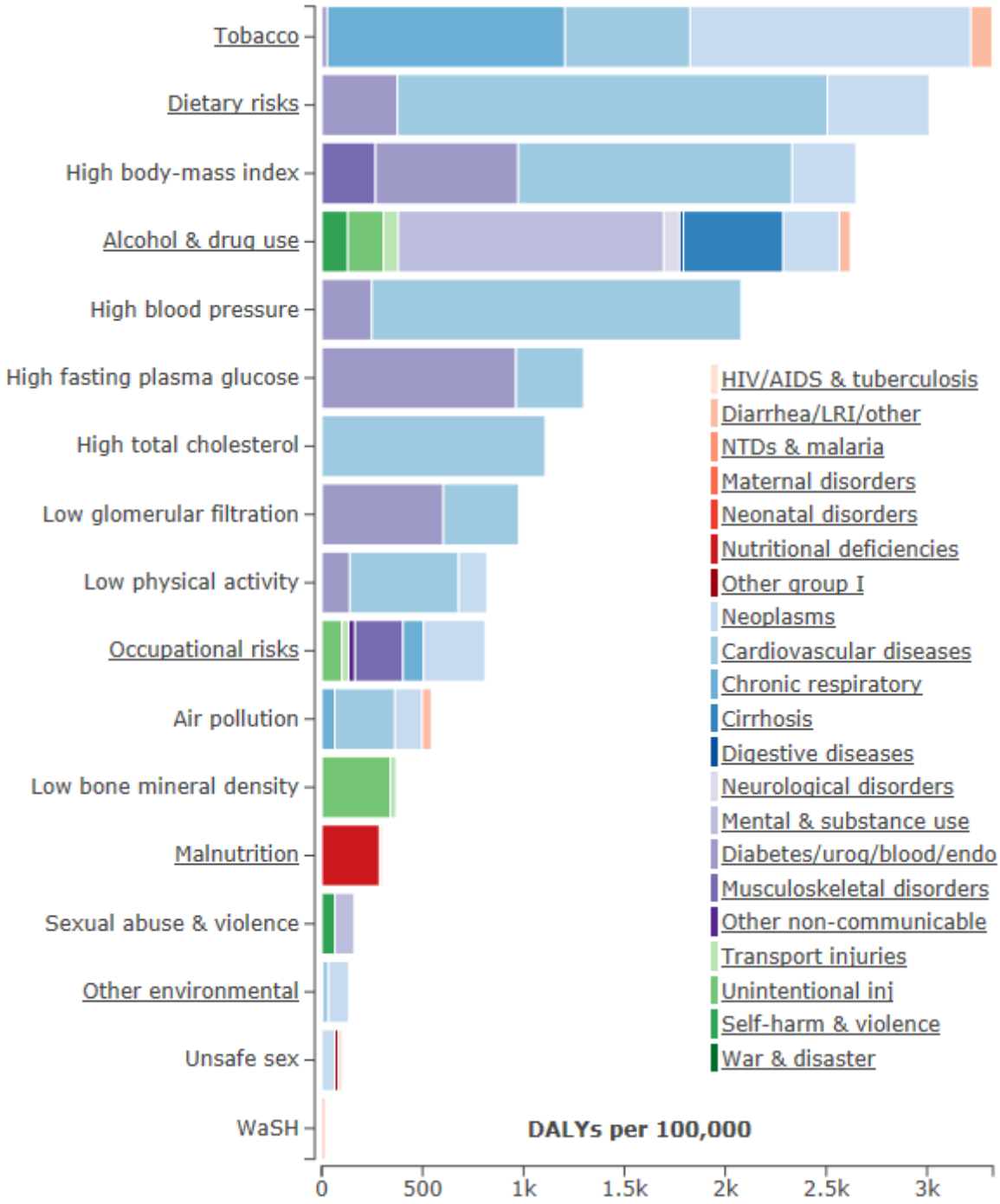
Figure 25: DALYs attributed to largest risk factors, by gender, 2013, England



Known potentially preventable risk factors taken together explain 40% of ill health in England. Examining the impact of specific risks on the overall disease burden, unhealthy diet and tobacco are the two largest contributors (diet accounts for 10.8% of total disease burden and tobacco 10.7%) For women in England, tobacco is now the number one risk factor and has overtaken unhealthy diets and high blood pressure since 1990.

The picture for the most deprived quintile of the South West population is slightly different. Tobacco, not dietary risks, is the leading cause of disease and alcohol and drug use makes a larger contribution than high blood pressure. The links between risk factors and the attributable burden of disease are shown in Figure 26.

Figure 26: Burden of Disease attributable to leading risk factors for both sexes in 2013 in the most deprived quintile of South West England



Local research into inequality

Financial hardship

The Benefits Strategy and Welfare Reform (BS&WR) Group in Swindon has explored what effects debt and worklessness have on households in Swindon.

Understanding the scope of financial hardship associated with Council Tax debt

Research has been undertaken to understand the level of financial deprivation and debt across the Borough, including issues surrounding Council Tax non-payment, and the potential impacts on other Council or Public Sector services.

A variety of datasets were utilised including Council Tax Enforcement data, Housing Benefit data, Experian Mosaic and Financial Vulnerability data, Swindon Emergency Assistance Fund (SEAF), SBC Housing Rent Arrears and Council Tax rebates.

The analysis used Experian Mosaic Types to understand the characteristics of people and households facing financial hardship. Four main Mosaic Types were found to be in difficulty with many other Types facing varying lower levels of difficulty:

- Families with low household incomes/unemployment (principally in Penhill and Upper Stratton and Walcot and Park North wards)
- Singles/sharers with low incomes
- Young Families with low incomes
- Working singles/couples with moderate incomes (principally in St. Andrews, Priory Vale and Old Town wards)

Of particular interest was the final group who were on moderate incomes but still struggling.

Social isolation

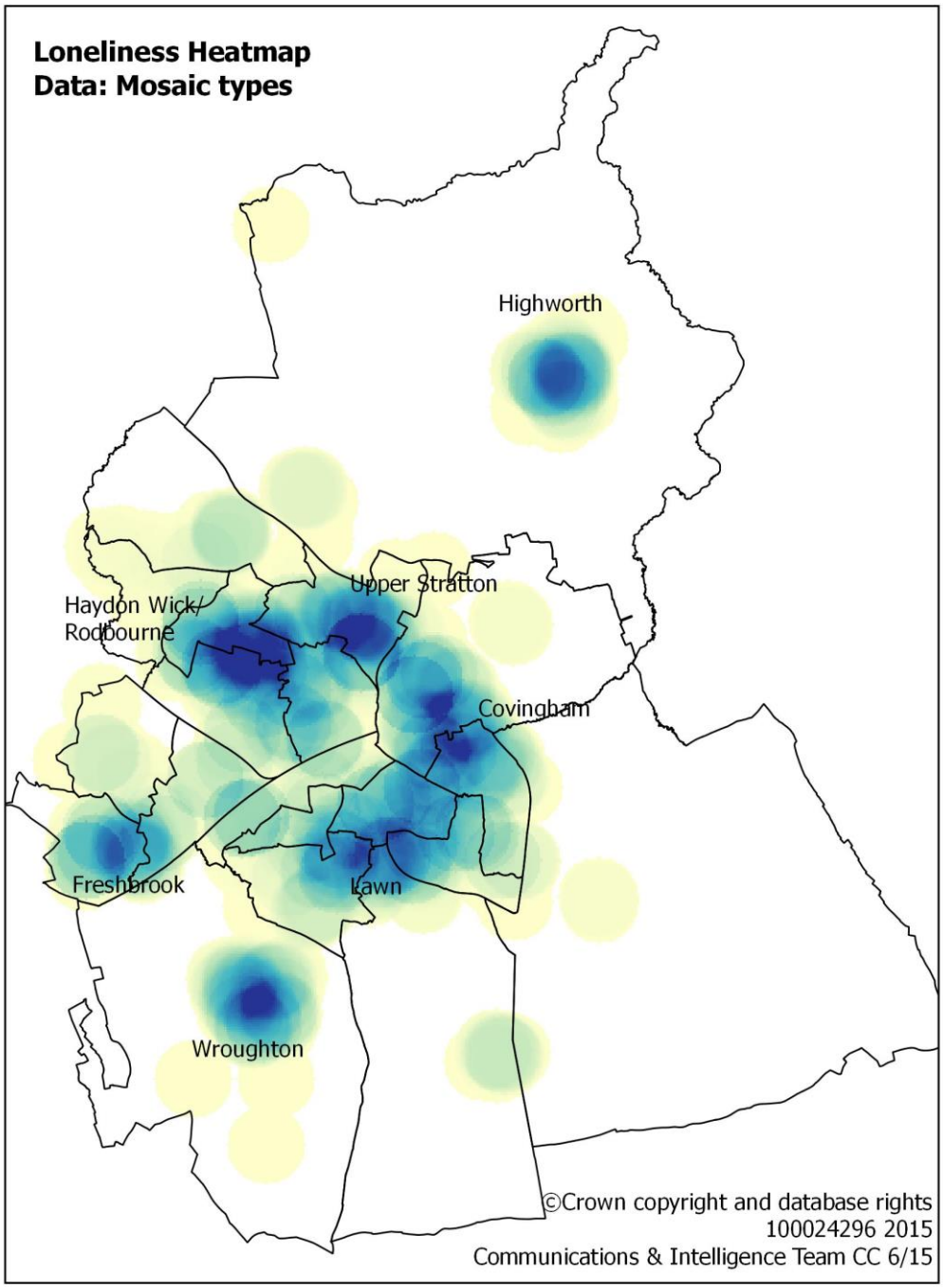
HINST[20] identified one of the main barriers to action on health inequalities to be poor connectivity of individuals and families into social structures. This social isolation deprived people of the many benefits to be derived from services, such as health and social care, but also population level support (e.g. welfare benefits) and community support (social networks and advocacy).

A piece of work was undertaken to identify the location of households in Swindon who may have an above average propensity to experience social isolation or loneliness. The work is based on the identification of 'household types' within Mosaic who might be likely to experience loneliness. The loneliness map shows hotspots of the five Mosaic Types, highlighting areas where clusters of these households exist in the borough. High density clusters are apparent in Highworth, Rodbourne Cheney, Haydon Wick and Wroughton. There are also clear clusters in Upper Stratton, Covingham, Lawn and Freshbrook.

[20] Health Inequalities National Support Team. (2008). Systematically Addressing Health Inequalities. London: Department of Health.

Mosaic Groups L and M are those most likely to be experiencing loneliness. Group M in particular are a predominantly elderly group, who are also highly likely to be experiencing anxiety and/or depression. Whilst Group L are likely to be less financially vulnerable than M, they are also potentially very isolated, as they are unlikely to have much contact with others, and are also less likely (than the national average) to be internet users. If focussing purely on the elderly, these will be the groups to work with. However Group O also experience relatively high levels of deprivation, with low incomes, anxiety, depression, and low car ownership likely to be factors.

Figure 27: Swindon loneliness map, 2015



Best practice to reduce health inequalities

Introduction

Health inequalities arise from differences in social and economic conditions that influence people's behaviours and lifestyle choices, their risk of illness and actions taken to deal with illness when it occurs. Therefore, the drive to reduce health inequalities cannot be distinguished from attempts to reduce inequalities in general.

NICE: health inequalities and population health[21]

The National Institute for Health and Care Excellence (NICE) published a local government briefing summarising NICE's recommendations for local authorities and partner organisations on population health and health inequalities. It is particularly relevant to health and wellbeing boards.

NICE guidance offers:

- recommendations based on the best available evidence to help plan, deliver and evaluate successful programmes
- an objective and authoritative summary of the research and evidence, reviewed by independent experts from a range of backgrounds and disciplines
- an assessment of the effectiveness and cost effectiveness of public health interventions.

NICE state that tackling the social gradient in health requires a combination of both universal (population-wide) and targeted interventions that reflect the level of disadvantage and hence, the level of need (proportionate universalism). Proportionate universalism is further defined as an approach where interventions are delivered to the whole population, with the 'intensity' adjusted according to the needs of specific groups (for example, some groups may need more frequent help and advice). This type of approach can help to reduce the social gradient and benefit everybody.

Information gathering

Information gathering is vital for the joint strategic needs assessment and to help develop the health and wellbeing strategy. It provides a means for local authorities and their partners to allocate resources effectively to reduce variation in service access and uptake.

Tackling harmful behaviours

Local authorities should focus on behaviours that increase the risk of ill health and premature death – and are generally more prevalent among people from lower socioeconomic groups. For example:

- Alcohol: NICE recommends using local crime and related trauma data to map the extent of alcohol-related problems before developing or renewing a licensing policy.

[21] https://www.nice.org.uk/advice/lgb4/chapter/Introduction

- Obesity: NICE recommends making changes to the environment and the workplace to encourage people to be more physically active. This, in turn, will help reduce the number of people who are overweight and prevent them becoming obese.

- Poor diet and lack of physical activity is associated with type 2 diabetes: NICE recommends using community resources and lay and peer workers to tailor interventions and target communities at high risk of type 2 diabetes.

- Smoking: NICE recommends providing stop smoking services for minority ethnic and socially disadvantaged communities.

- Unintentional injuries: NICE guidance on strategies to prevent unintentional injuries among under-15s reports that, although deaths and hospital admissions from unintentional injuries are falling overall, the highest incidences are reported in areas with high levels of deprivation.

Planning and commissioning services

Local authorities and their partners should use equity proofing, health equity audit (HEA) and health impact assessment (HIA) tools to assess the potential impact of all their policies on health and health inequalities. Even policies and partnership activities without an explicit health focus should be assessed, as a matter of routine.

- Equity proofing helps ensure all policies and programmes address the social determinants of health and health inequalities.

- An HEA is a review procedure, which examines how health determinants, access to relevant health services, and related outcomes are distributed across the population, relative to need.

- HIA combines procedures, methods and tools to help assess the potential health impact of a proposal and makes recommendations for improving it.

NICE: Community engagement: improving health and wellbeing and reducing health inequalities[22]

This NICE guideline covers community engagement approaches to reduce health inequalities, ensure health and wellbeing initiatives are effective and help local authorities and health bodies meet their statutory obligations. It makes recommendations on a number of key aspects and includes information on implementation and evaluation.

Overarching principles of good practice

- Ensure local communities, community and voluntary sector organisations and statutory services work together to plan, design, develop, deliver and evaluate health and wellbeing initiatives.

- Recognise that building relationships, trust, commitment, leadership and capacity across local communities and statutory organisations needs time.

[22] nice.org.uk/guidance/ng44

- Support and promote sustainable community engagement by encouraging local communities to get involved in all stages of a health and wellbeing initiative.

- Ensure decision-making groups include members of the local community who reflect the diversity of that community. Encourage individual members to share the views of their wider networks and others in the community.

- Feedback the results of engagement to the local communities concerned, as well as other partners. This could be communicated in a range of ways (local newspaper or community website, community groups or public events).

Developing collaborations and partnerships to meet local needs and priorities

- Support development of collaborations and partnerships to encourage local communities to take part in initiatives to improve their health and wellbeing and reduce health inequalities. Use local networks and community and voluntary organisations to help achieve this.

- Base collaborations and partnerships on local needs and priorities. Effective approaches are asset-based approach, community development, community based participatory research, area-based initiatives and co-production.

Involving people in peer and lay roles to represent local needs and priorities

- Draw on the knowledge and experience of local communities and community and voluntary organisations to identify and recruit people to represent local needs and priorities. Ask those recruited to take on peer and lay roles as part of the health and wellbeing initiative.

- Consider offering training and mentoring support to community members. Also consider providing formal recognition of their contribution and other opportunities for development, e.g. accredited training.

Local approach to making community engagement an integral part of health and wellbeing initiatives

- Consider mechanisms that can ensure community engagement is an integral part of health and wellbeing initiatives.

- Work with local communities and community and voluntary organisations to:
    - use the JSNA and other data to understand the demographics of local communities
    - plan ways to make it as easy as possible for people to get involved
    - identify the 'assets' (skills, knowledge, networks and relationships) and facilities available locally
    - plan how to build on and develop these assets as part of the JSNA
    - plan how the local approach can meet public bodies' statutory obligations
    - act on community needs and preferences and take account of changes in these needs and preferences over time.

- Address health inequalities by ensuring additional efforts are made to involve local communities at risk of poor health. This includes people who are vulnerable, marginalised, isolated or living in deprived areas.

Making it as easy as possible for people to get involved

- Work with local communities and community and voluntary organisations to:
    - Identify barriers to involvement, particularly for vulnerable groups and recently established communities.
    - Decide which types of communication would get people interested and involved. Include ways of communicating that reflect the needs of: vulnerable or isolated groups, recently established communities, those with low literacy or learning difficulties, and people who do not use digital or social media.

- Provide the support people need to get involved (e.g. using Plain English, involving community members in recruitment processes, meeting needs of people with disabilities and using places familiar to community participants and creating an informal atmosphere).

Health Inequalities National Support Team

The Health Inequalities National Support Team (HINST) was one of a number of Department of Health public health national support teams that provided tailored delivery support to health partnerships in England – PCTs / NHS trusts and local authorities. Local areas were offered support identified principally on the extent of challenge and who would most benefit. HINST visited all 70 areas formerly known as spearheads (the 20% of areas in England with the poorest health and greatest disadvantage), plus a dozen other areas who also experienced high levels of deprivation and had high mortality rates from cardiovascular disease. The programme finished work in March 2011 and published its key outputs which distil the learning from the programme for the benefit of local commissioners and providers.

The documents, guides and tools highlight ways of improving outcomes, especially for patients and communities who often experience the poorest health and premature death. The materials are highly practical, many illustrated with tangible examples of improvements made in local areas, as well as providing a step-by-step checklist of how to take certain approaches and initiatives forward.

The materials can be accessed via the (now closed) NHS Institute website: http://www.institute.nhs.uk/commissioning/general/health_inequalities_national_support_team_resources.html

Addressing inequalities in a Primary Care setting

Promoting small changes which will make a big difference

A joint regional workshop held by PHE and NHSE encouraged CCGs to provide leadership to promote GP practices to do at least one thing to enhance the delivery of systematic care in order to address the vulnerabilities of people registered who have two or more risk factors likely to lead to exclusion from the full benefits of NHS care:

- Low literacy and/or fewer than 5 GCSEs
- Chronic mental health problems
- Not fluent in the English language
- Extensive contact with criminal justice system
- Living in private rented accommodation

The workshop also highlighted the benefits of working in partnership to achieve outreach into groups and communities where health is not valued with the objective of changing that negative view: Ignoring health risks does not help those living in deprivation.

The Marmot Review

As discussed elsewhere in this document the Marmot Review states that reducing health inequalities will require action on six policy objectives:

- Give every child the best start in life
- Enable all children young people and adults to maximise their capabilities and have control over their lives
- Create fair employment and good work for all
- Ensure healthy standard of living for all
- Create and develop healthy and sustainable places and communities
- Strengthen the role and impact of ill health prevention

Local action on health inequalities: a series of evidence papers

Out of the Marmot Review also came a call from local public health teams for evidence to support implementation of practical action on health inequalities. PHE commissioned Professor Sir Michael Marmot's team at the UCL Institute of Health Equity to build on the Marmot Review with a series of papers for local authorities about action on the wider determinants of health – such as early year's experiences and employment. The topics covered relate to some of the policy objectives in the Marmot Review and are intended to provide a useful local focus for action. The papers include evidence, practical points and case studies on approaches and actions that can be taken by local authorities on a range of issues to reduce health inequalities. They are not systematic or comprehensive reviews of a topic, but rather discussions that bring together key evidence and expert advice to provide practical information that can be applied in local work to reduce health inequalities.

The series is designed for teams in local authorities particularly directors of public health and their teams and for health and wellbeing boards. The papers will also provide useful information for other professionals in local authorities who have responsibility for work that has implications for health, such as planning services.

The series includes eight evidence reviews[23] and 14 complementary short briefings[24]. It covers topics from five of the six policy domains of the Marmot Review:

[23] Institute of Health Equity. 2014. Good quality parenting programmes and the home to school transition. Local action on health inequalities: Health Equity Evidence Review 1. London: PHE/IHE. url: https://www.gov.uk/government/publications/local-action-on-health-inequalities-evidence-papers

early intervention, education, employment, ensuring a healthy living standard for all, and healthy environment. Additional information is provided in two papers relating to issues of implementation and impact. One is an introductory guide to economics to help with deciding how best to invest in services and infrastructure that can affect health. The other paper is a 12-step approach to action on the social determinants of health approach based on experiences.

Swindon interventions to reduce health inequalities

Simply working to narrow the health gap (raising the health of the poorest, fastest) and focusing on the health needs of a small proportion of the population may not be enough to achieve the biggest impact on local populations. Tackling the social gradient in health requires a combination of both universal (population-wide) and targeted interventions that reflect the level of disadvantage and hence, the level of need (proportionate universalism).

Targeted Public Health programmes in Swindon to reduce health inequalities

Health Ambassadors programme:

- help people to develop healthier behaviour and lifestyles in their own local communities. They offer practical support to change their behaviour to achieve their own choices and goals.

Early year's healthy eating programme:

- Focused in areas with higher than average levels of obesity.

Cardiovascular disease:

- Activity in pharmacies – delivered in partnership with Local Pharmaceutical Committee.
- NHS Health Checks focussed on deprived areas
- Targeting areas where the population is at greater risk of cardiovascular disease which is one of the main causes of mortality.

Affordable Warmth Partnership:

- Targeted information about the assistance available to improve energy efficiency and to help with fuel bills.
- Addresses some of the wider determinants of health, and has potential to directly impact on health by people having warm enough houses.

Breastfeeding peer support programme:

- Women with experience of breastfeeding are trained to support new mothers with breastfeeding in areas with low breastfeeding rates.
- Breastfeeding is known to be good for both mother and baby, and can affect health throughout the life course.

Universal Public Health programmes in Swindon which contribute to reducing health inequalities

Health improvement campaigns:

[24] Institute of Health Equity. 2014. Improving the home to school transition. Local action on health inequalities: Health Equity Briefing 1b. London: PHE/IHE. url: https://www.gov.uk/government/publications/local-action-on-health-inequalities-evidence-papers

- Active Health (physical activity on referral) programme.
- Adult and children weight management programmes.
- Healthy schools programme.
- Change 4 Life programme.
- Implementation of Swindon Alcohol strategy.
- Pharmacy health promotion campaigns.
- Generic health promotion campaigns.

NHS Health Checks offered by GPs for all those aged 40-74 years, not already on a CVD register.

Stop Smoking Service.

Generic health promotion campaigns.

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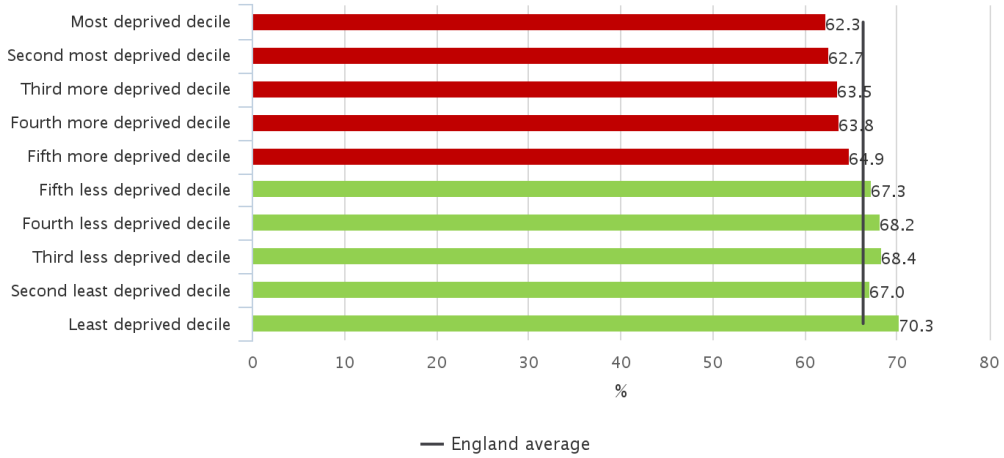
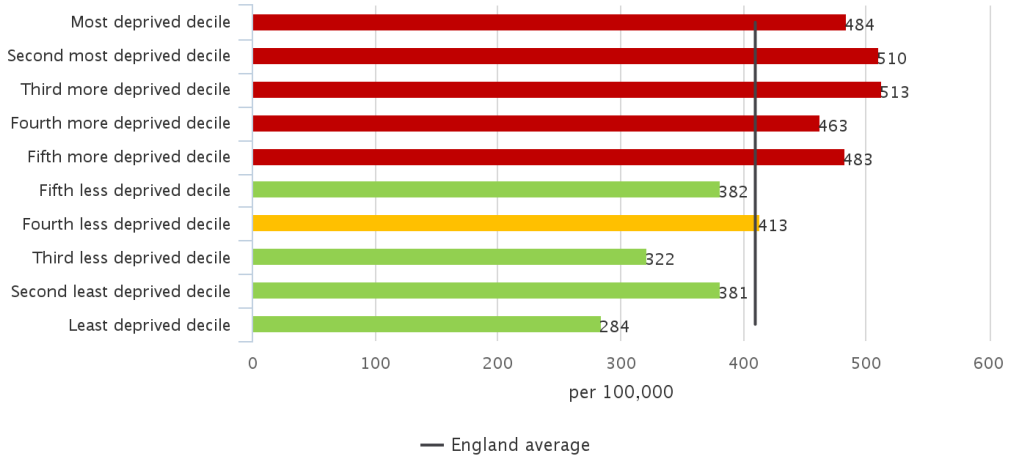
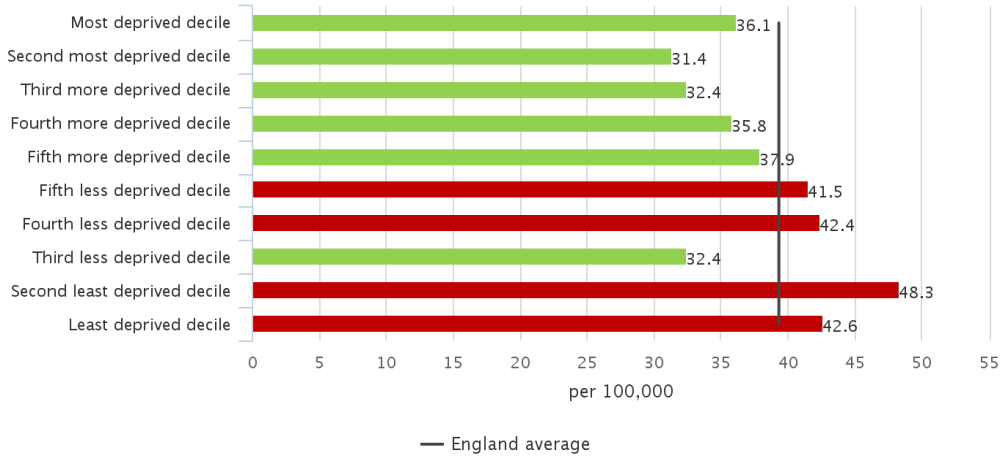


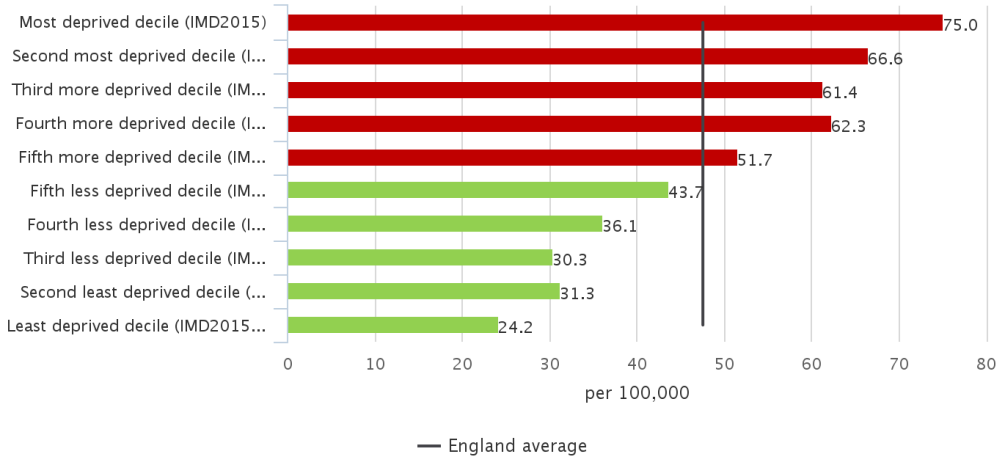
1.04 – First time entrants to the youth justice system – England, 2014 – Data partitioned by County & UA deprivation deciles in England (IMD2010)



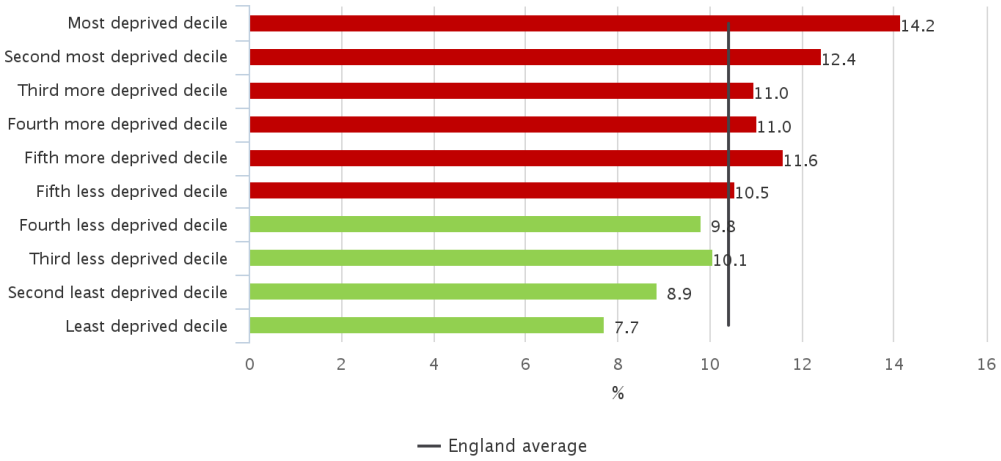
1.10 – Killed and seriously injured (KSI) casualties on England's roads – England, 2012 – 14 – Data partitioned by County & UA deprivation deciles in England (IMD2010)



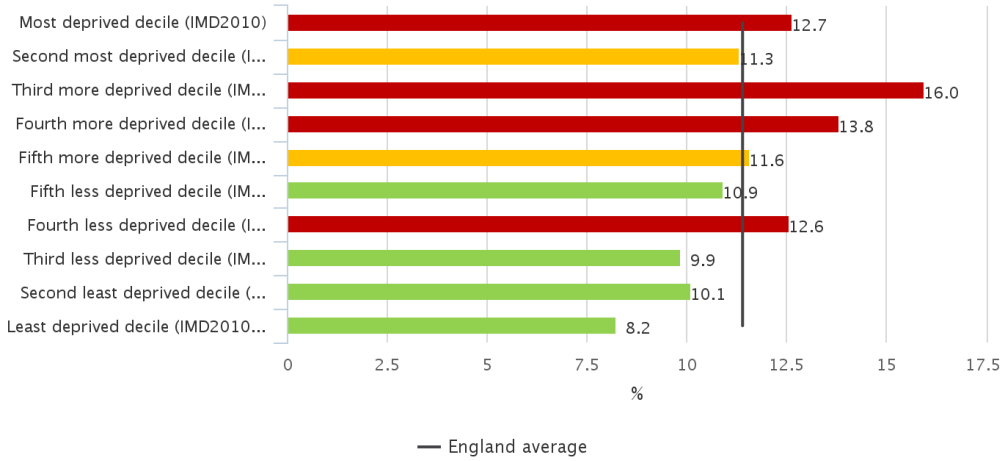
1.12i – Violent crime (including sexual violence) – hospital admissions for violence – England, 2012/13 – 14/15 – Data partitioned by County & UA deprivation deciles in England (IMD2015)



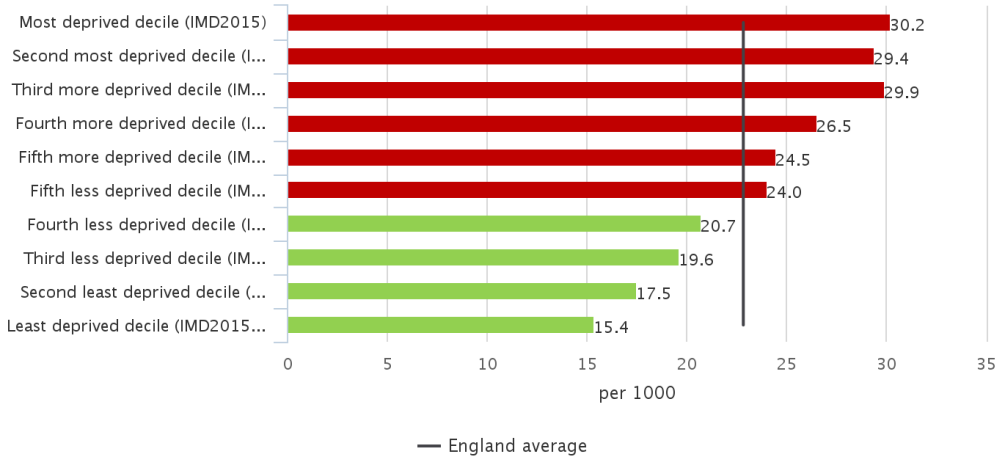
1.17 – Fuel poverty – England, 2013 – Data partitioned by County & UA deprivation deciles in England (IMD2010)



2.03 – Smoking status at time of delivery – England, 2014/15 – Data partitioned by County & UA deprivation deciles in England (IMD2010)



2.04 – Under 18 conceptions – England, 2014 – Data partitioned by County & UA deprivation deciles in England (IMD2015)



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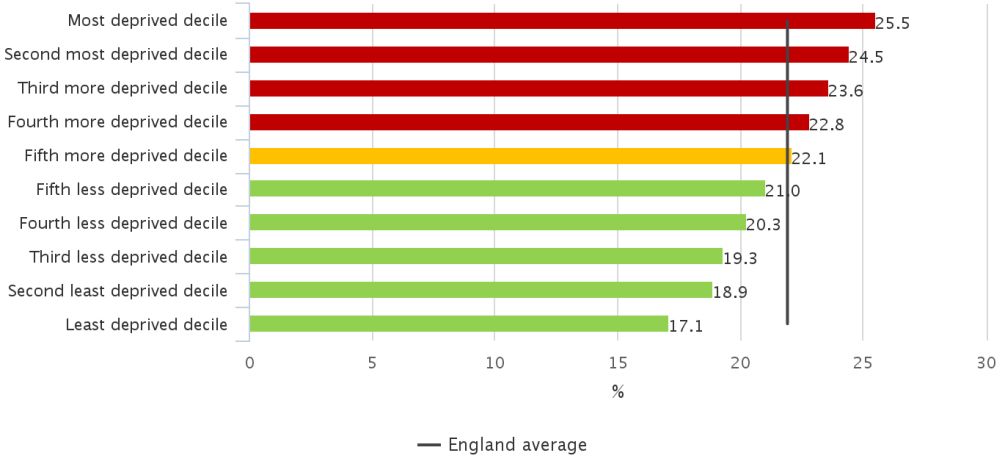

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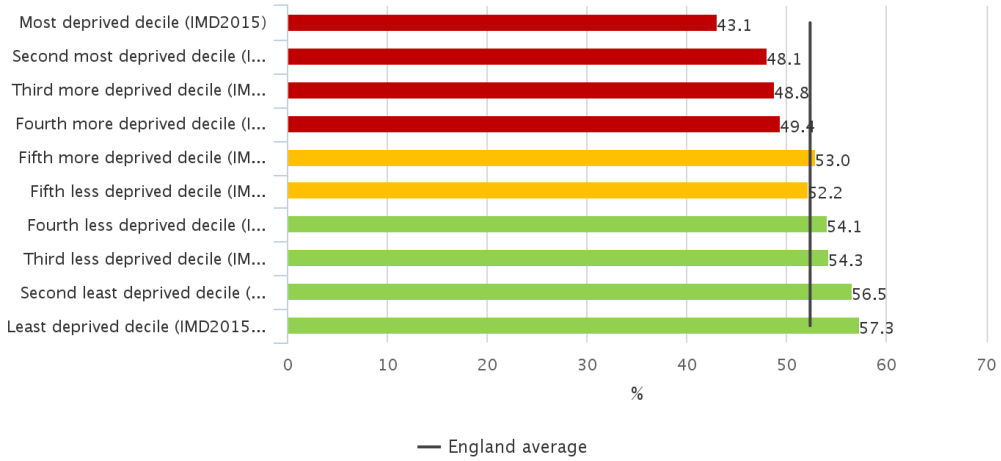

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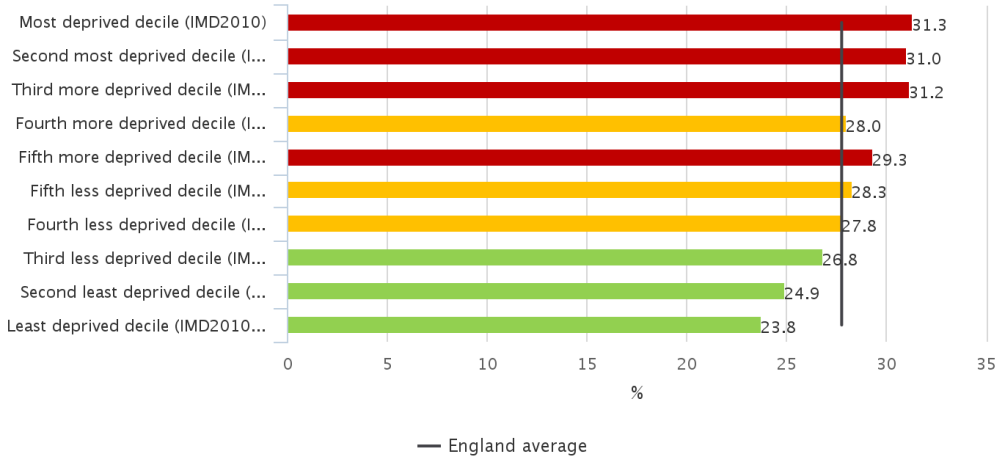

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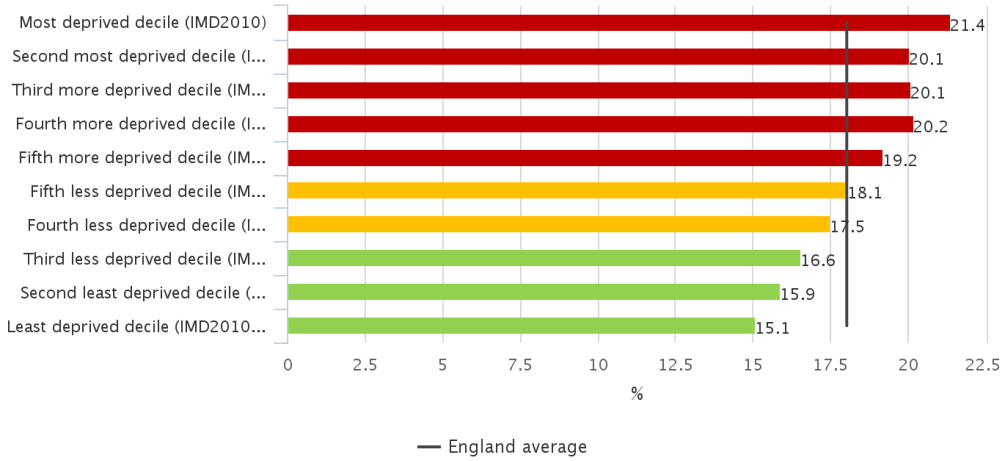

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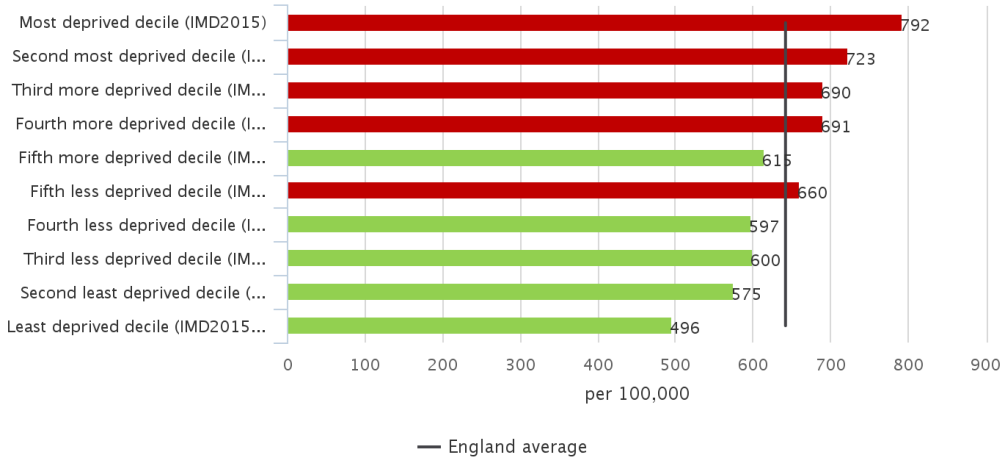

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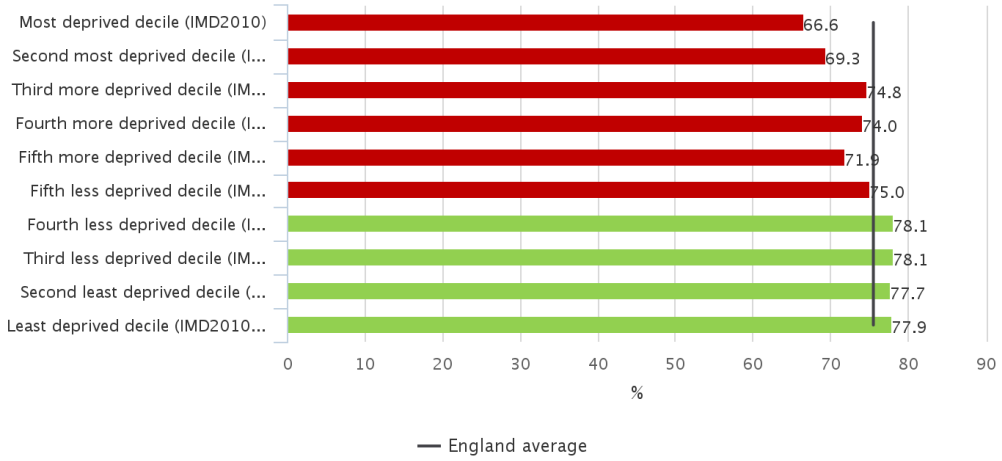

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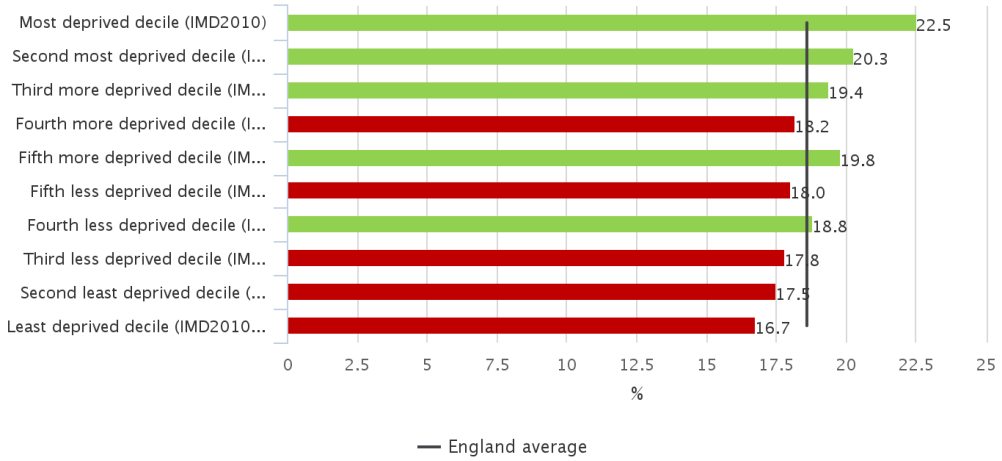

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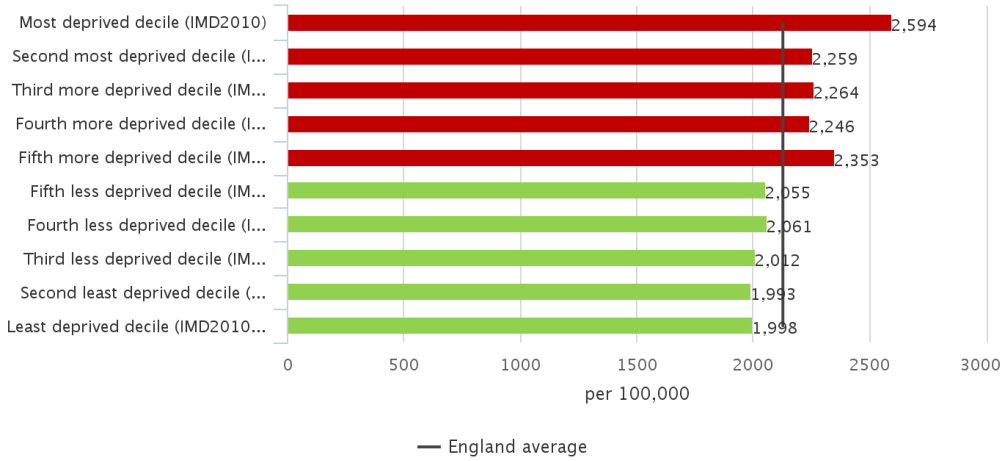

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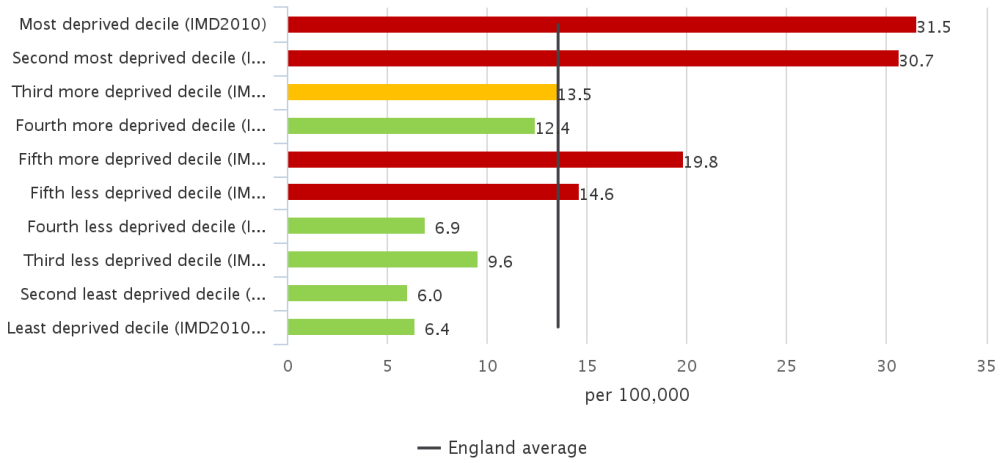

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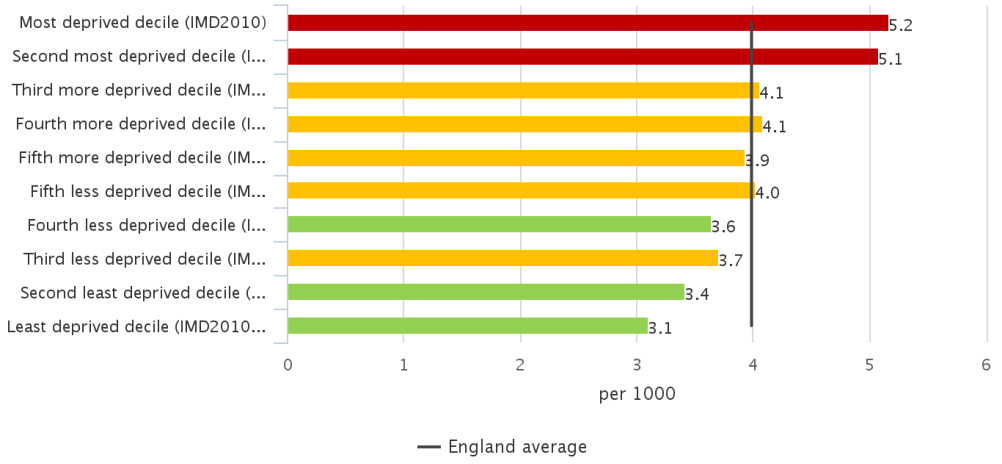

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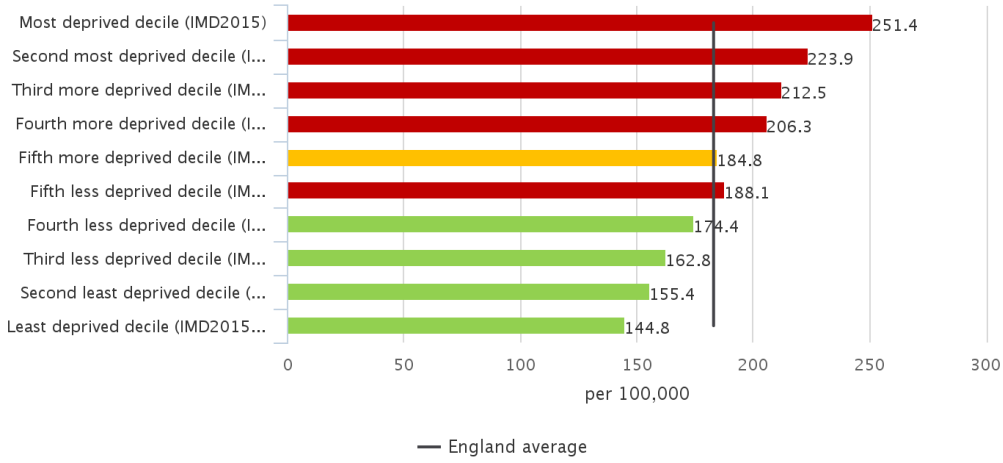

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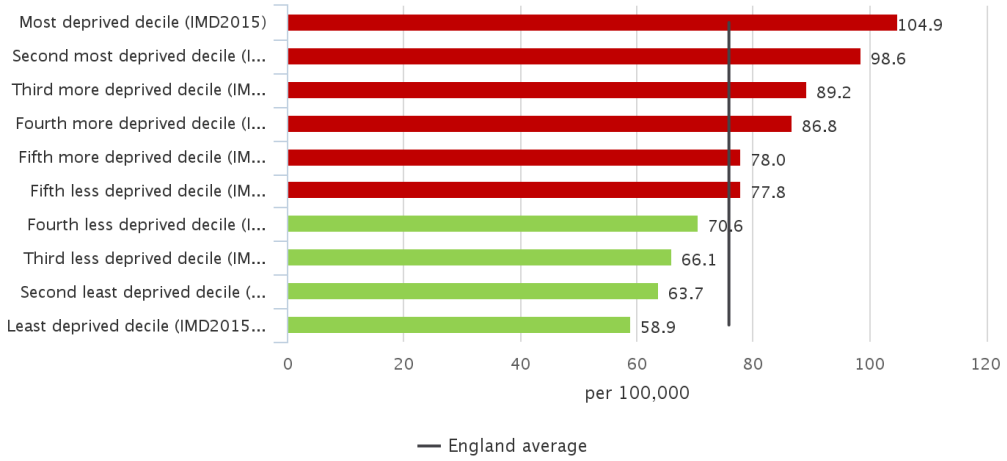

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