



Hillingdon Pharmaceutical Needs Assessment 2018

Appendix 2: Epidemiology

March 2018

Pharmaceutical Needs Assessment 2018

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1. Life expectancy

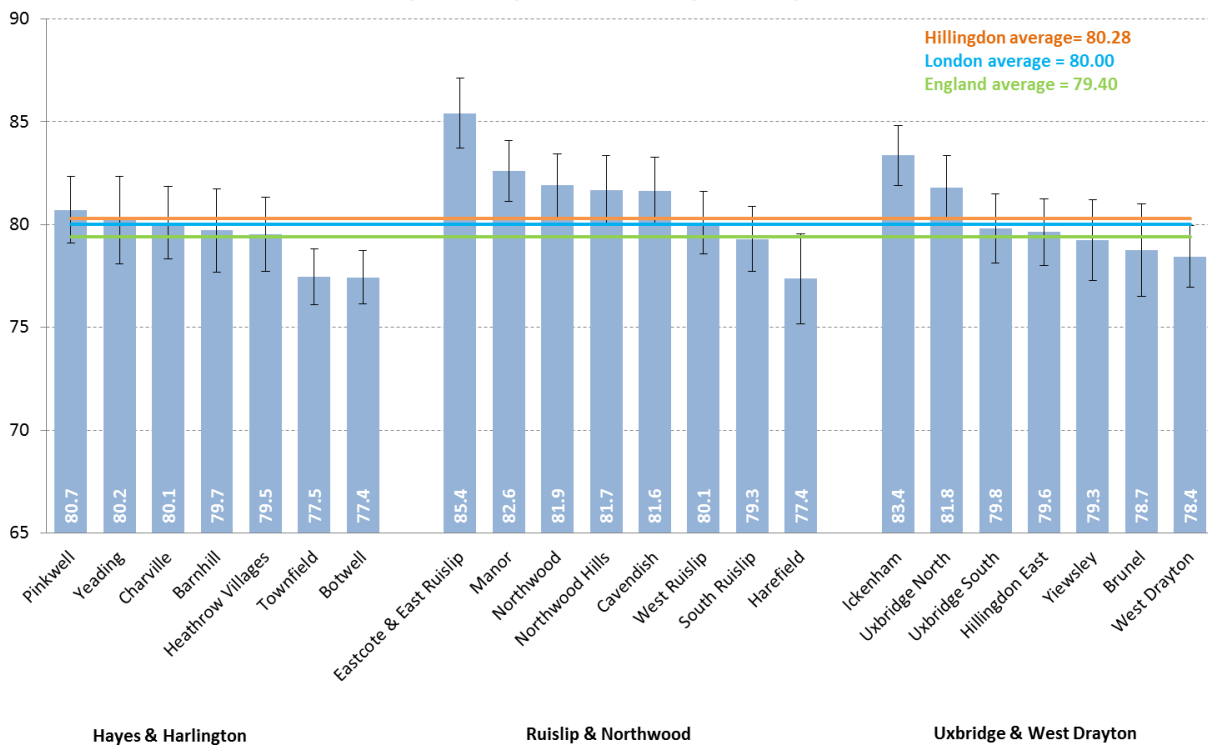
Life expectancy is the number of years a person is expected to live given the age and sex specific mortality rates that are currently experienced by the population.

Hillingdon's male and female life expectancy from birth is 80.5 and 83.7 (based on 2013-15 data), which means that a baby born in Hillingdon can expect to live a similar number of years as the England average for both genders (79.5 and 83.1 respectively) and the London average for both genders (80.2 and 84.1 respectively).

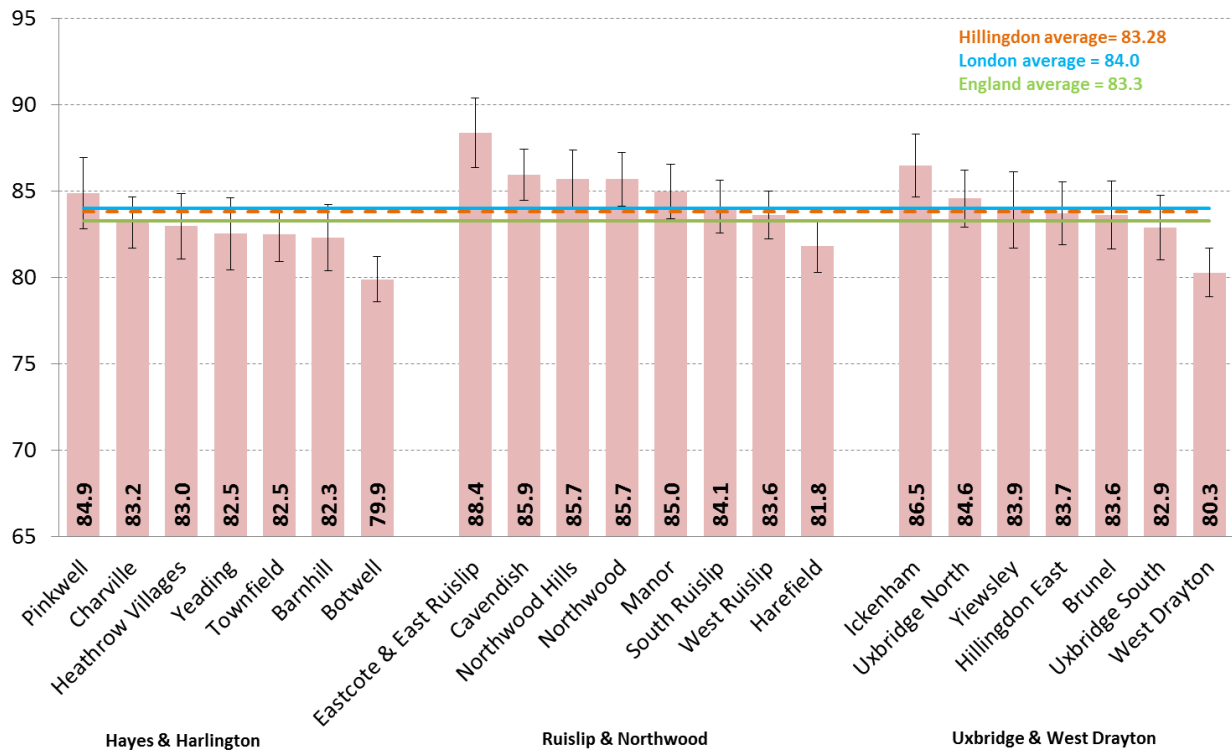
However, there are inequalities within the Borough at ward level; the latest dataset available for life expectancy by ward is 2010-2014 which will no longer be updated by the Office of National Statistics (the ONS are no longer producing mortality data at ward level meaning life expectancy cannot be calculated). From the 2010-2014 data, the gap in male life expectancy between Eastcote & East Ruislip and Botwell & Harefield is 8 years and the gap in female life expectancy between Eastcote & East Ruislip and Botwell is 8.5 years.

Comparing London boroughs the gap is 5.9 years for males (Barking & Dagenham has the lowest life expectancy at 77.5 and Kensington & Chelsea has the highest at 83.4) and 4.6 years for females (Barking & Dagenham has the lowest at 81.8 and Kensington & Chelsea has the highest at 86.4).

Male life expectancy from birth by locality, 2010-2014



Female life expectancy from birth by locality, 2010-2014



Source: Public Health Outcomes Framework, Indicator 0.1ii

Comparing regions within England & Wales the gap is 2.2 years for males (the lowest is the North East and North West at 77.9, compared with the highest in the South East of 80.1) and 2.2 years for females (the lowest is the North East and North West at 81.7, compared with the highest in the South East and South West of 83.9).

2. Mortality

Mortality is the term used for the number of people who die within a population. Age at death and cause of death provide an instant depiction of health status of a given population. Information on trends of death (by causes) can be used to substantiate the healthy behaviours of the population, the quality of the living conditions, local services, treatment and support. The section below examines mortality data in Hillingdon.

Infant mortality

The infant mortality rate is defined as the number of infants aged <1 year that die per 1,000 live births (all maternal ages) in a given area. The infant mortality rate is usually pooled over 3 years so as to provide a more reliable statistic. The infant mortality rate in Hillingdon is 3.3 per 1,000 live births for the 3-year period 2012-14; this is similar to the average rate for London or England (3.6 and 4.0 deaths per 1,000 live births respectively). Infant mortality rates can be analysed in more detail, those that occur within the first 4 weeks and those that occur from 4 weeks up to one year.

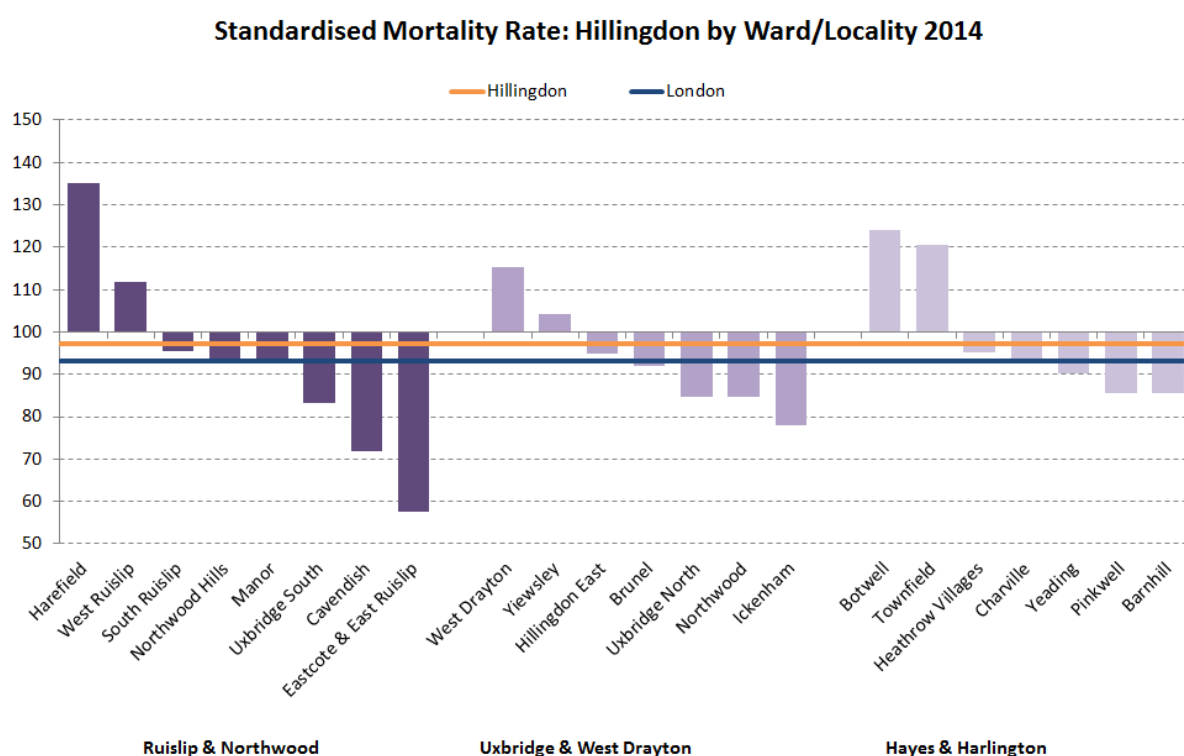
Out of the 44 infant deaths in the 3-year period 2012-14, the majority occur in the first 4 weeks after the live birth. 2012-2014 pooled data shows that for infants aged less than 28 days the mortality rate in Hillingdon is 2.2 per 1,000 live births. The England rate for the same age is 3 deaths per 1,000 live births and London rate 2.9 per 1,000 live births. For infants aged 28 days to 1 year the mortality rate in Hillingdon is 1.5 deaths per 1,000 live births, close to the England and London averages of 1.3 deaths per 1,000 live births (Source: HSCIC). Death in infancy is a rare event, and even one additional death, or life saved can make a large difference to calculations. Some of the variations in the Borough may be the result of chance rather than a cause / problem.

All-age all-cause mortality

The standardised mortality ratio (SMR) is constructed by applying the England age-specific rates to the age structure of the subject population to give an expected number of deaths. The observed (actual) number of deaths is then compared with the expected number and is expressed as a ratio (100x observed/expected). SMRs equal to 100 imply that the mortality rate is the same as the standard (in this case, England) mortality rate. A number higher than 100 implies an excess mortality rate whereas a number below 100 implies below average mortality. The variation in the

mortality rates for different wards in Hillingdon are shown in the next figure.

Standardised Mortality Rate (all causes) for Hillingdon wards, 2014

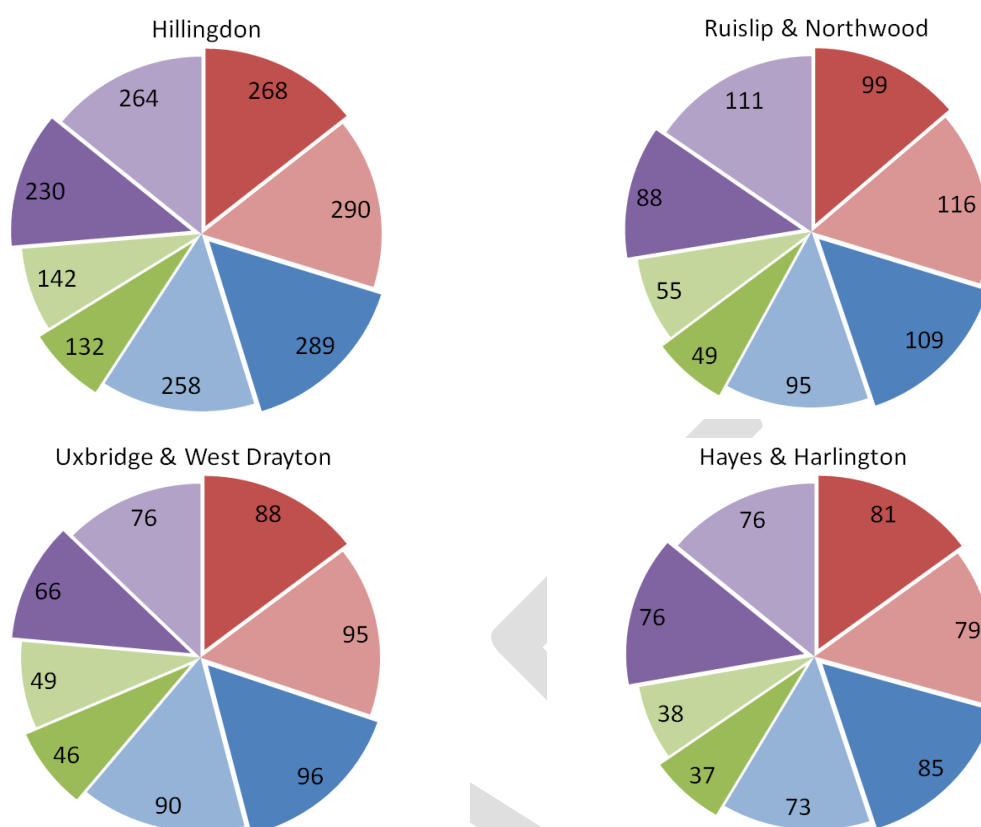


Source: GLA 2014

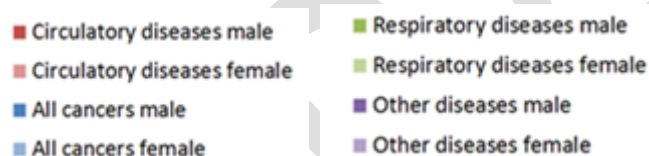
Major causes of deaths in Hillingdon

The average number of deaths per year in the period 2011-15 in Hillingdon is 1,873. Circulatory diseases and cancers are the two major causes of death in Hillingdon. Deaths as a consequence of circulatory diseases accounted for an annual average of 559 deaths (30% of all deaths) in the 5-year period 2011-2015. Deaths from all cancers accounted for an annual average of 547 deaths (29% of total) in the 5-year period 2011-2015.

An annual average of 274 deaths, (15% of total) was as a consequence of respiratory diseases; the remaining 493 deaths (26% of total) were as a result of other causes.



Key:

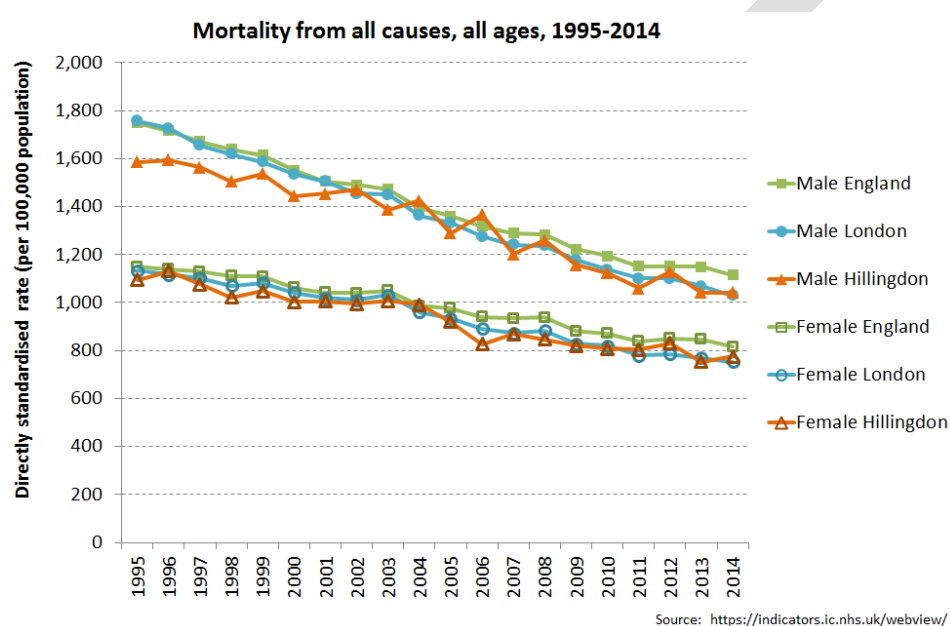


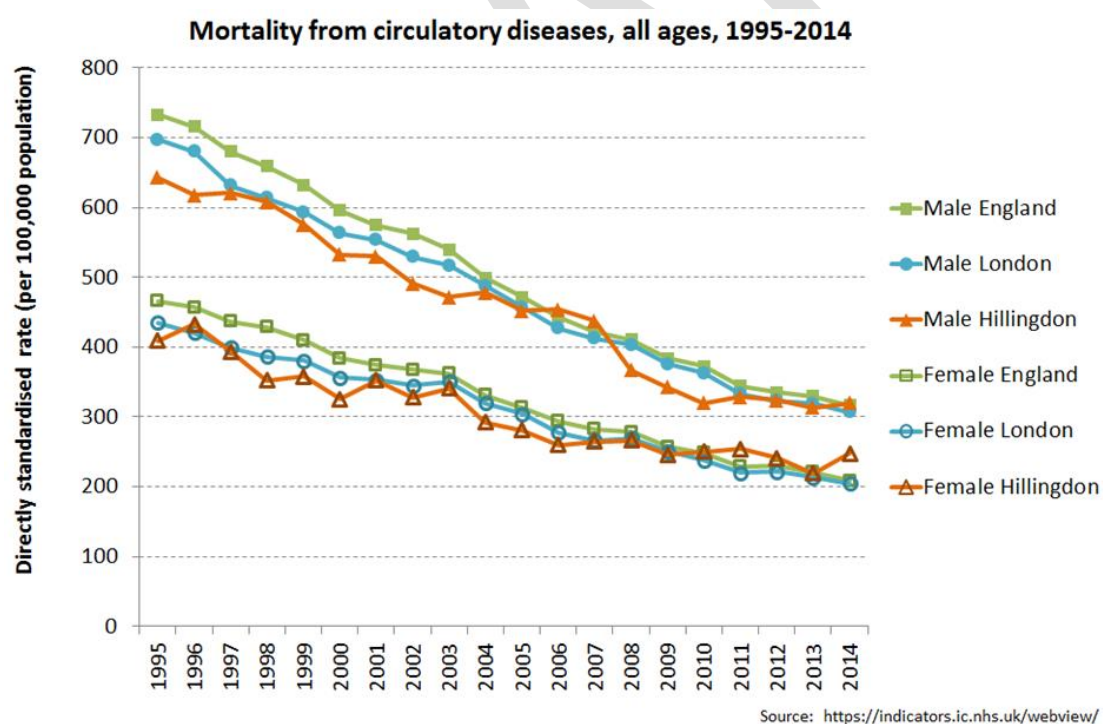
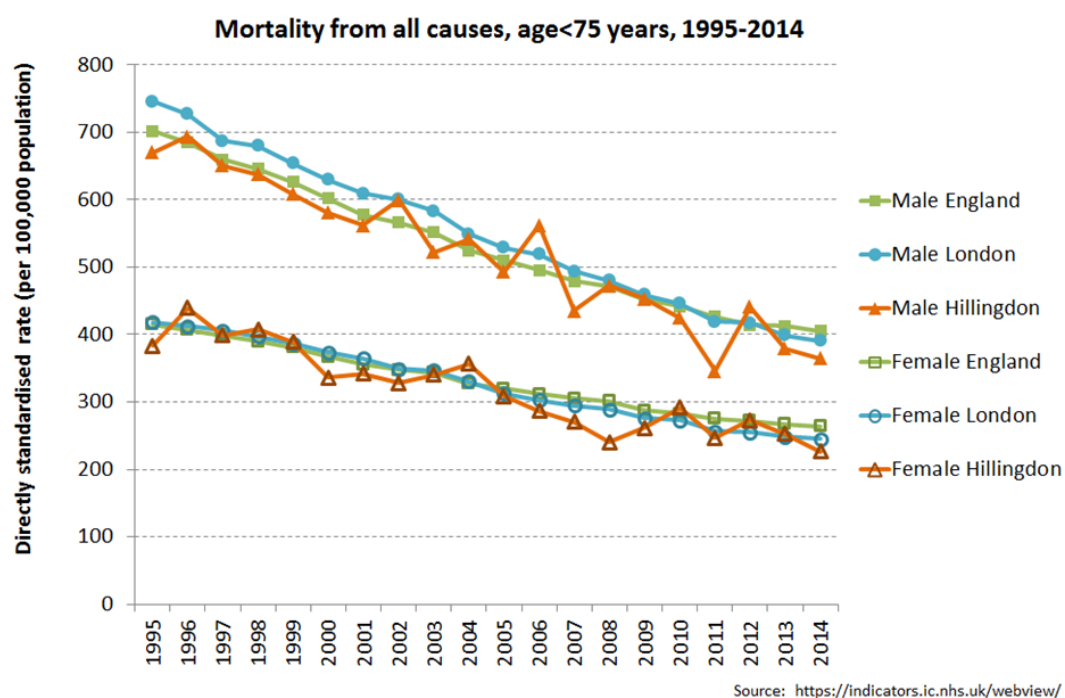
Source: National Statistics, Vital Statistics Tables VS4d

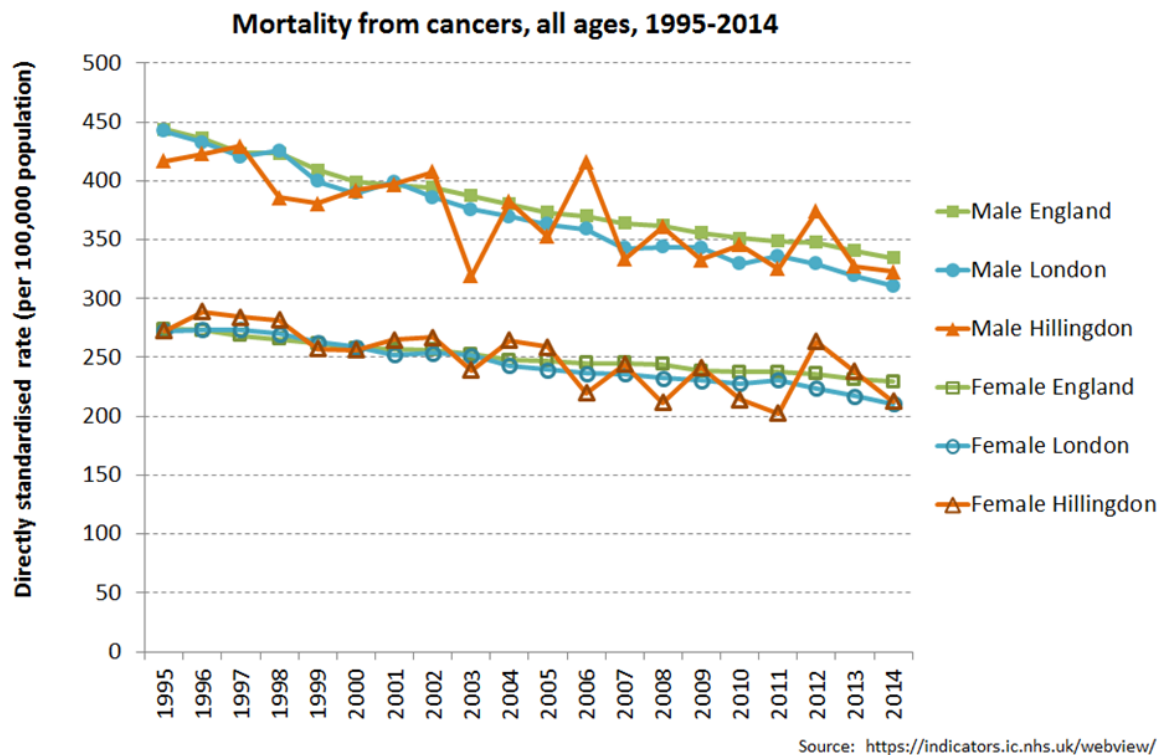
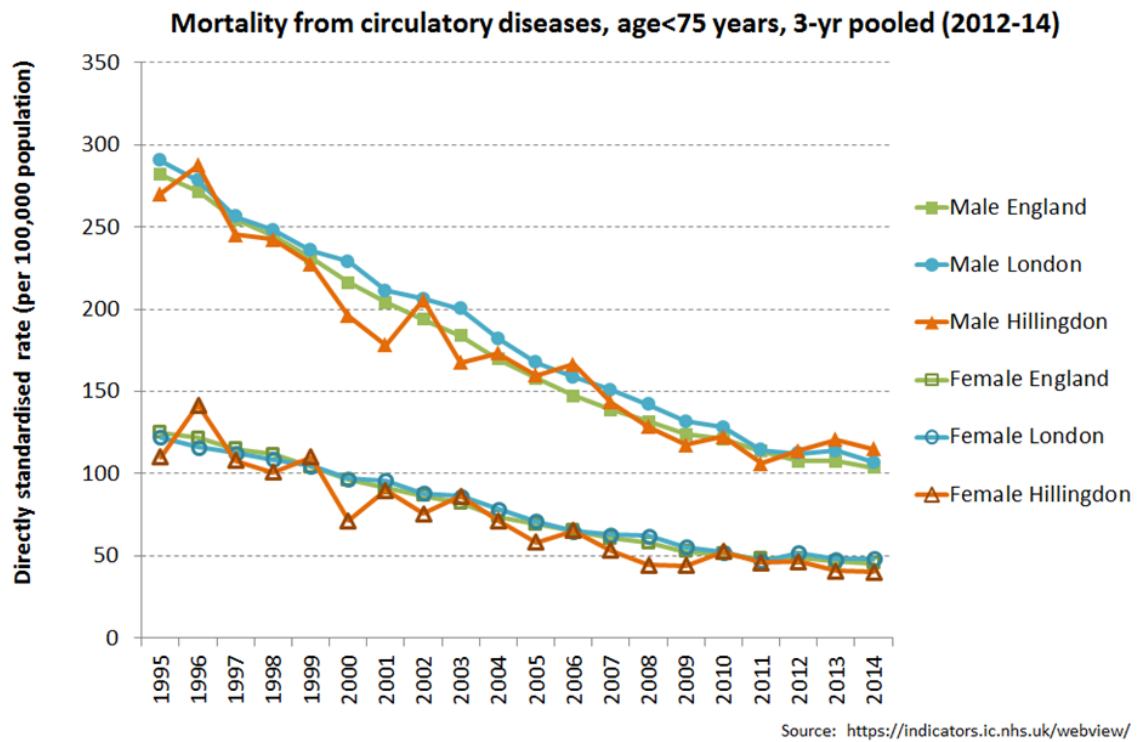
The overall number of deaths varies on the basis of age structure of the population. Therefore, younger populations as in Hayes & Harlington and Uxbridge & West Drayton localities have lower number of deaths when compared with Ruislip & Northwood, where the proportion of older people is higher in the population. Populations with higher proportion of older people would have higher crude death rates, even as the health conditions are improving. On the other hand, younger populations will have low crude death rates even when health conditions are poorer. Therefore, to depict the health status more accurately, we also consider early deaths, or premature mortality.

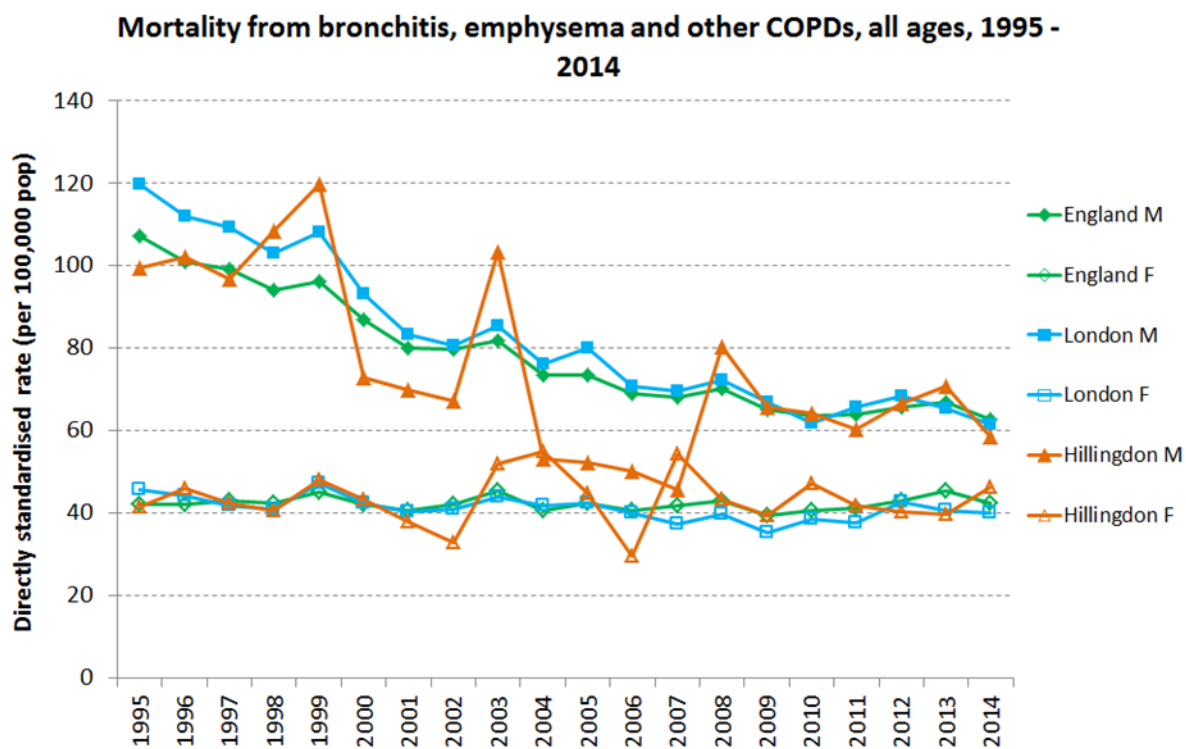
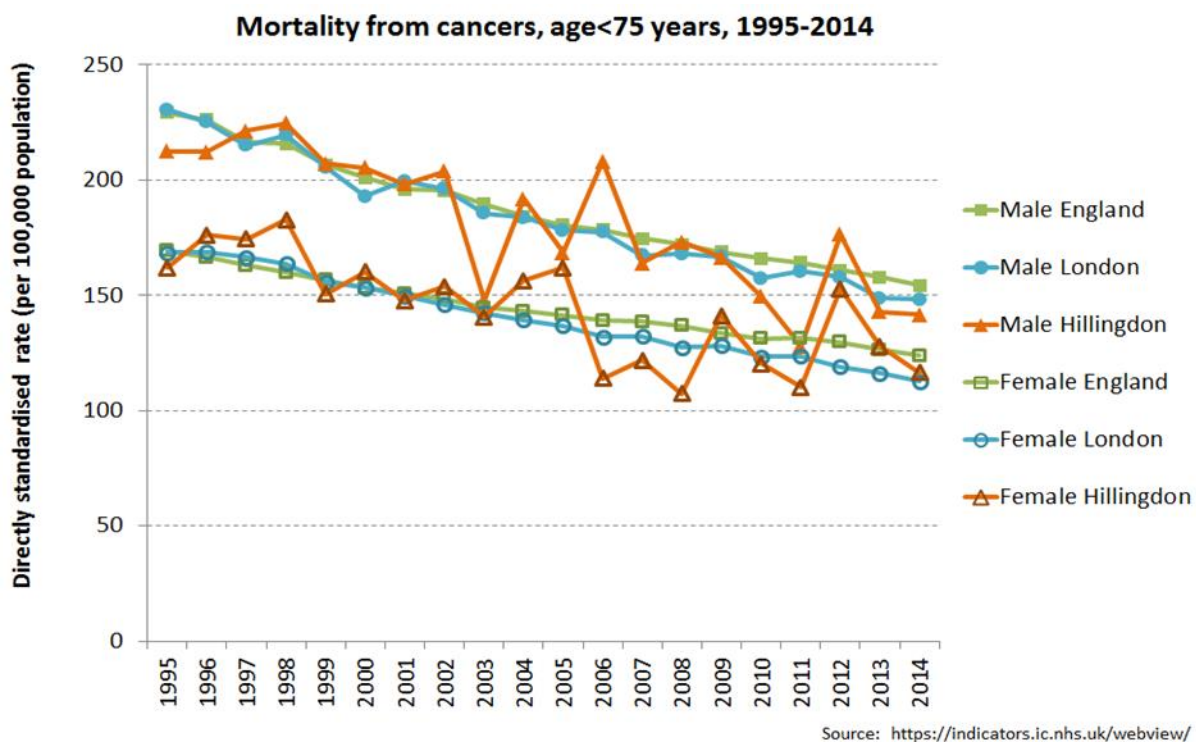
Many of the causes of premature mortality are correlated with the levels of deprivation.

The locality of Ruislip & Northwood has an annual average number of deaths of 720, the locality of Uxbridge & West Drayton has an annual average number of deaths of 600 and the locality of Hayes & Harlington has an annual average number of deaths of 540 (all figures are rounded to the nearest 10). Mortality from all causes has been falling in Hillingdon in line with the national decreases.









Analysis of mortality rates in Hillingdon shows that premature death rates (for people aged under 75) from all causes in Hillingdon (1995-2014) were lower than England and London. In 2014, the wards of Townfield, Brunel and West Drayton had a higher number of male premature deaths; for females, the wards with the higher number of premature deaths were South Ruislip, West Drayton, Brunel and Yiewsley.

Source: Vital Statistics Table 4, 2014.

The main cause of early deaths was cancer which accounted for 33% of all early deaths followed by cardiovascular disease (25%). Together, these two causes accounted for 58% of all early deaths in 2014.

Identifying individuals and families at high risk of cardiovascular disease and cancer ensures timely start of treatment and reduces risk of complications and early death. Early management and secondary prevention of disease reduces the need of more costly and complicated NHS treatment or social care. It therefore has positive impact on individual's quality of life and features strongly in the national strategies for cardiovascular disease and cancer.

3. Prevalence of non-communicable diseases and major risk factors

The figures on the next few pages take data from NHS Digital (2015/16): Observed Prevalence from GP register population. The observed prevalence is the actual number of patients on a GP register that are recorded by their GP as having a given condition. The expected prevalence is the number that could be expected (estimated) in the population calculated by mathematical models, hence includes people who might have the illness but have not been identified / diagnosed as having that illness.

The treatment of long term conditions is estimated to account for £7 in every £10 of total health and social care spending in England and the number affected is set to rise by 25% by 2035. It is becoming more common to have multiple conditions; by 2018 the number of people with 3 or more long term conditions is predicted to grow from 1.9 million in 2008 to 2.9 million.

(source: www.kingsfund.org.uk)

Increasing attendances at GP surgeries and other health settings such as A&E call for looking at alternatives to the traditional models of how health and social care work. Four driving principles outlined in a recent paper by a collaboration for primary care:

- Self-care
- Care outside hospital

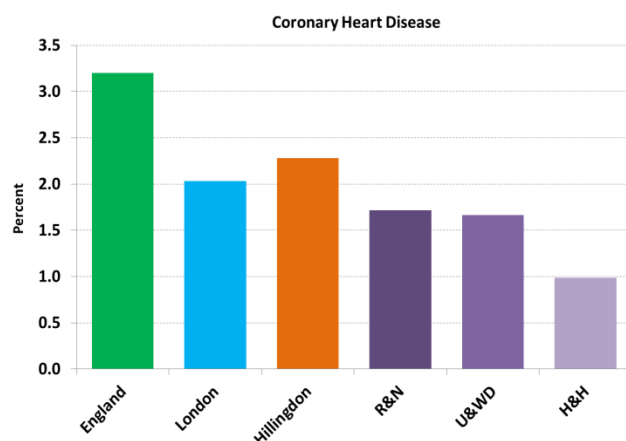
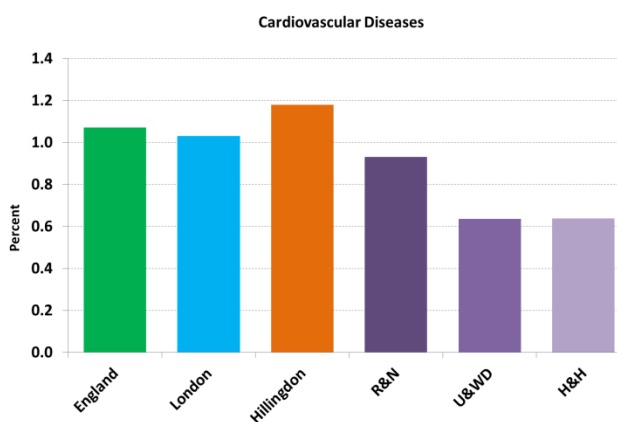
- Professional collaboration around improved patient pathways
- Preventing illness by tackling public health issues such as smoking and obesity.

Elements of the above are already a part of Hillingdon's Health and Wellbeing Strategy signifying strategic fit. Steps are also being taken in Hillingdon as part of the Better Care Fund to integrate health and social care and to promote independent living.

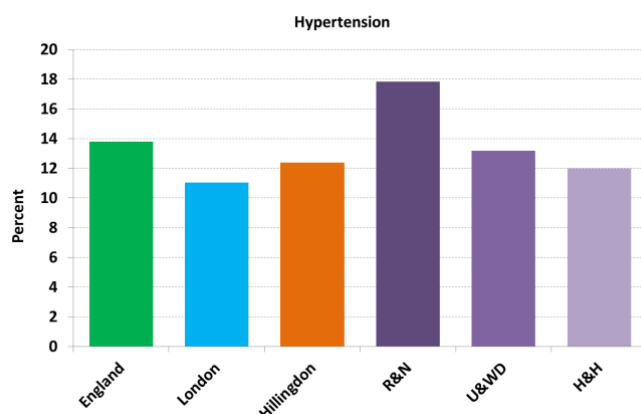
Cardiovascular disease (CVD)

The observed prevalence of cardiovascular diseases in Hillingdon (1.2% of GP registered population) is above the England average (1.12%) and London average (1.1%).

Ruislip & Northwood (R&N) shows a higher observed prevalence than Uxbridge & West Drayton (U&WD) and Hayes & Harlington (H&H).



The observed prevalence of Coronary Heart Disease is 2.3% within Hillingdon, higher than London but lower than England. Hayes & Harlington is showing a lower rate of all localities.

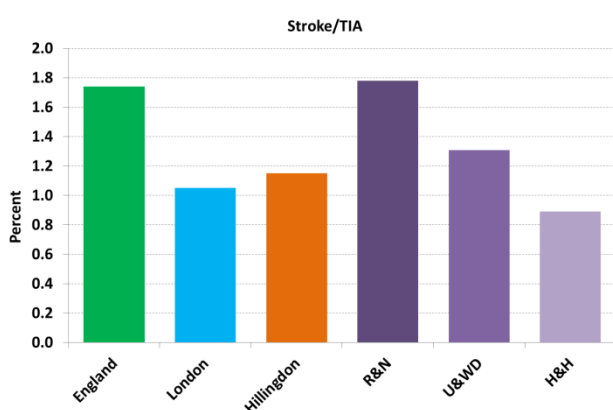
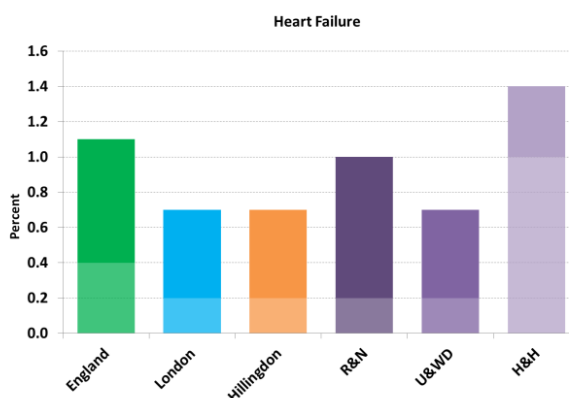


Hypertension was recorded as the highest CVD risk factor in Hillingdon – affecting 12.4% of the Hillingdon GP registered population. This is higher than the London average (11%) but lower than the rates for England (13.8%) as a whole.

Ruislip & Northwood have the highest prevalence among the Hillingdon localities.

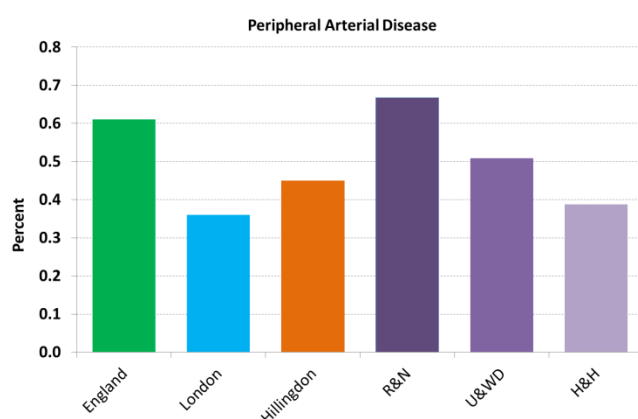
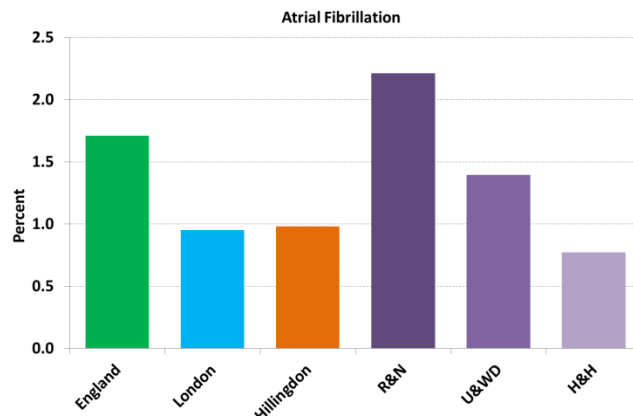
The prevalence of all heart failure in Hillingdon (0.7%) of GP registered patients is below the England average (1.1%). Of the Hillingdon localities Hayes and Harlington shows the highest prevalence (1.4%).

The lighter shades at the bottom of the chart show the prevalence of heart failure due to left ventricular dysfunction and the darker shades higher on the chart show the prevalence of other heart failure.



The overall prevalence of stroke in Hillingdon (1.2%) is lower than the England average (1.7%). Of the Hillingdon localities Ruislip & Northwood shows the highest observed prevalence.

The prevalence of Atrial Fibrillation is lower in Hillingdon than in England, but Ruislip & Northwood shows a higher prevalence than Hillingdon and the England average.



The prevalence of Peripheral Arterial Disease (PAD) is lower in Hillingdon (0.45% of the GP registered population) than the England average (0.6% of the GP registered population).

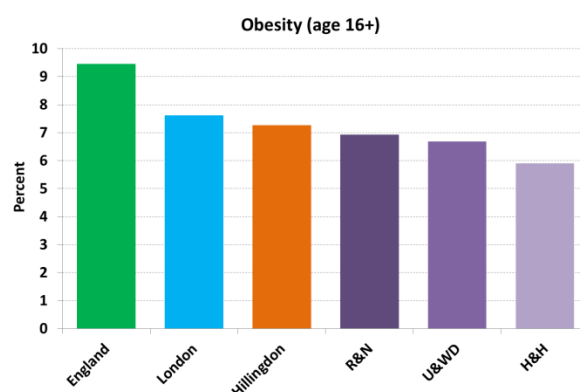
Of the Hillingdon localities Ruislip & Northwood show the highest prevalence of PAD although the numbers and rates are low.

Excess weight and obesity

Obesity is an established risk factor for many chronic conditions including diabetes, arthritis and heart failure.

In Hillingdon 7.3% of adults (aged over 16 years) on the GP register population are noted to be obese. This is slightly lower than the England average (9.5%).

Of the Hillingdon localities Ruislip & Northwood reported higher levels of obesity compared to Hayes & Harlington who had slightly lower levels

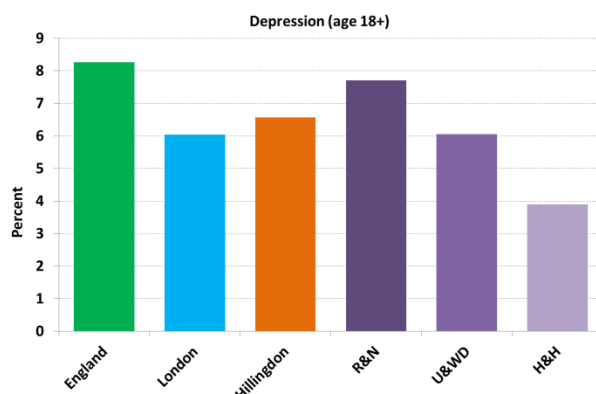
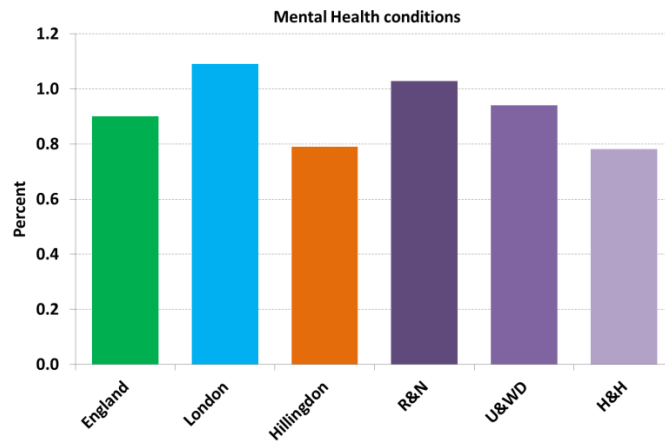


Data from Public Health Outcomes Framework (indicator 2.12) shows that 62% of adults within Hillingdon are carrying excess weight in the period of 2013-2015, which is below England (64.8%) but above London (58.8%); this has decreased from

63.4% in the period of 2012-2014. However, it should be noted that the data is taken from The Sport England Active People Survey which is based on self-reported height and weight from a small sample of residents.

Mental illness

The prevalence of mental health conditions is recorded as 0.8% of the GP register population in Hillingdon. This is lower than the England average (0.9% of the GP register population), and also lower than the London average (1.1% of the GP register population).

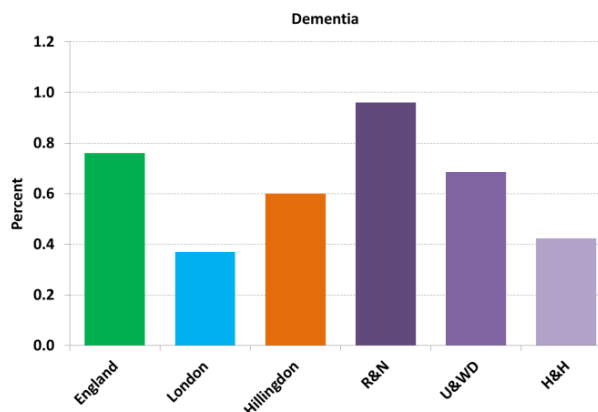


The prevalence of depression in Hillingdon is 6.6% of the GP register population. This is lower than the England average of 8.2% of the GP register population and slightly higher than London.

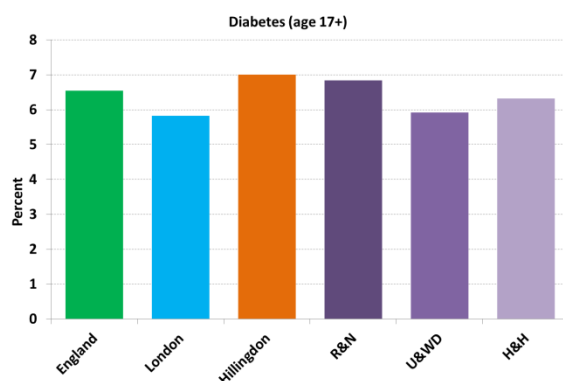
Of the Hillingdon localities there is a higher observed prevalence of depression in Ruislip & Northwood and slightly lower in Uxbridge & West Drayton and Hayes & Harlington.

The prevalence of dementia in Hillingdon is 0.6% of the GP register population, lower than the England average.

Of the Hillingdon localities Ruislip & Northwood record a higher prevalence compared with the other areas.



Diabetes mellitus



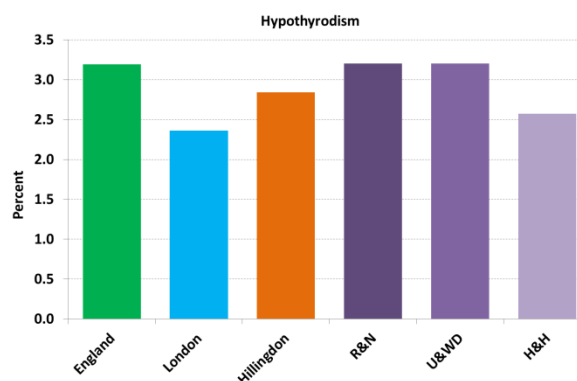
The prevalence of diabetes in Hillingdon (7.0% of the GP register population) is slightly higher than the averages for England (6.6 %) and London (5.9%).

In terms of localities Ruislip & Northwood has the highest prevalence of diabetes (6.9%).

Hypothyroidism

The prevalence of hypothyroidism is lower in Hillingdon (2.8% of the GP register population) than the England average (3.2% of the GP register population).

Of the Hillingdon localities Ruislip & Northwood and Uxbridge & West Drayton show a higher prevalence than Hayes & Harlington.

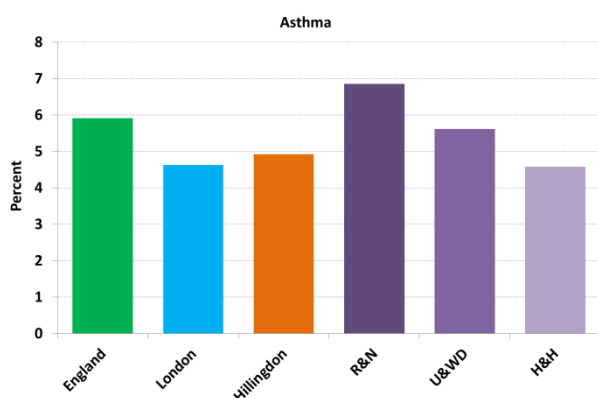
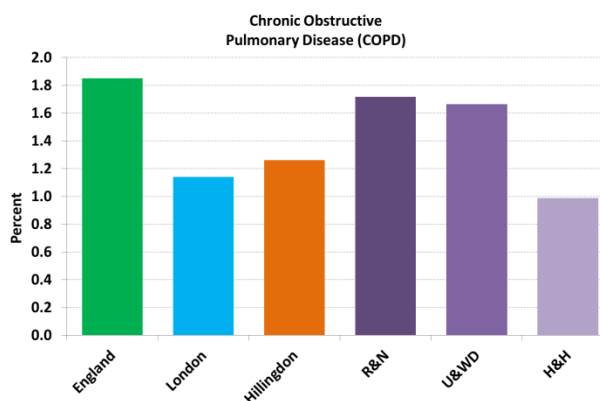


Respiratory diseases

The major causes of respiratory dysfunctions are asthma and chronic obstructive pulmonary diseases (COPD).

The prevalence of COPD in Hillingdon is 1.25% of the GP register population, compared with 1.8% in England.

Within the Borough there is a higher prevalence in Ruislip & Northwood and Uxbridge & West Drayton than in Hayes & Harlington.

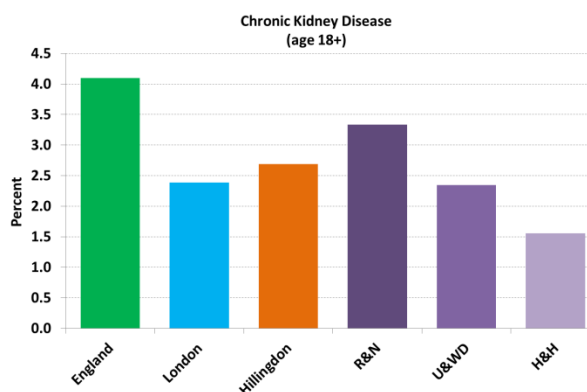


The prevalence of asthma patients in Hillingdon is 4.9% of the GP register population, slightly lower in Hillingdon than the England average of 6%. Within Hillingdon there is a higher prevalence of asthma patients in Ruislip & Northwood than in the other localities.

Chronic kidney disease

The overall prevalence of Chronic Kidney Disease in Hillingdon is 2.6%, lower than the England average of 4.1%.

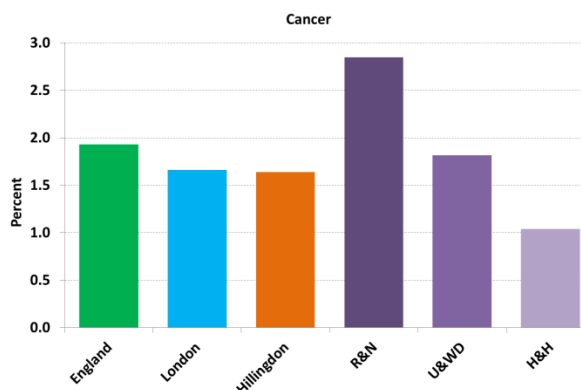
However Ruislip & Northwood shows a higher prevalence (3.4% of the GP register population) than the Borough average.



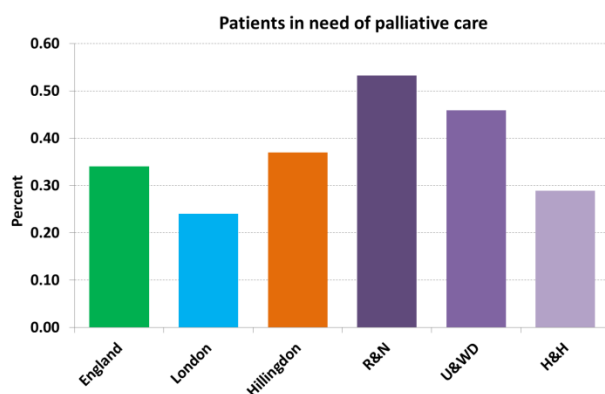
Cancer

In Hillingdon the prevalence of cancer patients was 1.6% of the GP register population, lower than the England average of 1.9%.

Within the Hillingdon localities there is a higher prevalence in Ruislip & Northwood (2.8% of the GP register population) and a lower prevalence in Uxbridge & West Drayton and Hayes & Harlington.



Palliative care (or end of life care)



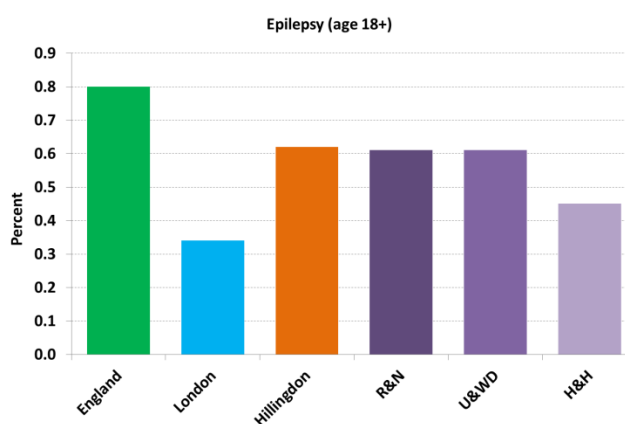
The number of patients on GP registers in need of palliative care is higher in Hillingdon than the England and London averages.

Within the Borough there are more patients in need of palliative care in Ruislip & Northwood than in the other localities, although the numbers and percentages are low overall.

Epilepsy

The prevalence of epilepsy in Hillingdon is 0.6% of the GP register population, lower than the England average of 0.8% of the GP register population.

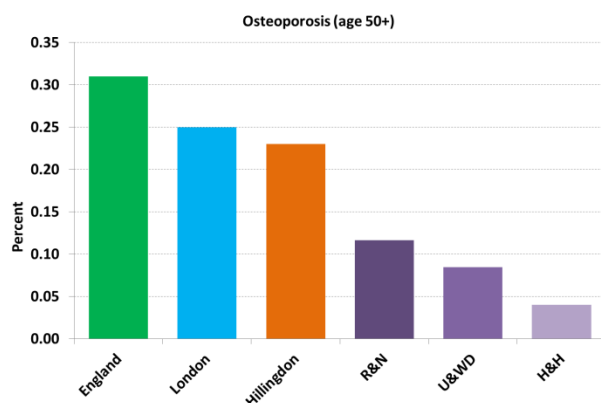
The prevalence is broadly consistent throughout the Hillingdon localities with Uxbridge & West Drayton recording a slightly higher prevalence than the other localities.



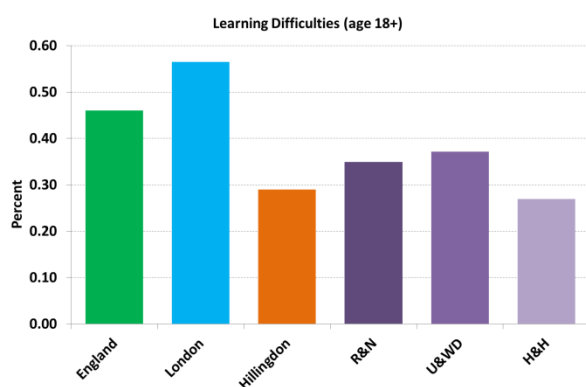
Osteoporosis (age 50+)

The prevalence of osteoporosis in Hillingdon is 0.23% of the GP register population (age over 50). This is lower than the England average.

Within the Borough Ruislip & Northwood showed a higher prevalence of osteoporosis than the other localities.



Learning difficulties



The prevalence of learning difficulties is lower in Hillingdon than the England and London averages.

Within the Borough Uxbridge & West Drayton has a higher prevalence of adults with learning difficulties than the other localities although the numbers and percentages are low overall.

The health care needs of a population vary with age, with the elderly and the young having different needs. For example, the need for chronic disease management will be greater in the elderly population while the need for sexual health and maternity services will be greater in the younger population.

Smoking

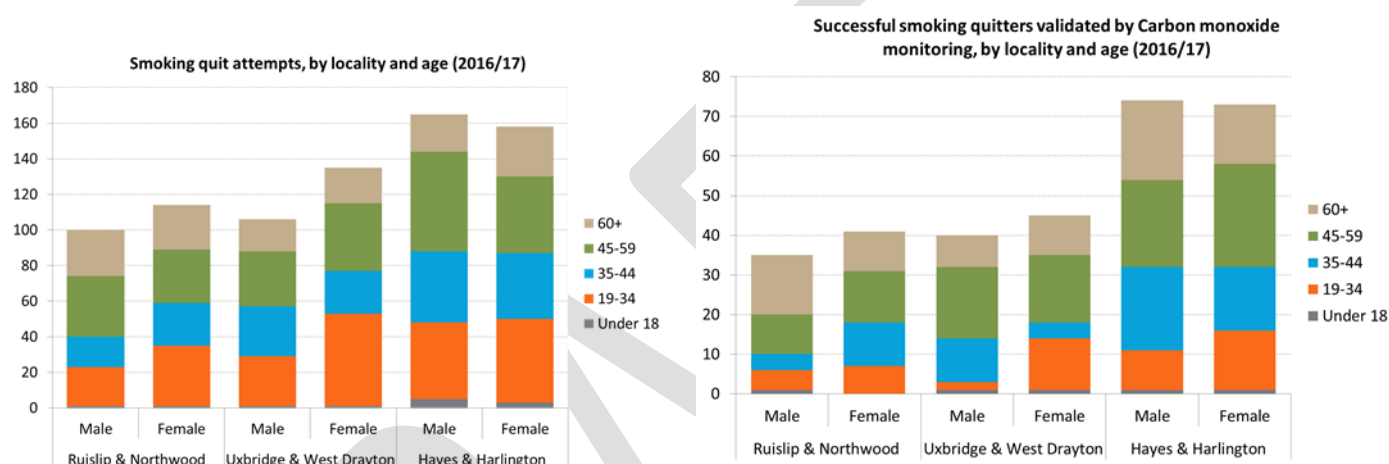
Smoking is a major risk factor for many diseases, such as lung cancer, chronic obstructive pulmonary disease (COPD) and heart disease. It is also associated with cancers including lip, mouth, throat, bladder, kidney, stomach, liver and cervix. In Hillingdon the estimated prevalence of smoking is 16.9% of the population aged over 18. This is the same as England (16.9%) and slightly higher than London at 16.3%. In surveys of manual workers and workers in routine occupations the prevalence of smoking is higher, assessed as 22.2% of the population in Hillingdon

(24.2% in London and 26.5% in England).

Source: PHOF Indicator 2.14, 2015

Smoking attributable hospital admissions are also measured to support smoking prevalence data. In Hillingdon in 2015/16 the rates of smoking attributable hospital admissions were 1,528 per 100,000 population aged over 35. This is lower than England rate of 1,726 per 100,000 population aged over 35 and slightly lower than the London rate of 1,597.

Source: Public Health England, Local Tobacco Control Profile 2015/16.



Source: LBH Public Health data, Pharmoutcomes Standard Service Report

4. Prevalence of communicable diseases

Tuberculosis (TB)

Between 2013-2015 in the UK an average of 6,497 cases of TB were reported, a rate of 12.0 cases per 100,000 population. London has the main burden, with almost 40% of these cases. The majority of cases were in people born in high burden countries and concentrated in urban centres. Hillingdon reports much higher rates – the three year average tuberculosis case reports is an average of 107 cases annually, a rate of 36.5 per 100,000 population. Treatment completion rates (2014 data) in Hillingdon are 83.8%, below both London (87.2%) and England (87.2%).

Source: Public Health Outcomes Framework, Indicator 3.05i

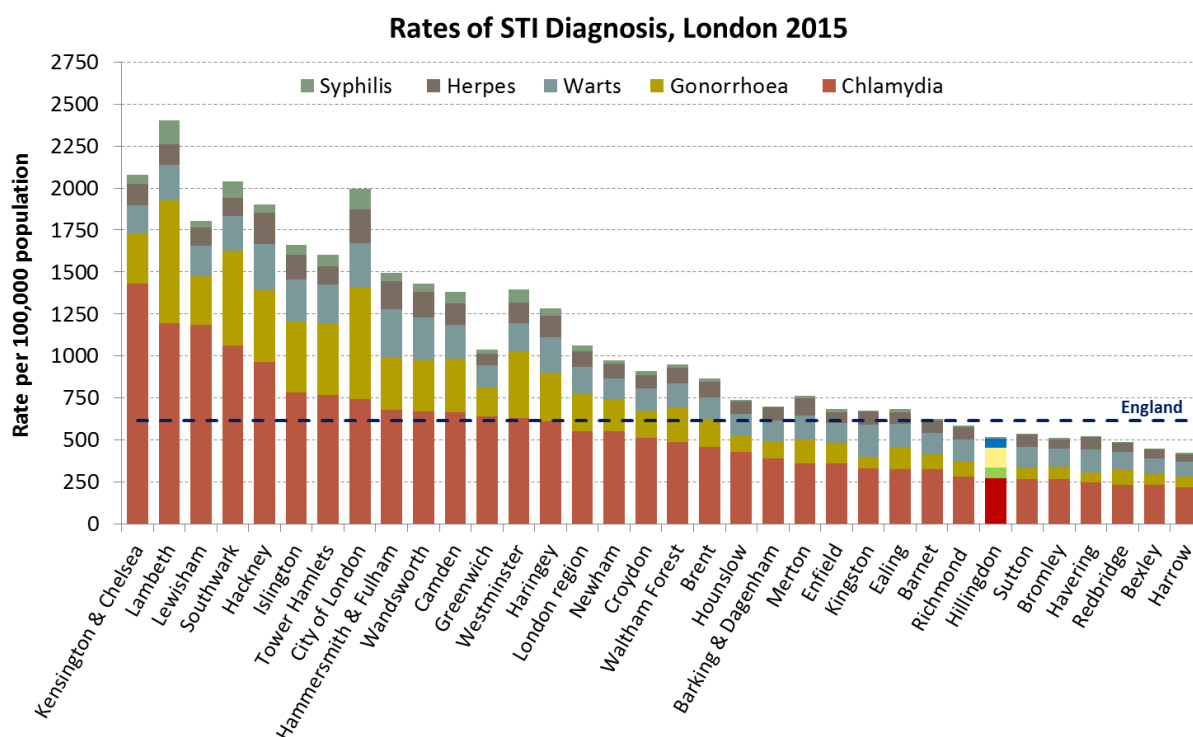
Seasonal influenza

Influenza is a highly infectious illness caused by the influenza (flu) virus. It spreads rapidly through small droplets coughed or sneezed into the air by an infected person. Influenza vaccines are shown to provide effective protection against influenza. Influenza immunisation is offered to people in at-risk groups such as pregnant women and elderly people. These people are at greater risk of developing serious complications, such as bronchitis and pneumonia if they catch flu. Immunisation coverage is a good indicator of the level of protection a population will have against vaccine preventable communicable diseases. Coverage is closely related to levels of disease.

Population vaccination coverage 2015/16 flu vaccination aged 65+ in Hillingdon is 68.3% of the population, below England and above London averages (71% and 66.4% respectively. Source: PHOF 3.03xiv). This is just below the Chief Medical Officer's target of 75% coverage for this population group. Vaccination of at risk individuals (those under the age of 65, who suffer from certain chronic conditions) is 47.8% of the at risk groups in Hillingdon, which is higher than the London and England averages (43.7% and 45.1% respectively), and working towards the Chief Medical Officer's 55% target of at risk groups vaccinated. Pharmacy continues to play an important role in the distribution of antiviral and the overall clinical management of patients. Since 2013, community pharmacies have been commissioned by NHSE (via patient group direction) to vaccinate eligible individuals.

Sexually transmitted infections

Sexually transmitted infections (STI) represent an important public health issue in London which has the highest rate of acute STIs in England, 66% higher than England as a whole. Sexually transmitted infections have been on a general increase over the past 10 years. In comparison with other London boroughs, however, Hillingdon has a relatively low rate of sexually transmitted infections.



Source: fingertips.phe

The table shows the main STIs diagnosed in Hillingdon.

STI / year	2009	2010	2011	2012	2013	2014	2015
Chlamydia	745	800	760	810	895	860	800
Gonorrhoea	85	95	80	110	130	200	185
Herpes	115	130	150	150	180	195	170
Syphilis	<10	<10	<10	30	10	25	30
Genital Warts	370	350	365	360	380	315	345

Source: Public Health England, Sexual & Reproductive Health Profiles

The total number of all new STIs diagnosed in Hillingdon in 2015 is 811 per 100,000 of the population; this is lower than the London rate of 1,391 per 100,000 and higher than the England rate (768 per 100,000).

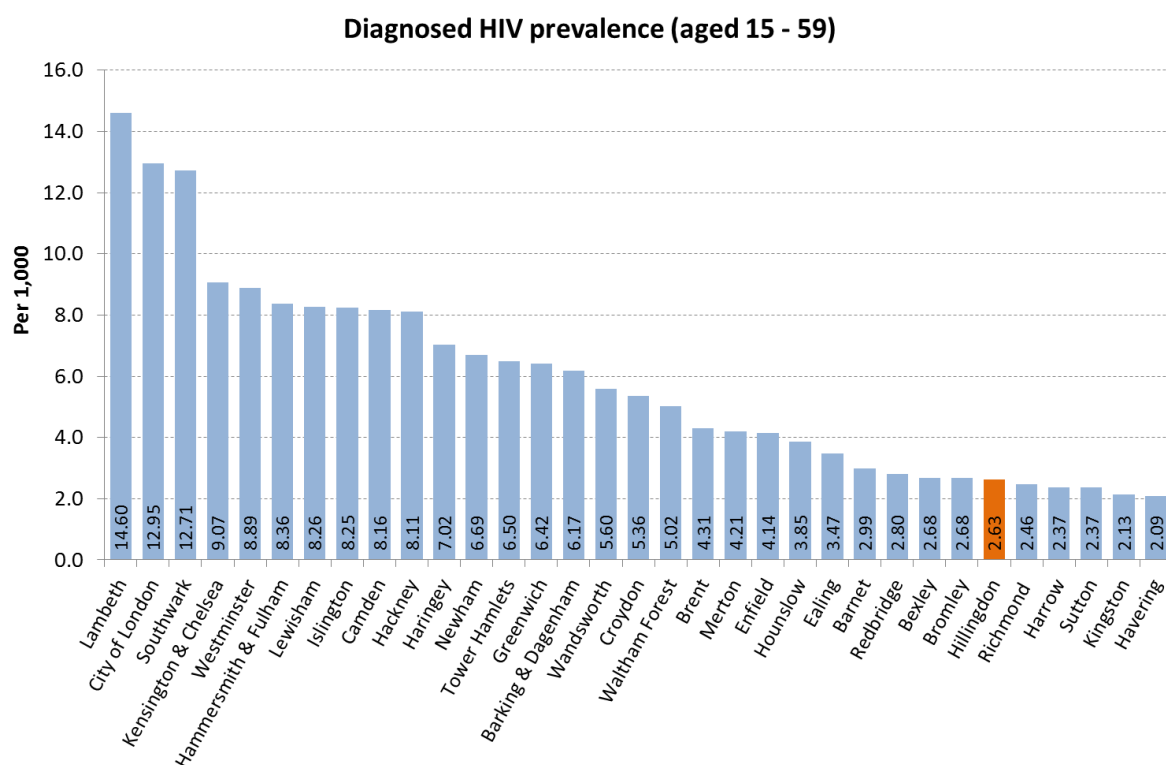
Age data shows that young people experience higher rates of infection and account for higher proportions of treatments. In England in 2016, STI diagnosis rates in 15-24 year olds are twice as high in men and seven times as high in women when compared to those aged 25-59 years.

Source: Sexually transmitted infections (STIs): annual data tables, 2016 (infographic)
<https://www.gov.uk/government/statistics/sexually-transmitted-infections-stis-annual-data-tables>

HIV

The rate of HIV diagnosed in Hillingdon in 2015 was 2.63 per 1,000 of the population aged 15-59. Hillingdon ranked 27th lowest out of the 32 London Boroughs submitting data for diagnosed HIV prevalence. When those aged under 15 years and those aged over 59 years were included then the number of people in Hillingdon known to have the virus in 2015 was 500 (to the nearest 10).

Source: HIV in the United Kingdom 2016 report, PHE report.

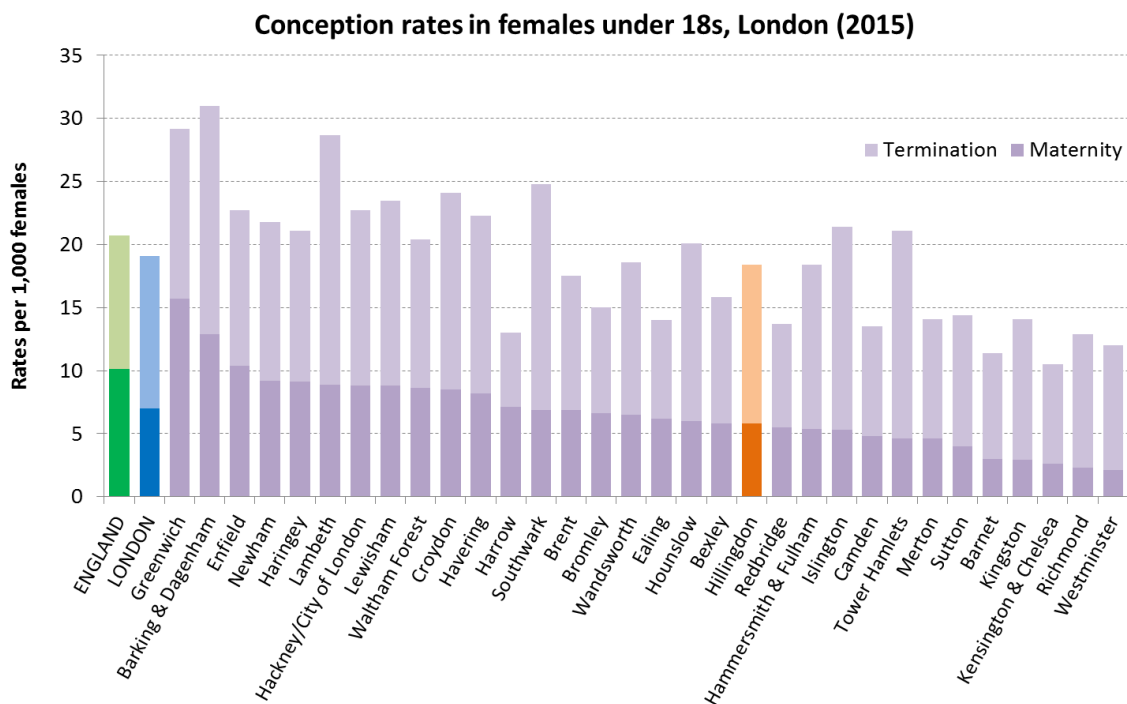
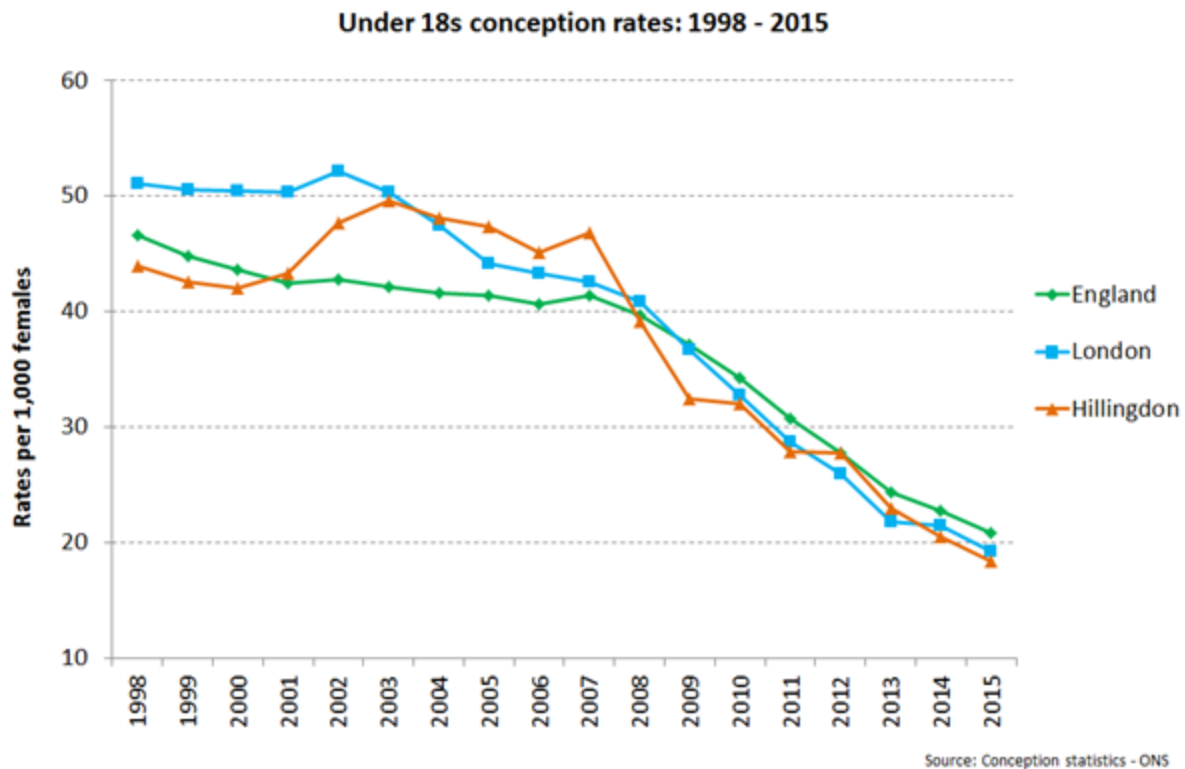


5. Risk taking behaviours

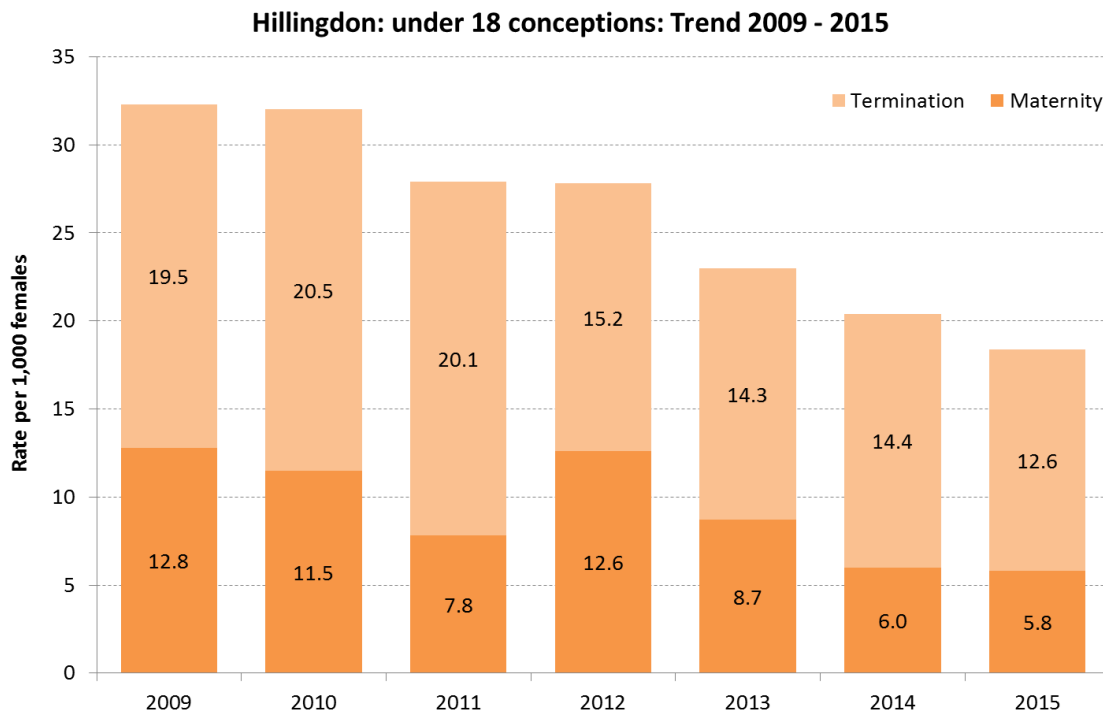
Teenage conceptions

The 2015 teenage conception rate for Hillingdon was 18.4 per 1000 (aged 15-17), which was lower than both the England rate (20.8 per 1000) and London rate (19.2 per 1,000). The trend in teenage conceptions shows reductions in rates for England, London and Hillingdon since 1998. However, the rate of conceptions (age <18 years) in the wards of Yiewsley, West Drayton, Townfield, Botwell and Brunel was significantly higher than the England rate for 2012-14.

(Source: PHOF indicator 2.04, 2015)



Source: Conception statistics - ONS



Source: Conception statistics - ONS

There were 95 teenage conceptions in 2015, of which 68% resulted in terminations. Wards with the highest teenage conception rates within Hillingdon are in the south of the borough.

Substance misuse – Drugs

Data on drug treatment outcomes report successful completion of drug treatment (defined as leaving treatment free of drugs and not re-presenting within 6 months) for opiate users in Hillingdon as 8.4% of those in treatment, compared with 7.6% for London and 6.7% for England (2015/16).

Successful drug treatment for non-opiate users (defined as above) for Hillingdon, is 43.9% of those in treatment compared with 40.1% for London and 37.3% for England (2015/16).

Source: PHOF, Indicator 2.15i, 2015/16

Substance misuse – Alcohol

Consumption of excess alcohol has an impact on health, crime and use of local services.

Alcohol specific hospital admissions in Hillingdon are recorded as 507 per 100,000 population for males, slightly below the England and London averages of 583 and 547 per 100,000 population respectively. For females the rates are much

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lower, 279 per 100,000 population in Hillingdon, close to the London average of 283 per 100,000 population and below the England average of 367 per 100,000 population.

Source: Public Health England, Local Alcohol Profiles for England - Indicator 6.02, 2015/16

Under 18 hospital admission rates for alcohol specific admissions for Hillingdon are close to the England average. The crude rate for Hillingdon is 35.7 per 100,000 population and the England average is 37.4 per 100,000. The Hillingdon rate is significantly higher than the London rate which is 22.4 per 100,000 population.

Source: Public Health England, Local Alcohol Profiles for England - Indicator 5.02, 2013/15-2015/16

6. Pharmacy Services

Community pharmacies can play a crucial role in supporting young families by providing advice and support before, during and after pregnancy. Through patient choice, community pharmacy is now the main route of access for emergency hormonal contraception (EHC) and has been successful in delivering the Chlamydia screening and treatment programme. Currently 49 pharmacies in Hillingdon provide EHC, 28 pharmacies provide Chlamydia screening and 19 provide treatment.

The need for the provision of out of hours services for both reproductive and sexual health in the Borough is evident. Those wards where the population of young people is higher or wards demonstrating higher need (high rates of teenage conceptions) have been targeted by commissioners in Public Health and the provision of emergency hormonal contraception. Since 2015, 12 more pharmacies are offering 72 hour EHC option and 28 additional pharmacies are offering the 120 hour EHC option. As part of this approach, particular attention has been paid to those pharmacies which are open for longer periods and during weekends.

Through the use of the Making Every Contact Count (MECC) approach, pharmacists can target individuals at higher risk for promoting public health programmes such as Healthy Start, and smoking cessation during and after pregnancy, EHC, Chlamydia screening and oral health promotion. MECC is the recommended approach for improving health and reducing variation; community pharmacists could use the Making Every Contact Count (MECC) approach while dispensing medicines in order to target individuals with public health messages and provide holistic care.