3. Health and Wellbeing in Wirral

Chapter Summary

- The gap in life expectancy between Wirral and England continued to widen in 2008-10. Amongst women in Wirral, life expectancy has actually decreased slightly for the last two time periods recorded (2007-09 and 2008-10)
- The gap in life expectancy between the most and least affluent *within* Wirral was 14.6 years for men and 9.7 years for women (Marmot Indicators, 2012)
- The Marmot Indicators (2012) also showed that Wirral had the largest gap in Disability Free Life Expectancy (DFLE) for males and females of any authority in England (20.0 years for men, 17.1 years for women)
- The main contributors to the gap in life expectancy between Wirral and England was chronic liver disease for men and lung cancer for women
- Mortality from chronic liver disease (in both the under 75s and those of all ages) in Wirral men is higher than England. The main contributor to liver disease is alcohol.
- In 2011, it was estimated that there were around 4,100 people in Wirral with undiagnosed Coronary Heart Disease (CHD), 35,500 with undiagnosed hypertension and 2,800 with undiagnosed diabetes
- Mortality from cardiovascular disease (CVD) amongst Wirral women has been increasing since 2007, whilst mortality from this cause has been falling amongst women in England over the same period
- Estimates suggest that the number of people in Wirral surviving a stroke and heart attack who are left with a longstanding health condition as a result will rise by a third by 2030, with significant implications for health and social care services.
- Lung cancer had the highest mortality rates of the four main cancers (lung, breast, colorectal and prostate) in England, the North West and Wirral. Rates in Wirral were very similar to England and the North West in 2008-10 (slightly lower)
- Mortality rates from breast, colorectal (women only) and prostate cancer in Wirral in 2008-10 however, were higher than England and the North West.
- Wirral did not reach the 80% target coverage for cervical cancer screening in 2010-11. This downward trend has been observed both nationally and locally.
- Wirral did not reach the bowel cancer screening target of 60%; coverage was 53% in 2010-11.
- Efforts to increase the number of people able to die at home (most people's preference) have been successful for cancer, increasing in Wirral from 20% in 2002, to 30% in 2010. Only 20% of people dying from other causes however, died at home in 2010, an increase of around 2% since 2002
- Rates of mortality from accidental injury and poisoning was higher in Wirral in 2008-10 than England and the North-West
- The single biggest cause of non-elective (emergency) admissions in Wirral patients in 2010-11 was pregnancy related conditions. These were mainly short stay and so did not account for the most bed days, or excess costs. These admissions equated to almost three emergency admissions for every baby born in Wirral in the same year. Circulatory conditions and injuries/poisonings accounted for the most bed days and therefore costs

3.1 Mortality and morbidity

3.1.1 Life expectancy

Life expectancy is an estimate of the average number of years a new born baby would live if they experienced the age specific mortality of the area in which they live.

Table 3.1.1a: Life expectancy at birth in Wirral and England for 1995-97 to 2008-10

Time Period	England		Wirral		Gap (years) between England and Wirral	
	Males	Females	Males	Females	Males	Females
1995-97	74.6	79.7	73.1	78.9	1.4	0.7
1996-98	74.8	79.8	73.5	78.7	1.2	1.0
1997-99	75.1	80.0	73.8	79.0	1.2	0.9
1998-00	75.4	80.2	73.8	79.2	1.5	0.9
1999-01	75.7	80.4	74.3	79.6	1.3	0.7
2000-02	76.0	80.7	74.8	79.9	1.1	0.7
2001-03	76.2	80.7	75.2	80.0	0.9	0.7
2002-04	76.5	80.9	75.3	80.1	1.1	0.7
2003-05	76.9	81.1	75.5	80.2	1.4	0.8
2004-06	77.3	81.6	75.7	80.7	1.6	0.8
2005-07	77.7	81.8	75.7	80.9	2.0	0.9
2006-08	77.9	82.0	75.9	81.0	2.0	1.0
2007-09	78.3	82.3	76.3	80.9	2.0	1.4
2008-10	78.6	82.6	77.0	80.8	1.6	1.8

Source: ONS, 2012

- Current life expectancy in Wirral is 77.0 for men and 80.8 for women.
- Whilst life expectancy is increasing in males, it has decreased slightly for females in Wirral over the two most recent time periods
- The latest data (2008-10) shows a gap in life expectancy between Wirral and England of 1.8 years for females and 1.6 years for males.
- The gap in years has increased in both males and females since 1995-97 when it was 1.4 years for males and 0.7 years for females.
- The percentage gap (between 1995-97 and 2008-10) has increased and now stands at 14% for males and 157% for females
- It is important to note that the initial gap was small, so even minor increases and decreases have impacted greatly on the gap.

From 1995, progress on life expectancy was monitored in England using a PSA (Public Service Agreement) target. This target has now been replaced by the Public Health Outcomes Framework (2012), which has two overarching outcomes related to life expectancy. The two indicators are:

1. Increased healthy life expectancy (HLE)

2. Reduced differences in life expectancy and healthy life expectancy between communities

These outcomes reflect a new focus on not only on how *long* people live (life expectancy) but on how *well* people live (healthy life expectancy or HLE), at all stages of the life course.

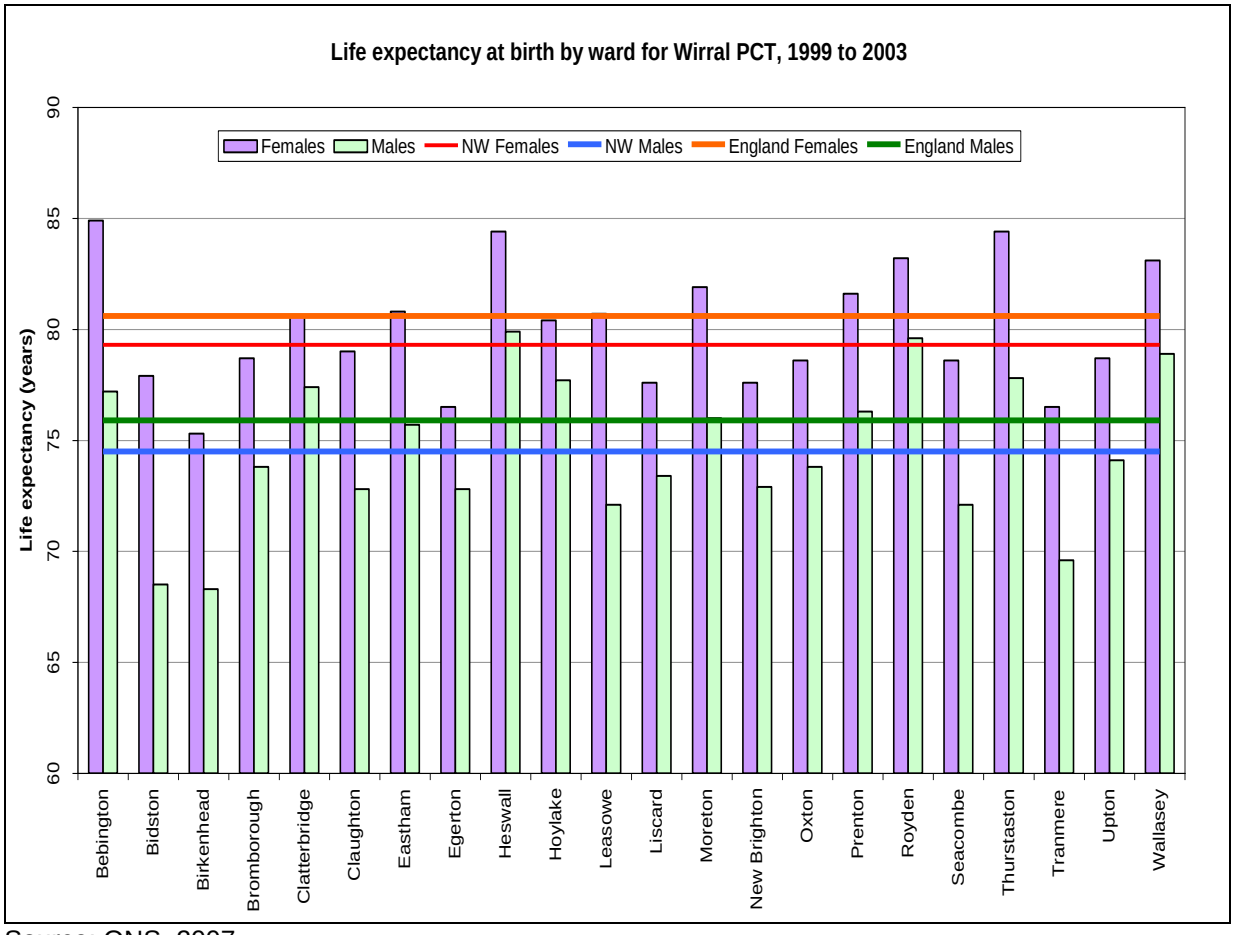
The second outcome focuses attention on reducing health inequalities between people in our society.

The exact definition for monitoring of these outcomes has not yet been confirmed (as of July 2012), so there is currently no available data. There is an Instant Atlas Profile via this link highlighting previous local performance against the indicators.

Life expectancy gap *within* Wirral

Experimental statistics on life expectancy at ward level were produced by the Office for National Statistics (ONS) using 1999-03 data, but they have not been reproduced since first released and so are now fairly old. Figure 3.1.1b shows this data

Figure 3.1.1b: Life expectancy at birth by Ward and gender for Wirral PCT: 1999-2003



Source: ONS, 2007

- Male life expectancy ranged from 68.3 years in Birkenhead to 79.9 years in Heswall.
- Female life expectancy ranged from 75.3 years in Birkenhead to 84.9 years in Bebington.
- **These are amongst the widest gaps between wards in the same borough in England and this is a key issue for Wirral.**

Inequalities in life expectancy & Disability Free Life Expectancy (DFLE)

The Slope Index of Inequality (SII) is a measure of the inequality in life expectancy across the whole population of a local authority (LA) or Primary Care Trust (PCT) area, from most to least deprived.
An SII of 10 years, for example, means that life expectancy for the most affluent in an area is 10 years higher than for the most deprived in the same LA. Therefore, the higher the Slope Index of Inequality (SII), the greater the inequality in the area.

SII provides a more recent update on the gap in life expectancy within Wirral than the ward data presented above and it is also one of the Marmot Indicators calculated by the London Health Observatory on behalf of all local authorities. In February 2012 the indicators were refreshed and showed that for most of the 150 local authority areas in England (including Wirral) the inequality in life expectancy increased.

The 2012 Marmot update for Wirral showed that the inequality in life expectancy in Wirral was 14.6 years for men and 9.7 years for women. The Marmot Indicators also show the gap in disability-free life expectancy (DFLE), which measures the average number of years a person could expect to live without an illness or health problem that limits their daily activities.

In Wirral, the gap in DFLE between men in the most deprived areas and those in the most affluent areas was 20.0 years, whilst for women it was 17.1 years. This means that those living in deprived areas can not only expect to lead shorter lives, but they can also expect more ill-health at the end of that life (amongst Wirral men, 20 years more ill-health).

These were the worst gaps in any authority in England.

Life expectancy gap by disease

The data showing the specific conditions and diseases which are contributing towards the gap between Wirral and England for life expectancy is shown in table 3.1.1c (split by gender). This table was produced in 2010 (using 2006/08 data) and to date. As of June 2012, no updated figures were available.

Table 3.1.1c: Life expectancy gap by disease (2006-08) for Wirral: percentage by gender

Disease	Number of deaths	Male	Female
Coronary heart disease	1,699	11.80%	3.80%
Other cancers	1,552	11.60%	10.70%
Stroke	1,053	6.20%	5.90%
Lung cancer	761	11.20%	16.90%
Other cardiovascular disease	694	2.50%	..
Chronic obstructive airways disease (COPD)	585	4.10%	11.60%
Pneumonia	580	2.90%	0.00%
Other respiratory disease	434	6.10%	2.90%
Diseases of nervous system	358	0.70%	2.10%
Other digestive diseases	336	3.40%	0.80%
Mental and behavioural disorders	312	0.80%	..
Colorectal cancer	297	1.60%	2.20%
Breast cancer	238	0.10%	1.90%
Ill-defined conditions	222	0.90%	..

Other accidents	214	5.50%	8.40%
Chronic liver disease including cirrhosis	199	13.70%	10.20%
Genitourinary diseases	198	..	..
Oesophageal cancer	166	2.30%	1.90%
Endocrine, nutritional, metabolic diseases	157	0.80%	1.60%
Other	136	..	1.90%
Infectious and parasitic diseases	132	…	…
Suicide and undetermined injury	113	8.90%	7.10%
Stomach cancer	110	1.30%	1.00%
Heart failure	109	..	..
Musculoskeletal diseases	72	..	..
Stomach/duodenum ulcer	67	1.20%	0.00%
Land transport accidents	41	0.10%	..
Deaths under 28 days	40	..	7.30%
Other external causes	25	1.40%	..
Congenital anomalies	21	0.90%	..
Perinatal conditions	..	..	1.70%
Total	10,924	100%	100%

Source: LHO (London Health Observatory), 2010... Indicates that this cause makes no contribution to the life expectancy gap with England or its contribution is negligible

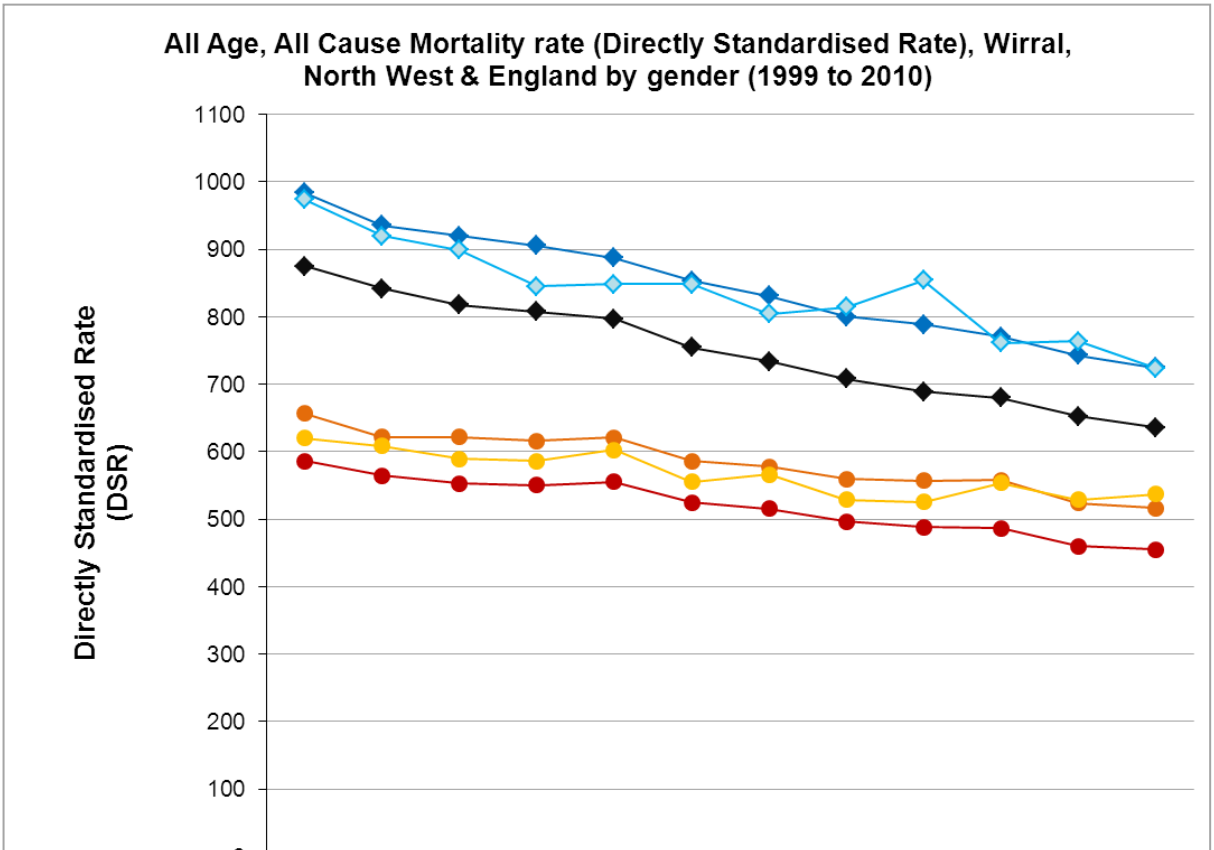
- The causes of death that contribute most to the gap in life expectancy between England and Wirral for men are coronary heart disease (CHD), chronic liver disease including cirrhosis and cancer
- For women, the causes which most contribute to the gap are lung cancer, COPD and other cancers.

3.1.2 All Age, All Cause Mortality (AAACM)

All age, all cause mortality (AAACM) was introduced as a proxy measure for life expectancy because the data is available more frequently than life expectancy data, it is easier to interpret, is more straightforward to performance manage locally and it correlates well with life expectancy.

AAACM rates are three-year average, directly standardised death rates per 100,000 of the population for all ages and all causes of death. Figure 3.1.2 shows AAACM in Wirral over ten years by gender.

Figure 3.1.2: All Age, All-Cause Mortality rate (Directly Standardised Rate), for Wirral, North-West & England, by gender (1999 to 2010)



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
England Males	875.10	841.84	817.33	807.91	796.72	754.43	733.39	708.15	688.60	679.60	652.28	636.07
North West Males	983.89	935.80	919.65	905.55	887.52	853.66	830.50	800.31	788.23	769.91	743.27	725.02
Wirral Males	973.16	919.73	898.74	845.25	848.30	847.94	804.18	814.55	853.82	760.77	763.79	723.59
England Females	586.30	564.50	552.97	550.44	555.35	524.62	515.63	496.26	488.62	486.60	459.71	454.83
North West Females	656.75	622.14	621.84	615.70	621.06	585.99	577.87	559.40	556.83	557.57	523.84	516.64
Wirral Females	620.28	608.37	589.67	586.30	602.71	555.69	566.19	529.20	525.89	553.93	528.75	537.24

Source: Information Centre, 2012

- Wirral has a higher AAACM rate than England, and this has consistently been the case for the since 1999.
- For most of the time period shown, women in Wirral have had a lower mortality rate (AAACM) than the North-West, but in the last two time periods, this changed.
- The mortality rate for women in Wirral is now higher (worse) than both England *and* the North-West.
- The mortality rate for men in Wirral is almost exactly the same as the North-West overall
- Mortality appears to be decreasing at a slightly faster rate amongst men compared to women. Whilst rates amongst women do show a downward trend, it is not reducing as quickly, with the result that the mortality gap amongst men and women is narrowing over time
- This narrowing of the gap between male and female mortality is a national and regional trend and Wirral appears to be following this trend

3.1.3 Mortality from causes considered amenable to healthcare

Mortality from causes considered amenable to healthcare is a definition based on the concept that deaths from certain causes could be avoided through preventing the onset of disease or via timely and effective health care. The concept was originally developed as a measure of the quality of healthcare. Those diseases thought to be potentially avoidable or 'amenable to healthcare' are displayed in table 3.1.3.

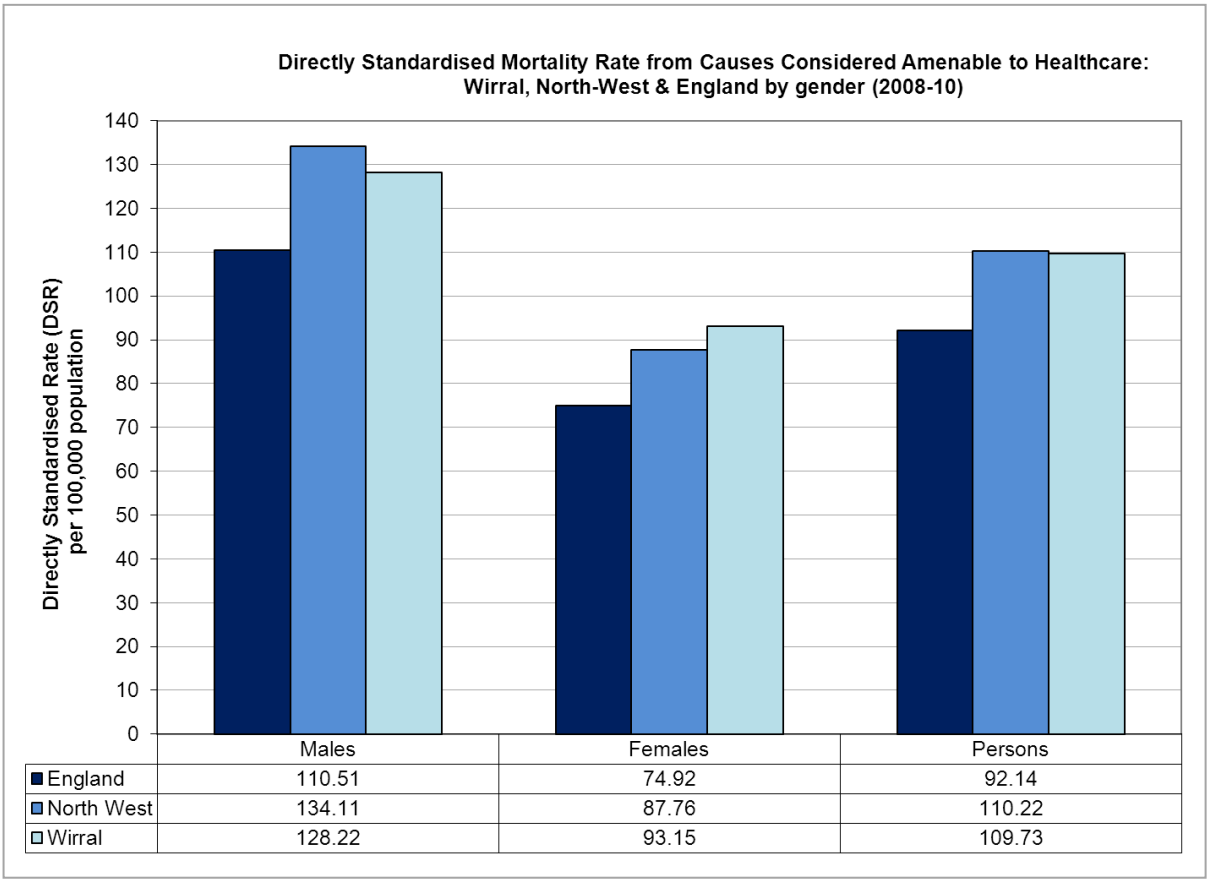
Table 3.1.3: Description of diseases thought to be potentially avoidable

Age Group	Disease
0-6 days	Perinatal deaths
1-14 years	All respiratory disease
0-44 years	Asthma Leukaemia
0-49 years	Diabetes mellitus
0-74 years	Abdominal hernia Appendicitis Benign prostatic hyperplasia (enlarged prostate) Cerebrovascular disease (e.g. stroke) Cholelithiasis & cholecystitis (gall-bladder disease) Chronic rheumatic heart disease Congenital cardiovascular anomalies Epilepsy Hodgkin's disease (lymphatic cancer) Hypertension Influenza Ischaemic heart disease Malignant neoplasm of testis (testicular cancer) Maternal deaths Misadventures to patients during surgical and medical care Nephritis and nephrosis (kidney disease) Peptic ulcer Pneumonia

Source: NHS Information Centre, 2011

Figure 3.1.3a shows directly standardised mortality rates from causes considered amenable to healthcare in England, the North-West and Wirral for three pooled years (2008-10).

Figure 3.1.3a: Mortality from causes considered amenable to healthcare by gender: comparison of Wirral and England (DSR's) 2008-10



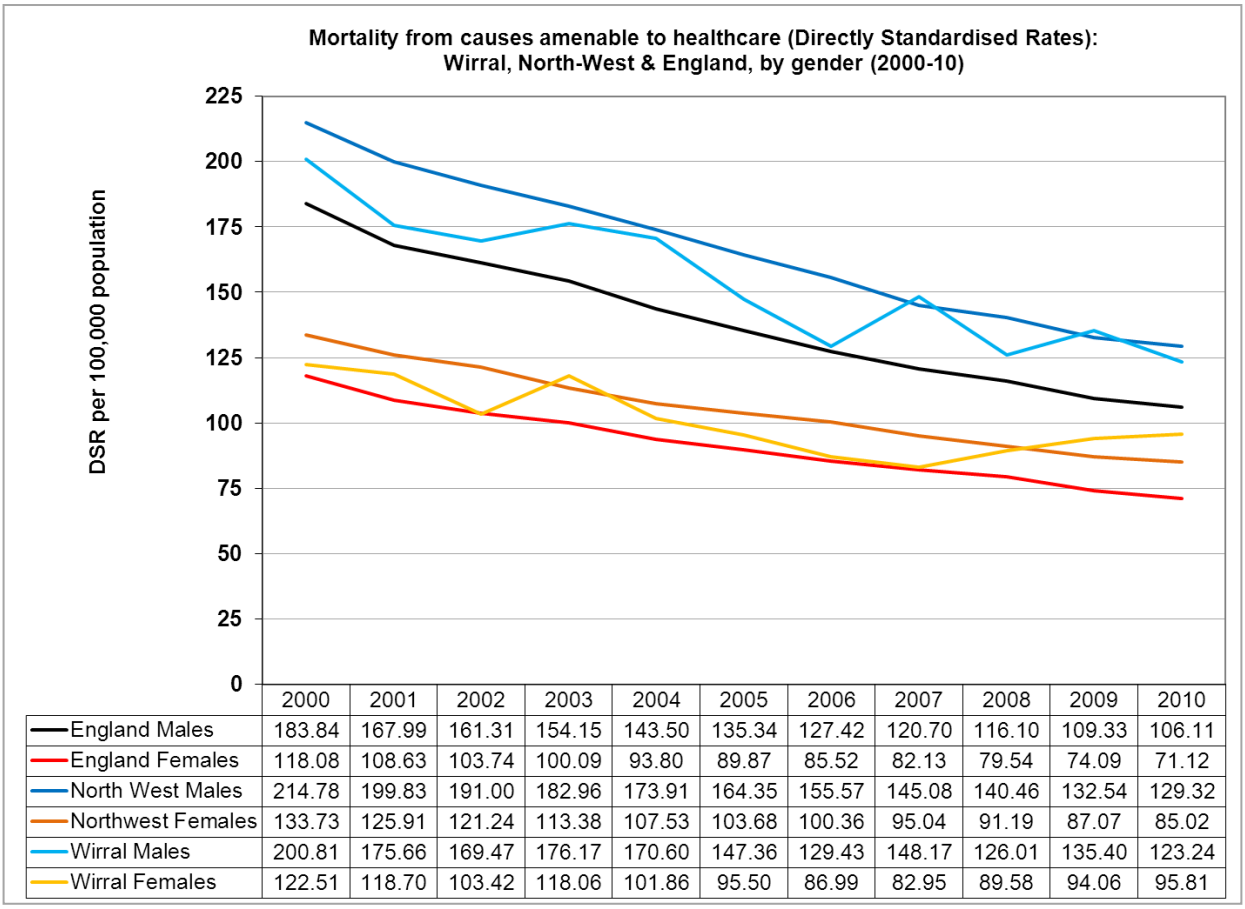
	Males	Females	Persons
England	110.51	74.92	92.14
North West	134.11	87.76	110.22
Wirral	128.22	93.15	109.73

Source: NHS Information Centre 2012

- Overall, Wirral has a higher mortality rate for causes considered amenable to healthcare than England, but is slightly lower than the North-West rate.
- Women in Wirral have higher mortality for causes considered amenable to healthcare compared to both England and the North-West
- Men on the other hand, have a higher rate than England, but lower than the North-West
- Overall mortality is higher in men than women however (this is also the case regionally and nationally)
- It is well documented that men access services less often than women and may also present later for treatment. This may influence mortality trends locally and nationally

Figure 3.1.3b below shows the same information as above, but for individual years over time (rather than three years pooled as per the above data), thus showing any long term trends.

Figure 3.1.3b: Mortality from causes amenable to healthcare: Wirral, North-West & England (DSRs), by gender, 2000-10



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
England Males	183.84	167.99	161.31	154.15	143.50	135.34	127.42	120.70	116.10	109.33	106.11
England Females	118.08	108.63	103.74	100.09	93.80	89.87	85.52	82.13	79.54	74.09	71.12
North West Males	214.78	199.83	191.00	182.96	173.91	164.35	155.57	145.08	140.46	132.54	129.32
Northwest Females	133.73	125.91	121.24	113.38	107.53	103.68	100.36	95.04	91.19	87.07	85.02
Wirral Males	200.81	175.66	169.47	176.17	170.60	147.36	129.43	148.17	126.01	135.40	123.24
Wirral Females	122.51	118.70	103.42	118.06	101.86	95.50	86.99	82.95	89.58	94.06	95.81

Source: Information Centre 2012

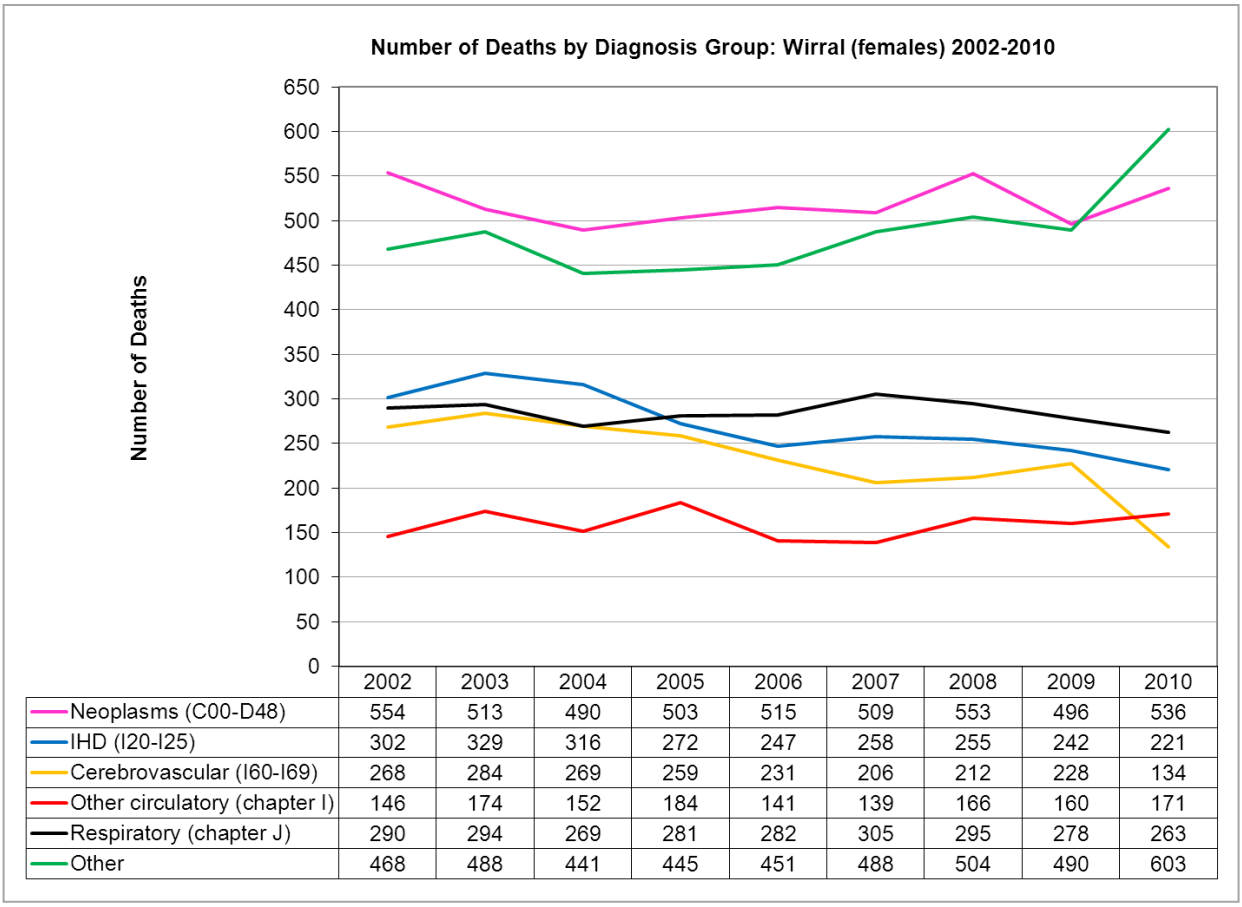
Figure 3.1.3b shows that nationally, mortality from causes amenable to healthcare has fallen in the years since 2000.

Locally however, the picture seems more mixed, with greater fluctuation (probably due to smaller numbers). Despite this, a slight downward trend is observable since 2000. One point to note is that amongst women in Wirral, the mortality rate has historically (with the exception of 2003) been below that of the North-West. For the last 4 years however, the rate has consistently been *above* women in the North-West overall and this should be noted.

3.1.4 Main causes of death

The main causes of death (in actual numbers, by diagnosis group) are shown for males and females in Wirral in the two graphs below (3.1.4a and 3.1.4.b). Data is from 2002-10, allowing trends to be observed.

Figure 3.1.4a: Main causes of death: number of deaths in Wirral females, 2002-10 by diagnosis group

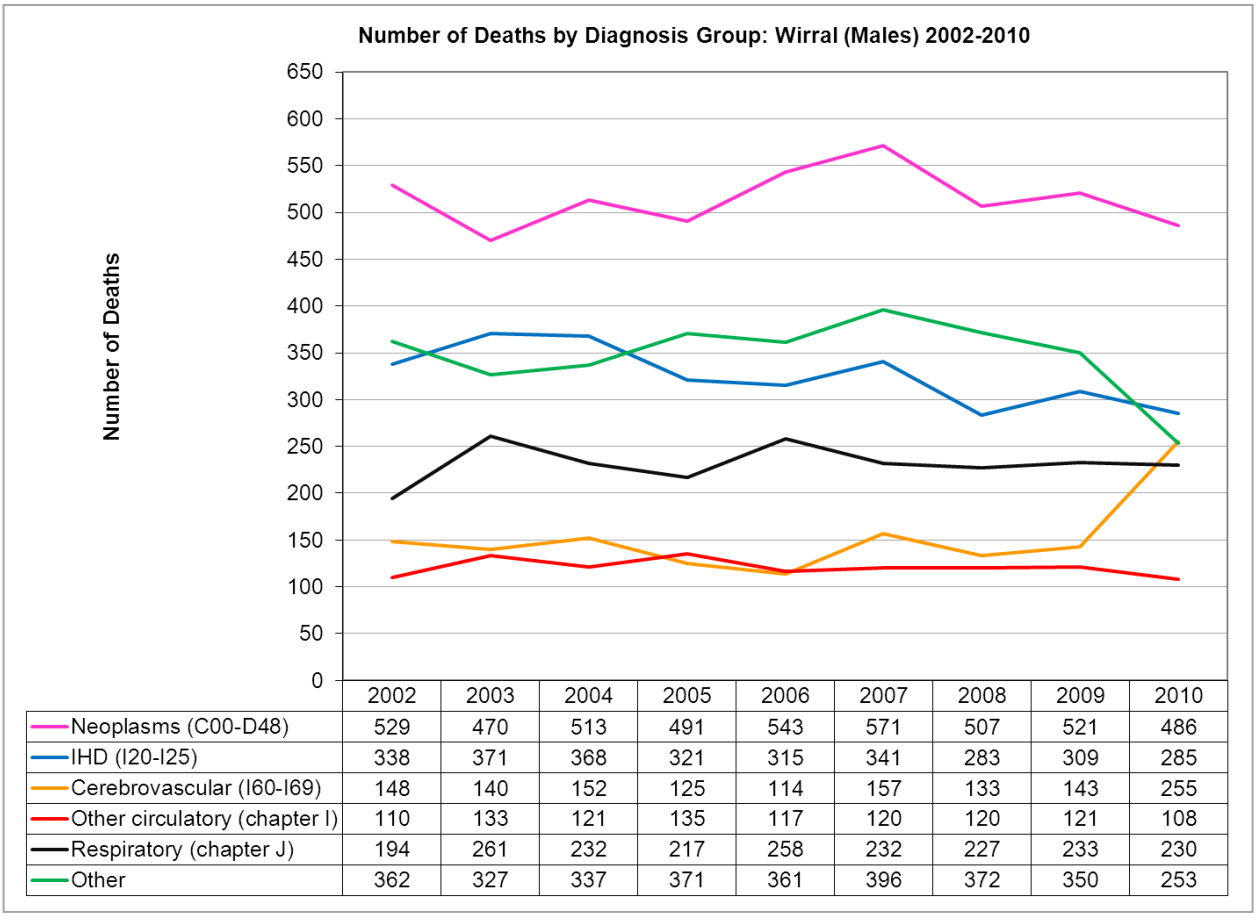


	2002	2003	2004	2005	2006	2007	2008	2009	2010
Neoplasms (C00-D48)	554	513	490	503	515	509	553	496	536
IHD (I20-I25)	302	329	316	272	247	258	255	242	221
Cerebrovascular (I60-I69)	268	284	269	259	231	206	212	228	134
Other circulatory (chapter I)	146	174	152	184	141	139	166	160	171
Respiratory (chapter J)	290	294	269	281	282	305	295	278	263
Other	468	488	441	445	451	488	504	490	603

Source: Public Health Mortality Files, 2012

- The main causes of death for women in Wirral in 2010 (in order) were other causes, cancer (neoplasms) and respiratory conditions (e.g. chronic obstructive pulmonary disease or COPD – an umbrella terms for long term chronic breathing problems).
- There has been an observable decline in the number of deaths attributable to cerebrovascular disease (CVD, e.g. stroke) in Wirral since 2002.

Figure 3.1.4b: Main causes of death: number of deaths in Wirral males, 2002-10 by diagnosis group



	2002	2003	2004	2005	2006	2007	2008	2009	2010
Neoplasms (C00-D48)	529	470	513	491	543	571	507	521	486
IHD (I20-I25)	338	371	368	321	315	341	283	309	285
Cerebrovascular (I60-I69)	148	140	152	125	114	157	133	143	255
Other circulatory (chapter I)	110	133	121	135	117	120	120	121	108
Respiratory (chapter J)	194	261	232	217	258	232	227	233	230
Other	362	327	337	371	361	396	372	350	253

Source: Public Health Mortality Files, 2012

- The main causes of death for men in Wirral in 2002-09, in order, were cancer (neoplasms) and heart disease (IHD or ischaemic heart disease)
- In contrast with women, deaths from cerebrovascular disease have shown an increase since 2009
- There has been a decrease in the numbers of men dying from other causes in 2010 compared to previous years

3.1.5 Palliative (End of Life) Care

Palliative care is the care of any patients with advanced incurable disease involving the control of symptoms such as pain and improvement of quality of life for both patients and families. Currently, most specialist palliative care is provided for people with cancer.

A key challenge in palliative care is following the preferred place of care (PPC) plan which should allow more people to die in the place of their own choosing, which for most people is at home.

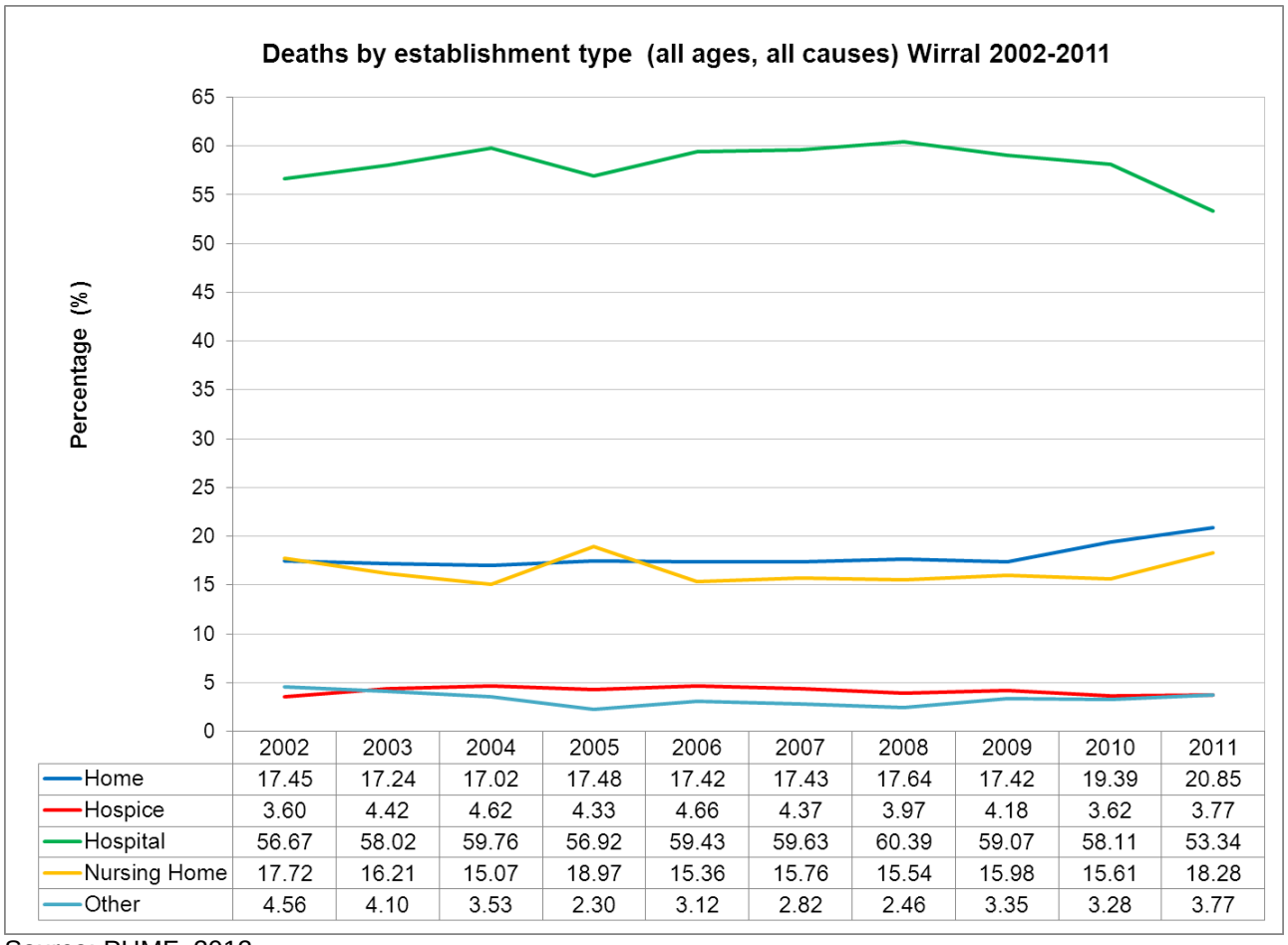
- In Wirral, in 2011, 20.85% of deaths from all causes occurred at home. In deaths from cancer, the figure is 29.96%. In other words, patients with cancer and more likely to die at home than patients dying from other causes.
- In Wirral in 2011, only 0.87% of patients who died in a hospice, died from a disease *other* than cancer (in other words, most patients in hospices are cancer patients)

- The percentage of terminal admissions (admissions that end in death) that were emergencies in Wirral in 2008-10 was 94.2% (compared to 89.7% in England)

A large amount of information on end of life care (palliative) care is provided by the National End of Life Care Intelligence Network (NEoLCIN). Data is provided by the NHS, social services and the third sector and relates to adults approaching the end of life. Profiles by local authority and PCT area are produced annually and the latest (using 2008-10 data) profile for Wirral was published in May 2012.

Figure 3.1.5a shows the deaths by establishment type for Wirral patients (all ages, all causes of death between 2002 and 2011).

Figure 3.1.5a: Deaths by establishment type for Wirral patients (all ages, all causes of death), Wirral: 2002-11



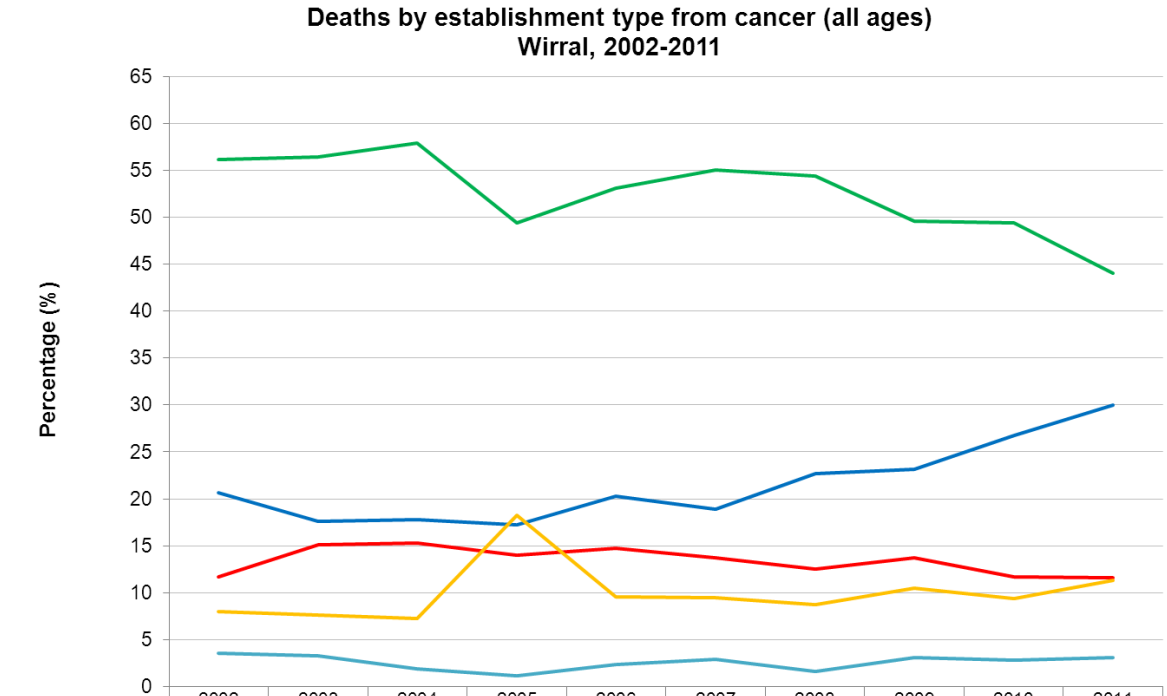
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Home	17.45	17.24	17.02	17.48	17.42	17.43	17.64	17.42	19.39	20.85
Hospice	3.60	4.42	4.62	4.33	4.66	4.37	3.97	4.18	3.62	3.77
Hospital	56.67	58.02	59.76	56.92	59.43	59.63	60.39	59.07	58.11	53.34
Nursing Home	17.72	16.21	15.07	18.97	15.36	15.76	15.54	15.98	15.61	18.28
Other	4.56	4.10	3.53	2.30	3.12	2.82	2.46	3.35	3.28	3.77

Source: PHMF, 2012

- Since 2002, deaths at home have increased slightly from 17% to 21%. As most people say they would prefer to die at home, this increase is positive
- Deaths in hospital have fallen slightly over the same period (57% to 53%)

When deaths from cancer are examined separately, the picture is slightly different, see Figure 3.1.5b.

Figure 3.1.5b: Deaths by establishment type from cancer (all ages), Wirral 2002-11



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Home	20.63	17.57	17.75	17.28	20.28	18.87	22.72	23.12	26.74	29.96
Hospice	11.66	15.11	15.29	13.96	14.74	13.70	12.53	13.68	11.72	11.60
Hospital	56.14	56.41	57.91	49.39	53.05	55.05	54.39	49.60	49.37	44.02
Nursing Home	7.98	7.64	7.21	18.24	9.58	9.43	8.77	10.50	9.39	11.34
Other	3.59	3.25	1.85	1.13	2.35	2.95	1.59	3.09	2.77	3.08

Source: PHMF, 2012

- In 2011, nearly one in three cancer patients died in their own home and 12% died in a hospice
- The percentage of cancer patients dying at home has been rising every year since 2007. In 2002, 21% of patients died at home, in 2011 it was 30%
- The percentage of cancer patients dying in hospital has fallen every year since 2007 and overall, has dropped from 56% in 2002 to 44% in 2011
- One in three of cancer patients died at home in 2011, compared to only one in five of patients who died from other causes died at home in Wirral
- Whilst this is positive for cancer patients, showing that progress has been made on receiving their choice of preferred place of care (PPC), it means there is a now a disparity between patients dying from cancer and patients dying from other causes

3.1.6 Cardiovascular disease

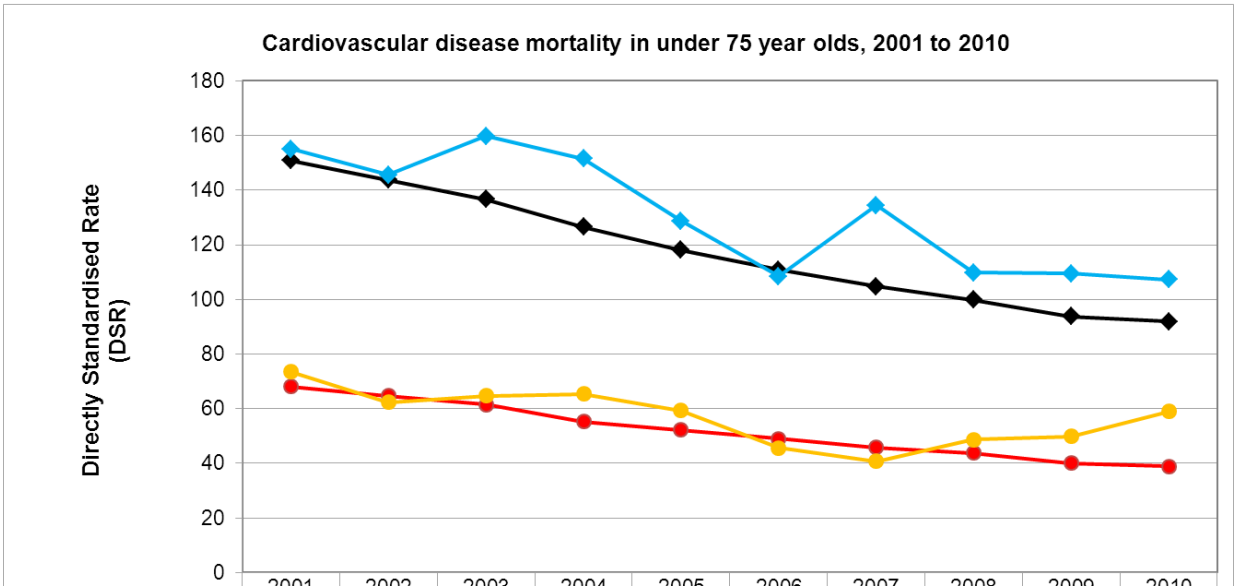
Cardiovascular disease (CVD) is an umbrella term for diseases of the heart and circulation, including CHD (coronary heart disease which includes angina and heart attack), and stroke. Cardiovascular disease is the most common cause of death in the UK.

In Wirral, CVD is a major contributor to premature deaths and is a leading cause of health inequalities. Reducing levels of CVD in the under 75s in the areas where health is poorest, is likely to be an effective and cost effective method to reduce the gap in life expectancy.

An annual CVD profile for local areas is produced by the Association of Public Health Observatories. The profiles compare Wirral to England and the North West (and other

statistical neighbours) on several CVD indicators and the latest (2011) profile for Wirral is available here.

Figure 3.1.6a: Under 75s CVD mortality rate (DSRs): Wirral and England (2001-2010)



	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
England Males	150.75	143.71	136.65	126.49	118.04	110.78	104.72	99.80	93.80	91.89
England Females	68.11	64.75	61.58	55.35	52.18	49.11	45.84	43.83	40.00	38.97
Wirral Males	155.03	145.63	159.77	151.50	128.72	108.46	134.46	109.81	109.46	107.33
Wirral Females	73.48	62.35	64.77	65.39	59.37	45.69	40.81	48.72	49.87	59.00

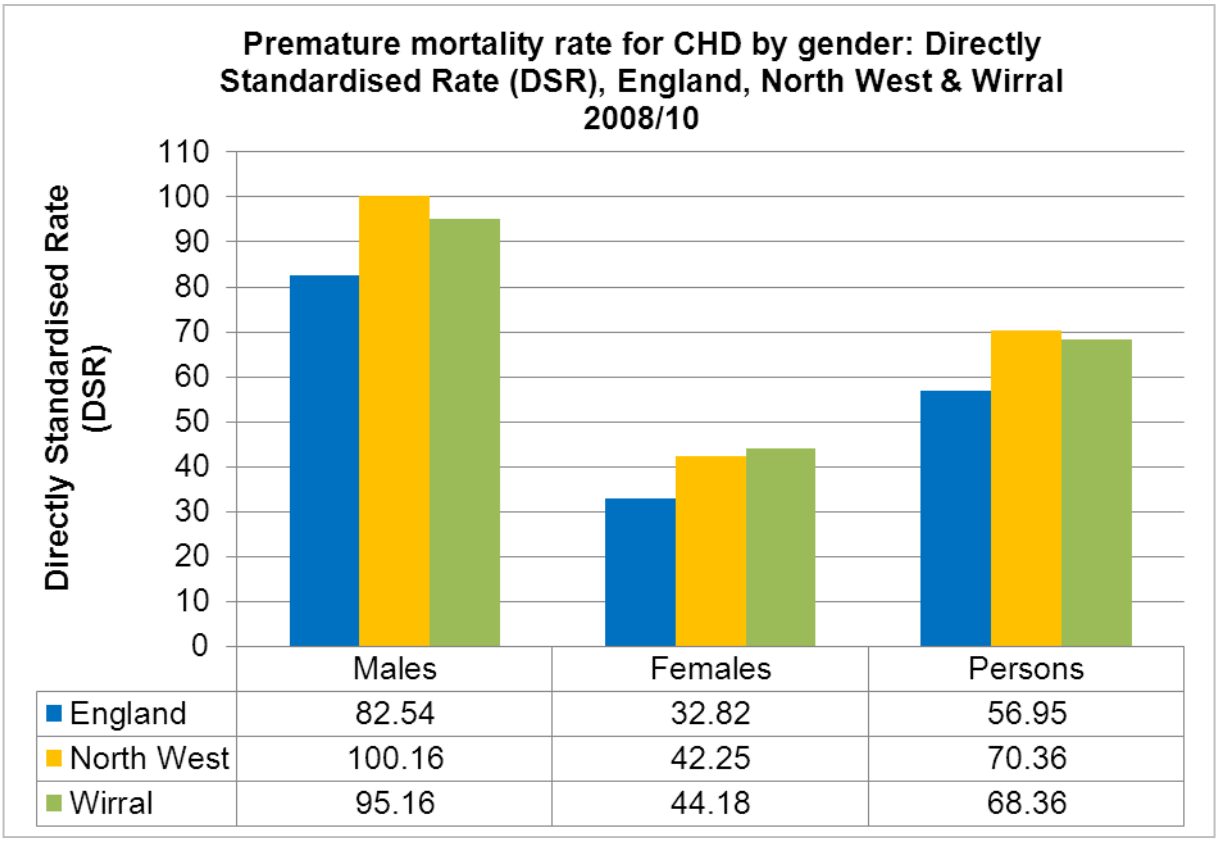
Source: Information Centre 2012

- There is a significant difference between premature CVD mortality rates amongst males and females, both locally and nationally, with men having almost twice the mortality rate of women.
- Overall, since 1993, Wirral has improved on reducing premature mortality from CVD, particularly amongst men (reducing from 155 in 2001 to 107 in 2010).
- The latest figures show that premature CVD mortality rates in women have also reduced since, from 73 in 2001 to 59 in 2010. However, it should be noted that the rate was lowest in 2007, when it was 40 and has since again. It is now above that of women in England and the gap between women in England and Wirral has increased for the last three years

Mortality from Coronary Heart Disease (CHD)

Coronary heart disease occurs when the coronary arteries become narrowed by a build-up of fatty material and cause angina or heart attack. Premature deaths (that is deaths in people aged under 75) from CHD in the form of directly standardised rates are shown in figure 3.1.6b for Wirral, the North West and England for 3 pooled years, 2008/10.

Figure 3.1.6b: Premature mortality rates for CHD by gender: directly standardised rates for England, North West & Wirral, 3 years pooled 2008-10



	Males	Females	Persons
England	82.54	32.82	56.95
North West	100.16	42.25	70.36
Wirral	95.16	44.18	68.36

Source: Information Centre 2012

- The rate of premature death from CHD in Wirral is higher than that England, but very slightly lower than the North West overall
- This hides the variation between men and women however. Women in Wirral have a higher rate of premature mortality from CHD than women in England and the North West
- In men however, rates are higher than England, but lower than the North West
- The rate of premature mortality from CHD in men is more than double the rate for women

Diagnosed cases versus modelled estimates of Coronary Heart Disease (CHD) prevalence

Numbers of patients with a diagnosis of CHD are recorded by their GP on the Quality and Outcomes Framework (QOF) register. This does not tell us total prevalence however, only how many have been diagnosed. If conditions such as CHD are undiagnosed, and therefore unmanaged, outcomes are likely to be poor (for example, premature death or disability due to heart attack).

- There were 13,664 people living in Wirral diagnosed with CHD (QOF, April 2012). This is 4.1% of the Wirral population
- In order to estimate the total number of people in Wirral with CHD (i.e. including those currently undiagnosed), various statistical models can be used. They use data on factors such as deprivation and age of the population to calculate the estimated number of patients likely to have certain conditions in any given population.
- According to the modelling estimates of CHD prevalence for Wirral, there are 17,801 people with CHD (APHO 2011)

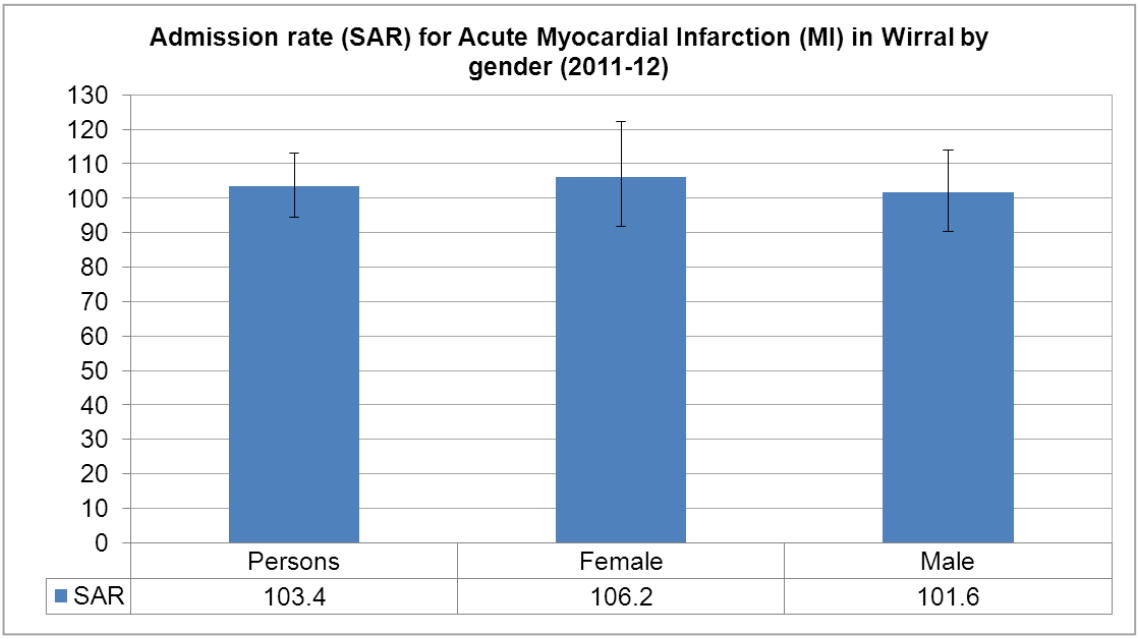
- **This means the number of people in Wirral who may have CHD, but are currently undiagnosed is around 4,100** (Source: QMAS & APHO, 2011)

The Intermediate Heart Centres in Birkenhead and Wallasey have helped to ensure easier access to diagnose, assess and refer patients with CHD. In addition, a Locally Enhanced Service has been implemented for the screening of the population to identify those undiagnosed cases of CVD.

Coronary Heart Disease (CHD) Incidence: Myocardial Infarctions admission rates as a proxy

Myocardial Infarctions (MI, more commonly known as heart attack) occur in patients with advanced CHD. As the exact incidence and prevalence of CHD is unknown, MI can be used as a proxy measure to indicate levels of CHD in the population. Figure 3.1.6c shows, the standardised admission rate (SAR) of hospital admissions for MI for both men and women in Wirral (adjusted to take into account the effect of deprivation). A SAR of 100 indicates that the number of admissions observed is exactly what would be expected, given the areas age and deprivation profile. An SAR of 110 for example, means admissions are 10% higher than expected, given the areas characteristics.

Figure 3.1.6c: Standardised Admission Rate (SAR*) for Myocardial Infarction by sex: Wirral 2009/10 (adjusted for deprivation)



Source: Dr Foster, 2012
* SAR compares the *actual* (or observed) number of admissions for particular causes, to the *expected* number of admission from that cause

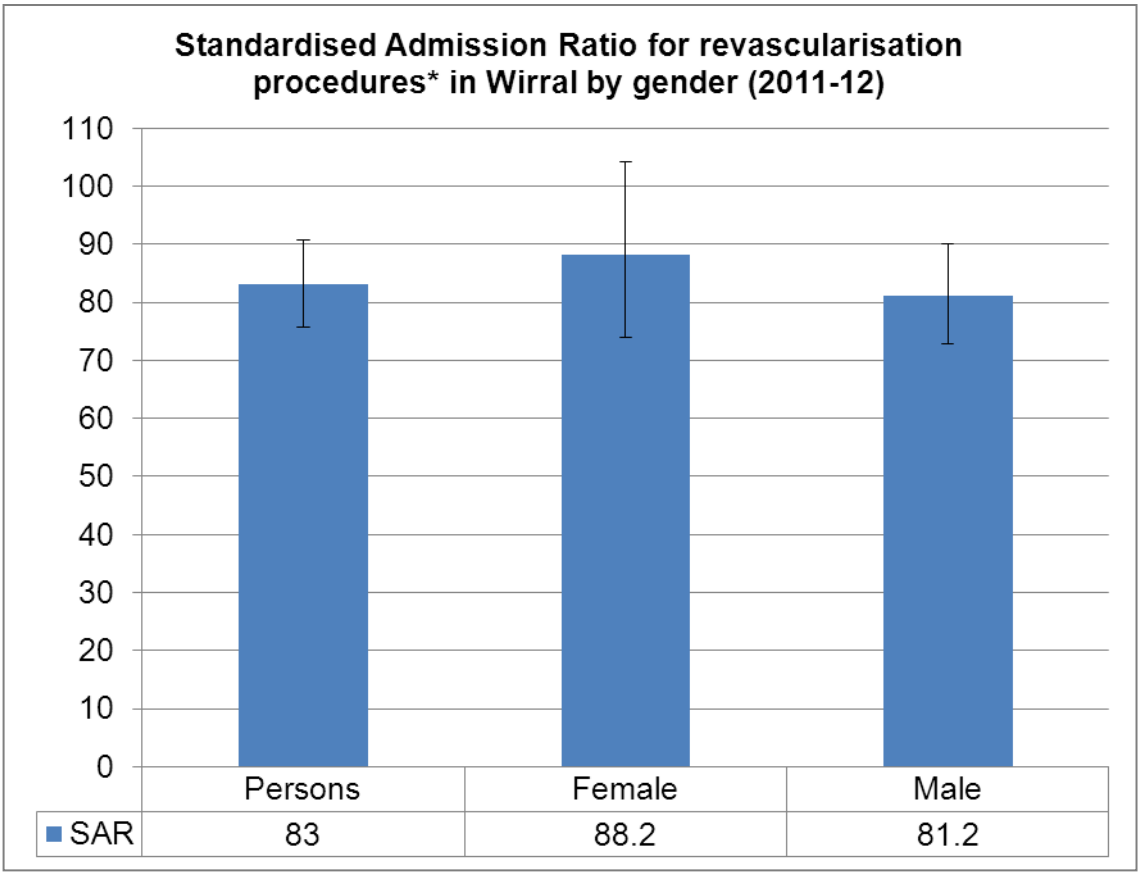
- Actual admissions for MI were very similar to expected overall, with a SAR of 103.4 for all persons in 2011/12. This is just 3.4% higher than expected.
- The MI admission rate for women was 106.2, compared to 101.6 for males
- This suggests that CHD may be slightly more of an issue for women in Wirral than it is for men (but large confidence intervals show the results are not significant and using MI is just a proxy measure for CHD)

Cardiac Revascularisation

Coronary or cardiac revascularisation is carried out to improve the flow of blood to the heart via vessels that have suffered narrowing (occlusion) due to build-up of fatty cholesterol deposits which characterise cardiovascular disease (CVD).

In recent years, Percutaneous Transluminal Coronary Angioplasty (PTCA) has come to be regarded as a less invasive and valid alternative to Coronary Artery Bypass Graft (CABG) for many cases of CVD. There is however, still wide variation in the provision of both types of revascularisation in the UK and evidence that these procedures are underused. Figure 3.1.6d shows the combined CABG and PTCA standardised admission ratio for these procedures in Wirral (by gender) in 2011/12.

Figure 3.1.6d: Standardised admission ratio (SAR**) for revascularisation procedures* in Wirral by gender: 2011-12 (adjusted for deprivation)



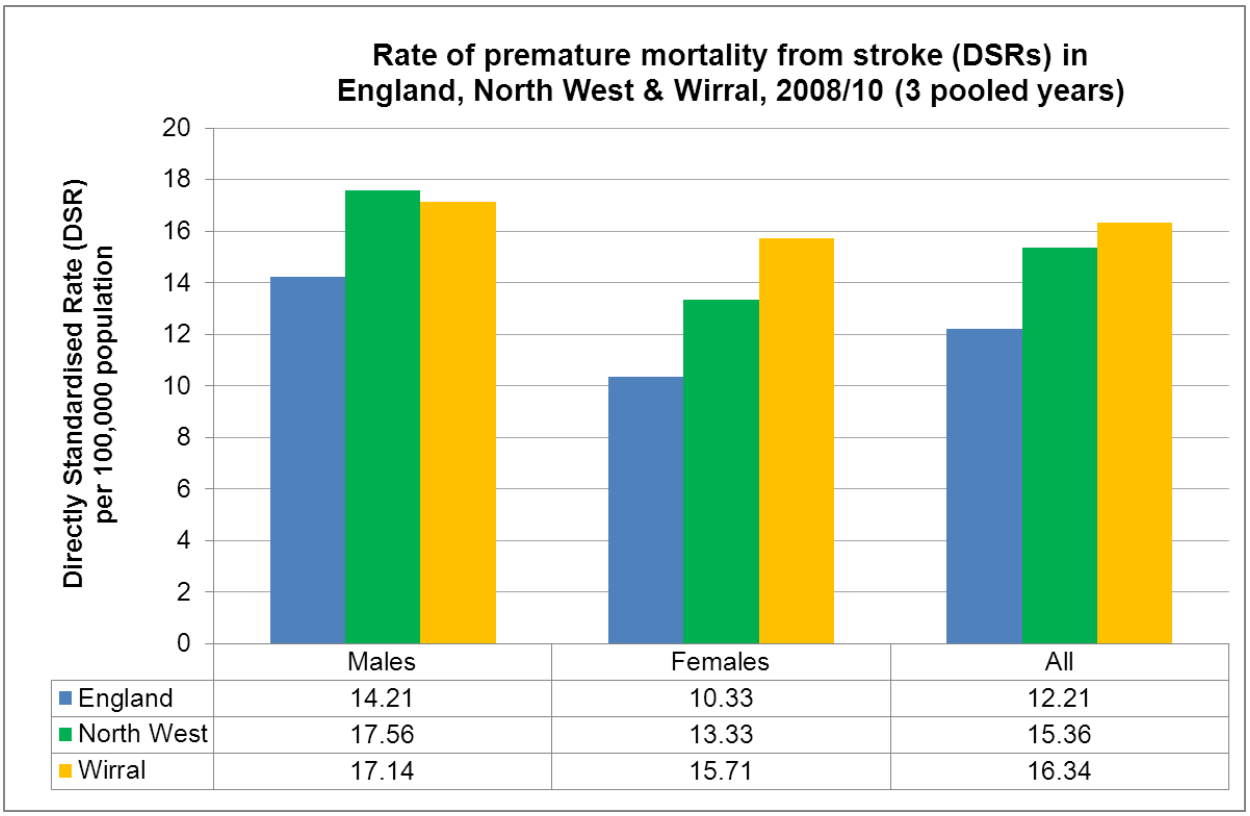
Source: Dr Foster, 2012
*revascularisation procedures included in this analysis were: CABG (isolated first time), CABG (other) & PTCA.
** SAR compares the *actual* (or observed) number of admissions for particular causes, to the *expected* number of admission from that cause.

- In 2011/12, Wirral there were 17% fewer revascularisation procedures performed on Wirral residents than would be expected given the age and deprivation of Wirral's population (this analysis adjusts for deprivation)
- There is a difference between males and females, with higher procedure rates in women compared to men (although women still had 11% less procedures than expected, compared to men who had 19% less procedures than expected)

Mortality from Stroke

Stroke is a manifestation of cardiovascular disease (CVD) and is the third largest cause of mortality in England. There are two main types of stroke, ischaemic (caused by occlusion of the blood vessels) and haemorrhagic (caused by bursting of the blood vessels). Like many diseases, acute stroke can be amenable to prevention through control of blood pressure, diabetes, cholesterol and lifestyle factors such as smoking, alcohol and diet. Figure 3.1.6f shows premature mortality by Directly Standardised Rate (DSR) from stroke for Wirral, the North-West and England by gender.

Figure 3.1.6f: Rate of premature mortality (deaths in those aged under 75 years) from stroke: Directly Standardised Rate (DSRs) by gender for England, North West and Wirral, 2008-10 (3 years pooled)



	Males	Females	All
England	14.21	10.33	12.21
North West	17.56	13.33	15.36
Wirral	17.14	15.71	16.34

Source: NCHOD, 2012 (ICD 10: I60-I69)

- Rates of premature mortality due to stroke in Wirral were higher than both the North-West and England in 2008-10 overall
- Wirral men had *lower* rates of premature mortality from stroke compared to men in the rest of the North-West however
- Women in Wirral had higher rates of premature morality from stroke compared to women in both England and the North-West
- High rates amongst women in Wirral means that the gender gap in premature mortality from stroke is smaller in Wirral compared to the North West or England

Stroke and Transient Ischaemic Attack (TIA) prevalence

Transient ischaemic attack (TIA) is sometimes known as a minor or mild stroke and does not usually result in the levels of death and disability seen with acute stroke. Symptoms of TIA usually resolve themselves within 24 hours, but it is usually a sign that extensive atherosclerosis (hardening of the arteries) may be present and indicates a high risk of a more

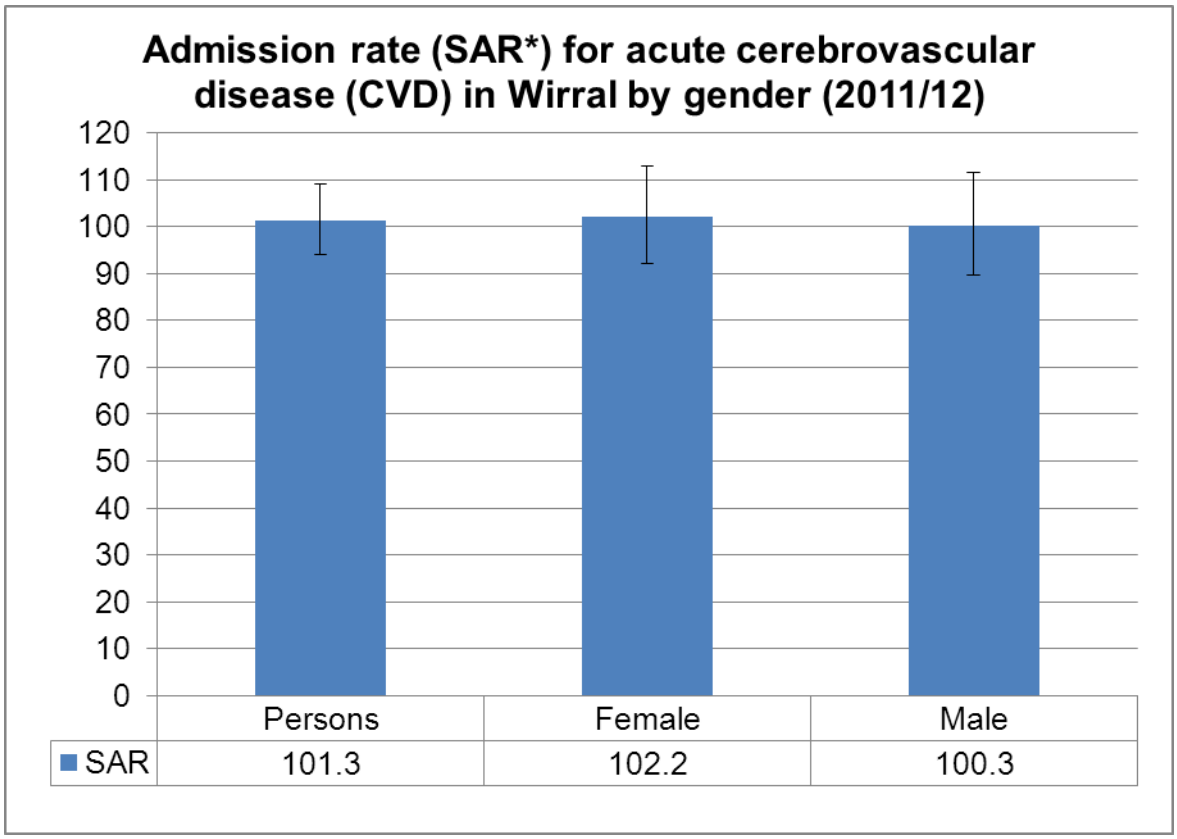
serious stroke (almost half occur in the week prior to a stroke). Nearly one in four patients who have an ischaemic stroke recall having a TIA at some point before their stroke.

- In Wirral 7,474 patients were on GP QOF registers as having had a stroke or TIA in April 2012.
- This was 2.25% of the population of Wirral (QMAS, 2012).
- The prevalence for England in 2010/11 was 1.7% (Information Centre QOF Bulletin 2010/11)

Hospital admission rates for cerebrovascular disease (CVD) as a proxy for stroke

Hospital admission rates for acute cerebrovascular disease (CVD) can be used a proxy indicator for incidence of stroke. Acute cerebrovascular disease includes stroke, brain haemorrhage, cerebral infarctions and occlusion of brain vessels. Admission rates for these conditions gives an indication of how many new cases per annum (incidence) we have of stroke in Wirral. Figure 3.1.6g shows admission rates for acute cerebrovascular disease for Wirral, by gender in 2011/12.

Figure 3.1.6g: Admission rate (SAR*) for acute cerebrovascular disease (CVD) in Wirral by gender, 2011/12



Source: Dr Foster, 2012
* SAR compares the actual (or observed) number of admissions for particular causes, to the expected number of admission from that cause.

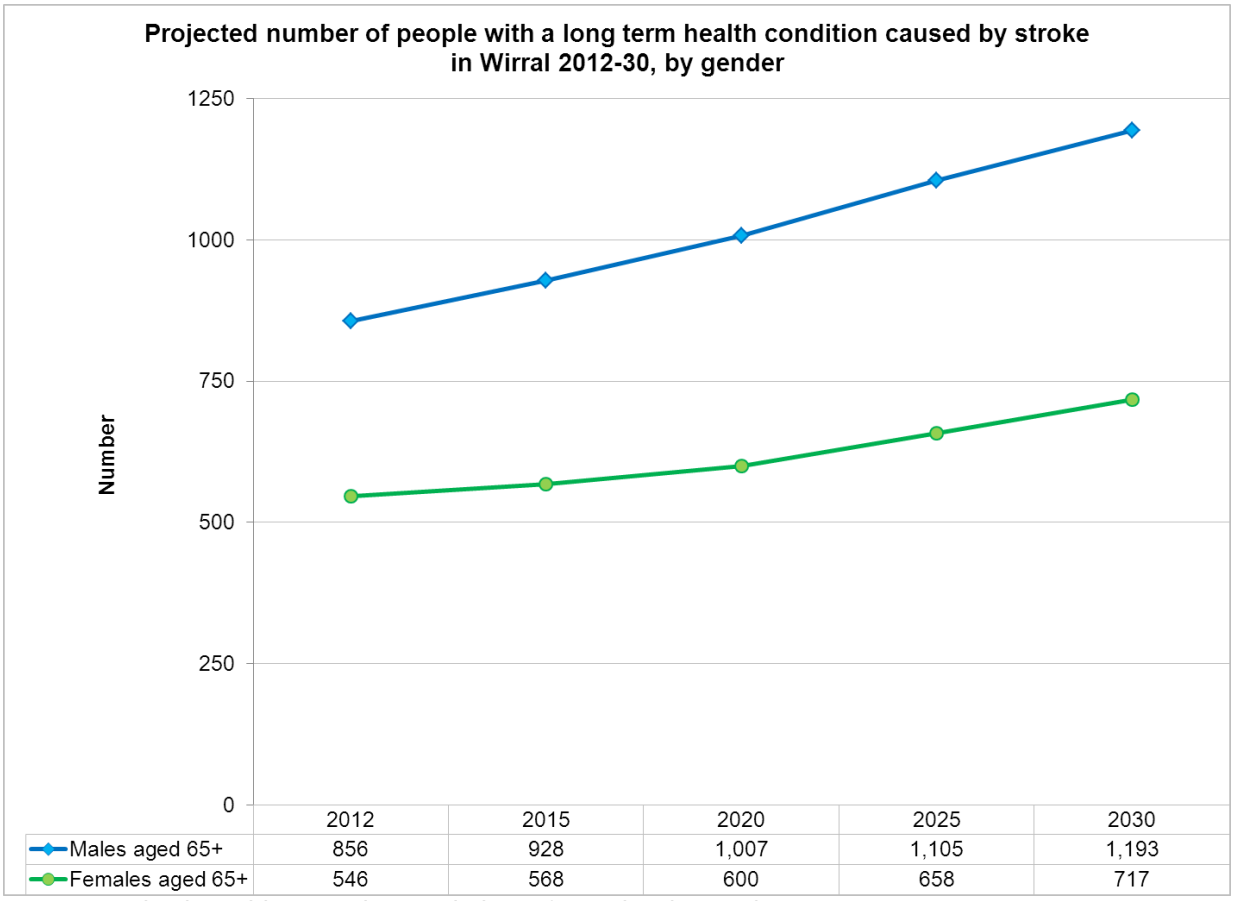
- Hospital admissions for acute cerebrovascular disease in Wirral were almost exactly as expected in 2011-12 (rates are adjusted to take into account the deprivation of the local population)
- Admission rates were just 1.3% higher than expected for all persons, 2.2% higher for women and 0.3% higher for men

- The total number of admissions during 2011-12 was 712 (compared to the 703 that would have been expected in Wirral given the age and deprivation of our local population)
- This compares positively with previous years, e.g. in 2009/10, admissions for acute CVD were 12% higher than expected in Wirral

Projected longstanding health conditions as a result of cardiovascular disease

Those who survive a stroke are often left with a disability. In the UK, on average, two-thirds of patients survive stroke, but half of those are left with a disability (commonly affecting mobility, cognition, sight, communication and mental health). Figure 3.1.6h shows projections for the number of people in Wirral who may be left with a longstanding health condition as a result of stroke from 2010 up to 2030.

Figure 3.1.6h: Projected number of Wirral people aged 65 and over predicted to have a long term health condition caused by a stroke, by gender: 2012-2030



	2012	2015	2020	2025	2030
Males aged 65+	856	928	1,007	1,105	1,193
Females aged 65+	546	568	600	658	717

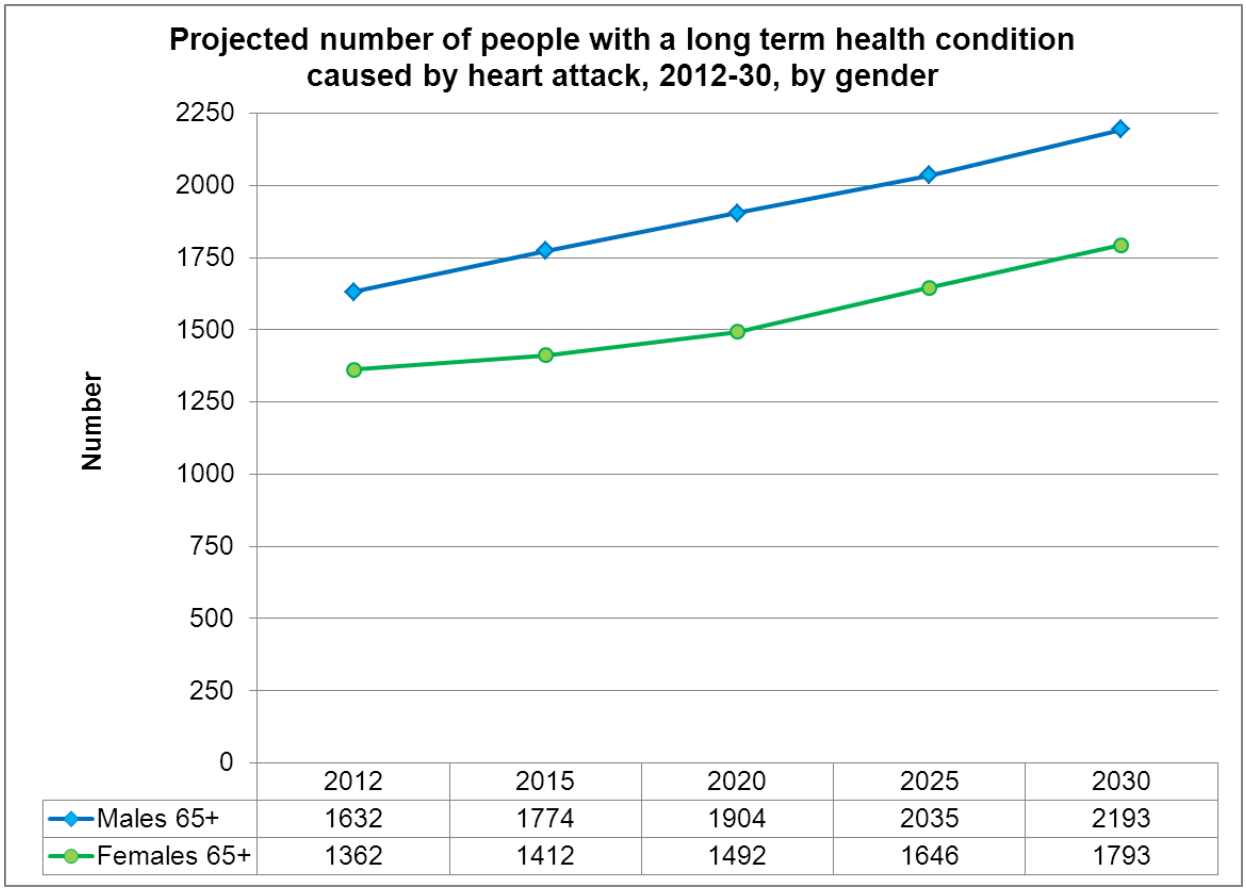
Source: Projecting Older People Population Information (POPPI) System, 2012

- The number of people in Wirral projected to be living with a longstanding health condition caused by stroke is projected to rise steadily, increasing from a total of 1,402 in 2012, to 1,910 in 2030, an increase of 36%. This is partly due to an increase in the older population over this period.
- There is projected to be a smaller number of females with health conditions caused by stroke compared to males in Wirral, by a ratio of 1:1.6

As with stroke, those who survive myocardial infarction are also often left with a longstanding health condition as a result.

Figure 3.1.6i shows projections for the number of people in Wirral who may be left with a longstanding health condition as a result of heart attack from 2010 to 2030.

Figure 3.1.6i: Projected number of Wirral people aged 65+ predicted to have a long term health condition caused by myocardial infarction (heart attack), 2010-30, by age



	2012	2015	2020	2025	2030
Males 65+	1632	1774	1904	2035	2193
Females 65+	1362	1412	1492	1646	1793

Source: POPPI, 2012

- The total number of people in Wirral living with a long term health condition caused by a heart attack is predicted to rise from 2994 in 2012 to 3986 in 2030
- This is an increase of a third (33%) and reflects increasing survival rates.

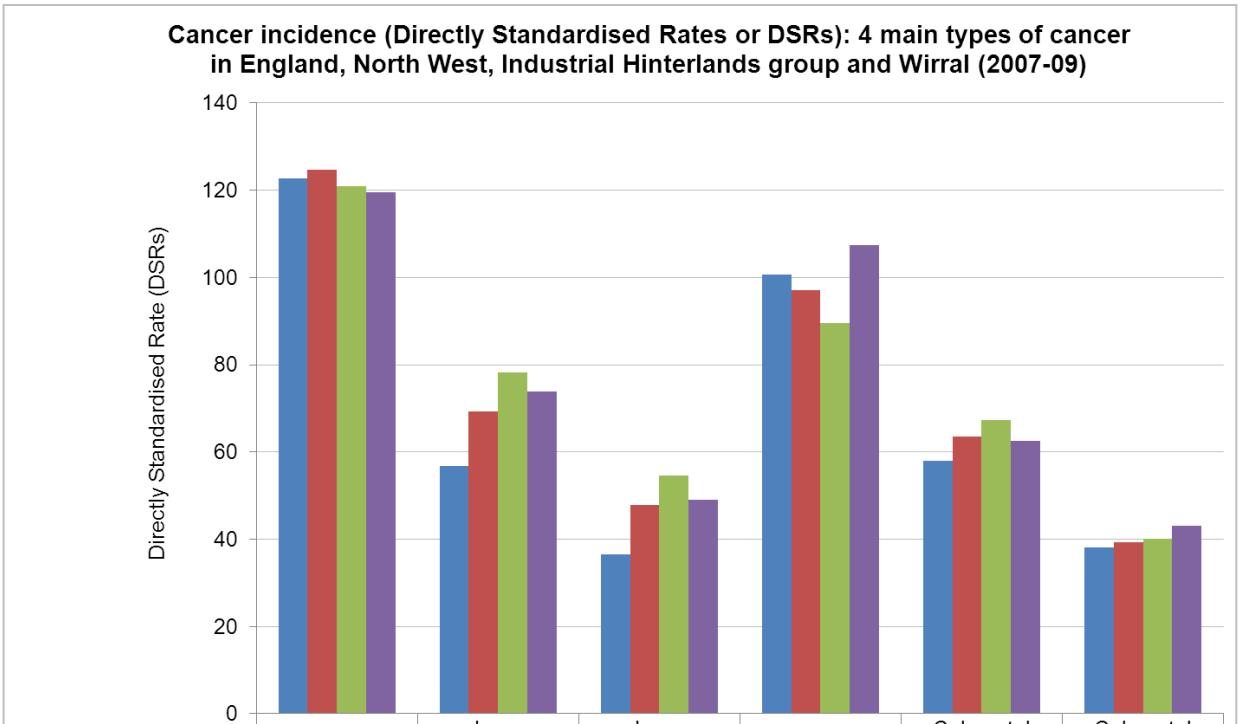
3.1.7 Cancer & Screening

Of the six main causes of death in Wirral, cancer accounts for the most deaths in both men and women (in actual numbers).

Cancer registrations (incidence)

Cancer registrations or incidence describes all new cases of cancer per annum. Figure 3.1.7a shows the directly age standardised rates (DSR) registrations for Wirral (three pooled years, 2007-09). Breast, prostate and lung cancers are the most commonly diagnosed cancers in Wirral

Figure 3.1.7a: Directly Standardised Rate (DSR) for incidence of the four main cancers by gender: England, North-West, Industrial Hinterlands group* and Wirral (2007-09)



	Breast	Lung (Males)	Lung (Females)	Prostate	Colorectal (Males)	Colorectal (Females)
England	122.65	56.77	36.58	100.76	58.02	38.12
North West	124.77	69.23	47.94	97.16	63.52	39.38
Industrial Hinterlands	120.92	78.32	54.54	89.58	67.32	40.20
Wirral	119.54	73.88	49.11	107.36	62.60	43.06

Source: NCHOD, 2012

*The Industrial Hinterlands Group is one of seven groups devised by the Office of National Statistics to classify areas using indicators from the Census such as employment and housing. These peer groupings enable more relevant comparisons to be made between demographically similar areas.

- Incidence of lung and colorectal cancer was higher in males compared to females in Wirral (mirroring national trends)
- Although incidence of colorectal cancer was lower in women compared to men overall, Wirral compares poorly with England, the North West and the Industrial Hinterlands peer group
- The highest incidence rates of the four main cancers in Wirral in 2007-09 were for breast cancer. Despite this, the rate was lower in Wirral compared to England, the North West and the Industrial Hinterlands peer group
- Prostate cancer had the next highest incidence, but in the reverse of the picture observed for breast cancer, rates were higher in Wirral compared to England, the North West and the Industrial Hinterlands peer group

Figure 3.1.7b below shows incidence (new cases) for all cancers by ward and gender for the three pooled years 2007-09.

Figure 3.1.7b: Cancer incidence (SRRs) for all cancer by ward and gender (2007-09)

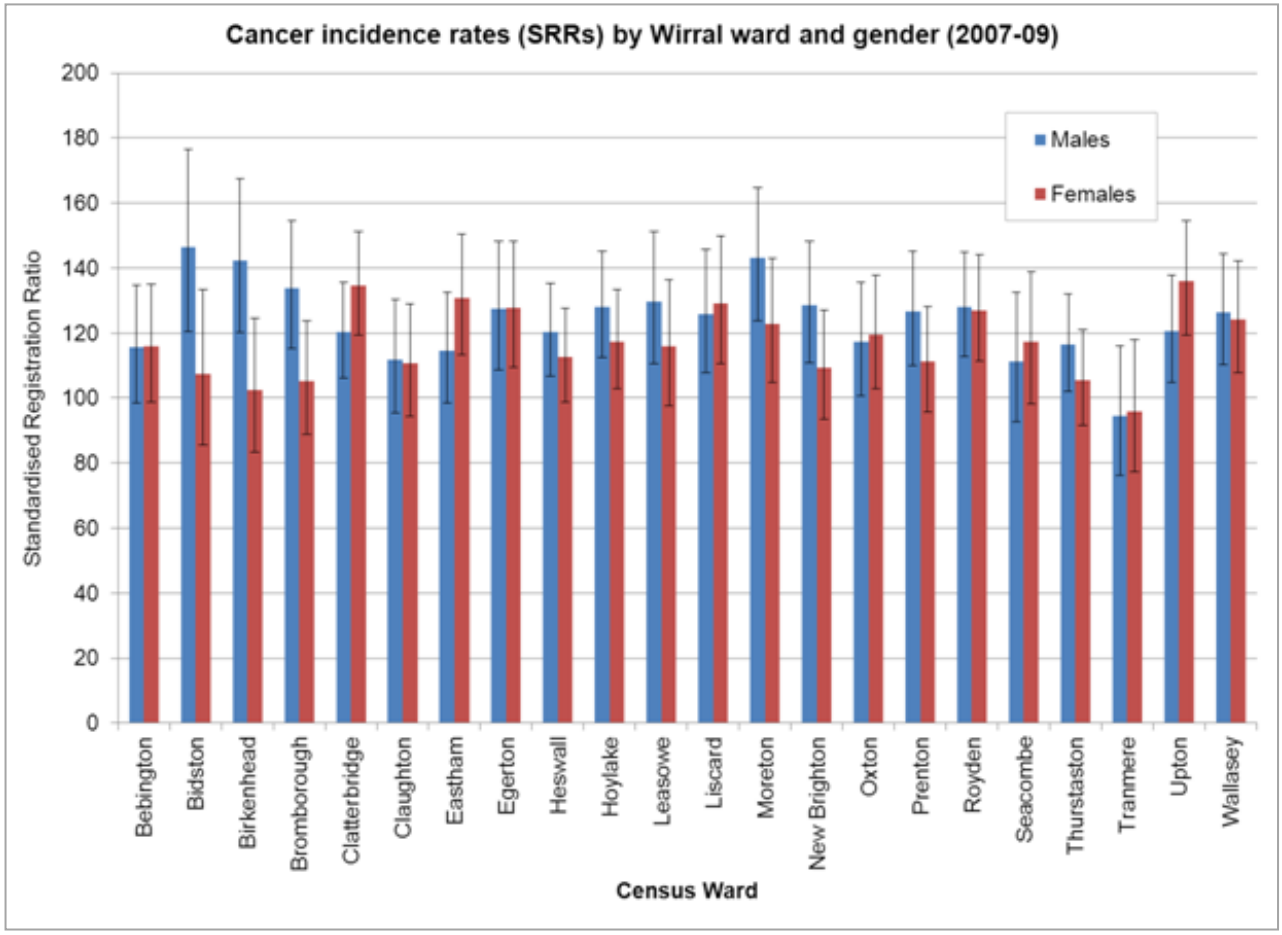
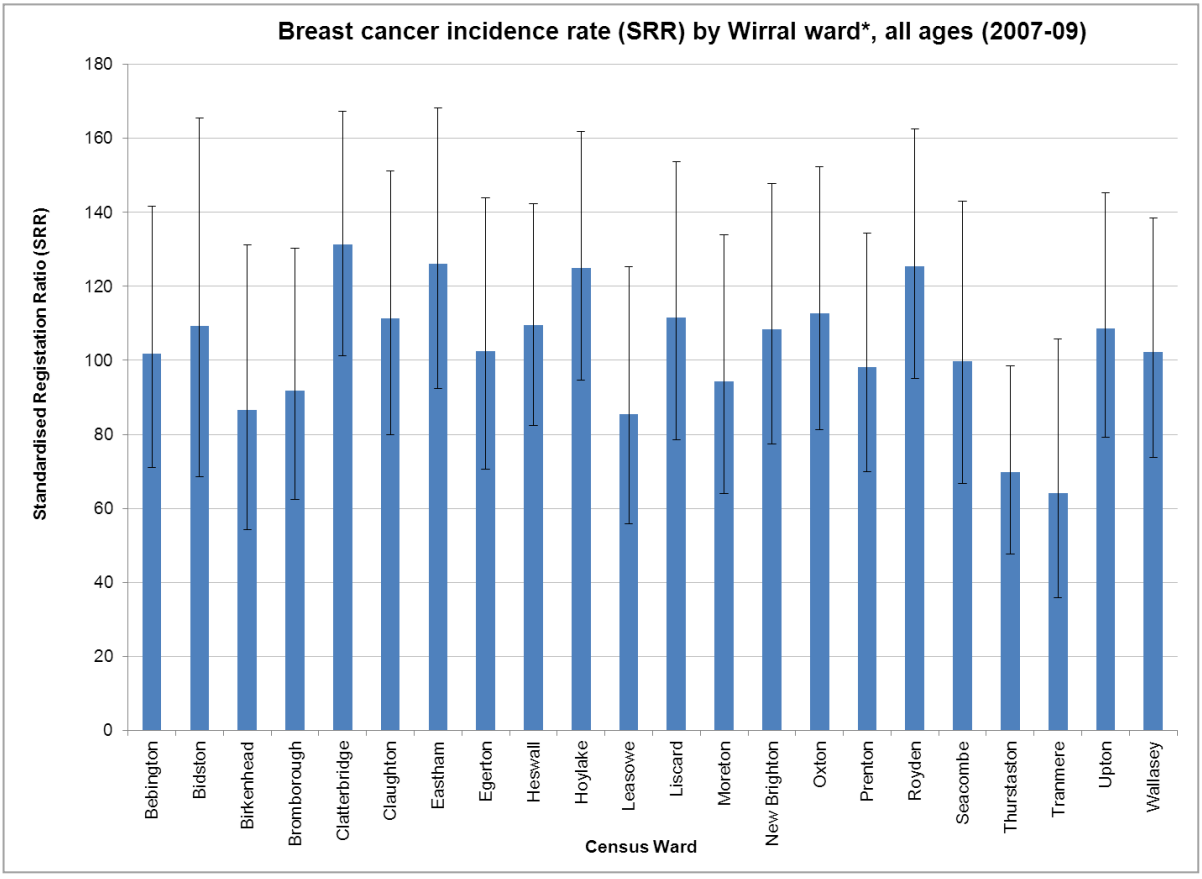


Figure 3.1.7c to 3.1.7f below shows cancer incidence for the four main sites by Wirral ward for 2008-10. This is expressed as a standardised registration ratio (SRR). The SRR is a ratio of the observed number of registrations in a population relative to the *expected* number of registrations in that population. Ratios above 100 indicate that the number of events observed was greater than expected, whilst ratios below 100, indicate it was lower.

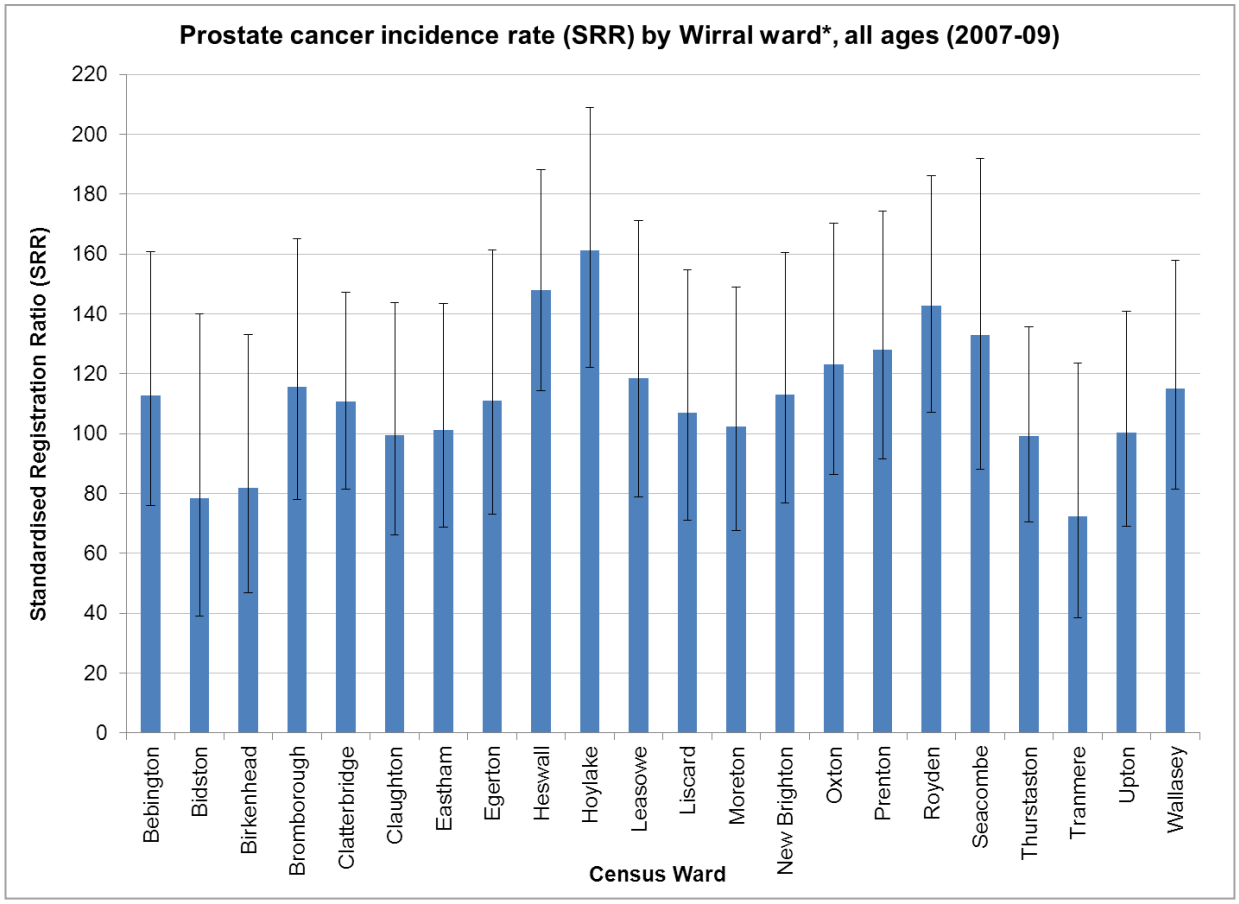
Figure 3.1.7c: Incidence (SRR) of breast cancer by Wirral ward, all ages (2007-09)



NWCIS 2012
*Census ward

- The wards with the highest incidence of breast cancer in 2007-09 were Clatterbridge, Royden and Hoylake
- The lowest incidence was in Tranmere, Thurstaston & Leasowe wards

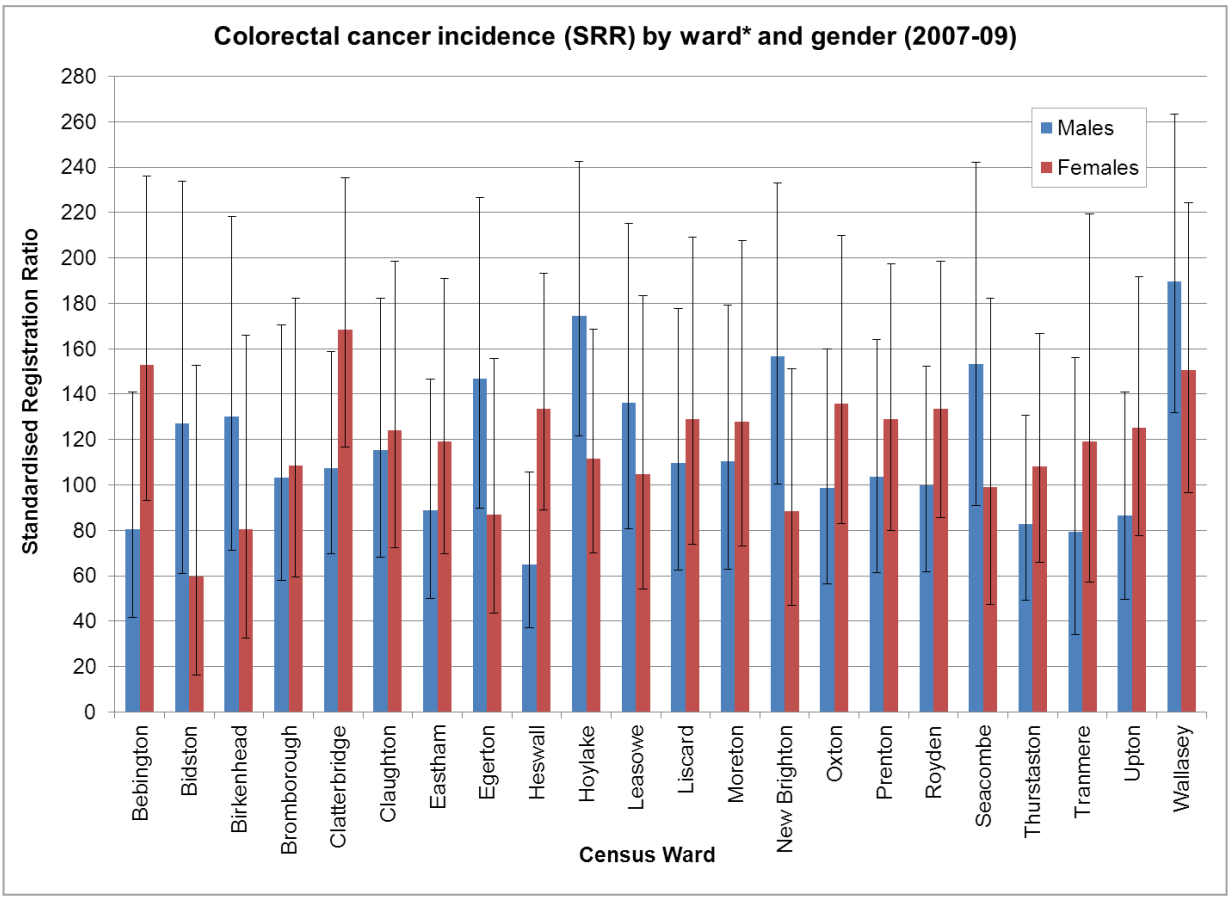
Figure 3.1.7d: Incidence Rate (Indirectly Standardised Ratio or SRR) for prostate cancer by Wirral ward, all ages (2007-09)



NWCIS, 2012
*Census ward

- The Wirral wards with the highest incidence of prostate cancer in Wirral in 2007-09 were Heswall, Hoylake and Royden
- The lowest rates were in Bidston St James and Tranmere

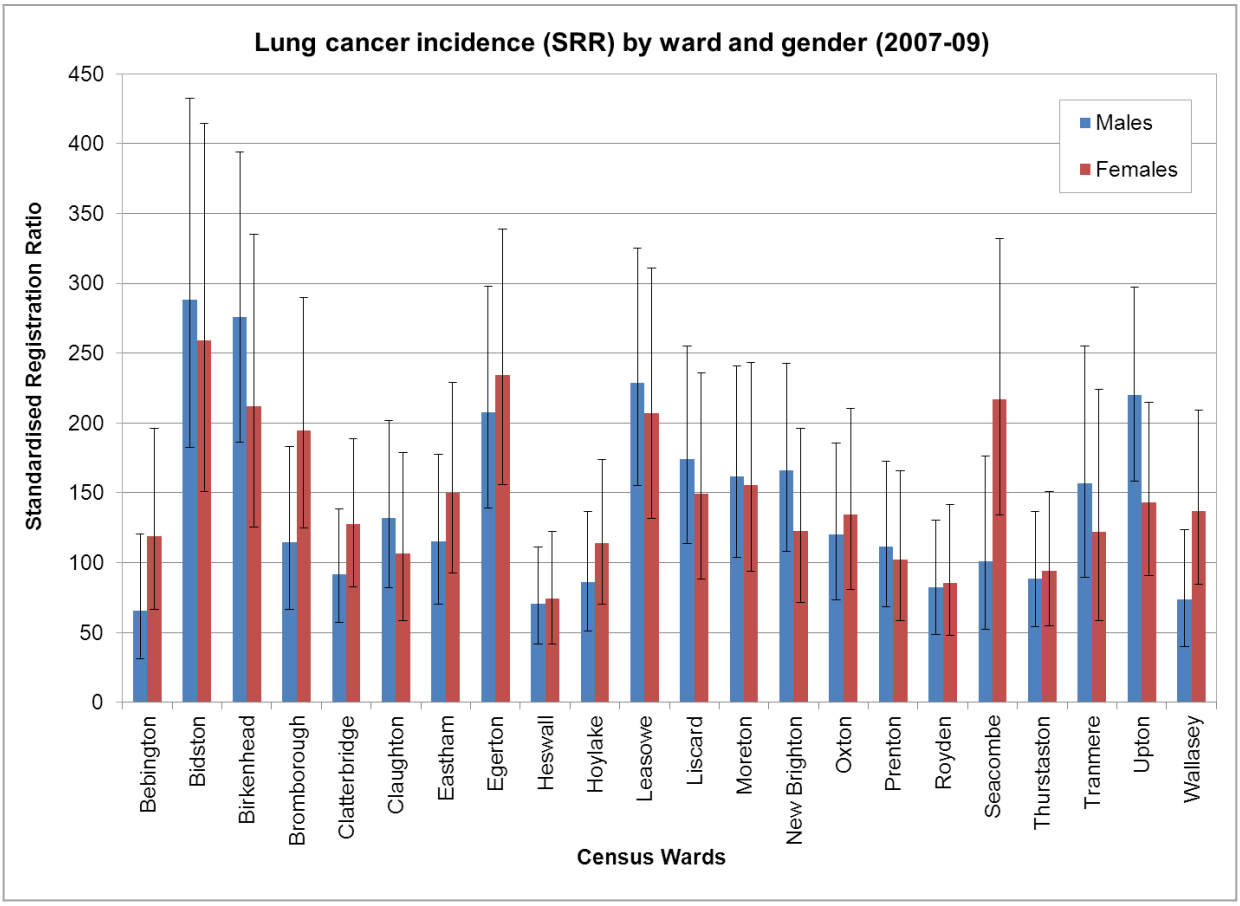
Figure 3.1.7e: Incidence Rate (Indirectly Standardised Ratio or SRR) for colorectal cancer by gender and Wirral ward, all ages (2007-09)



NWCIS, 2012

- The wards with the highest incidence of colorectal cancer in men in 2007-09 were Wallasey, Hoylake & New Brighton
- The wards with the highest incidence of colorectal cancer in women in 2007-09 were Wallasey, Clatterbridge & Bebington
- The wards with the lowest incidence in men were Heswall, Tranmere & Thurstaston
- The wards with the lowest incidence in women were Bidston, Birkenhead & Egerton

Figure 3.1.7f: Incidence Rate (Indirectly Standardised Ratio or SRR) for lung cancer by gender and Wirral ward, all ages (2007-09)



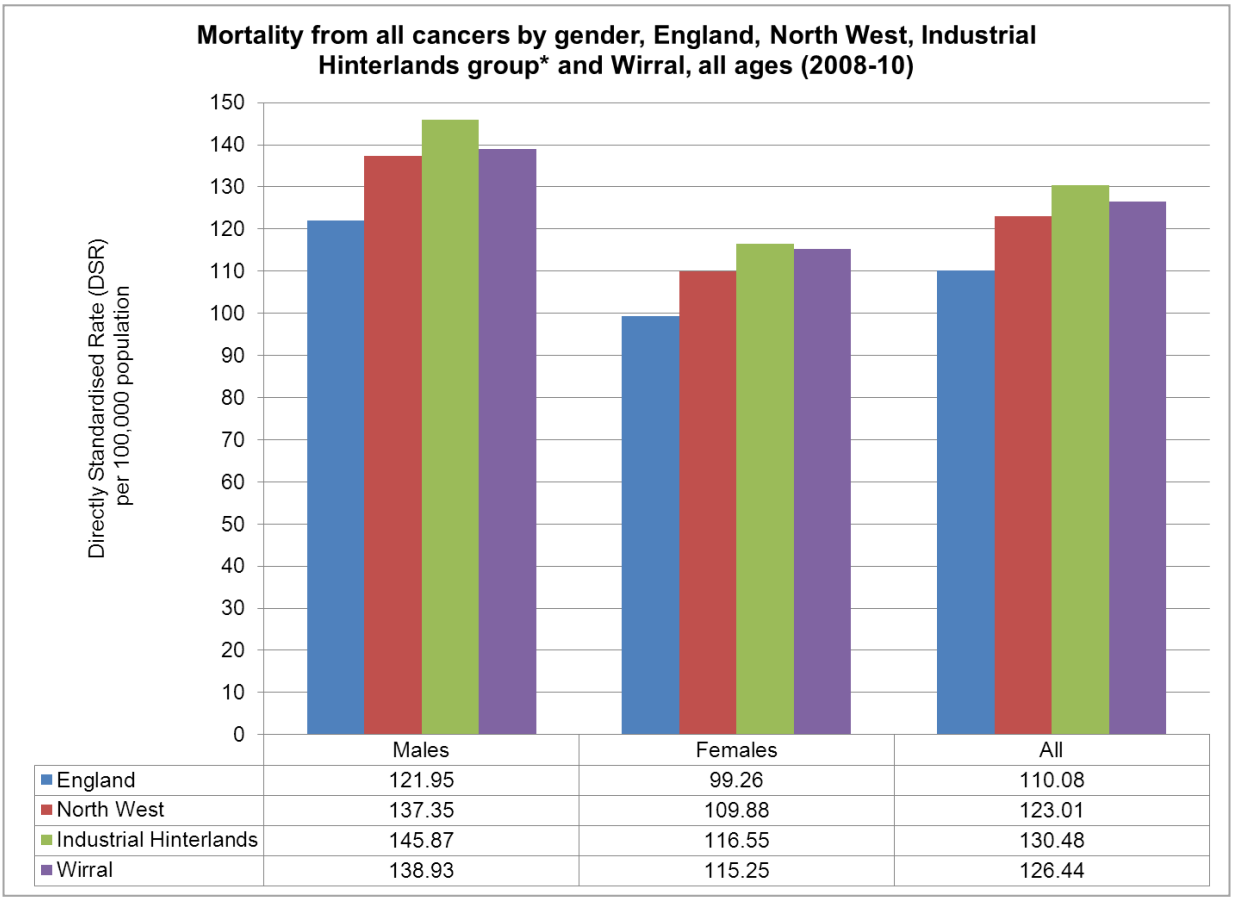
Source: NWCIS, 2012

- Lung cancer incidence was highest in 2007-09 amongst men in Bidston, Birkenhead & Leasowe
- Lung cancer incidence was highest in 2007-09 amongst women in Bidston, Seacombe & Egerton
- Incidence was lowest in 2007-09 amongst men living in Bebington, Heswall and Wallasey
- Incidence was lowest in 2007-09 amongst women living in Heswall, Royden and Thurstaston

3.1.8 Cancer Mortality

This describes death rates from cancer (when cancer was recorded as the primary cause of death). Figure 3.1.8a shows mortality rates (Directly Standardised Rate per 100,000) from cancer in people of all ages for England, North West, Industrial Hinterlands group* and Wirral.

Figure 3.1.8a: Mortality rate (DSR or Directly Standardised Rate per 100,000) from all cancers by gender: England, North West, Industrial Hinterlands group* and Wirral, 2008-10



	Males	Females	All
England	121.95	99.26	110.08
North West	137.35	109.88	123.01
Industrial Hinterlands	145.87	116.55	130.48
Wirral	138.93	115.25	126.44

Source: NHS IC, 2012

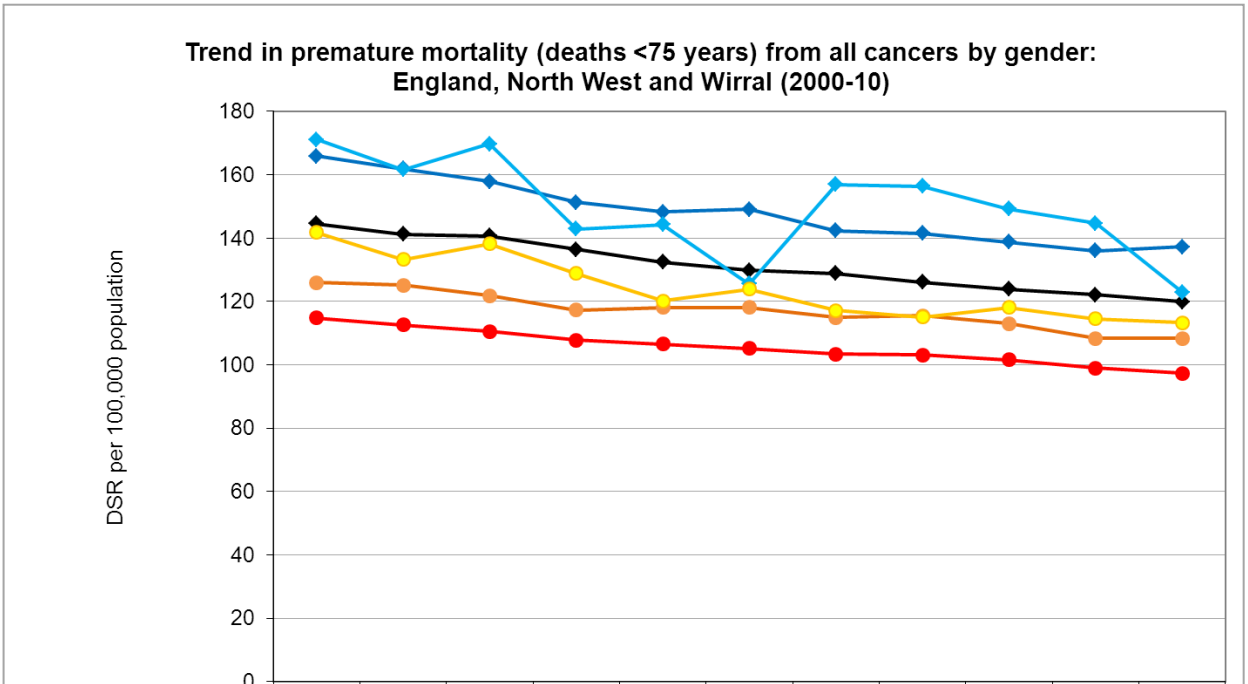
*The Industrial Hinterlands Group is one of seven groups devised by the Office of National Statistics to classify areas using indicators from the Census such as employment and housing. These peer groupings enable more relevant comparisons to be made between demographically similar areas.

- Cancer mortality rates for both sexes was higher in Wirral in 2008-10 than both the England and North West rates, but lower than the Industrial Hinterlands peer group

Cancer Trends

Trends in cancer deaths have been fluctuating over the years and are slowly improving for specific cancers. Figure 3.1.8b illustrates deaths from *all* cancers in the under 75s, for Wirral, North West, & England, for the period 2000 to 2010.

Figure 3.1.8b: Trend in premature mortality (deaths in those aged <75) from cancer by gender: England, North West & Wirral (2000-10)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
England Males	144.47	141.25	140.64	136.46	132.48	129.79	128.84	126.08	123.93	122.04	119.86
North West Males	165.92	161.84	157.86	151.27	148.18	149.04	142.27	141.50	138.76	135.99	137.30
Wirral Males	171.03	161.55	169.78	142.90	144.21	125.57	156.91	156.33	149.25	144.66	122.86
England Females	114.82	112.58	110.58	107.79	106.60	105.22	103.43	103.11	101.59	98.93	97.26
North West Females	125.93	125.07	121.75	117.33	118.06	118.14	114.90	115.53	113.03	108.32	108.28
Wirral Females	141.71	133.18	138.16	128.89	120.13	123.83	117.20	115.10	118.03	114.48	113.25

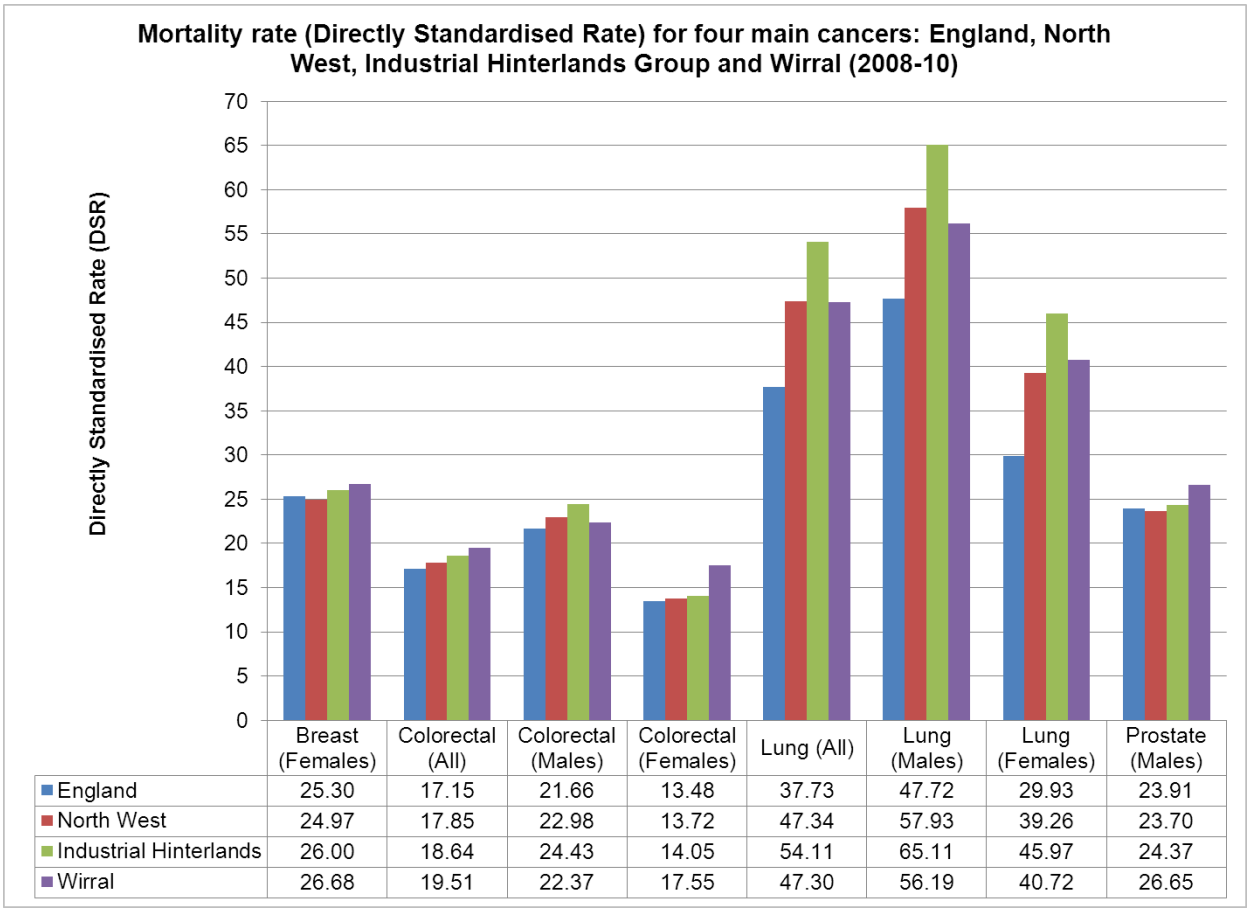
Source: NCHOD, 2012

- Premature mortality rates from cancer have decreased between 2000 and 2010 both locally and nationally
- There is slightly more variation in rates in Wirral, but this is probably due to smaller numbers
- Mortality from cancer in women aged under 75 is higher in Wirral compared to both the North West and England.
- Mortality from cancer in men aged under 75 is higher in Wirral compared to England, but lower than the North-West

Cancer mortality by site (type of cancer)

Both locally and nationally the most common sites of cancer causing death, are **lung, colorectal, breast** and **prostate**. Figure 3.1.8c shows deaths from cancers at these sites for England, North-West & Wirral.

Figure 3.1.8c: Mortality rates (Directly Standardised Rate or DSR) from four main cancers by gender, all ages: England, North-West, Industrial Hinterlands group* & Wirral (2008-10)



	Breast (Females)	Colorectal (All)	Colorectal (Males)	Colorectal (Females)	Lung (All)	Lung (Males)	Lung (Females)	Prostate (Males)
England	25.30	17.15	21.66	13.48	37.73	47.72	29.93	23.91
North West	24.97	17.85	22.98	13.72	47.34	57.93	39.26	23.70
Industrial Hinterlands	26.00	18.64	24.43	14.05	54.11	65.11	45.97	24.37
Wirral	26.68	19.51	22.37	17.55	47.30	56.19	40.72	26.65

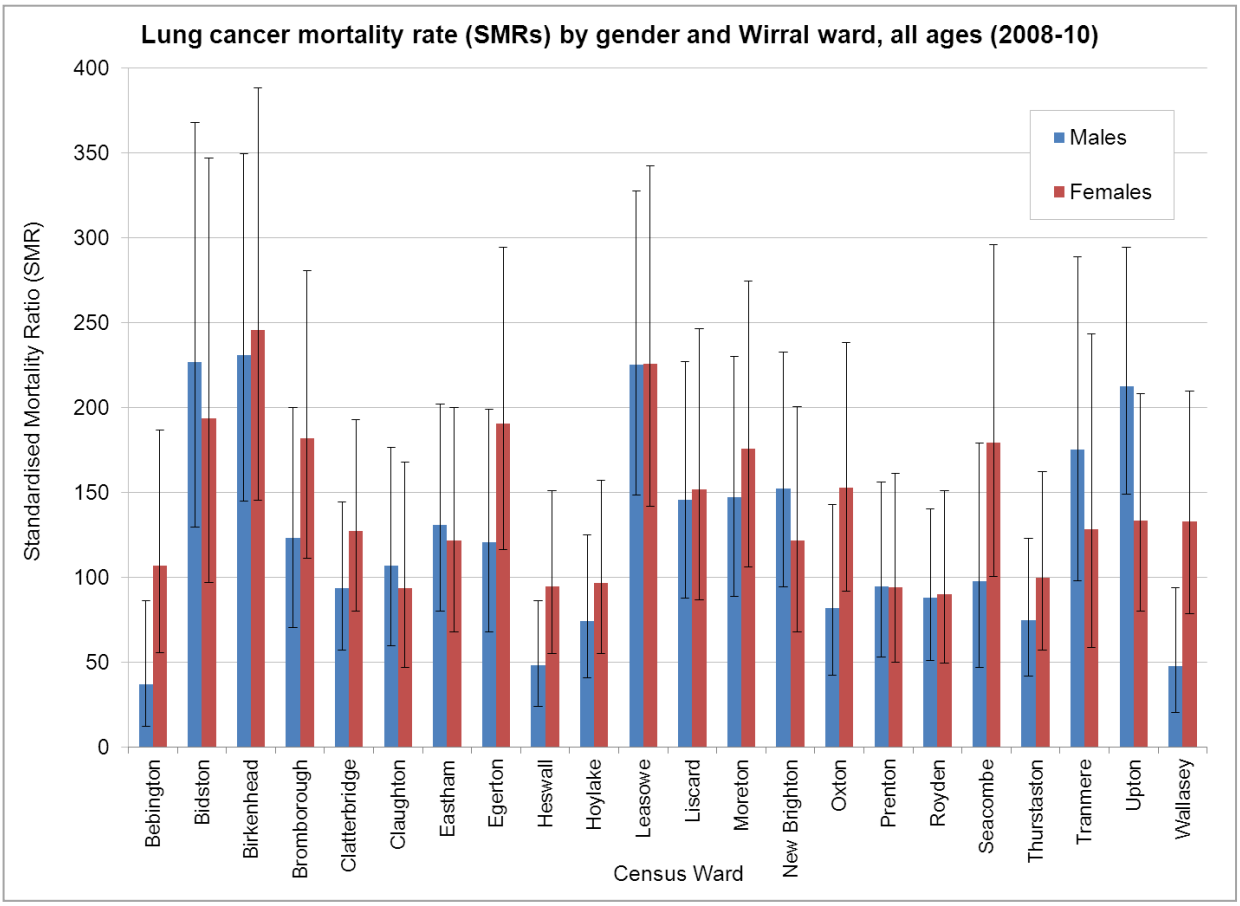
Source: NHS IC, 2012

*The Industrial Hinterlands Group is one of seven groups devised by the Office of National Statistics to classify areas using indicators from the Census such as employment and housing. These peer groupings enable more relevant comparisons to be made between demographically similar areas.

- The highest mortality rates are observed for lung cancer. This is true for both men and women in Wirral, but also in England and the North West.
- Mortality from lung cancer is higher in Wirral women compared to women in England and the North West (but not the Industrial Hinterlands peer group)
- **Mortality from colorectal and breast cancer amongst women in Wirral is higher than England, the North-West and the Industrial Hinterlands group**
- **Prostate cancer mortality is higher amongst Wirral men compared to men in England, the North West and the Industrial Hinterlands peer group**

Figures 3.1.8d to 3.1.8g below illustrate mortality rates for the four main cancer sites (lung, breast, prostate and colorectal) by Wirral wards for the 3 pooled years (2009-10). This is expressed as a standardised mortality ratio (SMR). The SMR is a ratio of the observed number of deaths in a population relative to the expected number of deaths in the same population. Ratios above 100 indicate that the number of events observed was greater than expected, whilst ratios below 100 that it was lower than expected.

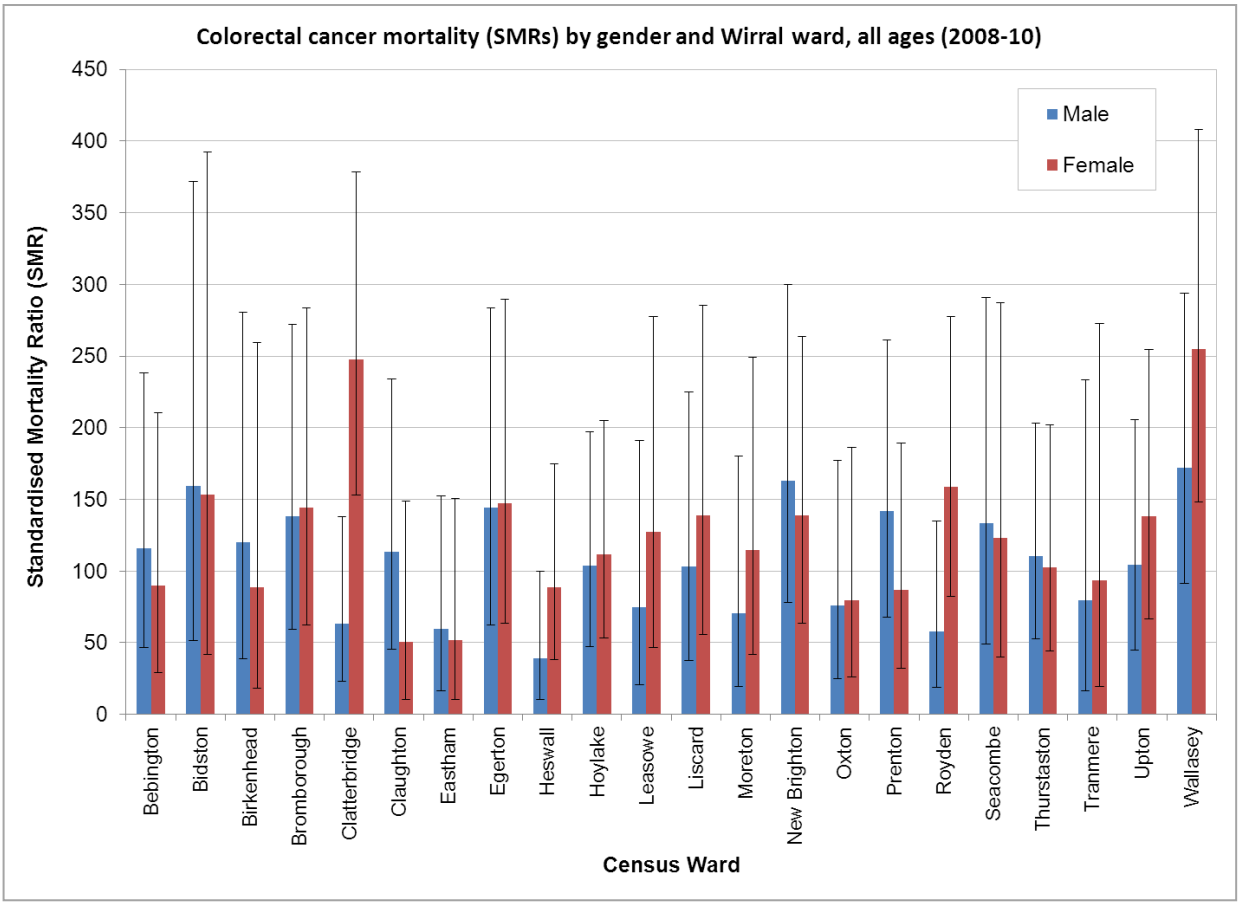
Figure 3.1.8d: Lung cancer mortality (SMRs) by gender and Wirral ward, all ages (2008/10)



Source: NHS IC, 2012

- Bidston, Birkenhead and Leasowe wards have the highest lung cancer mortality males in Wirral
- Birkenhead, Leasowe and Egerton have the highest lung cancer mortality for females in Wirral
- Females in Birkenhead had the overall highest rates for lung cancer in Wirral. **Rates in this ward were almost two and a half times the national average.**

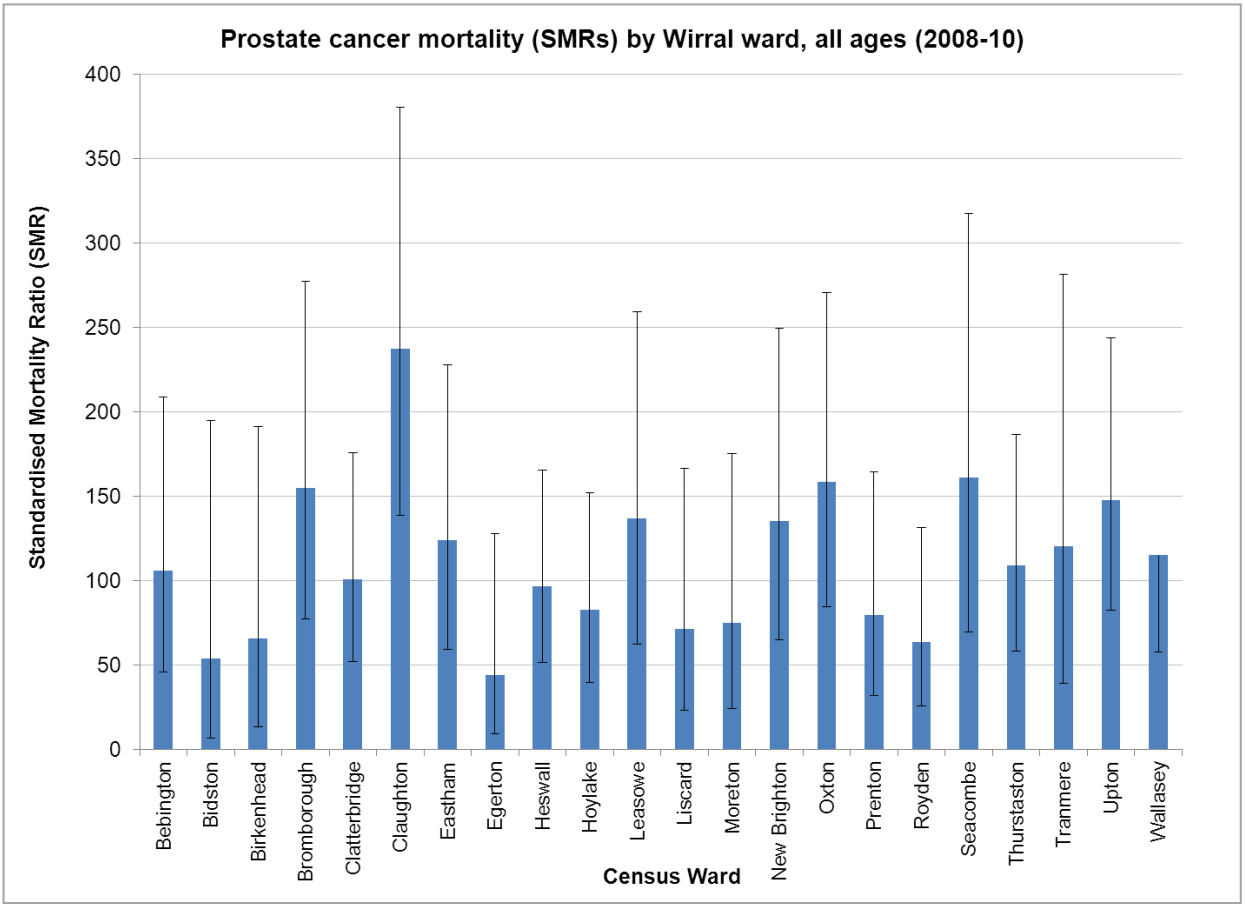
Figure 3.1.8e: Colorectal cancer mortality (SMRs) by gender and Wirral ward, all ages (2008-10)



Source: NHS IC, 2012

- Wallasey, Bidston and New Brighton have the highest colorectal cancer mortality rate for males in Wirral
- Wallasey, Clatterbridge and Royden have the highest colorectal cancer rates for females

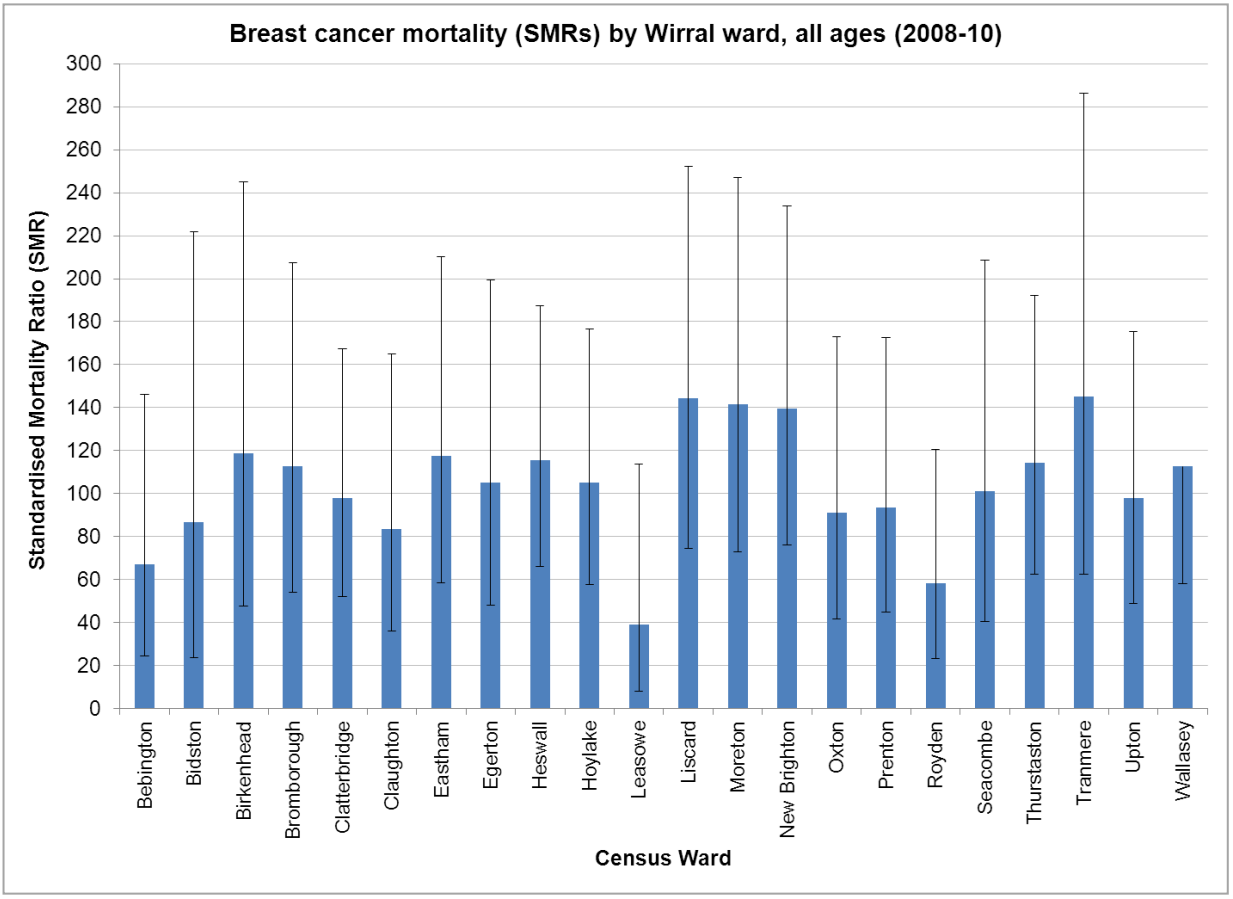
Figure 3.1.8f: Prostate cancer mortality (SMRs) by Wirral ward, all ages (2008-10)



Source: NHS IC, 2012

- Claughton, Seacombe and Oxton have the highest mortality rates for prostate cancer in Wirral. In the case of Claughton, rates are almost two and a half times higher than the average for England.
- Bidston, Egerton and Royden have the lowest mortality from prostate cancer in Wirral

Figure 3.1.8g: Breast cancer mortality (SMRs) by Wirral ward, all ages (2008-10)



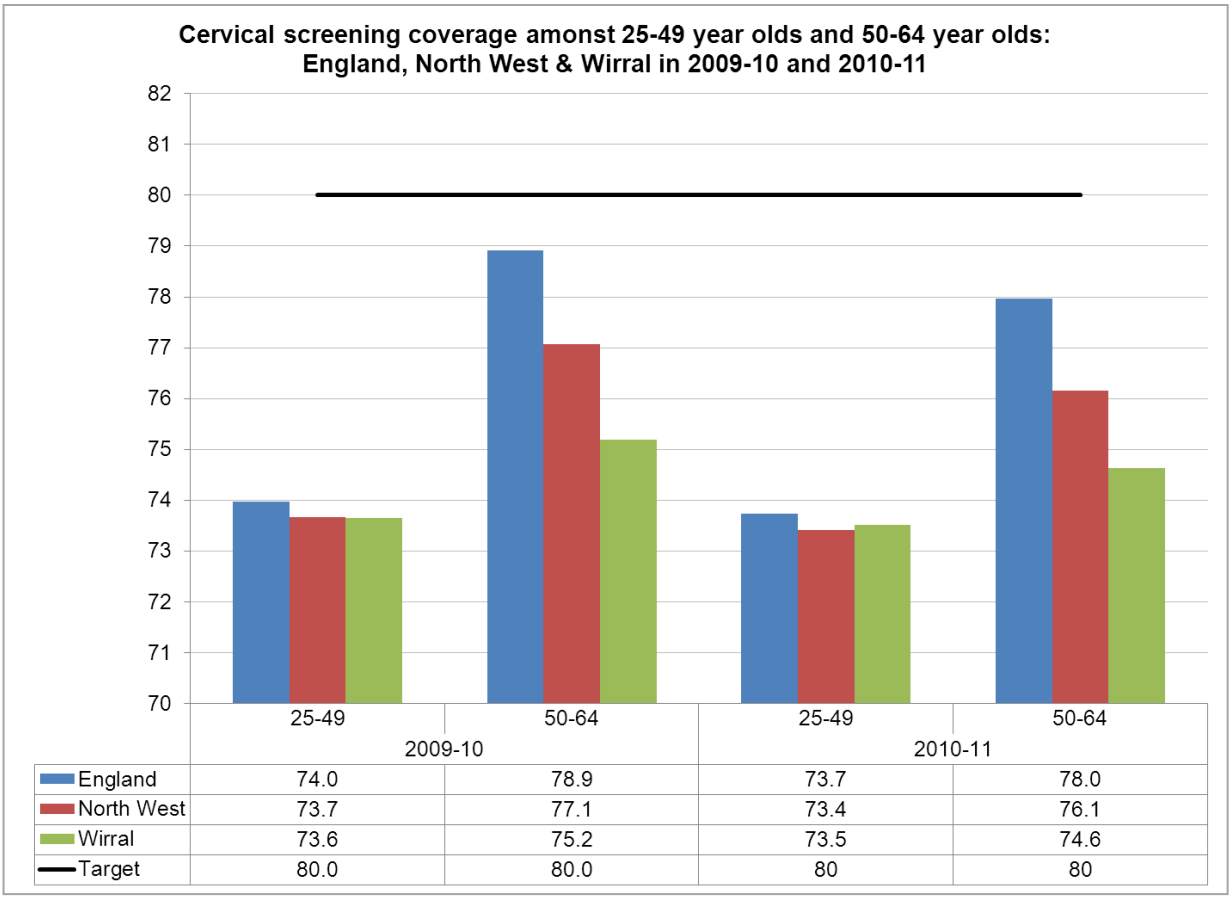
Source: NHS IC, 2012

- Tranmere, Liscard and Moreton wards have the highest rates of mortality from breast cancer in Wirral
- Leasowe, Royden and Bebington have the lowest rates of mortality from breast cancer in Wirral

Cervical cancer screening: 5 year coverage rate by age (25-64yrs)

Women between the ages of 25 and 64 are invited for regular cervical screening under the national Cervical Screening Programme. This is intended to detect abnormalities within the cervix that could, if untreated, develop into cancer. National policy is that women are offered screening every 3.5 or 5 years depending on their age (25-49 year olds are invited every 3.5 years, 50-64 year olds are invited every 5 years). Coverage is defined as the percentage of eligible women who were adequately screened within a specified period.

Figure 3.1.8h: Cervical screening coverage in England, North West and Wirral amongst 25-49 year olds and 50-64 year olds



	2009-10		2010-11	
	25-49	50-64	25-49	50-64
England	74.0	78.9	73.7	78.0
North West	73.7	77.1	73.4	76.1
Wirral	73.6	75.2	73.5	74.6
Target	80.0	80.0	80	80

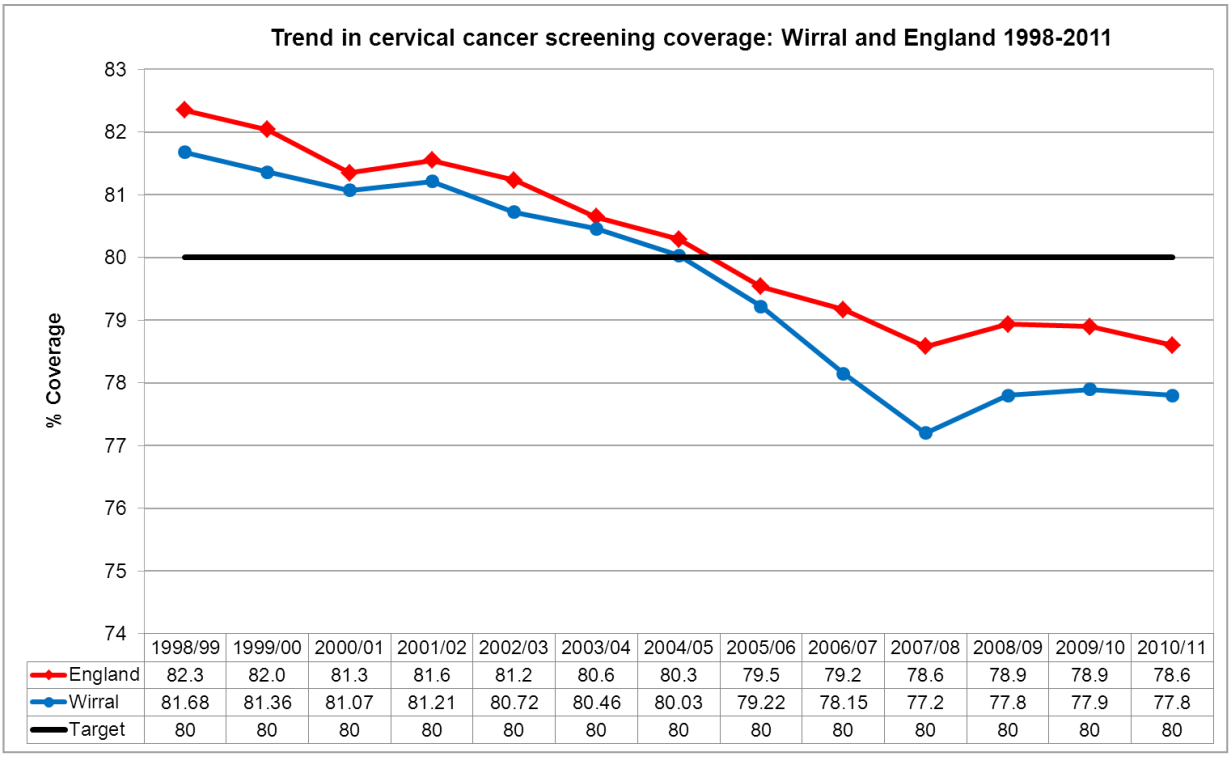
Source: NHS IC, 2012

- Screening uptake is lower in the 25-29 age group, compared to the 55-64 age group
- Coverage fell slightly between 2009-10 and 2010-11 in England, the North West and Wirral for both age groups

Cervical cancer screening trend data

Historical data shows a gradual downward trend in screening coverage over the last decade. This trend is not unique to Wirral and is apparent nationally and regionally. Figure 3.1.8i displays trend data for Wirral and England between 1998 and 2011.

Figure 3.1.8i: Trend in cervical cancer screening coverage (5yr): Wirral & England, 1998-2010

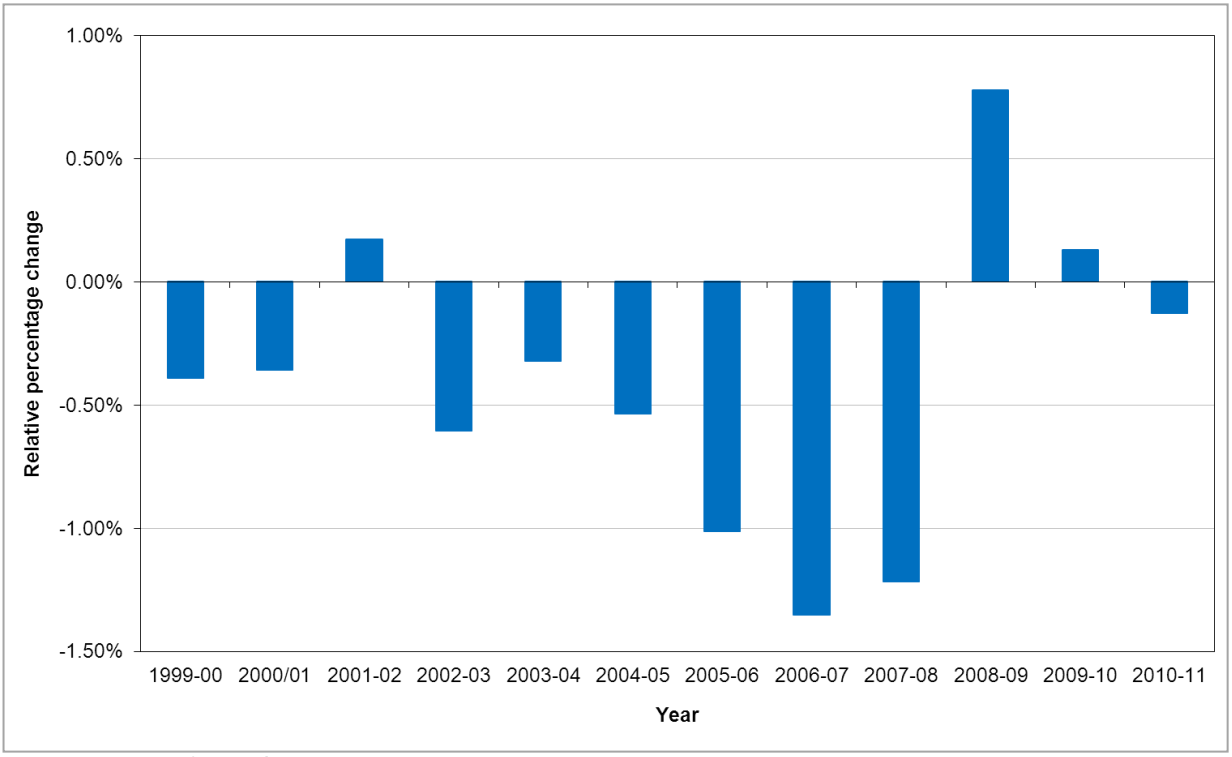


	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
England	82.3	82.0	81.3	81.6	81.2	80.6	80.3	79.5	79.2	78.6	78.9	78.9	78.6
Wirral	81.68	81.36	81.07	81.21	80.72	80.46	80.03	79.22	78.15	77.2	77.8	77.9	77.8
Target	80	80	80	80	80	80	80	80	80	80	80	80	80

Source: NHS Information Centre, 2012

- Since 1998 the coverage for cervical screening has fallen in both England and Wirral, reaching its lowest point in 2007-08, after which is started to rise slightly again (thought by some to have been due to the impact of a well-known TV celebrity announcing she had cervical cancer in 2008 and subsequently dying from the disease in 2009, the so-called 'Jade Goody effect')
- In Wirral, coverage has been fairly stable over the last three years, and in 2010-11 was 77.8%, slightly below the target of 80%

Figure 3.1.8j: Cervical Screening: Annual Change in coverage in Wirral 1999-2011



Source: NHS Information Centre, 2012

- Overall, since 1999, cervical screening coverage has fallen slightly in Wirral
- The trend was a downward one until 2008-09, when it reversed significantly, but since then, coverage has levelled out again

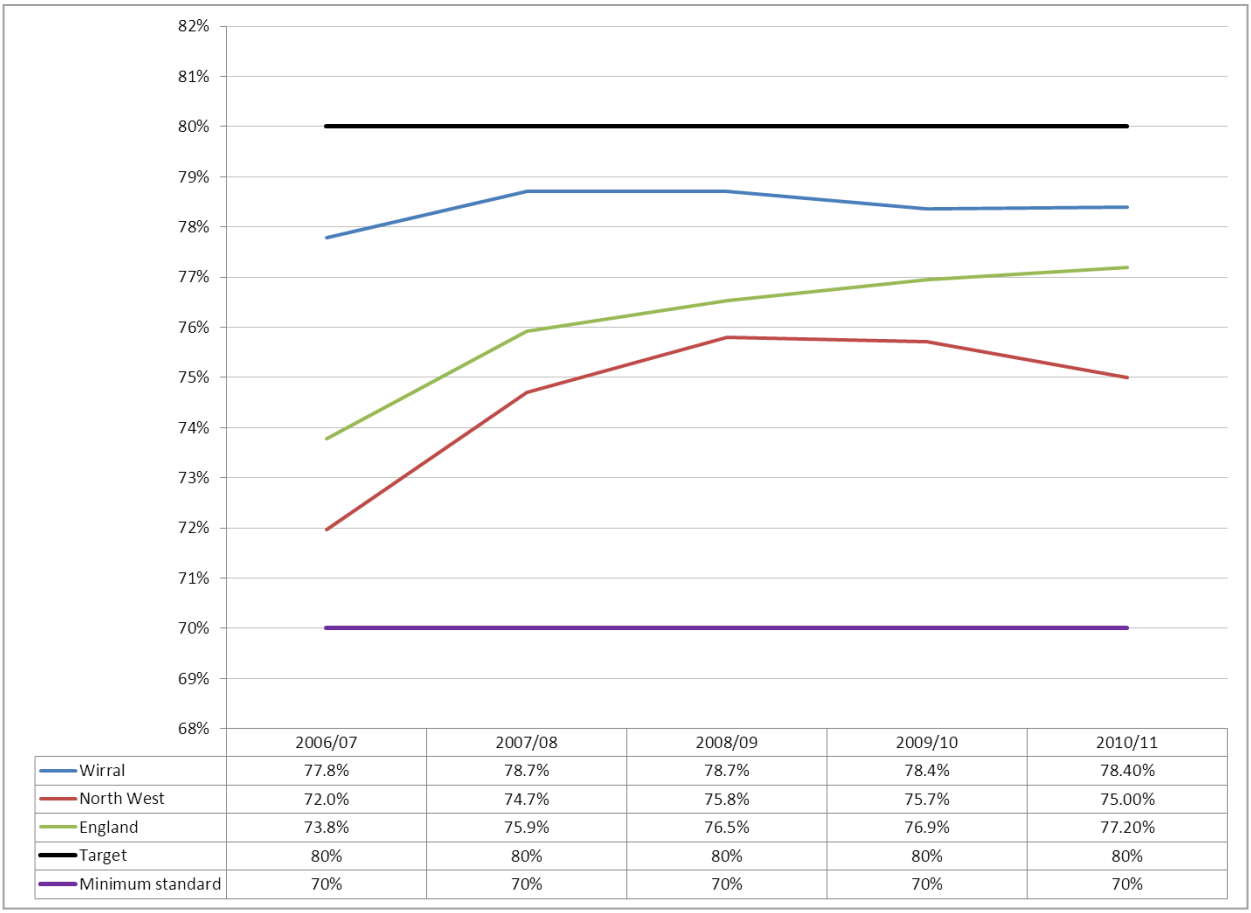
Breast cancer screening: coverage by age (53-70yrs)

Breast screening is an effective method of detecting breast cancer at an early stage, when it may be more amenable to treatment. Prior to 2011, women were called for routine screening between the ages of 53 and 70.

After 2011 however, women aged between 47 and 73 are routinely invited every 3 years for breast cancer screening. Women over the age of 70 years are not automatically invited but are encouraged to make their own appointments. It is estimated that the programme is saving around 1,400 lives every year in England.

The minimum standard for breast screening coverage is 70%, whilst the target is 80%. In 2010-11, Wirral achieved this target, with 78.4% of eligible women screened see Figure 3.1.8j.

Table 3.1.8j: Coverage of NHS Breast Screening Programme: Women aged 53-70, Wirral, North-West & England, 2006-07 to 2010-11



	2006/07	2007/08	2008/09	2009/10	2010/11
Wirral	77.8%	78.7%	78.7%	78.4%	78.40%
North West	72.0%	74.7%	75.8%	75.7%	75.00%
England	73.8%	75.9%	76.5%	76.9%	77.20%
Target	80%	80%	80%	80%	80%
Minimum standard	70%	70%	70%	70%	70%

Source: NHS IC, 2012

- Although breast screening coverage in Wirral has not met the 80% target, it is well above the 70% minimum standard and outperforms both national and regional coverage rates

Bowel cancer screening programme

Following a national pilot programme, Wirral introduced the national bowel screening programme locally in 2007. People aged 60-69 years across Wirral are automatically sent an invitation to participate in the screening programme (over a two year period). The target is for 60% of the eligible population to have been screened.

Table 3.1.8k: Bowel cancer screening uptake in Wirral (2009-11)

	Invited	Attended	Uptake
2009-10	16,734	9,230	55.16%
2010-11	27,605	14,826	53.71%

Source: NWBTSP, 2012

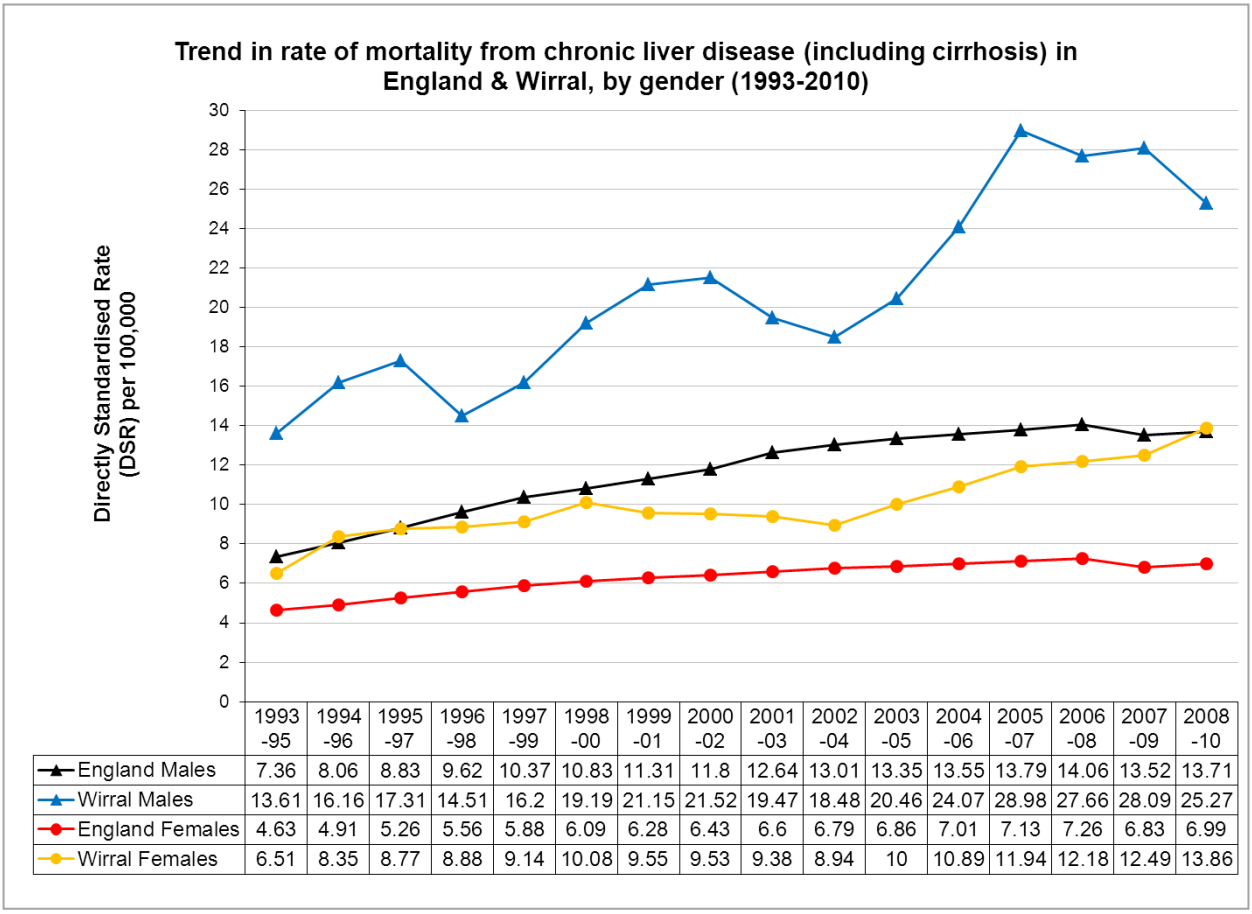
- Uptake of the bowel cancer screening programme fell very slightly in 2010-11 compared to the previous year. Wirral did not meet the target in either year.

3.1.9 Digestive Disease

Digestive disease refers to diseases of the digestive system, including the gastrointestinal tract, pancreas and liver (including cirrhosis).

Mortality rate from chronic liver disease (including cirrhosis) all ages, Figure 3.1.9a shows the trends in all age mortality (DSR per 100,000) from chronic liver disease in England and Wirral between 1993 and 2009 for males and females.

Figure 3.1.9a: Trend in mortality rate (Directly Standardised Rate per 100,000) from chronic liver disease (including cirrhosis) in England & Wirral, by gender (1993–2010)



	1993 -95	1994 -96	1995 -97	1996 -98	1997 -99	1998 -00	1999 -01	2000 -02	2001 -03	2002 -04	2003 -05	2004 -06	2005 -07	2006 -08	2007 -09	2008 -10
England Males	7.36	8.06	8.83	9.62	10.37	10.83	11.31	11.8	12.64	13.01	13.35	13.55	13.79	14.06	13.52	13.71
Wirral Males	13.61	16.16	17.31	14.51	16.2	19.19	21.15	21.52	19.47	18.48	20.46	24.07	28.98	27.66	28.09	25.27
England Females	4.63	4.91	5.26	5.56	5.88	6.09	6.28	6.43	6.6	6.79	6.86	7.01	7.13	7.26	6.83	6.99
Wirral Females	6.51	8.35	8.77	8.88	9.14	10.08	9.55	9.53	9.38	8.94	10	10.89	11.94	12.18	12.49	13.86

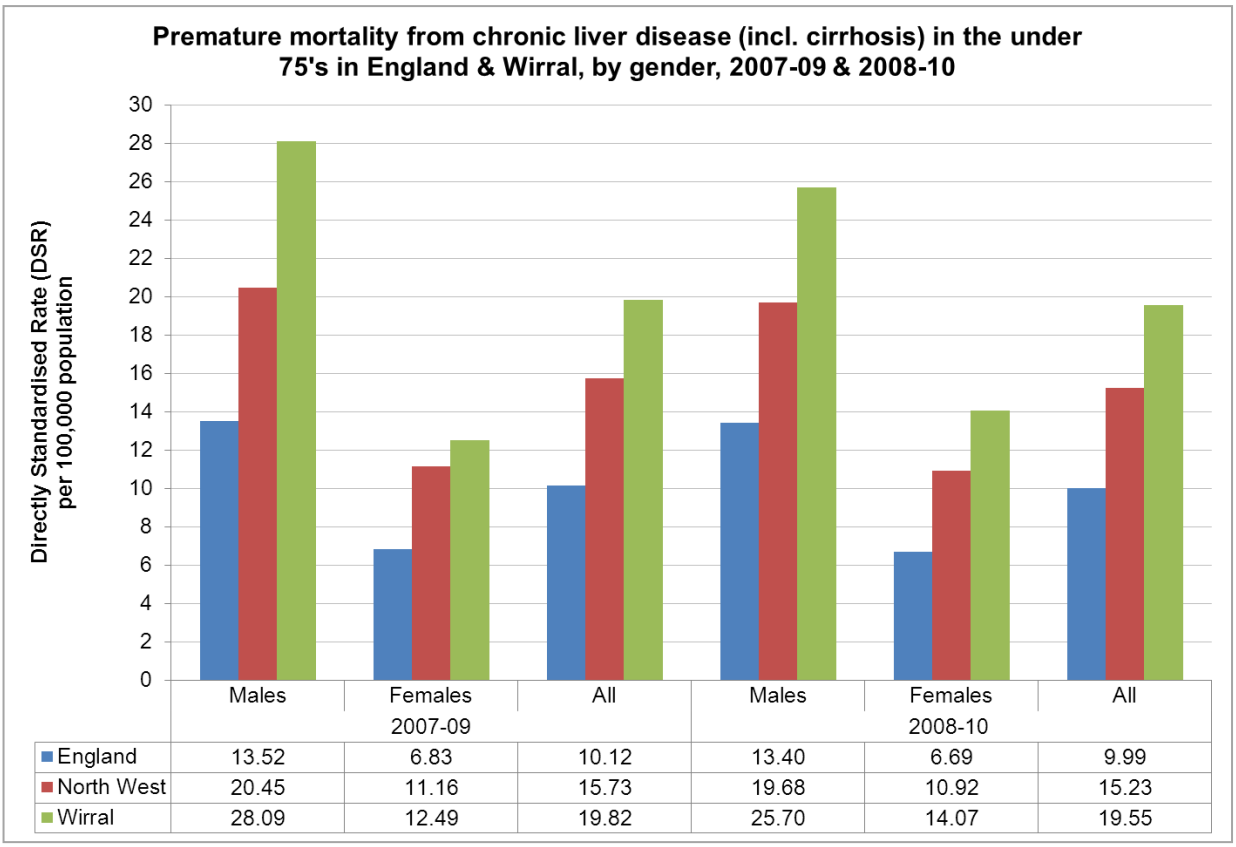
Source: NHS IC, 2012

- Rates of mortality from chronic liver disease have been consistently higher in both males and females in Wirral compared to England over the last 20 years
- Overall, death rates from chronic liver diseases have been gradually increasing in both England and Wirral since 1993, but the rate of increase is much more pronounced in Wirral
- Mortality from chronic liver disease is higher amongst males than females in both Wirral and England.
- **Alcohol is the most significant contributor to the rise in mortality from liver disease and other digestive disorders and it is a significant contributor to the life expectancy gap locally**

Premature mortality from chronic liver disease (deaths in those aged less than 75)

Figure 3.1.9b shows premature deaths from chronic liver disease (including cirrhosis) in England and Wirral in 2007-09 and 2008-10 (3 years of pooled data in each time period).

Figure 3.1.9b: Premature mortality rate (DSR per 100,000) from chronic liver disease (including cirrhosis) in England & Wirral, by gender (2007-09 and 2008-10)



	Males	Females	All	Males	Females	All
	2007-09			2008-10		
England	13.52	6.83	10.12	13.40	6.69	9.99
North West	20.45	11.16	15.73	19.68	10.92	15.23
Wirral	28.09	12.49	19.82	25.70	14.07	19.55

Source: NHS Information Centre, 2012

- Mortality rates amongst under 75's from chronic liver disease in Wirral is higher than the England average. This is true of both males and females, but the difference between England and Wirral is particularly marked in males
- Death rates amongst men in Wirral from liver disease are almost double those of women in Wirral
- Mortality rates amongst women in Wirral are more than double those of women in England overall and increased from 12.49 in 2007-09 to 14.07 in 2008-10
- Mortality has decreased slightly amongst men between 2007-09 and 2008-10, from 28.09 to 25.70, but this is still almost double the England average of 13.40.

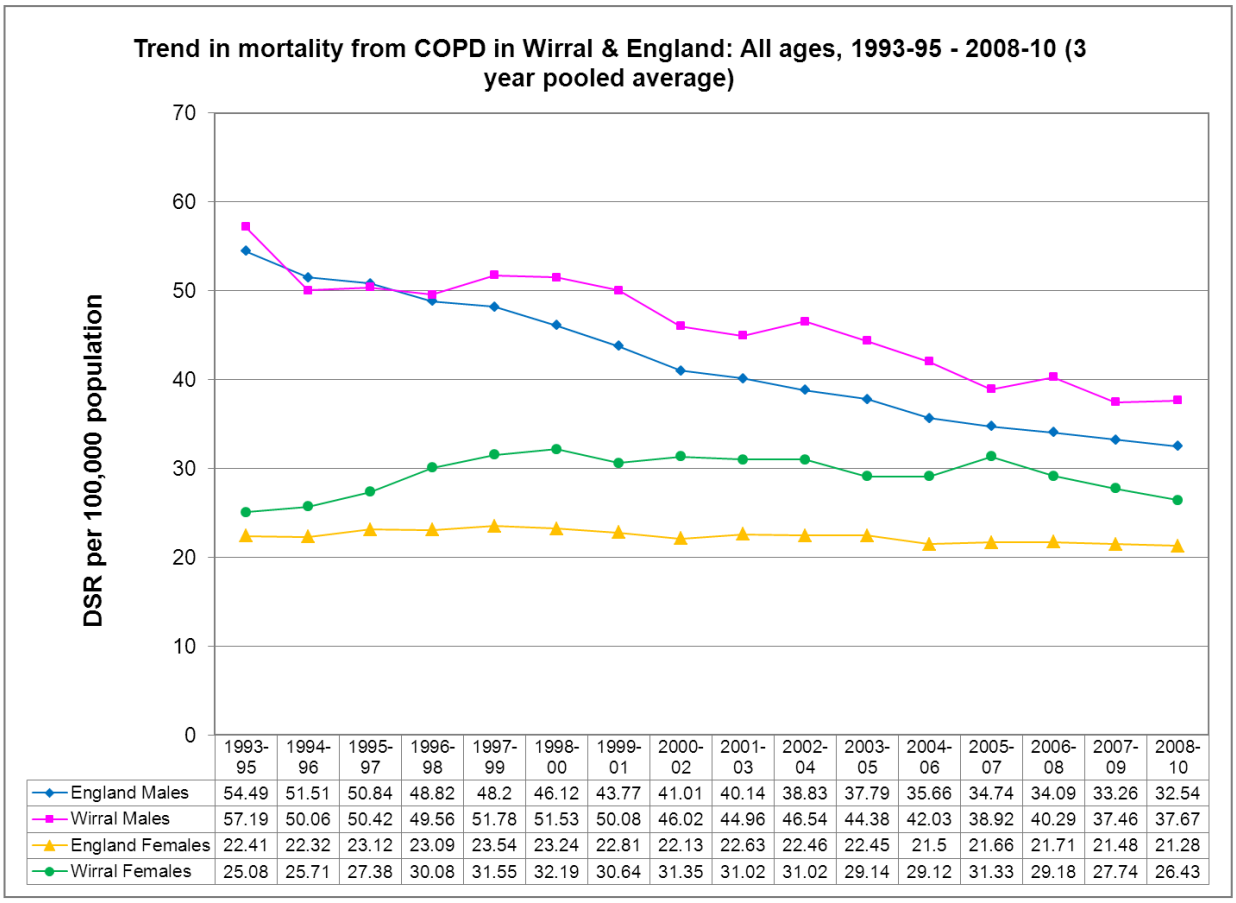
3.1.10 Chronic Obstructive Pulmonary Disease (COPD)

COPD is a disease of the lungs which causes breathlessness, wheezing and frequent infection. COPD is an umbrella term which includes chronic bronchitis and emphysema. The main risk factor for COPD is smoking and around 9 out of 10 cases of COPD are directly caused by smoking. Repeated hospital admissions are common in people with COPD due to the progressive nature of the condition and periodic exacerbations (acute episodes where the

condition worsens) can be caused by factors such as cold weather, influenza and chest infections.

Figure 3.1.10a shows the trend in mortality from COPD in England and Wirral from 1993 to 2010.

Figure 3.1.10a: Trend in COPD Mortality: All ages, Wirral and England (1993-2010)



	1993-95	1994-96	1995-97	1996-98	1997-99	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09	2008-10
England Males	54.49	51.51	50.84	48.82	48.2	46.12	43.77	41.01	40.14	38.83	37.79	35.66	34.74	34.09	33.26	32.54
Wirral Males	57.19	50.06	50.42	49.56	51.78	51.53	50.08	46.02	44.96	46.54	44.38	42.03	38.92	40.29	37.46	37.67
England Females	22.41	22.32	23.12	23.09	23.54	23.24	22.81	22.13	22.63	22.46	22.45	21.5	21.66	21.71	21.48	21.28
Wirral Females	25.08	25.71	27.38	30.08	31.55	32.19	30.64	31.35	31.02	31.02	29.14	29.12	31.33	29.18	27.74	26.43

Source: NCHOD, 2012

- Although COPD mortality fluctuates, it has always been higher in Wirral males compared to England (with the exception of one time period 1994-96)
- Nationally and in Wirral, COPD mortality is showing a downward trend in males overall (despite very slight upturn in Wirral in 2008-10). This means that the gap between England and Wirral is not closing (because both are reducing)
- The picture is slightly different for women. In Wirral, mortality figures have been showing a downward trend since 2005-07, whilst in England, they have remained stable over the period, meaning the gap between Wirral and England for women has closed slightly
- The gap between males and females for COPD mortality has narrowed slightly since 1993/05, when the male mortality rate from COPD was 130% higher than that of females. In 2008-10, the gap 77% higher for males than females.

COPD recorded prevalence versus modelled prevalence

Using modelling tools we can estimate the prevalence of COPD and compare it to the observed prevalence in primary care (QOF). Estimated prevalence of COPD by local

authority and PCT area was calculated by the Association of Public Health Observatory's (APHO) in December 2011.

The model uses age and gender and smoking status of the population as well as ethnicity, deprivation and whether an area is mostly urban or rural. These factors are combined to estimate the proportion of the population who will experience COPD symptoms.

It is likely that there will always be a proportion of the population who have COPD, but are not yet diagnosed because they have not been to see their GP or do not recognise the symptoms for example. The APHO estimates give us an idea of how many people might fall into this category locally.

Table 3.1.10a: Recorded prevalence of COPD (QOF 2012) against expected prevalence

	Practice Population	Expected Prevalence December 2011		Observed Prevalence March 2012	
		Total	%	Total	%
Wirral	331,995	13,379	5.36%	7,588	2.28%

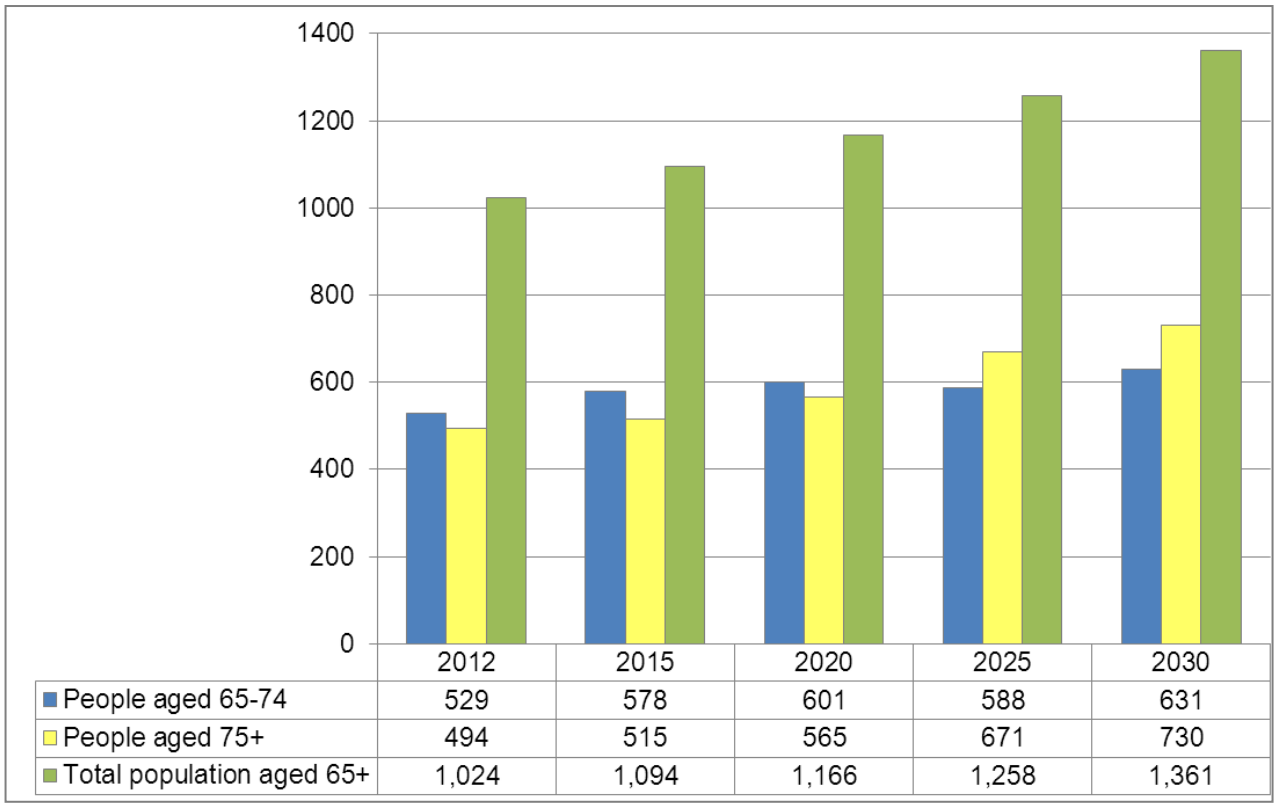
Source: APHO (Association of Public Health Observatory) COPD Prevalence Modeller, 2011 & QMAS, 2012

- The observed prevalence of COPD in Wirral from QOF is lower than the expected prevalence based on the APHO model
- This suggests that there may be around 5,800 individuals with COPD who are not yet diagnosed and not yet on the COPD registers
- A breakdown of this figure by Wirral GP practice is available here

COPD Projected Future Prevalence

The number of people over the age of 65 predicted to develop a longstanding health condition caused by bronchitis and emphysema is shown in figure 3.1.10b.

Figure 3.1.10b: Number of people in Wirral predicted to have a longstanding health condition caused by bronchitis and emphysema, by age and gender: 2012-30



	2012	2015	2020	2025	2030
People aged 65-74	529	578	601	588	631
People aged 75+	494	515	565	671	730
Total population aged 65+	1,024	1,094	1,166	1,258	1,361

Source: POPPI, 2012

As Figure 3.1.10b shows, the number of people projected to have a health condition caused by bronchitis or emphysema will increase of 32% between 2012 and 2030. **This would have a significant impact on health services.**

3.1.11 Diabetes

Diabetes is a long-term condition which can lead to an increased risk of cardiovascular disease, kidney problems, blindness, amputation and infections.

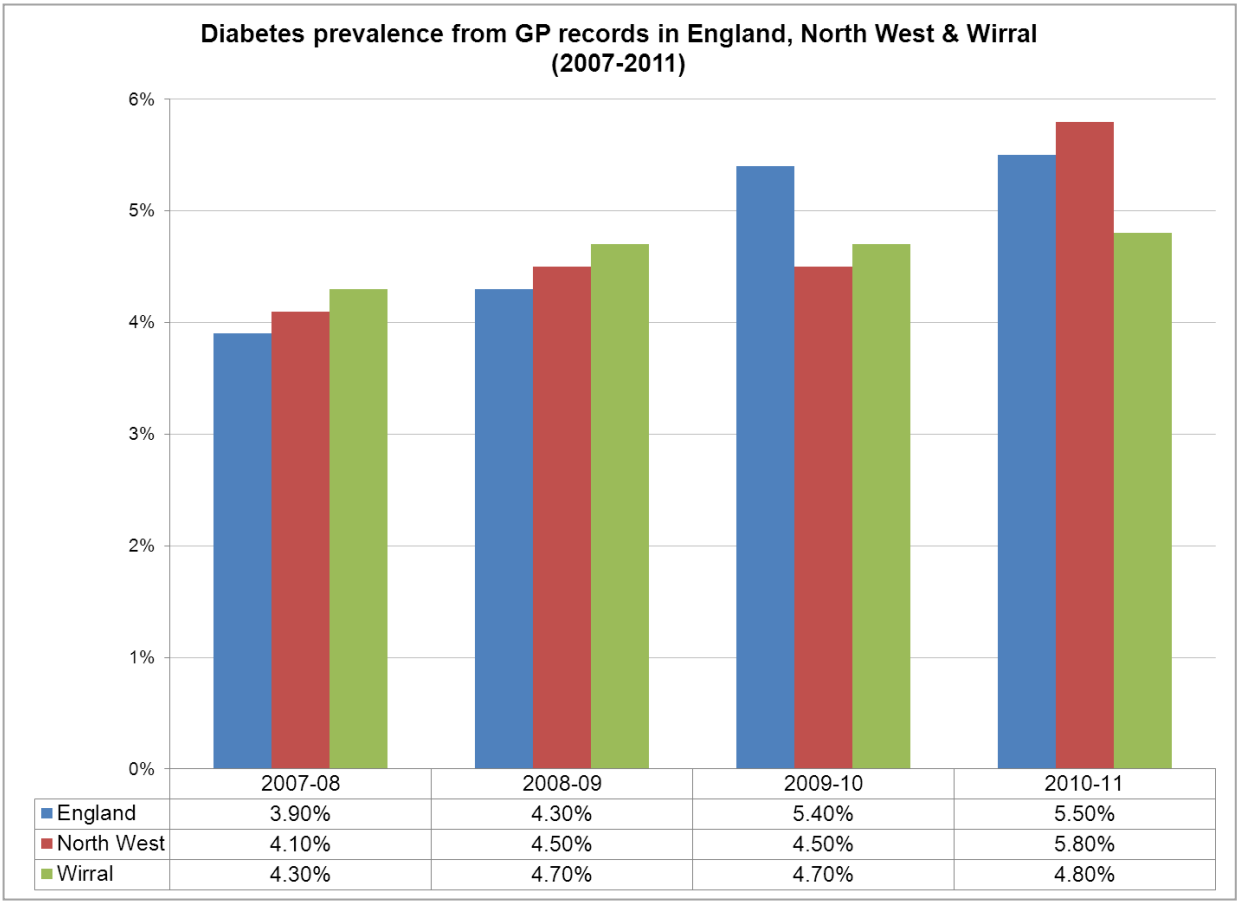
There are two types of diabetes: Type 1 diabetes (also known as 'insulin-dependent' or 'early-onset') occurs where the body fails to produce insulin (a hormone which regulates blood sugar). This accounts for only 5-15% of all diabetes.

Type 2 diabetes (also known as 'adult-onset') occurs when the body produces too little insulin and accounts for 85-95% of all diabetes. Type 2 diabetes is strongly linked to increasing age and obesity. Unless stated otherwise, the term diabetes in this section refers to both Type 1 and Type 2 diabetes combined.

Diabetes prevalence (recorded or actual)

As part of the Quality Outcomes Framework (QOF), GP practices use disease registers for a number of long term conditions, including diabetes. These help to provide a picture of prevalence across Wirral. It is important to note that this does not provide *actual* prevalence, as a proportion of people with diabetes will be undiagnosed.

Figure 3.1.11a: GP practice diabetes prevalence (2007-08 to 2010-11)



	2007-08	2008-09	2009-10	2010-11
England	3.90%	4.30%	5.40%	5.50%
North West	4.10%	4.50%	4.50%	5.80%
Wirral	4.30%	4.70%	4.70%	4.80%

Source: QMAS and NHS Information Centre, 2012

- In 2007-08, Wirral had a *higher* GP practice diabetes prevalence (as recorded by QOF) than England and the North West, but by 2010-11, prevalence in Wirral was *lower* than both England & Wirral
- Diabetes prevalence appears to be increasing at a faster rate in England and the North West than is the case in Wirral

Diabetes Prevalence (estimated)

The Association of Public Health Observatories (APHO) calculated that there are likely to be 19,442 people aged over 16 in Wirral with diabetes (diagnosed or undiagnosed) in 2011. This equates to 7.8% (of the population aged 16 or over). This is high compared to England (7.6%), but the same as the North West region overall (also 7.8%).

The importance of correct and timely diagnosis cannot be over-emphasised, because diabetes left untreated increases the risks of complications and can increase NHS costs more than five-fold. Table 3.1.11a shows GP practice diabetes prevalence, compared to the estimated prevalence figures produced by APHO.

Recorded compared to estimated diabetes prevalence

Table 3.1.11a compares the estimated and actual prevalence of diabetes in Wirral.

Table 3.1.11a: Recorded diabetes (QOF) compared to estimated diabetes (APHO)

	Practice Population	Estimated Prevalence December 2011* (APHO)		Observed Prevalence December 2011 (QOF)	
		Total	%	Total	%
Wirral	331,995	19,442	7.8%	16,590	5.0%

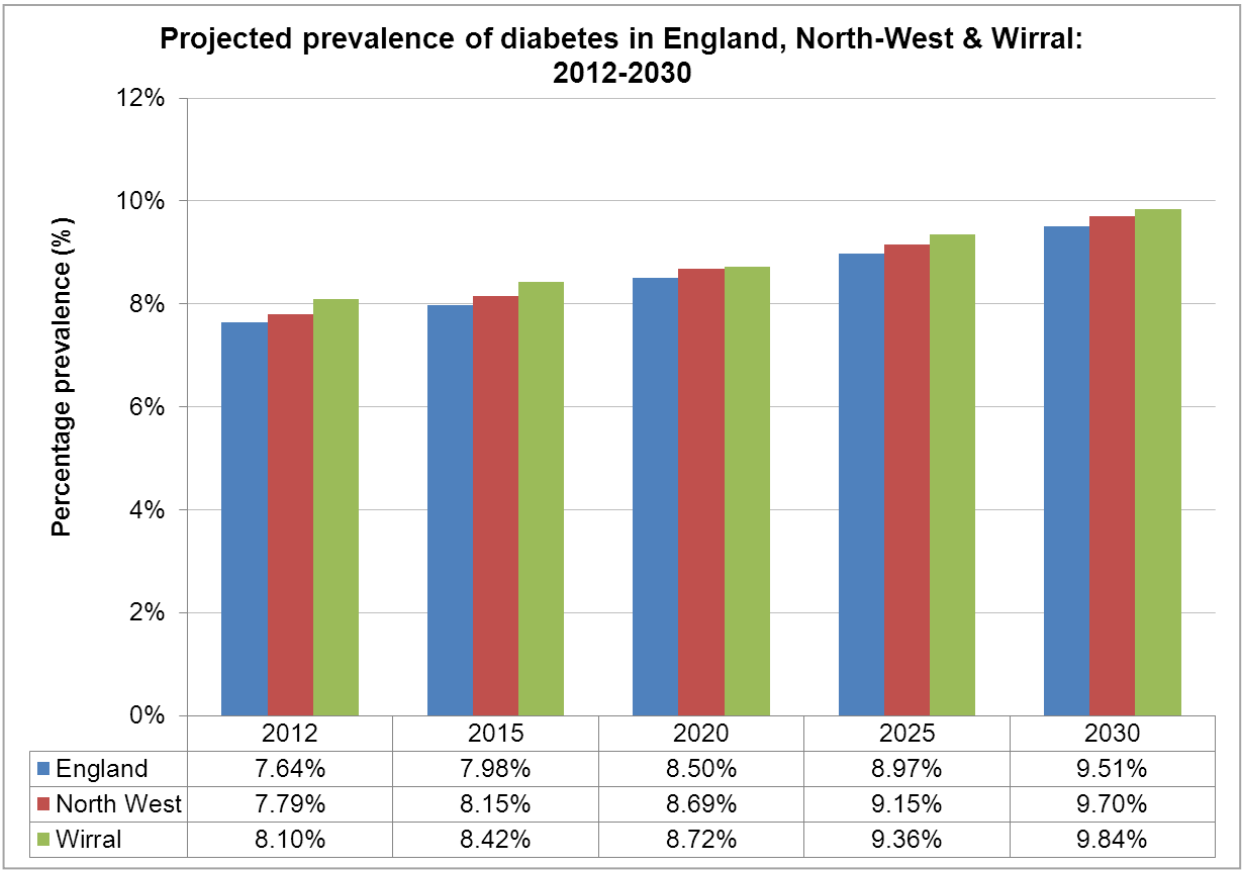
Source: APHO (Association of Public Health Observatory) COPD Prevalence Modeller, 2011 & QMAS, 2012
*note: this is for patients aged 16+ only. QOF figures are for all ages.

- This suggests that there may be around 2,852 individuals in Wirral who have diabetes but are not yet diagnosed and so not yet on the QOF diabetes register

Diabetes prevalence: future projections

Yorkshire and Humber Public Health Observatory (YHPHO) Diabetes Prevalence Model for England provides estimates of the prevalence of diabetes in people aged 16 and above for 2012, 2015, 2020, 2025 and 2030. The model estimates take into account the age, sex, and ethnic group distribution, as well as deprivation and projected trends in obesity, see the (YHPHO) website for more details: http://www.yhpho.org.uk/default.aspx?RID=81090. Figure 3.1.11b shows these projections for England, North West and Wirral.

Figure 3.1.11b: Projected prevalence of diabetes: England, North-West & Wirral (2012-30)



	2012	2015	2020	2025	2030
England	7.64%	7.98%	8.50%	8.97%	9.51%
North West	7.79%	8.15%	8.69%	9.15%	9.70%
Wirral	8.10%	8.42%	8.72%	9.36%	9.84%

Source: Yorkshire and Humber Public Health Observatory (YHPHO), 2012

The data above is estimating both diagnosed and undiagnosed diabetes and is adjusted for age, sex, ethnic group and deprivation.

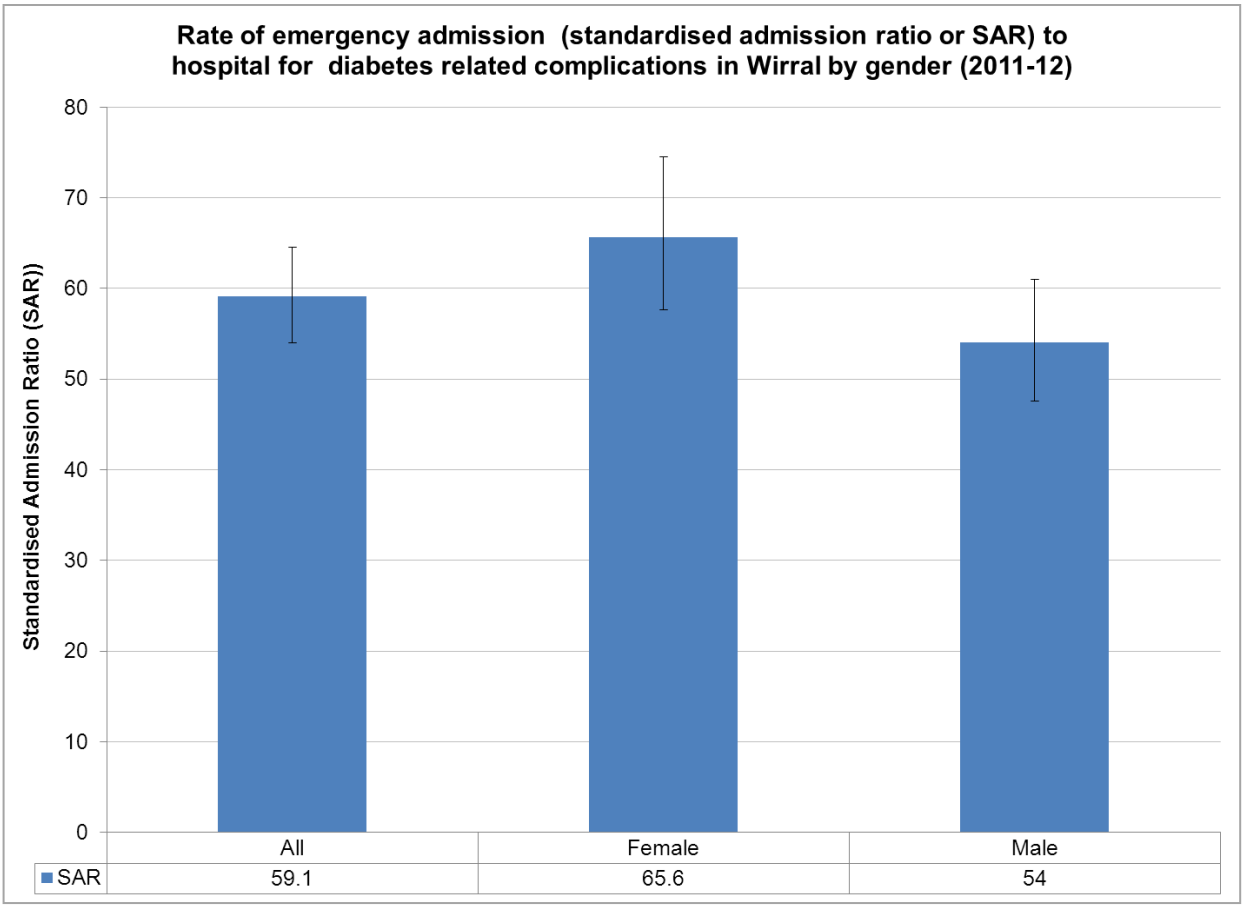
As with all estimates there is a degree of uncertainty around the data, but they suggest that the proportion of the population living with diabetes will increase in all areas of England over the next 15 years.

As Wirral started from a higher baseline, prevalence in Wirral is projected to remain higher than prevalence both nationally and regionally over the same period, albeit with a slightly reduced gap between Wirral and the North-West region by 2030.

Emergency admissions to hospital for diabetes

Figure 3.1.10c provides Standardised Admission Ratio (SARs) for non-elective (emergency) diabetes admissions for Wirral, 2009/10 which take into account the effect of deprivation.

Figure 3.1.11c: Rate* of emergency (non-elective) admission to hospital for complications related to diabetes in Wirral, by gender (2011-12)



Source: Dr Foster, 2012
*Standardised Admission Ratio (SAR) adjusted for effects of deprivation

- Emergency (non-elective) admissions for conditions such as diabetes can be related to factors such as the quality of primary care people receive in the community and their ability to self-manage their condition
- Overall, Wirral has a 40% lower rate of emergency (non-elective) hospital admissions for diabetes compared to national admissions data (national average is always 100, compared to Wirral SAR of 59).
- There appears to be a gender difference in emergency admissions in Wirral, with men less likely to be admitted and women more likely to be admitted. However, both sexes

are still well below the national average for admissions due to this cause (SAR of 100 is average for England) and this is very positive

3.1.12 Hypertension

Hypertension or high blood pressure are significant risk factors for stroke, myocardial infarction, heart failure and arterial aneurysm, and is a leading cause of chronic kidney failure. Treatment includes medication and lifestyle change such as achieving a healthy weight, regular physical activity, a healthy diet, reducing alcohol consumption, stopping smoking and reducing the amount of salt in the diet.

In the UK, it is estimated that half of all people over the age of 65 have hypertension, but many are undiagnosed and unmanaged, which puts them at risk of serious health issues.

Table 3.1.12 shows the estimated prevalence of hypertension diagnosed in Wirral compared to the observed prevalence from the local QOF register.

Table 3.1.12: Recorded prevalence of hypertension (QOF) against expected prevalence as predicted by the Association Public Health Observatory (APHO) model

	Estimate (APHO)		Actual (QOF)		Difference	
	Numbers based on 2009/10 populations	% of registered population	Actual numbers on QOF 2009/10	% of registered population on QOF	Model minus actual	% in model not on QOF registers (i.e. undiagnosed)
Wirral	**84,950**	**33.2%**	**49,407**	**19.3%**	**35,543**	**41.8%**

Source: QMAS, 2011 & Association of Public Health Observatory, 2011

- There are likely to be around 35,500 people in Wirral who have hypertension but are unaware and undiagnosed.
- This means that around 58% people with hypertension in Wirral are on the QOF register

3.1.13 Obesity

Obesity is a detriment to wellbeing in many ways. Obesity decreases life expectancy by up to nine years and causes insulin insensitivity (an important causal factor in the development of diabetes, heart disease, hypertension and stroke). It is also associated with the development of hormone-sensitive cancers, increased susceptibility to osteoarthritis, sleep apnoea and negative psychosocial outcomes.

Obesity is defined by a person's body mass index (BMI). BMI = weight (kg) / height (m^2). The classifications of adult BMI are shown in Table 3.1.13a.

Obesity prevalence

There are no definitive data for obesity (in adults). Below are some available sources often used to estimate local levels of obesity:

- Quality Outcomes Framework (QOF)

As part of the Quality Outcomes Framework (QOF) GP practices are expected to submit data to an adult obesity register:

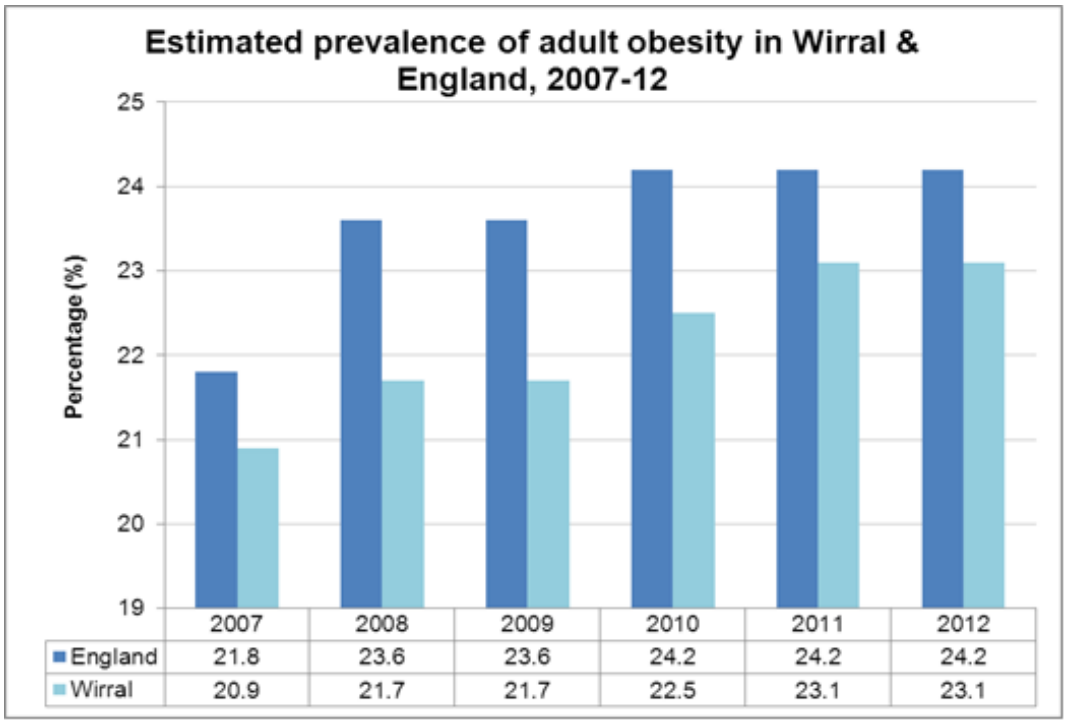
- In 2011/12 there were 34,055 Wirral population aged 16 years and over on GP obesity registers. This is equivalent to around 13% of the registered population.
- It is important to note that this does not provide actual prevalence as it is dependent on GP practices keeping registers up-to-date. Hence for various reasons (e.g. patients who visit their GP very rarely will not have had their weight recorded recently) this is likely to be a considerable under-estimation of actual obesity prevalence.

- Health Survey for England (2010)

The last time that the obesity element was included in the Health Survey for England (2010), it was found that nationally:

- Obesity had risen amongst males from 23.7% in 2006, to 26.2% in 2010
- In females from 23% 2006 to 26.1% in 2010
- Overall, 62.8 % of adults in Wirral were overweight or obese (although it is important to note that this is self-reported data).
- The Health Survey for England is used by the Association of Public Health Observatories to produce their annual estimate of adult obesity in Wirral. See Figure 3.1.13a for estimates from 2007 to 2012.

Figure 3.1.13a: Estimated prevalence of adult obesity in Wirral and England, 2007-12



	2007	2008	2009	2010	2011	2012
England	21.8	23.6	23.6	24.2	24.2	24.2
Wirral	20.9	21.7	21.7	22.5	23.1	23.1

As the chart shows, estimated levels of adult obesity are slightly lower in Wirral compared to England. Rates have risen from 20.9% in 2007 to 23.1% in 2012. Rates in England overall are also rising.

Source: Association of Public Health Observatory Annual Health Profiles: http://www.apho.org.uk/default.aspx?QN=HP_METADATA&AreaID=50311

- National Child Measurement Programme (NCMP)

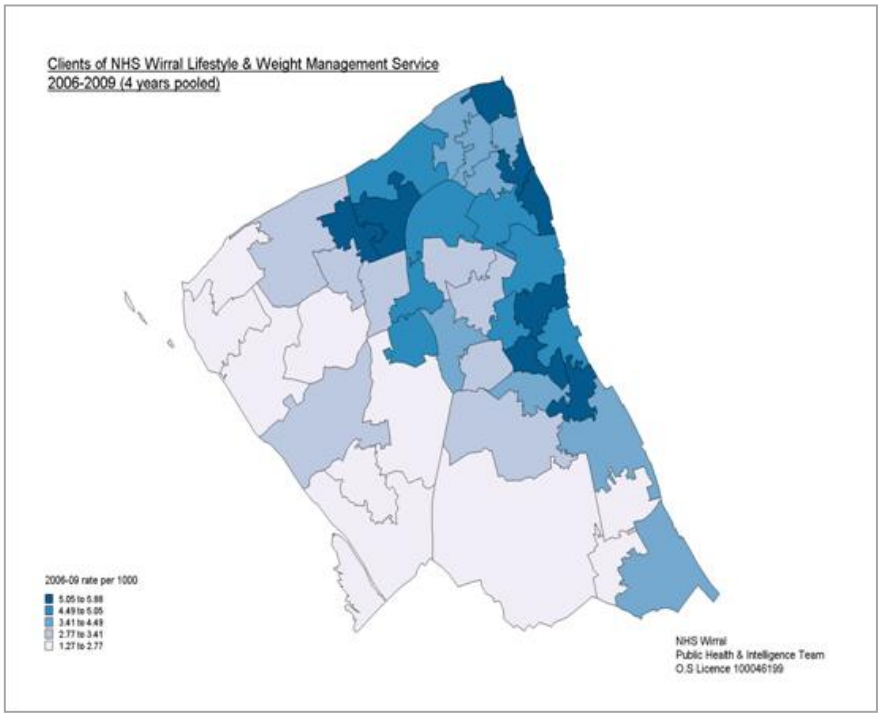
Data on overweight and obesity amongst Wirral children is available as it is collected annually as part of the National Child Measurement Programme (NCMP). See Children & Young People's chapter for this information.

Estimated obesity prevalence & referrals to Wirral Lifestyle & Weight Management Service

The Lifestyle & Weight Management Service (LWMS) is Wirral's specialist weight management service which offers an intensive 12 week programme tailored to the need of individual clients. It takes referrals mainly from primary care and the target population is obese individuals (defined as having a BMI of greater than 30), or people with a BMI of 28 or over who also have two co-morbidities.

Map 3.1.13d shows area of residence of Wirral's LWMS clients (2006-09) by MSOA. Unfortunately, more recent data from the service was not available (as of July 2012).

Map 3.1.13d: LWMS clients by MSOA (Middle Super Output Area), rate per 1,000, 2006-09 (4 years pooled)



During 2006-09, the LWMS was most often accessed by clients from the areas with the highest levels of deprivation. As obesity is associated with deprivation, this is a positive finding. There were still some areas where referrals could have been higher (e.g. Claughton), but overall, referrals appear highest in the east of Wirral and lowest in the west.

Source: NHS Wirral Lifestyle & Weight Management Service, 2009

A recently completed cost-benefit analysis of the Lifestyle & Weight Management Service (conducted by the Health Economics Unit of the University of Liverpool*) concluded that, 'the programme appeared to provide significant 'value for money' in return for the resources it consumes'.

*Wirral PCT Lifestyle & Weight Management Programme. A preliminary report by the Health Economics Unit. University of Liverpool Management School (2009). Available at: http://info.wirral.nhs.uk/intelligencehub/healtheconomics.html

Estimated cost of overweight and obesity in Wirral

The Department of Health has estimated the total annual cost of overweight and obesity related diseases to local PCTs throughout the country. The costs to Wirral PCT are displayed in table 3.1.13f.

Table 3.1.13f: Annual cost NHS Wirral of diseases related to overweight and obesity

	Overweight and obesity (£ million)	Obesity (£ million)
2007	98.5	51.1
2010	102.2	55.3
2015	109.3	63.6

Source: Swanton, 2008

- Estimates show that overweight and obesity incur a significant cost to Wirral PCT and this cost is set to increase, reaching £109.3 million in 2015.

3.1.14 Communicable diseases

Tuberculosis Incidence

Tuberculosis (TB) is caused by a bacterial infection and can cause disease in the lungs (pulmonary), and other parts of the body (extra-pulmonary). The pulmonary form of TB is infectious and transmission usually occurs following prolonged, close contact with an infectious person. TB is curable with a combination of specific antibiotics, but treatment must be continued for at least six months. The anti-TB (BCG) vaccination programme delivered through schools was replaced in September 2005 with an improved programme of targeted vaccination for people at highest risk.

TB particularly affects vulnerable groups and risk factors include ageing, chronic illness, deprivation and overcrowded living conditions. Other risk factors include overseas travel and movement of people from areas where it is common.

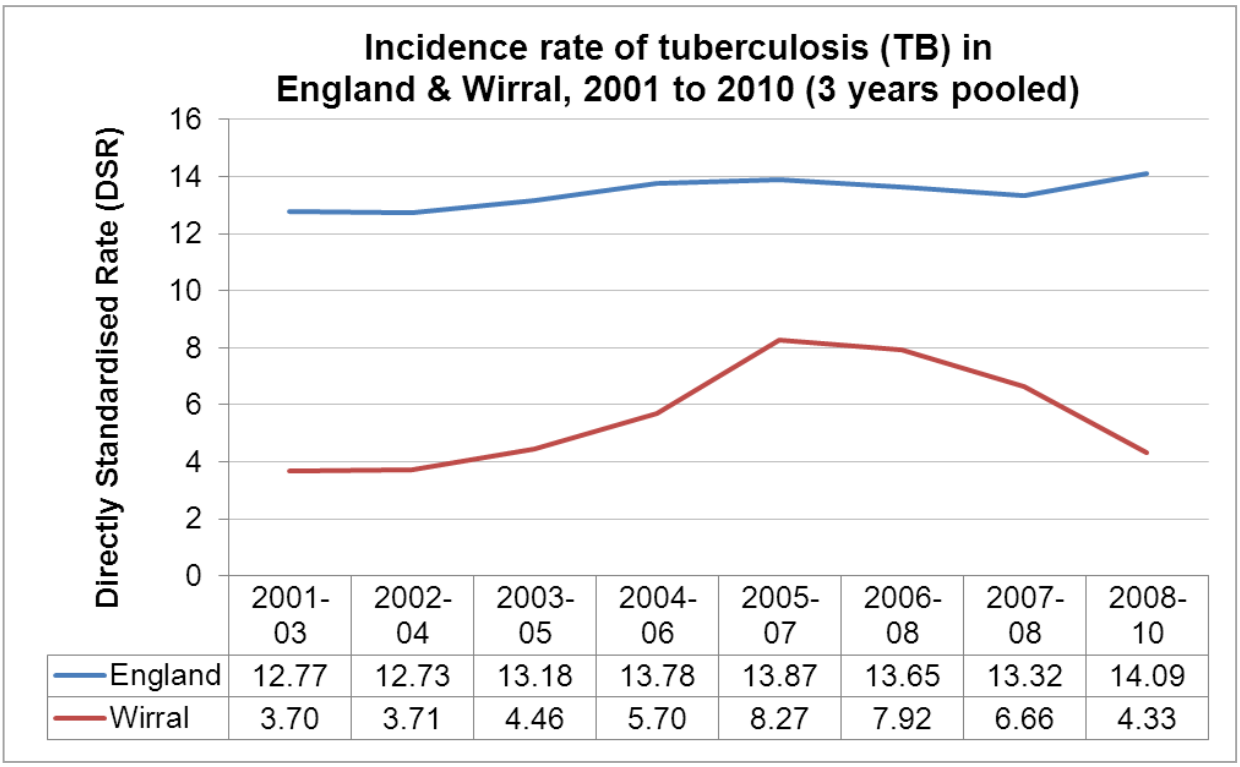
Cases of TB have increased in recent years in the UK, with most cases occurring in the major cities, particularly London. Table 3.1.14a shows the number of confirmed cases of TB in England and Wirral between 2001 and 2010.

Table 3.1.14a: Cases of TB: actual numbers, Wirral & England (2001-10)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
England	6,501	6,568	6,318	6,494	7,357	7,396	6,838	7,120	7,051	8,166
Wirral	15	14	12	12	22	24	36	17	10	16

Source: NCHOD, 2012

Figure 3.1.14b: Incidence of TB in Wirral and England, 2001-10 (3 pooled years) DSR's per 100,000



	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-08	2008-10
England	12.77	12.73	13.18	13.78	13.87	13.65	13.32	14.09
Wirral	3.70	3.71	4.46	5.70	8.27	7.92	6.66	4.33

Source: NCHOD, 2012

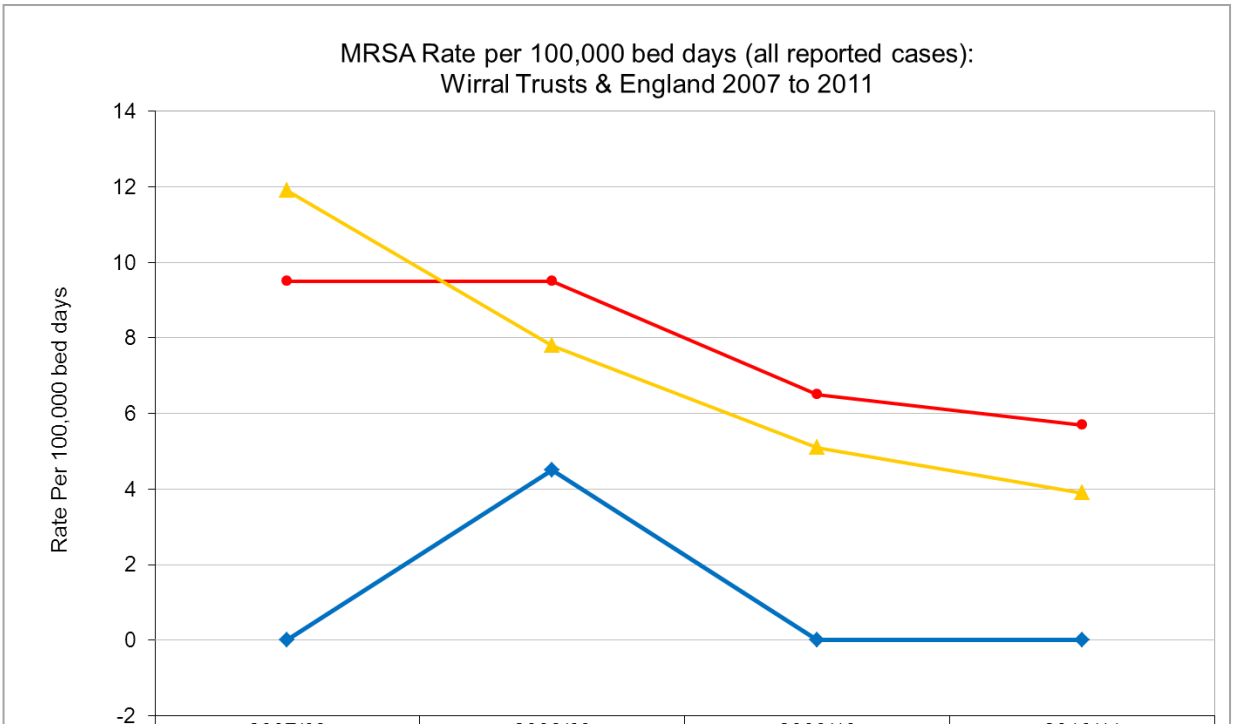
- Between 2005 and 2007, the number and rate of TB rose in Wirral, but in 2008 it dropped again. Steep rises and drops are characteristic of the number of cases overall (this is the reason, 3 years have been pooled for the above chart)
- As Figure 3.1.14b shows, TB has remained fairly stable in the UK, with a slight rise during the last two years. In Wirral, the rate is also fairly stable overall, and is only slightly higher now than it was in 2001-03.

MRSA

Staphylococcus aureus is a type of bacterium that commonly lives on human skin and in the mucosa. It can cause disease, particularly if there is an opportunity for the bacteria to enter the body such as skin and wound infections, urinary tract infections, pneumonia and bacteraemia (blood stream infection). It can also cause food poisoning. Most strains of the bacterium can be effectively treated with many antibiotics; it is only those which are resistant to the antibiotic methicillin that are termed methicillin-resistant *Staphylococcus aureus* or MRSA.

Figure 3.1.14c shows the MRSA reported infection rate per 10,000 bed days in the two hospital trusts in Wirral compared to the England average.

Figure 3.1.14c: Rate per 10,000 bed days of MRSA infection for two hospital trusts in Wirral and England, 2007-10



	2007/08	2008/09	2009/10	2010/11
CCO	0.0	4.5	0.0	0.0
WUTH	9.5	9.5	6.5	5.7
England	11.9	7.8	5.1	3.9

Source: HPA, 2012
CCO = Clatterbridge Centre for Oncology
WUTH = Wirral University Teaching Hospital Trust (Arrowe Park Hospital)

- There has been more fluctuation in local rates for MRSA infection, compared to relatively stable rates in England overall, likely to be due to the very small numbers involved at a local level.
- Currently rates of MRSA are higher at WUTH, compared to the national average of all trusts in England in 2010-11, but lower than average at CCO

Clostridium difficile

Clostridium difficile (*C.difficile*) infection is the leading cause of hospital associated diarrhoea. It is an anaerobic bacterium that is present in the gut of up to 3% of healthy adults and 66% of infants. It rarely causes problems in children or healthy adults, as it is kept in check by the normal bacteria of the intestine. Certain antibiotics can disturb the balance of bacteria in the gut however, allowing *C.difficile* to multiply and produce symptoms such as vomiting and diarrhoea.

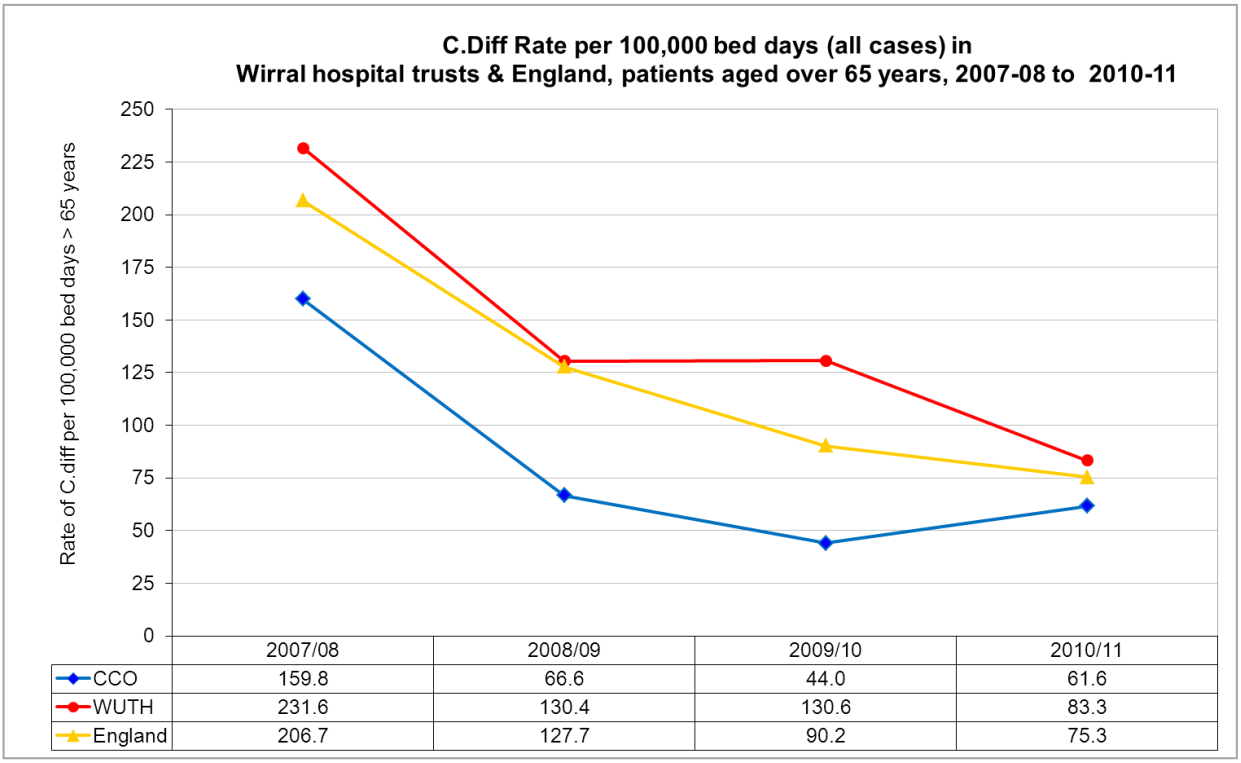
Older people are most at risk from the infection, with the majority of cases (80%) occurring in people over the age of 65. As it is extremely contagious, most cases occur in environments which deal with large numbers of vulnerable older people, such as hospitals or care homes. Most people with a *C.difficile* infection make a full recovery, but in very rare cases the infection can be fatal.

The number of *C.difficile* cases has risen in recent years, due to improvement in testing as well as actual increases in the number of cases. In most cases, *C.difficile* infections can be

prevented by ensuring good hygiene practices are adhered to in healthcare environments (e.g. thorough hand washing, *C.difficile* is not eliminated by alcohol hand gels alone for example).

Figure 3.1.14d shows *C.difficile* infection rates per 100,000 bed days for the two hospitals in Wirral PCT area compared to the England average rate.

Figure 3.1.14d: Rate of *C.difficile* reports in patients aged over 65 in Wirral and the England 2007-10



	2007/08	2008/09	2009/10	2010/11
CCO	159.8	66.6	44.0	61.6
WUTH	231.6	130.4	130.6	83.3
England	206.7	127.7	90.2	75.3

Source: Health Protection Agency, 2012
CCO = Clatterbridge Centre for Oncology
WUTH = Wirral University Teaching Hospital

- Since 2007, *C.difficile* rates in England and the two hospital trusts in Wirral have reduced by more than half.

3.1.15 Accidents

Road Traffic Accidents (RTAs): Killed or Seriously Injured Casualties

RTAs are a major cause of injury and premature death each year. Nationally, targets were set to reduce the number and rate of RTAs by 2010, specifically to:

Reduce the number of people (all ages) killed or seriously injured (KSI) in Great Britain in RTAs by 40% compared (using the baseline average of 1994-98)

Table 3.1.15a shows how Wirral's progressed against this target compared to other areas of Merseyside.

Table 3.1.15a: Killed and seriously injured (KSI) casualty numbers of all ages: 1994-98 baseline, 2009 and 2010, Merseyside local authority areas and England

Area	Number of casualties			Change since baseline (%)
	1994-98 baseline	2009	2010	
Merseyside	841	553	511	-39%
Knowsley	98	56	55	-44%
Liverpool	341	204	229	-33%
St Helens	104	63	45	-57%
Sefton	119	87	74	-38%
Wirral	179	143	108	-40%
England	40,815	23,206	21,255	-48%

Source: Department for Transport, 2012

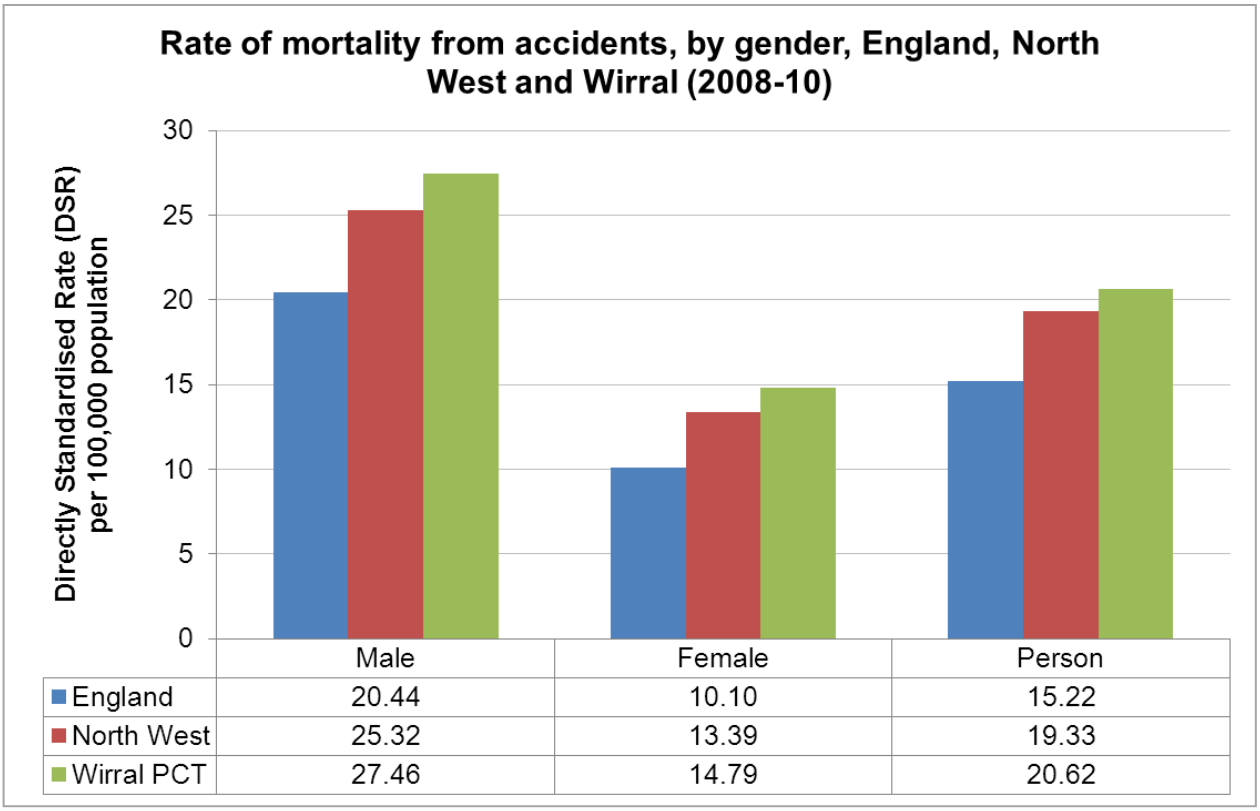
- Wirral met the national target of a reduction of 40% by 2010. There was exactly a 40% reduction in the numbers killed or seriously injured in RTAs between 1994-98 and 2010.
- In 2011, the number of KSI casualties rose again to 126. The target is no longer current, but were it still being monitored, the reduction from baseline by 2011 would be 29% (falling short of the 40% target)
- England as a whole met the 2010 Government target (a reduction of 48%), but Merseyside overall fell just short, with a reduction of 39%.

Mortality from accidental injury (ICD10 V01-X59)

Mortality from accidental injuries uses the ICD10 codes V01-X59 (this is external causes of morbidity or mortality and includes things like road traffic accidents, assaults, falls, and drowning, but does not include intentional self-harm for example).

Accidents contribute to reduced life expectancy and are also associated with deprivation (deprivation increases the risk of accidental injury). Figure 3.1.15c shows rates for Wirral, the North West and England.

Figure 3.1.15c: Mortality from all accidents (ICD V01-X59): directly age standardised rates, all ages, 2007-09 (pooled rates) for England, North West & Wirral,



	Male	Female	Person
England	20.44	10.10	15.22
North West	25.32	13.39	19.33
Wirral PCT	27.46	14.79	20.62

Source: NCHOD, 2010

- Wirral has a higher mortality rate from accidental injury than either England or the North West for males and females
- The mortality rate from accidents is almost twice as high amongst men as it is for women. This is the case in England, the North West and Wirral.

3.2 Health Behaviours

3.2.1 Burden of disease attributable to lifestyle-related risk factors

A recent article produced by the NHS Wirral Performance & Public Health Intelligence Team and published in the Journal for Public Health highlighted the significance lifestyle –related risk factors have for Wirral residents.

The aim of the study, *Health planning for the future: comparative risk assessment of five major lifestyle risk factors: evidence from the Wirral, UK*, was to quantify and compare the burden of disease attributable to five major lifestyle-related risk factors in a UK Primary Care Trust (Wirral) using World Health Organization (WHO) methodology (comparative risk assessment or CRA).

The results suggest that smoking remains by far the leading cause of deaths followed by overweight and obesity and low fruit and vegetable intake. Alcohol ranked last by number of deaths, but second by Years of Life Lost (YLL) indicating its high contribution to deaths at younger ages.

The research suggests that primary prevention should remain high on the agenda of government initiatives to reduce the future burden of ill health.

This article can be accessed on the JSNA website here.

3.2.1 Smoking

Historically, accurate information regarding the prevalence of smoking in Wirral has been scarce. In 2009 and 2010, however, several surveys were conducted looking at different aspects of smoking in Wirral and these produced some useful information. For full copies of these three surveys, please go to Surveys section of this site.

The London Health Observatory has also developed prevalence estimates and they are summarised in Table 3.2.1a below.

Table 3.2.1a: Smoking prevalence (percentage) among all adults (18+) and adults in routine & manual occupations (18+) in England, North West & Wirral, 2010-11

	All persons aged 18+	Routine & Manual worker group aged 18+
England	20.7%	30.4%
North West	22.8%	33.0%
Wirral	22.9%	31.1%

Source: London Health Observatory, 2012

As the table above shows, smoking is higher amongst routine and manual workers, compared to the overall population. As smoking is associated with deprivation, this is not surprising. In the local surveys of Wirral smokers, it was found that in the most deprived areas of Wirral, almost 35% of people smoked.

An interesting finding from the local surveys were that 54% of smokers would like to quit (33% did not want to quit and 13% were unsure).

Wirral provides a specialist support service for people that would like to stop smoking. Table 3.2.1b shows smoking quit rates in Wirral.

Table 3.2.1b: Wirral smoking quit rates (%) 2000-01 to 2011-12

Period	Numbers of Quit Dates Set	Numbers of Clients Quitting After 4 Weeks	Quit Rate %
2000-01	791	507	64.1
2001-02	909	497	54.7
2002-03	3,688	1,709	46.3
2003-04	4,507	1,991	44.2
2004-05	5,506	2,533	46.0
2005-06	5,637	2,383	42.3
2006-07	5,675	2,203	38.8
2007-08	6,087	2,188	35.9
2008-09	5,271	2,359	44.8
2009-10	6,624	2,812	42.5
2010-11	8,738	3,101	35.5
2011-12	8,121	3,377	41.6

Source: Wirral Stop Smoking Service, 2012

- In 2011-12, around 4 in 10 people accessing the service quit smoking

- The proportion of 4 week quitters within the service had been reducing over the years across all wards in Wirral, although in 2011-12, the percentage of people who quitting has increased slightly again

This information is also available on Instant Atlas and enables you to look at quitters by different factors such as ward. Local smoking data on Instant Atlas is available via this link:

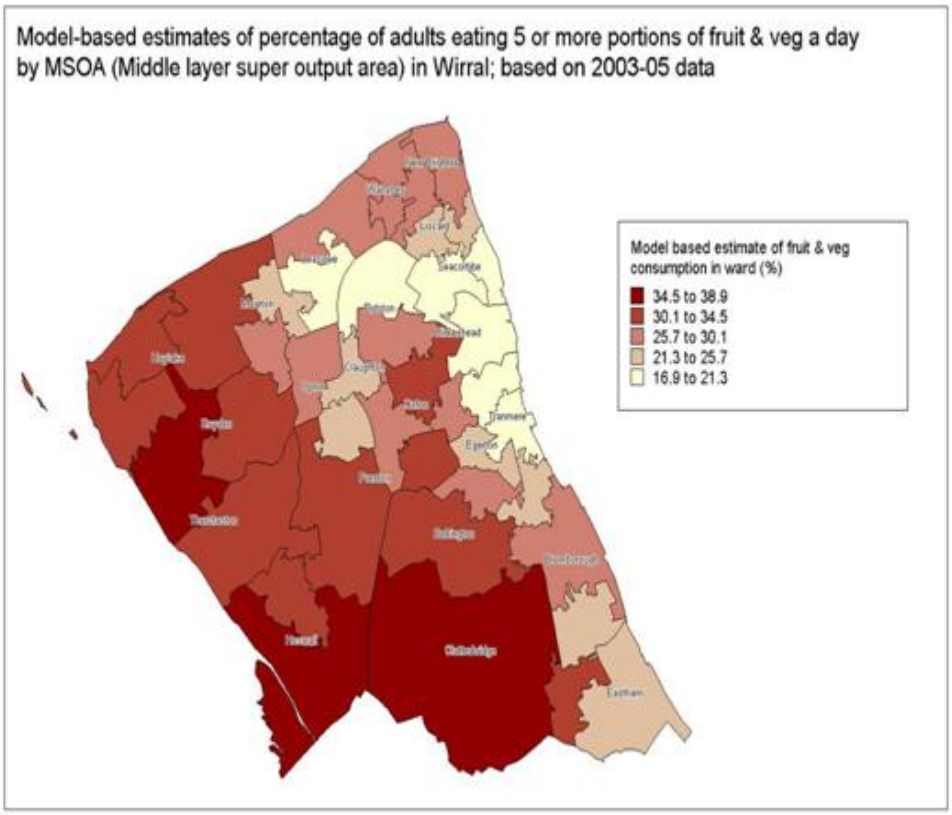
The health risks associated with second hand smoke are also considerable. Second hand smoke in the home is the main source of exposure for children; it can impair lung function and increases their risk of developing asthma. It can also increase children's risk of chronic obstructive airway disease and cancer in adulthood (ASH, 2007).

Wirral smokers, as part of the 2009 Resident's Survey, were questioned about their smoking activity and 68% (405) said that they smoked in the house.

3.2.2 Diet

Fruit and vegetables form part of a healthy diet. High consumption of fruit and vegetables is associated with lower levels of heart disease, cancer and obesity. The recommended intake is five portions per day. As with smoking rates it is difficult to ascertain the levels of consumption of fruit and vegetables in the population, so estimates are often used.

Map 3.2.2: Estimates for percentage of adults eating 5+ daily portions of fruit and vegetables (from Health Survey for England or HSE 2003-05)



The estimates used here are based on data from the Health Survey for England (2003-05). Although this data is now fairly old, it is the last time fruit and vegetable consumption was asked about in the Healthy Survey or England (different topics are covered each year), so it is the most recent data available.

Source: Information Centre, 2008

- In the east of Wirral (particularly parts of Seacombe, Bidston, Leasowe, Birkenhead and Tranmere) indicates that less people are likely to be eating the recommended five daily portions.

- It is estimated that overall, 27.4% of the Wirral adult population eat five daily portions of fruit and vegetables. This is estimated to be higher (but not significantly) than the national and regional average of 26.3% and 23.6% respectively.
- Based on the synthetic estimates shown in the map above, the majority of those eating the recommended daily intake of fruit & veg are likely to be from the affluent areas of Wirral.

Table 3.2.2a shows the results of the Wirral Lifestyle Survey from 2001 and 2007.

Table 3.2.2a: Comparison of Wirral Lifestyle Survey data 2001 and 2007

	2001 (%)	2007 (%)
Eat 5 fruit & veg a day	**17.5**	**53.5**
Males eating 5 A Day	14.4	48.5
Females eating 5 A Day	20	57.8
Eat no Fruit & Veg	**4.2**	**2.3**
Males eating no fruit/veg	6.3	2.8
Females eating no fruit/veg	2.5	1.9
Eat 5 A Day 16–34yrs	13.2	*53.07
Eat 5 A Day 35–64yrs	17.9	*53.57
Eat 5 A Day 65yrs +	21.4	*54.10
Eat no Fruit & Veg 16-34yrs	6.4	*3.74
Eat no Fruit & Veg 35-64yrs	3.6	*2.40
Eat no Fruit & Veg 65yrs +	2.8	*1.85

*calculated with weighted averages
Source: Wirral Lifestyle Survey, 2001 and Wirral Lifestyle Survey, 2007

- More respondents from the 2007 survey reported that they consumed five fruit and vegetables a day (53.5%) compared to the 2001 survey, where on average 17.5% reported eating this amount.
- Consumption had increased across all age ranges, but the biggest increase was amongst the younger age groups. It should also be noted that the 2007 figure is significantly higher than the figure given in the Health Survey for England (22%). Differences may be due to the different methods of determining the figures, but the lifestyle survey can be used to measure trends.

Trends show that as expected people eating five portions a day were higher in the more affluent areas and lower in more deprived areas. In terms of people eating no fruit and vegetables, the social gradient was only observed in females; there was no obvious pattern for males who ate no fruit and vegetables.

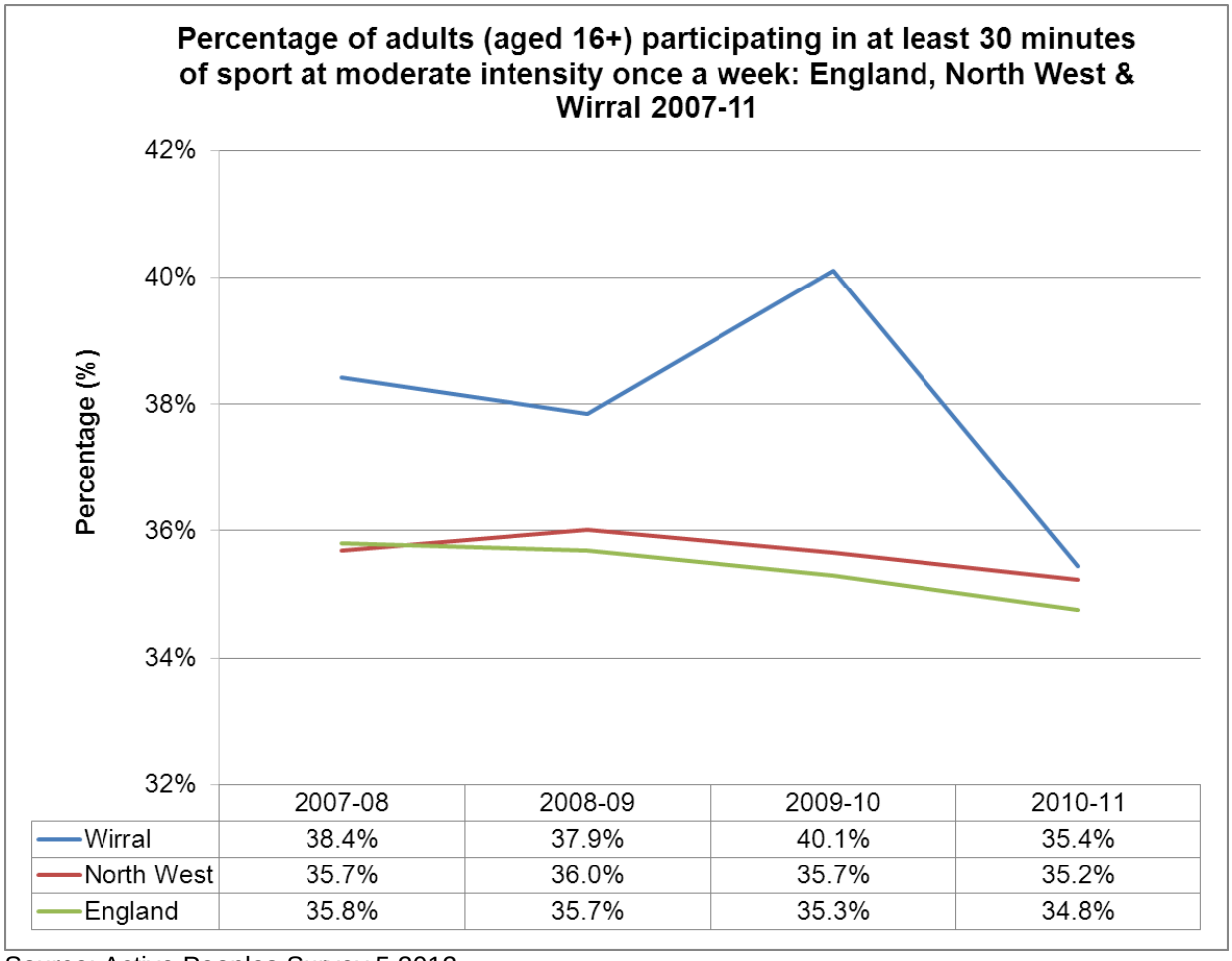
3.2.3 Physical activity

The benefits of physical activity on health are clear, well evidenced and widely accepted. A national report produced by the Chief Medical Officer highlights the overwhelming evidence of the impact of physical activity on people's health and clearly demonstrates that people who are physically active reduce their risk of a broad range of chronic diseases such as CHD, stroke, diabetes and some cancers (DH, 2004).

The Active People Survey (APS) is carried out by Sport England and provides estimates on a number of different activity related variables. The Active People Survey 5 (2010-11) will run until 14 October 2011. The latest results from the Active People Survey were published on 17 March 2011 (Jan 2010 to Jan 2011).

Figure 3.2.3 shows the proportion of adults achieving 30 minutes of moderate activity once a week in Wirral, the North West and England.

Figure 3.2.3: Percentage of adults achieving 1 x 30 minutes of moderate activity, Wirral and other Merseyside local authorities (2011)



	2007-08	2008-09	2009-10	2010-11
Wirral	38.4%	37.9%	40.1%	35.4%
North West	35.7%	36.0%	35.7%	35.2%
England	35.8%	35.7%	35.3%	34.8%

Source: Active Peoples Survey 5 2012
http://www.sportengland.org/research/active_people_survey/aps5.aspx

- The percentage of Wirral adults achieving 1 x 30 minutes of moderate intensity activity is very similar to England and the North West.
- Only around one in three adults do at least one x 30 minute moderate intensity activity per week.

3.2.4 Alcohol

For more information please refer to Chapter 10.The Information that was formerly in this chapter has been moved to the main alcohol chapter for the JSNA to avoid duplication.

3.2.5 Sexual and reproductive health

(For information please go to Wirral JSNA Sexual Health chapter via this link)

The World Health Organisation (WHO) defines sexual health as 'a state of physical, emotional, mental and social well-being related to sexuality: not merely the absence of disease, dysfunction or infirmity', but a positive and respectful approach to sexuality and sexual relationships and the possibility of having pleasurable and safe sexual experiences, free from coercion, discrimination and violence. Good advice and methods of contraception are crucial to good sexual health, as well as being a crucial component in reducing unwanted pregnancies and abortion

The 2001 National Strategy for Sexual Health and HIV (DH, 2001) concluded at that time that poor sexual health, poverty and social exclusion are associated and that the quality of sexual health services in England varied. The strategy highlighted that poor sexual health is unequally distributed among the population, with the highest burden being borne by:

- Women
- Gay men
- Black and minority ethnic groups
- Teenagers
- Young adults

A Framework for Sexual Health Improvement in England (2013) sets out to improve sexual health outcomes for both individuals and communities and in doing so reducing any inequalities. The framework acknowledges system improvements and better outcomes but highlights the following key issues to be addressed:

- Tackling the stigma, discrimination and prejudice often associated with sexual health matters;
- Continuing to work to reduce the rate of sexually transmitted infections (STIs)
- Reducing unwanted pregnancies by ensuring that people have access to the full range of contraception, can obtain their chosen method quickly and easily and can take control to plan the number of and spacing between their children;
- Supporting women with unwanted pregnancies to make informed decisions about their options as early as possible;
- Continuing to tackle HIV through prevention and increased access to testing to enable early diagnosis and treatment;

The framework goes on to identify that effective commissioning of interventions and services is key to improving outcomes. This is particularly true to meet the needs of more vulnerable groups and service provision should be targeted at groups with particular needs who may be vulnerable and at risk from poor sexual health, including young people, gay and bisexual men, some black and minority ethnic groups and people with learning disabilities.

From April 2013, most sexual health services will be commissioned by local authorities, but Clinical Commissioning Groups (CCGs) and the NHS Commissioning Board (NHS CB) will also have a role and they must all work closely together to ensure that the care and treatment people receive is of a high quality and is not fragmented.

The Wirral Teenage Pregnancy Steering Group, the Wirral Sexual Health Network and HIV Modernisation Team work jointly to address the challenges around sexual health. This is co-ordinated through the Teenage Pregnancy Strategic Action Plan 2012-13.

Existing local needs assessments related to this topic

- Sexual Health Needs Assessment: Women aged 20–34 Years: This report was completed in August 2011 and explores the particular needs of women in deprived areas of Wirral. The report was commissioned to inform strategic and operational decisions about how and where services are delivered, decide how best to meet the needs of women aged 20-34, reduce health inequality, meet national targets and highlight areas for further research and analysis. As of 2012, it has been used to inform the service specification for the Wirral Integrated Sexual and Reproductive Health Service amongst others.
- Wirral Lesbian, Gay, Bisexual and Transgender Needs Assessment: This report was completed in April 2012 and its findings provide the basis of an action plan to support local organisations and services review their current delivery models and enable them to make informed decisions to ensure equitable access for the LGBT population.
- Wirral HIV / AIDS Needs Assessment This needs assessment has so far been used to inform a number of commissioning decisions, including HIV and sexuality awareness training for nursing homes.

Readers interested in sexual health are strongly encouraged to read these documents

(For information please go to Wirral JSNA Sexual Health chapter via this link)

3.3 Hospital Admissions

Admissions to hospital can help to provide a more detailed picture of the health of the population. Admissions can be elective (planned) or non-elective (unplanned, emergency admissions). The top ten diagnosis chapters which generated the most planned (elective) admissions to hospital in 2010/11are displayed in Table 3.3.1 in order of which caused the most spells*.

Table 3.3a Top ten elective hospital admissions in Wirral in 2010/11 by diagnosis

Diagnosis chapter	Spells*		Bed Days	Excess bed days		Tariff £k	Excess £k
	No	%	No	No	%	£k	£k
Digestive	8,827	18%	3,484	813	11%	6,784.00	179
Neoplasms	8,076	17%	11,497	2,447	34%	8,705.30	580
Musculoskeletal	6,262	13%	9,076	292	4%	14,237.90	72
Genito-Urinary	5,319	11%	2,678	223	3%	4,721.00	52
Eye	2,965	6%	257	76	1%	2,287.30	20
Circulatory	2,656	6%	5,319	1,001	14%	6,071.30	233
Skin	1,532	3%	2,488	800	11%	1,496.10	195
Respiratory	1,345	3%	885	119	2%	1,347.60	28
Endocrine	1,321	3%	1,410	236	3%	973.7	51
Nervous System	1,033	2%	956	407	6%	1,436.30	82
Total top 10 Elective Admissions	39,336	82%	38,050	6,414	89%	48,061	1,492
All Elective Admissions	47,861	100%	49,038	7,193	100%	55,587.50	1,665

Source: Dr Foster, 2012
*A hospital spell is defined as the total continuous stay of a patient using a hospital bed

- The top three causes for elective hospital admissions were for conditions related to the digestive system, neoplasms (cancer) and musculoskeletal
- There was a total of 49,038 bed days (i.e. nights spent in hospital) overall.
- Of these, one in seven (7,193) were considered to be 'excess' bed days (i.e. the patient has stayed longer than is considered 'average' for treatment of the condition they were admitted for)

Table 3.3b: Top ten non-elective (emergency) hospital admissions in Wirral in 2010-11 by diagnosis

Diagnosis chapter	Spells		Bed Days	Excess bed days		Tariff	Excess
	No.	%	No.	No.	%	£k	£k
Pregnancy Conditions	9,974	18%	9,747	352	1%	7,115.50	126
Injuries and Poisonings	6,602	12%	35,308	5,660	16%	11,791.60	1,171
Respiratory	5,784	10%	32,297	3,618	10%	10,020.20	709
Circulatory	4,766	8%	40,055	5,919	17%	13,290.30	1,122
Digestive	4,475	8%	25,629	3,405	10%	8,022.70	652
Perinatal Period	4,012	7%	13,340	1,988	6%	2,369.60	398
Genito-Urinary	2,820	5%	16,470	2,222	6%	4,228.30	359
Mental Health	2,309	4%	39,275	1,045	3%	1,678.80	198
Nervous System	1,966	3%	7,808	2,410	7%	2,662.60	505
Musculoskeletal	1,516	3%	8,005	2,131	6%	2,457.10	399
Total top 10 Non Elective Admissions	44,224	78%	227,934	28,750	81%	63,636.70	5639
All Non-Elective Admissions	56,561	100%	274,697	35,711	100%	78,738.10	6,963

Source: Dr. Foster, 2012

- Table 3.3b displays those diagnosis chapters which generated the greatest number of spells in 2010/11.
- The ten diagnosis shown in the table generated some 28,750 excess bed days out of a total of 35,711 excess bed days
- The top three were pregnancy related conditions (accounting for 18% of all spells), injuries & poisoning (12% of all spells and 16% of all excess bed days) and respiratory conditions (10% of spells and 10% all excess bed days)
- Whilst pregnancy conditions are the greatest cause for an emergency admission, it only contributes toward 1% of the excess bed days (i.e. there a large number of admissions, but most stay for a very short period)
- The total cost of all of non-elective spells was over £78 million; the cost of the excess bed days for emergency admissions was just under £7 million.
- It is apparent that it is non-elective admissions result in a far higher number of excess bed days and cost much more than planned admissions/activity

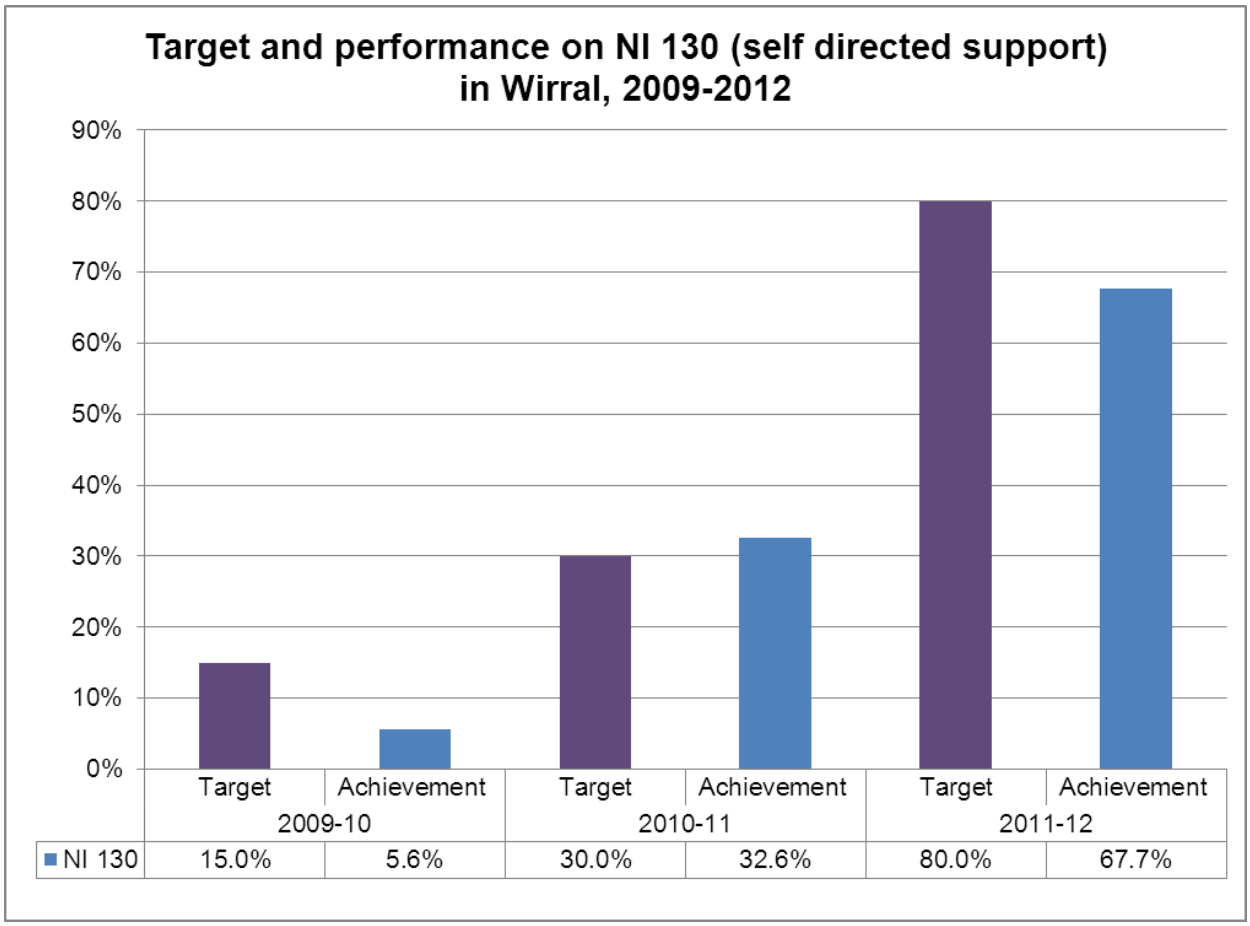
3.4 Health, Social Care and Supported Housing Activity

Some health care activity has already been discussed throughout this chapter. This section therefore focuses on health, social care and supported housing activity in relation to several indicators which were formerly National Indicators (NIs), but which are no longer nationally monitored. Wirral however, continues to monitor them and Figures 3.4.1a to 3.4.1d show local performance against NIs for social care activity (The detail of each indicator is described below.

Social Care Clients receiving Self Directed Support (NI 130)

This indicator measures the extent to which social services clients are able to design the support or care arrangements that best suit their particular needs through the use of direct payments or personal budgets. This offers the person (or carer) greater flexibility in how their support is provided and ensures that their care and support package is directly responsive to their individual needs, including broader health and wellbeing issues. In Wirral, a target has been set for 2011-12 for 80% of social services clients aged 18+ to receive self-directed support*.

Figure 3.4.1a: Wirral performance against social care NI 130 (2009-2012)



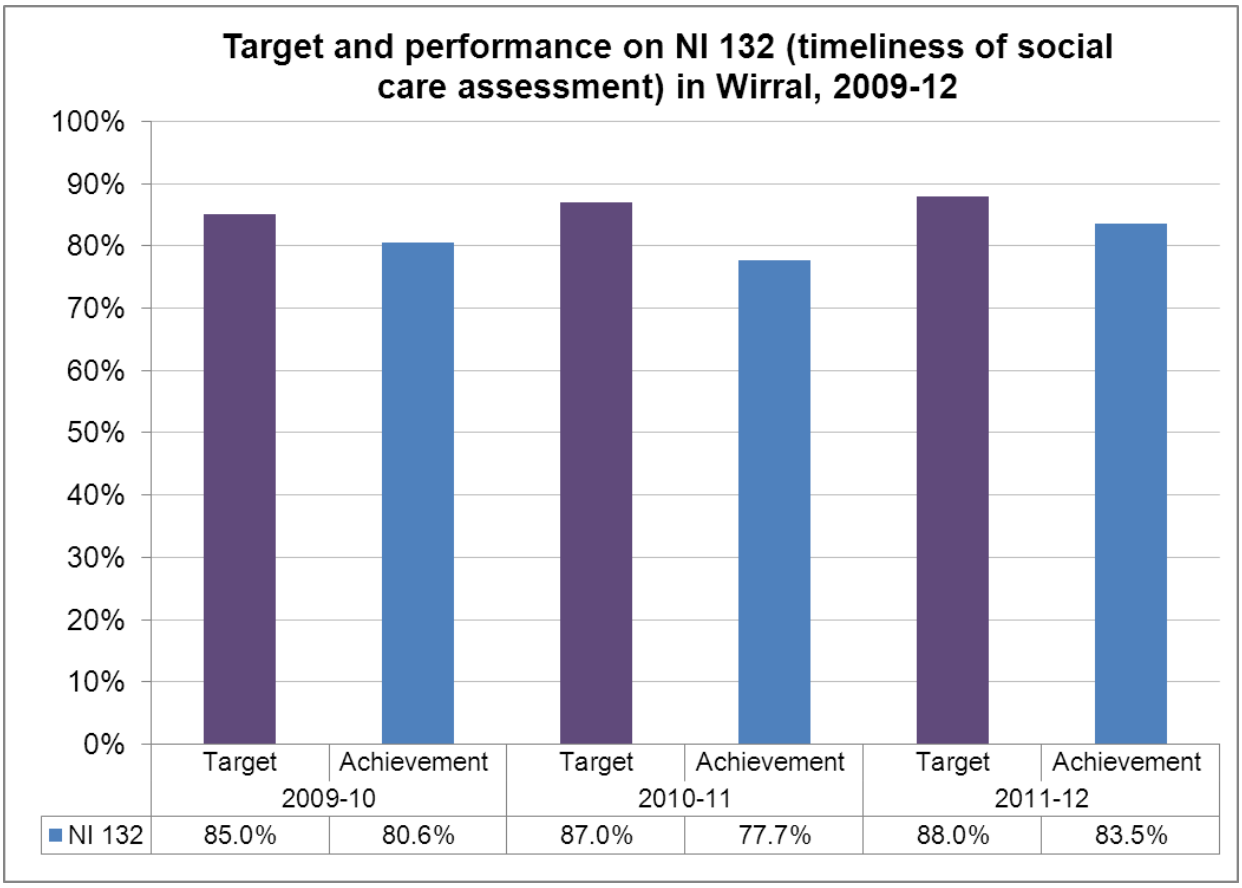
Source: MBW Department of Adult Social Services, 2012

Timeliness of social care Adult Social Services assessment (NI 132)

This indicator measures how quickly the Department of Adult Social Services completes an assessment after receiving a referral for help or support.

In Wirral, a target of 88% was been set for 2011-12 regarding the proportion of people that receive an assessment in 4 weeks or less, following first point of contact.

Figure 3.4.1b: Timeliness of social care Adult Social Services assessment (NI 132)



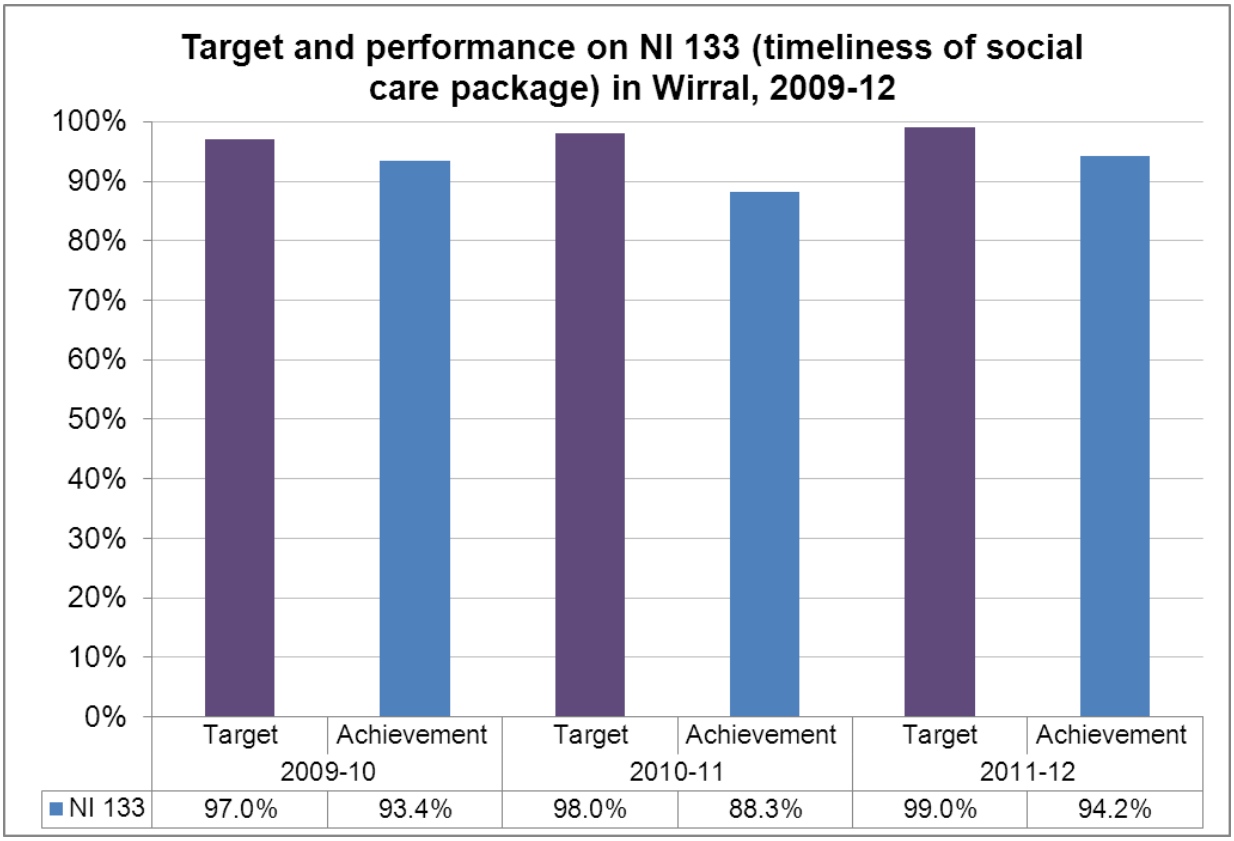
Source: MBW Department of Adult Social Services, 2012

Timeliness of social care packages (NI 133)

People should expect practical help and other support to arrive in a timely fashion soon after their problems have been referred to social services. This NI measures the degree to which care packages are delivered within an acceptable period following assessment, defined as the time from completion of assessment to provision of all services in the care package less than or equal to 4 weeks.

In Wirral, a target was set for 2011-12 of 99% of people to have received a timely social care package within an acceptable period following assessment.

Figure 3.4.1c: Timeliness of social care package (NI 133)



Source: MBW Department of Adult Social Services, 2012

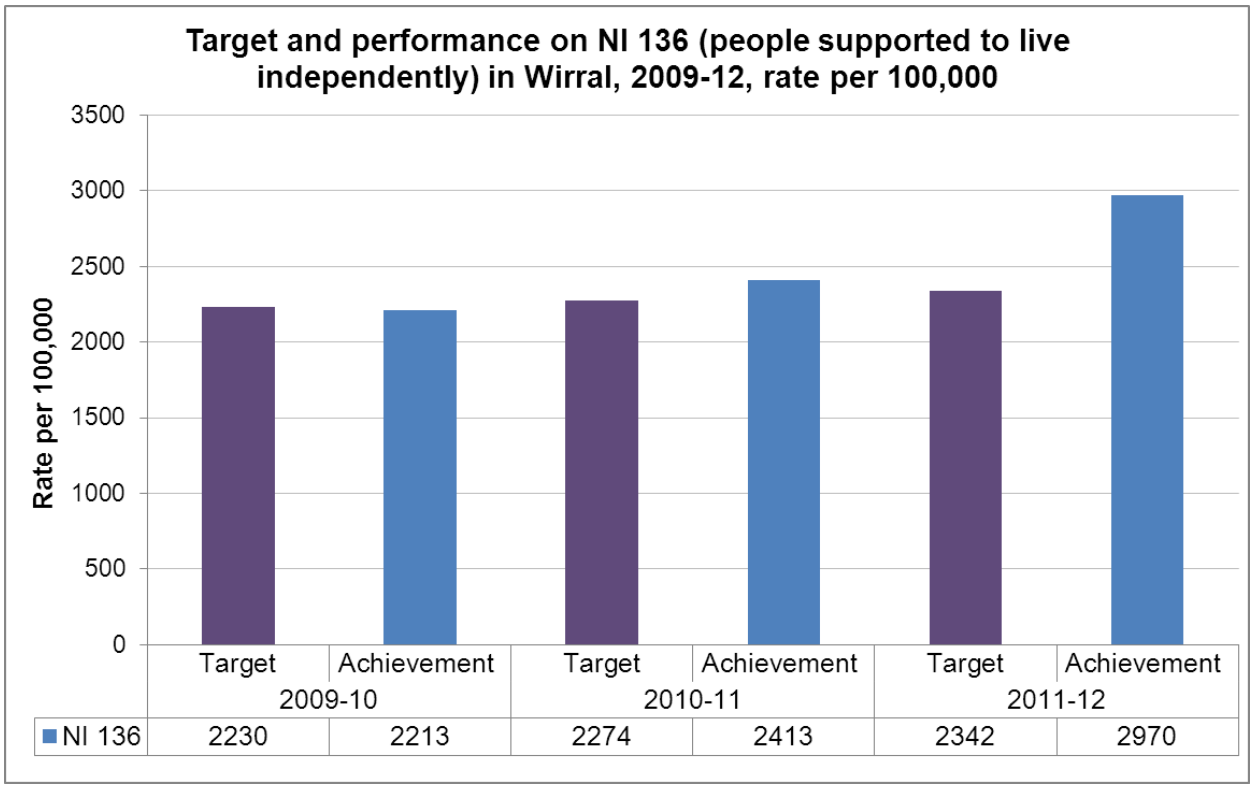
People supported to live independently through social services (NI 136)

This indicator can be seen as a proxy for quality of life, and to some extent choice and control as it indicates the proportion of adults supported to live as independently as possible. This NI covers all adults receiving any level of care/support to live independently, whether through care packages provided directly by the local authority, or support provided through organisations that are grant funded.

It includes both intensive support in the community and lower levels of care/support and is consistent with the wider direction and development of 'Our Health, Our Care, Our Say' of providing treatment and support in community settings and preventing or postponing the need for more intensive care packages or residential care.

In Wirral in 2011-12, a target of 2342 per 100,000 adult population was set for this indicator. Figure 3.4.1.d shows the performance on this and the previous two years.

Figure 3.4.1d: People supported to live independently through social services (NI 136) in Wirral, 2009-12, rate per 100,000



Source: MBW Department of Adult Social Services, 2012

Collection of data on the two indicators below (NI 141 and NI 142) ceased in May 2011. The last two years of available data are 2009-10 and 2010-11 (see Table 3.4.1e).

Number of vulnerable people achieving independent living (NI 141)

This indicator measured the proportion of clients in short term services assisted to move on to independent living. It applied to 'short term' accommodation (stay less than 2 years), including services such as direct access hostels. It measured the extent to which services addressed crisis and enabled capacity for greater independence.

Number of vulnerable people supported to maintain independent living (NI 142)

This indicator measured the extent to which service users were prevented from moving into institutional care.

Table 3.4.1e: Targets and performance on NI 141 and 142, 2009-11

	Target 2009/10	Achievement 2009/10	Target 2010/11	Achievement 2010/11
NI 141	65	72.73	78	71.66
NI 142	97.5	98.79	99	98.25

Source: MBW Department of Adult Social Services, 2012

3.5 Service User Experience

A range of information on local public engagement o help increase awareness of local needs for commissioners, service providers and public alike is hosted on the Public Voice section of JSNA site.

Findings from the 2011-12 National GP Patients Survey asked for patients' feedback on a range of primary health care indicators. The tables below show Wirral compared to England.

Table 3.5a Responses to 'ease of getting through on the telephone' question from National GP Patients Survey, Wirral & England, 2011-12

	England	Wirral
% Very easy	31%	35%
% Fairly easy	47%	47%
% Not very easy	13%	11%
% Not at all easy	5%	4%
% Haven't tried	4%	3%

Table 3.5b: Responses to 'able to get an appointment to see or speak to somebody' question from National GP Patients Survey, Wirral & England, 2010

	England	Wirral
% Yes	75%	77%
% Yes, but had to call back closer to or on the day they wanted the appointment	12%	13%
% No	9%	8%
% Can't remember	3%	3%
% Yes	75%	77%

Table 3.5c: What patients not offered a convenient appointment did from National GP Patients Survey, Wirral & England, 2010

	England	Wirral
% took appointment offered	39%	34%
% Got an appointment for a different day	25%	25%
% phone consultation	4%	5%
% Went to A&E /Walk-in centre	9%	12%
% Saw a pharmacist	3%	2%
% Contact surgery another time	13%	17%
% Didn't see or speak to anyone	10%	8%

Table 3.5d: Responses to impressions on 'waiting time at the surgery' question from National GP Patients Survey, Wirral & England, 2011-12

	England	Wirral
I don't normally have to wait too long	61%	65%
I have to wait a bit too long	24%	22%
I have to wait too long	8%	7%
No opinion	7%	6%

- Wirral patients found it easier to get through to their practice on the phone than was the case in England overall and were more able to get an appointment
- Wirral patients were more likely to go to A&E or a WIC instead or contact the surgery another time if they were not offered a convenient appointment
- Wirral patients were less likely than patients in the rest of England to say they had to wait too long and more likely to say they didn't have to wait too long
- Overall, Wirral appears to perform well in terms of GP services when compared to England

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Yorkshire and Humber Public Health Observatory 2012
http://www.yhpho.org.uk/default.aspx?RID=81090

Foresight 2007: http://www.noo.org.uk/NOO_about_obesity/trends

Useful links:

For information on disease modelling, refer to:

www.apho.org.uk/apho/models.aspx
http://www.apho.org.uk/resource/item.aspx?RID=39384)
http://www.yhpho.org.uk/diabetes.aspx