Director of Public Health Annual Report 2013/14

Leicester City Council


LEICESTER MARKET

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Introduction

Welcome to the 2013/14 Public Health Annual Report for Leicester.

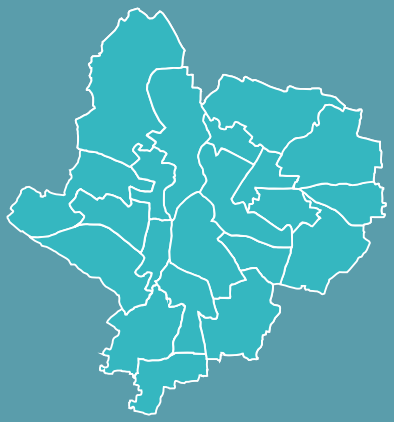
As many readers will be aware, all Directors of Public Health in England are required to produce an independent annual report on the health of the population they serve, highlighting key health issues for the population. As well as being a statutory requirement, this report provides an important opportunity to bring health and wellbeing concerns to the attention of key policy makers in the city and to highlight the ways in which public health is everyone's business.

This report is the first annual report for Leicester City since 1st April 2013 when responsibility for the leadership of public health in England transferred from the NHS to Local Authorities. In this respect, the report marks a significant milestone and addresses the newly reformed health and public health system locally.

The report paints a picture of health in the city and considers a number of topics, mostly linked to the theme of health inequalities which continues to be a key issue for Leicester. Leicester is an increasingly diverse city and some of the health challenges reflect the range of public health issues such diversity brings. In addition, many parts of the city have high levels of poverty and deprivation which contributes to poor health for residents in many areas. The content of the report builds upon previous annual reports relating to health inequalities and notes progress in several areas. The Health Facts section at the back of the report provides key demographic data relating to health and is the sixth in its series, allowing a degree of comparability over time, including at ward level.

The big picture of health in Leicester is that, on average health in Leicester is relatively poor compared to the average for the rest of the country. Leicester people do not live for as long as the average for England's population although

On average, health in Leicester is relatively poor although the good news is that **life expectancy** in Leicester **has continued to improve**



high take up of
NHS Health Checks
for 40 to 74 year old people

sustained increases in
breastfeeding

the good news is that life expectancy in Leicester has continued to improve. Importantly, this report indicates in figures 8 and 9 that the life expectancy gap between Leicester and England, which has been widening for the last ten years, is now beginning to close. It is early days and we need to see data for further years before we can see if there is definitely a narrowing trend, but it seems likely that the hard work put in to improving health over the last ten years is beginning to make a measurable difference. This provides real encouragement for the future.

However, this report identifies that the health challenges in Leicester continue to be both complex and widespread. For example, one in three of Leicester's 10 to 11 year olds is overweight or obese, at least one fifth of the adult population smokes, alcohol related hospital admissions are high compared to both England and the East Midlands average, at least one in 10 adults are diagnosed with depression and some 25,000 adults (around 8%) are registered as living with diabetes. On the other side of the balance sheet, this report identifies a number of areas where particularly good progress has been made. Examples include the high take up of NHS Health Checks for 40 to 74 year old people, sustained increases in breastfeeding and the coverage of childhood immunisations which have never been so high. Other examples are the sustained reductions reported in the rate of teenage

It seems likely that the hard work put in to improving health over the last ten years is beginning to make a measurable difference

pregnancies and deaths from cardiovascular disease. Where good progress has been made, it is important that this is maintained and built upon going forward.

Improving health is a complex combination of individual choice, the way we live and the social and economic circumstances that affect our lives, making it easier or harder for us to make healthier choices and sustain them. In the sections on alcohol, smoking, obesity, sexual health and oral health this report provides a description of the relationship of these issues to health and wellbeing and some brief commentary about what we are and can do about them. There are sections also on mental health and long term conditions and finally, sections on protecting health in Leicester, looking at tuberculosis, childhood immunisations and screening programmes in the city.

Invariably improving or protecting health involves motivating, supporting and working with the strengths of individuals and communities

Invariably improving or protecting health involves motivating, supporting and working with the strengths of individuals and communities. Some community norms and expectations are protective of health, others put health at risk. As set out in 'Closing the Gap', Leicester's first Joint Health and Wellbeing Strategy, there is a need to engage with communities and to work together with them to improve health. 'Closing the Gap' also stresses the importance of the wider influences on health and wellbeing such as housing, education, employment and income, transport, planning, recreation and access to health care. The transfer of responsibility for the local leadership of public health to the Leicester City Council provides opportunities for new partnerships and integration of effort both within the City Council and with wider partners. Indeed, this was a significant part of the national rationale for the change. My intention is that next year's Director of Public Health Annual Report will consider some of these wider determinants and how they can and are improving health. In the meantime, it is important that all agencies within the newly reformed health and public health system continue to work in partnership to ensure that the health of the population in Leicester continues to improve.

Lastly, just as work to improve health involves many partners and individuals, so too has the development of this report which has been very much a team effort. I would like to offer my thanks to all those who have contributed to this report both within the Division of Public Health at Leicester City Council and in other agencies, most notably Leicester City Clinical Commissioning Group, Public Health England and NHS England. I hope that the recommendations made in this report will help to galvanise further action to improve health in Leicester and to reduce health inequalities.

Deb Watson
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and Director of Public Health
Leicester City Council

Leicester's Population

Leicester is the largest city in the East Midlands, with a population of around 330,000 people and covering an area of approximately 73 km^2. Much of the area is urban, with a population density of 4,500 people/ km^2 making the city the most densely populated area in the East Midlands.

The current population estimate[1] for Leicester is 331,606 of which 163,911 are males (49%) and 167,695 (51%) are females. As Figure 1 shows Leicester's population is relatively young compared with England; a third of all city households include dependent children, 20% (65,266) of Leicester's population are aged 20-29 years old (14% in England) and 12% of the population (38,081) are aged over 65 (16% in England). The large numbers of younger people in Leicester are partly students attending Leicester's two universities and partly migrants to the city.

The population is predicted to grow to around 345,000 by 2021[2], an increase of over 13,000 from 2012. Projections indicate Leicester will have increases in the percentage of the population under 10 and of those aged over 55.

A third of all city households include dependent children

Leicester is the most densely populated area in the East Midlands

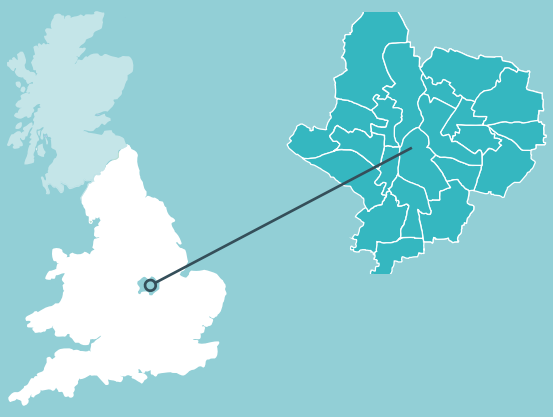
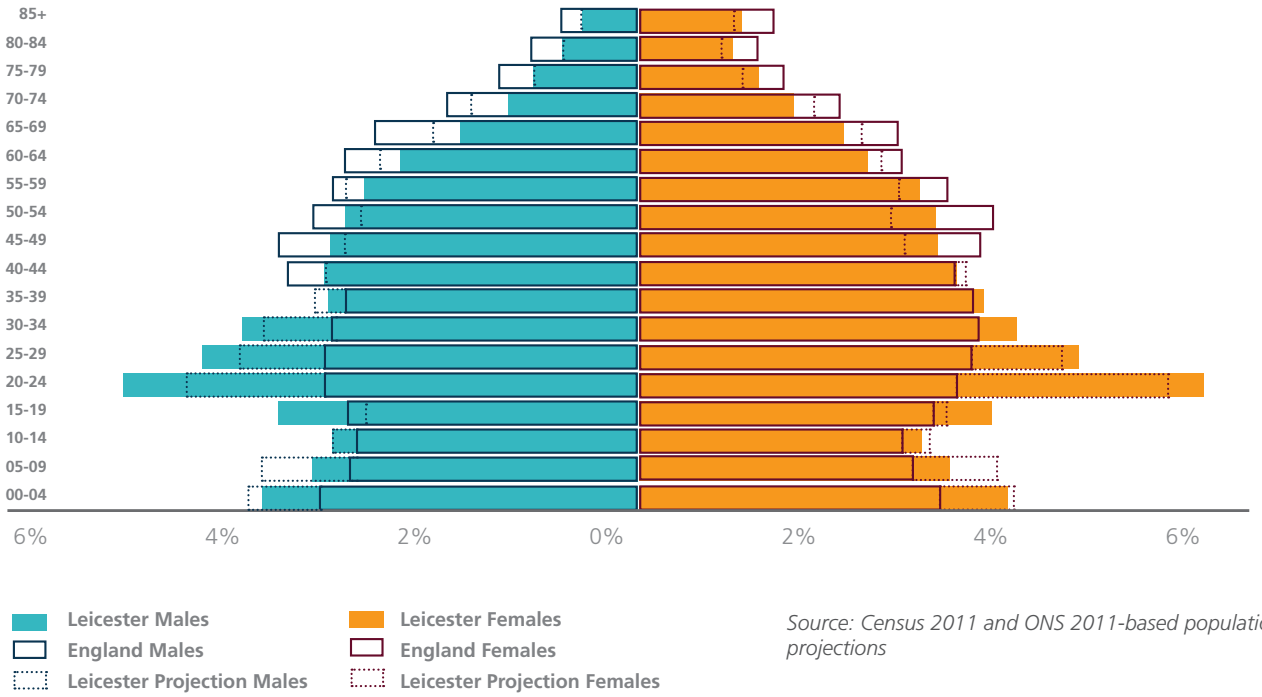


Figure 1: Leicester's population structure 2012



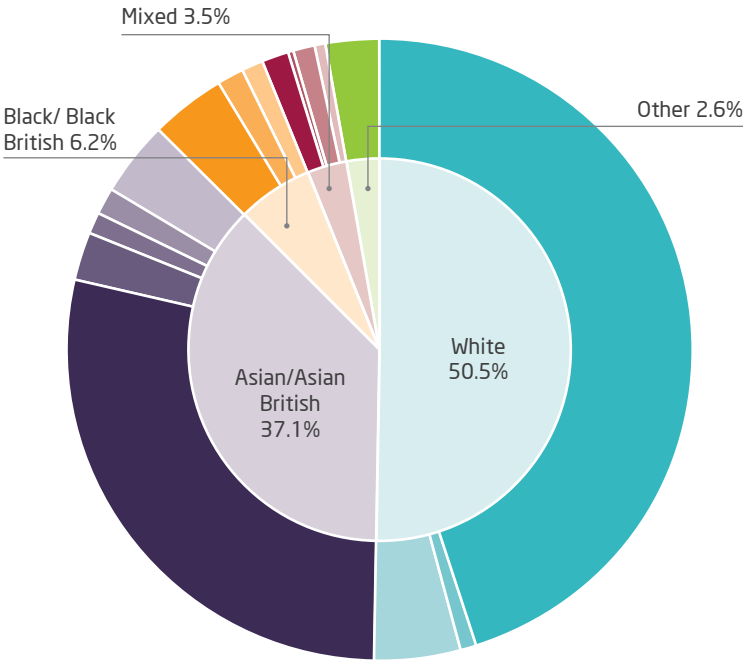
Source: Census 2011 and ONS 2011-based population projections

Ethnicity

Figure 2 shows that Leicester has a diverse population and a very different ethnic make-up to that of England, which is shown in Figure 3. Black Minority Ethnic (BME) and White ethnic groups each make up some 50% of Leicester's population whereas in England they make up 15% and 85% of the population respectively. There is diversity within these groups and no one ethnic group itself makes up the majority of the population. Thirty-seven percent of Leicester's population are of Asian/Asian British origin, mostly Indian, but also from Pakistani and Bangladeshi backgrounds, 6% are Black/Black British, 4% mixed and 3% from other ethnic origins. Forty-six percent are White British or Irish and 4.6% from other White groups, including Poland and other EU accession countries. Seventeen of the 18 ethnic groups counted in the 2011 Census have 1,000 or more residents.[3]

Around 50% of Leicester's residents are from Black Minority Ethnic (BME) backgrounds compared with only 15% in England

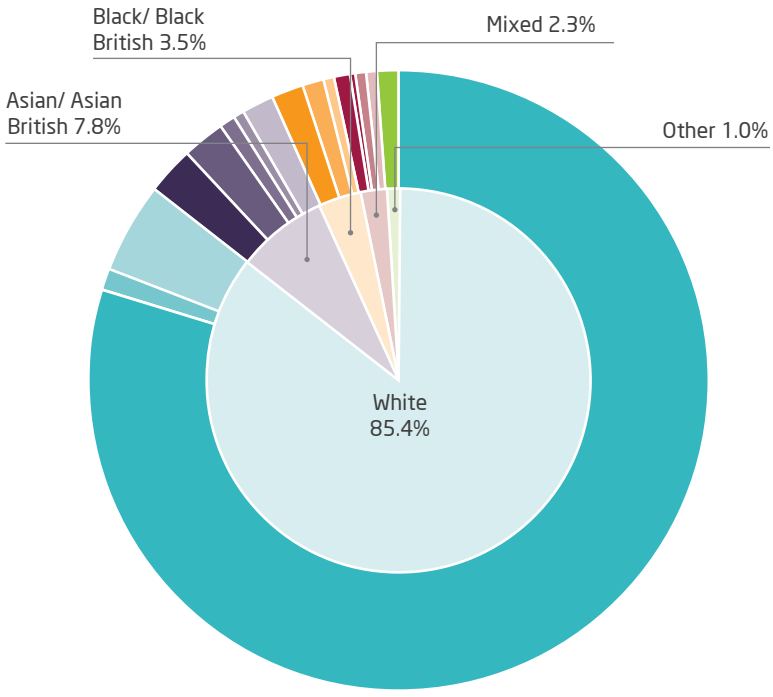
Figure 2: Ethnicity in Leicester, Census 2011



Total White: 50.5%	
White British	45.1%
White Irish	0.9%
White Other	4.6%
Total Asian/Asian British: 37.1%	
Asian/Asian British: Indian	28.3%
Asian/Asian British: Pakistani	2.4%
Asian/Asian British: Bangladeshi	1.1%
Asian/Asian British: Chinese	1.3%
Asian/Asian British: Other Asian	4.0%
Total Black: 6.2%	
Black/Black British: African	3.8%
Black/Black British: Caribbean	1.5%
Black/Black British: Other	1.0%
Total Mixed: 3.5%	
Mixed: White & Black Caribbean	1.4%
Mixed: White & Black African	0.4%
Mixed: White & Asian British	1.0%
Mixed: Other	0.7%
Total Other: 2.6%	
Any other ethic group	2.6%

Source: Census 2011

Figure 3: Ethnicity in England, Census 2011

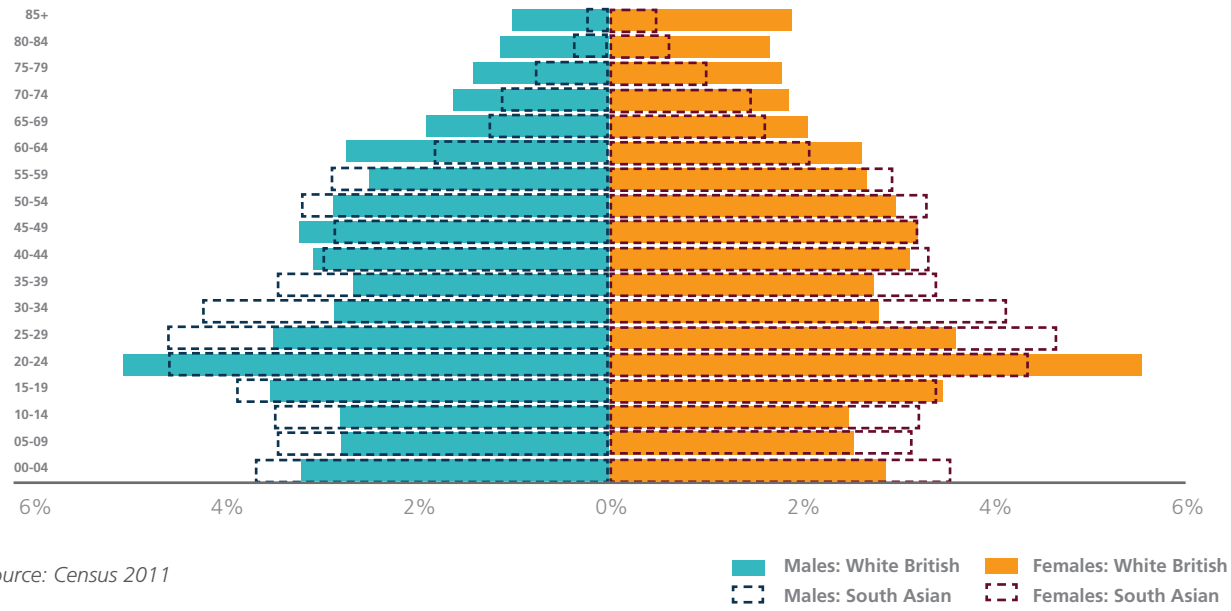


Total White: 85.4%	
White British	79.8%
White Irish	1.1%
White Other	4.6%
Total Asian/Asian British: 7.8%	
Asian/Asian British: Indian	2.6%
Asian/Asian British: Pakistani	2.1%
Asian/Asian British: Bangladeshi	0.8%
Asian/Asian British: Chinese	0.7%
Asian/Asian British: Other Asian	1.5%
Total Black: 3.5%	
Black/Black British: African	1.8%
Black/Black British: Caribbean	1.1%
Black/Black British: Other	0.5%
Total Mixed: 2.3%	
Mixed: White & Black Caribbean	0.8%
Mixed: White & Black African	0.3%
Mixed: White & Asian British	0.6%
Mixed: Other	0.5%
Total Other: 1.0%	
Any other ethic group	1.0%

Source: Census 2011

As Figure 4 shows, the age profile of Leicester's South Asian population (Indian, Pakistani, Bangladeshi) is younger than the White British population (excluding Irish and Other White) with proportionately more people in the younger age groups and fewer aged over 60 years. The 2011 Census reported that 68% of foreign born residents were between 15 and 44 years old when they arrived and 26% were aged 14 or younger on arrival.

Figure 4: Leicester's population structure for White British and South Asian ethnic groups



Source: Census 2011

Overall, the estimated population in Leicester has increased by just under 50,000 between the Census in 2001 and the Census 2011. There has been a decrease in the number of White British people and increases in people from South Asian, Black, Mixed and other ethnic backgrounds (see Table 1 below).

Table 1: Change in population from Census 2001 and Census 2011 by ethnic group

Change between Census 2001 and 2011						
	All persons	White British	White/Irish Other	South Asian	Black	Mixed and other ethnic groups
Census 2001 population	279,933	169,456	9,284	78,230	8,594	14,369
Census 2011 population	329,839	148,629	18,007	105,044	20,585	37,574
Change in population	**49,906**	**-20,827**	**8,723**	**26,814**	**11,991**	**23,205**

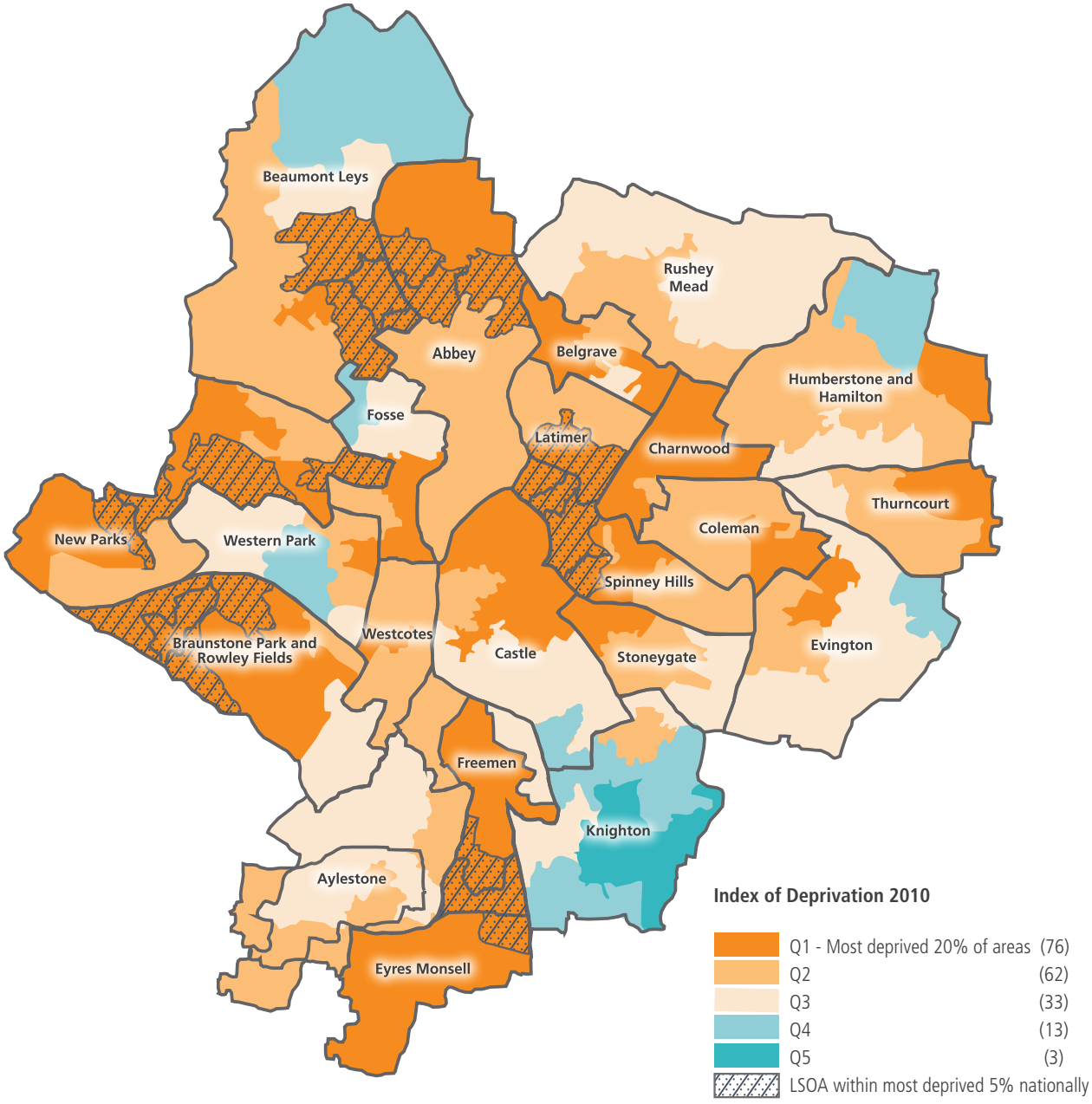
Source: Census 2001 and Census 2011

A third of Leicester's residents (111,000) were born outside of the UK and just under half of those (53,000) arrived between 2001 and 2011, partly as a result of the accession of 10 countries into the EU in 2004 and the arrival of people from non-EU countries as either students or professionals recruited to address labour shortages. Leicester is also a designated National Asylum Seeker Service dispersal city and home to 638 asylum seekers (as of October 2013). It is estimated that there may be as many as 150 languages and/or dialects spoken in Leicester and almost half of pupils in Leicester primary schools have a home language other than English.

Deprivation

Poor health is associated with underlying levels of social and economic disadvantage such as unemployment, low skill levels, low income levels, crime and poor housing. Although Leicester has some areas of relative affluence, the majority of the city is relatively deprived, with some areas of extreme and multiple deprivation. Leicester is ranked as the 25th most deprived local authority area (out of 326) according to the Indices of Multiple Deprivation 2010 (IMD2010), a national study of deprivation across England developed by the Department for Communities and Local Government.[4]

Figure 5: Deprivation in Leicester



Source: Index of deprivation 2010

Figure 5 shows the pattern of deprivation across Leicester based on 'lower super-output areas' (LSOA), which each contain 1,000 to 1,500 people. These are the smallest neighbourhood-based units of measurement used by Department of Communities and Local Government in the Index of Deprivation. Areas in dark orange are among the most deprived 20% in the country and areas in dark blue are among the most affluent 20% of areas in England, illustrating the extent of relative deprivation in Leicester, compared to the rest of England.

The pattern of deprivation across Leicester shows higher levels of deprivation in the west of the city than the east. The majority of the poorest areas of the city are the historically white working class outer-city estates on the periphery of the city, along with a few areas in the inner city, where relatively new communities have settled from various countries of origin in a patchwork of diverse ethnicities. The more affluent areas of the city are in the south stretching from Victoria Park to the city boundary alongside the A6 road.

Forty-one per cent of Leicester's population live in areas classified as the fifth (20%) most deprived in the country and a further 34% live within the two fifths (40%) most deprived nationally. Some 'Lower Super Output Areas' in the city feature within the 5% most deprived of all areas in the country and are home to 12% of Leicester's population. These areas include parts of the New Parks, Braunstone, Beaumont Leys and Spinney Hills wards as well as parts of the St Matthews, St Marks and Saffron Lane Estates. St Matthews contains 2 LSOAs ranking nationally as some of the most deprived in terms of income deprivation and Braunstone Park and Rowley Fields contains two LSOAs ranking the most deprived in terms of education.

Forty-one per cent of Leicester's population live in areas classified as the fifth (20%) most deprived in the country

Socio-economic factors

Table 2 gives information from the Census 2011 relating to socio-economic and health status in Leicester. This is compared with the England average and its comparator peer areas.

- Leicester has a higher rate of economic inactivity (35% of all 16-74 year olds) than England (30%) with some 86,000 people reported as economically inactive. The percentage unemployed is higher than nationally, but ranks second within the peer group (see footnote i to Table 2). This may be accounted for partly by Leicester's student population as well as those unable to work
- Nearly 31,000 (9%) of Leicester's residents provide unpaid care, of which around 13,500 give 20 or more hours of care per week. This is lower than nationally, which may be explained by Leicester's younger population structure and fewer residents aged 60 and over
- There are fewer households in Leicester (15%) with residents aged over 65 than nationally (21%), while those with dependent children (one third of all households) and lone parents with dependent children (9%) are higher than nationally (29% and 7% respectively)
- Levels of long term health problems or disability (17.3% in Leicester) are lower than the East Midlands (18.6%) and England (17.6%). One quarter of households with at least one person with a long term health problem or disability, include dependent children.
- Health status reported as 'good or very good' (80.5%) is lower than nationally (81.4%) but ranks second highest within the peer areas (see footnote i to Table 2). Reported levels of 'bad health' are higher than nationally
- The level of educational or vocational qualifications in Leicester is below the East Midlands and England averages. Some 29% of Leicester residents have no qualifications, compared to 23% in England. 21% have achieved a level 4, a degree or equivalent higher qualification in Leicester compared to 27% in England.

Table 2: Economic and health status in Leicester, East Midlands and England

Economic activity	England	East Midlands	Leicester	Leicester rank amongst peers* (i)
Unemployed	4.4%	4.2%	6.2%	2
Economic inactive	30.1%	30.7%	35.4%	4
Economic active	65.5%	65.1%	58.4%	4
Household composition				
All households aged 65 and over	20.7%	13.9%	14.7%	2
Single person households aged 65+ years	12.4%	9.6%	9.8%	2
All households with dependent children	29.1%	30.9%	33.4%	4
Lone parent households with dependant children	7.1%	8.5%	8.5%	1
Health and provision of unpaid care				
Day-to-day activities limited	17.6%	18.6%	17.3%	2
Health good/very good	81.4%	80.4%	80.5%	2
Health bad	4.2%	4.3%	4.5%	1
Provides unpaid care	10.2%	10.8%	9.4%	4
Provides unpaid care (20+ hours per week) (footnote ii)	3.7%	3.9%	4.1%	4
Qualifications				
No qualifications	22.5%	24.7%	28.6%	5
Level 1	13.3%	13.9%	13.0%	5
Level 2	15.2%	15.6%	12.6%	6
Level 3	12.4%	12.9%	13.0%	4
Level 4	27.4%	23.6%	21.2%	4
Other qualifications	5.7%	5.3%	9.7%	2
Apprenticeship	3.6%	4.0%	2.0%	6

Leicester lower than England rate
Leicester higher than England rate

Source: Census 2011

Notes:

i. Benchmarking against peer comparators (Local Authority areas with similar population demographics and deprivation) shows how Leicester fairs alongside similar areas
Peer comparator local authorities: Barking and Dagenham, Birmingham, Leicester, Manchester, Sandwell, Wolverhampton, Nottingham. Leicester ranking among Peer areas (where 1 is best of 7, 7 is worst within the 7 Peer areas)

ii. A provider of unpaid care looks after or gives help or support to family members, friends, neighbours or others because of long term physical or mental ill health or disability, or problems related to old age. This does not include parenting or caring activities relating to paid employment

iii. Economic inactivity (Census 2011) describes a person between 16 and 74 years old who is not in employment or unable to work the week before the Census

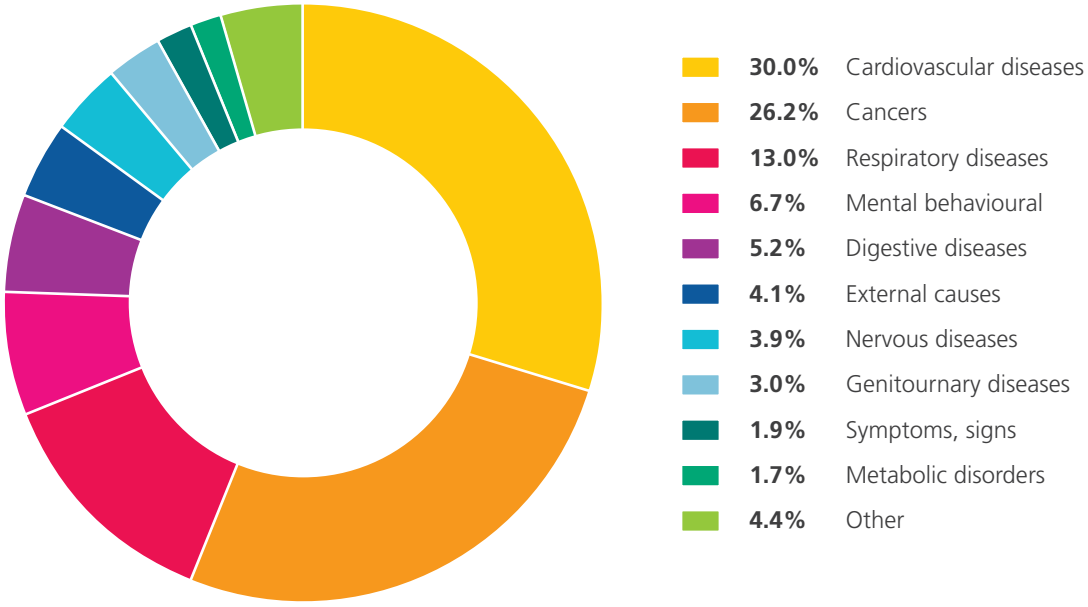
iv. Long term health problems are those which limit day-to-day activities and have lasted or are expected to last at least 12 months, including those related to old age

Main causes of death in Leicester and England

In 2012 there were 1,171 deaths in men and 1,165 deaths in women in Leicester. Of these, 538 were in men aged under 75 (46% of all deaths in men) and 338 were in women under 75 years (29% of all deaths in women).

As Figure 6 shows, the principal causes of death are cardiovascular disease (CVD), cancer and respiratory disease. Leicester has more deaths from CVD and fewer from cancer than nationally.

Figure 6: Main causes of death in Leicester, in all ages, 2012

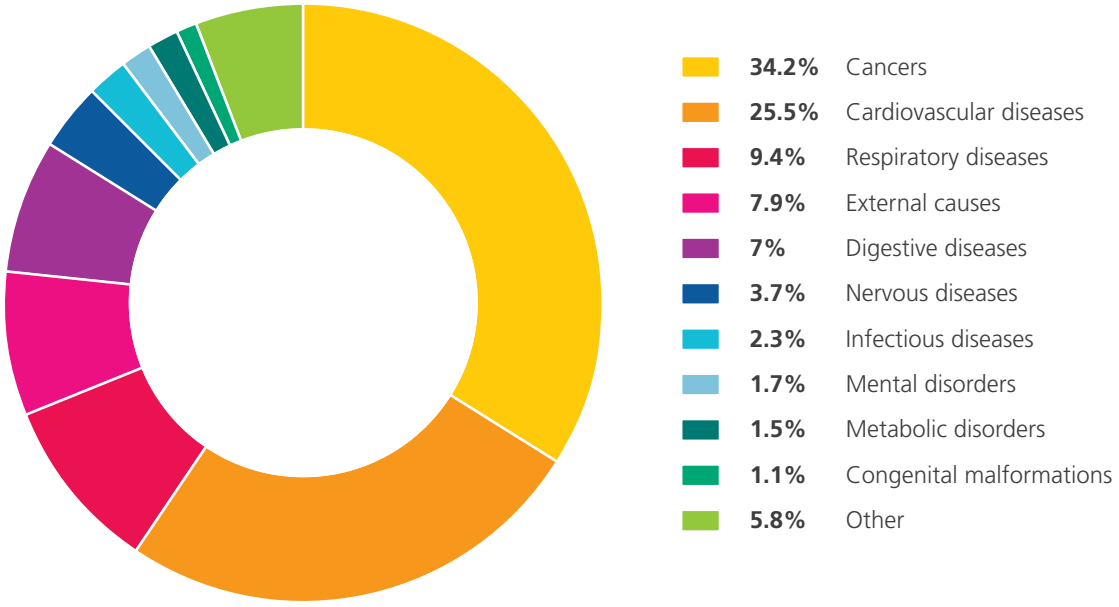


Source: ONS Vital Statistics 2012

Deaths in people aged under 75 years are considered premature deaths. In the under 75s, the main cause of death is cancer followed by cardiovascular and respiratory diseases (see Figure 7). Leicester has a smaller percentage of cancer deaths than England and higher percentage of CVD deaths.

For respiratory diseases, Leicester has a lower percentage of deaths for all people, but a higher proportion in those under 75. Over the past ten years there has been a fall in the overall percentage of deaths from CVD, both in Leicester (9%) and nationally (11%). In the under 75s, there has been 8% fall in the percentage of CVD deaths. Much work has been done to identity CVD symptoms and risks at an early stage to manage these effectively within primary care and through community based healthcare, minimising emergency hospital admissions and premature deaths.

Figure 7: Main causes of death in under 75 year olds in Leicester, 2012



Source: ONS Vital Statistics 2012

Table 3: Top 10 causes of death in under 75 year olds in Leicester and England, 2012

	Leicester			England		
Cause of death in under 75 year olds 2012	**% Males**	**% Females**	**% All Persons**	**% Males**	**% Females**	**% All Persons**
All Cancers	30.9%	39.6%	34.2%	38.0%	47.6%	41.9%
Cardiovascular Diseases	28.1%	21.3%	25.5%	25.5%	17.8%	22.4%
Respiratory diseases	9.1%	9.8%	9.4%	9.0%	9.3%	9.3%
External causes	10.2%	4.1%	7.9%	8.6%	4.2%	6.8%
Digestive diseases	7.6%	5.9%	7.0%	6.8%	6.6%	6.7%
Nervous diseases	3.3%	4.1%	3.7%	3.4%	4.0%	3.7%
Infectious diseases	1.5%	3.6%	2.3%	1.1%	1.1%	1.1%
Mental disorders	1.3%	2.4%	1.7%	1.2%	1.4%	1.3%
Metabolic disorders	2.0%	0.6%	1.5%	1.4%	1.5%	1.4%
Congenital malformations	0.4%	2.4%	1.1%	0.6%	0.7%	0.6%
Other	5.6%	6.2%	5.8%	4.5%	5.3%	4.8%
All Persons	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: ONS Vital Statistics 2012

Table 3 shows that cancer mortality is higher in women than men, although the proportion of all premature deaths from cancer in Leicester is lower than nationally. The top three causes of cancer mortality in women are lung cancer, breast cancer and colorectal cancer. In men the top three causes of cancer are lung cancer, prostate cancer and colorectal cancer. 'Other' causes include genito-urinary diseases, congenital malformations, musculoskeletal diseases, injuries and poisoning, blood disorders, skin diseases and ear diseases.

References

1. Office of National Statistics. Annual Mid-year Population Estimates for England and Wales, 2012 [Internet]. 2013 [cited 2013 Dec 12]. Available from: http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-england-and-wales/mid-2012/mid-2012-population-estimates-for-england-and-wales.html
2. Office of National Statistics. Interim 2011-based subnational population projections for England [Internet]. 2012 [cited 2013 Dec 12]. Available from: http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/Interim-2011-based/stb-2011-based-snpp.html
3. ESRC Centre on Dynamics of Ethnicity Does Britain have plural cities? [Internet]. University of Manchester. 2013. Available from: http://www.ethnicity.ac.uk
4. Department for Communities and Local Government. [ARCHIVED CONTENT] Indices of deprivation 2010 - [Internet]. 2011 [cited 2013 Dec 12]. Available from: http://webarchive.nationalarchives.gov.uk/20120919132719/http://www.communities.gov.uk/communities/research/indicesdeprivation/deprivation10/

Health Inequalities

Poor health is caused by a wide range of factors, including biological determinants (age, sex, hereditary factors) and wider social determinants such as deprivation, education, social circumstances, income and the local environment. The term 'health inequalities' refers to differences in health between different groups, particularly differences that are seen as unfair or unjust, often reflecting differences in social and economic circumstances.

Life expectancy at birth

Average life expectancy at birth is widely used as a proxy indicator for the overall health of the population. It estimates how long a newborn child would be expected to live if the current age-specific mortality rates remain constant. However, it does not forecast how long babies born today will actually be expected to survive, as age-specific mortality rates are unlikely to remain constant for an extended length of time.

Life expectancy in Leicester is significantly lower than the England average. Although it has continued to improve over the past decade, life expectancy In Leicester has shown a slower rate of improvement than England overall (see Figures 8 and 9). Over the last 10 years, life expectancy in Leicester increased by 2.8 years from 74.2 to 77.0 for men and by 2.6 years for women in Leicester from 79.2 to 81.8. However, in England life expectancy increased by 3.2 years for men (to 79.2 years) and 2.4 years for women (to 83.0 years). Overall, the gap between Leicester and England has been widening since 2000-2002, however there has been a small improvement for both men and women in the last 2 periods (2009-2011 and 2010-2012).

Over the last ten years, life expectancy has increased by 2.8 years from 74.2 to 77.0 for men, and by 2.6 years for women from 79.2 to 81.8, in Leicester.

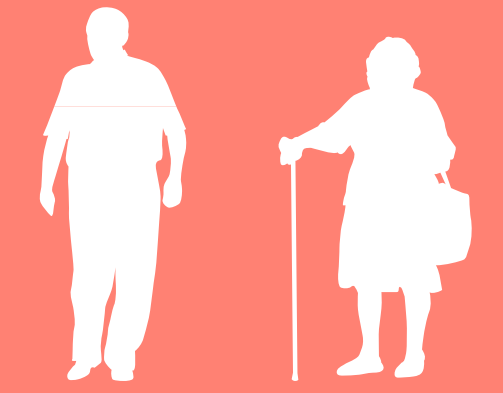


Figure 8: Average life expectancy at birth for men in England and Leicester, 1998-2012

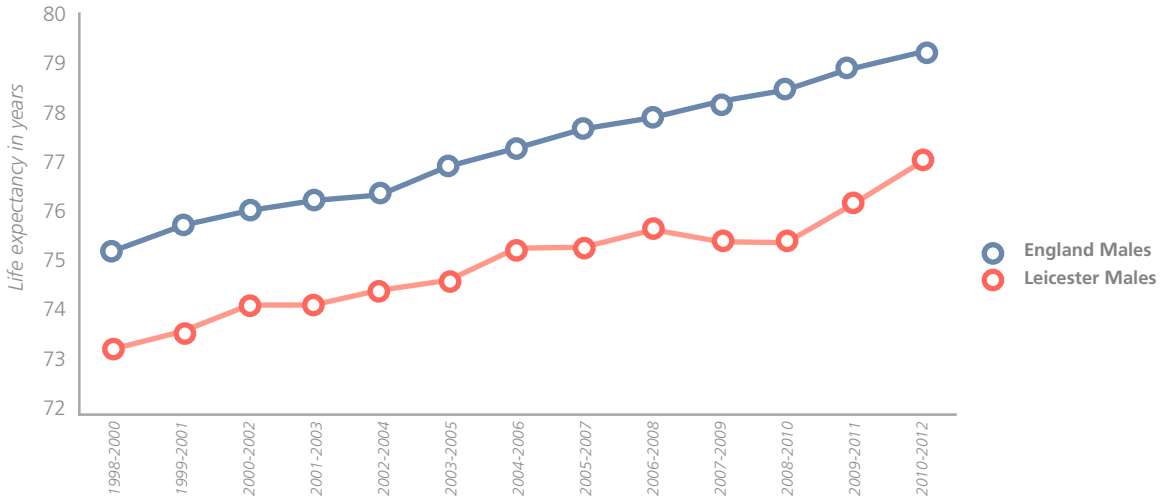
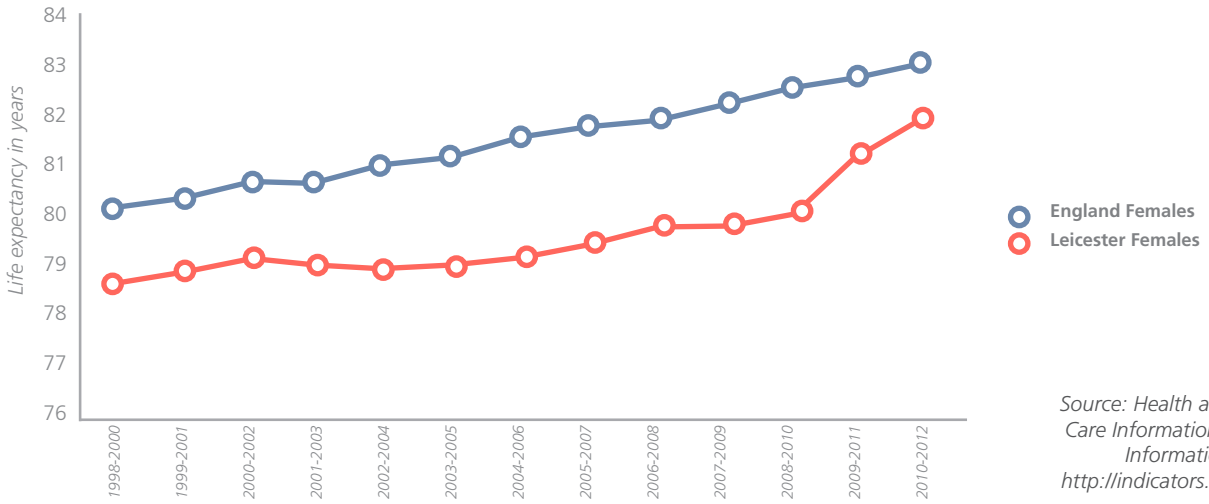


Figure 9: Average life expectancy at birth for women in England and Leicester, 1998-2012



Source: Health and Social Care Information Centre; Information portal http://indicators.ic.nhs.uk

Life expectancy in Leicester is significantly lower than the England average, although it has continued to improve over the past decade.

The life expectancy gap

The life expectancy gap with England

As seen in the previous section the principal causes of death in Leicester are cardiovascular disease, cancer and respiratory disease.

The main causes of premature death (deaths under 75 years) are cancer, cardiovascular disease and respiratory disease.

The principal contributors to the life expectancy gap with England for men and women in the years 2009 – 2011 (see Figure 10) are as follows

- Circulatory disease (26% men and 32% women)
- Respiratory disease (13% men and 14% women)

Deaths from cancer make less of a contribution to the life expectancy gap with England, accounting for only 4% of the gap for men and 0% for women.

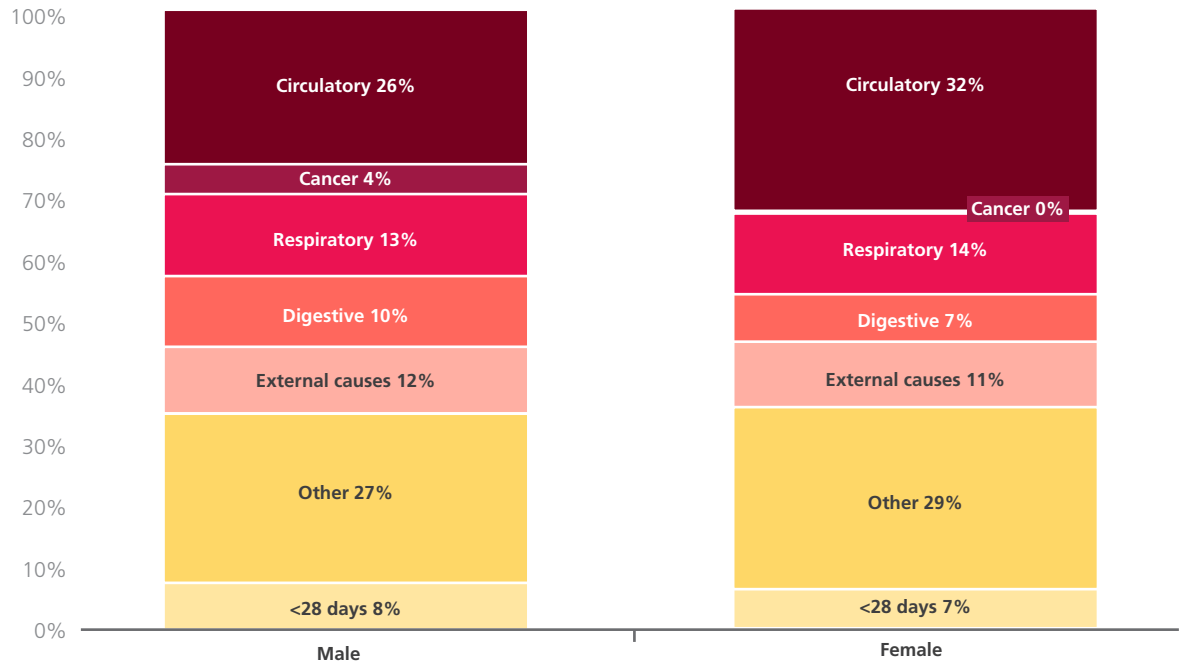
The life expectancy gap within Leicester

In addition to the gap in life expectancy between Leicester and England, there are also gaps in life expectancy within Leicester.

The impact of deprivation means that poorer health in the UK is generally associated with greater deprivation. People living in areas of higher deprivation have a shorter average life expectancy than those living in areas with lower levels of deprivation. These differences are shown in Figure 11 for Leicester's population. This shows that for both men and women, those in the more deprived tenths of the population have a shorter life expectancy. Women overall have a longer life expectancy than men but, as can be seen, the gap between men and women narrows in the least deprived segments of the population.

Differences in life expectancy within Leicester can be seen across wards in Figures 12 and 13.

Figure 10: Scarf chart showing the breakdown of life expectancy gap between Leicester and England by cause of death, 2009-2011



Source: Public Health England Knowledge and Intelligence Team

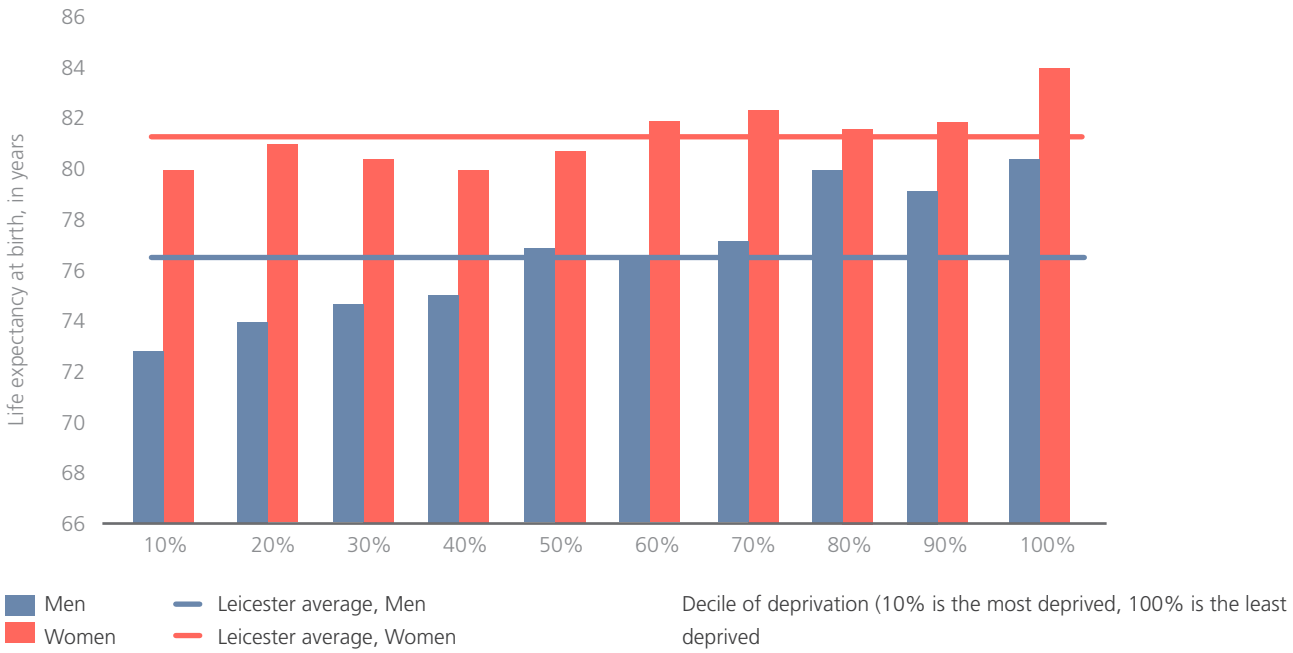
Notes:

V. Circulatory diseases include coronary heart disease and stroke. Digestive diseases include alcohol related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide.

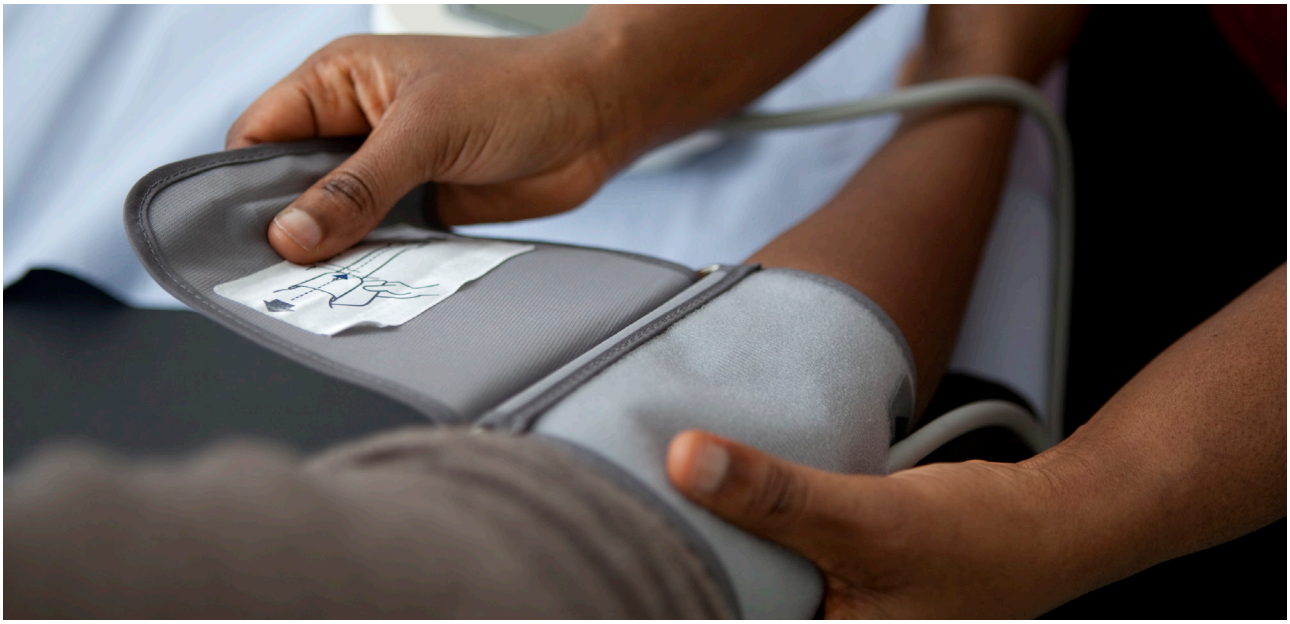
Life expectancy gap and deprivation in Leicester

Poorer health in the UK is generally associated with greater deprivation and people living in areas of higher deprivation have a shorter average life expectancy than those living in areas with lower levels of deprivation. These differences are shown in Figure 11 for Leicester's population, where the greater the percentage the greater the levels of deprivation .

Figure 11: Average life expectancy in Leicester men and women (2009-2011) by deciles of deprivation

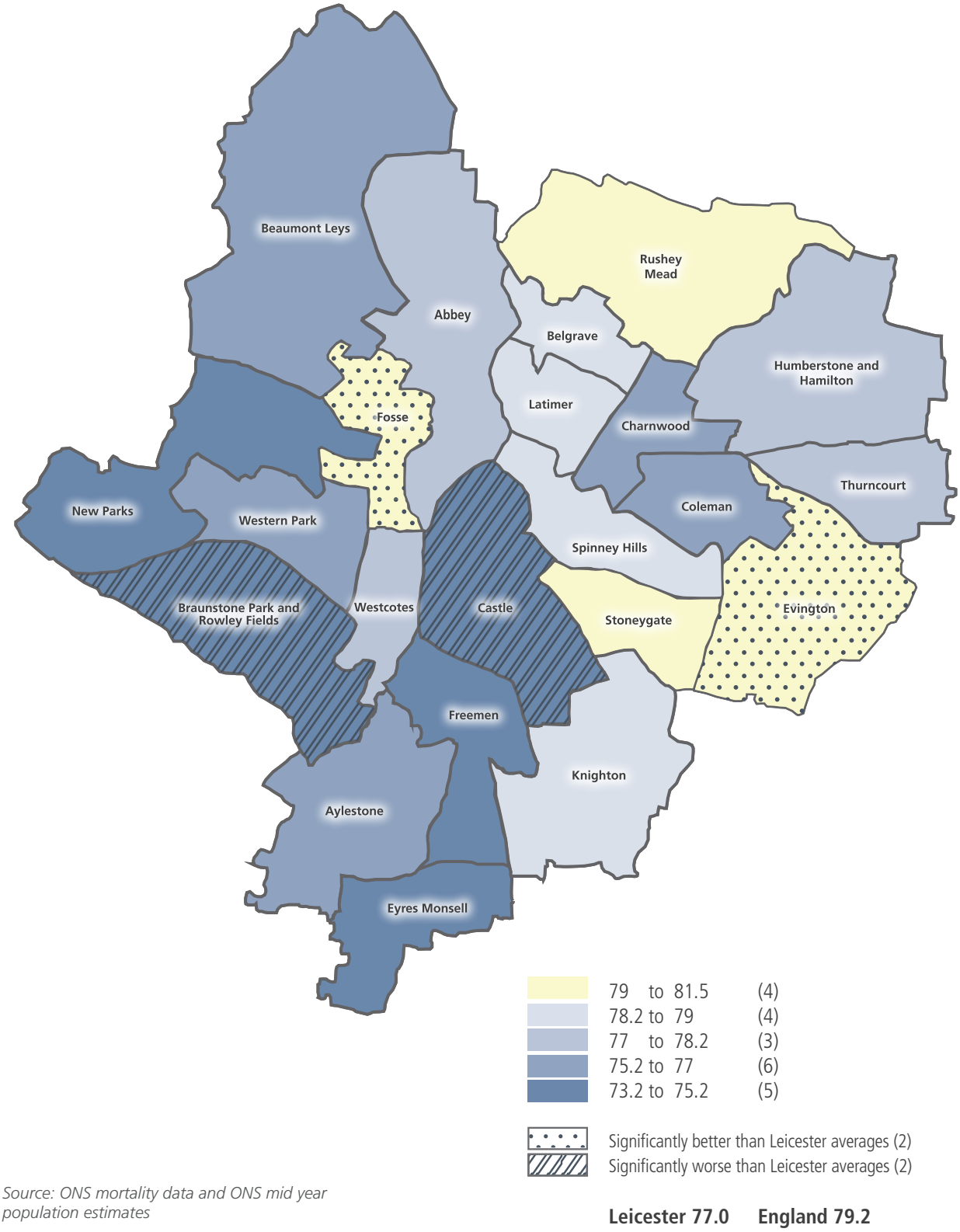


Source: Public Health England using ONS death registration data and mid-year population estimates & Department for Communities and Local Government, Indices of Deprivation 2010



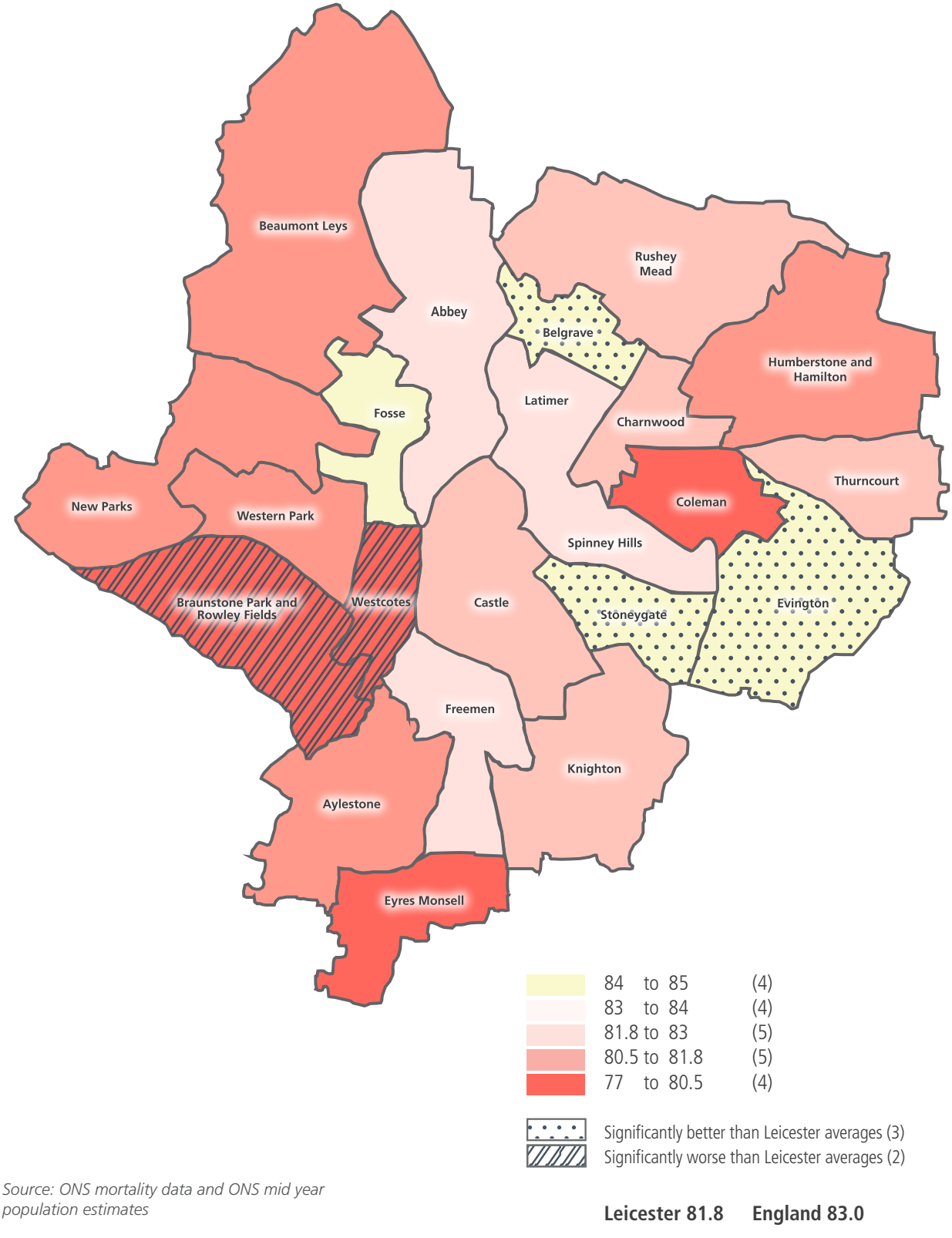
The differences in Life expectancy within Leicester can be seen across the wards in Figures 12 and 13 below

Figure 12: Life expectancy at birth for men by Leicester wards, 2010-2012



Source: ONS mortality data and ONS mid year population estimates

Figure 13: Life expectancy at birth for women by Leicester wards, 2010-2012



Source: ONS mortality data and ONS mid year population estimates

Health inequalities and ethnicity

Leicester has a diverse population and as with deprivation, there are variations in health associated with ethnicity. Disease patterns in different ethnic groups are influenced by socio-economic, environmental and cultural factors, as well as by genetic predisposition.

The Census 2011 shows that ethnic groups in England and Wales report very different levels of ill-health.

An analysis by the University of Manchester found that Chinese, Other White, Black African, Asian Other, Indian, Mixed White and Asian and Mixed White and Black African ethnic groups reported better health than the White British population. Ethnic groups reporting worse health than the White British group include Pakistani and Bangladeshi women and men and women from White Gypsy or Irish Traveller backgrounds.

There are variations in reported health by age, with 56% of all women and 50% of all men aged 65 or older reporting a limiting long term illness. Ethnic groups reporting poorer health than the average at age 65 include Pakistani, Bangladeshi and White Gypsy and Irish Traveller, Indian, Arab and Black Caribbean women. In men over 65 years higher rates of reported poorer health are found in White Gypsy and Irish Traveller, Pakistani, Bangladeshi, Black Caribbean and Indian populations.[5]

The above analysis relates to England and Wales as a whole and it is not clear how this is reflected in Leicester, although it is likely that there will be similarities. The central message is that it is important to work at a local level to understand and address health inequalities related to ethnicity and the determinants of health, recognising that these will change over time.

Coronary heart disease and diabetes

Locally, there are inequalities in long term conditions between different ethnic groups. Being of Black Ethnic Minority (BME) background substantially increases the risk of developing diabetes and of suffering acute complications of diabetes at a relatively younger age. The Asian and Black populations have a significantly higher emergency hospital admission rate for both diabetes and coronary heart disease (CHD); the rate ratio indicates that the risk of emergency hospitalisation is 79% higher in the Asian population than the White population for diabetes and 32% higher for CHD (see Figure 14). The Black population has a 47% higher risk of emergency hospitalisation related to diabetes and a lower risk of hospitalisation related to CHD than the white population.

Figure 14: Emergency hospital admission rates for CHD and diabetes complications by ethnic groups; age-standardised rates per 1,000 for 2009/10 to 2011/12 in Leicester

Coronary Heart Disease	White	Asian	Black	Mixed
Aged standardised rate	2.10	2.77	1.30	1.68
Standardised rate ratio	1.00	1.32	0.62	0.80

Diabetes	White	Asian	Black	Mixed
Aged standardised rate	10.75	19.22	15.76	11.47
Standardised rate ratio	1.00	1.79	1.47	1.07

Source: Hospital inpatient data (SUS)

Notes:

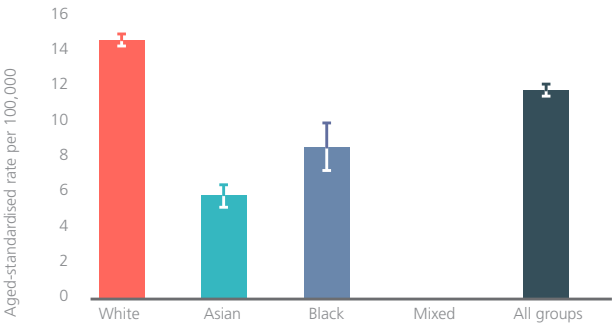
vi. Age-standardisation: older age is strongly associated with poorer health and generally, Black Minority Ethnic groups are younger than the White British ethnic groups. Age-standardisation takes account of these age differences so that there can be comparison between groups with different age structures.

Rate Ratios: in this case the White, Asian, Black and Mixed rate is shown in relation (as a ratio) to the White population. A standardised rate ratio of 1.32 for the Asian population in Figure 14 for CHD, below, represents a 32% excess in admission rates compared with the White population.

Smoking-related diseases

Estimates of smoking-related diseases such as lung cancer prevalence (see Figure 15) and chronic obstructive pulmonary disease (COPD) (see Figure 16) by ethnic group suggest that cancer and COPD are more prevalent in the White population and less so in the Asian and Black population. Asians have a 61% lower risk of hospital admissions for lung cancer and a 76% lower risk of emergency hospital admissions for COPD compared with the White population. Black population groups have a 45% lower risk of admission in relation to lung cancer and an 80% lower risk in relation to COPD compared to the White population groups. This is likely to be linked to the smoking levels within Asian and Black ethnic groups, which are much lower than found in the White populations. There were no recorded cases of hospitalised lung cancer in mixed ethnic groups.

Figure 15: Hospitalised prevalence (since 2008) of Lung Cancer by ethnic group: Age-standardised rate per 100,000

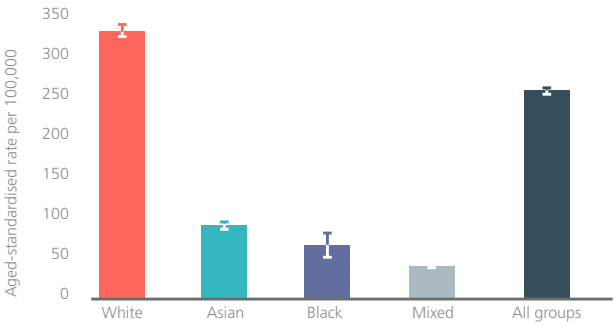


Source: Hospital inpatient data (SUS)

Notes:
vii. I shows 95% confidence limits

Lung Cancer	White	Asian	Black	Mixed
Aged standardised rate	14.70	5.72	8.11	0
Standardised rate ratio	1.00	0.39	0.55	-

Figure 16: Emergency hospitalised admission rate for Chronic Obstructive Pulmonary Disease (COPD) by ethnic group: Age-standardised rate by 100,000, 2009/10-2011/12



Source: Hospital inpatient data (SUS)

Notes:
vii. I shows 95% confidence limits

COPD	White	Asian	Black	Mixed
Aged standardised rate	327.36	79.09	66.86	36.66
Standardised rate ratio	1.00	0.24	0.20	0.11

Whilst lifestyle factors such as smoking can be linked to smoking-related diseases, the link between obesity, low physical activity levels and diet are less straightforward.

Other health issues which are more prevalent in different ethnic groups are covered later in the report: for example HIV, Oral Health, Tuberculosis.

Addressing health inequalities

One of the key messages from the Marmot Review: Fair Society, Healthy Lives, 2010[6] is that

"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".

The review recognises a social gradient in health whereby poorer health is seen in those with poorer social circumstances. To reduce these inequalities, actions should be universal, but scaled to the proportionate level of disadvantage.

In working towards a reduction in health inequalities, six policy objectives are recommended nationally

- 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 a healthy standard of living for all
- Create and develop healthy and sustainable places and communities
- Strengthen the role and impact of ill health prevention

Central and local government, the NHS, the third and private sectors and community groups need to work together, making effective decisions at a local level and empowering individuals and communities for local delivery of these policies. The responsibility to improve and protect our health lies with us all – government, local communities and ourselves as individuals.

Poor life expectancy result from years of life lost due to early deaths. In Leicester, there are significantly more early deaths from CVD and respiratory disease than nationally and these are the main causes of the life expectancy gap with England. Mortality in infancy is also high in Leicester and as this implies a considerable number of years lost, infant mortality is also a significant contributor to the gap. Work from the Department of Health's Health Inequalities National Support Team showed that reducing deaths from CVD and reducing infant mortality will drive the greatest reductions in the life expectancy gap.

Health equity audits (HEA)

It is important to seek to identify and rectify potential inequities in access to services through systematic health equity audits which examine access, take-up and outcome by factors such as gender, ethnicity, geography, disability, age and other relevant features, including protected characteristics under the Equality Act 2010. HEA identifies how fairly services or other resources are distributed in relation to the health needs of different groups. Actions required to create more equitable services (thereby reducing inequalities) are agreed and incorporated into local plans and practice. The overall aim is to distribute resources not equally, but fairly in relation to health need.[7]

In Leicester, there are significantly more early deaths from CVD and respiratory disease than nationally and these are the main causes of the life expectancy gap with England

Public Health Outcomes Framework

The commitment to reduce health inequalities is a priority for all parts of the public health system. The Public Health Outcomes Framework draws on the Marmot review to address the wider determinants of health and reduce inequalities in access to and outcome from health services.

The Public Health Outcomes Framework vision is to

- Improve and protect the nation's health and wellbeing through increased healthy life expectancy
- Improve the health of the poorest fastest through reduced differences in healthy life expectancy between communities

The domains of the Public Health Outcomes Framework are shown in the box below.

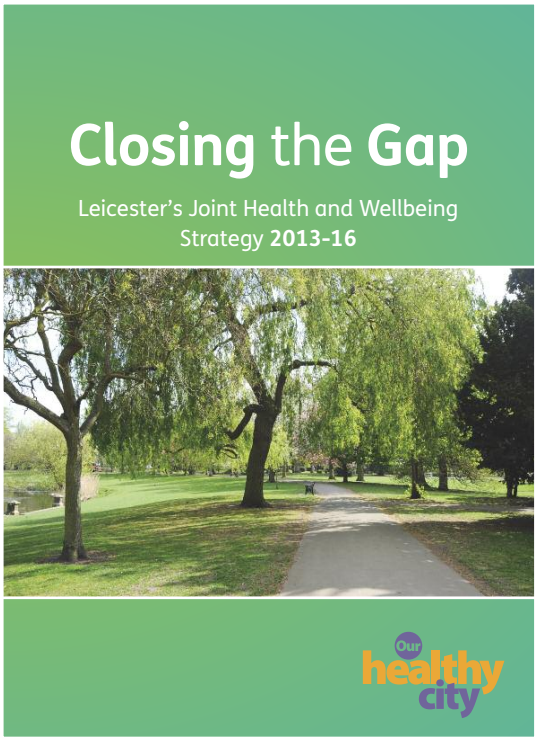
Public Health Outcomes Framework			
Improving the wider determinants of health	**Health Improvement**	**Health Protection**	**Healthcare and preventing premature mortality**
Objective: Improvements against wider factors that affect health and wellbeing, and health inequalities	**Objective:** People are helped to live healthy lifestyles, make health choices and reduce health inequalities	**Objective:** The population's health is protected from major incidents and other threats, while reducing health inequalities	**Objective:** Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities

Closing the Gap: Leicester's Joint Health and Wellbeing Strategy 2013-16

The key findings from the Leicester Joint Strategic Needs Assessment and the early findings from the 2011 Census have informed the development of Leicester's Joint Health and Wellbeing Strategy, which was agreed at the new Health and Wellbeing Board's first meeting in April 2013.

In the year prior to the formal establishment of the Health and Wellbeing Board, 'shadow' arrangements were in place and this enabled the Board to carry out a comprehensive programme of stakeholder and public engagement, including engagement with 'seldom heard groups' to inform the development of the strategy.

The strategy's overarching aim is to reduce health inequalities.



The strategy's five strategic priorities are

Strategic priority 1: Improve outcomes for children and young people

- Reduce infant mortality
- Reduce teenage pregnancy
- Improve readiness for school at age five
- Promote healthy weight and lifestyles in children and young people

Strategic priority 2: Reduce premature mortality

- Reduce smoking and tobacco use
- Increase physical activity
- Reduce harmful alcohol consumption
- Improve the identification and management of cardiovascular disease, respiratory disease and cancer

Strategic priority 3: Support independence

- Support independence for
  - people with long term conditions (LTCs)
  - older people
  - people with dementia
  - carers

Strategic priority 4: Improve mental health and emotional resilience

- Promote the emotional wellbeing of children and young people
- Address common mental health problems in adults and mitigate the risks of mental health problems in groups who are particularly vulnerable
- Support people with severe and enduring mental health needs

Strategic priority 5: focus on the wider determinants of health through effective deployment of resources, partnership and community working

- Priority five is a cross-cutting priority - to focus on tackling the wider and social determinants of health (the so called causes of the causes of poor health and health inequalities) and to do this through effective deployment of resources, partnership and community working.

The strategy acknowledges the importance of joint commissioning through the priorities which will require the Leicester City Council and its' NHS partners, particularly the Clinical Commissioning Group, to work together to achieve the strategy's aims. Progress against the strategy is monitored by the Health and Wellbeing Board.

Recommendations

- All partners should work to implement Closing the Gap: Leicester's Joint Health and Wellbeing Strategy 2013-16[8]
- Commissioners should develop a clearer understanding of the changing health profile of the city by ethnicity.
- Commissioners should introduce and undertake a programme of health equity audits

References

5. ESRC Centre on Dynamics of Ethnicity. Which ethnic groups have the poorest health? Ethnic health inequalities 1991 to 2011. University of Manchester. 2013. Available from: http://www.ethnicity.ac.uk
6. Marmot M. Fair Society Healthy Lives (The Marmot Review): Strategic Review of Health Inequalities in England post 2010 [Internet]. UCL Institute of Health Equity; 2010. Available from: http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
7. Health Equity Audit – learning from practice [Internet]. NICE; 2006. Available from: http://www.nice.org.uk/aboutnice/whoweare/aboutthehda/hdapublications/health_equity_audit__learning_from_practice_briefing.jsp
8. Leicester Health and Wellbeing Board. Closing the Gap: Leicester's Joint Health and Wellbeing Strategy 2013-16 [Internet]. Leicester City Council; 2013 Apr. Available from: http://www.Leicester.gov.uk/your-council-services/health-and-wellbeing/ health-and-wellbeing-board/joint-health-and-wellbeing-strategy

Infant Mortality

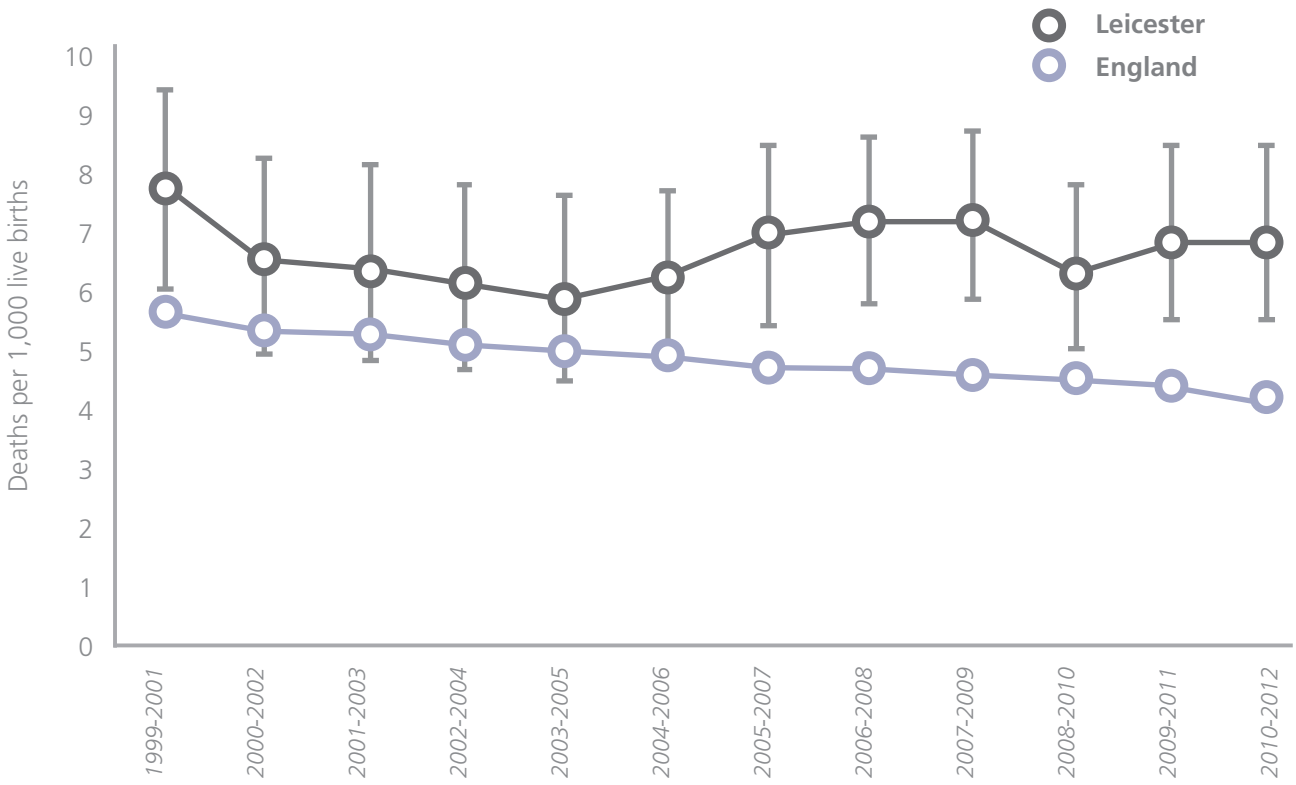
Introduction

Infant mortality is a measure of the deaths of babies under 1 year old. The infant mortality rate (IMR) is the number of deaths per 1,000 live births. In Leicester, between 2010 and 2012 the rate was 7 deaths per 1,000 live births, which is significantly higher than the national rate of 4.3 per 1,000 (see Figure 17). The majority (around 70%) of infant deaths occur within the first 28 days of life.

Although the actual number of deaths is small (around 32 deaths per year) each one is clearly a tragedy and it is important that everything possible is done to prevent infant deaths.

The national IMR has reduced over the past 10 years from 5.4 to 4.3 per 1,000 live births. Leicester's IMR in 2010-2012 (7.0) is lower than in 1991-2001 (7.7) but the rate is more variable due to the small numbers involved. National research shows unacceptable inequalities in infant mortality persist; babies from poorer families and babies from some ethnic minority families, for example, Pakistani, Bangladeshi and Black Caribbean, are more likely to die before their first birthday.

Figure 17: Infant mortality rate in Leicester and England



Notes:

viii. I shows 95% confidence limits around infant mortality rate

Source: NHS Information Centre, Indicator Portal (http://indicators.ic.nhs.uk)

There are a number of evidence based approaches to reducing infant mortality.

Early access to maternity services

Maternity services aim to help women to have a healthy and comfortable pregnancy giving their babies the best chance of being born well with a good life expectancy. Ideally women need to access maternity services as early as possible and before 12 weeks of pregnancy in order that screening, advice and interventions can be offered early enough in order to improve birth outcomes.

In Leicester, the proportion of women booking with maternity services before 12 weeks is lower than the national average, with 11.6% booking after 12 weeks of pregnancy in 2012/13. As a result, a campaign has been running since summer 2013 to encourage women to contact a midwife as early as possible and which emphasises how easy it is to book directly with a midwife.

Reducing smoking in pregnancy and close to babies

An estimated third of all perinatal deaths (within seven days of birth) in the UK are caused by maternal smoking.[8] In 2012/13, 14.2% of mothers in Leicester were smoking at the time of birth, below the East Midlands average (15.1%) but significantly higher than that for England (12.7%).

Women smoking during pregnancy are encouraged and supported to stop by midwives and smoking cessation advisors. The "Step Right Out" campaign encourages people to keep their homes and cars completely smokefree for the benefit of their family's health. Between January 2012 to November 2013, some 4,000 people committed to 'Stepping Right Out', that is, only smoking outside, not in a doorway or out of a window, every time they smoke a cigarette.

Reducing maternal obesity

Women who are a healthy weight before they become pregnant have a healthier pregnancy, with less risk of complications throughout pregnancy and childbirth than those who have a Body Mass Index (BMI) of 30 or more.

City Council funded weight management programmes run in the city with positive outcomes. There are also many opportunities for people to become more physically active, for example, at leisure centres or on cycling and walking programmes. Patients with existing medical conditions or significant risk factors for developing conditions can also be referred by their GP on to an exercise referral programme, entitling patients to 6 months free access to the Leicester City Council leisure centres and support from physical activity officers. The need to develop a programme for women who are already pregnant and are very overweight at the time of booking with maternity services is recognised. Such women require more intensive support to manage their weight, improve their nutrition and to undertake safe levels of physical activity.

Increasing breastfeeding

Breastfeeding has many benefits both for mothers and babies, for example, reducing risks of breast cancer and ovarian cancer, facilitating weight loss for mothers and promoting bonding between mothers and babies. Breastfeeding also reduces the risk of illnesses and infection in babies, for example, gastroenteritis, ear infections and sudden infant death.

To increase take-up and sustain breastfeeding for at least six weeks, hospitals and children's centres have worked over recent years to achieve UNICEF Baby Friendly status and achieved stage 2 of this in November 2013. This has required a commitment to a range of actions including investment in considerable staff training.

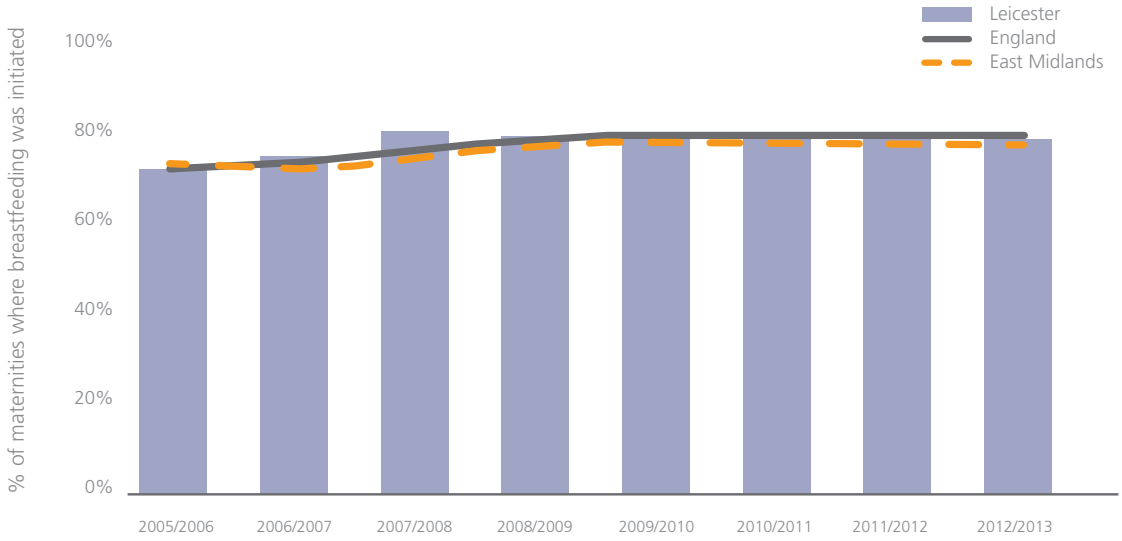
"If a new vaccine became available that could prevent 1 million or more child deaths per year and that was more-over cheap, safe, administered orally...it would become an immediate public health imperative. Breastfeeding could do all this and more...but it requires...skilled care for mothers to build their confidence and show them what to do and protect them from harmful practices"

Source: A warm chain for breastfeeding, 1994, The Lancet Vol 344 Issue 8932 1239-1241[10]

This has contributed to improvements as shown in Figure 18. Breastfeeding initiation rates in Leicester have increased steadily since 2005/06 from 67% to 74.1% in 2012/13, with Leicester showing a similar rate and trend to the national figures (73.8%).

There are however, significantly lower rates of breastfeeding in New Parks, Freemen, Eyres Monsell, Braunstone Park and Rowley Fields, Beaumont Leys and Abbey.[9] Programmes to support women with breastfeeding operate in the city. There is a commitment to developing a more comprehensive peer support programme across the city, particularly focusing on areas with the lowest rates of breastfeeding.

Figure 18: Breastfeeding Initiation for Leicester City – 2005/06 to 2012/13



Source: Department of Health, 2013

Women who are a healthy weight before they become pregnant are more likely to have a healthier pregnancy, with less risk of complications throughout pregnancy and childbirth.

- **Safe sleeping for babies**

Sudden Unexpected Death in Infancy (SUDI) or cot deaths describe a sudden or unexpected infant death that remains unexplained after a post-mortem. There are more than 300 of these deaths in the UK every year. Although the cause of these deaths remains unknown, there are a number of key steps parents and carers can take to reduce the risks:

- Placing babies on their back to sleep
- Not smoking in pregnancy or around a baby
- Keeping a baby in a crib/cot in the same room with parents/carers for the first 6 months

The Foundation for the Study of Infant Deaths (FSID) promotes safe sleeping advice and training for professionals and it is essential this is followed for the benefit of children and their parents.

Improving immunisation uptake

As shown in a later section of the report, immunisation uptake in the city is relatively high with uptake for all vaccinations before the age of one above 95%. Vaccination rates have increased steadily over the past 5 years and it is essential that this is maintained in order to reduce the incidence of diseases such as Meningitis, whooping cough and other dangerous diseases.

Reducing teenage pregnancy

Babies of teenage mothers are at higher risk of being born at a low birth weight and dying within 12 months. Teenage mothers are more likely to be living in poverty and poor quality accommodation, smoke during pregnancy, book later with a midwife and are less likely to be breastfeed their babies.

Since 1998, there has been a concerted multi- agency effort to reduce the teenage pregnancy rate in Leicester and between 1998 and 2012, the rate reduced dramatically by almost 50%. There has however, been a small increase since 2011 and the current rate (2012) is 32.9 per 1,000 15 to 17 year old girls. For teenage parents, enhanced support is available through the family nurse partnership where family nurses provide ongoing support to teenage parents throughout pregnancy and until each child is two.

National Support Team advice

The city has also benefited from the advice of the Department of Health Infant Mortality National Support Team, an expert group which visited in 2010.

As well as targeted action on specific risk factors and strategic and organisational action as described above, the team emphasised the need to promote ownership and a greater understanding of the potential contribution different partners can make to reducing infant mortality. In relation to this, it was recommended that named leads be identified to act as champions in each organisation and neighbourhood. Since then a series of roadshows have been held across the city, which culminated in a city-wide event in October 2012 to launch the role of 'Health in Infancy Champions', a 'Healthy Infant' brochure for front-line staff and develop a sustainable approach to tackling infant mortality in the city. A follow-up event took place in December 2013 to review progress, share good practice and consider next steps.

Recommendations

It is recommended that health and public health commissioners and partners

- Continue to promote and support breastfeeding, including working to achieve full World Health Organisation Baby-Friendly Accreditation by 2015
- Continue to focus on the evidence-based actions and revisit the recommendations of the National Support Team for Infant Mortality
- Develop a weight management programme for pregnant women who are already seriously overweight

References

8. Leicester Health and Wellbeing Board. Closing the Gap: Leicester's Joint Health and Wellbeing Strategy 2013-16 [Internet]. Leicester City Council; 2013 Apr. Available from: http://www.Leicester.gov.uk/your-council-services/health-and-wellbeing/health-and-wellbeing-board/joint-health-and-wellbeing-strategy/
9. Leicester City Council. Ward Health Profiles 2012 [Internet]. 2013. Available from: http://www.leicester.gov.uk/your-council-services/social-care-health/jsna/jspna-reports/3ward-health-profiles-2011/
10. A warm chain for breastfeeding, 1994 The Lancet Vol 344 Issue 8932 1239-1241

Alcohol

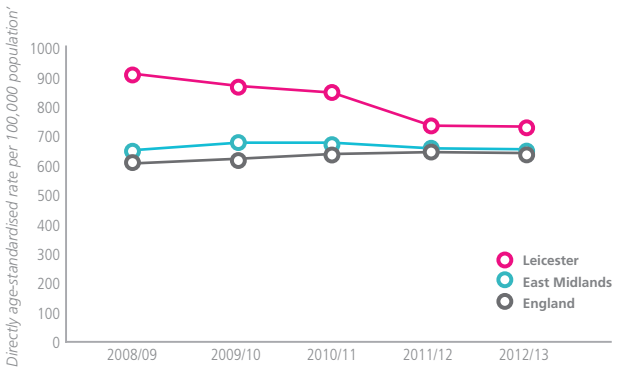
Introduction

Alcohol is a social drug enjoyed by many people and which plays an important role in the local leisure and night-time economy. Alcohol misuse (excessive and frequent alcohol use) however is a major or significant contributor to a wide range of health problems such as liver disease, heart disease and cancer, and social problems including unemployment, homelessness, violence and accidents. Harm from other people's drinking is common ranging from the less severe, such as being kept awake at night by rowdy behaviour, to much more severe consequences, such as domestic violence, road traffic accidents or neglect of children.

Men in Leicester are twice as likely to die from an alcohol specific condition, such as liver disease, than the England or East Midland average. In Leicester an average of 37 men die each year as a direct consequence of alcohol (29.5 deaths per 100,000) this is the 11th highest rate in England and the highest rate in the East Midlands.[11] The rate of alcohol specific deaths in women in Leicester (6.0 per 100,000) is lower than the England average (6.8 per 100,000).[11]

Alcohol is a direct or contributory cause to a large number of hospital admissions. The rate of alcohol related hospital admissions is starting to fall in Leicester but remains higher than the England and the East Midlands average (Figure 19).

Figure 19: Hospital admission episode rates for alcohol-related conditions, Leicester, East Midlands and England, 2008/09 to 2012/13



Source: Knowledge and Intelligence Team (North West) using hospital episode statistics and Office of National Statistics mid-year population estimates. Local Alcohol Profiles for England.

Notes:

ix. Alcohol related primary diagnosis or any secondary diagnosis with an external cause, all ages, directly age-standardised rate per 100,000 population (standardised to the European standard population).

x. The alcohol related recorded crime rate in Leicester, although falling, remains higher than the national average with alcohol related violent crime, 1.5 times higher than the England average.[11]

High risk/ dangerous drinking =

Current status and trends

Adults

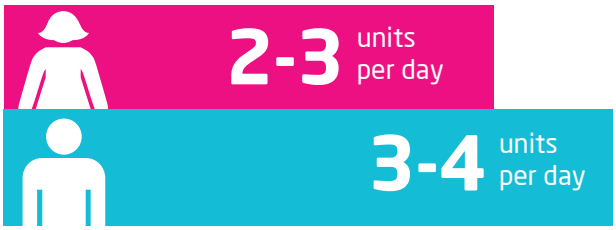
In Leicester, as in England, the majority of adults either do not drink alcohol or are low risk drinkers. However, in England over 10 million people aged 16 and over drink above the recommended daily limit (2-3 units for women and 3-4 units for men), with 2.6 million people drinking more than double the recommended limits. National models estimate that in Leicester there are 63,000 people aged 16 and above drinking above the low risk level, with 13,000 people drinking at harmful levels and almost 9,000 people dependant on alcohol.

Alcohol consumption in Black and Minority Ethnic (BME) groups is generally lower than in White ethnic groups. The Leicester Lifestyle Survey[12] shows that 68% of White respondents say they drink alcohol compared to 30% of all BME respondents and only 26% of all South Asian respondents.[13]

Alcohol consumption is increasing in second and subsequent generation BME groups. Local data suggests increasing rates of alcohol consumption among black ethnic groups and Indian Sikhs, whereas Indian Hindus, Pakistanis and Bengalis are not currently showing any signs of increased consumption. In all population groups, including BME communities, it is mainly men rather than women who are drinking alcohol.[14]

There are differences also in the experience of alcohol related harm, for example, the rates of alcohol related hospital admissions vary across the city with higher rates in Braunstone Park and Rowley Fields, New Parks, Castle, Eyres Monsell and Freeman wards. Whilst alcohol related hospital admissions in Leicester are significantly higher in White ethnic groups compared to BME groups, there is evidence of changing attitudes and behaviours towards alcohol within BME groups, which may lead to an increasing rate of alcohol related harm within these groups. Data from the Specialist Alcohol Liaison team, which works with patients admitted to University Hospitals of Leicester where alcohol is thought to be a significant contributing factor, shows that 78% of patients seen by the service are White British and 10% are of Indian ethnicity.

Recommended Units



Alcohol drinks vary in their volume and alcohol content. Alcohol consumption in the UK is measured in terms of 'units of alcohol. A 'unit' is a standardised measure of the alcohol content of a drink and approximates to 10ml or 8g of pure alcohol.

The Department of Health advises that men should not drink more than 3-4 units of alcohol per day and women should drink no more than 2-3 units of alcohol per day.

Pregnant women and those engaging in potentially dangerous activities should drink less or nothing at all.

In Leicester an average of 37 men die each year as a direct consequence of alcohol

Children and young people

Drinking alcohol, particularly heavy or regular drinking, can result in physical or mental health problems, impaired brain development and put children at risk of alcohol related accident or injury. It is also associated with increased school absence, decreased educational attainment, violent and antisocial behaviour and unsafe sexual behaviour.[15,16]

Historically children in England have been more likely to drink alcohol than children in many other European countries.[17] Despite falling rates of alcohol consumption in young people, the proportion consuming alcohol remains well above the European average. The UK continues to rank among countries with the highest levels of alcohol consumption for those who do drink and British children are more likely to have engaged in 'binge drinking' or been drunk compared to children in most other European countries.[18]

The latest survey of young people's drinking habits reveals 43% of pupils say that they have drunk alcohol at least once. This continues the downward trend since 2003, when 61% of pupils had drunk alcohol.[19]

Research shows that for younger children, parents and other family members play the key role in forming their initial understanding of alcohol[20] but as children grow older and begin to socialise more, peers have an increasing impact on their attitudes, choices and behaviour[21]. There has also been an increase in the attention paid to the impact of commercial advertising and social networking on drinking behaviour.[22, 23]

Children in Leicester (aged 11-15) are less likely to report "ever having an alcoholic drink" (20%) than the national average (42%).[24] The rate of alcohol specific hospital admissions among the under 18s in Leicester has shown a gradual decrease over the last few years. This may reflect changing patterns of substance use among young people.

What is being done to address this?

Reflecting the health, wellbeing and social harms of alcohol misuse, the approach in Leicester has been led by the Alcohol Harm Reduction Delivery Group, part of the Safer Leicester Partnership. This group works with a wide range of partners including health services, police, education, licensing, fire and rescue, ambulance, local universities and local retailers to develop and deliver an alcohol harm reduction strategy, which aims to:

- Foster a culture of responsible drinking, where individuals make informed choices about their alcohol use and drink less, less often
- Help protect children young people and families from alcohol related harm
- Raise awareness of the health and social impacts of alcohol misuse, increase opportunities for early identification of alcohol misuse and improve access to recovery focussed treatment and support services
- Lobby the alcohol retail industry to reduce alcohol related harm, through commitment to responsible selling and promotion of alcohol
- Protect local communities from the negative impact of alcohol by reducing alcohol related crime, disorder and anti-social behaviour

An action plan has been developed to deliver the strategy. Local data indicates that while the majority of the population are aware of alcohol units, many are not able to accurately calculate how many units of alcohol they are drinking. The recently commissioned integrated substance misuse services are seeing an increase in the number of people able to access treatment services. We have also seen a steady reduction in the rate of recorded alcohol related violent crime.[11]

Recommendations

It is recommended that

- Key partners should continue to work together to deliver the objectives of the Leicester alcohol harm reduction strategy to reduce alcohol harm across the city.
- Targeted promotion should be undertaken by the Leicester City Council and partners to raise awareness of and reduce the adverse effects of alcohol misuse within high risk groups.
- A multi-agency summit should be established between the Leicester City Council and partners to develop a city wide approach to tackling all forms of alcohol related harm.

In Leicester, as in England, the majority of adults either do not drink alcohol or are low risk drinkers

References

11. LAPE – Local Alcohol Profiles for England [Internet]. Available from: http://www.lape.org.uk
12. Leicester Health and Lifestyle Survey 2010. NHS Leicester City
13. Rush Model Spreadsheet – Average PCT – Data Tools – Alcohol Harm Data – Browse – Topics – Homepage – PHE Alcohol Learning Resources [Internet]. [cited 2013 Nov 25]. Available from: http://www.alcohollearningcentre.org.uk/Topics/Browse/Data/ Datatools/?parent=5113&child=5134
14. Alcohol related harm in Leicester, Leicestershire and Rutland. Leicestershire and Rutland Primary Care Trust and Leicester City Primary Care Trust; 2007.
15. Young People Factsheet Dec-2010.pdf [Internet]. [cited 2013 Nov 25]. Available from: http://www.alcoholconcern.org.uk/assets/files/Publications/ Young%20People%20%20factsheet%20Dec-2010.pdf
16. Viner R, Taylor B. Adult outcomes of binge drinking in adolescence: findings from a UK national birth cohort. J Epidemiol Community Health. 2007;(61):902–7
17. Hibell B. The 2007 ESPAD report: substance use among students in 35 European countries.Stockholm: The Swedish Council for Information on Alcohol and Other Drugs; 2009.
18. Hibell B, Guttormson U, Ahlstrom S, et al. The 2011 ESPAD report: substance use among students in 36 European countries. Stockholm: The Swedish Council for Information on Alcohol and Other Drugs; 2012
19. Henderson H, et al. Smoking, drinking and drug use among young people in England in 2012 [Internet]. London: Health and Social Care Information Centre; 2013. Available from: https://catalogue.ic.nhs.uk/publications/public-health/surveys/smok-drin-drug-youn-peop-eng-2012/smok-drin-drug-youn-peop-eng-2012-repo.pdf
20. Williams B, Davies L, Wright V. Children, Young People and Alcohol [Internet]. London: GfK NOP Social Research; 2010 Jan. Available from: http://www.alcohollearningcentre.org.uk/Topics/ Browse/Children/?parent=4977&child=6080
21. Seaman P, Ikegwuonu T. Findings: Young people and alcohol: influences on how they drink [Internet]. York: Joseph Rowntree Foundation; 2010. Available from: http://www.gcph.co.uk/assets/0000/0897/Findings_2551_SeamanFINAL_DEC.pdf
22. Department of Education. [ARCHIVED CONTENT] Alcohol – Schools [Internet]. 2012 [cited 2013 Nov 25]. Available from: http://webarchive. Nationalarchives.gov.uk/20130802232124/http://www.education.gov.uk/schools/pupilsupport/pastoralcare/health/drug/a0070043/alcohol
23. Gordon R, MacKintosh AM, Moodie C. The impact of alcohol marketing on youth drinking behaviour: a two-stage cohort study. Alcohol. 45(5):470–80
24. Chamberlain T, George N, Golden S, Walker F, Benton T, National Foundation for Educational Research. Tellus4 National Report [Internet]. Department for Children, Schools and Families; 2010 Mar. Available from: https://www.gov. uk/government/uploads/system/uploads/attachment_data/file/221932/DCSF-RR218.pdf

Smoking

Why is this a priority?

Smoking is the greatest single cause of preventable death nationally and in 2011 it killed approximately 79,100 people in England.[25] Smoking accounts for around one fifth of all UK deaths and the Office for National Statistics estimates it to be responsible for

- 86% of deaths from chronic obstructive pulmonary disease
- 81% of all deaths from lung cancer
- 28% of all deaths from cancer, including cancer of the mouth, lip, tongue, stomach, liver, lung, pancreas, kidney, bladder, cervix and leukaemia
- A ten to 16 fold raised risk of peripheral vascular disease (causing around 2,000 amputations each year)
- 70% of deaths from coronary heart disease[26]

The Marmot Review 'Fair Society, Healthy Lives' 2010[6], states that men of 35 years of age who smoke will, on average, die seven years earlier than men who have never been smokers. Women smokers of the same age will, on average, die six years earlier than women who have never smoked.

According to figures for the Office for National Statistics, there are around 400 smoking related deaths each year in Leicester.[2]

It is estimated that smoking costs the NHS in the UK £5.2 billion a year, approximately 5.5% of total healthcare costs.[27] The cost of treating smoking related illnesses in Leicester, using a financial model tool developed by Action on Smoking and Health, is estimated to be around £17.8 million a year.[28] Smoking disproportionately affects the health of those living in poorer areas, where there tends to be a higher proportion of the population who smoke. This is particularly so in the more disadvantaged areas in the west of the city.[12] Historical and continued smoking is a significant health inequalities issue and contributes directly to the gap in life expectancy between Leicester and England.

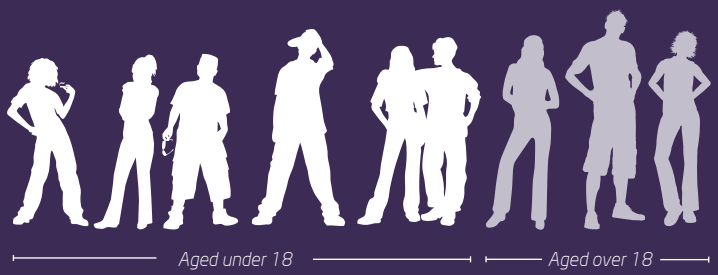
A review of the impact of smoking carried out by the British Medical Association found that maternal smoking is a major risk factor for low birth weight. Babies born to women who smoke are on average 200-250 grams lighter than babies born to non-smoking mothers. It is estimated that about one third of all perinatal deaths (within seven days of birth) in the UK are caused by maternal smoking.[29]

What is the current status and trend?

Adults

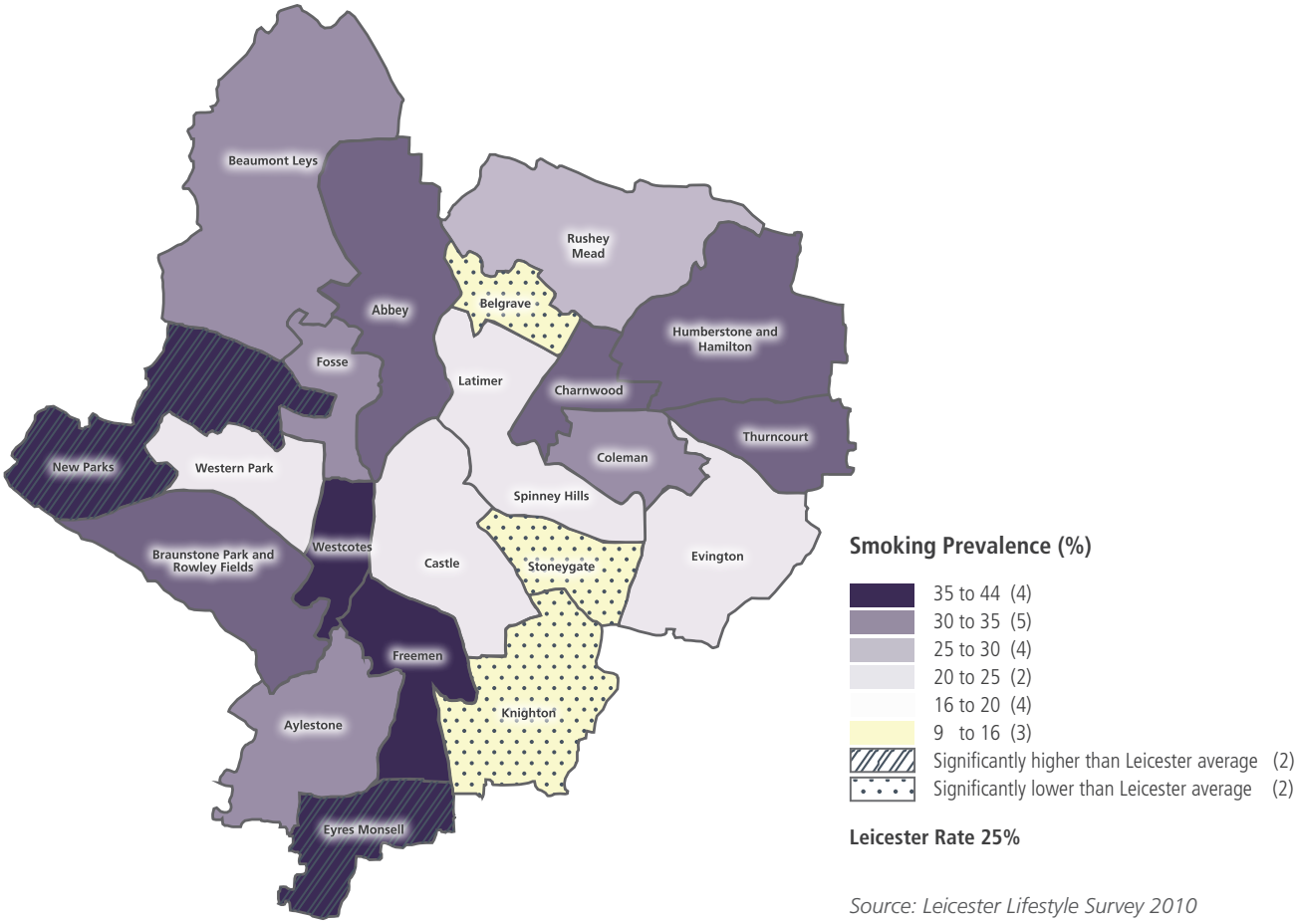
According to the national Integrated Household Survey in 2012 the prevalence of smoking in Leicester in those aged 18 and over years is 20.5%, higher but not statistically significantly different from the England average of 19.5%.[26] The Leicester Lifestyle Survey 2010, conducted via a much larger sample of Leicester's population than the Integrated Household Survey, found a higher prevalence of smoking in people aged 18 and over, at around 25%.[12]

TWO THIRDS
of smokers start before they are 18



The Leicester Lifestyle Survey 2010 also provides information regarding patterns of smoking within the city. Rates of smoking broadly reflect the pattern of deprivation in the city, with the most deprived wards showing the highest prevalence. Figure 20 shows that wards with the highest levels of smoking, according to the Leicester Lifestyle Survey 2010[12], are Eyres Monsell (44%), Charnwood (39%), New Parks (38%), Westcotes (37%), Braunstone Park and Rowley Fields (36%) and Freemen (36%). Wards with the lowest proportion of smokers are Knighton (9%), Latimer (13%), Stoneygate (14%) and Evington (16%).[12]

Figure 20: Estimates of Smoking Prevalence by Leicester Ward



Source: Leicester Lifestyle Survey 2010

Smoking is by far the largest preventable cause of ill-health and death

The city's deprivation profile suggests that smoking prevalence should be considerably higher in Leicester than the national average and smoking rates among routine and manual workers is around 25%, again lower than the 30% average for England.[26] The effects of deprivation on smoking prevalence appears to be offset by the city's BME population which overall has much lower smoking rates than the White population. Nationally, as in the Health Survey of England, rates of smoking in ethnic minority groups have been found to be lower than the UK population as a whole. The Leicester Lifestyle Survey 2010 found white respondents (34%) are more likely to smoke than those from BME backgrounds (14%) and that there are no significant differences between BME groups.[12] However, nationally rates of smoking in men have been found to be particularly high in the Black Caribbean (37%) and Bangladeshi (36%) populations and in women in White Irish and Black Caribbean populations.[30]

In 2012/13 14.2% of pregnant women in Leicester were smoking at the time of delivery, slightly lower than the East Midlands average, 15.1%, but higher than the average for England, 12.7%.[25]

Leicester's mortality outcomes for chronic obstructive pulmonary disease and heart disease are worse when compared to national benchmarks for deaths where smoking played a significant contributory factor.

According to data ranging between 2010 and 2012 from the Office of National Statistics, the annual deaths in Leicester for the following were disease

- 108 deaths from chronic obstructive pulmonary disease
- 135 deaths from lung cancer
- 53 smoking attributable deaths from heart disease
- 16 smoking attributable deaths from stroke[25]

Children and young people

Smoking initiation is associated with risk factors including: parental and sibling smoking, the ease of obtaining cigarettes, smoking by friends and peer group members, socio-economic status, exposure to tobacco marketing and depictions of smoking in films, television and other media. Children who live with parents or siblings who smoke are up to three times more likely to become smokers themselves than children of non-smoking households.[31]

The prevalence of smoking increases with age, from less than 0.5% of 11 year olds to 11% of 15 year olds. Five percent of pupils aged 11 to 15 smoke regularly. The average consumption of cigarettes by pupils who smoke regularly is 36 cigarettes per week.[32]

Young people who play truant or who have been excluded from school in the previous 12 months are almost three times more likely to smoke regularly compared to those who have never truanted or been excluded.[32]

What's being done to address this?

The Leicester City Tobacco Control Coordination Group works to coordinate activity around reducing demand for tobacco products by motivating and supporting smokers to quit, preventing uptake of smoking, promoting smokefree homes and cars, enforcing smokefree public places, ensuring compliance with age of sale requirements and combating illicit supply.

14.2% of pregnant women in Leicester were smoking at the time of delivery

Helping users to quit

The smoking cessation service 'Stop' is commissioned by the Leicester City Council and provided currently by the Leicestershire Partnership NHS Trust. The key performance indicator is the number of four-weeks quits. Smokers are assessed and they set a quit date, after which they commit to not having any more cigarettes. They see an advisor weekly and are re-assessed at around four weeks. Biochemical tests (carbon monoxide exhalation) are used at week 1 and week 4 to determine abstinence. The support programme lasts for up to 12 weeks and is an evidence-based combination of behavioural support, pharmacotherapy and nicotine replacement therapies in various forms[33] Treatment for the use of smokeless tobacco is available at selected clinics. The service also works closely with University Hospitals of Leicester and Leicestershire Partnership Trust to encourage patients and staff who smoke to consider giving up and has played a key role in the establishment of the' Making Every Contact Count' scheme.

The service is in the most part delivered on a one-to-one basis by advisors from the core Stop team, by community pharmacists or practice nurses. In 2012-13, the Leicester City target was 2,644 four week quitters, which was exceeded by 101 quits.

For 2013-14 the target is 2,684 and it is unlikely this will be met, due principally to the increasing popularity of the e-cigarette as an alternative to quitting. Smokers report using e-cigarettes as either a means of completely or partially replacing smoking tobacco, or to quit tobacco altogether.

Data for 2013 shows that in England almost a third of quit attempts by smokers involved the use of an e-cigarette and there has been a decrease in the use of other aids, such as nicotine patches, to smoking cessation. As yet there have been no long term clinical studies into the harms of e-cigarettes – the market is too young and users have not been using the products for long enough. However, current evidence suggests that e-cigarettes are less harmful than smoking tobacco, as they do not contain tar and carbon monoxide, the elements that make tobacco smoke harmful, not nicotine. The planned regulation and standardisation of e-cigarettes should make it easier to assess health effects in future. 'Stop' and the Council's Division of Public Health is engaged in local and national discussions about the role of e-cigarettes and 'Stop' is encouraging users of e-cigarettes to access the service to quit for good

Reducing the number of young people starting to smoke

The Leicester City Council commissions 'Stop' to provide advice and support on prevention and has developed a programme for schools. The service offers support for youth appropriate tobacco education, training and guidance to treat young smokers and has pioneered and locally delivered a series of social marketing roadshows called The SmokeScreen.

Data for 2013 shows that in England almost a third of quit attempts by smokers involved the use of an e-cigarette and there has been a decrease in the use of other aids, such as nicotine patches

Smokefree homes and cars

The City Council also commissions a smokefree homes project called Step Right Out, developed through focus groups with service-users, to encourage people to protect their children by creating a smokefree home environment. There are comprehensive engagement pathways with healthcare partners and those in children's networks, to widen the reach of the project.

Enforcement of smokefree legislation

The Leicester City Council is responsible for ensuring compliance with smokefree legislation affecting all enclosed public places and vehicles. One of the biggest challenges locally is shisha (waterpipe smoking). There has, in recent years, been a growth in the numbers of commercially operated shisha bars in Leicester, rising from 6 in 2007 to 21 in the first half of 2013. A review into the effects of shisha has concluded that it is not a harmless alternative to cigarette smoking, as it is sometimes presented.34 The Leicester City Council acts to enforce smokefree legislation with which commercial premises have a legal duty to comply, assesses proposals for new premises and monitors existing shisha cafés for compliance.

Enforcement of under-age sales law is intelligence-led, plus a number of random test purchase operations. Surveillance of the local market in illicit sales, together with the collection and sharing of intelligence on supply chains is backed up by joint enforcement with HM Revenue & Customs and the police. Enforcement of shisha tobacco products includes intelligence-led under age test purchasing and enforcement of the health warning requirements on retail sales and supplies at shisha cafés.

Cheap tobacco products help to maintain higher smoking rates among the most disadvantaged communities. Members of the public can contact Trading Standards about incidents of illegal tobacco trading on 08454 04 05 06.

Overall progress is being made on tobacco control and smoking cessation, which is a key factor in poor health in the city.

Recommendations

It is recommended that

- Commissioners work to strengthen the role of the Tobacco Control Coordination Group so that there is a reduction of overall smoking prevalence in the city to 15% by 2020, including reductions in take up by young people
- The implications for tobacco control of harm reduction policies and e-cigarettes are considered and factored into future plans by commissioners and providers

References

12. Leicester Health and Lifestyle Survey 2010. NHS Leicester City
25. X Statistics on Smoking, England – 2013. Health and Social Care Information Centre; 2013. Available at: http://www.hscic.gov.uk/catalogue/PUB11454
26. Local Tobacco Control Profiles for England [Internet]. [cited 2014]. Available from: http://www.tobaccoprofiles.info
27. Allender S, et al. The burden of smoking-related ill health in the UK. Tob Control. 18(4):262–7
28. Estimating the Financial Burden of Tobacco Use through Modelling: The Brunel and ASH models explained [Internet]. [cited 2013 Nov 25]. Available from: http://www.ash.org.uk/localtoolkit/docs/costmodelling.pdf
29. Board of Science and Education & T. Smoking and reproductive life: The impact of smoking on sexual, reproductive and child health [Internet]. British Medical Association; 2004 Feb. Available from: http:// www.rauchfrei-info.de/fileadmin/main/data/Dokumente/Smoking_ReproductiveLife.pdf
30. Fact Sheet - Tobacco and Ethnic Minorities. ASH; 2011. Available at: http://ash.org.uk/files/documents/ASH_131.pdf
31. Tobacco Advisory Group of the Royal College of Physicians. Passive smoking and children. London: Royal College of Physician; 2010 Mar
32. NatCen Social Research and National Foundation for Educational Research. Smoking, drinking and drug use among young people in England in 2011 [Internet]. Health and Social Care Information Centre; 2012. Available from: https://catalogue.ic.nhs.uk/publications/public-health/surveys/smok-drin-drug-youn-peop-eng-2011/smok-drin-drug-youn-peop-eng-2011-rep1.pdf
33. National Institute for Health and Clinical Excellence. Smoking cessation services: NICE public health guidance 10 [Internet]. National Institute for Health and Clinical Excellence; 2008 Feb. Available from: http://publications.nice.org.uk/smoking-cessation-services-ph10
34. Hall M. Waterpipe smoking (Shisha): Potential effects and recommendations for further action. NHS Leicester City and Leicester City Council; 2013 Jan

Obesity

Introduction

Obesity is a risk factor for a range of diseases including cardiovascular disease, type 2 diabetes and cancer. Excess weight can cause musculoskeletal pain and impair mobility from stress on joints and the spine. It is linked to poorer mental health and wellbeing and the estimated annual costs to the health system in Leicester of diseases related to overweight and obesity are projected to reach £96.1 million by 2015.[35]

Obesity is the accumulation of body fat resulting from an energy imbalance where, over a period of time energy intake from eating is greater than energy expended. The body mass index (BMI) is the widely accepted measure of body fat based on the ratio of a person's weight to their height (see box below). It should be noted that people of Black, South Asian and other minority ethnic groups are at risk of chronic health problems such as diabetes and heart disease at a lower BMI (<25) than the White population.[36]

Classification of adult weight according to BMI and risk of obesity related co-morbidities

Classification	BMI range (kg/m²)	Risk of obesity related co-morbidities
Underweight	Less than 18.5	Low risk (but risk of other clinical problems increased)
Healthy weight	18.5 - 24.9	Average risk
Overweight	25 -29.9	Increased risk
Obese	30 - 39.9	Medium to high risk
Morbidly obese	40 or greater	Very high risk

Source: Morbid Obesity definition and overview, Public Health England. http://www.noo.org.uk/NOO_about_obesity/morbid_obesity

By 2050, obesity is predicted to affect 60% of adult men, 50% of adult women and 25% of children

The causes of obesity are complex and include wider societal and environmental influences as well as individual lifestyle behaviours. The Department of Health Call to Action on Obesity in England[37] sets two new national ambitions

- A sustained downward trend in the level of excess weight in children by 2020
- A downward trend in the level of excess weight averaged across all adults by 2020

Nationally population levels of overweight and obesity are increasing, whilst levels of people whose weight and height are within a healthy range are declining. By 2050, obesity is predicted to affect 60% of adult men, 50% of adult women and 25% of children.[38]

What is the current status and trend?

Adults

Data provided by Public Health England for 2012[39], based on the self-report national Active Lifestyle Survey, shows that in Leicester the prevalence of adults aged 16 years and above who are overweight and obese is generally comparable to the England average.

In Leicester

- 39.7% have a healthy weight
- 37.4% are overweight
- 19.6% are obese
- 3.4% are underweight

The proportions of the Leicester population that are of healthy weight, overweight and obese, though lower than England, are not statistically significantly different to those for England (healthy weight 35%, overweight 40.8%, obese 23%). The population of underweight adults in Leicester's population is, however, statistically significantly different, higher than that found in England overall (1.2%).

Accurate data about BMI is difficult to collect at a population level without measuring an individual's height and weight. The data presented above has been adjusted for systematic differences between self-reported and measured height and weight found in previous large scale surveys and is currently only available for 2012. There is therefore insufficient data now to provide information on changes over time.

Children and young people

Figures 21 - 24 overleaf present information from the National Childhood Measurement Programme (NCMP), which weighs and measures children in Reception Year (ages 4-5) and Year 6 (ages 10-11) and provides information about the proportion of children who are overweight and obese. In Leicester, over 90% of children in each of these age groups consistently participate in this programme each year.

The findings from the NCMP in Leicester, compared with England, are that there is

At ages 4-5 (Reception year)

- A significantly higher prevalence of obese children (10.6% in Leicester compared with 9.3% in England)
- A significantly lower prevalence of overweight children (11.4% for Leicester, compared with 13.0% for England)
- A significantly higher prevalence of underweight children (2.1% compared with 0.9% in England)

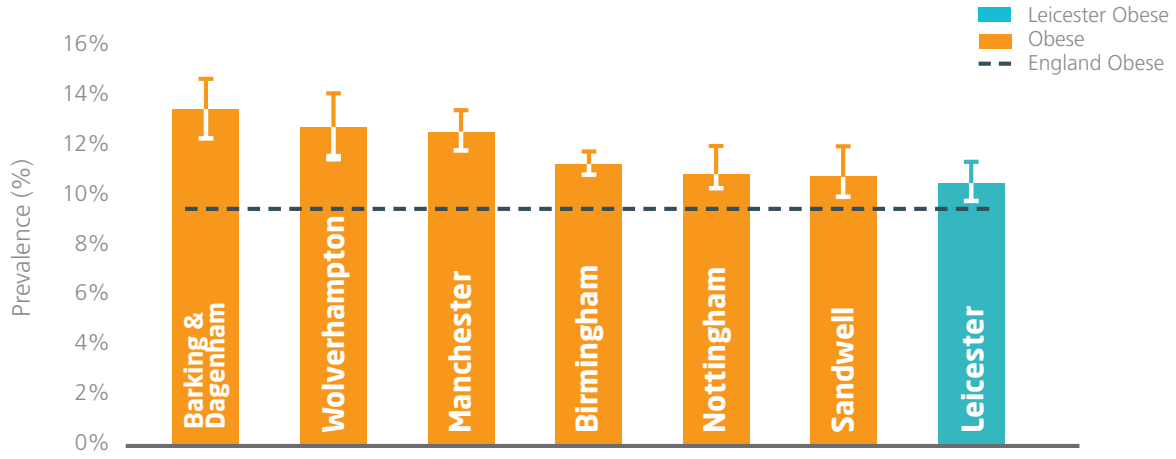
Nationally population levels of overweight and obesity are increasing, whilst levels of people whose weight and height are within a healthy range are declining

At ages 10-11 (Year 6)

- A significantly higher prevalence of obese children (21.1% compared with 18.9% for England)
- A similar proportion of overweight children (13.8%, compared with 14.4% in England)
- A significantly higher prevalence of underweight (2.9% compared with 1.3% for England)

Figure 21 shows that children in Reception year in Leicester and in its comparator local authorities have a higher prevalence of obesity than found nationally. Leicester (10.6%) has the lowest prevalence of obesity compared to the other local authorities within the comparator group, but is statistically similar to its comparators, except for Barking & Dagenham and Manchester, where Leicester is significantly lower.

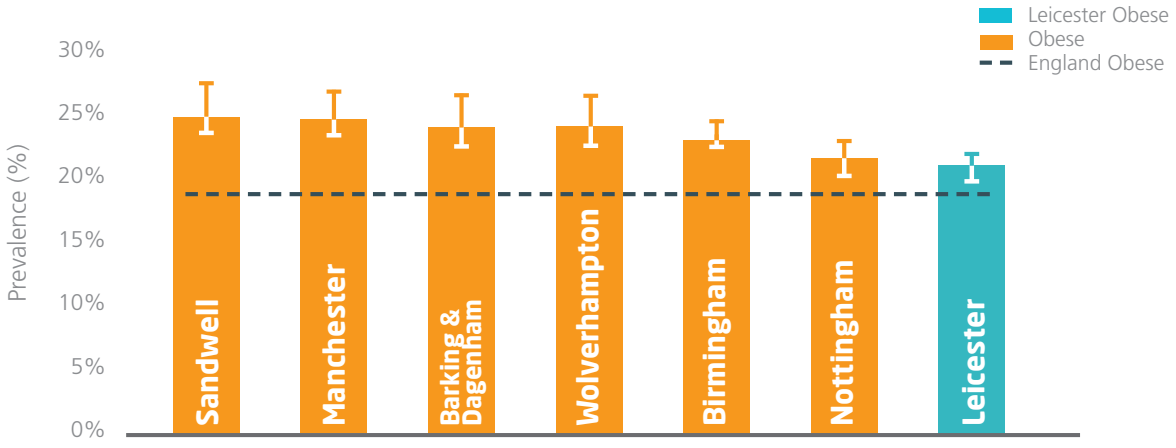
Figure 21: Prevalence of Obese Children in Reception Year by Comparator Group, 2012/13



Source: Health and Social Care Information Centre, National Child Measurement Programme 2012/13

Figure 22 shows that children in Year 6 in Leicester and its comparator local authorities have a higher prevalence of obesity than found nationally. Leicester has a significantly lower prevalence of obesity than all comparator local authorities, except Nottingham.

Figure 22: Prevalence of Obese Children in Year 6 by Comparator Group, 2012/13

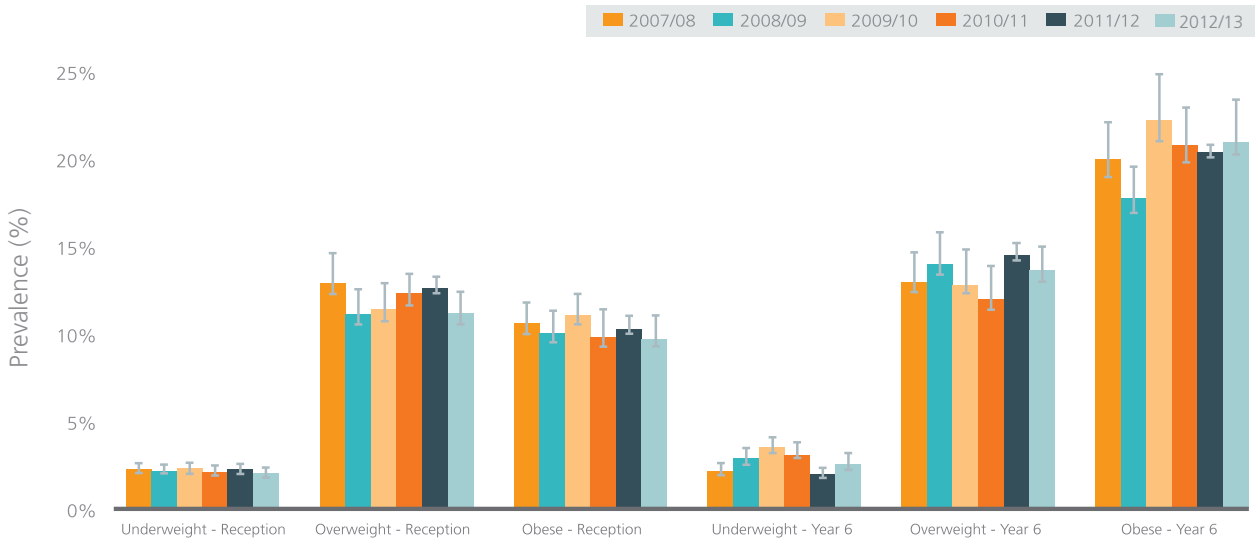


Source: Health and Social Care Information Centre, National Child Measurement Programme 2012/13

Figure 23 shows how the prevalence of underweight, overweight and obese has changed over recent years and that there is no clear trend over the 5 year period. Nationally, levels of obesity at Reception year have stabilised and started to reduce slightly, whereas levels of obesity at Year 6 have been steadily increasing over the last 5 years.

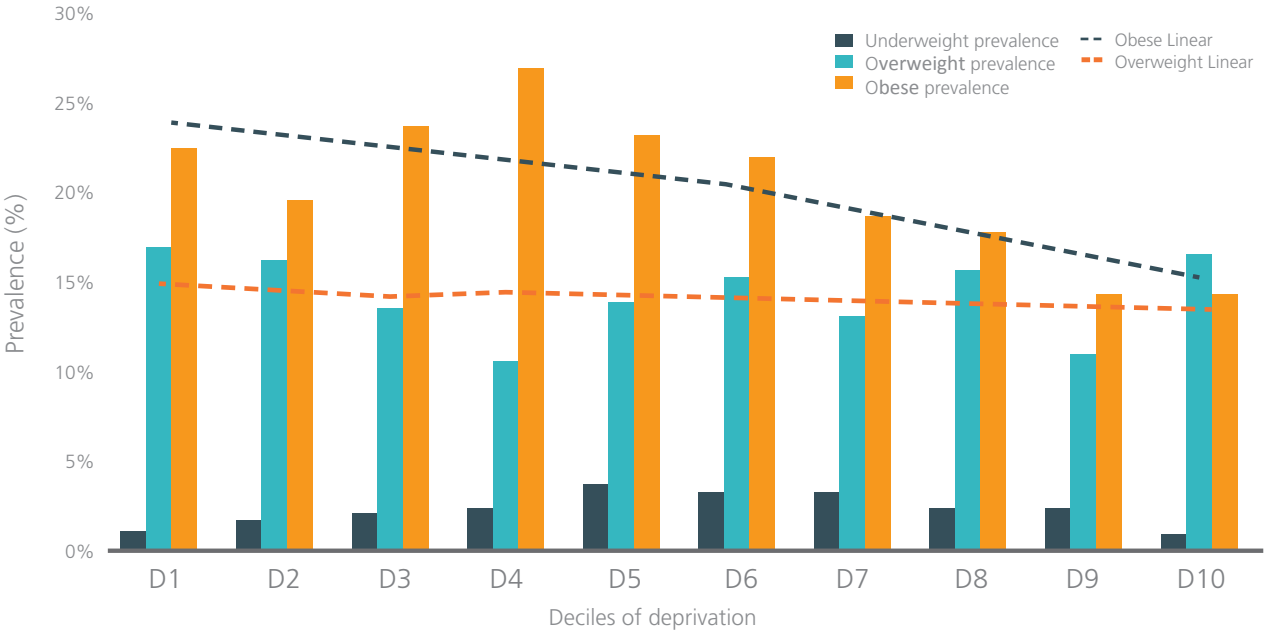
In terms of the effect of deprivation on BMI, where nationally levels of obesity increase with increasing levels of deprivation in both Reception and Year 6,[40] the situation in Leicester is less clear cut. This trend is not apparent in Leicester's Reception year, but is in Year 6 as shown in Figure 24 below. Here obesity increases with greater deprivation, however the trend for overweight is similar across all deciles of deprivation.

Figure 23: Prevalence of underweight, overweight and obese children by school year, Leicester, 2007/08 to 2012/13



Source: Health and Social Care Information Centre, National Child Measurement Programme 2012/13

Figure 24: Levels of Overweight and Obesity in Year 6 in Leicester by Deprivation – 2011/12



Source: National Child Measurement Programme (NCMP) – 2011/12 and Index of Multiple Deprivation 2010.

What's being done to address this?

There is evidence that weight management interventions are more likely to be effective if they are based on behaviour change principles[41]. For example building on people's existing knowledge and skills and tackling the problems that prevent people from changing their behaviour - and combining physical activity and nutritional aspects rather than just employing single methods. For those who are morbidly obese NHS England recommends the consideration of bariatric surgery.

In Leicester, lifestyle services are in place for people who are overweight or obese, but the need is greater than the level of service provision and uptake of the services can also be low. There are community activities that people can access universal open access facilities such as leisure centres and outdoor gyms. There is also a focus to promote opportunities for reducing sedentary behaviour and to highlight the benefits of building physical activity into people's everyday lives through activities. There are a range of active travel and transport initiatives that aim to increase levels of walking and cycling for both commuting and recreation. The National Cycle Networks is being upgraded with segregated cycle lanes. The Local Sustainable Transport Fund's Fit 4 Business programme has funded 20mph zones and personalised travel planning.

The majority of services are those tackling obesity at an individual and family level. Given the recognition that the causes of obesity are complex and include the impact of the an obesogenic environment, further environmental and planning opportunities need to be more fully utilised, including links with sustainable transport plans and the application of planning rules to benefit healthier lifestyles.

Recommendations

It is recommended that

- A healthy weight strategy is developed by the Leicester City Council and partners to inform and coordinate activities across the city, including a focus on early years, pregnancy, access to treatments for morbid obesity and strengthening features of the environment which encourage maintaining a healthy weight
- As far as is possible activities, interventions and services are commissioned as part of a whole system approach, for example as part of a wider offer within schools, workplaces or targeted communities

In Leicester, lifestyle services are in place for people who are overweight or obese, but the need is greater than the level of service provision

References

35. National Heart Forum; Cross Government Obesity Unit; Faculty of Public Health. Healthy Weight, Healthy Lives: A Toolkit for Developing Local Strategies [Internet]. Department of Health; 2008 Oct. Available from: http://webarchive.nationalarchives.gov.uk/20130107105354 http:/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_088967.pdf
36. National Institute for Health and Clinical Excellence. Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children [Internet]. National Institute for Health and Clinical Excellence; 2006. Available from: http://www.nice.org.uk/cg043
37. Department of Health. Healthy Lives, Healthy People: A Call to Action on Obesity in England [Internet]. Department of Health; 2011 Oct. Available from: https://www.gov.uk/government/publications/healthy-lives-healthy-people-a-call-to-action-on-obesity-in-england
38. UK Government's Foresight Programme. Foresight: Tackling Obesities - Future Choices [Internet]. Government Office for Science; 2007. Available from: http://www.bis.gov.uk/assets/foresight/docs/obesity/17.pdf
39. Public Health Outcomes Framework. Public Health England, 2012-14Available from: http://www.nepho.org.uk/pdfs/public-health-outcomes-framework/E06000016.pdf
40. Public Health England Obesity Knowledge and Intelligence team. Deprivation: Children - Prevalence of obesity by deprivation decile [Internet]. [cited 2013 Dec 9]. Available from: http://www.noo.org.uk/NOO_about_obesity/inequalities/deprivation
41. National Institute for Health and Clinical Excellence. Obesity: working with local communities. Public health guidance 42 [Internet]. National Institute for Health and Clinical Excellence; 2012 Nov. Available from: http://guidance.nice.org.uk/PH42

Sexual Health and HIV

Introduction

Sexual health is an important part of physical and mental health. Appropriate sexual health interventions and services can therefore have a positive effect on population health and wellbeing. The consequences of poor sexual health can be serious including unplanned pregnancy, avoidable illness and mortality from sexually transmitted infections and HIV/AIDS.

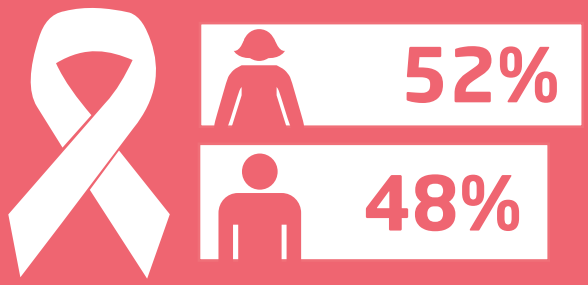
Sexually transmitted diseases are not equally distributed across society with young people, some Black Minority communities and men who have sex with men being consistently identified as most affected.

Attitudes and associated behaviour are also important influences on sexual health. For example, multiple partnerships, inconsistent condom use, drug and alcohol abuse and sexual liaisons while travelling abroad can all exacerbate the risk of contracting a sexually transmitted infection.

The recently published Framework for Sexual Health[42] sets out the national ambition in improving sexual health of the whole population, with the steps that are required to achieve the ambition noted in the outer boxes and the overarching aim stated in the inner circle, as depicted in the figure below.

Framework for Sexual Health

In 2012, there were 807 HIV positive people living in Leicester (52% women compared to 48% men)

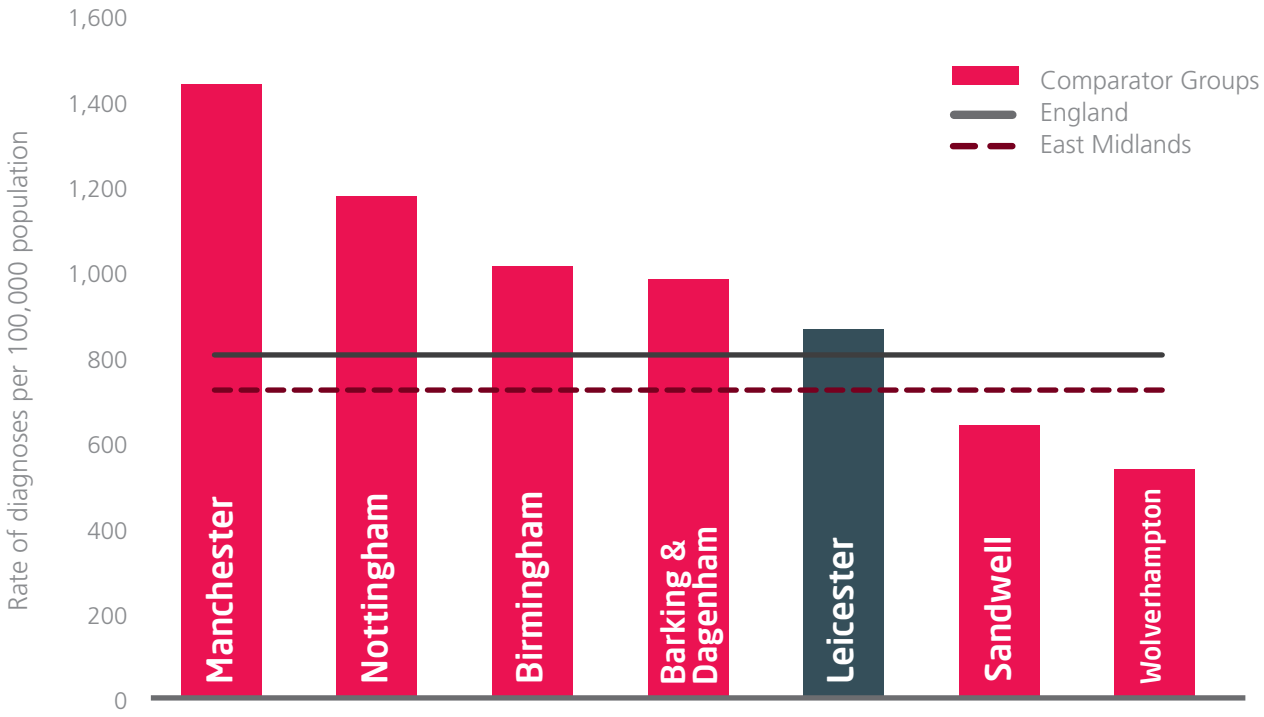


What is the current status and trend?

Adults

Leicester is currently ranked 60th out of 326 local authorities (with rank 1 being the worst) for diagnosis of acute STIs. Figure 25 below shows the rate of acute STIs per 100,000 residents for Leicester and its comparators for 2012. This shows that although Leicester is above the regional and national averages, it takes the third lowest position when compared against its peers.

Figure 25: Rate of acute STIs per 100,000, Leicester, East Midlands, England and ONS comparators, 2012



Source: Department of Health, 2013

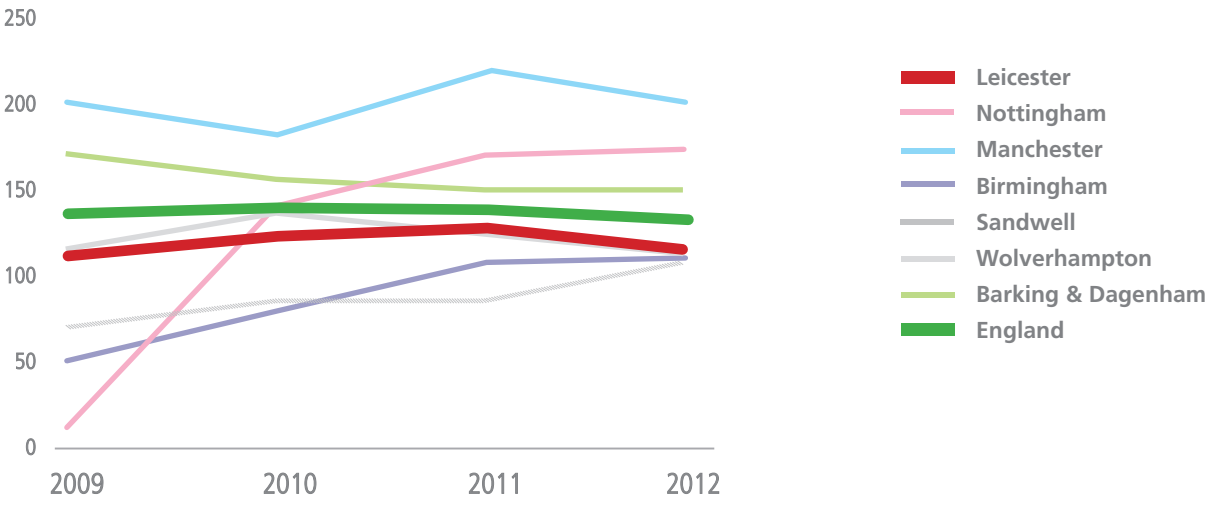
Improvements in screening and promotion of safer sex messages may have resulted in more STIs being diagnosed in Leicester.

The group of infections conventionally considered as acute STIs are

- Chlamydia
- Genital warts
- Gonorrhoea
- Syphilis
- HIV/AIDS

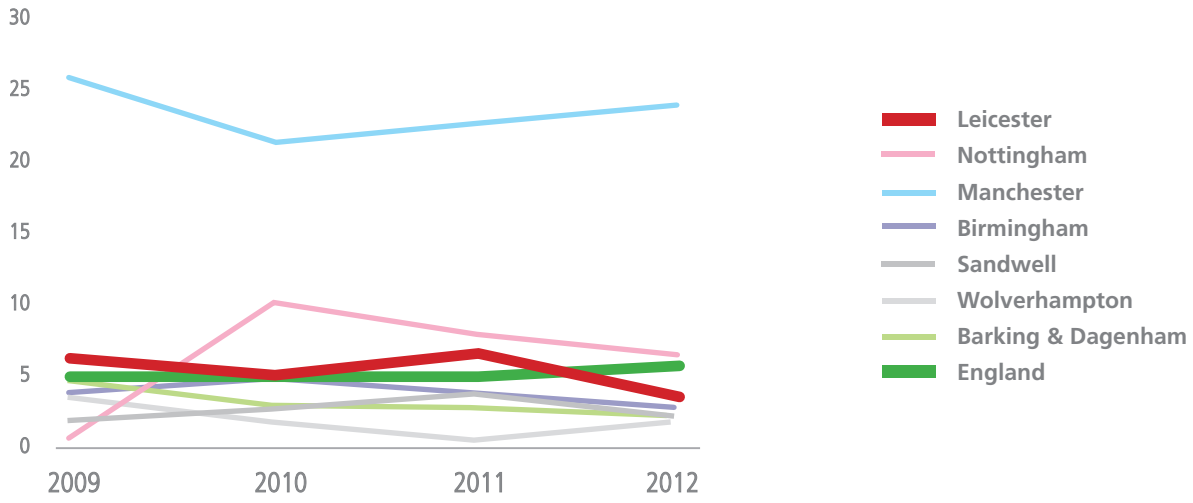
Figures 26 to 27 below depict the rates of genital warts and syphilis per 100,000 population from 2009-2012, as reported by Public Health England in 2013. The trend in the rates of the STIs in Leicester are compared against the comparators, which show that STIs in Leicester are closer to the national trend.

Figure 26: Rates of Genital Warts diagnosed per 100,000 population (2009-2012)



Source: Public Health England, 2013

Figure 27: Rates of Syphilis diagnoses per 100,000 (2009-2012)



Source: Public Health England, 2013

Improvements in screening and promotion of safer sex messages may have resulted in more STIs being diagnosed in Leicester. Young heterosexuals under the age of 25 years and men who have sex with men (MSM) have the most diagnoses.

HIV is one of the fastest-growing serious health conditions in the UK. Areas of high prevalence of HIV are defined as those with a diagnosed prevalence rate of more than 2 per 1,000 population aged 15-59 years. Leicester's prevalence is 3.64 per 1,000 population aged 15-59 years, and is the 6th highest prevalent area outside of London. There has been a 28% increase from 2008 to 2012 in the number of people with HIV living in Leicester. In 2012, there were 807 HIV positive people living in Leicester (52% women compared to 48% men). MSM and those from African communities continue to be disproportionately affected. The largest affected age group of people with HIV in Leicester (43%) are aged between 35 and 44. There has also been a large increase in the number of people with HIV in Leicester aged over 55 (from 30 in 2008 to 76 in 2012).

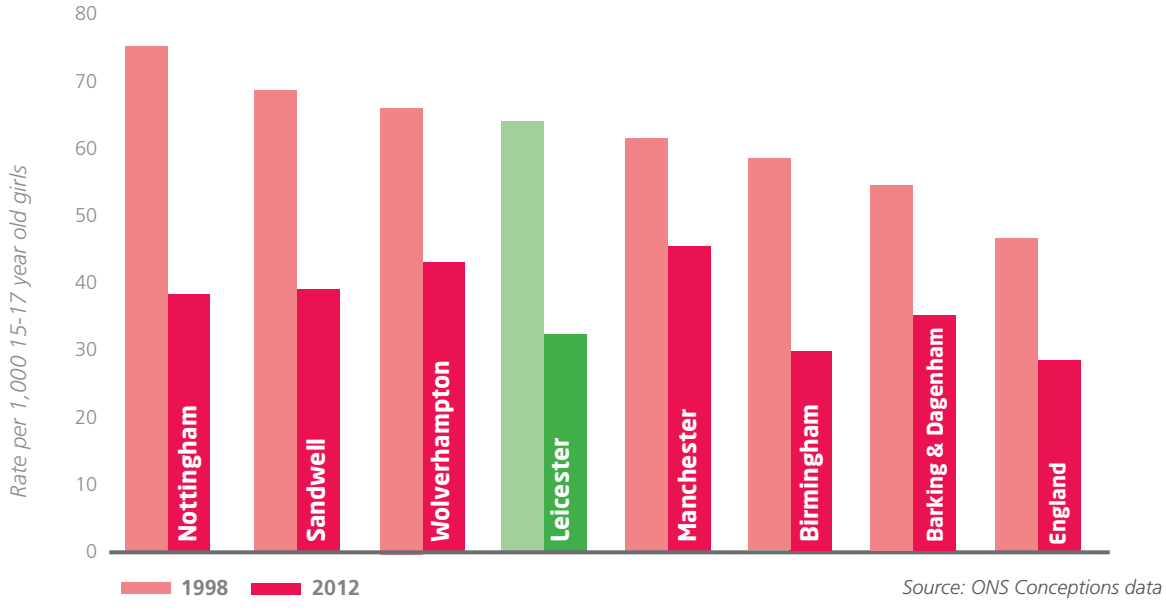
Late diagnosis is one of the biggest contributing factors to illness and death for people with HIV, with those diagnosed late having a tenfold increased risk of dying within a year of diagnosis. Early diagnosis is important in order for anti-retroviral treatment to be provided and for further transmission in the population to be reduced. Between 2009 and 2011, 63.3% of adults diagnosed with HIV in Leicester were diagnosed late.

Young people

The burden of sexual infection and ill health is predominantly borne by younger people. This is particularly significant for Leicester which has a higher population in the 15-24 year age group, owing to a higher student population, than found nationally. The most commonly diagnosed STI in the 15-24 age group is chlamydia. The chlamydia rate in Leicester, although higher than other STI rates in the city, is still lower than the national chlamydia diagnoses rate.

Teenage pregnancy is a significant public health issue, as discussed in the section on Infant Mortality earlier. The main risk factors for under 18 conceptions include poor educational attainment, low aspirations and poor access to contraception. A partnership strategy between the Leicester City Council and the health system has been implemented in Leicester over the last 10 years to support the reduction in under 18 conceptions. This has included an increased effort to raise aspirations and improve sex and relationship education along with information on access to contraception and sexual health services. In 2011, the teenage pregnancy rate in Leicester fell below the national rate of 30.7% per 1,000 15-17 year old girls. This rate has shown an increase in 2012 to 32.9 per 1,000 15-17 year old girls, which although statistically significantly higher than the England rate, represents almost a 50% fall from the 1998 baseline. This has been a significant success achieved by the Leicester Teenage Pregnancy and Parenthood Partnership and needs to be maintained. Leicester's Joint Health and Wellbeing Strategy has called for a continued reduction in teenage pregnancies.

Figure 28: Change in under 18 conception rate, 1998-2012



Source: ONS Conceptions data

What's being done to address this?

The commissioning responsibilities of Sexual Health and HIV services changed on 1st April 2013 with the enactment of the Health and Social Care Act 2012, as detailed in the table below.

Table 4: Commissioning responsibilities following the Health and Social Care Act (2012)

Commissioning Responsibilities		
Local authorities	**Clinical Commissioning Groups**	**NHS England**
Comprehensive, open access sexual health services including - Contraceptive services - STI testing and treatment - HIV testing - National Chlamydia Screening Programme - Psychosexual counselling - Sexual Health specialist services (including young people's services, teenage pregnancy services, outreach, prevention and promotion, services in educational establishments and pharmacies)	- Abortion services - Sterilisation - Vasectomy - Non sexual health elements of psychosexual services - Gynaecology, including contraception for non-contraceptive purposes	- Contraception as provided as additional service of GP contract - HIV treatment and care (including post-exposure prophylaxis) - Promotion of opportunistic testing and treatment for STIs and patient requested testing by GPs - Sexual health elements of prison health services - Sexual Assault Referral Centres - Cervical screening - Specialist foetal medicine services

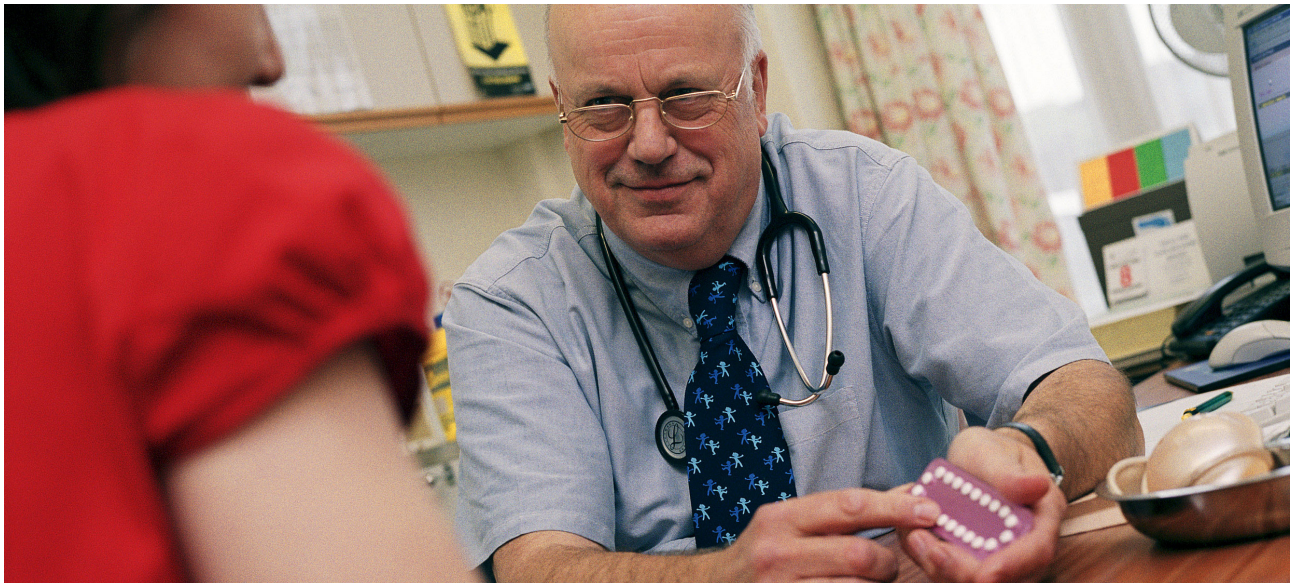
Source: Department of Health (2013) Commissioning Sexual Health Services and Interventions

There is a statutory requirement for local authorities to retain the open access nature of sexual health services, so that anyone can access sexual health services anywhere in the country.

The Leicester City Council commissioned integrated sexual health service for Leicester commenced on the 1st January 2014. This service brings together Genitourinary Medicine (GUM) and Contraceptive Services so that these can be accessed, if required, in one visit. It also maintains and expands provision in chlamydia screening, psychosexual counselling and a dedicated young people's sexual health service. The Leicester City Council also continues to commission the voluntary sector to provide HIV prevention and sexual health promotion work.

NHS England continues to commission HIV treatment and care with an integrated service being remodelled in 2013. Leicester City Clinical Commissioning Group is commissioning vasectomy and termination of pregnancy services.

The Integrated Sexual Health Service for Leicester brings together Genitourinary Medicine (GUM) and Contraceptive Services so that these can be accessed, if required, in one visit



Recommendations

It is recommended that

- A sexual health strategy for Leicester is developed by the Leicester City Council and partners
- A strong focus on further reductions in teenage pregnancy through partnership and coordination is maintained
- The effective operation of the new Integrated Sexual Health Service is ensured
- The uptake of HIV testing is increased and extended with a particular focus on high risk groups
- Relationships and sex education is prioritised within schools

References

42. Department of Health. A Framework for Sexual Health Improvement in England. Department of Health; 2013.

Oral Health

Why is this a priority?

Oral health is integral to general health as it contributes to wellbeing and quality of life. Oral diseases are among the most commonly found chronic diseases and are important public health issues due to their prevalence and impact on individuals and society. The cost of untreated dental diseases is high both in terms of health spending and lost productivity.

The four most prominent non-communicable diseases (cardiovascular diseases, diabetes, cancer and chronic obstructive pulmonary diseases) share common risk factors with oral diseases. Oral health is mainly affected by diet, hygiene, tobacco, alcohol, stress and trauma. These risk factors which relate to lifestyle are common, modifiable and preventable. For example, an unhealthy diet is a common risk factor for oral cancer, dental decay, cardiovascular disease and diabetes. Alcohol and tobacco (alone or in combination) are associated with an increased risk of various cancers, including oral cancers. Their combined use further exacerbates this risk. Furthermore, alcohol and tobacco are also risk factors for gum disease which can lead to tooth loss. Behaviour changes associated with alcohol consumption is also a risk factor for other adverse oral health outcomes such as dental trauma and facial injury.

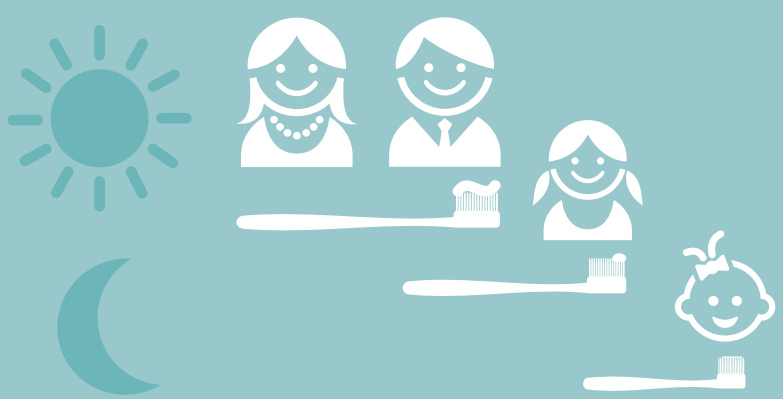
The link between socioeconomic status and health (including oral health) is well established. Oral health is therefore an important public health issue for Leicester due to the unique scale of diversity and levels of deprivation faced in the city.

What is the current status and trend?

Adults

Dental health - The most recent national (England) Adult Dental Health Survey[43] reported adult oral health to be improving with fewer people having no teeth of their own, a key measure of improvement. In 1969, some 35% of the England population were without teeth of their own. By 2009, the proportion of such had fallen to around 6%. Whilst this is encouraging, it also presents implications for maintaining and protecting the healthy cohort of young adults as they age in addition to ensuring the provision of appropriate care for the increasingly complex oral health needs of older adults. The same evidence also identified a serious underlying issue of social inequalities whilst particularly highlighting the link between social disadvantage and oral health. There is a lack of local information on adult oral health.

Brush twice daily with a fluoride toothpaste

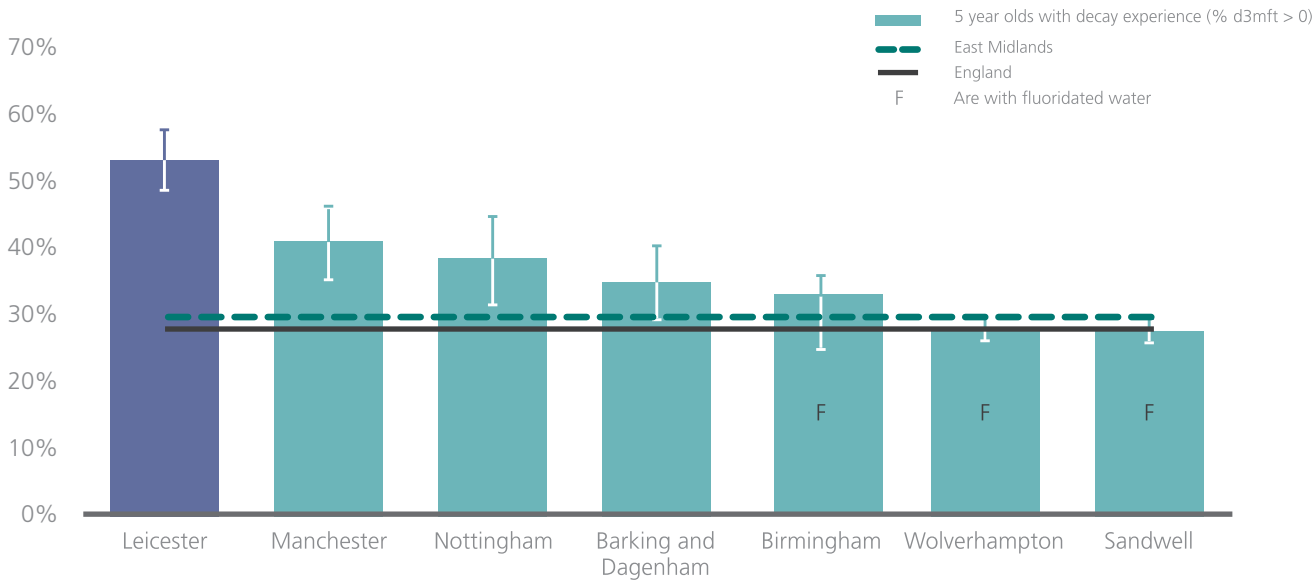


Oral cancer - Oral cancer is two to three times more common in men than women and most cases develop in people aged 40 years or over, with a steep rise in cases in those aged 60-65 years. In recent years, incidence and mortality in young and middle-aged adults have been rising. Seventy five per cent of all head and neck cancers begin in the oral cavity. The incidence of head and neck cancer in Leicester for 2007 to 2009 is 13 per 100,000 population for women and 22 per 100,000 for men, both rates similar to the average incidence in England. Due to the way data is collected, it is not possible to compare Leicester against its' local authority peer comparators.

Children and young people

Dental health - At age 5, children in Leicester have the highest experience of decayed, missing and filled teeth is this age group nationally. Over half of five year olds in Leicester have decayed, missing or filled teeth, significantly higher than the national, regional and comparator local authority averages, as show in Figures 29 and 30 and of comparators where the public water supply has been fluoridated.

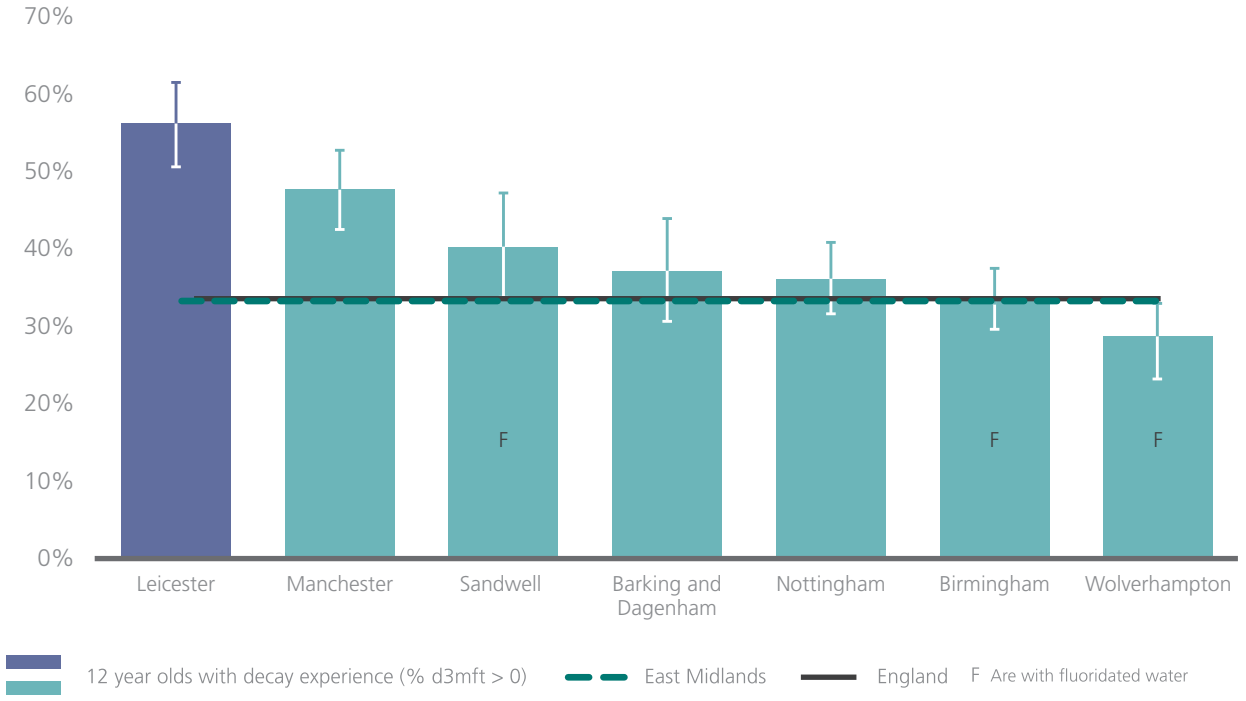
Figure 29: Percentage of 5 year olds with decay experience, 2011/12



Source: Public Health England. National Dental Epidemiology Programme for England, Oral Health Survey of five-year-old children 2012

Both alcohol and tobacco use increase the risk of oral cancers and their combined use further exacerbates this risk.

Figure 30: Percentage of 12 year olds with decay experience, 2008/09



Source: National Dental Epidemiology Programme for England, Oral Health Survey of 12-year-old children, 2008/09

Patient experience

Results from the national GP patient survey[44] show that Leicester is below the England and cluster averages in terms of proportion of people who rate their experience of dentistry services as "very good" or "fairly good". It is also the 5th worst performing local authority area in the 7 comparator local authority areas (Leicester, Manchester, Sandwell, Barking & Dagenham, Nottingham, Birmingham and Wolverhampton).

At age 5, children in Leicester have the highest experience of dental decay in England

What's being done to address this?

A multi-agency Oral Health Promotion Partnership Board has been established in the city in autumn of 2013 to drive improvements in oral health across the City. Partners are the Leicester City Council, NHS England Area Team, Leicester City Clinical Commissioning Group, Health Education East Midlands, the Local Dental Network, Public Health England and Healthwatch. The initial focus is on preschool children and further plans will be developed for other life-stages. The first Oral Health Promotion Strategy for preschool children has been approved and aims to

- Optimise exposure to fluoride
- Provide multi-partnership support in order for everyone to play a role in improving oral health
- Improve preventive and routine dental attendance
- Improve parental skills in caring for children's oral health

Recommendations

It is recommended that

- The oral health promotion strategy for pre-school children is implemented and further developed by the Leicester City Council and partners
- Steps be taken to improve information regarding adult oral health need

References

6. Marmot M. Fair Society Healthy Lives (The Marmot Review): Strategic Review of Health Inequalities in England post 2010 [Internet]. UCL Institute of Health Equity; 2010. Available from: http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
43. Health and Social Care Information Centre. Adult Dental Health Survey 2009 [Internet]. Health and Social Care Information Centre; 2011. Available from: http://www.hscic.gov.uk/catalogue/PUB01086
44. NHS Commissioning Board. GP Patient Survey Results - some 2011/12 [Internet]. 2012 [cited 2013 Dec 12]. Available from: http://www.england.nhs.uk/statistics/category/statistics/gp-patient-survey/

Mental Health

Introduction

Poor mental health is the most common condition affecting people in the UK. Twenty three per cent of the total burden of disease in the UK is attributable to mental illness, compared with 16% for cardiovascular disease and 16% for cancer.[45] Mental disorders are both common and can arise early in life.

- 50% of lifetime mental illness arises by age 14[46]
- 10% of 5 to 16 year olds have a mental disorder[47]
- 18% of adults have a common mental health disorder[48]
- 25% of adults over 65 years have depression requiring intervention[49]
- Dementia affects 17% of people aged over 80[50]
- People with mental illness are at risk of premature mortality[51]

Mental illness is frequently, but not always, associated with poor educational attainment, high unemployment, low earnings and high levels of debt, poor housing, increased high-risk behaviour (smoking, drug and alcohol misuse, poor diet and low levels of exercise), poor physical health and increased rates of suicide and self-harm.[52]

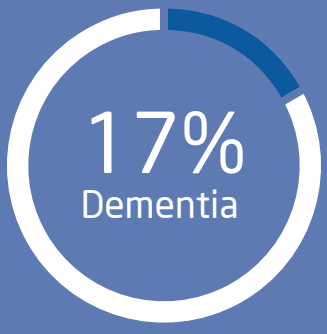
Many people with mental illness do not seek support. Sometimes this is because they are able to care for themselves. However many people are not confident in mental health services and feel that there are negative public attitudes which stigmatise mental health problems.

Improved resilience to mental illness may be achieved by tackling the wider determinants of health.[54] This would require a shift in the focus of health and social care to one which includes wellbeing and early intervention, enhancing trust and cohesion between communities and improving services for people with mental illness, so that there is a parity of esteem between mental and physical health.

What is the current status and trend?

Most mental illness begins in childhood, often continuing through life. In Leicester, it is estimated that there are

Dementia affects 17% of people aged over 80



- 3,500 to 5,250 (10-15%) children and young people who have a clinically recognised mental disorder
- 6% of 5-16 year olds who have a conduct disorder
- 4% who have an emotional disorder
- higher than national average hospital admissions caused by unintentional and deliberate injuries in people aged below 18 years[53]
- Prevalence rates suggest that in the adult population of Leicester there are about 36,000 people of working age with a common mental health problem, such as depression or anxiety,
- 1,600 people with severe and enduring mental illness such as psychosis
- 150 women suffering puerperal psychosis related to childbirth
- 8,000 people aged over 65 years with depression
- 3,000 older people with dementia[54]

Minority groups are often at particular risk of mental health problems. EMPIRIC[55] and the local Count Me in Census data showed that a greater proportion of people from Black/Black British ethnic backgrounds use acute mental health services and are detained under the Mental Health Act than in the general population. In contrast, a smaller proportion of people from Asian/Asian British backgrounds[54] use mental health services.

The importance of protecting mental health can be seen in other minority groups too. For instance, there is evidence of a higher prevalence of mental health problems among lesbian, gay, bisexual and transgender people compared with the heterosexual population[56] and there are high rates of depression, obsessive–compulsive distress, eating disorders[57] and harmful levels of alcohol consumption[58] among the student population.

Mental illness increases in times of economic uncertainty. A recent study indicated that increases in male unemployment are associated with about two fifths of the rise in suicides among men in England during the current recession.[59]

What's being done to address this?

In recognition of the imperative to improve mental health and wellbeing in Leicester, it has been prioritised by both the Health and Wellbeing Board and the Leicester City Clinical Commissioning Group. In addition, local health and social care commissioners and representatives from community and statutory organisations are collaborating with Public Health to produce a Joint Specific Needs Assessment on Mental Health in Leicester and there after, to renew the Joint Strategy and Action Plan for Mental Health.

Population mental health may be protected by promoting key messages such as the Five Ways to Wellbeing campaign, shown in the figure overleaf. These highlight the importance of social relationships, regular physical activity, taking notice, learning through life and participating in social and community life. In addition everyone should have equal access to universal public services which will enable them to maintain and promote their own wellbeing. These include transport, leisure and education, housing and health services and opportunities for employment.

18% of adults have a common mental health disorder

Five ways to wellbeing

Source: Based on New Economics foundation at http://www.neweconomics.org/projects/entry/five-ways-to-well-being

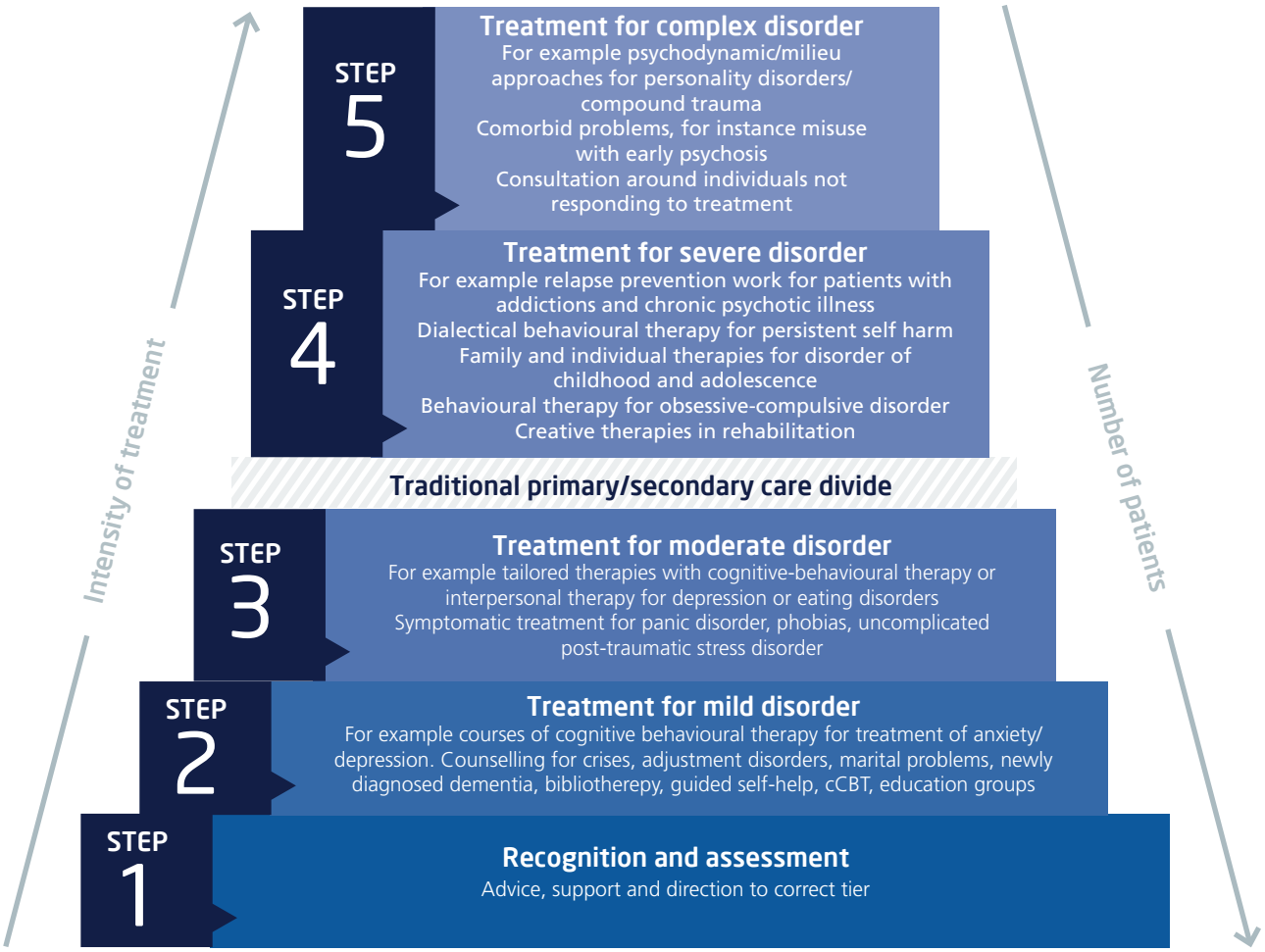
Access to mental health services

In Leicester there is a range of mental health services provided by different agencies, including primary care, acute NHS trusts and voluntary and community sector (VCS) organisations.[60] Social care and accommodation services for people with mental illness are provided by the Leicester City Council through Adult Social Care, often in partnership with providers.

Initial assessment for people with mental health problems takes place in General Practice. Treatment should follow the stepped care model (Figure 33)[61] in which people access appropriate services, stepping up if they do not achieve significant health gain or down if they have recovered. General practice and VCS organisations provide specialist advice and support, usually at step 1. Improving Access to Psychological Therapy (IAPT), provided by Open Mind in Leicester, offers Step 2 and 3 services, to improve the recognition and treatment of depression and anxiety disorders and provides access to talking therapies. Secondary care mental health services, at steps 4 and 5, treat people with severe and complex disorders. These are provided by Leicester Partnership NHS Trust and include community, complex care and access services.

Mind in Leicester, offers services to improve the recognition and treatment of depression and anxiety disorders

Stepped care model for mental health



Source: Based on Royal college of Psychiatrists: Psychological therapies in psychiatry and primary care

A similar health gain model is followed by children moving into adolescence with mental health problems, ranging from universal to specialist services across the statutory and community sectors. In addition, there are care pathways for people with specific conditions such as dementia.

Table 5 shows evidence of varying effectiveness in mental health service treatment and outcomes. It shows that the proportion of people recognised and diagnosed with dementia is above the national and regional average in Leicester. This allows timely access to services for people with dementia and their carers and reflects the recommendations made in the Joint Specific Needs Assessment on Dementia[62] and improvements in care envisaged in the local dementia care strategy.[63]

However, the data presented in Table 5 also shows that despite the high rates of risk factors for mental illness, the proportion of people diagnosed with depression in Leicester is lower than both the England and East Midlands averages. Furthermore, the Leicester average is worse than the regional or national averages for a range of outcomes - such as emergency admission for mental illness, the under 75 mortality rate for people with mental illness, self-harm, recovery and suicide - reinforcing the need for more timely identification of mental health problems.

Table 5 also shows that the recovery rate for the Open Mind IAPT Service is worse than that for the East Midlands or England. Many of the referrals to IAPT are either too complex for treatment at Steps 2 or 3 or have significant issues related to mental illness, such as experience of debt or domestic violence, which would benefit from wider expertise.

These equivocal outcomes indicate a systemic need for improvement in prevention and care for mental health in Leicester, which should cover:

- An integrated approach to build resilience, promote mental health and wellbeing and challenge health inequalities
- Parity of mental and physical health[64]
- Better assessment of mental ill health in primary care
- Appropriate access to a range of voluntary and community services provision
- Improved direct referrals from voluntary and community service to the statutory mental health system at steps 3,4 and 5, especially crisis services
- Better access to treatments, at Steps 4 and 5, for severe and complex disorders

Table 5: Levels of mental health and illness, treatment and outcomes Leicester, East Midlands and England averages

Levels of mental health and illness	Leicester	East Midlands	England
Ratio of recorded to expected prevalence of dementia 2010/11	0.55	0.42	0.42
Percentage of adults (18+) with depression, 2011/12	10.7	12.52	11.68
Treatment	**Leicester**	**East Midlands**	**England**
Directly standardised rate for hospital admissions for mental health, 2009/10 to 2011/12	454	262	243
Directly standardised rate for hospital admissions for unipolar depressive disorders, 2009/10 to 2011/12	30.7	31.8	32.1
Directly standardised rate for hospital admissions for schizophrenia, schizotypal and delusional disorders, 2009/10 to 2011/12	88	53	57
Outcomes	**Leicester**	**East Midlands**	**England**
Directly standardised rate for emergency hospital admissions for self-harm, 2011/12	124	208	207
Indirectly standardised mortality rate for suicide and undetermined injury, 2010/11	173	90	100
Improving Access to Psychological Therapies – Recovery Rate, 2011/12	35.1	47.4	43.8
Excess under 75 mortality rate in adults with serious mental illness, 2010/11	999		921

Source: Community Mental Health Profile 2013

The Service User and Carer Research Audit Network[65] at De Montfort University reports that mental health service users and carers feel that VCS organisations are effective at dealing with the stigma which surrounds mental illness. The VCS also promotes wellbeing activities such as social contact, talking, creativity and concentration games, and yoga. With regard to the statutory sectors, service users and carers value continuity and communication between services and agencies. Areas of anxiety for service users are the financial viability of VCS organisations, risks to the provision of quality care in the statutory sector and the need for advice on welfare benefits and housing related support.

Recommendations

It is recommended that commissioners

- Promote the use of the Five Ways to Wellbeing approach to protect mental health in Leicester
- Promote the parity of mental and physical health
- Effectively commission the stepped care model using all available resources from the voluntary and community sector and the statutory sector to ensure that people in need have timely and appropriate access to mental health services

References

45. World Health Organisation. Global Burden of Disease Report. World Health Organisation; 2008
46. Kessler R, et al. Lifetime Prevalence and age of onset distributions of DMV-IV disorders in the national comorbidity survey replication. Arch Gen Psychiatry. 2005;(62):593–602
47. Green H, et al. Mental Health of Children and Young People in Great Britain 2004. London: Office of National Statistics; 2004
48. McManus S, et al. Adult Psychiatric Morbidity in England 2007 Results of a household survey. Health and Social Care Information Centre; 2009
49. Godfrey M, et al. Prevention and Service Provision: Mental Health Problems in Later Life. Institute of Health Sciences and Public Health Research, Leeds University & Division of Dementia Studies, Bradford University; 2005
50. Knapp M, Prince M. Dementia UK: A report into the prevalence and cost of dementia. London: Alzheimer's Society; 2007
51. Mykletun A, et al. Levels of anxiety and depression as predictors of mortality: the HUNT study. Br J Psychiatry. 2009;(195):118–25
52. Joint Commissioning Panel for Mental Health Guidance for commissioning public mental health services [Internet]. 2013 May. Available from: http://www.jcpmh.info/wp-content/uploads/jcpmh-publicmentalhealth-guide.pdf
53. Public Health England Knowledge and Intelligence Team (Northern and Yorkshire). Community Mental Health Profile 2013 [Internet]. [cited 2013 Nov 26]. Available from: http://www.nepho.org.uk/cmhp
54. Watson D. Annual Report of the Director of Public Health 2008-09. Leicester: NHS Leicester City; 2009
55. Sproston K, Nazroo J. Ethnic Minority Psychiatric Illness Rates in the Community – quantitative report. London: TSO; 2002
56. The Health and Social Care needs of Lesbian, Gay and Bisexual people in Leicester, Report to the Leicester Public Health Partnership [Internet]. 2006 Sep. Available from: http://www.oneleicester.com/leicesterpartnership/jsna/needs-assessments
57. Student Psychological Health Project [Internet]. University of Leicester; 2002. Available from: http://www.le.ac.uk/edsc/sphp
58. Grant A. Identifying students' concerns: taking a whole institutional approach. Stanley N, Manthorpe J, editors. Stud Ment Health Needs Probl Responses
59. Barr B, et al. Suicides associated with the 2008-10 economic recession in England: time trend analysis. BMJ [Internet]. 2012 Aug 14;345(5142). Available from: http://www.bmj.com/highwire/filestream/597905/field_highwire_article_pdf/0/bmj.e5142
60. LAMPdirect - For more information on the range of community organisations that support people with mental health problems [Internet]. Available from: http://www.lampdirect.org.uk
61. Royal College of Psychiatrists. Psychological therapies in psychiatry and primary care. Royal College of Psychiatrists; 2008
62. Joint Specific Needs Assessment on Dementia in Leicester at http://www.Leicester.gov.uk/your-council-services/social-care-health/jsna/jspna-reports/
63. Joint Dementia Strategy 2011-2014 at http://www.lcr.nhs.uk/Library/DementiaJointStrategy201114_FINAL.pdf
64. Department of Health. No Health Without Mental Health: A Cross-Government Mental Health Outcomes Strategy for People of All Ages [Internet]. London: Department of Health; 2011 Feb. Available from: https://www.gov.uk/government/publications/the-mental-health-strategy-for-england
65. SUCRAN Audits Research. Mental Health Pre Summit: Responses and Report for Jon Ashworth MP [Internet]. Leicester: Nursing and Midwifery Research Centre (NMRC), De Montfort University; 2013 Mar. Available from: https://dmu.ac.uk/research/research-faculties-and-institutes/health-and-life-sciences/nursing-and-midwifery-research-centre/nursing-and-midwifery-research-centre.aspx

Long term conditions

Introduction

What are long term conditions?

Although there is no generally accepted classification of long term conditions (LTC), the Department of Health[66] defines the term as 'those conditions that cannot, at present, be cured, but can be controlled by medication and other therapies. The life of a person with a long term condition is forever altered – there is no return to normal'

Some of the more common conditions that would meet this definition include; hypertension, asthma, diabetes, coronary heart disease (CHD), chronic kidney disease (CKD), stroke and transient ischemic attacks (TIAs), chronic obstructive pulmonary disease (COPD), heart failure, severe mental health conditions or epilepsy. There are also many more, less common conditions that could also be classified as long term.

The combined burden of LTC worldwide is significant and projected to rise substantially in the future, in line with the ageing of the population and prevailing disease trends. In 2005 the World Health Organisation described the global increase in long-term conditions as an epidemic.[67]

In England, treatment and care for people with these diseases account for 70% of health and social care cost with over 20 million people living with one or more LTC. Although the majority of chronic illness is among adults, particularly the population over the age of 65, nationally there are substantial numbers under this age, not least children and young people, living with chronic illness and disability.[68]

The NHS Outcomes Framework[69] includes as one of its key objective the enhancement of the quality of life for people with long term conditions.[70]

The Marmot Review[6] called for a strengthening in the role and impact of ill-health prevention, through prevention and early detection of the key long term conditions related to health inequalities.

Main challenges

Many long term conditions are preventable and have common behavioural risk factors, amenable to public health intervention. Even when someone may have been identified as having one of these conditions there may still be opportunities, through appropriate health and social intervention, to prevent or delay the onset of complications and extend disability-free life. However, managing these conditions appropriately can be complex and challenging. Recently, the introduction of the national Better Care Fund programme provides major opportunity to improve services and their organisation locally, for the effective management of people with LTC.

Treatment and care for people with LTC diseases account for **70%** of health and social care cost

Long term conditions in Leicester

Current epidemiology

In recent years, as part of the Quality and Outcome Framework (QOF), general practices collect information on patients with a number of common long term conditions. This is a useful local up-to-date source on disease prevalence. The 2012/13 data show the rate of registration for diabetes is high compared to the national average (see Table 6).

Table 6: Numbers of patients with long term conditions registered with GPs in Leicester, all ages

Long-term condition	Number (xi)	%	England (%)
High Blood pressure	43,233	11.4%	13.7%
Diabetes (17+)	24,554	8.3%	6.0%
Depression (18+)(xii)	17,253	6.1%	5.8%
Asthma	19,858	5.2%	6.0%
Chronic Kidney Disease (18+) (xii)	8,602	3.0%	4.3%
Coronary Heart Disease	10,022	2.6%	3.3%
COPD	5,145	1.4%	1.7%
Stroke/TIA	4,442	1.2%	1.7%
Cancer	4,171	1.1%	1.9%
Mental Health	3,709	1.0%	0.8%
Atrial fibrillation	3,314	0.9%	1.5%
Heart failure	2,571	0.7%	0.7%
Learning Disabilities (18+)	1,680	0.6%	0.5%
Dementia	1,745	0.5%	0.6%

Source: Health and Social Care Information Centre QMAS database - 2012/13

Notes:

xi. Conditions often coexist, therefor numbers are not additive

xii. Due to the change in register rules in 2012/13, the figures include only patients with a record of unresolved depression since April 2006. As a result they are an underestimate of true prevalence of depression in the community.[71]

Many long term conditions are preventable and have common behavioural risk factors, amenable to public health intervention

Many long term conditions are preventable and have common behavioural risk factors, amenable to public health intervention.

Modelled estimates derived from large health surveys, such as the Health Survey for England[72] give a more complete estimate of the potential disease burden in Leicester, including people who are not aware of their condition or seeking medical help. These estimates show that whilst coverage of potential cases of diabetes, coronary heart disease and stroke are being relatively well identified, there is a need to focus attention on finding patients with COPD, high blood pressure, kidney disease or dementia who are not receiving routine care for their condition through primary care (see Table 7).

Table 7: Estimated prevalence of common long-term conditions in Leicester in 2012/13, all ages unless specified

Long-term condition	Estimated total (xi)	Potentially Undiagnosed (%)(xiii)
High Blood pressure	63,524	32%
Diabetes (17+)	24,285	-1%
Chronic Kidney Disease (18+)	15,851	46%
Coronary Heart Disease	11,718	14%
COPD	9,077	43%
Stroke/TIA	4,782	7%
Dementia	2,677	35%

Notes:
xi. Conditions often coexist, therefore numbers are not additive
xiii. Proportion of the estimated number of people with the condition not on GP register

Source: Association of Public Health Observatories

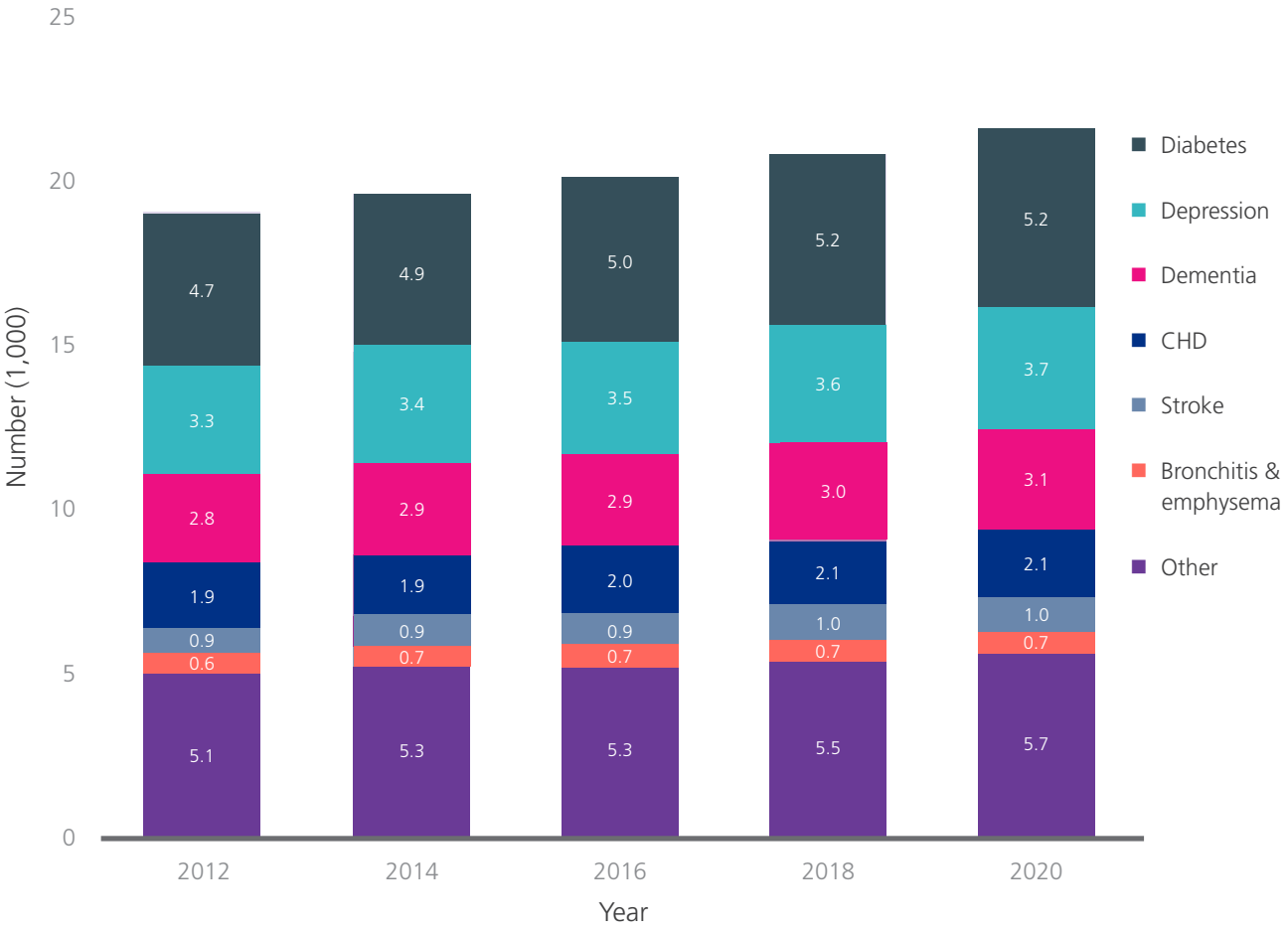
Estimating the future long term condition disease burden

The local population over the age of 50 is estimated to increase by 10% (over 9,000) between 2013 and 2021.[73] As a consequence the prevalence of long term conditions is also likely to rise in the future, in line with the general ageing of the population and reductions in mortality for a number of diseases.[74]

Among those aged 65 and above, it is estimated locally that half (51%) have at least one long term illness.

Among those aged 65 and above, it is estimated that locally half (51%) have at least one long term illness, most commonly diabetes, depression or dementia

Figure 31: Estimated burden of long-term conditions in Leicester between 2012 and 2020 (ages 65 and above)



Source: Institute of Public Care (IPC): Projecting Older People Population Information 2013

Indicators of quality of care for those with long term conditions

The national Outcomes Framework for the NHS[69] uses a collection of proxy indicators to reflect changes in care for adult patients with long term conditions. This section outlines the recent trends in these indicators for Leicester.

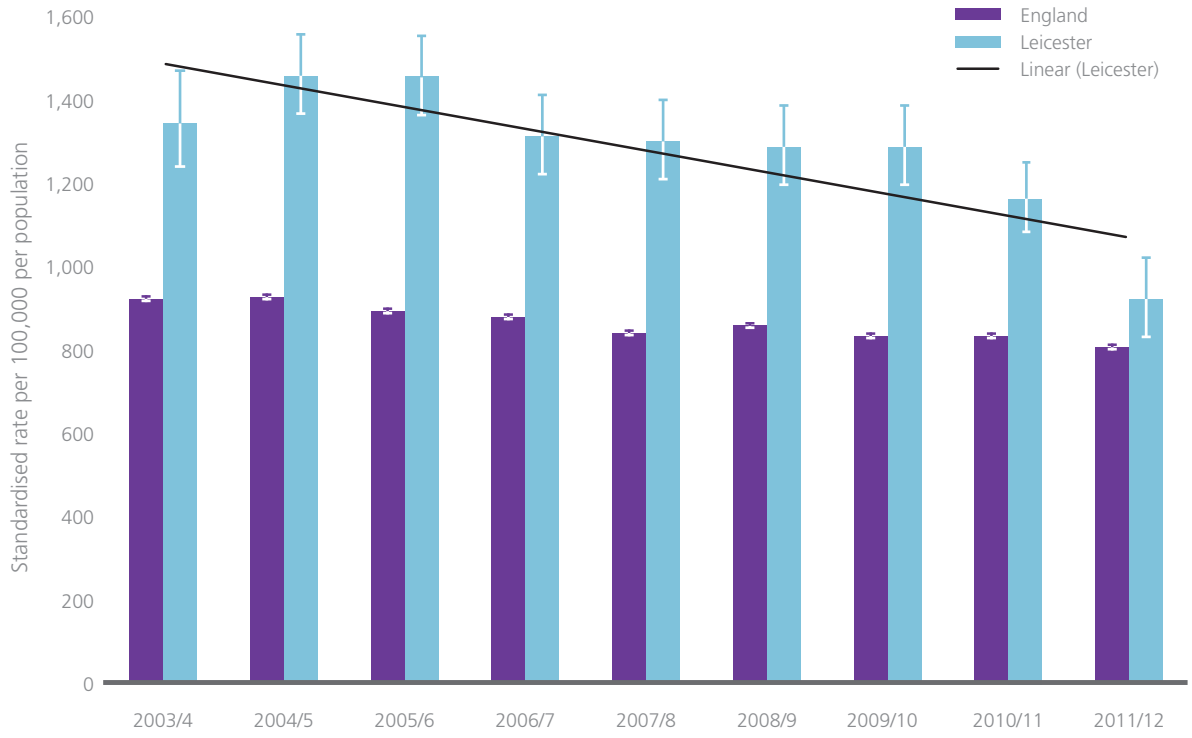
Employment rates among people with LTC

Nationally, against a background of 71% employment in the general population in 2010/11, the employment rate among those with a long term condition was 12% lower at 59%. In Leicester, the gap between the local general employment rate of 61% and the 47% found among the population with chronic illness indicates a disparity greater than the national average for the same period.

Emergency hospital admissions for long term conditions

When someone has a chronic condition they need to be able to manage it effectively and minimise situations that result in their avoidable admission to hospital. Over the last nine years there has been a significant reduction in the rate of such admissions in Leicester (Figure 32). In 2003/04 local admission rates resulted in more than 1,300 excess admissions, when compared to the national average in that year. By 2011/12 this fell to just 250 excess admissions, making the rate only slightly higher than the England average. This indicates an improvement in how well LTC are managed in the community.

Figure 32: Trends in hospital emergency admissions for long term conditions that could be effectively managed in the community



Source: HSCIC – Compendium of Clinical Indicators 2013

Health inequalities in the distribution of long term conditions

There are persisting inequalities in health of people with LTC in Leicester. In 2009-2011[75], emergency admissions for COPD were almost 5 times higher in the most deprived population of the city (standardised rate of 10 per 1,000 population) compared to the most affluent (2 per 1,000). The risk of a diabetes emergency admission is twice as high among the most disadvantaged population (16 per 1,000) when compared to their affluent counterparts (8 per 1,000).

Premature mortality due to cardiovascular and respiratory conditions is twice as high in the most disadvantaged population of the city (116 per 100,000 vs. 53 per 100,000 and 54 per 100,000 vs. 19 per 100,000, respectively), as is the risk of death due to diabetes (70 per 100,000 compared to 37 per 100,000).

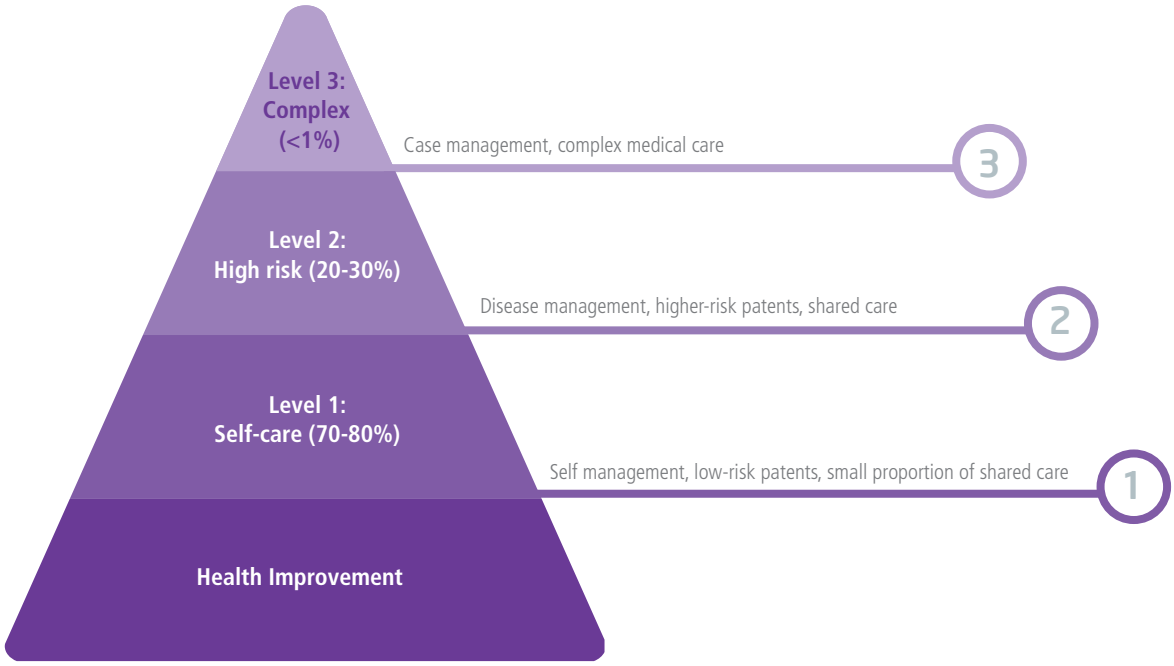
Management of people with LTC?

Model of care in long-term conditions

The management of long term conditions requires an integrated approach across preventative services, primary care and secondary care. Most (up to 80%) of patients with single and uncomplicated long-term conditions successfully manage their condition themselves, only occasionally requiring professional health care. However, the higher the risk or greater the complexity of disease, the more professional care a patient needs on an ongoing basis.

The recommended route to deliver a systematic approach to long term condition management is to utilise multi professional teams and integrated pathways to ensure closer integration between health and social care. The required relationships between professional interventions, self-care, and health improvement programmes, are often represented in a model called the 'Kaiser pyramid'.[76]

Model of care for patients with long term conditions ('Kaiser pyramid')



Source: Adapted from: Improving Care for People with Long-term Conditions; a Review of UK and International Frameworks. NHS Institute for Innovation and Improvement 2006

There are significant opportunities to prevent the onset of long term conditions (primary prevention) through appropriate lifestyle interventions as well as identification of individuals at high risk through screening of populations.

People who can manage their condition alone (Level 1) need effective and timely professional support in order to prevent progression to more severe stages of the disease and to remain independent for as long as possible. This group also needs effective lifestyle intervention to reduce their risk of other LTC.

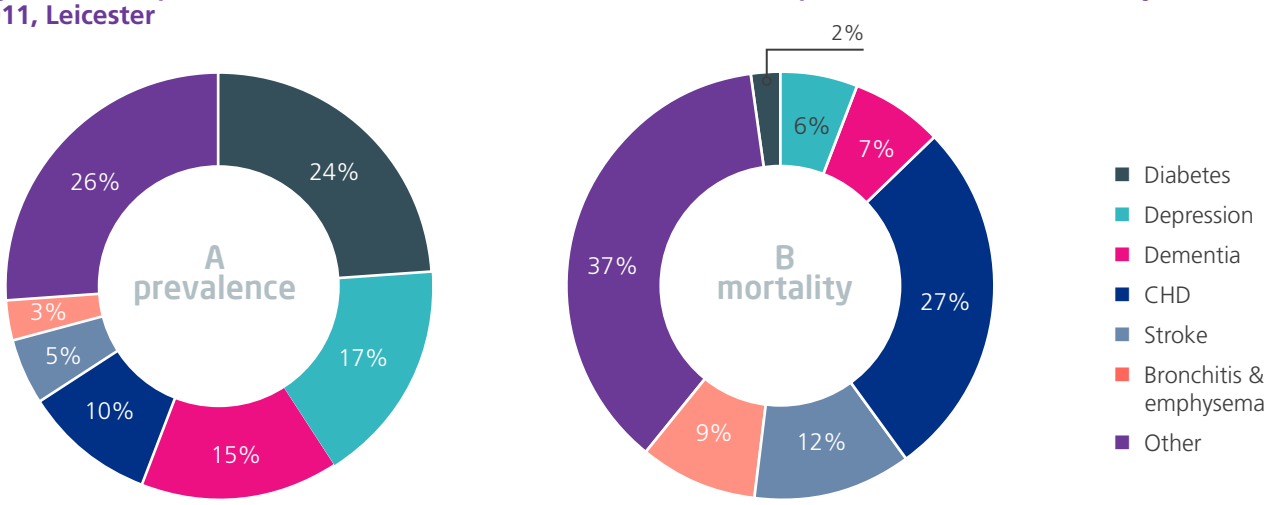
Less than a third of patients with LTC will require more involvement of healthcare services in managing their disease (Level 2). This care may be given by increasingly specialist multidisciplinary teams providing high-quality, evidence-based care.

Active management is necessary for people with complex needs (Level 3) who have a high-risk of deterioration in their condition, with case managers (usually nurses) taking responsibility for caseloads working in an integrated care system.

The local impact of long-term conditions

In terms of both mortality and morbidity, cardiovascular related conditions are the largest contributor to the local long term condition profile. Figure 33 shows that diabetes is the single most common long term condition within Leicester (24% of all LTC), while CHD, stroke and bronchitis are the leading causes of death among the elderly.

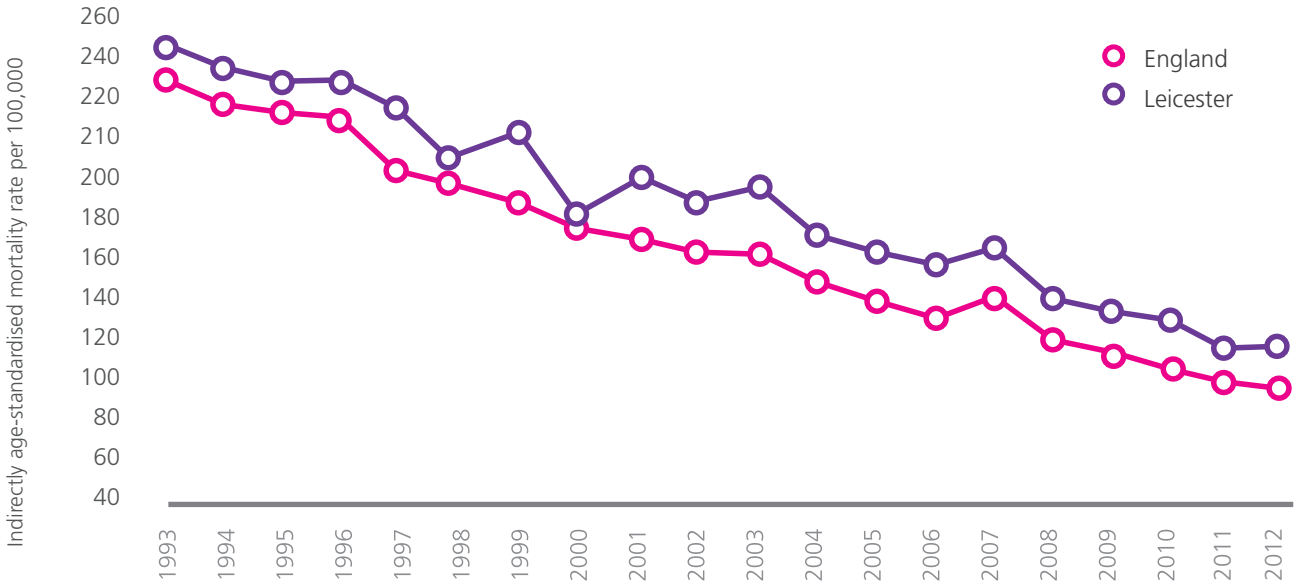
Figure 33: Comparison of contribution of selected common LTC to prevalence (A) and mortality (B) in 2011, Leicester



Source: Health and Social Care Information Centre QMAS database and Office of National Statistics

Whilst there has been a significant fall in cardiovascular mortality in Leicester in the recent decades, the trend has lagged behind the English average over that period and remains 24% above the national figure (see Figure 34).

Figure 34: Cardiovascular mortality trends in Leicester and England 1993-2012



Source: NHS Information Centre, Indicator Portal (https://indicators.ic.nhs.uk/webview/)

NHS Health Checks

The NHS Health Check for those aged between 40 and 74 years involves a vascular check every five years. The purpose of the check is to let patients know what their likelihood of a cardiovascular related long-term condition is and to ensure that those who are at higher risk are identified earlier and placed on an appropriate management plan to reduce that risk. In the light of the higher rates of cardiovascular disease this is an important intervention in the reduction of premature mortality in the city.

Leicester initiated the NHS Health Check programme in 2010 and since then has seen an annual increase in the number of people receiving checks from their GP. By the end of 2013/14 approximately 62,000 out of the estimated eligible population of 86,000 40 – 74 year olds had received their NHS Health Check, some 72%.of those eligible. Twenty percent of those checked needed further tests and these identified over 4,900 cases of undiagnosed CVD related conditions, such as diabetes, high blood pressure or high cholesterol, and these cases are now receiving treatment or management support for their condition. Leicester currently has one of the highest levels of uptake for this programme in the country

Recommendations

It is recommended that

- The Better Care Fund be a driver for the establishment of
  - Common policies and strategies across commissioning organisations to deliver more streamlined, integrated care
  - Joint planning and where appropriate commissioning of services
  - Pathways and coordination of services for complex cases

References

6. Marmot M. Fair Society Healthy Lives (The Marmot Review): Strategic Review of Health Inequalities in England post 2010 [Internet]. UCL Institute of Health Equity; 2010. Available from: http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review
66. Long Term Conditions, Department of Health. Improving the health and well-being of people with long term conditions: World class services for people with long term conditions – information tool for commissioners [Internet]. 2010 [cited 2013 Nov 26]. Available from: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/ documents/digitalasset/dh_111187.pdf
67. World Health Organisation. Preventing chronic diseases: A vital investment. Geneva: World Health Organisation; 2005
68. Children and Young People's Health Outcomes Forum. Children and Young People's Health Outcomes Forum Report of the Long Term Conditions, Disability and Palliative Care Sub-group [Internet]. Department of Health; 2012 Jul. Available from: https://www.gov.uk/government/publications/independent-experts-set-out-recommendations-to-improve-children-and-young-people-s-health-results
69. Department of Health. The NHS Outcomes Framework 2013/14 [Internet]. 2012 Nov. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213055/121109-NHS-Outcomes-Framework-2013-14.pdf
70. Department of Health. [ARCHIVED CONTENT] The Mandate | A mandate from the Government to the NHS Commissioning Board, April 2013 to March 2014 [Internet]. 2012 [cited 2013 Nov 26]. Available from: http://webarchive.nationalarchives.gov.uk/20130922140506/http://mandate.dh.gov.uk/
71. HSCIC. Quality and Outcomes Framework: Achievement, Prevalence and Exceptions data, 2012/13. 2013
72. NatCen Social Research. Health Survey for England [Internet]. [cited 2013 Nov 26]. Available from: http://www.natcen.ac.uk/our-research/research/health-survey-for-england/
73. Office of National Statistics. Subnational Population Projections, Interim 2011-based - ONS [Internet]2012 [cited 2013 Nov 26]. Available from: http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/Interim-2011-based/index.html
74. Department of Health. Long Term Conditions Compendium of Information: Third Edition [Internet]
75. Leicester, Leicestershire and Rutland Public Equity Baseline Data 2013. 2013
76. The Kaiser Pyramid. Kaiser Permanente

Protecting Health in Leicester

Health protection focuses on protecting the public from exposure to hazards which damage their health and to limit any impact on health when such exposures cannot be avoided.

Most local health protection arrangements are delivered in partnership across many organisations and services. In particular, key complementary roles are played by local authorities, Public Health England (PHE), and the NHS.

Communicable diseases

In recent decades there has been a major decline in the incidence of communicable diseases such as polio, diphtheria and tetanus. However, communicable diseases continue to represent an important risk to the health of people in Leicester. In 2012-13 there were two national communicable disease outbreaks that had local impact, measles and whooping cough.

Measles:

In 2012-13 there was a national outbreak of measles. The areas of the country most affected were those with historically low levels of measles mumps and rubella (MMR) vaccination coverage. Leicester saw some measles cases over this period but the high MMR immunisation rates within the city helped limit local spread of the disease.

Whooping Cough:

Locally, there was a sharp increase in the number of cases of whooping cough in 2012-13. Whilst cases predominantly occurred in adolescents and adults, the worst health outcomes were in children under three months old who were too young to receive a vaccination. In response to the national outbreak, a temporary vaccination programme for pregnant women was started in October 2012 to help protect these younger children. Local uptake for this programme is currently above the national average.

The number of cases of Tuberculosis (TB) in Leicester has been falling year on year.

Tuberculosis (TB)

Introduction

Effective management of tuberculosis (TB) is a public health imperative. Failure of any aspect of TB management can have potentially serious consequences for the patients concerned and the wider public. Poor management and late diagnosis increase the risk of the disease spreading and can also lead to the emergence of drug resistant cases, resulting in significant additional resource consequences for all the organisations with responsibility for TB services and/or public health. A case of drug resistant TB typically costs £50,000 to £70,000 to treat compared to £5,000 for a non drug resistant case.[77]

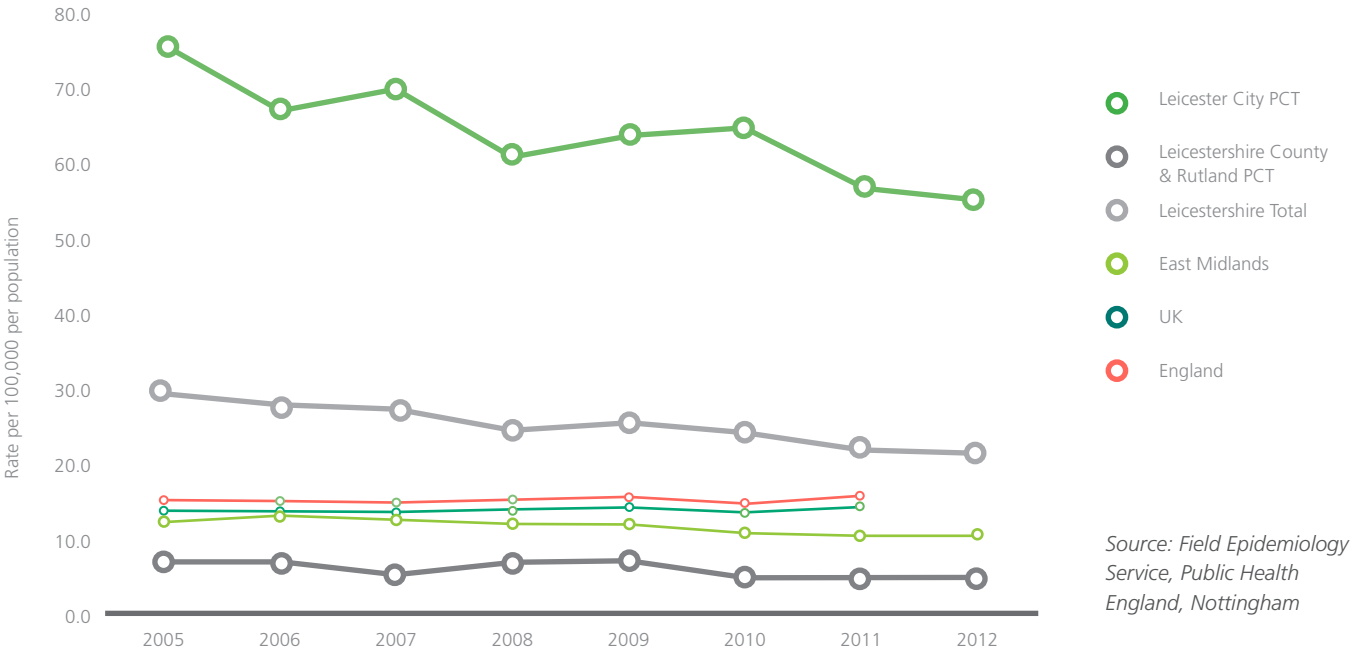
During the 1990s TB re-emerged nationally as a public health issue. This was mainly due to an increase in immigration of people from countries where TB is very common (see Figure 36), but also due to the ageing of the established migrant population, some of whose latent TB developed into active disease.[78] All cases of TB need to be treated, but only TB of the lung (Pulmonary TB) is infectious to others.

Irrespective of ethnicity, TB is more prevalent in socially and economically deprived communities and among marginalised groups such as the homeless, substance misusers and prisoners. Members of these groups often face challenges in engaging with services over a sustained period, increasing the risk of developing drug resistance and transmitting the disease more widely.

What is the current status and trend?

The number of cases of TB in Leicester has been falling year on year (see Figure 35), but Leicester has the highest rates of TB in the East Midlands. At 62 per 100,000 population, the incidence of TB in Leicester is much higher than the East Midlands and UK at 11.2 and 14.4 per 100,000 respectively.[79]

Figure 35: Rates of TB in Leicester City compared to Leicestershire, East Midlands, England and UK



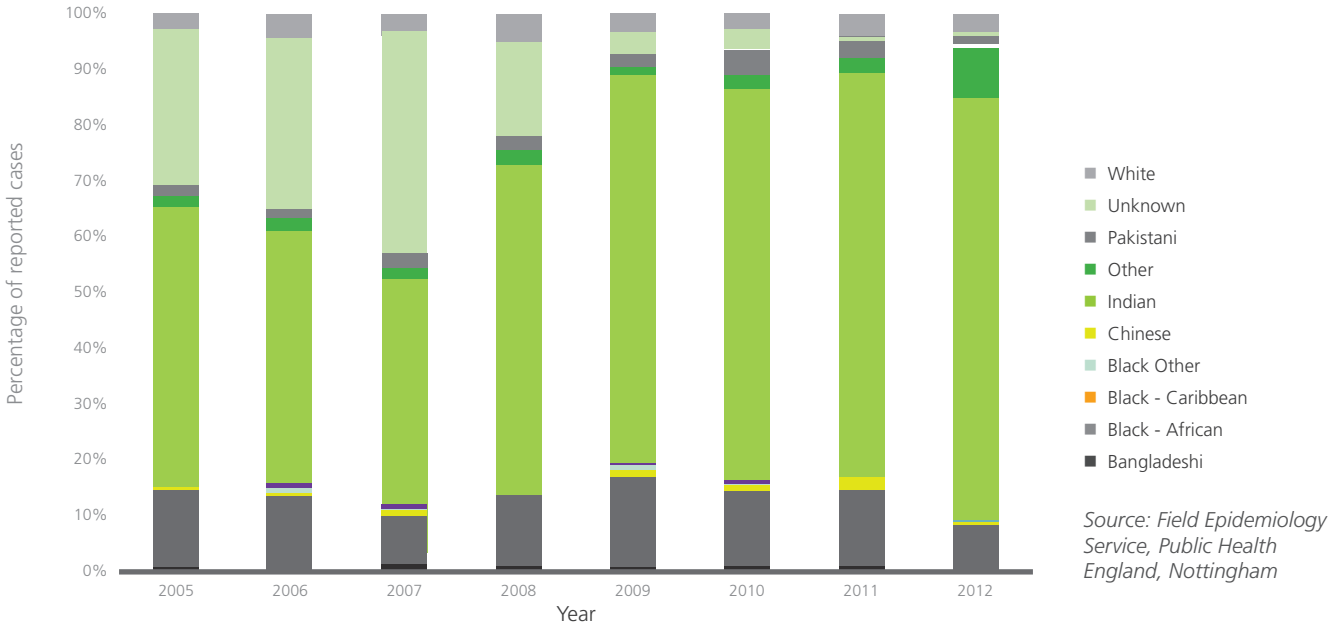
Source: Field Epidemiology Service, Public Health England, Nottingham

Notes:

xiv. These data were only supplied by PCT (not unitary authority) and hence are retained as is, to ensure integrity of source.

Figure 36: Proportion of TB cases by ethnicity

East Midlands Enhanced Tuberculosis Surveillance. Proportion of reported cases, by ethnicity for Leicester 2005-2012

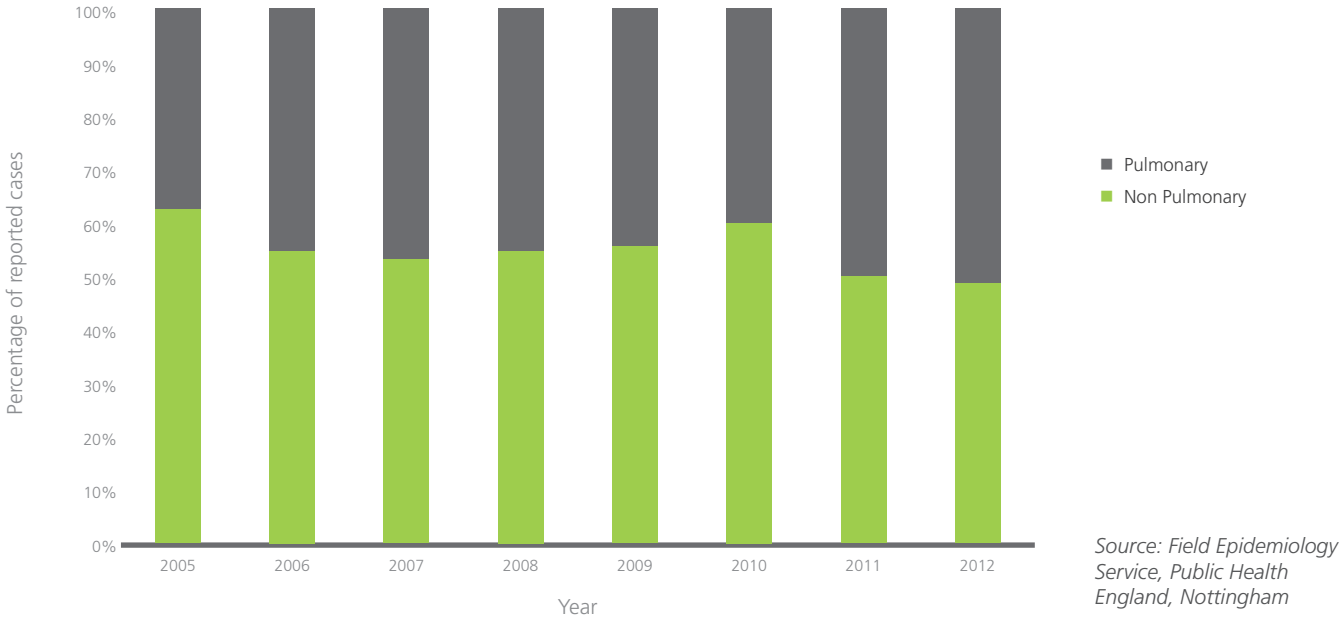


Source: Field Epidemiology Service, Public Health England, Nottingham

TB infections of the lungs (pulmonary TB) is the only form of TB that is infectious. Figure 37 shows how in recent years there has been an increase in the proportion of all cases with pulmonary TB.

Figure 37. Analysis of pulmonary/non-pulmonary cases

East Midlands Enhanced Tuberculosis Surveillance. Proportion of reported cases and non-pulmonary cases for Leicester 2005-2012



Source: Field Epidemiology Service, Public Health England, Nottingham

Managing TB

University Hospitals Leicester is commissioned by Leicester City Clinical Commissioning Group to provide the full range of services needed to diagnose and treat TB. The service works closely with Public Health England (formerly the Health Protection Agency). Leicester has achieved reductions in the number of cases of TB over the last decade[80] when other urban areas in the UK with a similar ethnic profile such as Birmingham[81]and Manchester[82] have seen increases in case numbers. However, there remains a need for a robust process to ensure screening of new entrants to enhance the existing detection and control measures in place.

An important aspect of managing TB is achieving high rates of treatment completion. Treatment for TB involves months of drug therapy which can often cause side effects. As a result, it is common for patients not to complete their treatment. In Leicester in 2011, 130 patients (77%) completed their TB treatment, 1 patient was known not to have completed their treatment and 38 patients (22%) had an incomplete record of treatment compliance. This may be because they moved out of the area, or the service lost contact with them. These high rates of treatment completion are evidence of the effectiveness of the TB nursing service in Leicester.

Public Health England provides the statutory notification service for communicable diseases and the national surveillance service for TB. Locally, PHE staff investigate and manage potential outbreaks of TB, coordinating screening of contacts where necessary.

Coordination of effort is provided by the Leicester, Leicestershire and Rutland TB Strategy Board and the multi-agency, multidisciplinary infrastructure supporting TB services in Leicester has been key to achieving the downward trend in cases seen in the city. It is important that we maintain our services and ensure we continue to focus on early detection and completion of treatment.

The Leicester City Council Public Health team has led the production of a summary health needs assessment in the autumn of 2013, to identify how services can be delivered most effectively and in line with national guidance, while ensuring the optimum use of available resources. Overall, the needs assessment found that local TB services are well co-ordinated and the prevalence of TB is decreasing, compared to the trend in the majority of large urban areas in England. An area where the local service falls short of guidance is in the screening of new adult entrants (currently there is only a service for children under aged 16 years).[83]

A multidisciplinary research collaborative has been developed which aims to develop and coordinate local TB research activities, focusing on priority areas of prevention, early detection and implementation of care/treatment initiatives.

Recommendations

It is recommended that

- Services and commissioners develop a stronger focus on detection and treatment of latent TB infection
- Primary care services and other organisations that provide services to people from high risk groups (particularly new entrants from high TB prevalence countries) should continue to be vigilant, encourage take-up of opportunities for screening for TB and be aware of how to access services and treatments in a timely manner

References

77. Department of Health. Tuberculosis prevention and treatment: a toolkit for planning, commissioning and delivering high-quality services in England. London: Department of Health; 2007
78. Department of Health. Stopping Tuberculosis in England. London: Department of Health; 2004
79. Health Protection Agency. Tuberculosis in the UK: 2011 Report. London: s.n.; 2011
80. Public Health England, Nottingham. Data supplied by Field Epidemiology Service
81. Public Health England, Birmingham. Data supplied by Field Epidemiology Service
82. Bothamley GH, et al. Tuberculosis in UK cities: workload and effectiveness of tuberculosis control programmes. BMC Public Health. 2011;(11):896
83. Theaker, S. Tuberculosis Summary Needs Assessment: Leicester, Leicestershire and Rutland. Leicester City Council and Leicester City Clinical Commissioning Group, 2014. Available at: http://www.leicester.gov.uk/your-council-services/social-care-health/jsna/jspna-reports/

Childhood Immunisation

Introduction

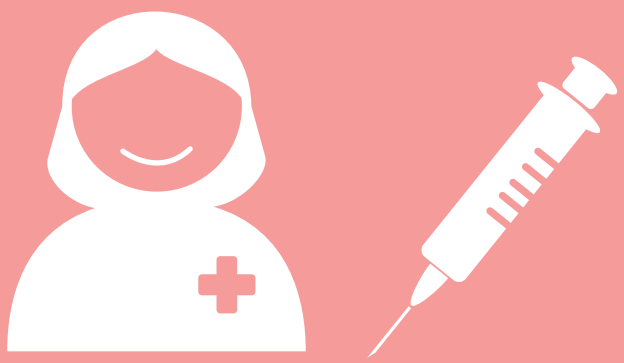
Immunising a child offers them the best protection against serious and life threatening infections by ensuring that, if exposed, fewer children will go on to develop the disease. According to the World Health Organisation and UNICEF immunisation, along with improvements in sanitation and clean water, is recognised as the most successful and effective public health intervention in the world for saving lives and promoting good health.[84] Table 8 outlines the current national childhood immunisation schedule and the communicable diseases the vaccinations seek to prevent.

Table 8: National Schedule for Childhood Immunisation

Recommended uptake age	Vaccinations	Diseases protected against
Two months	DTaP/IPV/Hib and PCV	Diphtheria, Tetanus, Pertussis (whooping cough), Polio and Haemophilus influenza type b (Hib), and Pneumococcal infection
Three months	DTaP/IPV/Hib and Men C	Diphtheria, Tetanus, Pertussis (whooping cough), Polio and Haemophilus influenza type b (Hib), and Meningitis C
Four months	DTaP/IPV/Hib, Men C and PCV	Diphtheria, Tetanus, Pertussis (whooping cough), Polio and Haemophilus influenza type b (Hib), and Meningitis C, and Pneumococcal infection
12 to 13 months	Hib/MenC, PCV and MMR	Haemophilus influenza type b (Hib) and Meningitis C, and Pneumococcal infection, and Measles, Mumps and Rubella
Three years and four months	DTaP/IPV (preschool booster) and MMR	Diphtheria, Tetanus, Pertussis and Polio, and Measles, Mumps and Rubella
Girls aged 12 to 13 years	HPV	Cervical cancer caused by Human Papillomavirus types 16 and 18

Source: Department of Health. Immunisation Against Infectious Disease. (The Green Book)

Immunising a child offers them the **best protection against serious and life threatening infections**.



The reforms of the Health and Social Care Act 2012, led to revised arrangements for the oversight and delivery of national immunisation programmes from 1st April 2013

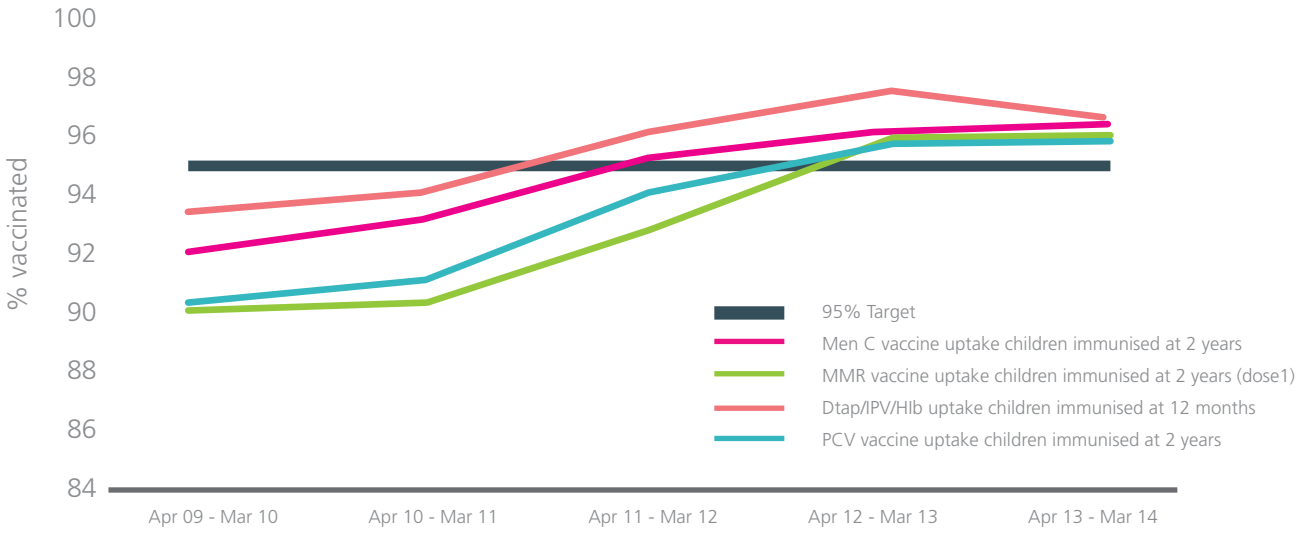
- NHS England is now responsible for commissioning immunisation programmes
- Public Health England is responsible for providing advice and leadership on infectious disease outbreaks
- Directors of Public Health in local authorities provide assurance that the local population is adequately protected
- General Practices (GPs) continue to provide the majority of immunisations

What is the current status and trend?

Local childhood immunisation coverage is the best indicator of the level of protection our children have against vaccine preventable communicable diseases.

The World Health Organisation (WHO) recommends a 95% vaccination coverage level to fully protect the population against a given disease. For the year ending 31 March 2014, over 95% of all GP registered eligible children in Leicester received all of their primary vaccinations prior to the target of their first or second birthday (see Figure 38).

Figure 38: Primary Course Vaccination Coverage April 2009 - 31 March 2014

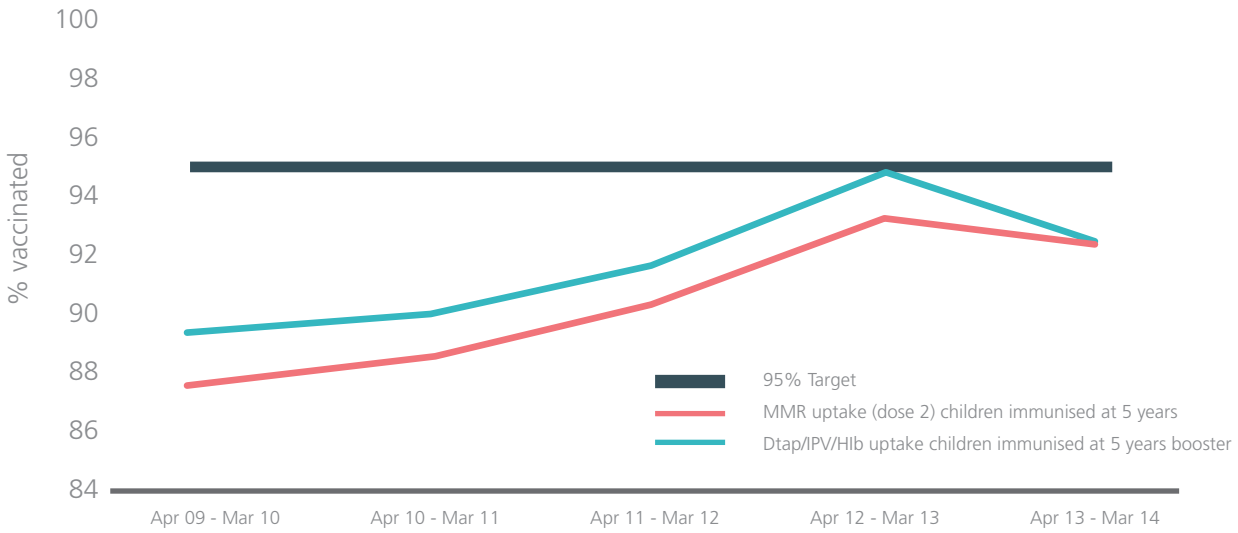


Source: COVER (Cover of Vaccination Evaluated Rapidly)

In the case of the Diphtheria, Tetanus, Pertussis (DTaP) and Polio (IPV) immunisation and Measles, Mumps and Rubella (MMR) immunisation, the national programme requires a further vaccine to be given after the primary courses. These completion doses are generally given at three years and four months, prior to children starting formal education. Ensuring children return to receive these immunisations has historically been a challenge both nationally and locally. However, as Figure 39 shows, steady progress has been made in this area and the city has started to achieve the 95% ambition.

Immunising a child offers them the best protection against serious and life threatening infections by ensuring that, if exposed, fewer children will go on to develop the disease.

Figure 39: Completed Course Vaccinations (By Age 5), April 2009 – March 2014



Source: COVER (Cover of Vaccination Evaluated Rapidly)

In recent years Leicester has improved its delivery of the childhood immunisation programme. In 2012-13 coverage was higher than the national average for uptake and compared favourably with other cities in the region. This on-going improvement has been largely achieved through coordination and cooperation between commissioners, local GP practices and Child Health Record services. Table 9 shows that in 2013-14 this has largely been maintained, though there has been some reduction in the level of coverage. This particular area is being monitored by the Leicester City Health and Wellbeing Scrutiny Commission.

Table 9: Leicester Childhood Vaccination Coverage, April 2011 – March 2014

Immunisation	2011/12	2012/13	2013/14
Diphtheria, tetanus, polio, pertussis, Haemophilus influenzae type b (Hib) - (i.e. all 3 doses of DTaP/IPV/Hib up to 12 months old)	96.3%	97.3%	96.5%
Pneumococcal infection - (received Pneumococcal booster) (PCV) up to 2 years old)	93.8%	95.8%	96.3%
Haemophilus influenzae type b (Hib), meningitis C (MenC) - (received Hib/MenC booster up to 2 years)	95.2%	96.0%	95.7%
Measles, mumps and rubella (MMR) - (received one dose up to 2 years old)	93.0%	95.7%	95.9%
Diphtheria, tetanus, polio, pertussis (DTaP/IPV), (all 4 doses up to 5 years old)	91.4%	94.6%	92.4%
Measles, mumps and rubella (MMR) (2 doses up to 5 years old)	90.2%	93.1%	92.6%
Human Papilloma Virus (HPV)	86.1% (3 doses)	91.9% (3 doses)	n/a

Source: COVER (Cover of Vaccination Evaluated Rapidly)

Additions to the national immunisation programme

A number of changes to the national immunisation programme are being made during 2013-14 to reflect the phased implementation of a series of recommendations by the Joint Committee on Vaccination and Immunisation (JCVI), designed to improve the overall level of protection against vaccine preventable diseases (see Table 10).

Table 10: Changes to National Schedule for Childhood Immunisation

Meningitis C:
From June 2013, the second priming dose previously given at four months has been replaced by a booster dose that is given in adolescence.
Rotavirus:
From July 2013 an oral vaccine to protect babies against rotavirus was introduced into the childhood immunisation schedule.
Childhood Flu:
The existing flu immunisation programme is to be extended over a number of years to include all children aged two to 16 inclusive. In autumn 2013, immunisation will be offered to a limited age range of pre-school-aged children
Shingles:
From September 2013, a shingles vaccine has been introduced for people aged 70 years (routine cohort) and 79 years (catch-up cohort) to protect against herpes zoster.

Conclusions

Leicester has made significant progress in the area of childhood immunisation coverage over recent years. It is recognised that success has come through successful integrated working, to ensure the immunisation needs of the population are met.

Recommendations

It is recommended that

- NHS England, with the support of the Leicester City Council and Leicester City CCG, maintains and improves on the city's high immunisation coverage

References

84. WHO, UNICEF, World Bank. State of the World's Vaccines and Immunization [Internet]. Geneva: World Health Organisation; 2009. Available from: http://www.unicef.org/media/files/SOWVI_full_report_english_LR1.pdf

Leicester has made significant progress in the area of childhood immunisation coverage over recent years. Success has come through integrated working

Screening

Introduction

Effective screening programmes can contribute significantly to early detection and timely management of life-threatening conditions, such as cancer.

The most effective way to detect an increased risk of a disease or condition in apparently healthy individuals is through population screening. Those identified through screening can be offered information, further diagnostic tests and timely intervention.[85]

Screening programmes in the UK are organised under the direction of the National Screening Committee (NSC). Each programme is organised at an appropriate geographical level, local or sub-regional depending mainly on the size of eligible population, to ensure that they are carried out effectively and efficiently. Programmes also undergo routine quality assurance to ensure robust governance. Since April 2013, NHS England commissions screening programmes with the support of the Public Health England (PHE).

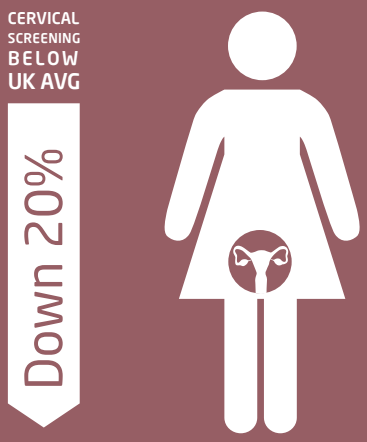
What is the current status and trend?

Cancer screening programmes

Table 11: Cancer Screening and uptake in Leicester

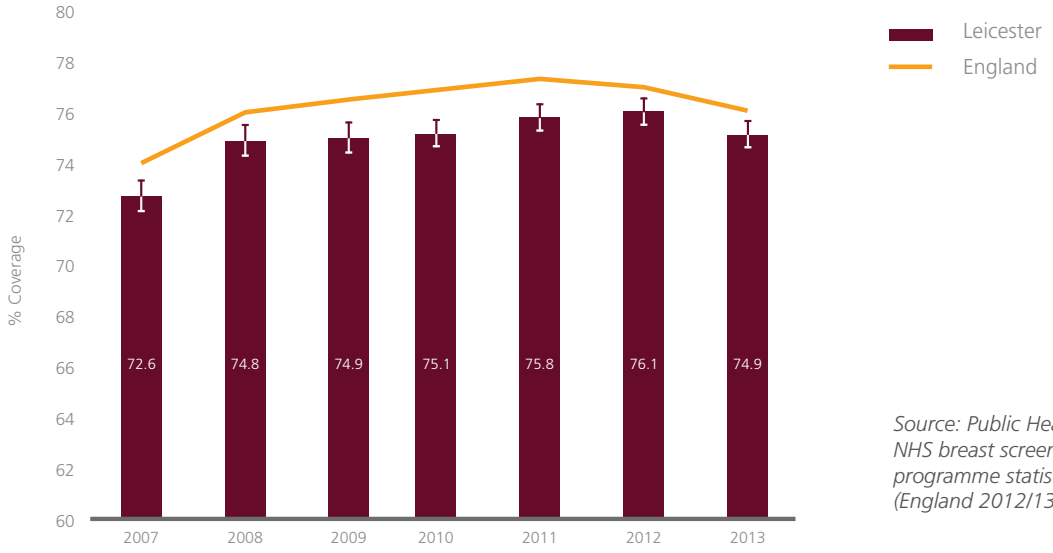
Description	Progress in Leicester
NHS Breast Screening Programme (NHSBSP)	
Breast screening uses a test known as mammography to look for cancers, which are too small to be detected by examination.	In 2013, 74.9% of all eligible women in Leicester were screened, which is below the national average of 76.4% (Figure 40) but higher than the average of Leicester's comparator authorities, 70.8% (see Note i on page 14 for peer comparators)
It helps to find cancer at an early stage when it can be treated more effectively. The test is offered to all women between ages of 50 and 70 every 3 years.	

Uptake rate of cervical screening in Leicester has been decreasing and remains significantly below the national average



NHS Cervical Screening Programme (NHSCSP)	
The test, known as 'cervical smear' is designed to ascertain the health of the cervix (the lower part of the uterus), giving an assessment of the risk of developing cancer.	After some improvement in 2009, uptake rate of cervical screening in Leicester has been decreasing at a rate faster than the national average, reaching 73.9% in 2013 (Figure 41).
Cervical screening is offered to all women aged 25 to 64, every three years under the age of 50 and every five years thereafter. As a routine part of the programme women are also offered a test for HPV (human Papilloma virus).	
NHS Bowel Cancer Screening Programme (NHSBCSP)	
Bowel screening programme was introduced in Leicester in 2008. This screening involves a self-administered FOB (faecal occult blood) test. Individuals with a positive FOB test are offered colonoscopy as a diagnostic test. To be effective the programme needs a minimum of 60% uptake.	The bowel cancer screening acceptance rate has been lower in Leicester than elsewhere (43.5%, Figure 42) and below the recommended 60% of those eligible. Twice as many FOB test in Leicester have a positive result than would be expected - 4.1% against 2.3% across Leicestershire, Northamptonshire and Rutland.

Figure 40: Trend in uptake of breast cancer screening programme in Leicester, against the national trend. The local figures with 95% confidence intervals



Source: Public Health England. NHS breast screening programme statistical bulletin (England 2012/13)

Screening programmes can contribute significantly to early detection and timely management of life-threatening conditions, such as cancer

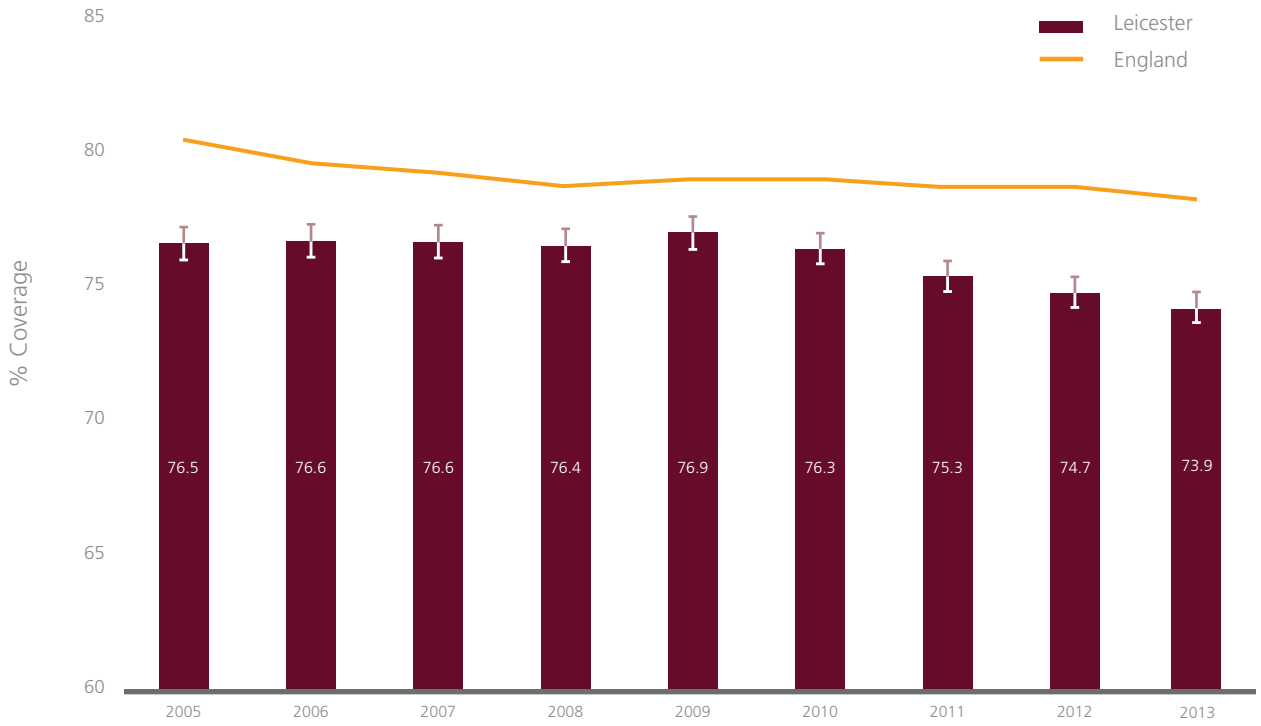
The uptake of bowel cancer screening in Leicester is low (43.5% vs. 60% national target). Low screening rates are matched in Leicester by a higher than expected positivity rate (4.1%) against the expected 2% of all tested (Figure 42). The low uptake rates in Leicester are influenced by deprivation and ethnicity – in 2009-10 the uptake was twice as high in the most affluent areas of Leicester (60% compared to 30% in the most deprived). Some of the lowest rates (<30%) of uptake were also seen in ethnic minority populations. The Public Health team in Leicester has undertaken community interventions aimed at improving uptake in targeted areas in the city and has been working with healthcare providers, including GPs and pharmacists, to improve awareness of the programme.

Evidence from other parts of the UK, shows that the effect of ethnicity and deprivation on uptake rates is persistent, which means that concerted action is necessary to improve rates in these populations.

Local uptake rates of cervical screening are declining (Figure 41) particularly among younger women under 30 years of age, mirroring in Leicester the gradual fall in screening uptake experienced nationally.

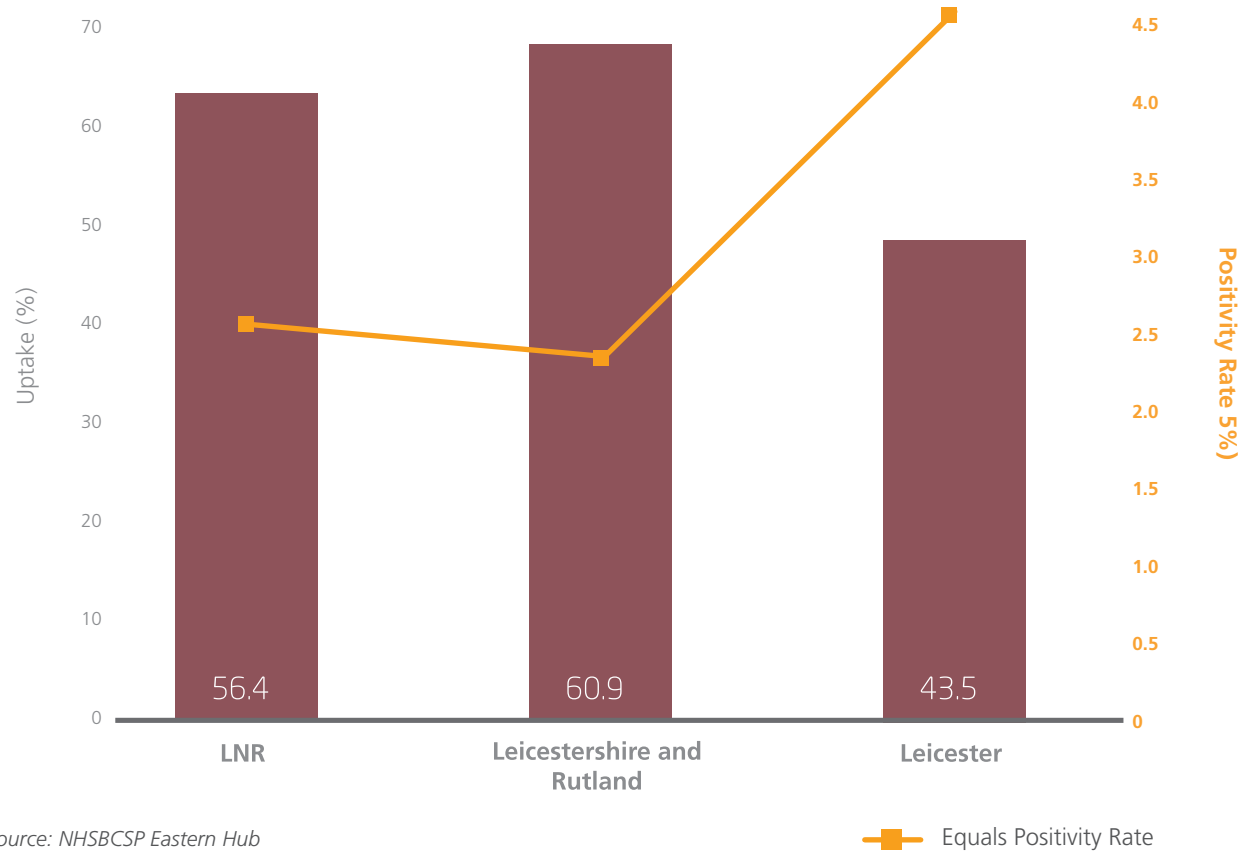
The Division of Public Health at the Leicester City Council is working with the Public Health England Area Team to ensure that the reduction is cervical screening uptake rates in Leicester are addressed by the commissioners and the downward trend is reversed.

Figure 41: Trend in cervical screening coverage (women aged 25-64, screened within 5 years) in Leicester and England



Source: Public Health England. NHS cervical screening programme statistical bulletin (England 2011/12)

Figure 42: Uptake of bowel cancer screening programme and positivity rate in Leicestershire and LNR (Leicestershire, Northamptonshire and Rutland) for period January 2011 – September 2012



Source: NHSBCSP Eastern Hub

The uptake of bowel cancer screening in Leicester is low (43.5% vs. 60% national target)

Local uptake rates of cervical screening also remain low particularly among younger women (under 30 years of age)

Non-Cancer screening programmes

Table 12: Non-Cancer Screening and uptake in Leicester

Description	Progress in Leicester
Abdominal Aortic Aneurysm Screening Programme (NAAASP)	
Aortic abdominal aneurysm (AAA) is a serious condition, more common in older men (65+), caused by weakening and expansion of the wall of the aorta, the largest artery in the body. AAA can lead to a sudden and very often fatal rupture (80% of emergency cases result in death).	A high rate of coverage, with 90% of all eligible men screened via the programme in 2012 and meeting the national standard of 90%.
Diabetic Retinopathy Screening Programme (DRSP)	
Retinopathy is the most common cause of loss of eyesight among people with diabetes. The only way to detect retinopathy at an early stage is through screening. All patients aged 12 and over with diabetes type 1 or type 2 are offered annual screening appointments. Screening is provided in a variety of locations, including GP surgeries, hospitals and optician practices	In 2011-12 financial year 89% of eligible patients were screened, above the national minimum standard of 80%.
Antenatal and Newborn Screening Programmes (ANSP)	
ANSP include a range of tests undertaken before birth and within the first few weeks of life. The programme includes: 1. Newborn Blood Spot (NBBS) Screening is offered to all babies soon after birth (5-8 days). It is a test for several, relatively rare but serious inherited conditions, such as phenylketonuria, cystic fibrosis (CF), congenital hypothyroidism, sickle cell disease and a number of other very rare metabolic conditions. In 2015, the programme will be expanded to include additional inherited conditions. 2. Newborn Hearing Screening Programme (NHSP) aims to detect moderate to profound hearing loss in babies early after birth (within 4-5 weeks) and provide high quality assessment and support through an integrated paediatric audiology service. 3. Foetal Anomaly Screening Programme (FASP) – tests for genetic conditions, such as Down's syndrome 4. Infectious Diseases in Pregnancy Screening (IDPS) – tests for infectious disease in the mother that could adversely affect the unborn child, such as HIV, Hepatitis B or Syphilis and to ascertain her susceptibility to Rubella infection 5. Screening for Sickle Cell and Thalassemia (SCT) evaluates the risk of these conditions through a family origin questionnaire and appropriate genetic tests, before or during pregnancy. Babies are also screened after birth as part of their bloodspot test. 6. Newborn and Infant Physical Examination (NIPE) is a systematic programme of giving all babies a comprehensive physical examination to detect potential inborn problems which require early intervention, such as heart defects, hip problems, cataracts or undescended testes in boys.	A number of these programmes provide robust performance measures. There is a high coverage of NBBS programme, with a majority of babies born in Leicester receiving in less than 8 days from birth. The national threshold for screening coverage is 95%. NHSP in Leicester is consistently achieving over 99% coverage, against the national threshold of 95%. Robust systems of national reporting of performance measures (KPIs) for FASP, IDPS, SCT and NIPE are currently under development. However, the initial results show high coverage of screening in Leicester. For most programmes a minimum national standard of 95% has been set with an aim to achieve over 99% coverage in the near future

Recommendations

It is recommended that

- Public Health England, NHS England, Leicester City Clinical Commissioning Group and the Leicester City Council jointly plan to address access to and take up of screening programmes, so that;
  - Uptake of bowel cancer screening is improved
  - The downward trend in cervical screening is reversed
  - There is continuous assessment of the impact of screening programmes on population health in Leicester

References

85. Public Health England. UK National Screening Committee [Internet]. [Accessed 2013 Nov 26]. Available from: http://www.screening.nhs.uk/uknsc

Health Facts 1: Mid-yr 2012 estimates of resident population by age[1]

Source: Office of National Statistics

Area	Age (years)	0-4	5-14	15-34	35-64	65-74	75+	Total
Leicester	Total	24,962	41,098	114,633	112,832	19,408	18,673	331,606
	%	7.5%	12.4%	34.6%	34.0%	5.9%	5.6%	100.0%
East Midlands	Total	275,823	513,028	1,158,142	1,809,600	443,557	367,581	4,567,731
	%	6.0%	11.2%	25.4%	39.6%	9.7%	8.0%	100.0%
England	Total	3,393,356	6,091,453	14,174,651	20,777,761	4,844,490	4,212,018	53,493,729
	%	6.3%	11.4%	26.5%	38.8%	9.1%	7.9%	100.0%

Population projections for Leicester up to 2021

Source: Office of National Statistics, 2011-based Population projections

	Age (years)							
Year	0-4	5-14	15-34	35-64	65-74	75-84	85+	Total
2013	25,988	41,033	114,010	113,244	19,900	13,020	5,586	332,781
2015	27,439	41,578	112,806	114,654	20,930	13,016	5,765	336,188
2017	27,798	43,288	111,408	115,824	22,310	12,783	5,935	339,347
2019	27,292	45,472	110,067	116,762	23,394	13,111	6,152	342,249
2021	26,796	47,007	109,305	117,507	24,562	13,329	6,430	344,936

Notes:
xv. Figures may not sum due to rounding

Health Facts 2: Maternal, Child Health and Screening

Source: Office of National Statistics, National Centre for Health Outcomes Development, Health and Social Care Information Centre

Births and conceptions (2012)[1]			
Measure	**Leicester**	**East Midlands**	**England**
Total births	5316	55923	697,598
Live births	5273	166255	694241
Still births	43	278	3357
% low birth weight (<2,500g)	8.2	7.3	7.3
% very low birth weight (<1,500g)	1.1	1.3	1.3
General fertility rate	66.8	63.1	64.9
Under 18 conception rate (per 1,000 females aged 15-17 years)	32.9	28.3	27.7

Deaths (2012)[1]			
Measure	**Leicester**	**East Midlands**	**England**
Stillbirth rate	8.1	5.0	4.8
Perinatal mortality rate	11.9	7.7	7.4
Infant mortality rate	8.0	4.5	4.1

Childhood Immunisations (2012/13)			
	Percentage of children immunised by their second birthday		
Immunisations	**Leicester City**	**East Midlands**	**England**
Diphtheria, Tetanus, Polio, Pertussis & Hib	97.9	97.6	96.3
Measles, Mumps, Rubella	95.7	94.0	92.3
Meningitis C	96.7	97.2	95.1
	Percentage of children immunised by their fifth birthday		
Diphtheria, Tetanus, Polio, Pertussis	98.1	97.3	95.8
Diphtheria, Tetanus, Polio, Pertussis Booster	94.6	91.4	88.9
HIB	97.1	96.7	95.4
Measles, Mumps, Rubella (first dose)	96.4	95.0	93.9
Measles, Mumps, Rubella (first and second dose)	93.1	89.7	87.7

Screening Coverage (2012/13)			
	Leicester City	**East Midlands**	**England**
Breast Screening uptake	74.9	80.5	76.4
Cervical screening uptake	73.9	80.4	78.3

Live births: Number of live births for all maternal ages 11+ years
Low birth weight: Percent of live and still births < 1500 and < 2500g
General fertility rate: Number of live births per 1,000 female population aged 15-44 years
Under 18 conception rate: Number of conceptions in under 18 year olds per 1,000 females aged 15-17
Still birth rate: number of still births per 1,000 total births
Perinatal mortality rate: Number of stillbirths and deaths in the first week of life per 1,000 total live and still births
Infant mortality rate: Number of deaths in live born infants under 1 year of age per 1,000 live births
Breast screening uptake: Percentage of eligible women aged 53-70 screened within last 3 years
Cervical screening uptake: Percentage of eligible women aged 25-64 with adequate test in last 5 years

Significantly higher than the national rate
Significantly lower than the national rate

Health Facts 3: Mortality rates

Source: National Centre for Health Outcomes Development, NHS Health and Social Care Information Centre

	Standardised Mortality Ratio (Indirect)					Directly age-standardised rate					
Mortality rates in males			2010-12 pooled, for all ages			2010-12, for all ages			2010-12, for under 75 yr olds		
Cause of death	**ICD 10**	**No. deaths in Leicester**	**England**	**East Midlands**	**Leicester City PCT**	**England**	**East Midlands**	**Leicester City PCT**	**England**	**East Midlands**	**Leicester City PCT**
		2012	SMR	SMR	SMR	DSR	DSR	DSR	DSR	DSR	DSR
Coronary heart disease	I20-I25	220	100.00	105.12	134.58	99.57	104.69	134.66	50.66	53.61	70.43
Cerebrovascular disease (stroke)	I60-I69	68	100.0	95.09	105.17	35.77	33.87	38.46	12.1	11.11	15.08
All cancers	C00-C97	320	100.0	100.23	102.35	197.33	197.12	204.25	117.25	116.26	125.38
All accidents	V01-X59	84	100.0	103.87	126.92	18.96	19.75	24.62	14.34	14.8	19.52
All accidental falls	W00-W19	17	100.0	87.49	136.76	4.92	4.33	6.79	2.34	2.02	3.59
Road traffic accidents	V01-V89	5	100.0	121.47	81.73	4.24	5.18	3.62	4.08	4.99	3.56
Suicide and undetermined death	X60-X84, Y10-Y34 exc Y33.9	27	100.0	90	136	12.22	11.12	16.35	15.99	15.26	19.94
Bronchitis, Emphysema & Chronic obstructive Pulmonary Disease	J40-J44	58	100.0	95.17	118.56	32.02	30.33	39.83	13.25	12.32	19.59
Stomach and duodenal ulcer	K25-K27	8	100.0	96.63	162.82	3.15	3.05	5.29	1.71	1.56	2.98
Diabetes	E10-E14	13	100	114.09	152.75	5.98	6.7	9.15	2.68	2.84	4.97
Tuberculosis	A15-A19	<5	100.0	121.69	450.26	0.46	0.54	2.07	0.29	0.29	1.2
Chronic liver disease	K70, K73-K74	29	100.0	100.41	171.65	13.11	13.21	22.88	12.71	13.03	23.31
All causes	A00-Y99	1171	100.0	101.9	117.49	624.89	634.15	744.87	321.65	321.08	411.52

ICD 10: International Classification of Diseases: WHO's internationally accepted classification of death and disease, revision 10.

Standardised Mortality Ratio: Measure of whether someone is more or less likely to die compared to the standard population. A score greater than 100 indicates an increased probability and a score below 100 indicates a reduced probability

Standardised Years of Life Lost Rate: Potential number of years of life lost as a result of premature death (under 75 years) per 10,000 European standard population

Significantly worse than the national rate

Significantly better than the national rate

	Standardised Mortality Ratio (Indirect)					Directly age-standardised rate					
Mortality rates in females			2010-12 pooled, for all ages			2010-12, for all ages			2010-12, for under 75 yr olds		
Cause of death	**ICD 10**	**No. deaths in Leicester**	**England**	**East Midlands**	**Leicester City PCT**	**England**	**East Midlands**	**Leicester City PCT**	**England**	**East Midlands**	**Leicester City PCT**
		2012	SMR	SMR	SMR	DSR	DSR	DSR	DSR	DSR	DSR
Coronary heart disease	I20-I25	370	100.0	103.69	128.61	43.91	45.49	59.23	15.08	15.5	24.09
Cerebrovascular disease (stroke)	I60-I69	84	100.0	96.55	102.78	33.71	32.72	36.38	9.1	9.05	11.62
All cancers	C00-C97	277	100.0	99.56	95.49	144.07	144.1	139.91	96.95	98.05	94.85
All accidents	V01-X59	17	100.0	108.77	114.77	9.4	10.18	10.79	5.3	5.71	6.01
All accidental falls	W00-W19	9	100.0	95.56	118.62	3.03	2.86	3.54	1.13	1.04	1.29
Road traffic accidents	V01-V89	0	100.0	142.35	118.61	1.21	1.84	1.43	1.09	1.72	1.06
Suicide and undetermined death	X60-X84, Y10-Y34 exc Y33.9	<5	100.0	101	179	3.72	3.78	6.23	4.75	4.22	6.65
Bronchitis, Emphysema & Chronic obstructive Pulmonary Disease	J40-J44	45	100.0	94.34	90.28	21.6	20.38	19.68	10.08	9.56	9.88
Stomach and duodenal ulcer	K25-K27	<5	100.0	97.18	139.61	1.96	2.04	2.85	0.84	1.01	0.96
Diabetes	E10-E14	18	100	110.08	164.12	4.31	4.58	7.13	1.67	1.65	2.54
Tuberculosis	A15-A19	5	100.0	111.89	681.07	0.22	0.27	2.03	0.14	0.17	1.68
Chronic liver disease	K70, K73-K74	7	100.0	94.42	95.03	6.85	6.45	6.4	6.54	6.13	6.13
All causes	A00-Y99	1165	100.0	100.9	108.52	449.5	453.37	498.97	208.32	210.12	241.59

ICD 10: International Classification of Diseases: WHO's internationally accepted classification of death and disease, revision 10.

Standardised Mortality Ratio: Measure of whether someone is more or less likely to die compared to the standard population. A score greater than 100 indicates an increased probability and a score below 100 indicates a reduced probability

Standardised Years of Life Lost Rate: Potential number of years of life lost as a result of premature death (under 75 years) per 10,000 European standard population

Significantly **worse** than the national rate

Significantly **better** than the national rate

Health Facts 4: Cancer rates

Source: National Centre for Health Outcomes Development, NHS Health and Social Care Information Centre

Cancer rates in males															
Cause of death	**New cases in Leicester 2011**	**SRR Eng (2009-11)**	**SRR Leicester (2009-11)**	**No. deaths in Leicester (2012)**	**England**	**Standardised Mortality Ratio (Indirect), 2010-12 pooled, all ages**		**Directly age-standardised mortality rate per 100,000 (2010-12), All ages**			**Directly age-standardised mortality rate per 100,000 (2010-12), under 75s**			**1 yr survival (2004-06)**	**5 yr survival (2004-06)**
		Eng	Leic			East Midlands	Leicester	England	East Midlands	Leicester	England	East Midlands	Leicester	EM SHA	EM SHA
		SRR	SRR		SMR	SMR	SMR	DSR	DSR	DSR	DSR	DSR	DSR		
All	555.0	100.0	92.3	330.0	100	100.23	102.35	197.33	197.12	204.25	117.25	116.26	125.38	-	-
Lung	87	100	118.6	73	100	97.7	115.1	45.2	44.4	53.8	28.9	27.8	38.2	26.7%	7.5%
Colorectal	244	100	92.08	x	100	105.51	108.61	20.97	22.11	22.92	12.36	12.93	13.68	67.4%	47.7%
Stomach	18	100	126.85	x	100	107.15	128.37	6.97	7.5	9.55	3.83	4.27	6	37.9%	16.3%
Oesophageal	x	100	90.68	x	100	103.74	78.22	12.57	13.03	10	8.74	9.28	7.5	34.9%	12.3%
Bladder	x	100	79.13	x	100	104.48	96.59	7.67	7.95	7.2	3.19	3.27	2.32	74.4%	54.8%
Malignant Melanoma	49	100	65.37	x	100	93.19	60.85	3.22	3.11	2.06	2.37	2.49	1.53	-	-
Prostate	316	100	67.86	27	100	101.49	96.37	23.71	24.1	22.4	7.97	8.36	5.81	88.4%	73.7%
Leukaemia	-		-	x	100	105.45	95.68	6.29	6.44	5.76	3.71	3.71	2.44	-	-
Hodgkins	-		-	x	100	95.78	x	0.47	0.47	x	0.38	0.42	x	-	

ICD 10: SRR Standardised Registration Ratio:
Standardised Mortality Ratio: Standardised Years of Life Lost Rate:
Survival rate: Survival rate: 1 year / 5 years

Significantly **worse** than the national rate

Significantly **better** than the national rate

Cancer rates in females															
Cause of death	**New cases in Leicester 2011**	**SRR Eng (2009-11)**	**SRR Leicester (2009-11)**	**No. deaths in Leicester (2012)**	**England**	**Standardised Mortality Ratio (Indirect), 2010-12 pooled, all ages**		**Directly age-standardised mortality rate per 100,000 (2010-12), All ages**			**Directly age-standardised mortality rate per 100,000 (2010-12), under 75s**			**1 yr survival (2004-06)**	**5 yr survival (2004-06)**
		Eng	Leic			East Midlands	Leicester	England	East Midlands	Leicester	England	East Midlands	Leicester	EM SHA	EM SHA
		SRR	SRR		SMR	SMR	SMR	DSR	DSR	DSR	DSR	DSR	DSR		
All	591	100	96.37	277	100	99.6	95.49	144.07	144.1	139.91	96.95	98.05	94.85	-	-
Lung	68	100	95.78	63	100	91.2	98.4	29.8	27.5	30.0	20.8	19.6	22.0	28.4%	8.1%
Colorectal	183	100	84.47	x	100	98.27	95.17	13.28	13.07	13.23	7.66	7.49	7.58	66.4%	49.4%
Stomach	7	100	94.66	x	100	100.67	84.54	3.09	3.25	3.04	1.74	2.01	2.24	39.2%	18.5%
Oesophageal	x	100	121.25	x	100	101.21	66.26	4.27	4.4	2.49	2.47	2.55	1.24	35.7%	14.1%
Bladder	x	100	60.21	x	100	106.23	75.55	2.63	2.83	1.91	1.24	1.33	x	65.2%	47.1%
Malignant Melanoma	41	100	49.42	x	100	97.7	73.63	1.98	2.1	1.61	1.54	1.81	1.47	-	-
Breast	564	100	95.47	47	100	103.79	104.42	24.2	24.63	24.52	18.14	18.17	17.42	93.5%	81.7%
Cervical	x	100	138.31	x	100	98.18	78.8	2.2	2.08	1.59	1.92	1.78	1.25	79.9%	65.6%
Leukaemia	-	-	-	x	100	105.45	109.86	3.74	3.83	4.13	2.26	2.19	2.72	-	-
Hodgkins	-	-	-	x	100	95.73	x	0.3	0.28	x	0.24	0.23	x	-	-

ICD 10: SRR Standardised Registration Ratio:
Standardised Mortality Ratio: Standardised Years of Life Lost Rate:
Survival rate: Survival rate: 1 year / 5 years

Significantly worse than the national rate

Significantly better than the national rate

Health Facts 5 - Health Indicators for Leicester

Source: Public Health Outcomes Framework, Health and Social Care Information Centre Information Portal, Active People Survey 5, National Child Measurement Programme

	Aim	Indicator	Leicester City	England	Direction of travel for Leicester since previous period for Leicester
Reduce health inequalities in life expectancy and infant mortality					
Life Expectancy	Increase in life expectancy and reduction in the health inequality gap	Life Expectancy at birth in men	77.0 (2010-12)	79.2 (2010-12)	→
		Life Expectancy at birth in women	81.8 (2010-12)	83.0 (2010-12)	→
Infant Mortality	Reduction in smoking levels during pregnancy	Percentage smoking in pregnancy	14.2% (2012-13)	12.7% (2012-13)	←
	Increase breastfeeding initiation	Percentage where breast feeding is initiated	74.1% (2012-13)	73.9% (2012-13)	←
	Increase breastfeeding prevalence at 6-8 weeks	Percentage breastfeeding at 6-8 weeks	55.1% (2012-13)	47.2% (2012-13)	→
Reduce premature mortality in under 75s					
Cardiovascular disease mortality and inequalities	Reduce cardiovascular disease mortality rates in under 75s	Mortality rate per 100,000 directly age standardised population from heart disease and stroke and related diseases in people aged under 75	77.6 (2010-12)	58.6 (2010-12)	→
Cancer mortality and inequalities	Reduce cancer mortality rates in under 75s	Mortality rate per 100,000 directly age standardised population from all cancers in people aged under 75	109.4 (2010-12)	106.7 (2010-12)	→
Respiratory disease inequalities	Reduce respiratory disease mortality in under 75s	Mortality rate per 100,000 directly age standardised population from all respiratory diseases in people aged under 75	47.5 (2010-12)	33.5 (2010-12)	→
Liver disease inequalities	Reduce liver disease mortality in under 75s	Mortality rate per 100,000 directly age standardised population from liver diseases in people aged under 75	25.3 (2010-12)	18.0 (2010-12)	←
Smoking: Reduce adult smoking rates					
Smoking	Reduce the percentage of adults who currently smoke	Number of successful 4-week quitters per 100,000 population aged 16 and over	1,054 (2012-13)	868 (2012-13)	←
Increase physical activity levels					
Physical activity	Increase the percentage of adults participating in the recommended levels of physical activity	% of adults completing at least 1 session a week of physical activity, of at least moderate intensity for at least 30 minutes (or at least 4 sessions in the previous 28 days)	30.6% (Oct 2012-Oct 2013)	35.7% (Oct 2012-Oct 2013)	←
Sexual health: Reduce the under-18 conception rate					
Sexual Health	Reduce teenage conceptions	Teenage conception rate per 1,000 population aged 15-17 years.	32.9 (2012)	27.7 (2012)	←
Mental Health and well-being: Substantially reduce mortality rates from suicide and undetermined injury					
Mental Health	Reduce levels of mortality from suicide/ injury undetermined	Mortality rate per 100,000 directly age standardised population from suicide and undetermined injury (15+ years)	10.3 (2010-12)	8.5 (2010-12)	←
Obesity: Halt the year-on-year rise in obesity among children					
Childhood obesity	Reduce levels of childhood obesity	% of Primary School children in reception year who are obese	10.4% (2012-13)	9.3% (2012-13)	→
		% of Primary School children in year 6 who are obese	21.1% (2012-13)	18.9% (2012-13)	←

Significantly worse than the national rate
Significantly better than the national rate
→ Better than previous year
← Worse than previous year

Health Facts 6a: Census 2011 demographic and health indicators by electoral ward

Source: Office of National Statistics: Census 2011
Source: Indices of Multiple Deprivation - 2010

	Population: Census 2011								
Ward Name	**Total population**	**% living in 5% most deprived SOAs** (xvi)	**00-04 years (%)**	**05-14 years (%)**	**15-24 years (%)**	**25-44 years (%)**	**45-64 years (%)**	**65-74 years (%)**	**75+ years (%)**
Abbey	14926	34.0%	8.5%	12.4%	14.4%	30.0%	22.0%	5.7%	7.1%
Aylestone	11151	-	7.0%	10.4%	11.7%	29.6%	24.8%	7.6%	8.9%
Beaumont Leys	16480	33.1%	9.0%	14.3%	14.3%	32.8%	22.4%	4.6%	2.6%
Belgrave	11558	-	6.0%	12.9%	15.6%	28.9%	25.3%	6.0%	5.2%
Braunstone Park and Rowley Fields	18173	41.4%	8.4%	15.3%	14.7%	28.5%	21.3%	6.2%	5.5%
Castle	22901	-	2.9%	3.1%	50.4%	29.2%	10.1%	2.2%	2.2%
Charnwood	13291	-	9.8%	16.3%	14.9%	30.0%	20.3%	5.4%	3.3%
Coleman	14669	-	8.5%	14.9%	15.1%	30.3%	22.3%	4.8%	4.1%
Evington	11133	-	5.7%	11.9%	12.2%	24.4%	25.8%	8.6%	11.5%
Eyres Monsell	11520	13.5%	8.4%	14.7%	13.6%	27.0%	21.7%	6.7%	8.0%
Fosse	13072	-	8.1%	9.9%	15.6%	36.5%	20.1%	5.2%	4.7%
Freemen	10949	41.5%	7.1%	12.5%	24.0%	29.3%	18.8%	4.5%	3.9%
Humberstone and Hamilton	18854	-	9.2%	14.4%	12.5%	32.6%	20.7%	5.2%	5.4%
Knighton	16805	-	5.5%	11.1%	12.7%	27.8%	25.5%	7.9%	9.6%
Latimer	12457	10.8%	5.6%	11.1%	14.9%	28.4%	26.7%	7.4%	6.0%
New Parks	17128	36.2%	9.7%	15.5%	13.6%	26.9%	21.3%	6.5%	6.4%
Rushey Mead	15962	-	5.9%	11.7%	12.7%	27.7%	27.3%	8.1%	6.6%
Spinney Hills	25571	31.9%	9.4%	16.8%	16.4%	29.4%	19.4%	5.0%	3.6%
Stoneygate	20390	-	7.3%	14.4%	22.5%	28.2%	18.9%	4.9%	3.9%
Thurncourt	10596	-	7.1%	12.8%	12.8%	24.0%	24.6%	8.4%	10.4%
Westcotes	11644	-	6.2%	5.5%	32.4%	38.7%	12.2%	2.7%	2.4%
Western Park	10609	-	5.6%	8.4%	15.9%	31.9%	23.9%	6.2%	8.0%
Leicester City	**329839**	**12.1%**	**7.4%**	**12.4%**	**18.2%**	**29.6%**	**21.1%**	**5.7%**	**5.6%**
England	**53012456**		**6.3%**	**11.4%**	**13.1%**	**27.5%**	**25.4%**	**8.6%**	**7.7%**

Notes:

xvi. Percentage living in 5% most deprived LSOA differ for Abbey and New Parks compared to Census 2001 as these wards have more LSOA's within the 5% most deprived category.

xvii. Categories are different from Census 2001 - 'Not good' includes 'Bad health' and 'Very bad health'

xviii. Households rented include social and private.

Health Facts 6a: Census 2011 demographic and health indicators by electoral ward

Source: Office of National Statistics: Census 2011
Source: Indices of Multiple Deprivation - 2010

	Ethnicity					Health	
Ward Name	**White (%)**	**Asian / British (%)**	**Black / British (%)**	**Mixed (%)**	**Other (%)**	**Number reporting health as "Not good" (%)** (xvii)	**Limiting Long Term Health Problem or Disability (%)**
Abbey	67.6%	19.8%	6.9%	3.7%	2.0%	7.5%	10.1%
Aylestone	88.1%	5.5%	2.3%	3.5%	0.5%	6.0%	9.4%
Beaumont Leys	60.3%	20.1%	12.7%	4.8%	2.1%	5.4%	7.3%
Belgrave	16.2%	76.8%	2.8%	2.3%	1.8%	7.9%	10.5%
Braunstone Park and Rowley Fields	76.8%	11.2%	6.8%	3.7%	1.5%	7.9%	10.6%
Castle	59.2%	24.2%	7.6%	4.1%	4.9%	3.3%	3.9%
Charnwood	27.7%	54.2%	10.4%	4.3%	3.4%	6.4%	8.6%
Coleman	19.4%	66.3%	6.7%	3.6%	4.0%	6.3%	8.2%
Evington	36.3%	54.0%	3.4%	2.8%	3.4%	5.9%	9.5%
Eyres Monsell	88.0%	3.1%	4.3%	4.1%	0.5%	7.6%	11.2%
Fosse	75.1%	13.9%	5.7%	4.0%	1.4%	4.6%	6.3%
Freemen	76.2%	11.1%	7.0%	4.7%	1.1%	6.5%	9.0%
Humberstone and Hamilton	47.6%	40.2%	4.4%	3.8%	4.1%	5.1%	7.7%
Knighton	64.6%	26.3%	2.5%	3.4%	3.2%	4.3%	7.2%
Latimer	9.2%	86.0%	2.4%	1.5%	0.9%	8.1%	11.4%
New Parks	82.2%	6.2%	6.6%	3.8%	1.2%	7.5%	10.4%
Rushey Mead	28.8%	64.5%	2.4%	2.1%	2.2%	6.3%	9.0%
Spinney Hills	6.8%	75.7%	12.1%	2.2%	3.1%	6.8%	8.5%
Stoneygate	20.9%	64.2%	7.6%	3.0%	4.3%	5.2%	6.9%
Thurncourt	65.7%	24.7%	3.6%	4.2%	1.9%	7.2%	11.0%
Westcotes	66.3%	18.7%	6.2%	4.6%	4.1%	4.0%	4.6%
Western Park	77.3%	13.9%	3.4%	4.0%	1.4%	4.8%	7.4%
Leicester City	**50.5%**	**37.1%**	**6.2%**	**3.5%**	**2.6%**	**6.0%**	**8.4%**
England	**85.4%**	**7.8%**	**3.5%**	**2.3%**	**1.0%**	**5.5%**	**8.3%**

Notes:

xvi. Percentage living in 5% most deprived LSOA differ for Abbey and New Parks compared to Census 2001 as these wards have more LSOA's within the 5% most deprived category.

xvii. Categories are different from Census 2001 - 'Not good' includes 'Bad health' and 'Very bad health'

xviii. Households rented include social and private.

Health Facts 6a: Census 2011 demographic and health indicators by electoral ward

Source: Office of National Statistics: Census 2011
Source: Indices of Multiple Deprivation - 2010

	Socio-economic			
Ward Name	**Number unemployed (%)**	**Households with no car (%)**	**Households Rented (%)** (xviii)	**Households overcrowded (%)**
Abbey	7.6%	39.2%	50.7%	13.8%
Aylestone	4.8%	28.4%	31.2%	5.4%
Beaumont Leys	7.2%	32.2%	50.3%	13.7%
Belgrave	6.7%	39.4%	50.2%	17.9%
Braunstone Park and Rowley Fields	7.3%	39.7%	56.4%	11.7%
Castle	4.2%	58.3%	76.8%	34.0%
Charnwood	8.1%	45.5%	60.0%	22.0%
Coleman	7.7%	38.7%	48.3%	19.2%
Evington	4.9%	22.1%	24.7%	9.1%
Eyres Monsell	7.2%	39.7%	50.5%	9.6%
Fosse	5.6%	37.0%	45.9%	11.3%
Freemen	6.5%	41.7%	63.1%	14.4%
Humberstone and Hamilton	5.2%	22.3%	35.9%	9.5%
Knighton	3.5%	19.8%	24.9%	7.7%
Latimer	6.5%	43.0%	45.7%	18.6%
New Parks	7.9%	42.9%	56.2%	9.1%
Rushey Mead	5.2%	19.9%	21.4%	10.3%
Spinney Hills	7.9%	44.2%	56.9%	25.9%
Stoneygate	7.0%	37.8%	47.1%	19.0%
Thurncourt	6.1%	32.8%	36.9%	8.6%
Westcotes	5.1%	45.2%	68.8%	20.6%
Western Park	4.3%	28.7%	33.9%	10.7%
Leicester City	**6.2%**	**36.9%**	**48.1%**	**15.3%**
England	**4.4%**	**25.8%**	**34.5%**	**8.7%**

Notes:

xvi. Percentage living in 5% most deprived LSOA differ for Abbey and New Parks compared to Census 2001 as these wards have more LSOA's within the 5% most deprived category.

xvii. Categories are different from Census 2001 - 'Not good' includes 'Bad health' and 'Very bad health'

xviii. Households rented include social and private.

Health Facts 6b: Local measures of health at ward level

Data: ONS mortality data, ONS mid-2010 population estimates, ONS conception data, ONS birth data

	Life expectancy		Mortality: DSR per 100,000 (all ages)	
Ward Name	**Females (2010-12)**	**Males (2010-12)**	**Cardiovascular Disease (2010-12)**	**Cancers (2010-12)**
Abbey	83.5	77.0	164.6	182.6
Aylestone	81.0	76.1	181.2	176.5
Beaumont Leys	81.2	75.2	193.0	180.4
Belgrave	84.6	78.6	216.3	101.4
Braunstone Park and Rowley Fields	79.6	74.3	208.2	225.3
Castle	82.5	73.3	196.4	167.8
Charnwood	81.9	75.2	225.0	173.1
Coleman	80.5	75.8	199.1	159.6
Evington	84.8	81.4	111.9	140.2
Eyres Monsell	80.4	75.0	163.6	238.9
Fosse	84.4	79.9	145.1	192.8
Freemen	83.1	75.0	177.4	233.0
Humberstone and Hamilton	81.5	77.8	171.6	154.1
Knighton	82.4	78.4	158.7	167.4
Latimer	83.6	78.5	176.5	90.7
New Parks	80.5	75.2	182.2	223.0
Rushey Mead	82.8	79.2	171.8	128.2
Spinney Hills	83.6	78.6	177.2	136.7
Stoneygate	84.9	79.3	152.4	112.1
Thurncourt	82.2	77.0	170.2	196.7
Westcotes	77.0	76.8	181.6	171.3
Western Park	81.4	76.3	173.1	164.1
Leicester City	**81.8**	**77.0**	**175.0**	**167.5**
Leicestershire County	**84.0**	**80.1**	**131.8**	**156.9**
England	**83.0**	**79.2**	**144.2**	**166.6**

Note:
Life Expectancy (years) at birth for males and females
DSR Mortality: Directly age-standardised mortality rates per 100,000, for all ages, using European standard population

Significantly worse than the England average
Significantly better than the England average

Health Facts 6b: Local measures of health at ward level

Data: ONS mortality data, ONS mid-2010 population estimates, ONS conception data, ONS birth data

	Infant Mortality rate	Perinatal mortality rate	Still birth rate	Low birth weights (%)	Under 18 conception rate
Ward Name	**(2008-12)**	**(2008-12)**	**(2008-12)**	**(2010-12)**	**2009-2011**
Abbey	9.0	11.9	6.7	10.1%	High
Aylestone	5.8	10.3	6.9	6.0%	High
Beaumont Leys	12.2	19.0	11.5	8.6%	High
Belgrave	4.0	13.4	9.4	11.0%	
Braunstone Park and Rowley Fields	5.5	9.7	7.9	7.6%	High
Castle	6.4	13.8	10.6	8.5%	
Charnwood	8.6	14.9	9.9	10.7%	
Coleman	9.7	14.7	9.6	12.2%	
Evington	3.4	6.7	3.4	8.6%	
Eyres Monsell	3.9	5.9	4.9	8.4%	High
Fosse	5.1	6.7	5.0	8.7%	High
Freemen	3.2	11.7	9.6	7.5%	High
Humberstone and Hamilton	2.9	7.5	6.4	8.7%	
Knighton	6.7	13.3	8.8	5.4%	Low
Latimer	6.5	14.1	9.0	13.6%	Low
New Parks	7.3	14.5	11.5	6.8%	High
Rushey Mead	6.2	11.3	7.2	8.2%	Low
Spinney Hills	7.0	15.0	9.6	12.4%	Low
Stoneygate	11.0	10.9	5.5	10.6%	Low
Thurncourt	5.9	4.4	2.9	5.8%	High
Westcotes	8.1	8.0	4.0	10.1%	
Western Park	7.1	12.6	7.0	5.8%	
Leicester City	**7.0**	**11.9**	**8.0**	**9.2%**	**40.1**
Leicestershire County	**5.2**	**7.2**	**4.9**	**6.5%**	**29.6**
England	**4.4**	**7.4**	**5.1**	**7.3%**	**34.0**

Infant Mortality rate: Number of deaths in live born infants under 1 year of age, per 1,000 live births
Perinatal mortality rate: Number of still births and deaths under 7 days, per 1,000 total births
Still birth rate: Number of still births per 1,000 total births
Low birth weights: Percent of live and still births less than 2500 grams
Under 18 conception rate: Number of conceptions per 1,000 females aged 15-17 years

Significantly worse than the England average
Significantly better than the England average

Health Facts 6b: Local measures of health at ward level

Data: ONS mortality data, ONS mid-2010 population estimates, ONS conception data, ONS birth data

	Access to Services		Lifestyle ward estimates for 16+ year olds (2010)	
Ward Name	**Elective (Apr 10-Mar 13)**	**Emergency (Apr 10-Mar 13)**	**Smoking prevalence**	**Adult Obesity**
Abbey	110.9	108.3	32%	19%
Aylestone	118.9	94.2	27%	21%
Beaumont Leys	110.4	115.3	28%	25%
Belgrave	93.8	98.6	20%	18%
Braunstone Park and Rowley Fields	123.1	133.2	35%	23%
Castle	92.1	116.2	18%	18%
Charnwood	101.0	112.6	30%	22%
Coleman	104.8	94.7	28%	16%
Evington	108.4	89.5	16%	15%
Eyres Monsell	130.0	125.7	43%	32%
Fosse	98.7	89.0	29%	16%
Freemen	135.9	123.2	36%	20%
Humberstone and Hamilton	114.6	95.2	32%	24%
Knighton	96.2	79.7	9%	11%
Latimer	90.1	87.0	12%	13%
New Parks	127.2	132.9	38%	32%
Rushey Mead	114.0	89.2	25%	15%
Spinney Hills	101.4	100.1	18%	25%
Stoneygate	100.9	94.9	11%	13%
Thurncourt	123.6	101.5	33%	18%
Westcotes	78.8	109.1	36%	8%
Western Park	97.3	93.6	20%	12%
Leicester City	**106.4**	**101.7**	**26%**	**19%**
Leicestershire County	**106.4**	**70.6**	**-**	**-**
England	**-**	**-**	**-**	**-**

Hospital admission rates: Directly age-standardised hospital admission rates per 100,000, for all ages, using European standard population

Significantly worse than the Leicester average
Significantly better than the Leicester average

Health Facts 7: Disease notifications 2013

Public Health of England

	Leicester 2013		Leicestershire County & Rutland 2013	
Disease notifications	**Number**	**Rate per 100,000**	**Number**	**Rate per 100,000**
Mumps	27	8.14	115	16.6
Scabies	<5	0.30	0	0.0
Giardiasis	<5	0.30	0	0.0
Salmonellosis	<5	0.90	0	0.0
Campylobacteriosis	10	3.02	<5	0.29
Hepatitis B chronic	<5	0.30	0	0.0
Hepatitis C chronic	<5	0.90	0	0.0
Measles	37	11.16	42	6.1
Rubella	<5	0.90	10	1.4
Tuberculosis	159	47.95	40	5.8
Scarlet fever	15	4.52	31	4.5
Food poisoning	<5	0.60	17	2.5
Whooping cough	22	6.63	60	8.6
Meningococcal septicaemia	<5	0.30	5	0.7
Acute infectious hepatitis	<5	0.60	0	0.0
Acute Meningitis	0	0.0	0	0.0
Viral haemorrhagic fever	0	0.0	<5	0.1
Infectious bloody diarrhoea	0	0.0	<5	0.3
Invasive group A streptococcal disease	0	0.0	6	0.9
Other	0	0.0	45	6.5

Notes:

xix. Rates calculated using ONS mid-2012 population estimates

Health Facts: Glossary

Directly age-standardised rate:	Measure which allows direct comparison between populations with different age and gender structures. The crude rates in one or more populations are applied to a standard population to derive rates per 100,00 persons per year
Excessive drinking:	Estimates of adults consuming more than double the recommended daily units on their heaviest drinking day during the week (8+ units for men, 6+ units for women)
Infant mortality:	Babies who die within the first 12 months of life
Index of deprivation:	Measure of deprivation at a small area level. Indicators such as income, employment, health and disability, education skills and training, barriers to housing and services, crime and living environment are combined to form a single score. The lower the mean score, the more deprived the area.
International classification of diseases:	World Health Organisation's internationally accepted classification of death and disease. (revision 10 currently in use)
Life Expectancy:	Measure of mortality at every age that allows comparisons between areas and time. Life expectancy in an area can be interpreted as the number of years a baby born in a particular period could be expected to live, if it experienced the mortality rates in that time period and area throughout its life.
Low birth weight:	Babies with a birth weight under 2500g
Obesity prevalence:	Estimate of adults with a body Mass Index greater than 30
Perinatal mortality:	Babies who are stillborn or who die in the first week of life
Resident population:	Count of the population living within the geographical area of the PCT. An individual may reside in a rural area, but be registered with a City GP and would therefore be counted in the registered population but not the resident population.
Screening:	Identification among apparently healthy individuals, who are sufficiently at risk from a specific disorder, to benefit from a diagnostic test or procedure.
Smoking prevalence:	Estimate of adults currently smoking
Standardised mortality ratio (indirect):	Ratio of the number of deaths in a population compared with the national, standardised to adjust for differences in age and sex of the local population. A Score greater than 100 indicates an increased probability and a score below 100 indicates a reduced probability.
Standardised registration ratio (SRR) for cancer:	Ratio of cancers registered in a population compared with the national population, standardised to adjust for differences in age and sex of the local population. A score greater than 100 indicates an increased probability and a score below 100 indicates a reduced probability.
Super output area (SOA):	Geographical areas based on size, social homogeneity and population and designed for reporting small area statistics. There are 3 levels of super output area; lower, middle and upper. The lower super output area (used for reporting Index of Deprivation 2010) has a population of 1,000-1,500)
Survival rate: (1 year/ 5 years):	Ratio of the survival rate observed at one and five years after diagnosis, compared with general population
Trajectory:	Predicted level of activity based on historical trends and planned actions to influence these. Trajectory may include a target measure.
Quintile:	The proportion of the distribution containing one fifth of the total sample. For the index of deprivation in 2010, quintile 1 as the most deprived contains the lowest 20% of the national rankings
Years of life lost:	Number of potential years of life lost in a population as a result of premature death (under 75 years)

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please telephone (0116) 454 1760

BENGALI

এই ডুকুমেন্ট'এর বিষয় সম্পর্কে আরো তথ্যের জন্য, অনুগ্রহ করে লেষ্টার (0116) 454 1760 নম্বরে টেলিফোন করুন ।

GUJARATI

આ દસ્તાવેજની વિગતો અંગે વધુ માહિતી માટે મહેરબાની કરી લેસ્ટર (0116) 454 1760 ઉપર ફોન કરો

HINDI

इस दस्तावेज के विषयों सम्बन्धी अधिक जानकारी के लिए कृपया लेस्टर (0116) 454 1760 पर फोन करें।

PUNJABI

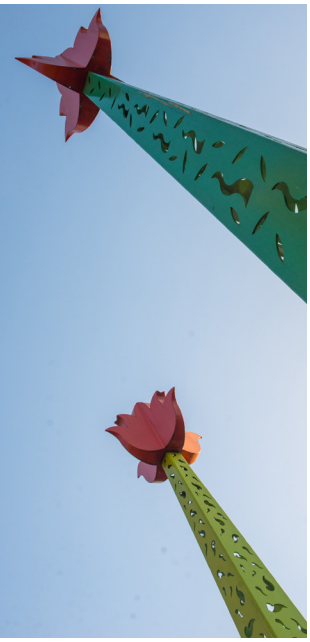
ਇਸ ਦਸਤਾਵੇਜ਼ ਵਿਚ ਸ਼ਾਮਿਲ ਵਿਸ਼ਿਆਂ ਬਾਰੇ ਵਧੇਰੇ ਜਾਣਕਾਰੀ ਲਈ ਕ੍ਰਿਪਾ ਕਰਕੇ ਲੈਸਟਰ (0116) 454 1760 ਤੇ ਟੈਲੀਫੋਨ ਕਰੋ ।

SOMALI

Si aad u hesho macluumaad dheeraad ah oo dukumentigan ku saabsan, fadlan wac teleefoonka Leicester ee ah (0116) 454 1760.

URDU

اس دستاویز میں جوکچھ ہے اس کی معلومات کے لئے براہ کرم 1760 454 (0116)پر
ٹیلیفون کریں۔



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