

Health Deprivation in Poole

A Short Paper

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1. Introduction

This short report examines health deprivation in Poole. It mainly uses data which informed the Indices of Multiple Deprivation 2007 (IMD 2007).

We will consider data mainly at Lower Level Super Output Area (LSOA), of which there are 91 in Poole. This geography is sufficiently small to “zoom in” on pockets of health deprivation, yet sufficiently large for the purposes of statistical robustness. There are around 1,500 residents in each LSOA in Poole.

Note that many, if not most, people who are unhealthy do not live in health-deprived neighbourhoods. Nonetheless, it is usually in areas with concentrations of ill-health that resources are targeted.

It should be stressed that Poole is *not* an area suffering from pronounced health deprivation compared to other local authorities. Indeed, “all things being equal” one would expect 23 of the LSOAs in Poole to be in the worst quartile, nationally, while only five are in this position. Moreover, from the Place Survey, three out of four respondents in Poole report that they are in good health

Examining the health deprivation scores and the underlying data, we suggest that *three LSOAs merit especial attention – one in Poole Town Ward (“Poole Centre”), one in Hamworthy West Ward (“Turlin Moor”) and one in Alderney Ward (“Bourne Estate”).* Their health deprivation scores are such that these three LSOAs form a distinct cluster.

We also consider the health characteristics of the primary Mosaic Group/Type in each of the three LSOAs. It should be stressed that the health statistics quoted for Mosaic Groups/Types are for that Group/Type as a whole, i.e. across the UK. *They offer a guide as to what one might expect if the national characteristics were exhibited locally.*

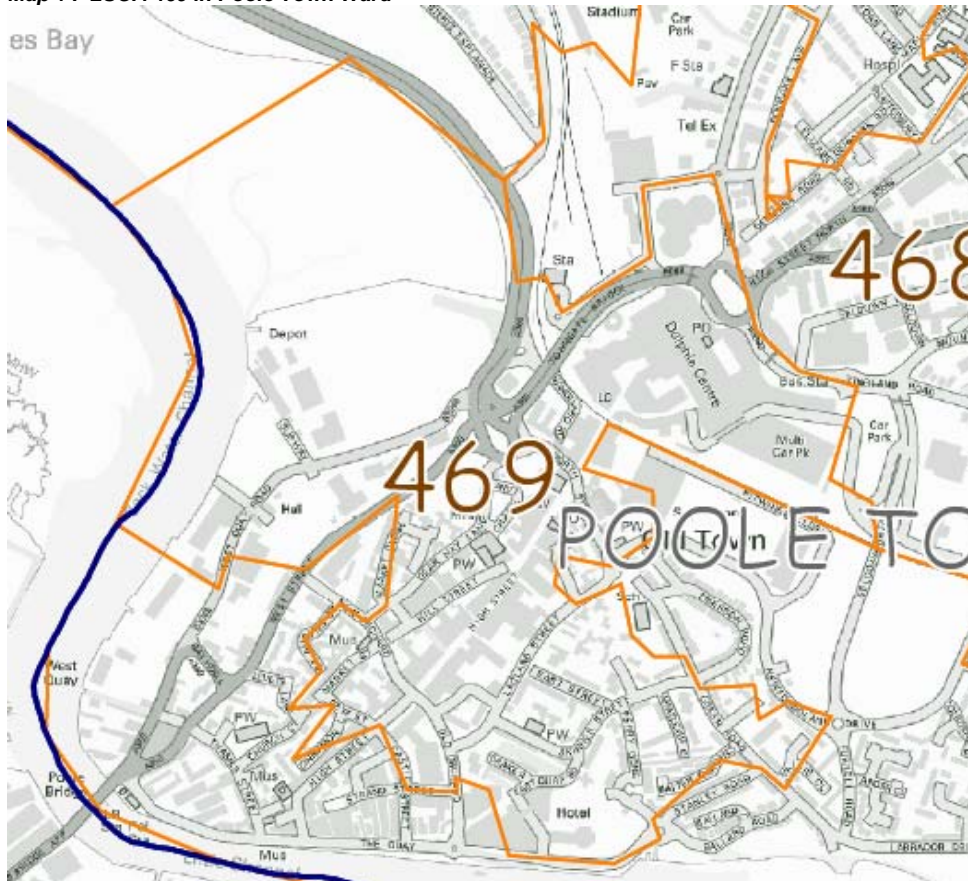
We also explore the relationship between health deprivation and other domains of deprivation – see §3 below.

2. Areas of Interest

Maps of the areas of interest are shown below.

2.1 Poole Centre

Map 1. LSOA 469 in Poole Town Ward



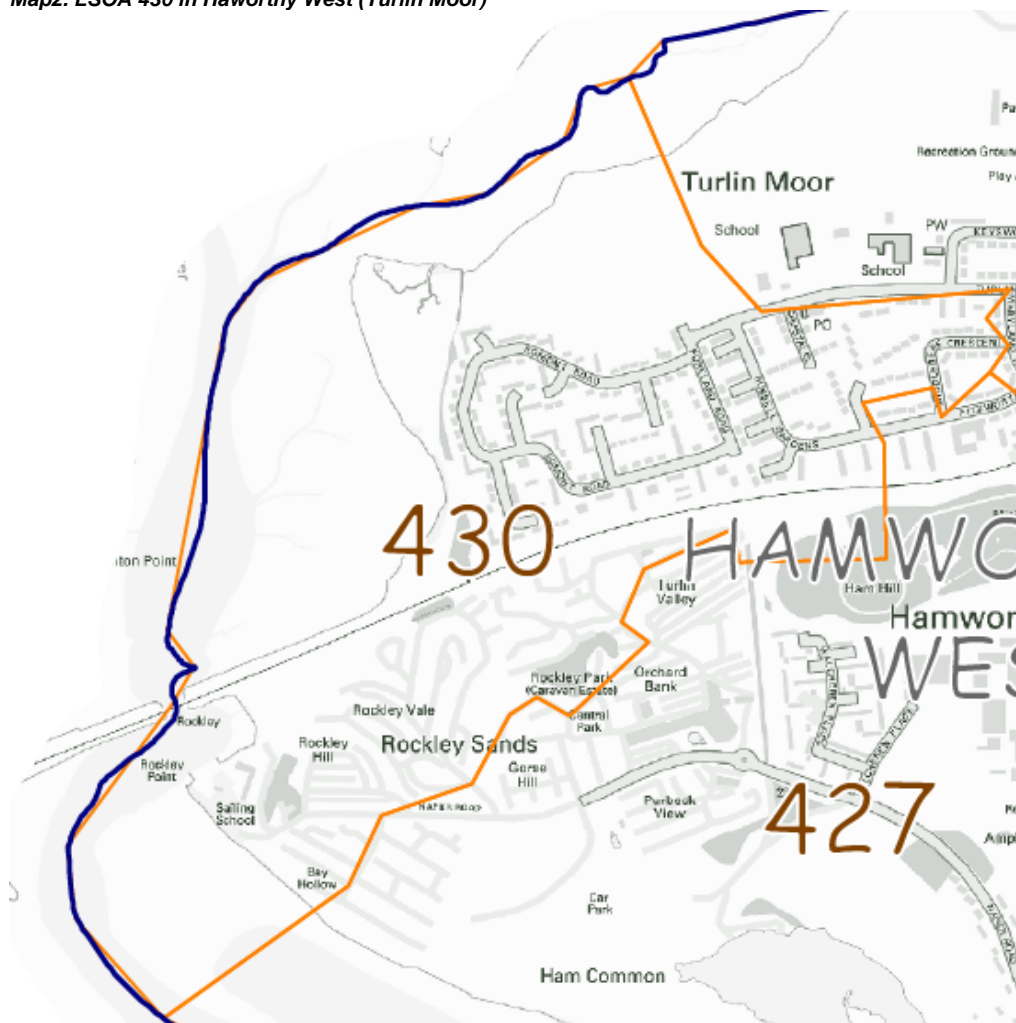
Key Features of this area:

- This LSOA is the worst in Poole with respect to health deprivation. Moreover, it is in the worst 7% of all LSOAs nationally for health deprivation.
- It is the worst LSOA in Poole for employment deprivation (and is in the worst 4% nationally for employment deprivation).

- Its years of potential life lost score is the highest in Poole (and more than double that of the best LSOA in Poole with respect to this measure, which is in Broadstone).¹
- 42% of Households are Mosaic Type M57, comprising older people living in flats and subsisting on welfare payments. For this Type, heart disease rates are very high. The numbers of smokers is also very high and emergency admissions to hospital are high.

2.2 Turlin Moor

Map2. LSOA 430 in Haworthy West (Turlin Moor)



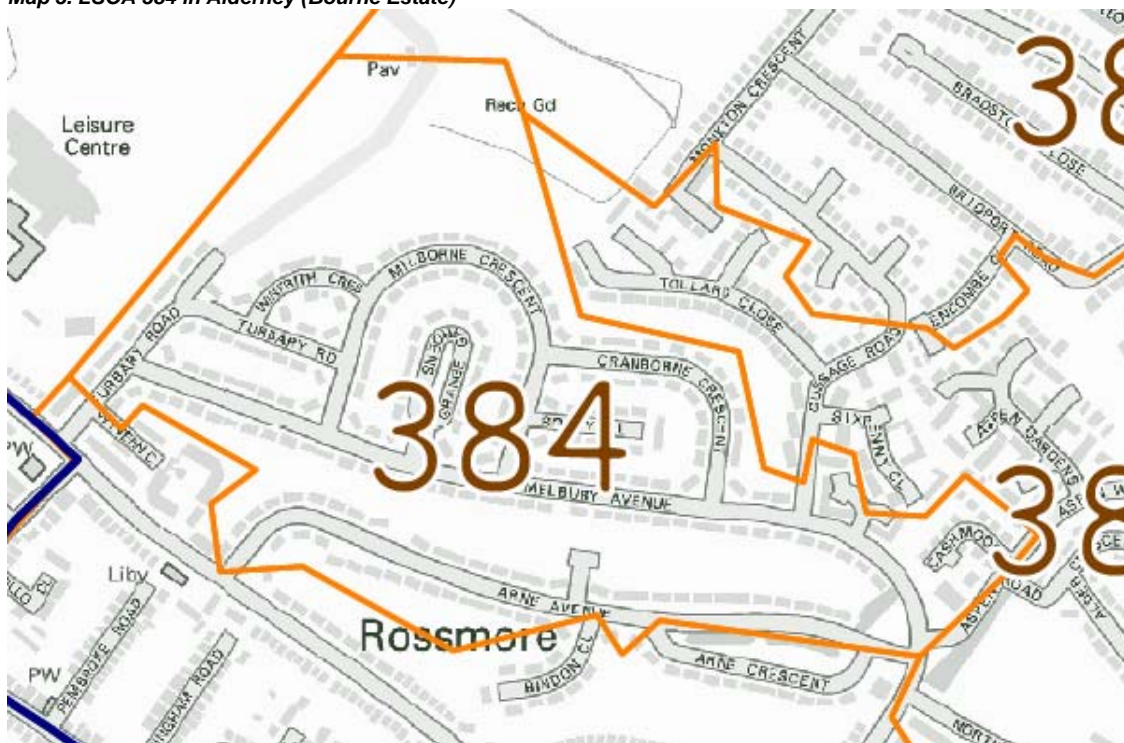
¹ This is mirrored at Ward level by the fact that, within Poole, Broadstone Ward has the highest level of life expectancy at birth (83.1 years) and Poole Town Ward the lowest (77.7 years).

Key Features of this area:

- This LSOA is the second worst in Poole with respect to health deprivation. Moreover, it is in the worst 21% of all LSOAs nationally for health deprivation.
- It is the second worst LSOA in Poole for employment deprivation (and is in the worst 14% nationally for employment deprivation).
- Its years of potential life lost score is 60% higher than the best performing LSOA (for this measure).
- 58% of Households are in Mosaic Group O comprising “families living in low-rise housing with high levels of benefit need”. The numbers of smokers in this group is very high.

2.3 Bourne Estate

Map 3. LSOA 384 in Alderney (Bourne Estate)



Key Features of this area:

- This LSOA is the third worst in Poole with respect to health deprivation. Moreover, it is in the worst 22% of all LSOAs nationally for health deprivation.

- **It is the third worst LSOA in Poole for employment deprivation (and is in the worst 18% nationally for employment deprivation).**
- **Its years of potential life lost score is 46% higher than the best performing LSOA (for this measure).**
- **Nearly two in three households are to be found in a single Mosaic Type , O68, which comprises “families with varied structures living in low rise social housing estates” Levels of smoking among this Type are very high.**

3. Relationship in Poole between ill-health and other domains of deprivation

IMD 2007 used seven domains of deprivation, namely:

- **Health²**
- **Income**
- **Employment**
- **Education, Skills and Training**
- **Barriers to Housing and Services**
- **Crime**
- **The Environment**

We have investigated the relationship in Poole between health deprivation and the other six domains using stepwise multiple regression.³ Only three of the six domains entered the equation, but employment deprivation dominated the picture and we confine ourselves in the main report to this variable. (This is Model 1 in the Appendix.)

The key finding is:

- **85% of the variation in health deprivation at LSOA level within Poole can be “explained” by employment deprivation⁴**

² It is labelled the Health Deprivation and Disability Domain.

³ Technical details concerning the analysis can be found in the Appendix.

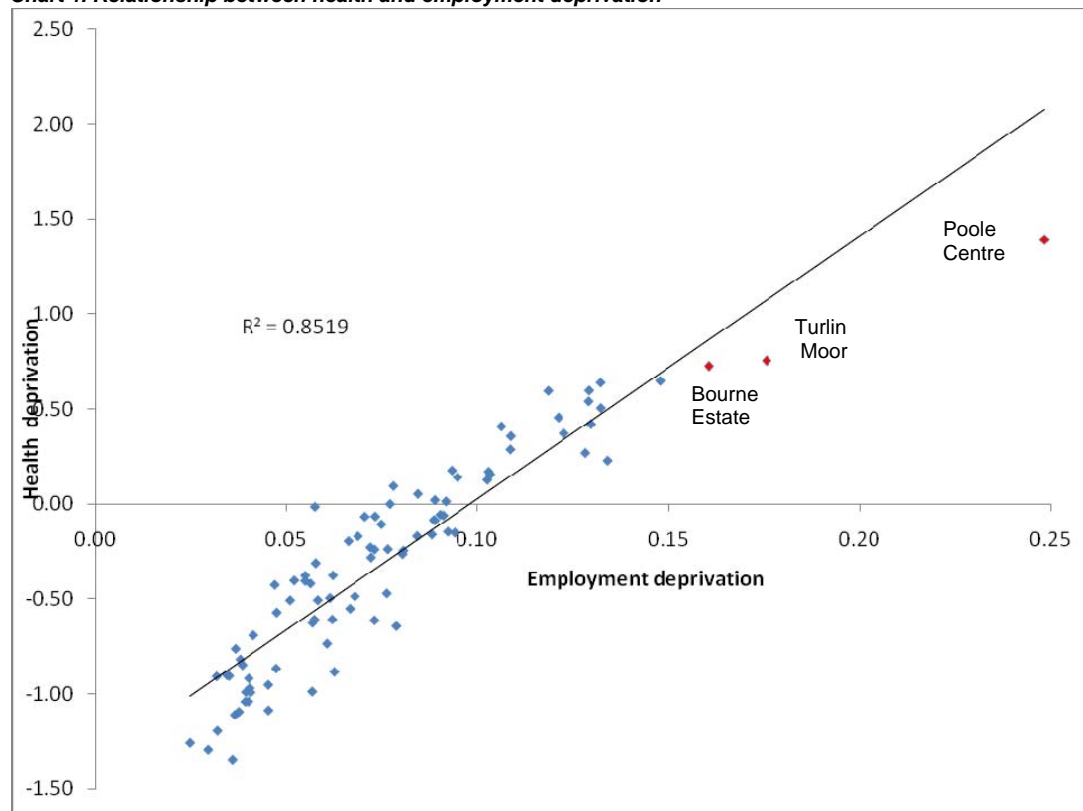
⁴ Of the six variables used to compute employment deprivation, two - recipients of incapacity benefit and recipients of severe disablement allowance - are health-related and this accounts for *some* of the observed correlation between unemployment and health deprivation.

Employment deprivation is a measure which estimates the proportion of the working age population involuntarily excluded from employment.

Thus the higher the level of employment deprivation in an area, the more likely that area will show high levels of health deprivation.

This can be seen in the scatter plot below, showing health deprivation plotted against employment deprivation for each of Poole's LSOAs. (The three LSOAs of primary interest are shown in red.)

Chart 1. Relationship between health and employment deprivation

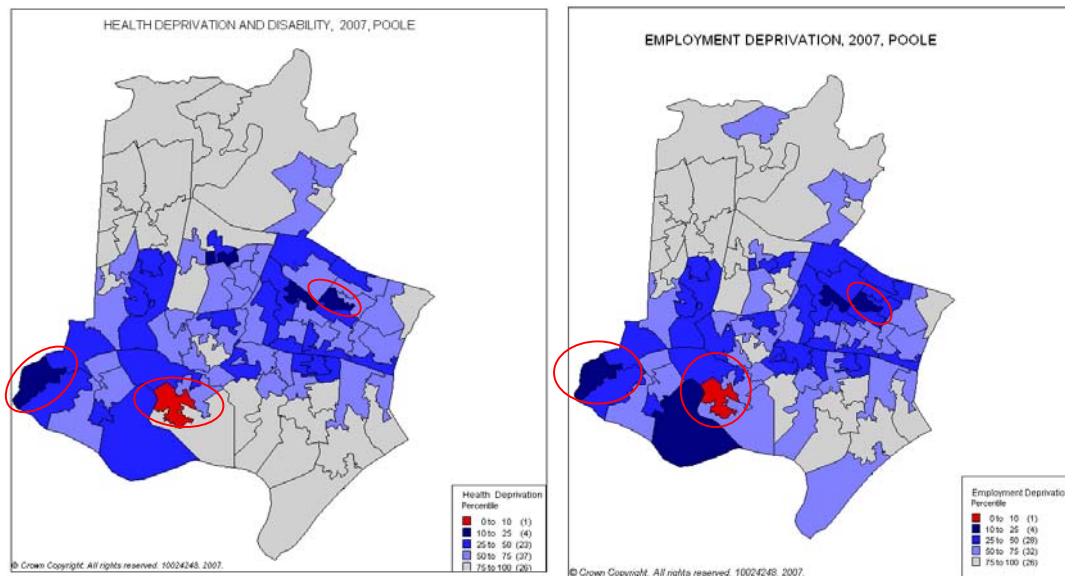


Note that we cannot deduce causation from high correlation. The causation works both ways: ill-health may cause one to be unemployed and being unemployed may have a detrimental effect on one's health.

The association between Health and Employment Deprivation is also shown in the maps below. Our areas of interest are ringed in red. Each of them is in the worst national quartile for both health and employment deprivation.

Map 5. Health Deprivation

Map 6. Employment Deprivation



Health deprivation is also strongly (but less) correlated with income deprivation but this, in turn, is highly correlated with employment deprivation.

The variance in employment deprivation across Poole is high. There is an LSOA with an employment deprivation score of only 2% (In Broadstone). **In the Poole Centre LSOA , it is 25%, in Turlin Moor 18% and in Bourne Estate 16%.**

There is compelling evidence at the national and international level to suggest that becoming unemployed leads to increased likelihood of suffering from health problems. Indeed, there is a *“strong evidence base showing that work is generally good for physical and mental health and well-being, taking into account the nature and quality of work and its social context, and that worklessness is associated with poorer physical and mental health. Work can be therapeutic and can reverse the adverse health effects of unemployment, in relation to healthy people of working age, for many disabled people, for most people with common health problems, and for social security beneficiaries”*⁵

Dr. Nery Williams, the DWP’s Principal Occupational Physician reports that⁶:

Unemployed people have:

- **Twice the rate of depression and three times the rate of anxiety than the general population**
- **Increased rates of obesity**
- **Reduced rates of activity**
- **Increased risk of heart disease**

⁵ “Is Work Good for Your Health and Well-being?” Gordon Waddell, A Kim Burton, TSO , 2006

⁶ www.facocmed.ac.uk/library/docs/compnw3.ppt

Unemployment is likely to lead to an increase in the use of

- **Tobacco**
- **Alcohol**
- **GP services**
- **Use of medication**
- **Admissions to psychiatric hospitals**

We suspect that much of the national observations above on unemployment and ill-health would equally apply in Poole. For example, we find that:

- **The correlation (across LSOAs) between employment deprivation and residents suffering from mood and anxiety disorders within Poole is 0.8, which is highly statistically significant.**

Also, with respect to Poole:

- **There are currently around 7,600 persons of working age in Poole who are unemployed and would like a job, 3,500 of whom are economically active⁷.**
- **The percentage of JSA claimants who are long-term claimants (more than 12 months) has been steadily increasing and now stands at 9%.**

4. Conclusion

We conclude that the provision of *appropriate* employment for those who are unemployed and *want* to work, of whom there are approximately 7,600 in Poole, is likely to make a significant positive impact, overall, on their general health and well-being.

⁷ Source: ONS Annual Population Survey

Technical Appendix

4.1 IMD 2007 Health Deprivation and its components

The variables used in this domain are:

- Years of Potential Life Lost (YPLL) (2001 to 2005, Source: ONS)
- Comparative Illness and Disability Ratio (CIDR) (2005, Source: DWP)
- Emergency Hospital Admissions, derived from Hospital Episode Statistics (2004 to 2005, Source: Department of Health)
- The proportion of adults under 60 suffering from mood or anxiety disorders based on prescribing (2005, Source: Prescribing Pricing Authority), Hospital Episode Statistics (2004 to 2005, Source: Department of Health) and Incapacity Benefit data (2005, Source: DWP)

The health and disability score and its four components are shown below

Table 1

LSOA Name	Comparative Illness and Disability Score (index)	Emergency Admissions to Hospital Score (index)	Adults Suffering from Mood or Anxiety Disorders Score (normalised)	Years of Potential Life Lost Score (index)	HEALTH DEPRIVATION AND DISABILITY SCORE (normalised)
"Poole Centre"	177.8	159.9	1.61	91.1	1.39
"Turlin Moor"	141.2	157.3	1.03	67.9	0.75
"Bourne Estate"	143.6	169.3	1.02	62.0	0.72

4.2 IMD 2007 Employment Deprivation and its components

The employment deprivation score is an attempt to measure employment deprivation conceptualised as involuntary exclusion of the working age population from the labour market. The score is a proportion of the working age population thus affected.

Variables used to determine the score are:

- Recipients of Jobseekers Allowance (both contribution-based and income-based): men aged 18-64 and women aged 18-59 (Source: DWP 2005)
- Recipients of Incapacity Benefit: men aged 18-64 and women aged 18-59 (Source: DWP 2005)
- Recipients of Severe Disablement Allowance: men aged 18-64 and women aged 18-59 (Source: DWP 2005)
- Participants in the New Deal for the 18-24s who are not in receipt of JSA (Source: DWP 2005)
- Participants in the New Deal for 25+ who are not in receipt of JSA (Source: DWP 2005)
- Participants in the New Deal for Lone Parents (after initial interview) (Source: DWP 2005)

4.3 The Stepwise Regression (selected output)

Model	Goodness of fit	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1						
(Constant)		-1.357	.052		-25.995	.000
Employment	.852	13.836	.611	.923	22.631	.000
2						
(Constant)		-1.426	.051		-27.768	.000
Employment		12.351	.678	.824	18.216	.000
Environment	.875	.010	.003	.180	3.980	.000
3						
(Constant)		-1.377	.051		-27.152	.000
Employment		8.726	1.249	.582	6.988	.000
Environment	.889	.009	.003	.162	3.771	.000
Income		2.070	.612	.279	3.383	.001

a. Dependent Variable: Health Deprivation Score

4.4 Correlation Matrix

The table below shows the correlation matrix for health deprivation and the other six domains of deprivation.

		Correlations						
		Health	Income	Employment	Education	Barriers	Crime	Environment
Health	Pearson Correlation	1	.891**	.923**	.783**	-.194	.674**	.634**
	Sig. (2-tailed)		.000	.000	.000	.066	.000	.000
	N	91	91	91	91	91	91	91
Income	Pearson Correlation	.891**	1	.900**	.859**	-.137	.639**	.539**
	Sig. (2-tailed)	.000		.000	.000	.194	.000	.000
	N	91	91	91	91	91	91	91
Employment	Pearson Correlation	.923**	.900**	1	.782**	-.198	.639**	.550**
	Sig. (2-tailed)	.000	.000		.000	.059	.000	.000
	N	91	91	91	91	91	91	91
Education	Pearson Correlation	.783**	.859**	.782**	1	-.181	.617**	.367**
	Sig. (2-tailed)	.000	.000	.000		.086	.000	.000
	N	91	91	91	91	91	91	91
Barriers	Pearson Correlation	-.194	-.137	-.198	-.181	1	-.232*	-.082
	Sig. (2-tailed)	.066	.194	.059	.086		.027	.442
	N	91	91	91	91	91	91	91
Crime	Pearson Correlation	.674**	.639**	.639**	.617**	-.232*	1	.554**
	Sig. (2-tailed)	.000	.000	.000	.000	.027		.000
	N	91	91	91	91	91	91	91
Environment	Pearson Correlation	.634**	.539**	.550**	.367**	-.082	.554**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.442	.000	
	N	91	91	91	91	91	91	91

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

4.5 Mosaic Health Profiles

We have made reference to certain Mosaic Groups/Types above. Detailed health profiles for these, based on Health Episode Statistics and the Health Survey for England, are shown below.

Type M57:



36 57 38 59

Group M: Elderly people reliant on state support

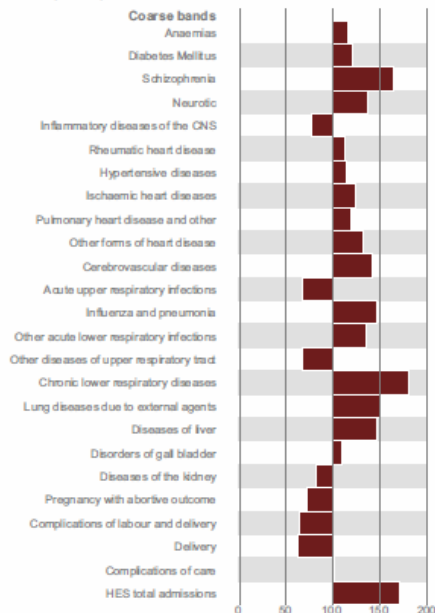
Inverclyde

Type M57: Old people in flats subsisting on welfare payments

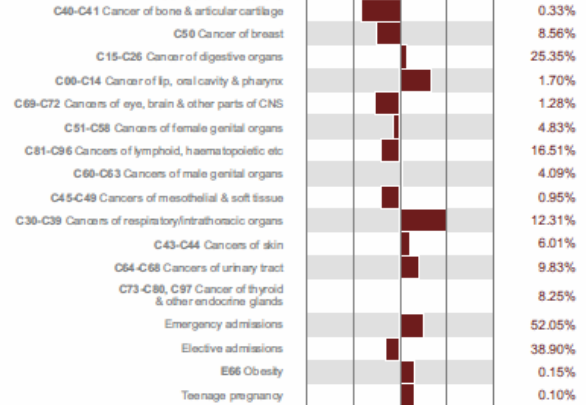
1.31% 0.81%

Health

Hospital Episode Statistics



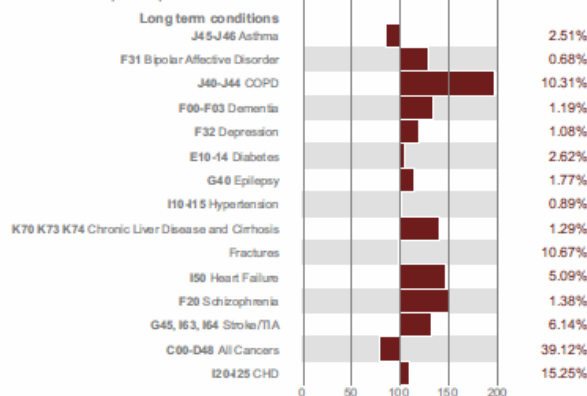
Cancers and others



Understanding Charts
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Health

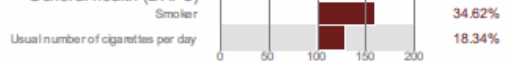
Hospital Episode Statistics



General health (Census)

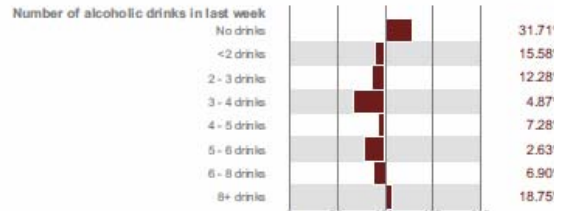
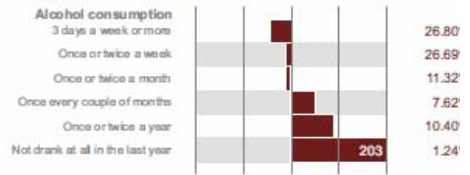
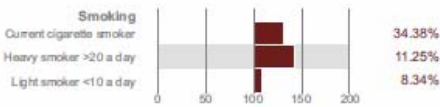
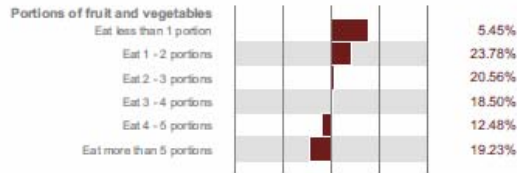
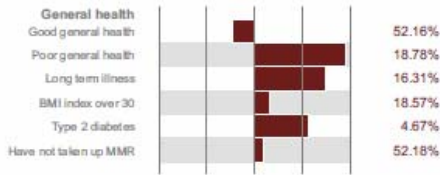


General health (BHPS)



Health

Health Survey for England



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Group O:



A B C D E F G H I J K L M N O

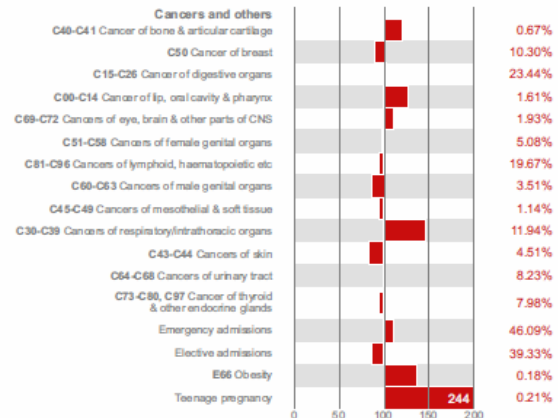
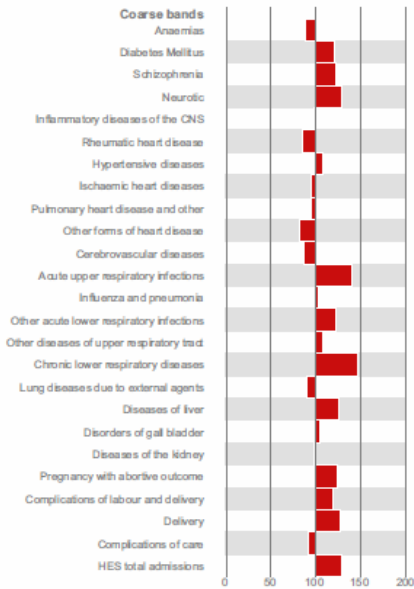
37 38 39

Group O: Families in low-rise social housing with high levels of benefit need

Knowsley 5.16% 5.05%

Health

Hospital Episode Statistics

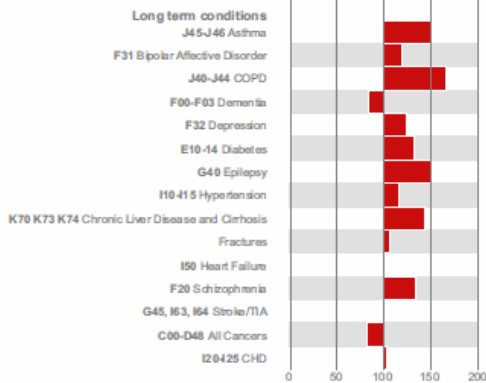


Understanding Charts
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Health

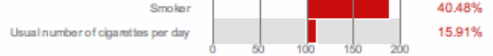
Hospital Episode Statistics



General health (Census)

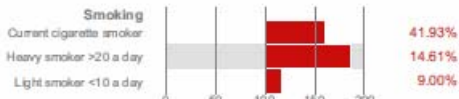
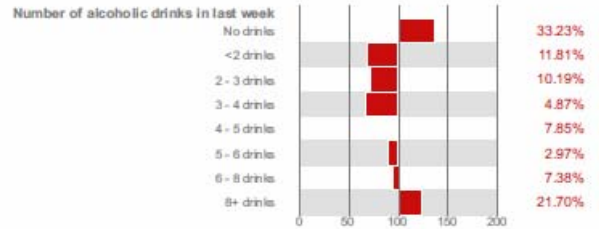
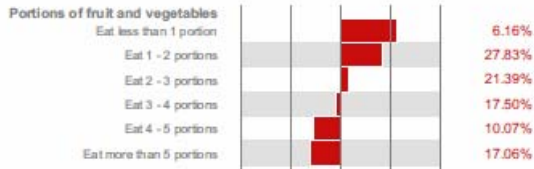
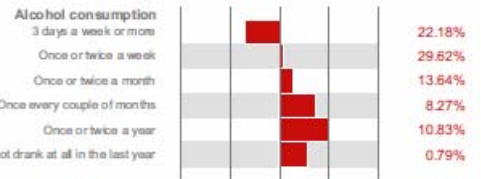
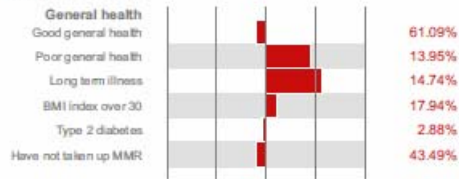


General health (BHPS)

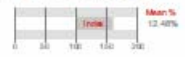


Health

Health Survey for England



Understanding Charts
Unless otherwise stated, charts show the Index and Mean %.



Type O68



A B C D E F G H I J K L M N O

37 68 39

Group O: Families in low-rise social housing with high levels of benefit need

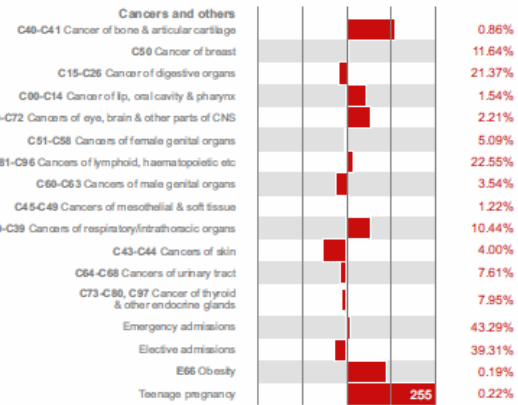
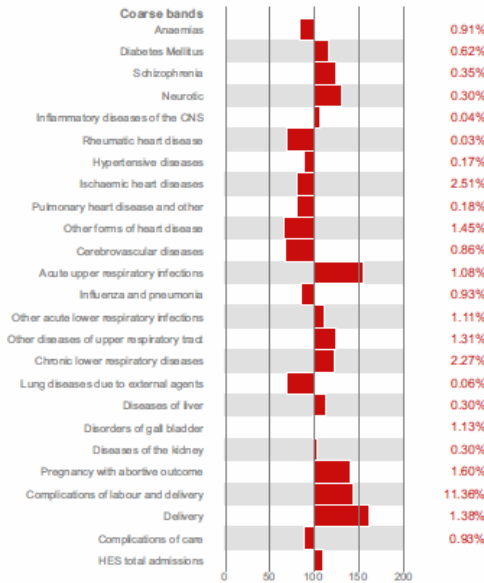
Derry

Type O68: Families with varied structures living on low rise social housing estates

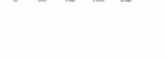
1.05% 1.12%

Health

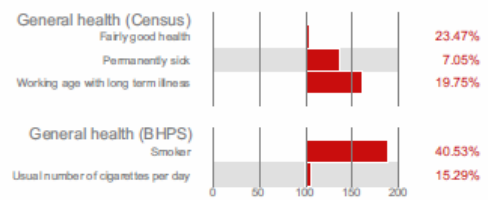
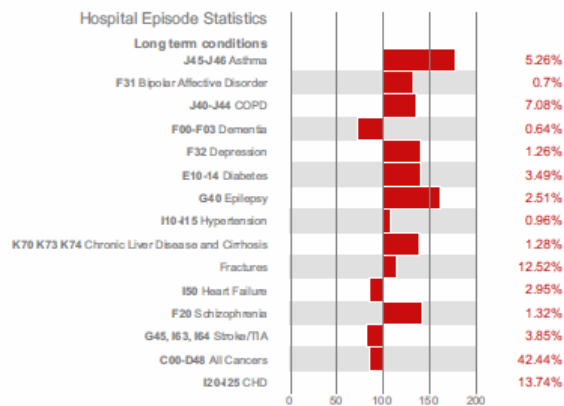
Hospital Episode Statistics



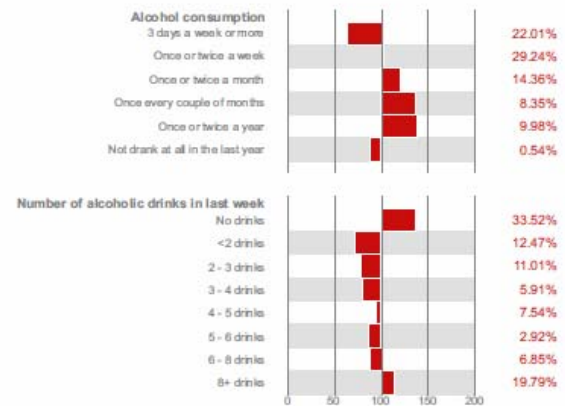
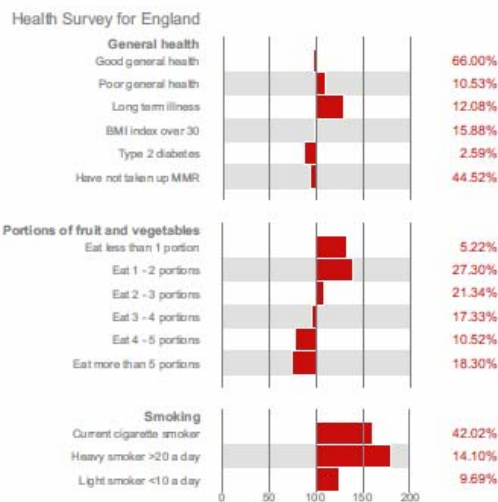
Understanding Charts
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Health



Health



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