



Public Health  
England



CANCER  
RESEARCH  
UK

# **National Cancer Intelligence Network**

## **Cancer by Deprivation in England**

### **Incidence, 1996-2010**

### **Mortality, 1997-2011**

Produced in partnership with Cancer Research UK

## About Public Health England

Public Health England's mission is to protect and improve the nation's health and to address inequalities through working with national and local government, the NHS, industry and the voluntary and community sector. PHE is an operationally autonomous executive agency of the Department of Health.

Public Health England  
Wellington House  
133-155 Waterloo Road  
London SE1 8UG  
Tel: 020 7654 8000  
[www.gov.uk/phe](http://www.gov.uk/phe)  
Twitter: @PHE\_uk  
Facebook: [www.facebook.com/PublicHealthEngland](https://www.facebook.com/PublicHealthEngland)

© Crown copyright 2014

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v2.0. To view this licence, visit [OGL](#) or email [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk). Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned. Any enquiries regarding this publication should be sent to [enquiries@ncin.org.uk](mailto:enquiries@ncin.org.uk).

Published May 2014

PHE publications gateway number: 2014093

This document is available in other formats on request. Please call 020 7654 8158 or email [enquiries@ncin.org.uk](mailto:enquiries@ncin.org.uk)



## Foreword

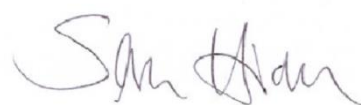
This report presents the latest incidence (1996-2010) and mortality (1997-2011) data by deprivation quintile in England, for a wide range of cancers. It has been produced by the National Cancer Intelligence Network (NCIN) in partnership with Cancer Research UK (CRUK). The aim of the analysis is to update and enhance our understanding of the variation in new cancer cases and deaths, and the association between the two, between the lowest and highest income groups. This report provides insights to guide the improvements needed to deliver more equitable outcomes for everyone affected by cancer, supporting the key goals of the National Cancer Equality Initiative (NCEI). It also updates and expands on previous work published by the National Cancer Intelligence Network.

Several noteworthy findings are illustrated by the comprehensive coverage of diverse cancer sites in this report and the parallel presentation of incidence and mortality statistics. These include the dominance of the contribution of lung cancer to the excess cases and deaths in the more socio-economically deprived. We also see that differences in overall cancer incidence and mortality by deprivation have not improved over time, with some individual sites even showing a widening of the deprivation gap. The enduring impact of socio-economic inequality is substantial: for all cancers combined, excluding non-melanoma skin cancer, if all socio-economic groups had the rates of the least deprived, around 19,200 deaths from cancer could be prevented each year in England (based on figures from 2007-2011).

This is a stark reminder of the magnitude of the cancer inequalities existing in this country today and demands action. Given that the vast proportion of the excess cases and deaths occur in cancers caused by smoking, implementation of comprehensive tobacco control measures should be central to the plan. This would incorporate marketing controls such as standardised packaging of tobacco products and encouraging quitting through pricing, coupled with continued investment in health marketing promotion and in Stop Smoking Services. We must also do more to target awareness programmes to help the more deprived make positive lifestyle changes, as well as promoting timely access to cancer services.

A handwritten signature in black ink, appearing to read 'Mick Peake'.

Mick Peake  
Clinical Lead of  
NCIN

A handwritten signature in black ink, appearing to read 'Sara Hiom'.

Sara Hiom  
Director of Patient  
Engagement and Early  
Diagnosis, CRUK

# Contents

About Public Health England	2
Foreword	3
Contents	4
Introduction	6
Key messages	7
Method	8
Incidence and mortality across cancer sites	10
Variation by cancer site	10
Variation over time	17
Variation by sex	19
Incidence and mortality by individual cancer site	20
Tests of statistical significance	21
All cancers	22
All cancers combined, excl. non-melanoma skin cancer (C00-C97, excl. C44)	22
Head and Neck	24
Oropharynx (C01,C09-C10)	24
Oral Cavity (C02-C04,C06)	26
Salivary Glands (C07-C08)	28
Larynx (C32)	30
Thyroid (C73)	32
Central Nervous System	34
Central Nervous System, incl. brain (C70-C72,C751-3,D32-D33,D352-4, D42-D43,D443-5)	34
Upper GI	36
Oesophagus (C15)	36
Stomach (C16)	38
Small Intestine (C17)	40
Liver (C22)	42
Pancreas (C25)	44
Lower GI	46
Colorectal (C18-C20)	46
Anus (C21)	48
Respiratory	50
Lung (C33-C34)	50
Mesothelioma (C45)	52

Breast	54
Breast (C50)	54
Gynaecological	56
Vulva (C51)	56
Vagina (C52)	58
Cervix (C53)	60
Uterus (C54-C55)	62
Ovary (C56-C57)	64
Urological (including male reproductive organs)	66
Penis (C60)	66
Prostate (C61)	68
Testis (C62)	70
Kidney and unspecified urinary organs (C64-C66,C68)	72
Bladder (C67)	74
Sarcoma	76
Bone Sarcoma (C40-C41)	76
Connective and Soft Tissue Sarcoma (C49)	78
Skin	80
Melanoma (C43)	80
Cancer of Unknown Primary	82
Cancer of Unknown Primary (C77-C80)	82
Haematological	84
Hodgkin Lymphoma (C81)	84
Non-Hodgkin Lymphoma (C82-C85)	86
Multiple Myeloma (C90)	88
Acute Lymphoblastic Leukaemia (C910)	90
Chronic Lymphocytic Leukaemia (C911)	92
Acute Myeloid Leukaemia (C920,C924,C925,C930,C940,C942)	94
Chronic Myeloid Leukaemia (C921)	96
Glossary	98
Project team and acknowledgements	102
References	103
The intelligence networks	104

# Introduction

Although cancer outcomes in the UK are improving they still appear to lag behind comparable countries in Europe [De Angelis *et al*, 2014]. Improving Outcomes: A Strategy for Cancer [DH 2011] highlighted the reduction of health inequalities as one way of addressing the variation. The availability of high quality cancer data by inequality groups was identified as a necessity for progress in this area.

This report examines the variation, in England, of cancer incidence and mortality by socio-economic deprivation, as recorded by the income domain of the Indices of Multiple Deprivation (IMD) [CLG 2011]. It is part of an existing literature on deprivation and cancer incidence and/or mortality [Quinn *et al* 2001; Rowan 2007; Shafique *et al* 2012; WCISU 2009; and WMCIU 2010]. Data were analysed for 37 cancer sites, grouped using codes from the 10th revision of the International Classification of Diseases (ICD-10), as well as for all cancers combined (excluding non-melanoma skin cancer).

This report builds on existing work [NCIN 2008] on cancer and socio-economic deprivation, and has been expanded to include a wider range of cancer sites. A detailed comparison of cancer groups presented in this report and the prior work is included in the glossary.

The first part of the report summarises the variation in cancer incidence and mortality with deprivation across different cancer sites, over time and between the sexes. Detailed data pages for each cancer site are then presented. A glossary of technical terms used is presented at the end.

## Key messages

- Incidence and mortality for all cancers combined (excluding non-melanoma skin cancer)<sup>1</sup> were higher in the more deprived quintiles than the least deprived; if rates for the more deprived groups had been the same as the least deprived, around 15,300 fewer cancers would have been diagnosed per year, in the most recent period examined (2006-2010). Similarly, there was a yearly excess of around 19,200 deaths from cancer in the period 2007-2011.
- In general, differences in cancer incidence and mortality by deprivation have not improved over time. For incidence, the deprivation gap reduced in males in two cancer sites over 15 years (cancer of unknown primary and stomach), but increased for five sites (female oropharynx, male and female kidney, male oesophagus, male non-Hodgkin lymphoma and vulva). For melanoma the gap became increasingly negative in males: rates began higher in the least deprived and the difference increased. For mortality there were no statistically significant changes over time.
- In the most recent period, 2006-2010, the incidence of female breast cancer was highest in the least deprived quintile. However, the more deprived had a statistically significantly higher mortality, with an estimated 350 yearly excess deaths in the period 2007-2011.
- Lung cancer had by far the largest number of excess cases (11,700 persons per year) and deaths (9,900 persons per year), in the most recent periods. Other smoking related sites, such as larynx and oral cavity, also had strong associations between deprivation and incidence or mortality.
- For all cancers combined, in the latest period examined, the deprivation gap was not statistically significantly different between males and females. However, for the cancer sites where the deprivation gap was significantly different between males and females it was larger in males. This occurred for seven sites (colorectal, oesophagus, larynx, bladder, liver, oral cavity and oropharynx), both for incidence and mortality, and in stomach cancer for incidence and chronic myeloid leukaemia (albeit with a low overall magnitude) for mortality alone.

---

<sup>1</sup> Hereafter referred to as 'all cancers combined'; i.e., ICD-10 codes C00 to C97, excluding C44.

## Method

### Incidence, mortality and population data

For both incidence and mortality the latest available data were used. For incidence data three time periods were included: 1996-2000, 2001-2005 and 2006-2010. For mortality data two time periods were included: 2002-2006 and 2007-2011. The 1997-2001 mortality data were only used for the all cancers combined group as this time period includes the change in coding from ICD-9 to ICD-10.

Incidence data were the newly diagnosed cases of cancer recorded by the eight English cancer registries<sup>2</sup> in the National Cancer Data Repository – a total of 3.6 million cases over all time periods. A small number of cases (190) were excluded due to an unknown age or cancer site. Mortality data were those deaths with an underlying cause of cancer, as supplied by the Office for National Statistics (ONS) to the English cancer registries. There were a total of 1.9 million deaths over the period 1997-2011 (counted by year of registration of death). Population data were the mid-year Lower Super Output Area (LSOA) population estimates supplied to English cancer registries by ONS.

### Deprivation quintile

Counts for incidence, mortality and the underlying population were broken down into deprivation quintiles according to the income domain scores of the following Indices of Multiple Deprivation (IMD) datasets:

<b>Incidence</b>	<b>Mortality</b>	<b>IMD Year</b>
1996-2000	1997-2001 <sup>3</sup>	IMD 2004 (2001 data)
2001-2005	2002-2006	IMD 2007 (2005 data)
2006-2010	2007-2011	IMD 2010 (2008 data)

The income score<sup>4</sup> from the appropriate time period was used to assign each LSOA in England to a deprivation quintile with approximately 20% of the total population in each quintile (rather than, for example, 20% of LSOAs). The quintiles were numbered such that deprivation was presented from the least deprived (1) to the most deprived (5).

---

<sup>2</sup> The eight English cancer registries merged to form the National Cancer Registration Service in April 2013.

<sup>3</sup> All cancers combined only.

<sup>4</sup> The use of the income domain alone follows UK and Ireland Association of Cancer Registries (UKIACR) recommended practice.



## Cancer site selection

Cancer sites averaging approximately 1,000 newly diagnosed cases or more per five-year cohort, for males and females separately, have been included. Previous national multi-site studies, such as Routes to Diagnosis [NCIN 2013], have used this as a practical threshold to balance statistical robustness against the desire to cover as many cancers as possible.

Mortality figures have been shown for all sites in this report; this has led to some sites with relatively small death counts (as for some cancers there are far fewer deaths than new cases) being included. Caution should be applied when interpreting these small numbers.

A list of cancer codes is included in the glossary, which also holds a table comparing cancer site groupings in this report with those in the previous NCIN deprivation report.

## Incidence and mortality across cancer sites

Several statistics are used to measure the relationship between incidence and mortality, and socio-economic deprivation.

Firstly, the age-standardised rate (ASR) is the number of new cases of cancer, or deaths from cancer per 100,000 persons in the population of interest. This population might, for example, be males in the first (least deprived) socio-economic quintile. Age-standardisation takes account of any difference in the age structure of the population between males and females, or with changing socio-economic deprivation. The age-standardised rates in this report were calculated using the 1976 European Standard Population [Waterhouse *et al* 1976].

Secondly, the deprivation gap is the modelled difference between the ASR in the least deprived and most deprived quintiles. Lastly, the excess cases/deaths is the difference in the number of cases or deaths that would have been seen if all quintiles had the same ASR as the least deprived quintile (this may be either positive or negative). Further explanation of these terms can be found in the glossary.

### Variation by cancer site

An overview of the age-standardised incidence and mortality rates across the 21 most common cancers in males and females can be seen in Figures 1 and 2. The majority of cancers show increasing incidence and mortality with increasing socio-economic deprivation, although three common cancers – breast, prostate and malignant melanoma – show the reverse trend for cancer incidence.

Figures 3 and 4 show the percentage difference from the age-standardised incidence and mortality rates in the least deprived quintile to the most deprived, for cancer sites where this is statistically significant. This is a relative measure, for each cancer site, of the change in incidence and mortality with socio-economic deprivation. It varied by up to approximately 300% between the least and most deprived, depending on cancer type and whether incidence or mortality is considered.

For most cancer sites, for both sexes, the dependence of the incidence and mortality rates on deprivation was similar. This would have been expected even if increasing socio-economic deprivation had no impact on cancer outcomes and only raised cancer incidence, i.e., higher incidence leading unsurprisingly to higher mortality. However, for some cancer sites (e.g. male and female oropharynx and anus, male larynx, male oral

cavity, cervix, penis, and testis), including some relating to smoking, mortality increased with increasing deprivation by more than incidence. This has not been tested and could be further explored in detailed studies of the individual sites.

Figures 5 and 6 show the modelled difference in the age-standardised incidence and mortality rates between the least deprived quintile and the most deprived, for selected cancers where this is statistically significant. This is an absolute measure that conveys the impact of socio-economic deprivation on each cancer site, in direct comparison to each other.

In absolute terms the variation with socio-economic deprivation of lung cancer incidence and mortality rates dominated that of all other cancer sites. Melanoma, breast cancer and prostate cancer clearly illustrate a decreasing incidence with increasing socio-economic deprivation. For breast (and testicular) cancer(s) this was accompanied by increased mortality - i.e., the most deprived quintile had the lowest incidence but the highest mortality (consistent with a previous report [WMCIU 2010]).

Table 1 shows the number of excess cases and deaths for selected cancers and for all cancers combined, where there is a statistically significant trend in the incidence or mortality rate with deprivation. The all cancers combined figure is not a summation of the individual cancer sites and was calculated separately. The negative figures for the excess cases for breast, prostate and melanoma (among others) are a consequence of the fact that the incidence rate in the most deprived quintile is lower than the incidence rate in the least deprived quintile. These negative figures can be considered as the number of extra cases (or deaths) that would have occurred if the population of each quintile had the same rate as the least deprived quintile.

Lung cancer stood out with the majority of the excess cases and approximately half the excess deaths. However, the influence of breast, prostate and melanoma (which have substantial negative excess cases) served to reduce the total excess cases in the all cancers combined figure. If those cancer sites with negative excess cases had been excluded then lung cancer would have accounted for approximately half the total excess cases and half the total excess deaths.

For breast cancer, while the excess cases were negative, the excess mortality figure was positive, meaning that, while the more deprived were less likely to get diagnosed with breast cancer, they were statistically significantly more like to die from breast cancer. Only for melanoma was the burden of excess deaths negative, as persons in the least socio-economically deprived quintile had the highest age-standardised mortality rate.

**Male age-standardised\* incidence, 2006-2010, and mortality, 2007-2011, by deprivation quintile; England  
(most common 21 out of 32 cancer sites)**



Figure 2

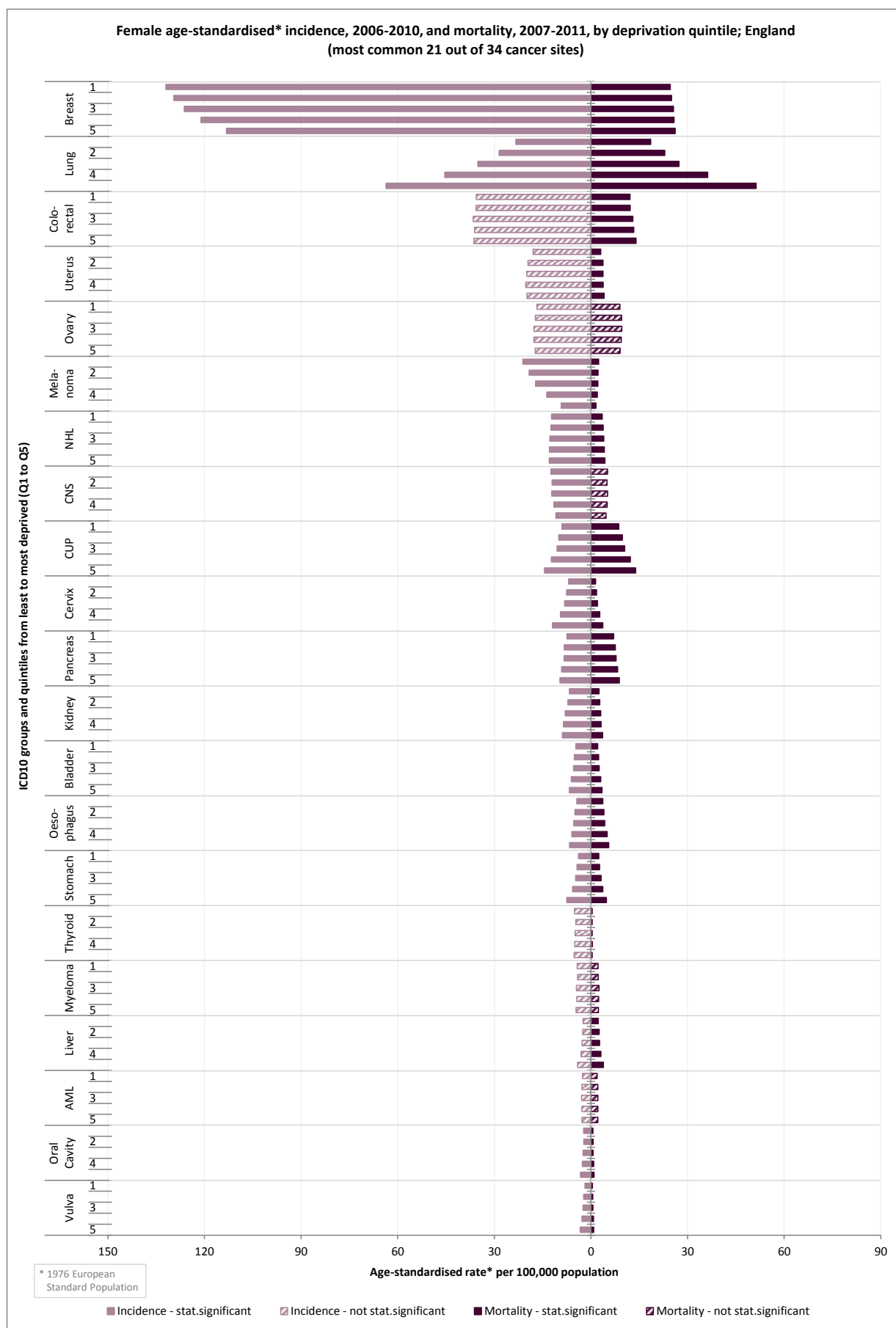


Figure 3

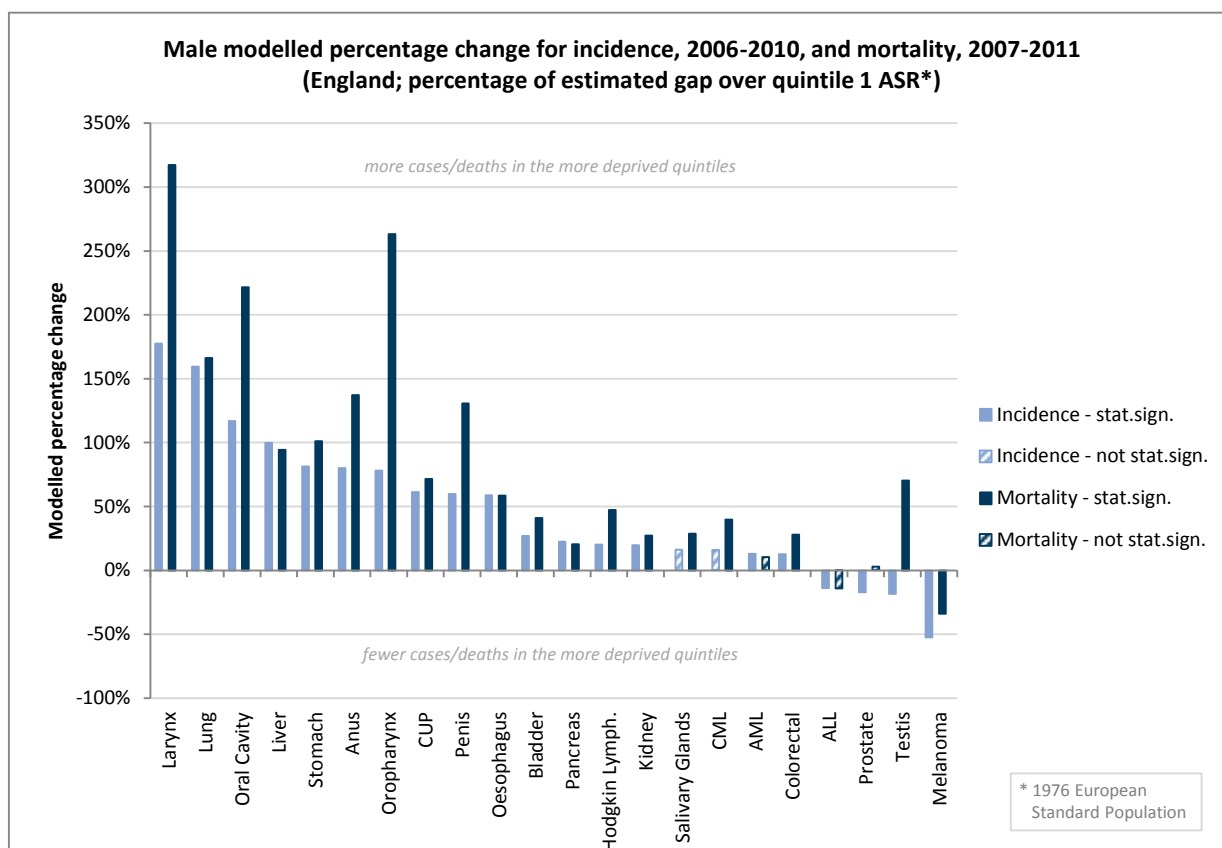


Figure 4

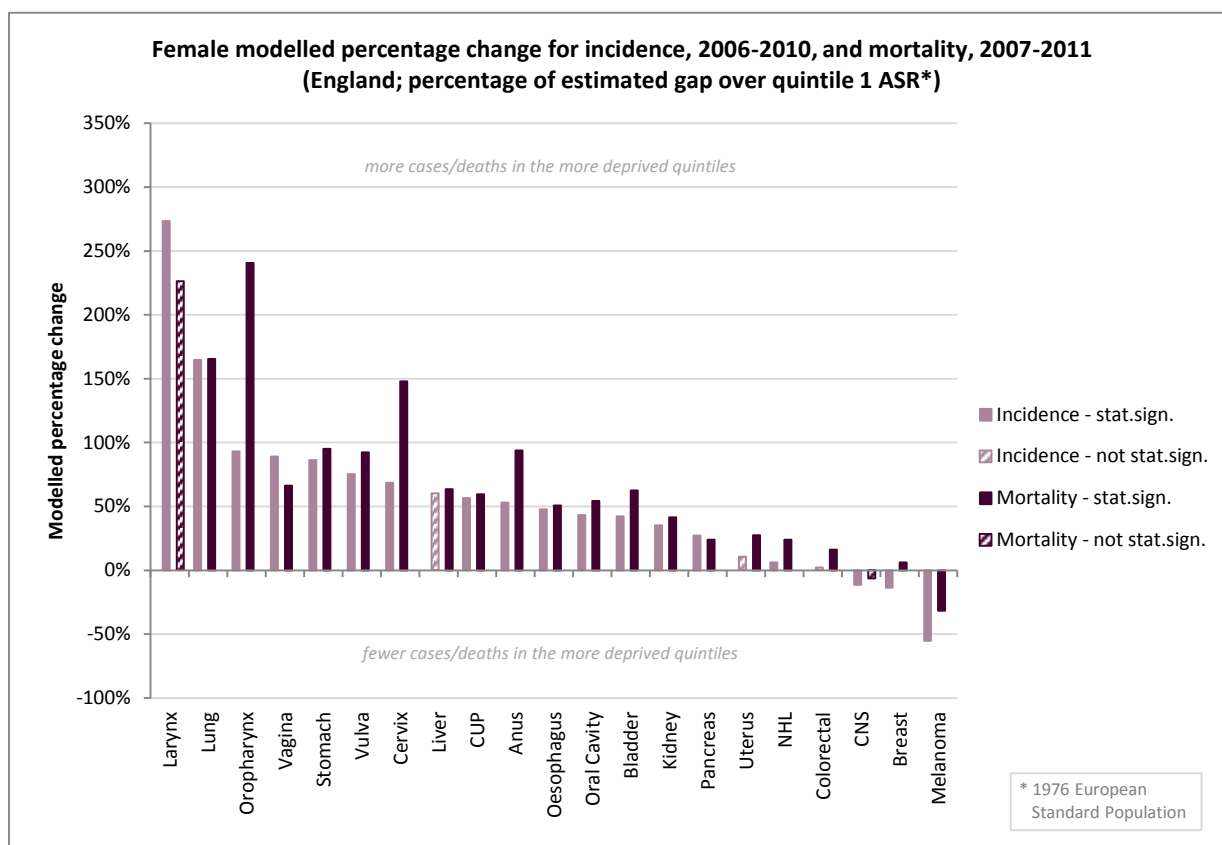


Figure 5

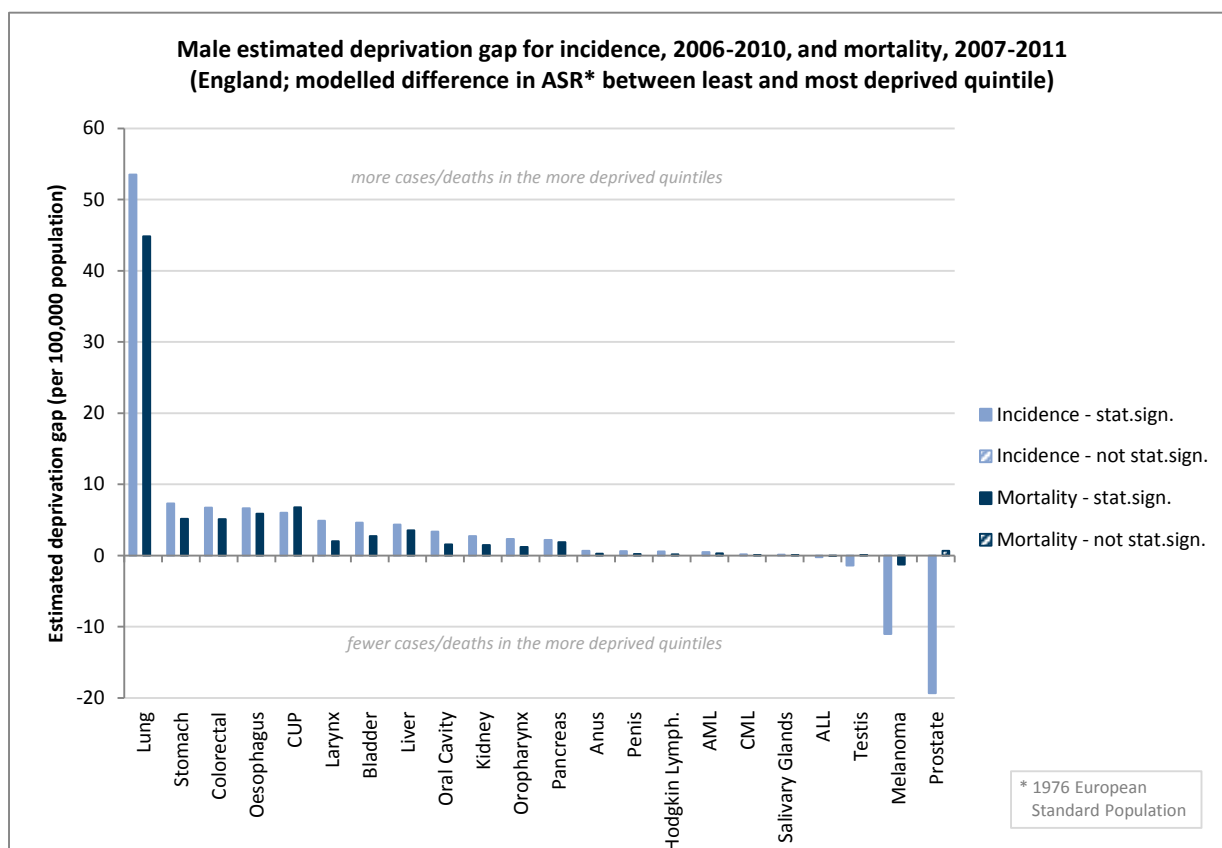
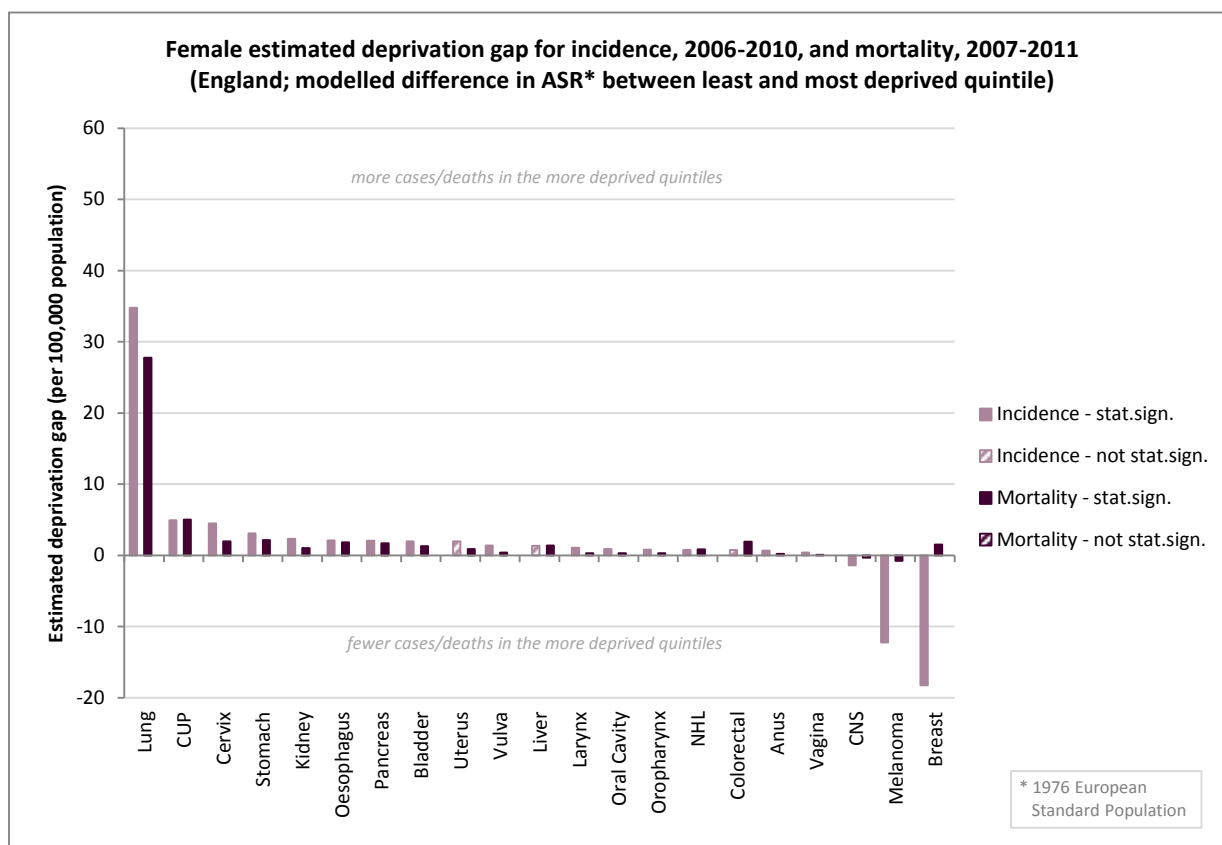


Figure 6



**Table 1**

**Yearly excess cancer cases 2006-2010 and deaths 2007-2011; England**

	Excess cases	Excess deaths
Lung	11,700	9,900
Cancer of Unknown Primary	1,600	1,700
Stomach	1,400	1,000
Oesophagus	1,200	1,100
Colorectal	770	860
Bladder	730	520
Liver	650	600
Larynx	650	260
Kidney and unspecified urinary organs	640	340
Pancreas	580	430
Cervix*	520	250
Oral Cavity	420	220
Uterus*	(not stat. sign.)	220
Oropharynx	330	190
Vulva*	240	90
Anus	150	70
Acute Myeloid Leukaemia	90	(not stat. sign.)
Non-Hodgkin Lymphoma	70	130
Penis*	70	30
Vagina*	50	20
Chronic Lymphocytic Leukaemia	-70	(not stat. sign.)
Testis*	-80	10
Chronic Myeloid Leukaemia	(not stat. sign.)	10
Salivary Glands	(not stat. sign.)	5
Breast**	-1,900	350
Prostate*	-2,500	(not stat. sign.)
Melanoma	-2,800	-270
<b>All cancers, excl. non-melanoma skin cancer***</b>	<b>15,300</b>	<b>19,200</b>

\* excess for sex-specific sites calculated using male/female figures only

\*\* excess for Breast cancer calculated using female figures only (male figures too small/stat. not significant)

\*\*\* excess for all cancers is calculated separately, not as an aggregate of excess figures for individual cancers

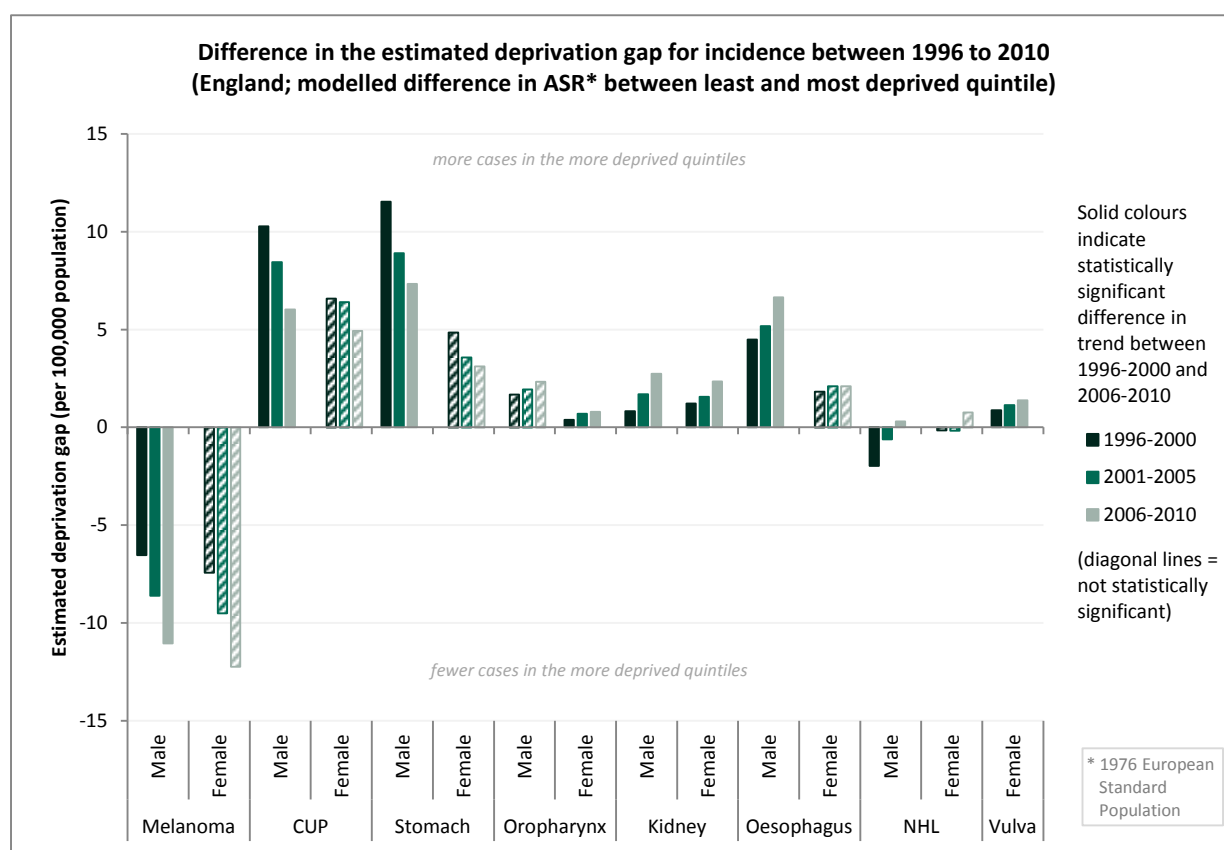


## Variation over time

For the majority of cancer sites there was no statistically significant change in the deprivation gap for incidence, either over the last three periods (between 1996-2000 and 2006-2010) or between the two most recent periods (2001-2005 and 2006-2010). For mortality there was no statistically significant change in the deprivation gap of any cancer site between the periods 2002-2006 and 2007-2011, nor for all cancers combined over the three periods (1997-2001 to 2007-2011).

Figure 7 shows selected cancer sites with a statistically significant change in estimated deprivation gap for incidence between 1996-2000 and 2006-2010. Three cancers have been excluded - acute myeloid leukaemia (AML), Hodgkin lymphoma, and acute lymphoblastic leukaemia (ALL) - as the change, while statistically significant, was small in magnitude.

**Figure 7**



Cancer of unknown primary (CUP) and stomach cancer had decreasing deprivation gaps over time for males, indicating a reduction in the overall inequality. The deprivation gap for melanoma in males became more negative, showing that less deprived groups had higher and more rapidly increasing incidence rates (the change for females was similar but not statistically significant).

Female cancers of the vulva and oropharynx, and male oesophageal cancer, together with kidney cancers for males and females showed increasing deprivation gaps over time. For non-Hodgkin lymphoma the deprivation gap went from negative (higher incidence rates in the less deprived) in 1996-2000 to positive (higher in the more deprived) in 2006-2010, though this change was only statistically significant in males.

Prostate cancer showed no statistically significant difference between the first and last periods but did show a significant change between the second and third periods (2001-2005 and 2006-2010). This may be related to the increased use of prostate-specific antigen (PSA) testing in the early 2000's.

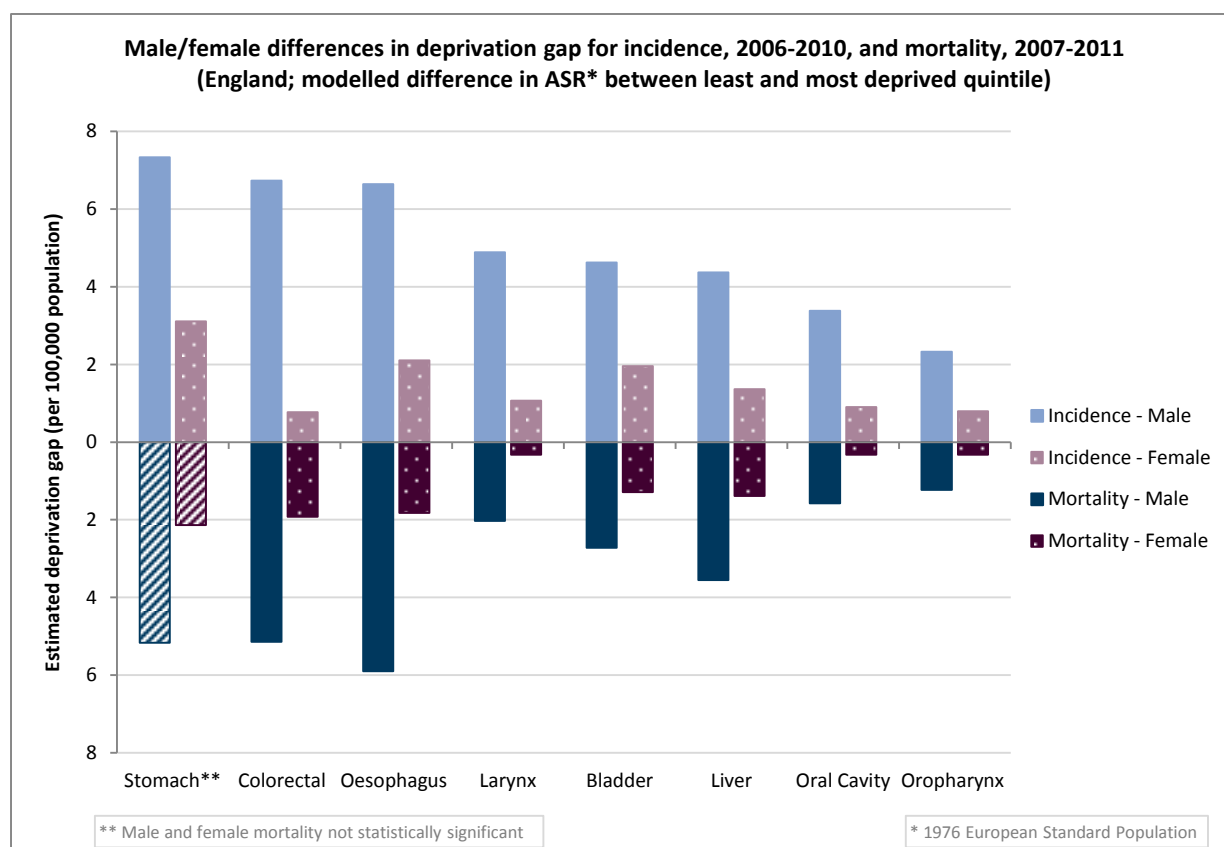
## Variation by sex

For all cancers combined the deprivation gap for incidence was larger for males than females in each of the three periods (1996-2000, 2001-2005, and 2006-2010) but this difference was only statistically significant in the two earlier periods. For mortality the deprivation gap was again greater for all three periods in males, but only statistically significant in the first period (1997-2001).

Figure 8 below shows the cancer sites where the difference in the deprivation gap between males and females was statistically significant. Chronic myeloid leukaemia (CML) has been excluded as the magnitude of the deprivation gap for mortality was very small. Breast cancer has also been excluded as male and female rates were incomparable.

For all sites where the difference was statistically significant, for both incidence and mortality, the gap was always greater for males than females for both incidence and mortality (excluding breast cancer), implying a stronger association with deprivation for males than for females. A similar picture prevailed in each of the three periods.

**Figure 8**



## Incidence and mortality by individual cancer site

The subsequent pages hold the incidence and mortality data for each of the 37 site-specific cancers, as well as all cancers combined.

Interpretation of data recorded over a number of years requires some caution. Differences over time may arise due to changes in the definition of cancer, such as the level of anatomical detail in coding and the criteria for malignancy. These differences however, if they exist, would apply approximately equally across the socio-economic groups analysed. There have also been improvements in the cancer registration process and the diagnostic detection of tumours in this period. In addition, some specific issues affecting particular cancer sites include:

- Bladder cancer cases decreased between 1996-2000 and 2001-2005 due to coding changes during the first period.
- The increase in thyroid cancer cases over the fifteen years is thought to be largely due to increased detection of one sub-group of thyroid tumours (small papillary cancers) associated with the more widespread use of ultrasound and fine needle biopsies.
- CUP has seen a large decrease in new cases, most likely due to improved diagnostic techniques being more widely available as well as better recording of site-specific cancers by cancer registries.
- CUP mortality is, in part, thought to be higher than CUP incidence because cause-of-death coding is based on the condition indicated on the death certificate: generic statements, such as 'carcinomatosis', 'metastatic liver disease' or 'brain mets', result in mortality codes included in the set of ICD-10 codes that define CUP, even when the original diagnosis was not CUP.
- Mortality data for vaginal, penile, and testicular cancer are based on comparatively small numbers and will show a correspondingly high level of uncertainty caused by the naturally larger variation in statistics based on smaller numbers.

## Tests of statistical significance

Three statistical tests were performed on the incidence and mortality data for each cancer site. The notes at the bottom of each page comment on these, in the following order:

- The trend in the age-standardised rate across the deprivation quintiles of each period was assessed for statistical significance by the F-test for the significance of the regression model. The excess incidence/mortality, estimated deprivation gap and modelled percentage change figures appear greyed out for the periods in which the trend is not significant.
- The statistical significance of the change in the deprivation gap across the time periods was assessed by a z-test on their gradients.
- The statistical significance of the difference between male and female age-standardised trends was tested by a z-test on their gradients. This is included in the notes only for dual sex sites (except for breast cancer where the incidence and mortality vary so greatly between males and females that this comparison is omitted).

Where the trend in age-standardised rates across the deprivation quintiles, for all persons, in the latest time period is statistically significant the excess cases or deaths for persons have been calculated. For some cancer sites the excess is 'negative', i.e., there are fewer cases/deaths observed than would be expected.

Further details on these and the other values presented in the data sheets are included in the glossary.

## Cancer incidence (1996-2010) by deprivation quintile, in England

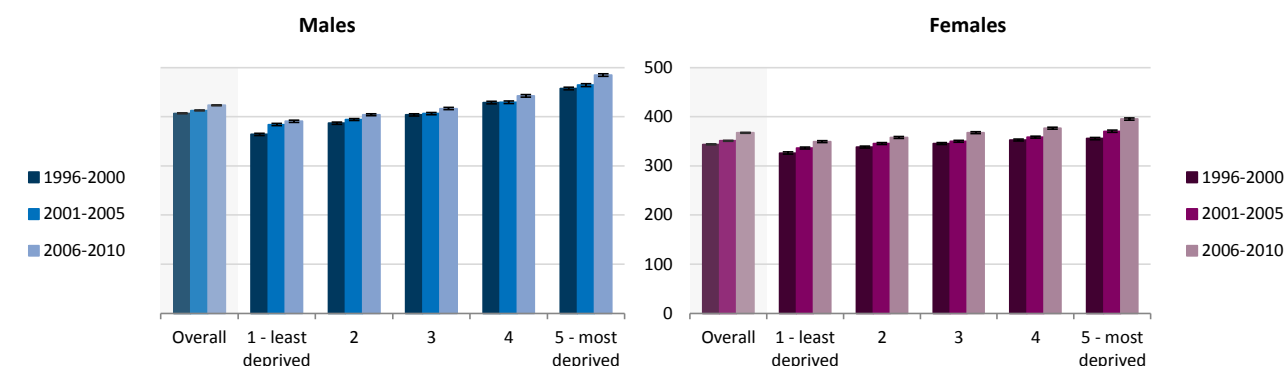
### All cancers combined, excl. non-melanoma skin cancer (C00-C97, excl. C44)

#### Latest incidence for all cancers combined, excl. NMSC (England; rate per 100,000 population; excess 5yr average)

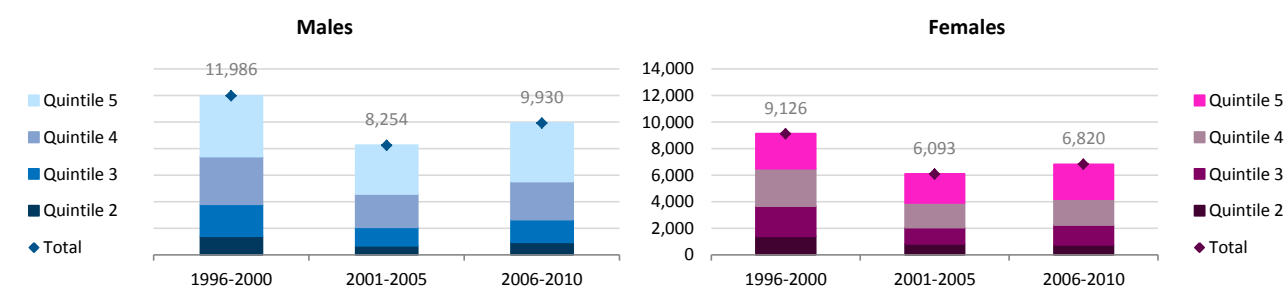
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	132,622	390.9	(388.8 - 393.0)	1	-
2	142,933	404.1	(402.0 - 406.2)	1.03	936
3	138,066	416.8	(414.6 - 419.0)	1.07	1,702
4	128,979	442.5	(440.0 - 444.9)	1.13	2,880
5 - most deprived	118,399	485.0	(482.2 - 487.8)	1.24	4,412
<b>Overall</b>	<b>660,999</b>	<b>423.6</b>	<b>(422.5 - 424.6)</b>		<b>9,930</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	126,294	349.7	(347.7 - 351.6)	1	-
2	138,233	358.1	(356.2 - 360.0)	1.02	746
3	137,551	367.4	(365.4 - 369.3)	1.05	1,490
4	129,135	377.0	(374.9 - 379.0)	1.08	1,947
5 - most deprived	114,571	395.5	(393.2 - 397.8)	1.13	2,638
<b>Overall</b>	<b>645,784</b>	<b>367.5</b>	<b>(366.6 - 368.4)</b>		<b>6,820</b>

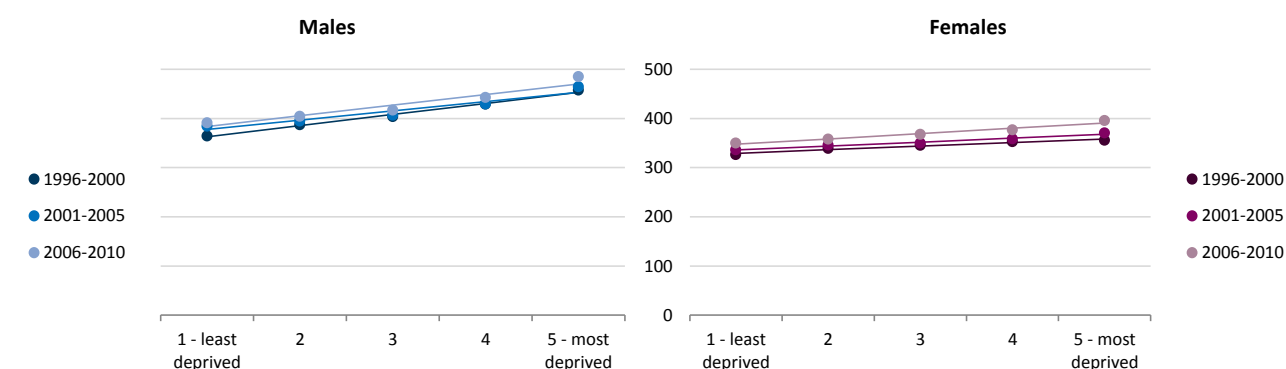
#### Age-standardised\* incidence rate for all cancers combined, excl. NMSC (England; rate per 100,000 population)



#### Yearly excess cases for all cancers combined, excl. NMSC (England; excess 5yr average)



#### Statistical significance of incidence ASR\* trends for all cancers combined, excl. NMSC (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	90.7	(75.7 - 105.7)	25%	0.0003
2001-2005	75.5	(37.7 - 113.4)	20%	0.0079
2006-2010	86.2	(40.4 - 132.1)	22%	0.0093
p-value for difference in trend 2001-2005 to 2006-2010				0.7240
p-value for difference in trend 1996-2000 to 2006-2010				0.8569

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	29.3	(17.7 - 40.9)	9%	0.0040
2001-2005	32.2	(23.1 - 41.3)	10%	0.0015
2006-2010	43.3	(29.4 - 57.3)	12%	0.0022
p-value for difference in trend 2001-2005 to 2006-2010				0.1899
p-value for difference in trend 1996-2000 to 2006-2010				0.1296

#### Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in two of the three periods (p-values: <0.001; 0.029; 0.079).
- In 2006-2010 there would have been around 15,300 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

## Cancer mortality (1997-2011) by deprivation quintile, in England

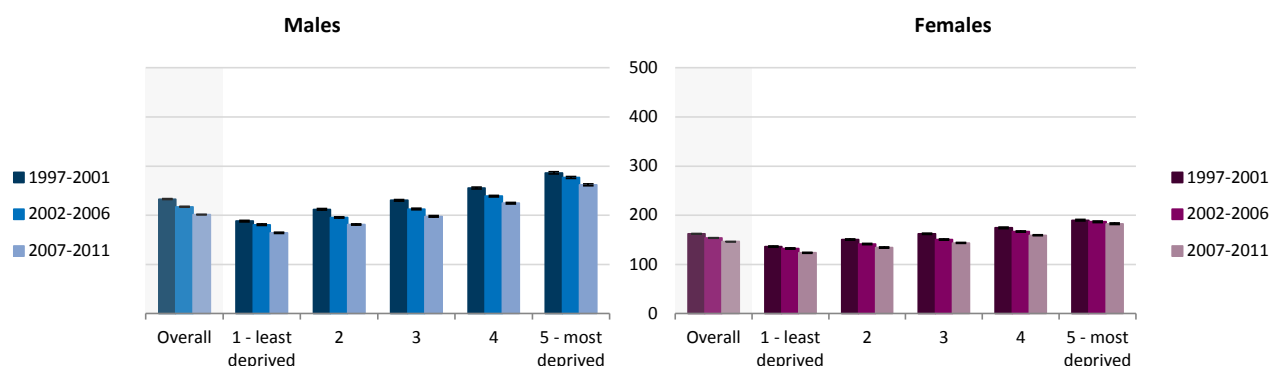
### All cancers combined, excl. non-melanoma skin cancer (C00-C97, excl. C44)

#### Latest mortality for all cancers combined, excl. NMSC (England; rate per 100,000 population; excess 5yr average)

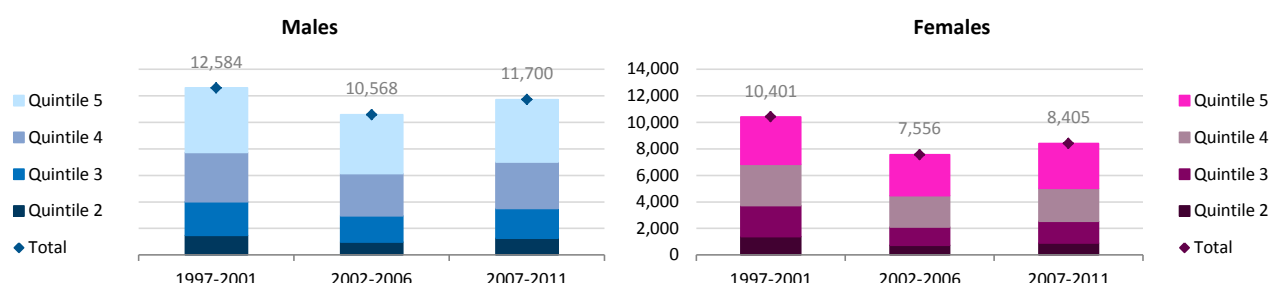
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	60,528	164.1	(162.8 - 165.4)	1	-
2	70,062	181.4	(180.1 - 182.8)	1.11	1,262
3	71,043	197.7	(196.2 - 199.2)	1.20	2,245
4	69,785	224.7	(223.1 - 226.4)	1.37	3,497
5 - most deprived	66,046	262.0	(260.1 - 264.0)	1.60	4,696
<b>Overall</b>	<b>337,464</b>	<b>201.5</b>	<b>(200.8 - 202.2)</b>		<b>11,700</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	53,347	123.7	(122.7 - 124.8)	1	-
2	63,247	134.3	(133.2 - 135.3)	1.09	907
3	65,532	143.7	(142.6 - 144.8)	1.16	1,629
4	64,603	159.3	(158.1 - 160.5)	1.29	2,482
5 - most deprived	59,251	182.7	(181.2 - 184.1)	1.48	3,387
<b>Overall</b>	<b>305,980</b>	<b>146.4</b>	<b>(145.9 - 147.0)</b>		<b>8,405</b>

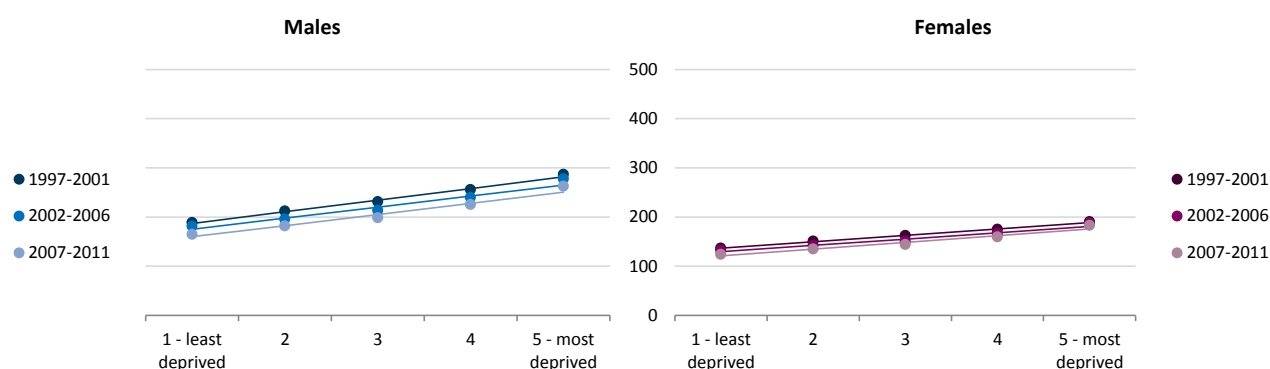
#### Age-standardised\* mortality for all cancers combined, excl. NMSC (England; rate per 100,000 population)



#### Yearly excess deaths for all cancers combined, excl. NMSC (England; excess 5yr average)



#### Statistical significance of mortality ASR\* trends for all cancers combined, excl. NMSC (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1997-2001	94.6	(79.5 - 109.7)	51%	0.0003
2002-2006	90.0	(55.3 - 124.8)	51%	0.0037
2007-2011	91.0	(59.0 - 123.0)	57%	0.0029
p-value for difference in trend 2002-2006 to 2007-2011				0.9682
p-value for difference in trend 1997-2001 to 2007-2011				0.8427

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1997-2001	52.0	(47.3 - 56.8)	38%	0.0001
2002-2006	52.0	(33.1 - 70.8)	40%	0.0031
2007-2011	54.7	(34.2 - 75.2)	45%	0.0034
p-value for difference in trend 2002-2006 to 2007-2011				0.8466
p-value for difference in trend 1997-2001 to 2007-2011				0.8043

#### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the three periods (p-values: <0.001; 0.059; 0.061).
- In 2007-2011 there would have been around 19,200 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

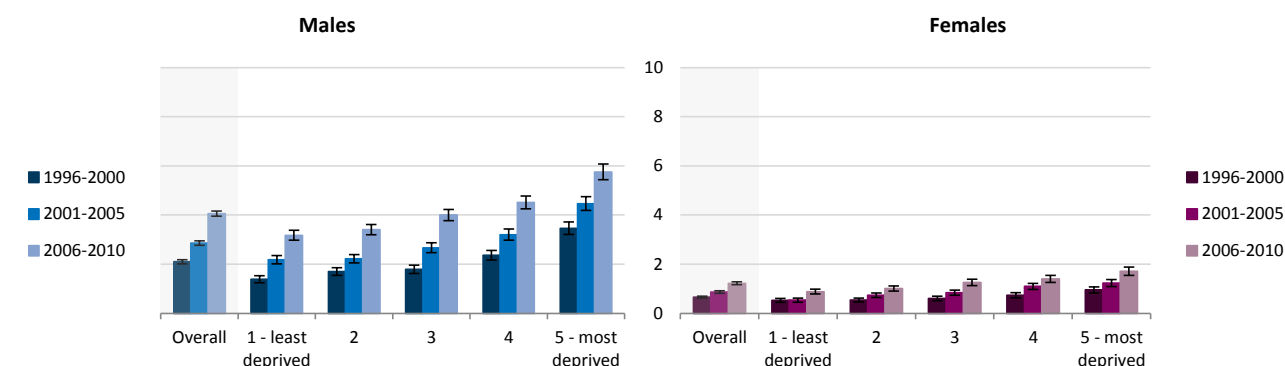
# Oropharynx (C01,C09-C10)

## Latest incidence for oropharyngeal cancer (England; rate per 100,000 population; excess 5yr average)

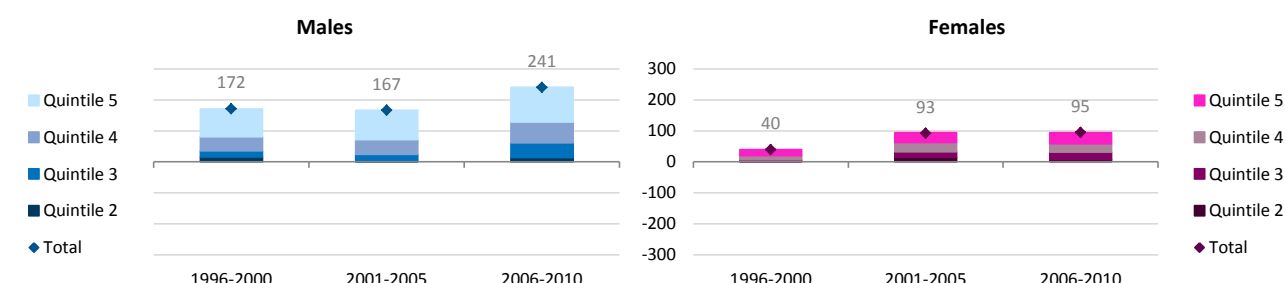
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	949	3.2	(3.0 - 3.4)	1	-
2	1,021	3.4	(3.2 - 3.6)	1.07	14
3	1,120	4.0	(3.8 - 4.2)	1.26	47
4	1,139	4.5	(4.3 - 4.8)	1.42	68
5 - most deprived	1,265	5.8	(5.4 - 6.1)	1.81	112
<b>Overall</b>	<b>5,494</b>	<b>4.1</b>	<b>(4.0 - 4.2)</b>		<b>241</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	288	0.9	(0.8 - 1.0)	1	-
2	335	1.0	(0.9 - 1.1)	1.14	8
3	392	1.3	(1.1 - 1.4)	1.43	23
4	391	1.4	(1.3 - 1.5)	1.58	27
5 - most deprived	408	1.7	(1.5 - 1.9)	1.94	37
<b>Overall</b>	<b>1,814</b>	<b>1.2</b>	<b>(1.2 - 1.3)</b>		<b>95</b>

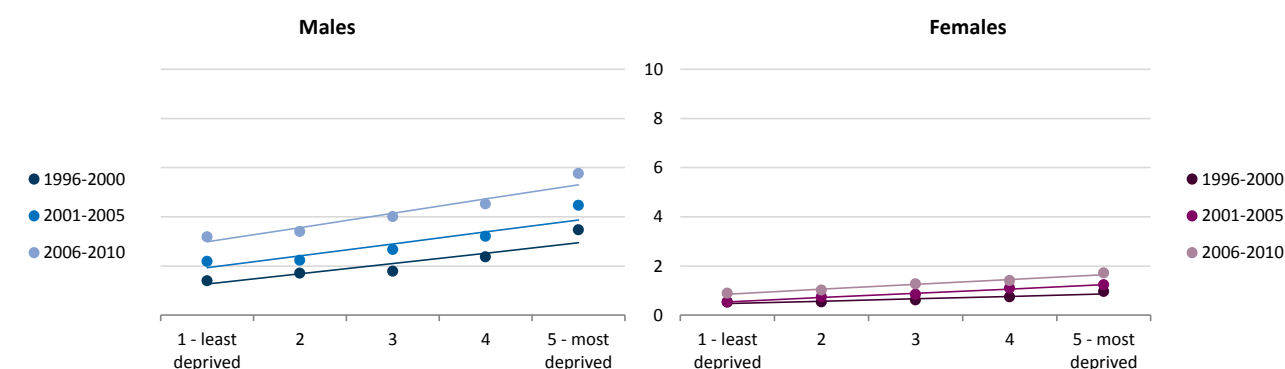
## Age-standardised\* incidence rate for oropharyngeal cancer (England; rate per 100,000 population)



## Yearly excess cases for oropharyngeal cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for oropharyngeal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	1.7	(0.3 - 3.0)	133%	0.0282
2001-2005	1.9	(0.4 - 3.5)	101%	0.0301
2006-2010	2.3	(1.1 - 3.6)	78%	0.0093
p-value for difference in trend 2001-2005 to 2006-2010				0.7088
p-value for difference in trend 1996-2000 to 2006-2010				0.4884

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.4	(0.1 - 0.7)	81%	0.0240
2001-2005	0.7	(0.5 - 0.9)	129%	0.0007
2006-2010	0.8	(0.6 - 1.0)	93%	0.0014
p-value for difference in trend 2001-2005 to 2006-2010				0.4678
p-value for difference in trend 1996-2000 to 2006-2010				0.0263

### Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was a statistically significant increase in the estimated deprivation gap between 1996-2000 to 2006-2010 for females.
- The ASR increase was greater for males than females; this was statistically significant in one of the three periods (p-values: 0.064; 0.126; 0.017).
- In 2006-2010 there would have been around 330 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details



# Cancer mortality (2002-2011) by deprivation quintile, in England

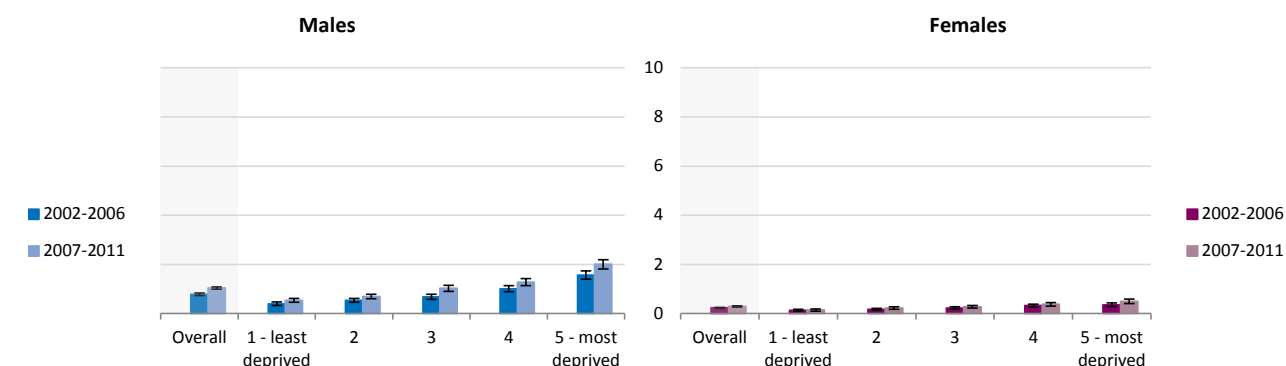
## Oropharynx (C01,C09-C10)

### Latest mortality for oropharyngeal cancer (England; rate per 100,000 population; excess 5yr average)

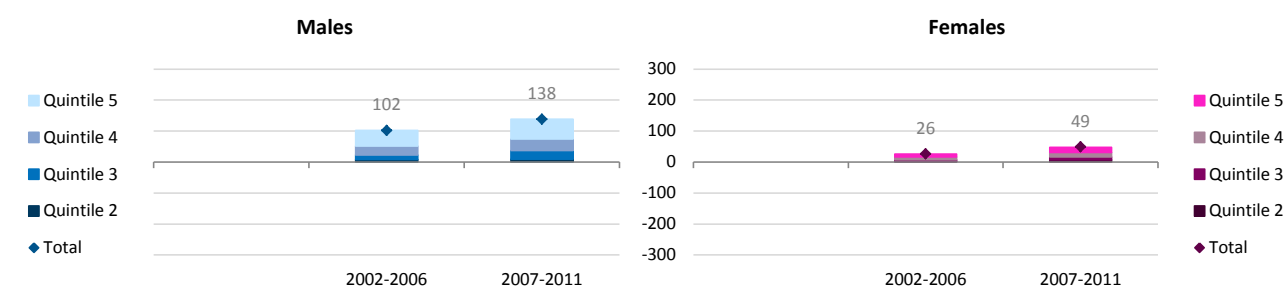
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	174	0.5	(0.5 - 0.6)	1	-
2	227	0.7	(0.6 - 0.8)	1.29	9
3	306	1.0	(0.9 - 1.1)	1.91	28
4	336	1.3	(1.1 - 1.4)	2.38	37
5 - most deprived	446	2.0	(1.8 - 2.2)	3.72	64
<b>Overall</b>	<b>1,489</b>	<b>1.0</b>	<b>(1.0 - 1.1)</b>		<b>138</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	52	0.1	(0.1 - 0.2)	1	-
2	93	0.2	(0.2 - 0.3)	1.61	7
3	102	0.3	(0.2 - 0.3)	1.95	10
4	123	0.4	(0.3 - 0.4)	2.69	14
5 - most deprived	130	0.5	(0.4 - 0.6)	3.57	17
<b>Overall</b>	<b>500</b>	<b>0.3</b>	<b>(0.3 - 0.3)</b>		<b>49</b>

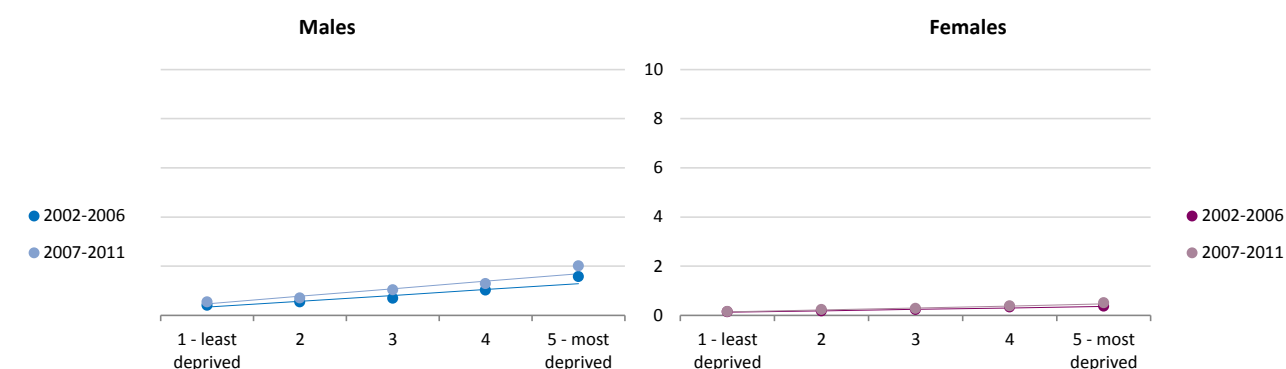
### Age-standardised\* mortality for oropharyngeal cancer (England; rate per 100,000 population)



### Yearly excess deaths for oropharyngeal cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for oropharyngeal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.9	(0.3 - 1.5)	280%	0.0151
2007-2011	1.2	(0.6 - 1.9)	263%	0.0090
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.5287</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.2	(0.2 - 0.3)	185%	0.0022
2007-2011	0.3	(0.2 - 0.4)	241%	0.0015
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.1149</b>

### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant for the two periods (p-values: 0.020; 0.007).
- In 2007-2011 there would have been around 190 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

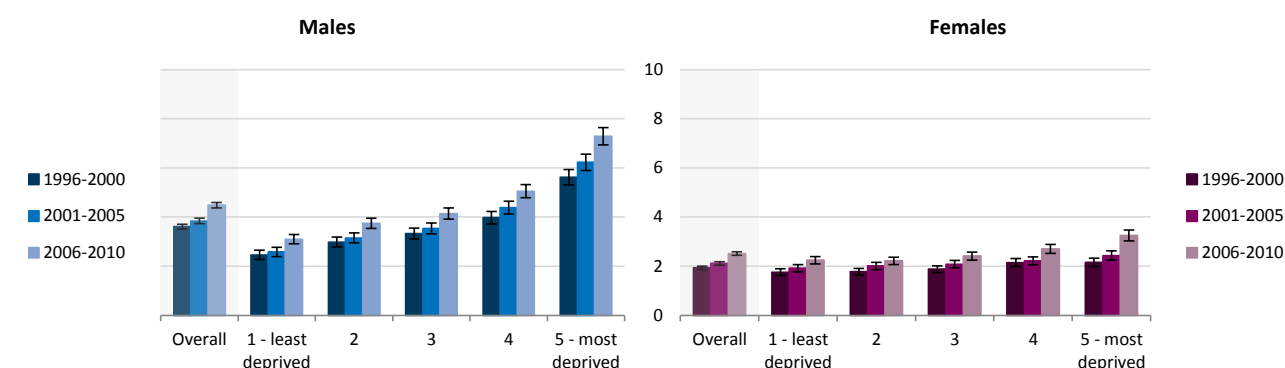
# Oral Cavity (C02-C04,C06)

## Latest incidence for oral cavity cancer (England; rate per 100,000 population; excess 5yr average)

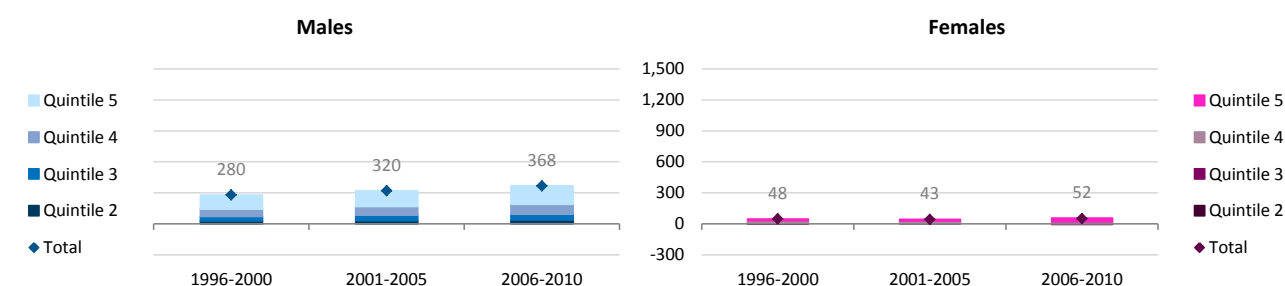
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	991	3.1	(2.9 - 3.3)	1	-
2	1,199	3.7	(3.5 - 4.0)	1.21	37
3	1,234	4.1	(3.9 - 4.4)	1.34	57
4	1,327	5.1	(4.8 - 5.3)	1.63	95
5 - most deprived	1,626	7.3	(6.9 - 7.6)	2.35	179
<b>Overall</b>	<b>6,377</b>	<b>4.5</b>	<b>(4.4 - 4.6)</b>		<b>368</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	846	2.2	(2.1 - 2.4)	1	-
2	882	2.2	(2.1 - 2.4)	0.99	-6
3	903	2.4	(2.3 - 2.6)	1.08	3
4	889	2.7	(2.5 - 2.9)	1.21	15
5 - most deprived	869	3.2	(3.0 - 3.5)	1.45	39
<b>Overall</b>	<b>4,389</b>	<b>2.5</b>	<b>(2.4 - 2.6)</b>		<b>52</b>

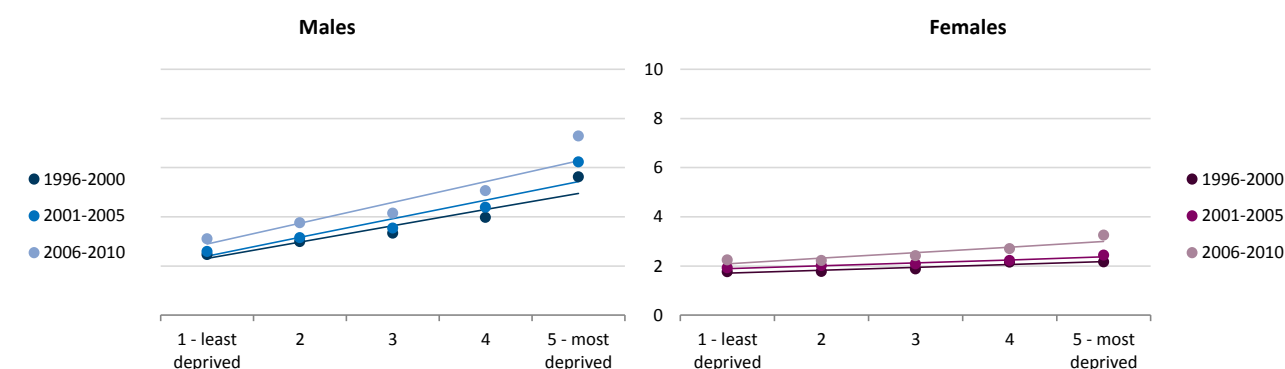
## Age-standardised\* incidence rate for oral cavity cancer (England; rate per 100,000 population)



## Yearly excess cases for oral cavity cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for oral cavity cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	2.6	(1.0 - 4.3)	115%	0.0143
2001-2005	3.0	(1.2 - 4.9)	126%	0.0143
2006-2010	3.4	(1.1 - 5.7)	117%	0.0185
p-value for difference in trend 2001-2005 to 2006-2010				0.8156
p-value for difference in trend 1996-2000 to 2006-2010				0.6095

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.5	(0.1 - 0.8)	27%	0.0189
2001-2005	0.5	(0.3 - 0.7)	25%	0.0054
2006-2010	0.9	(0.1 - 1.7)	43%	0.0347
p-value for difference in trend 2001-2005 to 2006-2010				0.3004
p-value for difference in trend 1996-2000 to 2006-2010				0.3103

### Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant for the three periods (p-values: 0.011; 0.008; 0.046).
- In 2006-2010 there would have been around 420 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

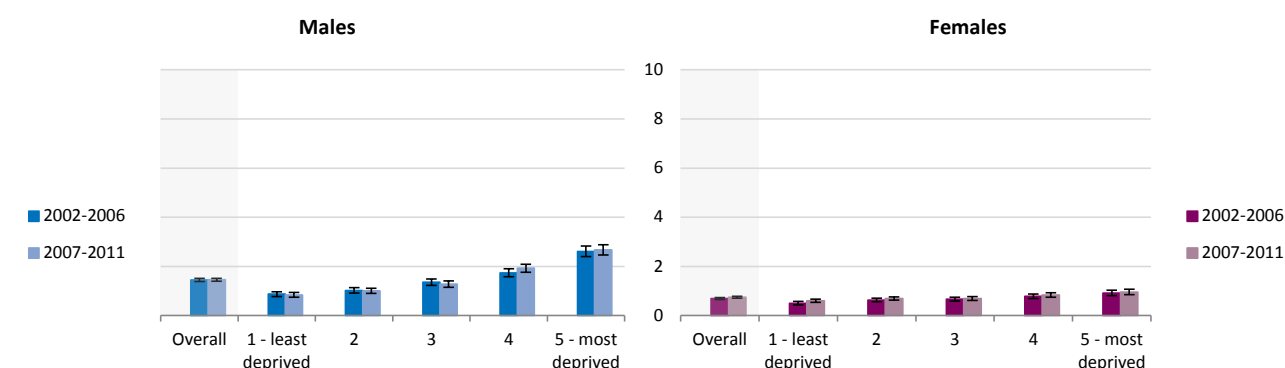
<sup>#</sup> Please see pp. 20-21 for further details

# Oral Cavity (C02-C04,C06)

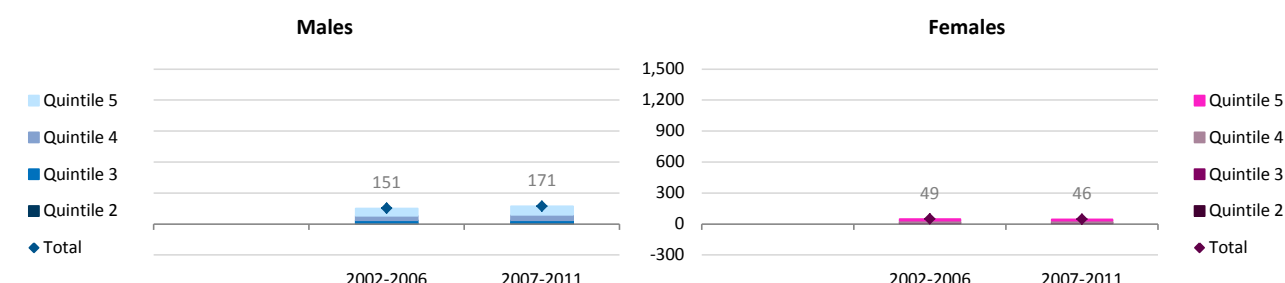
## Latest mortality for oral cavity cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	289	0.8	(0.7 - 0.9)	1	-	1 - least deprived	263	0.6	(0.5 - 0.7)	1	-
2	348	1.0	(0.9 - 1.1)	1.19	10	2	334	0.7	(0.6 - 0.8)	1.15	9
3	405	1.3	(1.2 - 1.4)	1.53	25	3	323	0.7	(0.6 - 0.8)	1.16	8
4	524	1.9	(1.8 - 2.1)	2.29	55	4	335	0.8	(0.7 - 0.9)	1.39	15
5 - most deprived	613	2.7	(2.5 - 2.9)	3.18	81	5 - most deprived	281	1.0	(0.8 - 1.1)	1.59	14
<b>Overall</b>	<b>2,179</b>	<b>1.5</b>	<b>(1.4 - 1.5)</b>		<b>171</b>	<b>Overall</b>	<b>1,536</b>	<b>0.7</b>	<b>(0.7 - 0.8)</b>		<b>46</b>

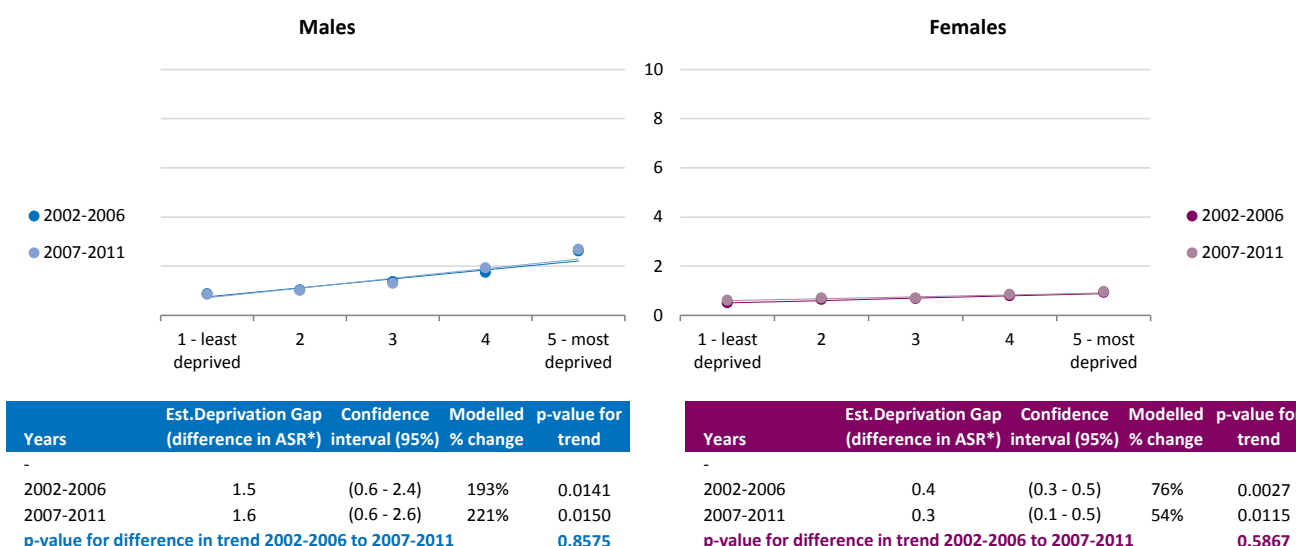
## Age-standardised\* mortality for oral cavity cancer (England; rate per 100,000 population)



## Yearly excess deaths for oral cavity cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for oral cavity cancer (England; rate per 100,000 population)



### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant for the two periods (p-values: 0.021; 0.015).
- In 2007-2011 there would have been around 220 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

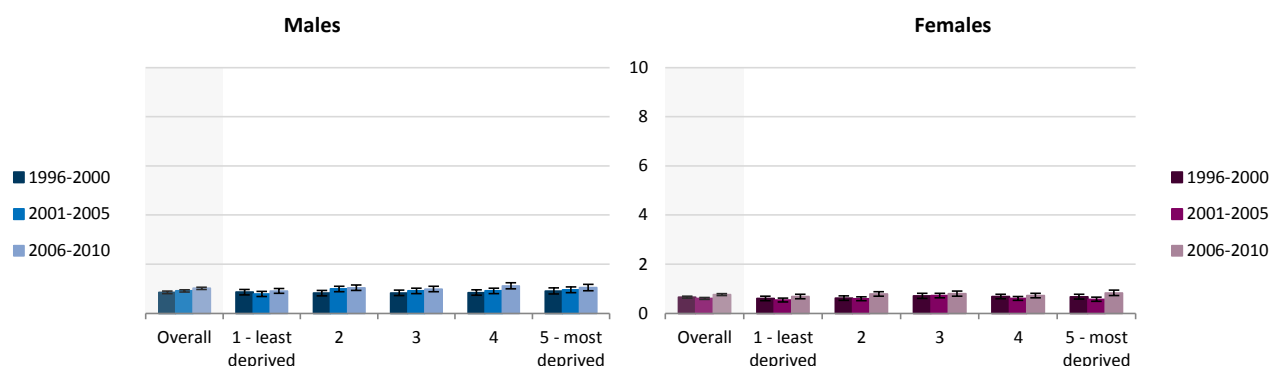
<sup>#</sup> Please see pp. 20-21 for further details

## Salivary Glands (C07-C08)

## Latest incidence for salivary glands cancer (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	302	0.9	(0.8 - 1.0)	1	-	1 - least deprived	241	0.7	(0.6 - 0.8)	1	-
2	350	1.0	(0.9 - 1.1)	1.14	7	2	268	0.8	(0.7 - 0.9)	1.14	2
3	310	1.0	(0.9 - 1.1)	1.08	Not statistically significant	3	273	0.8	(0.7 - 0.9)	1.17	Not statistically significant
4	319	1.1	(1.0 - 1.2)	1.23	7	4	231	0.7	(0.6 - 0.8)	1.06	4
5 - most deprived	260	1.0	(0.9 - 1.2)	1.15	7	5 - most deprived	234	0.8	(0.7 - 0.9)	1.21	7
<b>Overall</b>	<b>1,541</b>	<b>1.0</b>	<b>(1.0 - 1.1)</b>		<b>26</b>	<b>Overall</b>	<b>1,247</b>	<b>0.8</b>	<b>(0.7 - 0.8)</b>		<b>14</b>

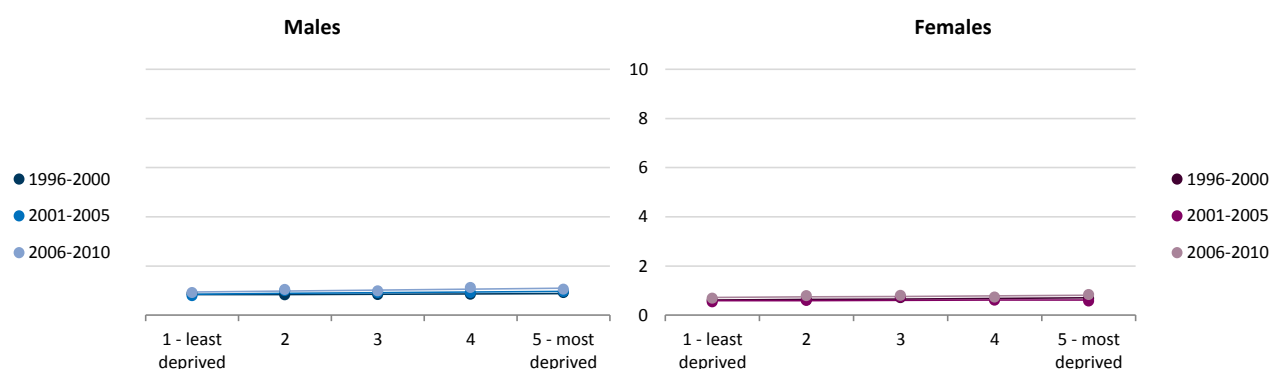
## Age-standardised\* incidence rate for salivary glands cancer (England; rate per 100,000 population)



## Yearly excess cases for salivary glands cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for salivary glands cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.0	(-0.1 - 0.2)	5%	0.4367
2001-2005	0.1	Not statistically significant	14%	0.3144
2006-2010	0.2	(-0.1 - 0.4)	16%	0.1493
p-value for difference in trend 2001-2005 to 2006-2010				<b>0.8802</b>
p-value for difference in trend 1996-2000 to 2006-2010				<b>0.4527</b>

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.1	(-0.1 - 0.2)	15%	0.1390
2001-2005	0.0	Not statistically significant	6%	0.7304
2006-2010	0.1	(-0.1 - 0.3)	13%	0.2583
p-value for difference in trend 2001-2005 to 2006-2010				<b>0.7533</b>
p-value for difference in trend 1996-2000 to 2006-2010				<b>0.9656</b>

Notes<sup>#</sup>

- There was no statistically significant difference in the male or female incidence rate (ASR) as deprivation increased, for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.638; 0.704; 0.739).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

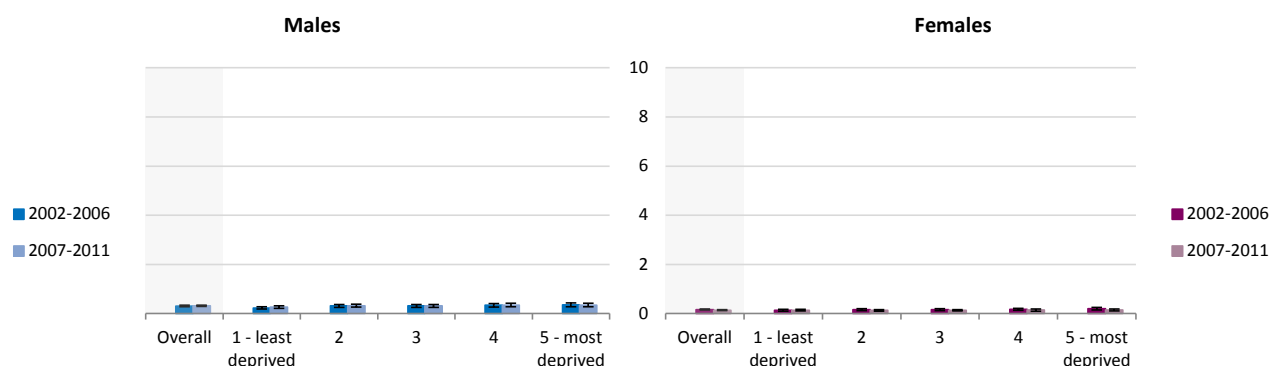
<sup>#</sup> Please see pp. 20-21 for further details

## Salivary Glands (C07-C08)

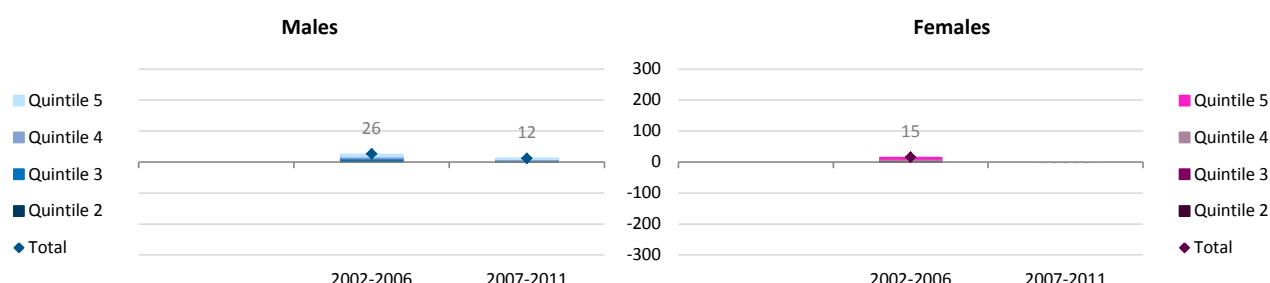
## Latest mortality for salivary glands cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	97	0.3	(0.2 - 0.3)	1	-	1 - least deprived	62	0.1	(0.1 - 0.2)	1	-3
2	115	0.3	(0.3 - 0.4)	1.21	2	2	58	0.1	(0.1 - 0.2)	0.94	-3
3	111	0.3	(0.3 - 0.4)	1.18	3	3	63	0.1	(0.1 - 0.2)	0.98	-1
4	107	0.3	(0.3 - 0.4)	1.31	4	4	59	0.1	(0.1 - 0.2)	1.02	-1
5 - most deprived	84	0.3	(0.3 - 0.4)	1.30	3	5 - most deprived	48	0.2	(0.1 - 0.2)	1.10	-6
<b>Overall</b>	<b>514</b>	<b>0.3</b>	<b>(0.3 - 0.3)</b>		<b>12</b>	<b>Overall</b>	<b>290</b>	<b>0.1</b>	<b>(0.1 - 0.2)</b>		

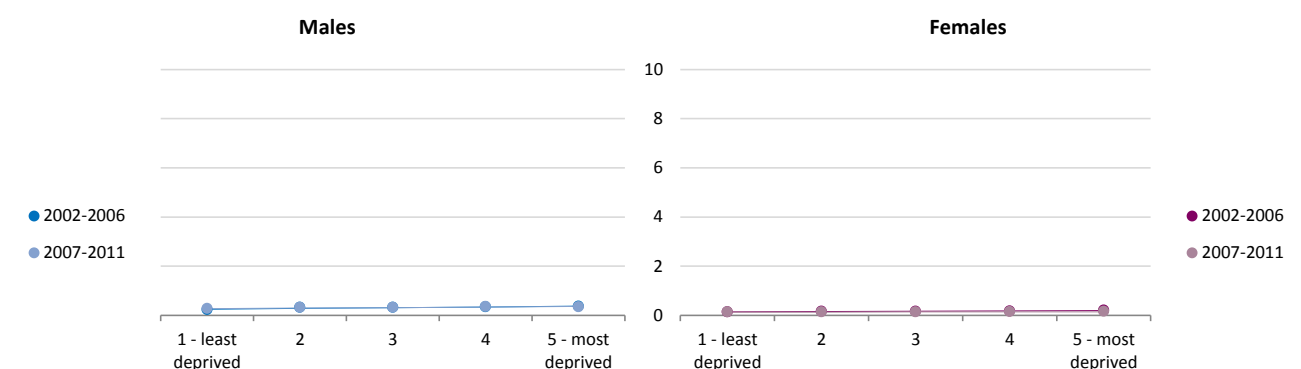
## Age-standardised\* mortality for salivary glands cancer (England; rate per 100,000 population)



## Yearly excess deaths for salivary glands cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for salivary glands cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(0.0 - 0.2)	49%	0.0298
2007-2011	0.1	(0.0 - 0.2)	29%	0.0422
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.4969</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(0.0 - 0.1)	42%	0.0183
2007-2011	0.0	Not statistically significant	11%	0.2032
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.0741</b>

Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for males in the two periods and females in one period.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.228; 0.103).
- In 2007-2011 there would have been around 5 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

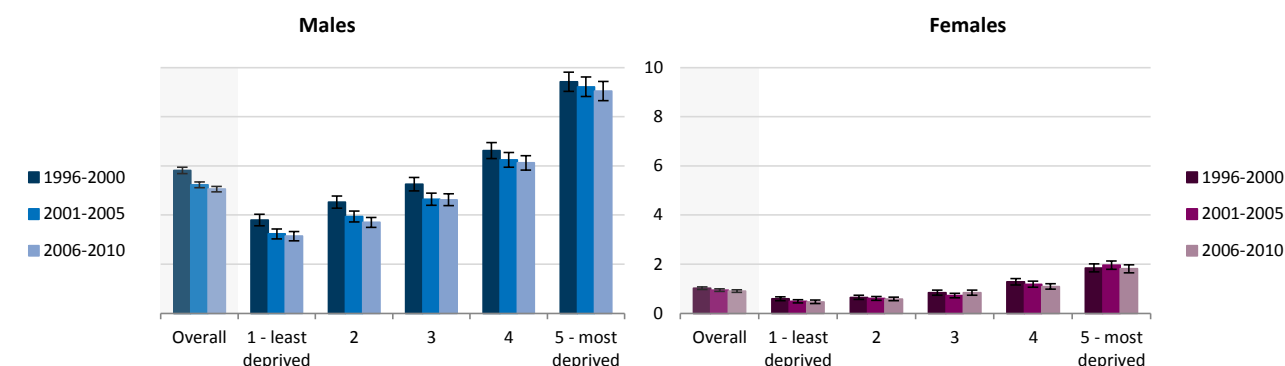
## Larynx (C32)

### Latest incidence for laryngeal cancer (England; rate per 100,000 population; excess 5yr average)

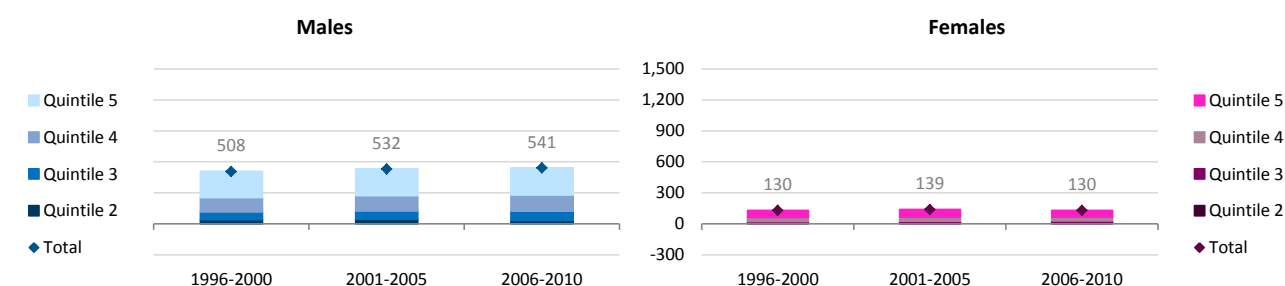
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,054	3.1	(3.0 - 3.3)	1	-
2	1,265	3.7	(3.5 - 3.9)	1.18	35
3	1,454	4.6	(4.4 - 4.9)	1.47	88
4	1,666	6.1	(5.8 - 6.4)	1.95	155
5 - most deprived	2,062	9.1	(8.7 - 9.4)	2.88	263
<b>Overall</b>	<b>7,501</b>	<b>5.1</b>	<b>(4.9 - 5.2)</b>		<b>541</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	176	0.5	(0.4 - 0.5)	1	-
2	233	0.6	(0.5 - 0.7)	1.24	8
3	288	0.8	(0.7 - 0.9)	1.80	20
4	356	1.1	(1.0 - 1.2)	2.34	36
5 - most deprived	472	1.8	(1.7 - 2.0)	3.88	66
<b>Overall</b>	<b>1,525</b>	<b>0.9</b>	<b>(0.9 - 0.9)</b>		<b>130</b>

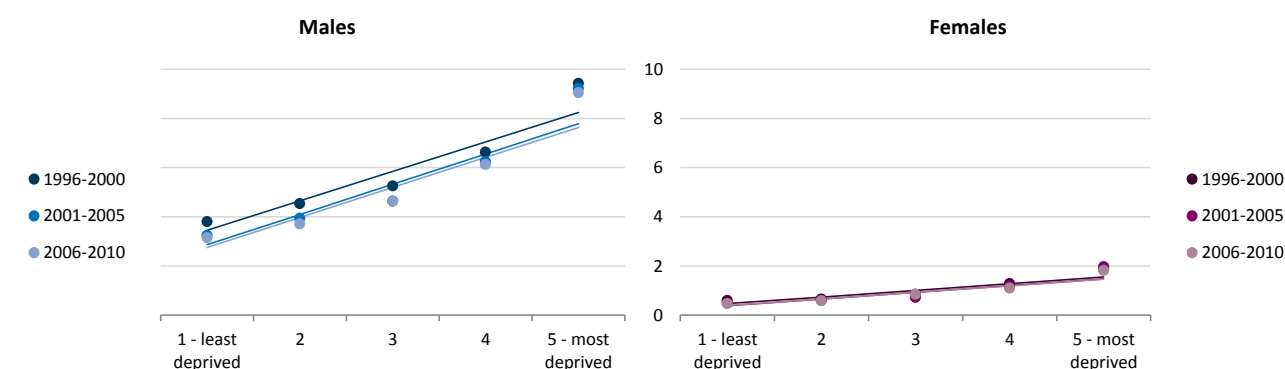
### Age-standardised\* incidence rate for laryngeal cancer (England; rate per 100,000 population)



### Yearly excess cases for laryngeal cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for laryngeal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	4.8	(1.9 - 7.7)	139%	0.0139
2001-2005	4.9	(1.6 - 8.2)	172%	0.0177
2006-2010	4.9	(1.7 - 8.1)	177%	0.0163
p-value for difference in trend 2001-2005 to 2006-2010				0.9867
p-value for difference in trend 1996-2000 to 2006-2010				0.9677

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	1.1	(0.3 - 1.9)	232%	0.0246
2001-2005	1.1	(0.1 - 2.1)	291%	0.0430
2006-2010	1.1	(0.4 - 1.8)	274%	0.0171
p-value for difference in trend 2001-2005 to 2006-2010				0.9570
p-value for difference in trend 1996-2000 to 2006-2010				0.9747

#### Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant for the three periods (p-values: 0.017; 0.030; 0.021).
- In 2006-2010 there would have been around 650 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

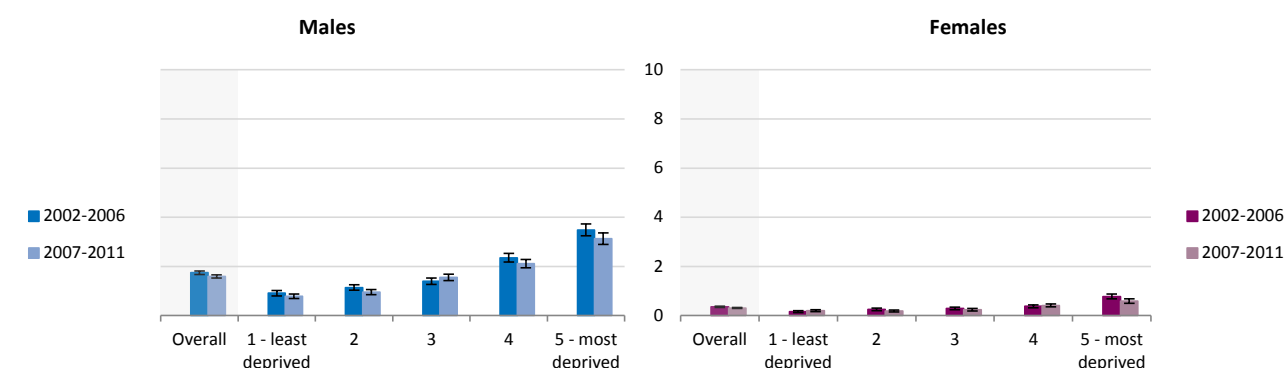
<sup>#</sup> Please see pp. 20-21 for further details

## Larynx (C32)

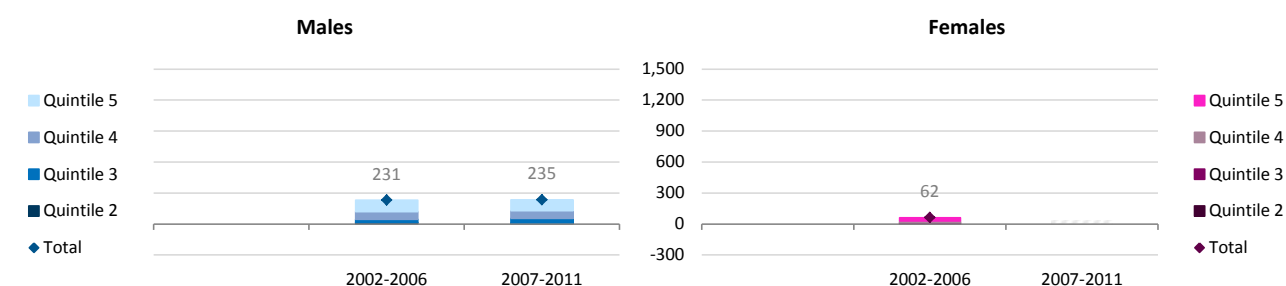
## Latest mortality for laryngeal cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	291	0.8	(0.7 - 0.9)	1	-	1 - least deprived	86	0.2	(0.2 - 0.2)	1	-
2	349	1.0	(0.9 - 1.1)	1.21	8	2	89	0.2	(0.1 - 0.2)	0.95	-2
3	529	1.6	(1.4 - 1.7)	1.98	48	3	103	0.2	(0.2 - 0.3)	1.21	Not statistically significant
4	614	2.1	(1.9 - 2.3)	2.69	72	4	154	0.4	(0.3 - 0.5)	2.09	19
5 - most deprived	741	3.1	(2.9 - 3.4)	3.98	107	5 - most deprived	173	0.6	(0.5 - 0.7)	2.99	32
Overall	2,524	1.6	(1.5 - 1.7)		235	Overall	605	0.3	(0.3 - 0.3)		

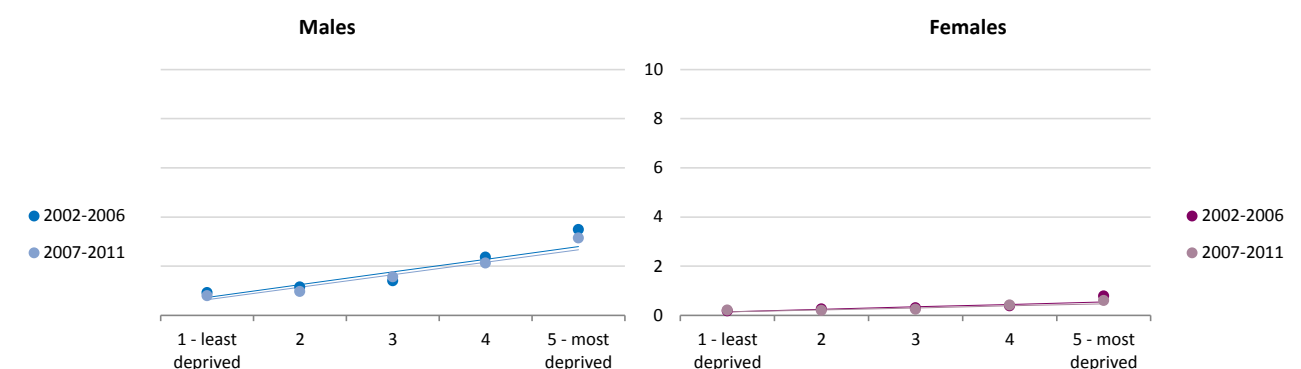
## Age-standardised\* mortality for laryngeal cancer (England; rate per 100,000 population)



## Yearly excess deaths for laryngeal cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for laryngeal cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	2.1	(0.4 - 3.7)	287%	0.0278
2007-2011	2.0	(0.9 - 3.1)	317%	0.0103
p-value for difference in trend 2002-2006 to 2007-2011				0.9632

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.4	(0.0 - 0.8)	278%	0.0467
2007-2011	0.3	Not statistically significant	226%	0.0633
p-value for difference in trend 2002-2006 to 2007-2011				0.7697

Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for males in the two periods and females in one period.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the two periods (p-values: 0.052; 0.004).
- In 2007-2011 there would have been around 260 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

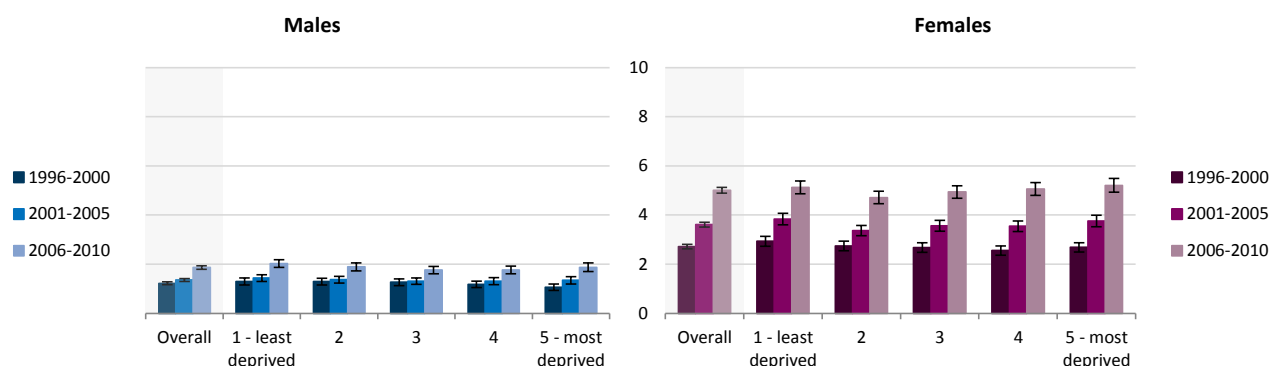
## Thyroid (C73)

## Latest incidence for thyroid cancer (England; rate per 100,000 population; excess 5yr average)

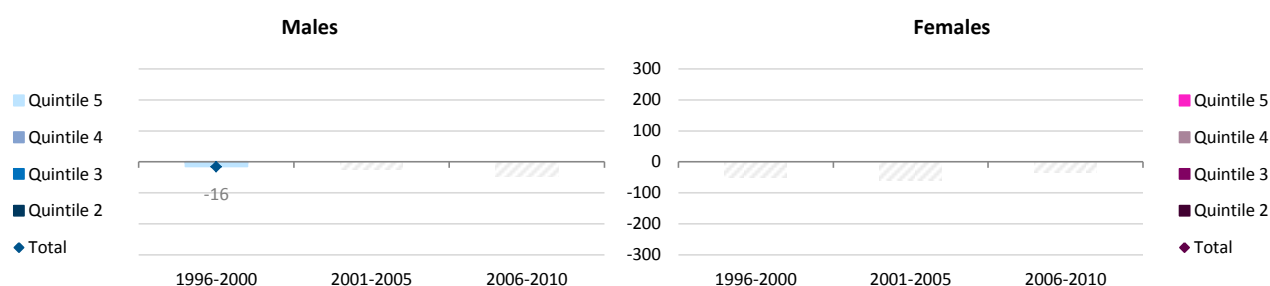
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	595	2.0	(1.9 - 2.2)	1	-
2	564	1.9	(1.7 - 2.0)	0.93	-8
3	508	1.8	(1.6 - 1.9)	0.87	-16
4	479	1.8	(1.6 - 1.9)	0.87	-8
5 - most deprived	457	1.9	(1.7 - 2.0)	0.93	-8
<b>Overall</b>	<b>2,603</b>	<b>1.9</b>	<b>(1.8 - 1.9)</b>		<b>-45</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,482	5.1	(4.9 - 5.4)	1	-
2	1,398	4.7	(4.5 - 5.0)	0.92	-23
3	1,445	4.9	(4.7 - 5.2)	0.96	-10
4	1,443	5.1	(4.8 - 5.3)	0.99	-3
5 - most deprived	1,368	5.2	(4.9 - 5.5)	1.02	-31
<b>Overall</b>	<b>7,136</b>	<b>5.0</b>	<b>(4.9 - 5.1)</b>		

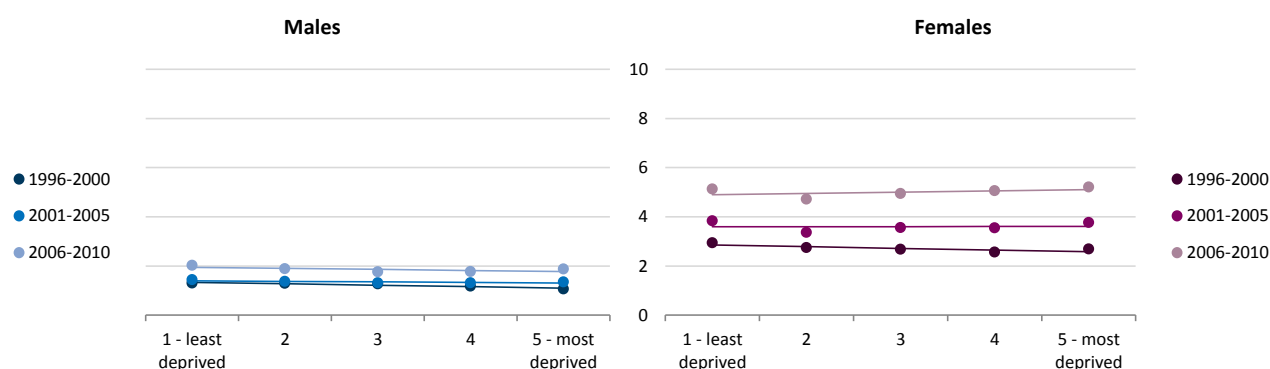
## Age-standardised\* incidence rate for thyroid cancer (England; rate per 100,000 population)



## Yearly excess cases for thyroid cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for thyroid cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.2	(-0.4 - -0.1)	-18%	0.0231
2001-2005	-0.1	(-0.3 - 0.1)	-7%	0.1579
2006-2010	-0.2	(-0.4 - 0.1)	-9%	0.2500
p-value for difference in trend 2001-2005 to 2006-2010				<b>0.7195</b>
p-value for difference in trend 1996-2000 to 2006-2010				<b>0.7836</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.3	(-0.7 - 0.1)	-9%	0.1232
2001-2005	0.0	(-0.3 - 0.3)	0%	0.9553
2006-2010	0.2	(-0.7 - 1.1)	4%	0.5079
p-value for difference in trend 2001-2005 to 2006-2010				<b>0.7704</b>
p-value for difference in trend 1996-2000 to 2006-2010				<b>0.3280</b>

Notes<sup>#</sup>

- The decrease in the incidence rate (ASR), as deprivation increased, was statistically significant for males in one of the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.896; 0.801; 0.429).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

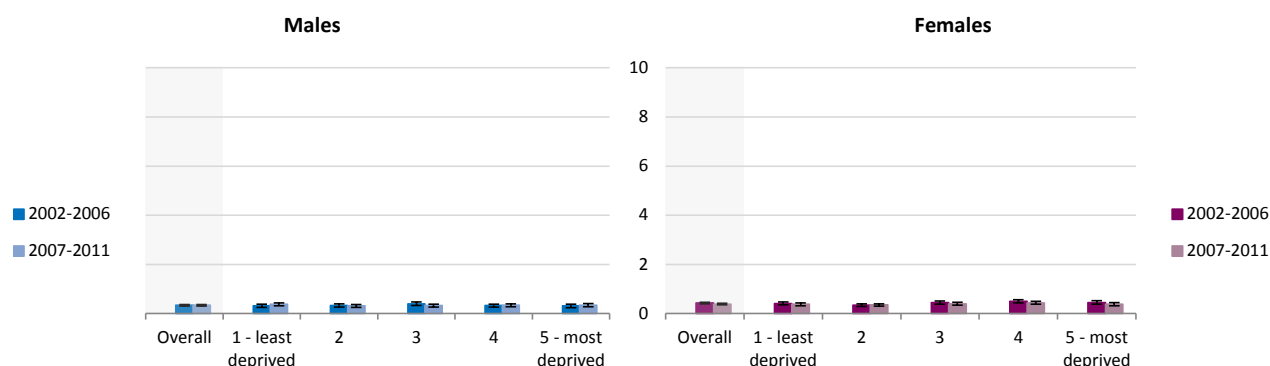


## Thyroid (C73)

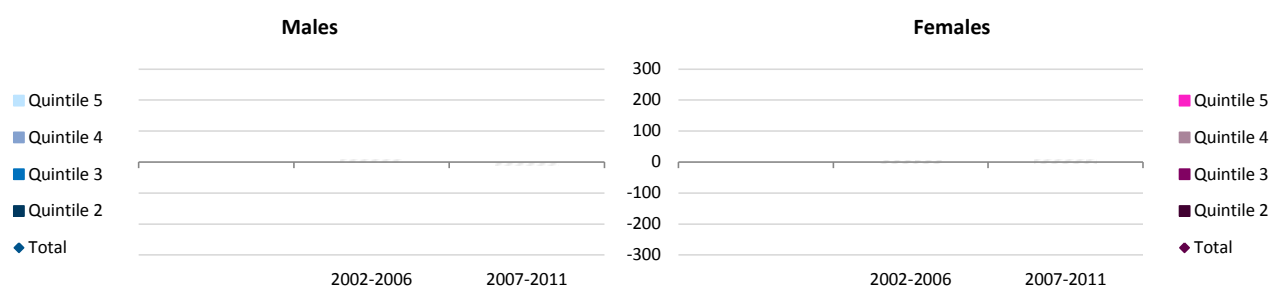
## Latest mortality for thyroid cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	135	0.4	(0.3 - 0.4)	1	-	1 - least deprived	171	0.4	(0.3 - 0.4)	1	-
2	118	0.3	(0.3 - 0.4)	0.83	-5	2	176	0.3	(0.3 - 0.4)	0.92	-3
3	113	0.3	(0.3 - 0.4)	0.86	Not statistically significant	3	201	0.4	(0.3 - 0.5)	1.06	5
4	107	0.3	(0.3 - 0.4)	0.90	-	4	192	0.4	(0.4 - 0.5)	1.16	-
5 - most deprived	86	0.3	(0.3 - 0.4)	0.91	-2	5 - most deprived	129	0.4	(0.3 - 0.4)	1.01	-2
<b>Overall</b>	<b>559</b>	<b>0.3</b>	<b>(0.3 - 0.4)</b>		<b>-12</b>	<b>Overall</b>	<b>869</b>	<b>0.4</b>	<b>(0.4 - 0.4)</b>		<b>4</b>

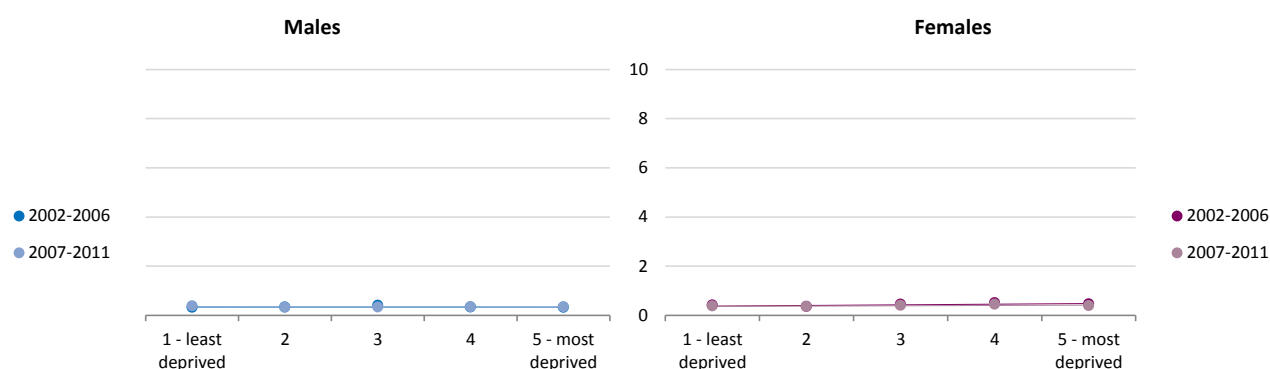
## Age-standardised\* mortality for thyroid cancer (England; rate per 100,000 population)



## Yearly excess deaths for thyroid cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for thyroid cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.0	(-0.3 - 0.3)	-0%	0.9866
2007-2011	-0.0	Not statistically significant	-5%	0.6888
p-value for difference in trend 2002-2006 to 2007-2011				0.8747

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(-0.1 - 0.3)	26%	0.2525
2007-2011	0.0	Not statistically significant	12%	0.3805
p-value for difference in trend 2002-2006 to 2007-2011				0.6852

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.329; 0.968).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

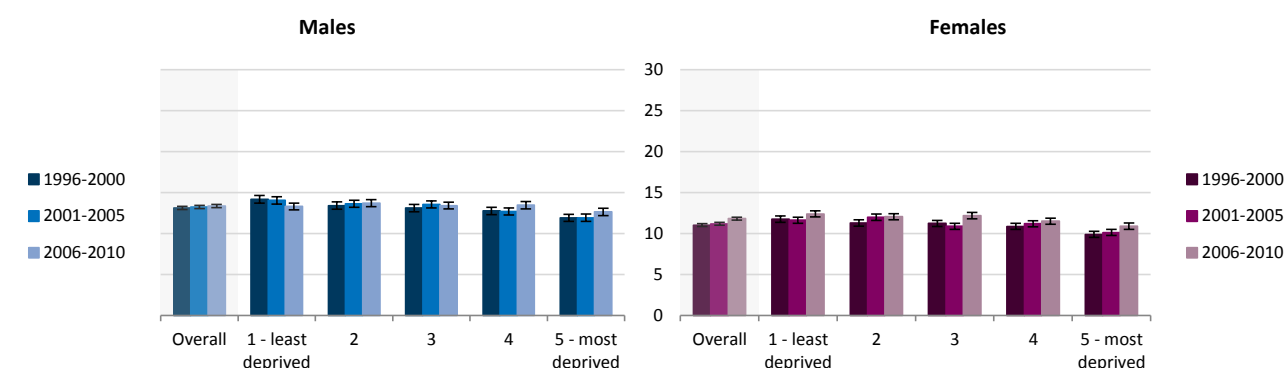
## Cancer incidence (1996-2010) by deprivation quintile, in England

### Central Nervous System, incl. brain (C70-C72,C751-3,D32-D33,D352-4,D42-D43,D443-5)

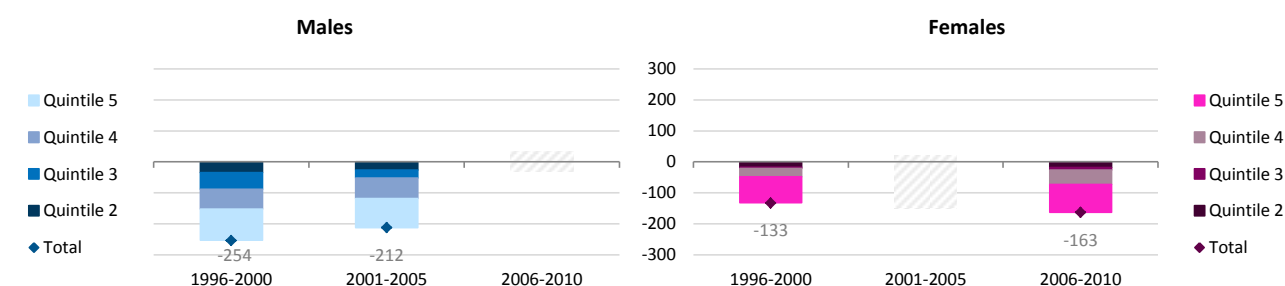
#### Latest incidence for CNS cancer, incl. brain (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	4,003	13.3	(12.9 - 13.7)	1	-	1 - least deprived	3,980	12.4	(12.0 - 12.8)	1	-
2	4,182	13.7	(13.3 - 14.1)	1.03	21	2	4,074	12.0	(11.7 - 12.4)	0.97	-18
3	3,924	13.4	(13.0 - 13.8)	1.01	8	3	4,020	12.2	(11.8 - 12.6)	0.98	-8
4	3,598	13.4	(13.0 - 13.9)	1.01	Not statistically significant	4	3,583	11.5	(11.1 - 11.9)	0.93	-47
5 - most deprived	3,059	12.6	(12.2 - 13.1)	0.95	-30	5 - most deprived	2,971	10.9	(10.5 - 11.3)	0.88	-90
<b>Overall</b>	<b>18,766</b>	<b>13.3</b>	<b>(13.1 - 13.5)</b>		<b>3</b>	<b>Overall</b>	<b>18,628</b>	<b>11.8</b>	<b>(11.6 - 12.0)</b>		<b>-163</b>

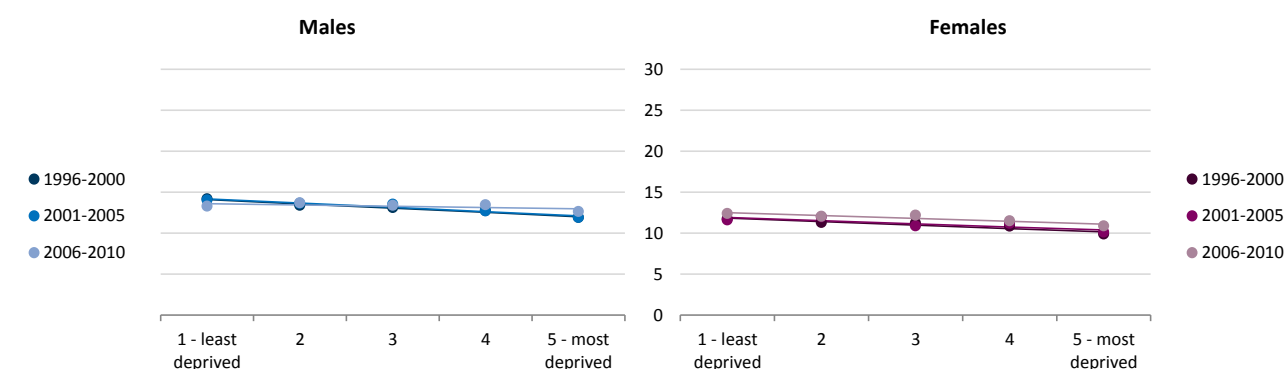
#### Age-standardised\* incidence rate for CNS cancer, incl. brain (England; rate per 100,000 population)



#### Yearly excess cases for CNS cancer, incl. brain (England; excess 5yr average)



#### Statistical significance of incidence ASR\* trends for CNS cancer, incl. brain (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-2.1	(-2.8 - -1.4)	-15%	0.0027
2001-2005	-2.1	(-3.1 - -1.0)	-15%	0.0084
2006-2010	-0.6	Not statistically significant	-4%	0.2803
p-value for difference in trend 2001-2005 to 2006-2010				0.1086
p-value for difference in trend 1996-2000 to 2006-2010				0.0728

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-1.7	(-2.8 - -0.5)	-14%	0.0191
2001-2005	-1.5	Not statistically significant	-13%	0.0787
2006-2010	-1.4	(-2.5 - -0.3)	-11%	0.0263
p-value for difference in trend 2001-2005 to 2006-2010				0.9197
p-value for difference in trend 1996-2000 to 2006-2010				0.7388

#### Notes<sup>#</sup>

- The decrease in the incidence rate (ASR), as deprivation increased, was statistically significant for males in two periods and females in two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.566; 0.613; 0.381).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

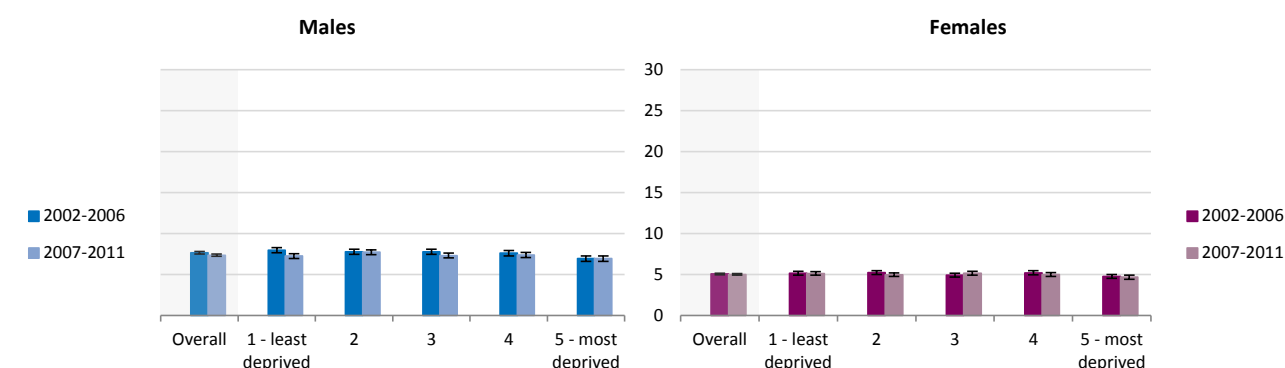
# Cancer mortality (2002-2011) by deprivation quintile, in England

## Central Nervous System, incl. brain (C70-C72,C751-3,D32-D33,D352-4,D42-D43,D443-5)

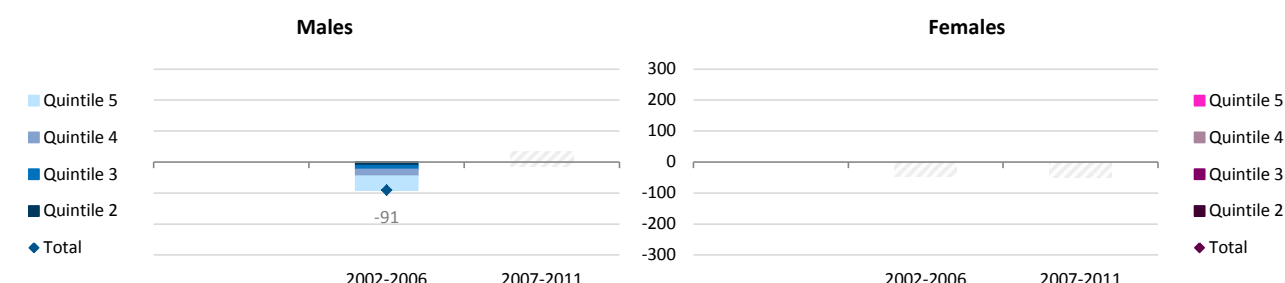
### Latest mortality for CNS cancer, incl. brain (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	2,378	7.3	(7.0 - 7.6)	1	-	1 - least deprived	1,934	5.1	(4.9 - 5.4)	1	-
2	2,570	7.7	(7.4 - 8.0)	1.06	25	2	2,045	5.0	(4.8 - 5.2)	0.97	-5
3	2,314	7.3	(7.0 - 7.6)	1.01	Not statistically significant	3	1,997	5.2	(4.9 - 5.4)	1.00	-2
4	2,066	7.4	(7.1 - 7.7)	1.02	-15	4	1,782	5.0	(4.8 - 5.2)	0.97	-32
5 - most deprived	1,682	6.9	(6.6 - 7.3)	0.96	-18	5 - most deprived	1,395	4.7	(4.4 - 4.9)	0.91	-51
<b>Overall</b>	<b>11,010</b>	<b>7.4</b>	<b>(7.2 - 7.5)</b>			<b>Overall</b>	<b>9,153</b>	<b>5.0</b>	<b>(4.9 - 5.1)</b>		

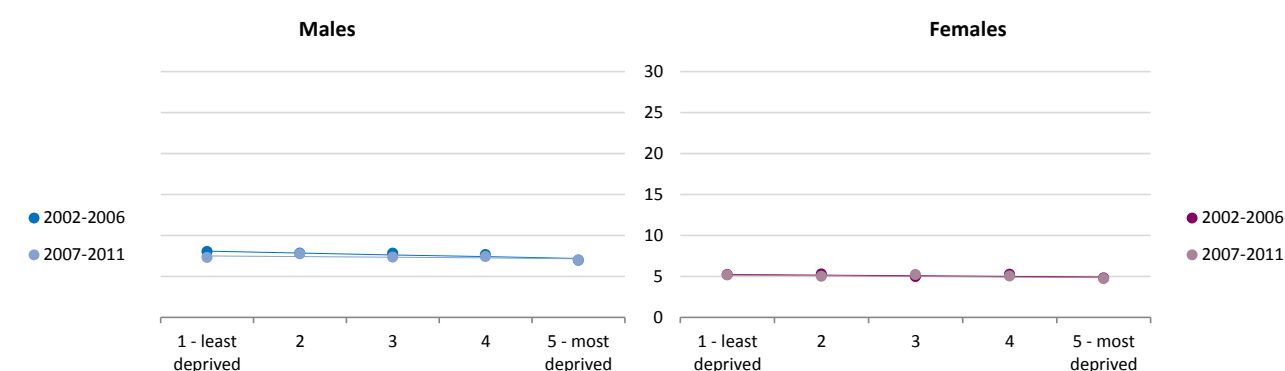
### Age-standardised\* mortality for CNS cancer, incl. brain (England; rate per 100,000 population)



### Yearly excess deaths for CNS cancer, incl. brain (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for CNS cancer, incl. brain (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.9	(-1.7 - 0.0)	-11%	0.0468
2007-2011	-0.4	Not statistically significant	-5%	0.3736
p-value for difference in trend 2002-2006 to 2007-2011				0.4644

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.3	(-1.1 - 0.4)	-6%	0.2656
2007-2011	-0.3	Not statistically significant	-6%	0.1817
p-value for difference in trend 2002-2006 to 2007-2011				0.9723

### Notes<sup>#</sup>

- The decrease in mortality (ASR), as deprivation increased, was statistically significant for males in one of the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.329; 0.968).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

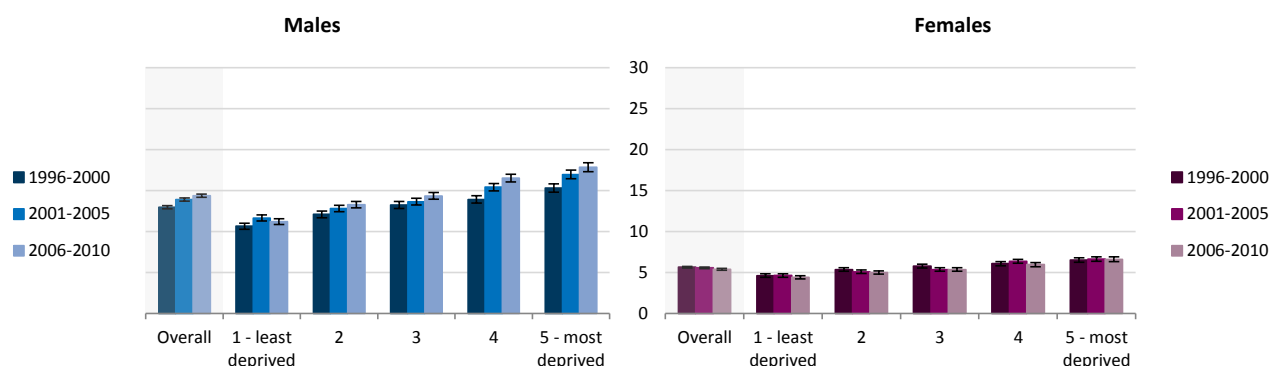
## Oesophagus (C15)

## Latest incidence for oesophageal cancer (England; rate per 100,000 population; excess 5yr average)

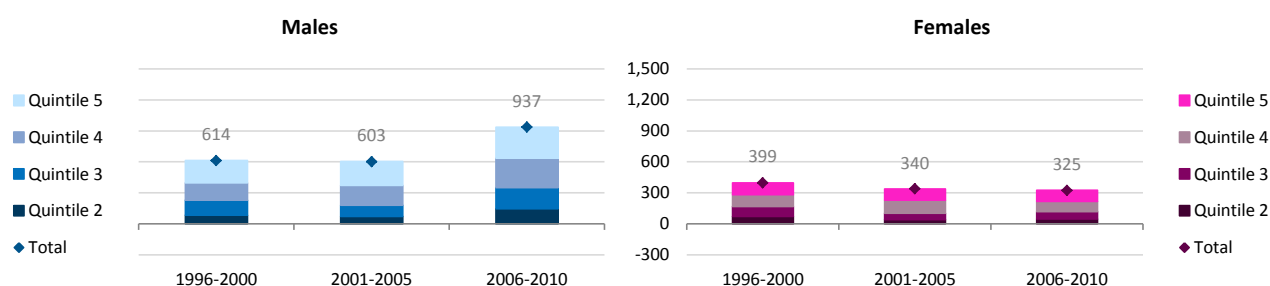
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	3,849	11.2	(10.8 - 11.5)	1	-
2	4,740	13.3	(12.9 - 13.7)	1.19	145
3	4,773	14.3	(13.9 - 14.7)	1.28	205
4	4,717	16.5	(16.0 - 17.0)	1.48	286
5 - most deprived	4,241	17.8	(17.3 - 18.4)	1.59	301
<b>Overall</b>	<b>22,320</b>	<b>14.4</b>	<b>(14.2 - 14.5)</b>		<b>937</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,942	4.4	(4.2 - 4.6)	1	-
2	2,393	5.0	(4.8 - 5.2)	1.13	46
3	2,477	5.3	(5.1 - 5.6)	1.21	71
4	2,444	5.9	(5.7 - 6.2)	1.35	100
5 - most deprived	2,107	6.6	(6.3 - 6.9)	1.50	108
<b>Overall</b>	<b>11,363</b>	<b>5.4</b>	<b>(5.3 - 5.5)</b>		<b>325</b>

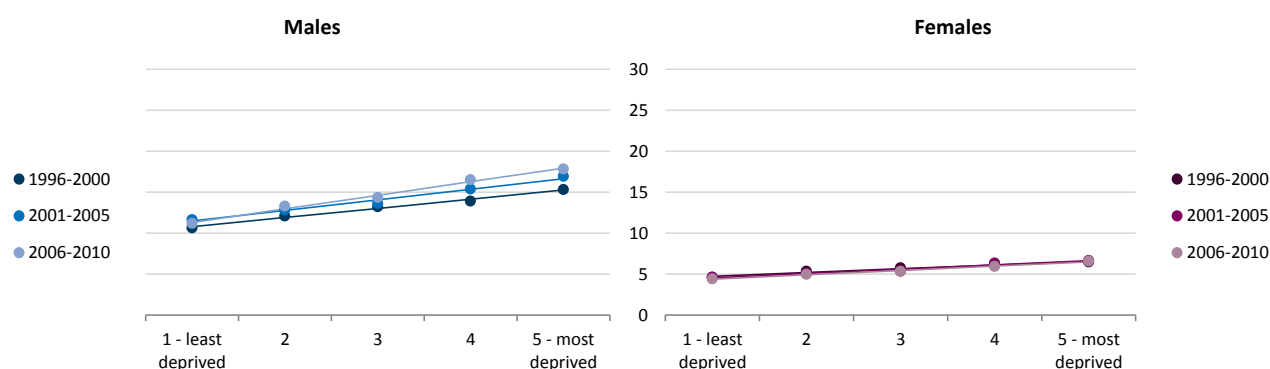
## Age-standardised\* incidence rate for oesophageal cancer (England; rate per 100,000 population)



## Yearly excess cases for oesophageal cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for oesophageal cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	4.5	(3.5 - 5.4)	42%	0.0006
2001-2005	5.2	(3.9 - 6.5)	45%	0.0011
2006-2010	6.6	(5.4 - 7.9)	59%	0.0005
p-value for difference in trend 2001-2005 to 2006-2010				0.1119
p-value for difference in trend 1996-2000 to 2006-2010				0.0075

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	1.8	(1.2 - 2.4)	39%	0.0025
2001-2005	2.1	(1.2 - 3.0)	46%	0.0047
2006-2010	2.1	(1.7 - 2.5)	48%	0.0004
p-value for difference in trend 2001-2005 to 2006-2010				0.9924
p-value for difference in trend 1996-2000 to 2006-2010				0.4590

Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was a statistically significant increase in the estimated deprivation gap between 1996-2000 to 2006-2010 for males.
- The ASR increase was greater for males than females; this was statistically significant for the three periods (p-values: <0.001; <0.001; <0.001).
- In 2006-2010 there would have been around 1,200 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

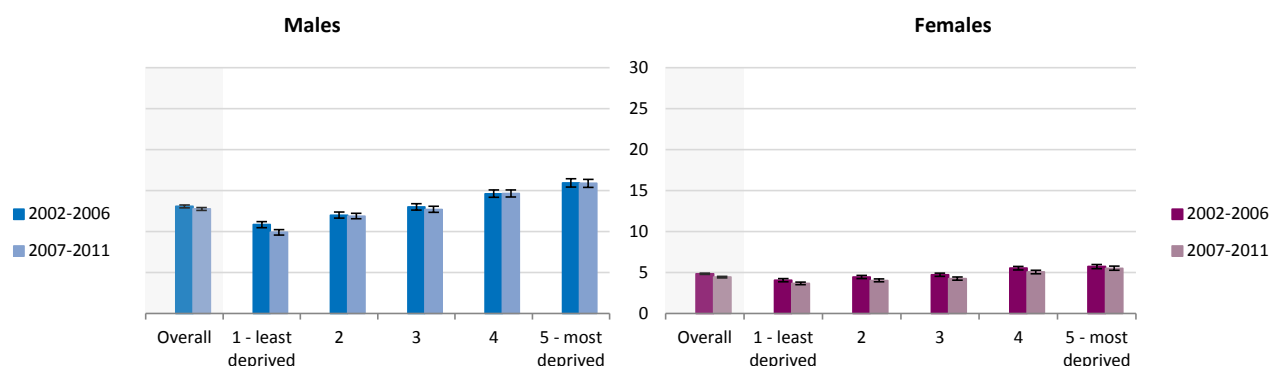
## Oesophagus (C15)

## Latest mortality for oesophageal cancer (England; rate per 100,000 population; excess 5yr average)

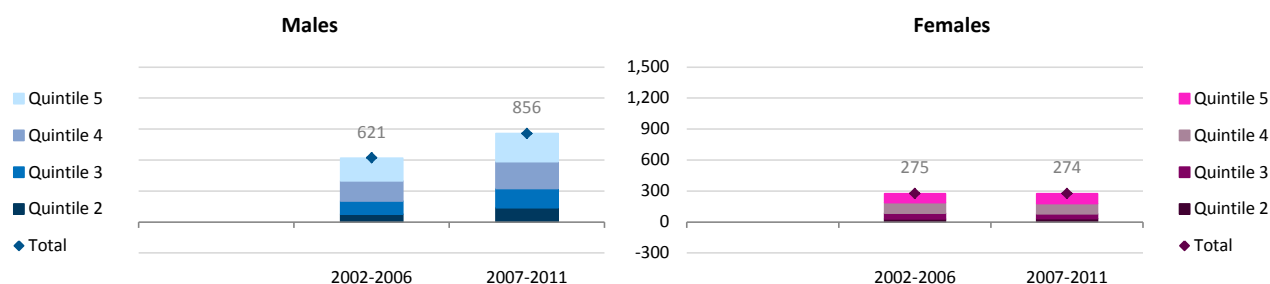
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	3,566	9.9	(9.6 - 10.3)	1	-
2	4,423	11.9	(11.6 - 12.3)	1.20	139
3	4,404	12.7	(12.3 - 13.1)	1.28	186
4	4,334	14.7	(14.2 - 15.1)	1.48	260
5 - most deprived	3,842	15.9	(15.4 - 16.4)	1.60	271
<b>Overall</b>	<b>20,569</b>	<b>12.8</b>	<b>(12.6 - 12.9)</b>		<b>856</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,744	3.7	(3.5 - 3.9)	1	-
2	2,116	4.0	(3.9 - 4.2)	1.10	33
3	2,164	4.3	(4.1 - 4.4)	1.16	48
4	2,244	5.1	(4.9 - 5.3)	1.38	97
5 - most deprived	1,875	5.5	(5.3 - 5.8)	1.50	96
<b>Overall</b>	<b>10,143</b>	<b>4.4</b>	<b>(4.4 - 4.5)</b>		<b>274</b>

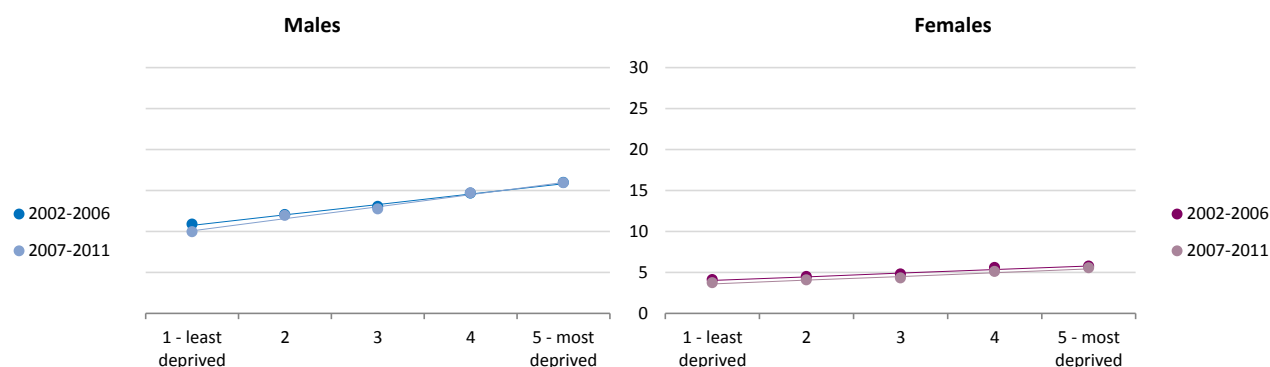
## Age-standardised\* mortality for oesophageal cancer (England; rate per 100,000 population)



## Yearly excess deaths for oesophageal cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for oesophageal cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	5.1	(4.3 - 5.8)	47%	0.0002
2007-2011	5.9	(4.6 - 7.2)	59%	0.0008
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.2847</b>

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	1.8	(1.2 - 2.4)	44%	0.0027
2007-2011	1.8	(1.1 - 2.6)	51%	0.0046
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.9100</b>

Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant for the two periods (p-values: <0.001; <0.001).
- In 2007-2011 there would have been around 1,100 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

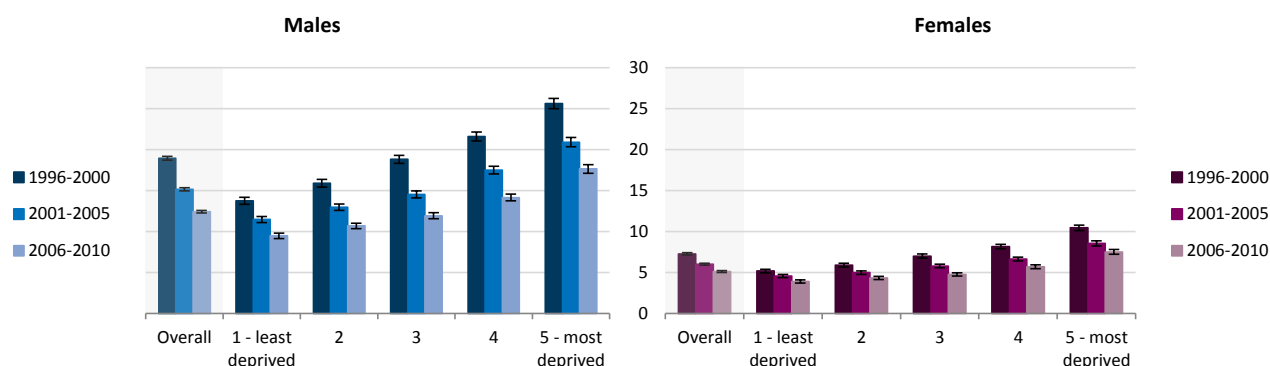
## Stomach (C16)

## Latest incidence for stomach cancer (England; rate per 100,000 population; excess 5yr average)

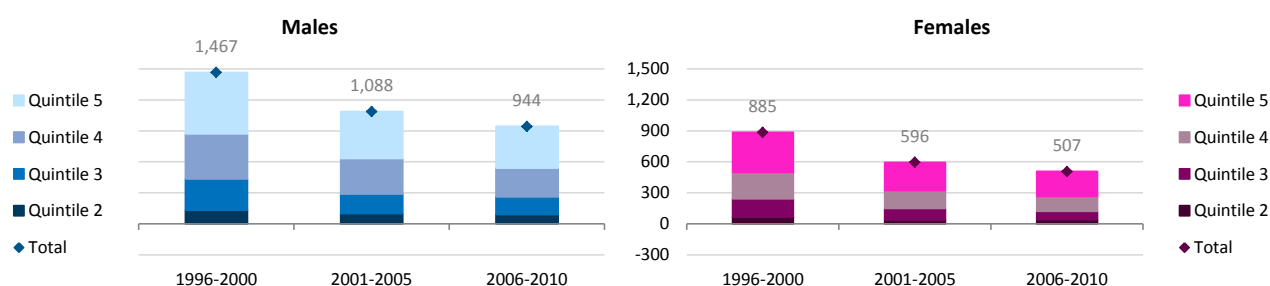
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	3,357	9.5	(9.1 - 9.8)	1	-
2	3,975	10.7	(10.4 - 11.0)	1.13	90
3	4,159	11.9	(11.6 - 12.3)	1.26	169
4	4,318	14.1	(13.7 - 14.6)	1.49	281
5 - most deprived	4,426	17.6	(17.1 - 18.2)	1.86	404
<b>Overall</b>	<b>20,235</b>	<b>12.4</b>	<b>(12.2 - 12.6)</b>		<b>944</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,680	3.9	(3.7 - 4.1)	1	-
2	2,066	4.3	(4.1 - 4.5)	1.11	41
3	2,243	4.8	(4.6 - 5.0)	1.23	80
4	2,426	5.7	(5.5 - 5.9)	1.47	147
5 - most deprived	2,580	7.5	(7.2 - 7.8)	1.93	240
<b>Overall</b>	<b>10,995</b>	<b>5.1</b>	<b>(5.0 - 5.2)</b>		<b>507</b>

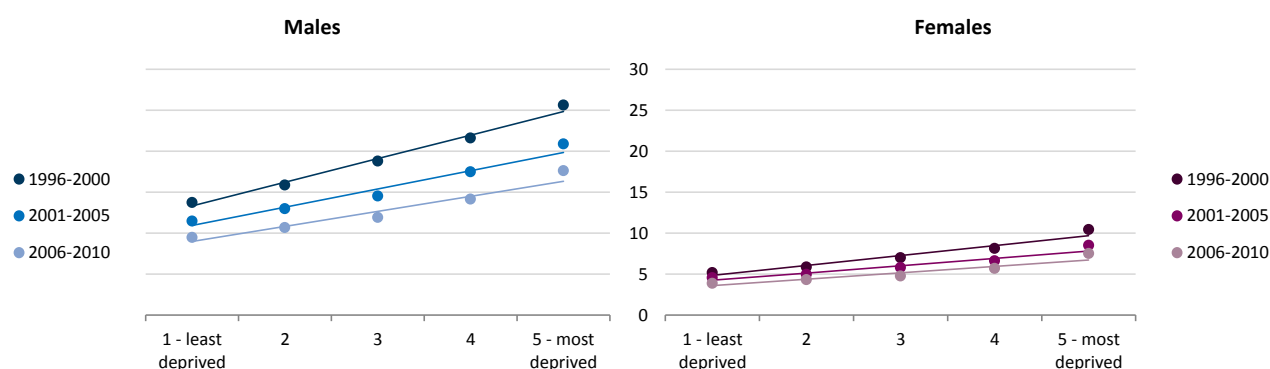
## Age-standardised\* incidence rate for stomach cancer (England; rate per 100,000 population)



## Yearly excess cases for stomach cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for stomach cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	11.5	(9.2 - 13.8)	87%	0.0005
2001-2005	8.9	(5.5 - 12.3)	81%	0.0035
2006-2010	7.3	(3.9 - 10.8)	81%	0.0066
p-value for difference in trend 2001-2005 to 2006-2010				0.5240
p-value for difference in trend 1996-2000 to 2006-2010				0.0469

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	4.9	(2.8 - 6.9)	100%	0.0047
2001-2005	3.6	(1.7 - 5.5)	84%	0.0091
2006-2010	3.1	(1.1 - 5.1)	86%	0.0166
p-value for difference in trend 2001-2005 to 2006-2010				0.7415
p-value for difference in trend 1996-2000 to 2006-2010				0.2346

Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was a statistically significant decrease in the estimated deprivation gap between 1996-2000 to 2006-2010 for males.
- The ASR increase was greater for males than females; this was statistically significant for the three periods (p-values: <0.001; 0.007; 0.039).
- In 2006-2010 there would have been around 1,400 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

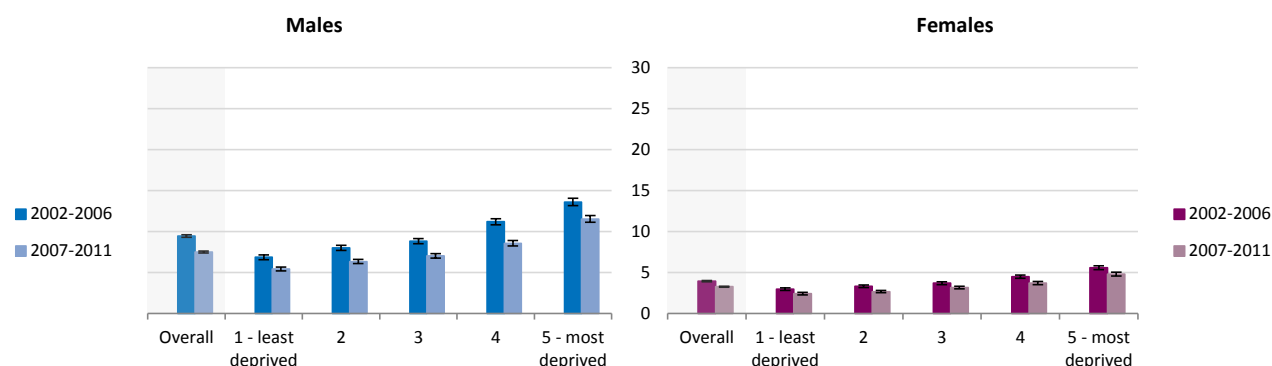
## Stomach (C16)

## Latest mortality for stomach cancer (England; rate per 100,000 population; excess 5yr average)

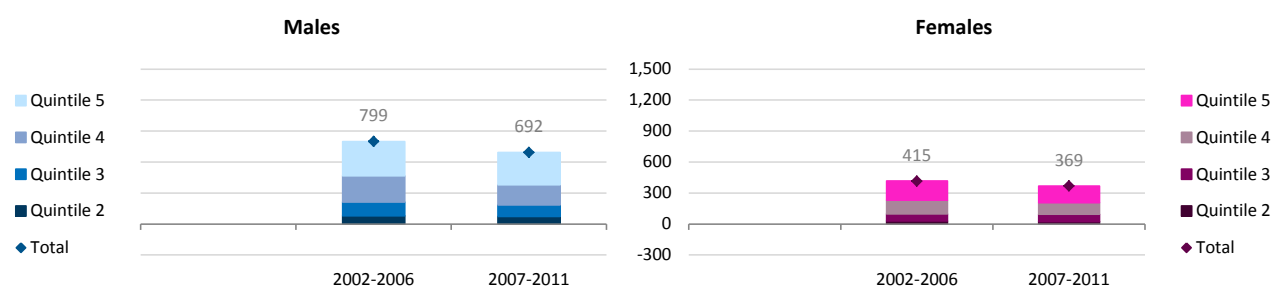
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	2,038	5.4	(5.2 - 5.7)	1	-
2	2,510	6.4	(6.1 - 6.6)	1.17	72
3	2,582	7.0	(6.8 - 7.3)	1.30	112
4	2,747	8.6	(8.3 - 8.9)	1.58	196
5 - most deprived	2,996	11.5	(11.1 - 12.0)	2.12	313
<b>Overall</b>	<b>12,873</b>	<b>7.5</b>	<b>(7.4 - 7.6)</b>		<b>692</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,146	2.4	(2.3 - 2.6)	1	-
2	1,411	2.7	(2.5 - 2.8)	1.10	25
3	1,619	3.2	(3.0 - 3.3)	1.30	70
4	1,722	3.7	(3.5 - 3.9)	1.53	112
5 - most deprived	1,745	4.8	(4.6 - 5.0)	1.98	162
<b>Overall</b>	<b>7,643</b>	<b>3.3</b>	<b>(3.2 - 3.3)</b>		<b>369</b>

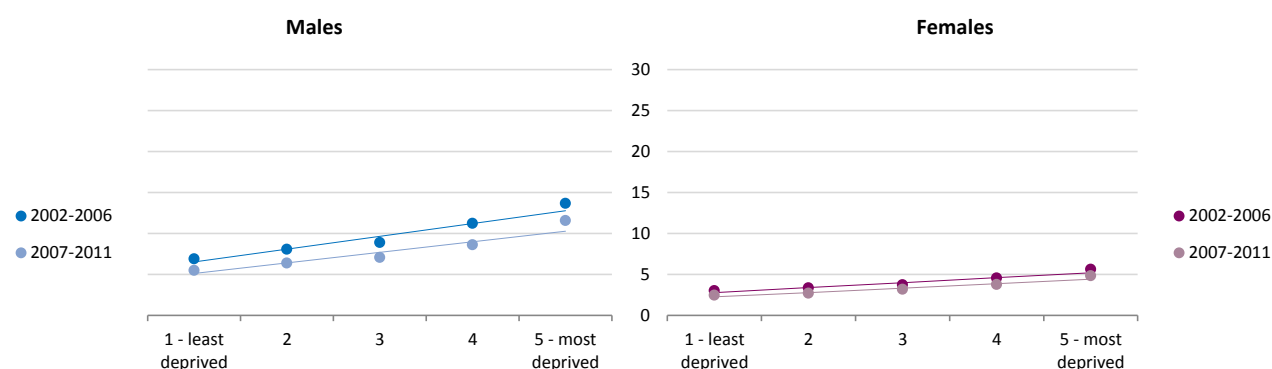
## Age-standardised\* mortality for stomach cancer (England; rate per 100,000 population)



## Yearly excess deaths for stomach cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for stomach cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	6.2	(3.5 - 9.0)	96%	0.0057
2007-2011	5.2	(2.1 - 8.2)	101%	0.0129
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.6092</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	2.4	(1.2 - 3.6)	87%	0.0081
2007-2011	2.1	(1.1 - 3.2)	95%	0.0082
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.7459</b>

Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the two periods (p-values: 0.014; 0.070).
- In 2007-2011 there would have been around 1,000 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

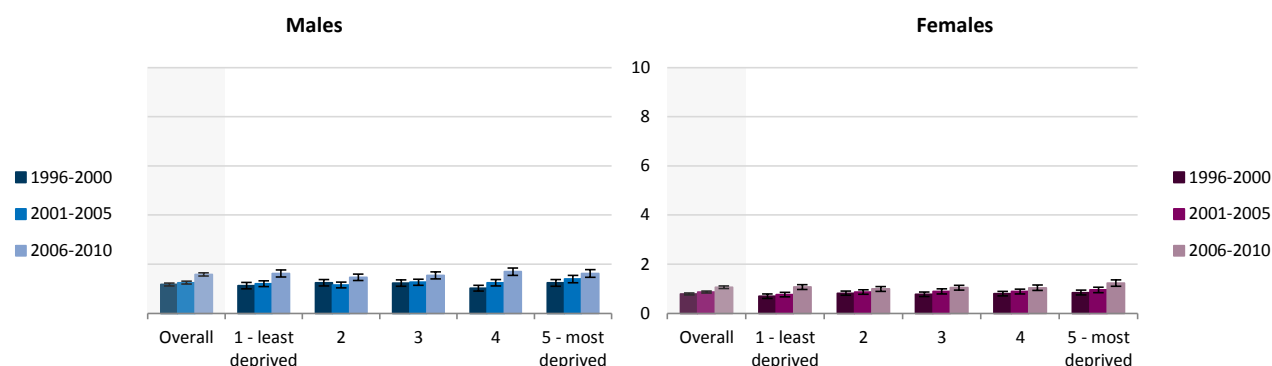
## Small Intestine (C17)

## Latest incidence for small intestine cancer (England; rate per 100,000 population; excess 5yr average)

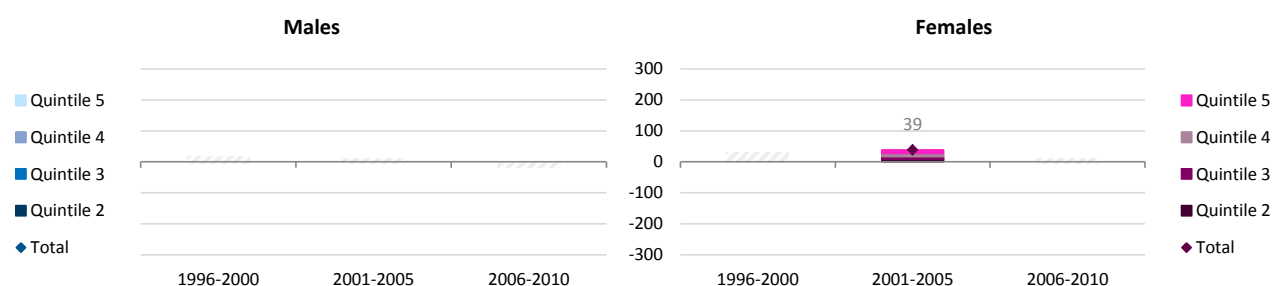
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	540	1.6	(1.5 - 1.8)	1	-
2	503	1.5	(1.3 - 1.6)	0.91	-11
3	498	1.5	(1.4 - 1.7)	0.95	Not statistically significant
4	478	1.7	(1.5 - 1.8)	1.05	-1
5 - most deprived	388	1.6	(1.5 - 1.8)	1.00	-15
<b>Overall</b>	<b>2,407</b>	<b>1.6</b>	<b>(1.5 - 1.6)</b>		

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	400	1.1	(1.0 - 1.2)	1	-5
2	407	1.0	(0.9 - 1.1)	0.93	-5
3	422	1.0	(0.9 - 1.1)	0.98	2
4	372	1.0	(0.9 - 1.1)	0.97	Not statistically significant
5 - most deprived	355	1.2	(1.1 - 1.4)	1.16	8
<b>Overall</b>	<b>1,956</b>	<b>1.1</b>	<b>(1.0 - 1.1)</b>		<b>5</b>

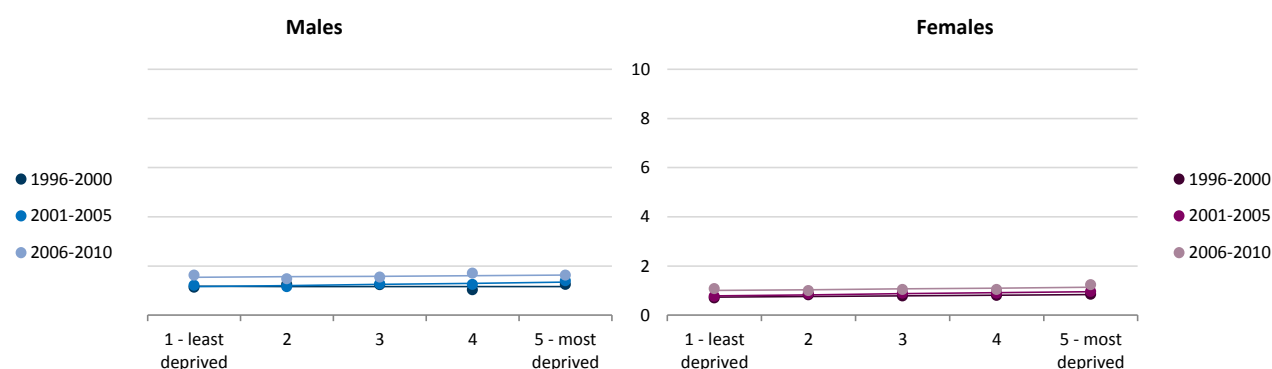
## Age-standardised\* incidence rate for small intestine cancer (England; rate per 100,000 population)



## Yearly excess cases for small intestine cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for small intestine cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.0	(-0.5 - 0.5)	-1%	0.9441
2001-2005	0.2	Not statistically significant	15%	0.1000
2006-2010	0.1	(-0.3 - 0.5)	6%	0.5035
p-value for difference in trend 2001-2005 to 2006-2010				<b>0.7245</b>
p-value for difference in trend 1996-2000 to 2006-2010				<b>0.7375</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.1	Not statistically significant	16%	0.1356
2001-2005	0.2	(0.0 - 0.3)	21%	0.0272
2006-2010	0.1	Not statistically significant	13%	0.3161
p-value for difference in trend 2001-2005 to 2006-2010				<b>0.8216</b>
p-value for difference in trend 1996-2000 to 2006-2010				<b>0.9429</b>

Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for females in one of the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.628; 0.956; 0.900).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details



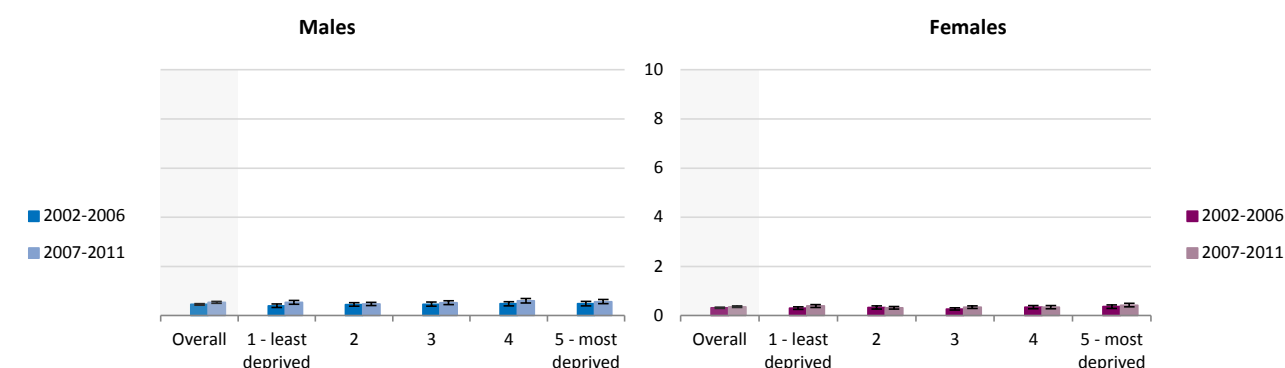
# Cancer mortality (2002-2011) by deprivation quintile, in England

## Small Intestine (C17)

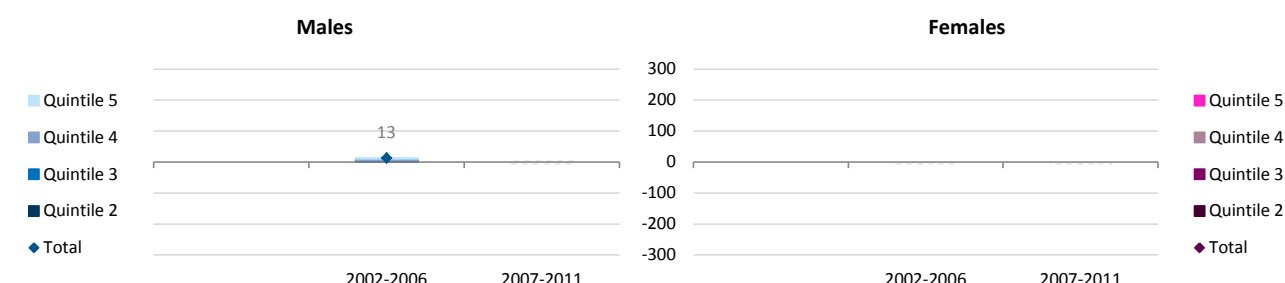
### Latest mortality for small intestine cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	195	0.5	(0.5 - 0.6)	1	-	1 - least deprived	163	0.4	(0.3 - 0.5)	1	-
2	175	0.5	(0.4 - 0.5)	0.87	-6	2	147	0.3	(0.3 - 0.4)	0.81	-5
3	175	0.5	(0.4 - 0.6)	0.96	-3	3	160	0.3	(0.3 - 0.4)	0.88	-3
4	183	0.6	(0.5 - 0.7)	1.12	-	4	144	0.3	(0.3 - 0.4)	0.88	-
5 - most deprived	142	0.6	(0.5 - 0.7)	1.05	-1	5 - most deprived	136	0.4	(0.4 - 0.5)	1.09	2
Overall	870	0.5	(0.5 - 0.6)		-5	Overall	750	0.4	(0.3 - 0.4)		-8

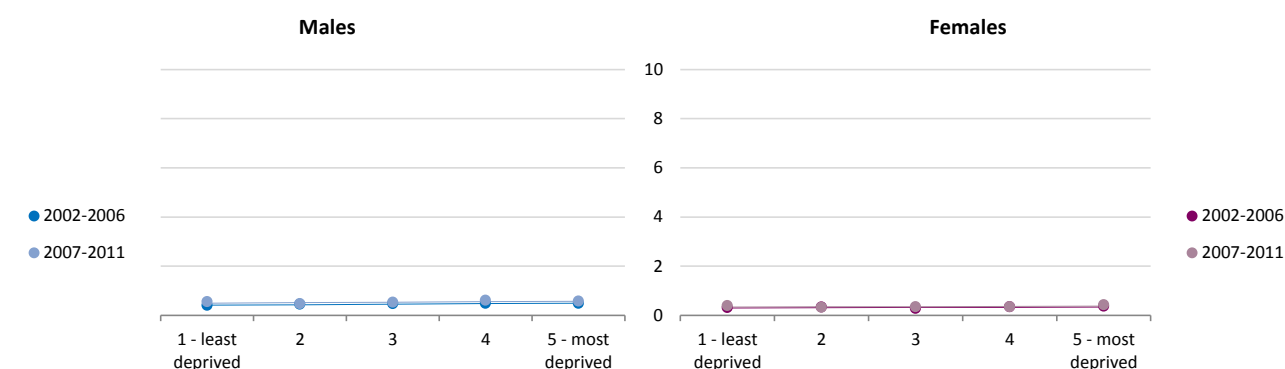
### Age-standardised\* mortality for small intestine cancer (England; rate per 100,000 population)



### Yearly excess deaths for small intestine cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for small intestine cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(0.0 - 0.2)	21%	0.0285
2007-2011	0.1	Not statistically significant	16%	0.3205
p-value for difference in trend 2002-2006 to 2007-2011				0.9387

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.0	(-0.1 - 0.2)	16%	0.4254
2007-2011	0.0	Not statistically significant	8%	0.6744
p-value for difference in trend 2002-2006 to 2007-2011				0.8912

### Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for males in one of the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.658; 0.739).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

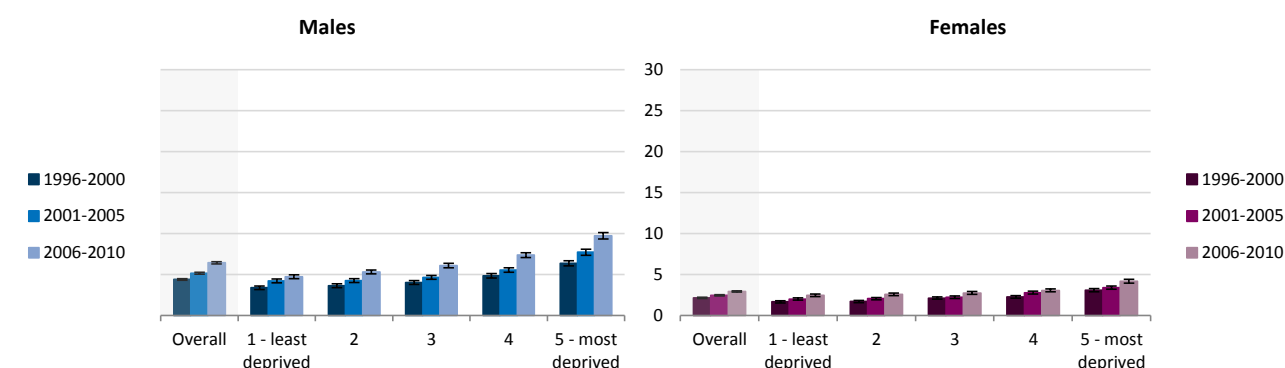
# Cancer incidence (1996-2010) by deprivation quintile, in England

## Liver (C22)

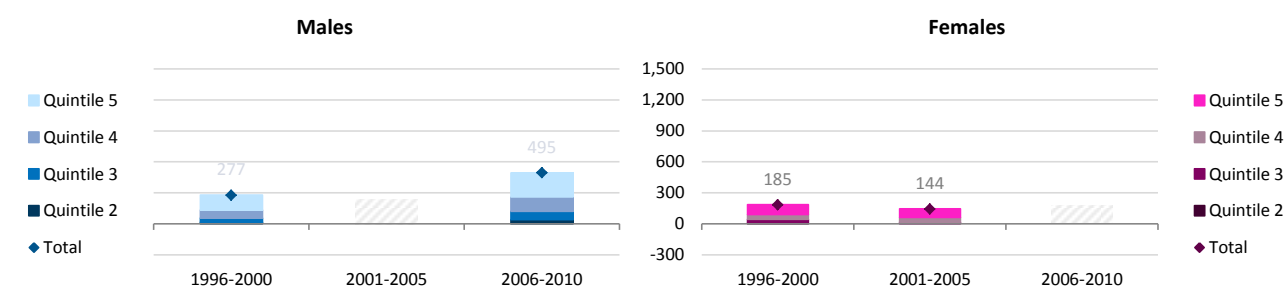
### Latest incidence for liver cancer (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,628	4.7	(4.5 - 4.9)	1	-	1 - least deprived	1,011	2.4	(2.3 - 2.6)	1	-
2	1,900	5.3	(5.1 - 5.5)	1.13	39	2	1,159	2.6	(2.4 - 2.7)	1.05	9
3	2,009	6.1	(5.8 - 6.3)	1.30	82	3	1,196	2.7	(2.6 - 2.9)	1.12	Not statistically significant
4	2,110	7.3	(7.0 - 7.7)	1.56	140	4	1,213	3.0	(2.9 - 3.2)	1.25	105
5 - most deprived	2,338	9.7	(9.3 - 10.1)	2.07	233	5 - most deprived	1,351	4.2	(3.9 - 4.4)	1.71	178
Overall	9,985	6.4	(6.3 - 6.5)		495	Overall	5,930	2.9	(2.8 - 3.0)		

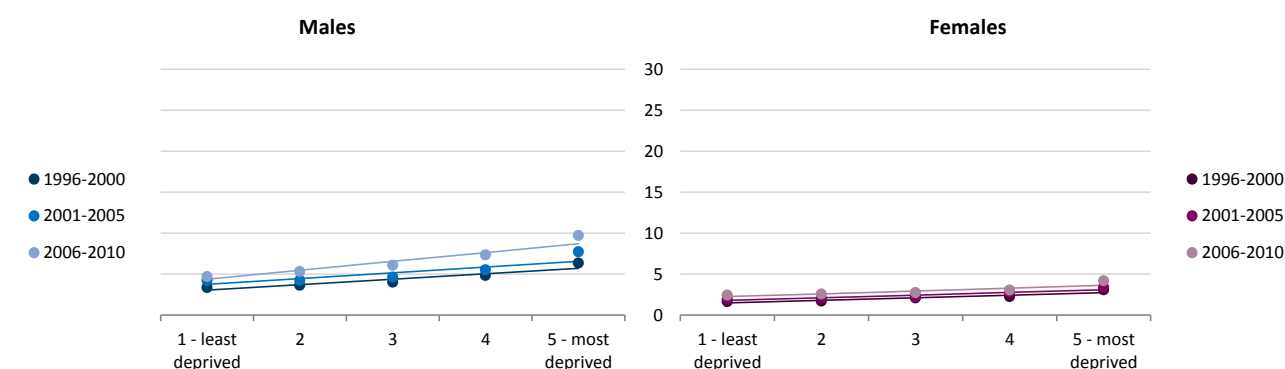
### Age-standardised\* incidence rate for liver cancer (England; rate per 100,000 population)



### Yearly excess cases for liver cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for liver cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	2.6	(0.7 - 4.5)	85%	0.0214
2001-2005	2.8	Not statistically significant	76%	0.0560
2006-2010	4.4	(1.9 - 6.8)	100%	0.0109
p-value for difference in trend 2001-2005 to 2006-2010				0.4392
p-value for difference in trend 1996-2000 to 2006-2010				0.2710

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	1.3	(0.3 - 2.2)	84%	0.0228
2001-2005	1.3	(0.3 - 2.3)	72%	0.0268
2006-2010	1.4	Not statistically significant	60%	0.0515
p-value for difference in trend 2001-2005 to 2006-2010				0.9364
p-value for difference in trend 1996-2000 to 2006-2010				0.8968

### Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for males in two periods and females in two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the three periods (p-values: 0.200; 0.335; 0.037).
- In 2006-2010 there would have been around 650 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer mortality (2002-2011) by deprivation quintile, in England

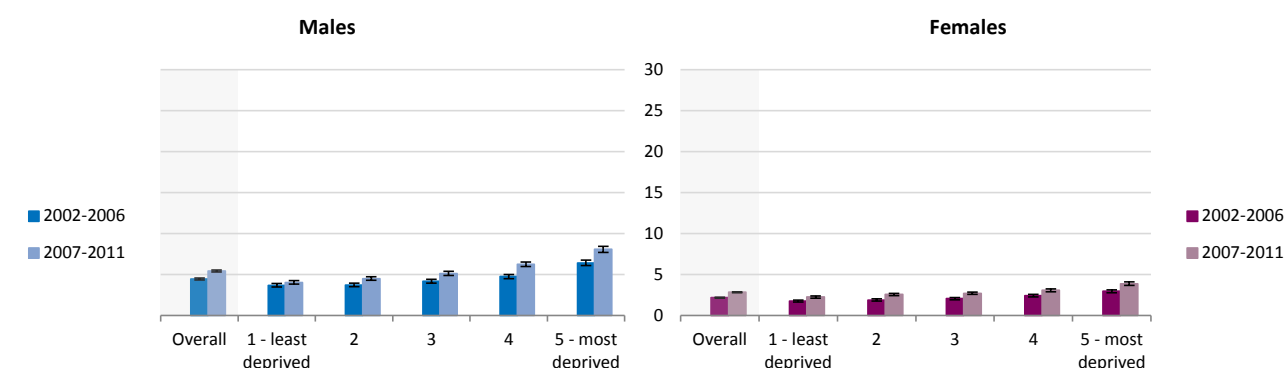
## Liver (C22)

### Latest mortality for liver cancer (England; rate per 100,000 population; excess 5yr average)

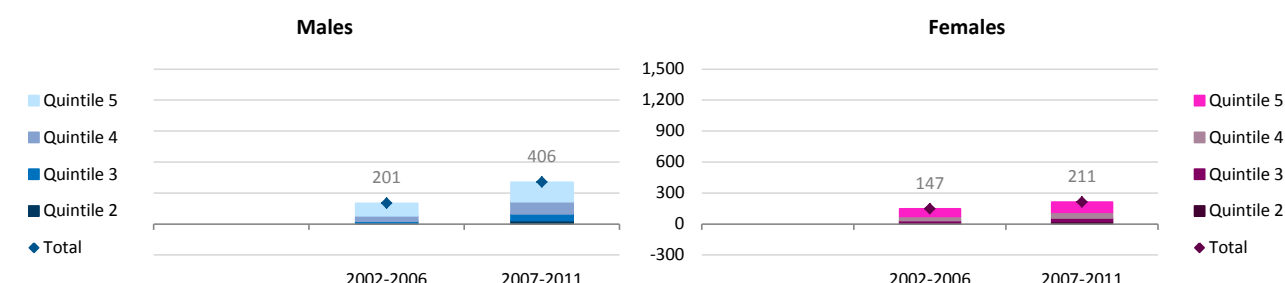
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,471	4.0	(3.8 - 4.3)	1	-
2	1,705	4.5	(4.3 - 4.7)	1.12	32
3	1,770	5.1	(4.9 - 5.4)	1.27	65
4	1,859	6.3	(6.0 - 6.5)	1.55	119
5 - most deprived	1,984	8.1	(7.7 - 8.4)	2.00	190
<b>Overall</b>	<b>8,789</b>	<b>5.4</b>	<b>(5.3 - 5.5)</b>		<b>406</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,004	2.3	(2.1 - 2.4)	1	-
2	1,227	2.6	(2.4 - 2.7)	1.14	24
3	1,260	2.7	(2.6 - 2.9)	1.20	35
4	1,255	3.1	(2.9 - 3.3)	1.36	54
5 - most deprived	1,293	3.9	(3.7 - 4.1)	1.72	99
<b>Overall</b>	<b>6,039</b>	<b>2.8</b>	<b>(2.8 - 2.9)</b>		<b>211</b>

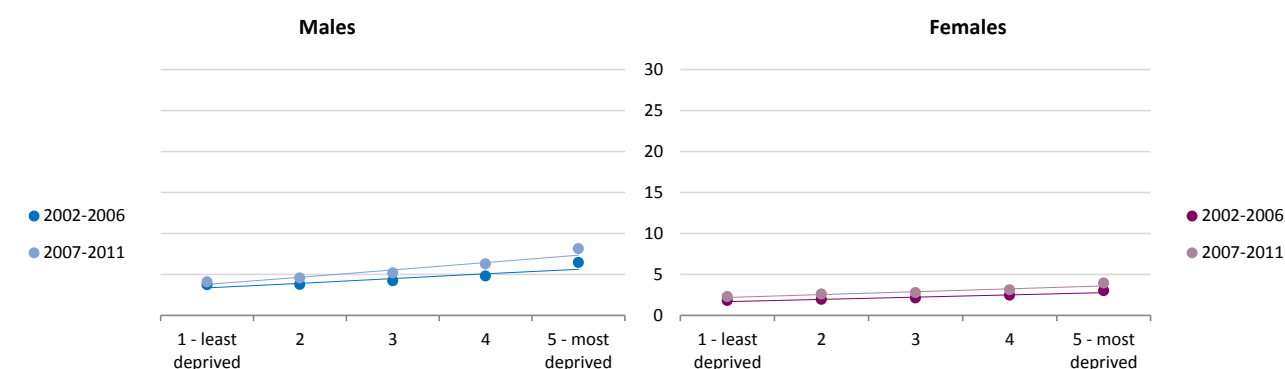
### Age-standardised\* mortality for liver cancer (England; rate per 100,000 population)



### Yearly excess deaths for liver cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for liver cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	2.3	(0.2 - 4.4)	68%	0.0413
2007-2011	3.6	(1.6 - 5.5)	94%	0.0104
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.3862</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	1.1	(0.4 - 1.7)	66%	0.0127
2007-2011	1.4	(0.6 - 2.2)	63%	0.0130
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.5849</b>

### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the two periods (p-values: 0.292; 0.046).
- In 2007-2011 there would have been around 600 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

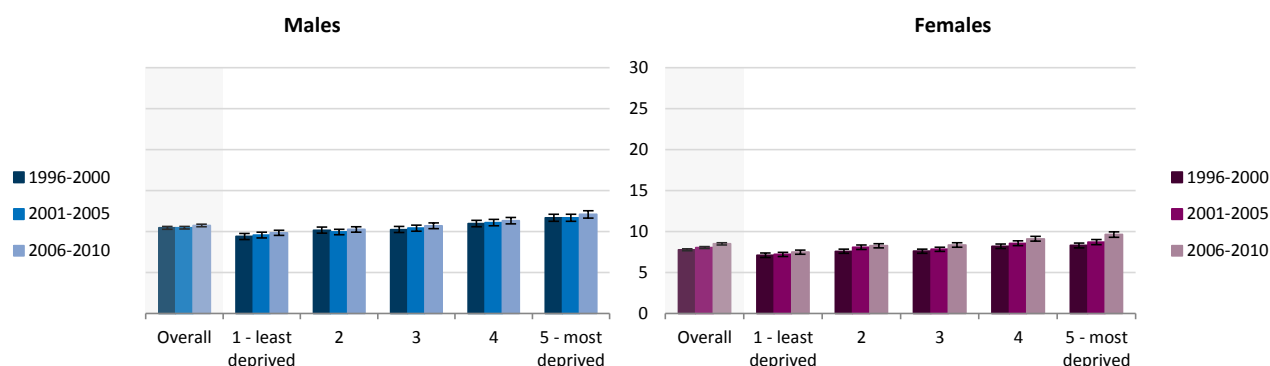
## Pancreas (C25)

## Latest incidence for pancreatic cancer (England; rate per 100,000 population; excess 5yr average)

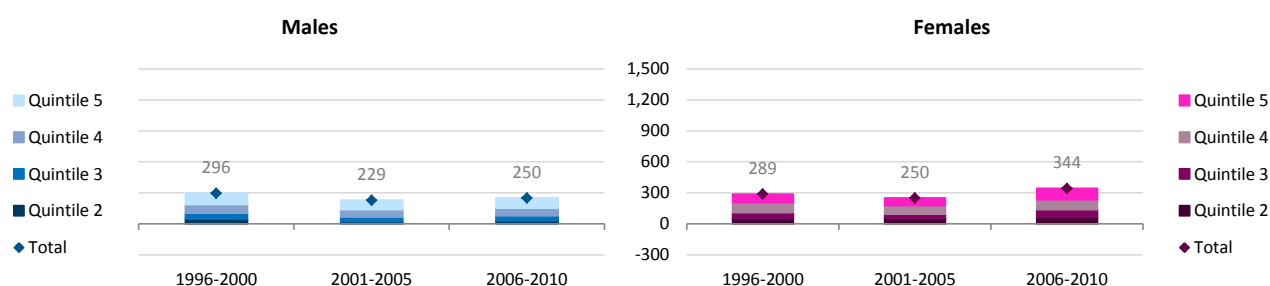
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	3,429	9.8	(9.5 - 10.2)	1	-
2	3,725	10.2	(9.9 - 10.6)	1.04	27
3	3,607	10.7	(10.4 - 11.1)	1.09	50
4	3,325	11.3	(10.9 - 11.7)	1.15	76
5 - most deprived	2,923	12.1	(11.6 - 12.5)	1.23	97
<b>Overall</b>	<b>17,009</b>	<b>10.7</b>	<b>(10.6 - 10.9)</b>		<b>250</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	3,200	7.5	(7.2 - 7.7)	1	-
2	3,857	8.3	(8.0 - 8.5)	1.11	63
3	3,832	8.3	(8.1 - 8.6)	1.12	73
4	3,642	9.1	(8.8 - 9.4)	1.22	97
5 - most deprived	3,124	9.6	(9.3 - 10.0)	1.29	111
<b>Overall</b>	<b>17,655</b>	<b>8.5</b>	<b>(8.4 - 8.6)</b>		<b>344</b>

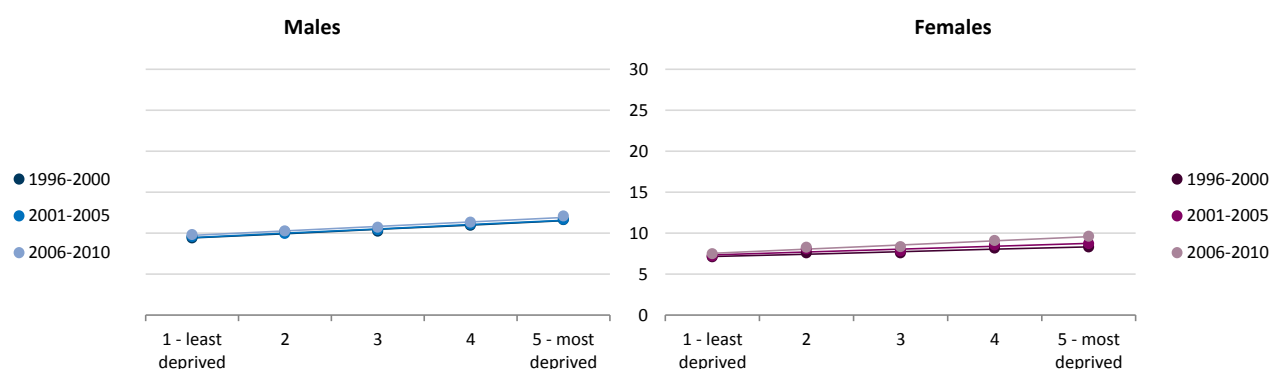
## Age-standardised\* incidence rate for pancreatic cancer (England; rate per 100,000 population)



## Yearly excess cases for pancreatic cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for pancreatic cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	2.1	(1.3 - 3.0)	22%	0.0041
2001-2005	2.1	(1.6 - 2.6)	22%	0.0007
2006-2010	2.2	(1.7 - 2.7)	22%	0.0010
p-value for difference in trend 2001-2005 to 2006-2010				0.8533
p-value for difference in trend 1996-2000 to 2006-2010				0.8835

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	1.2	(0.6 - 1.8)	17%	0.0086
2001-2005	1.4	(0.2 - 2.6)	19%	0.0345
2006-2010	2.0	(1.2 - 2.8)	27%	0.0039
p-value for difference in trend 2001-2005 to 2006-2010				0.3910
p-value for difference in trend 1996-2000 to 2006-2010				0.1037

Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.089; 0.284; 0.769).
- In 2006-2010 there would have been around 580 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

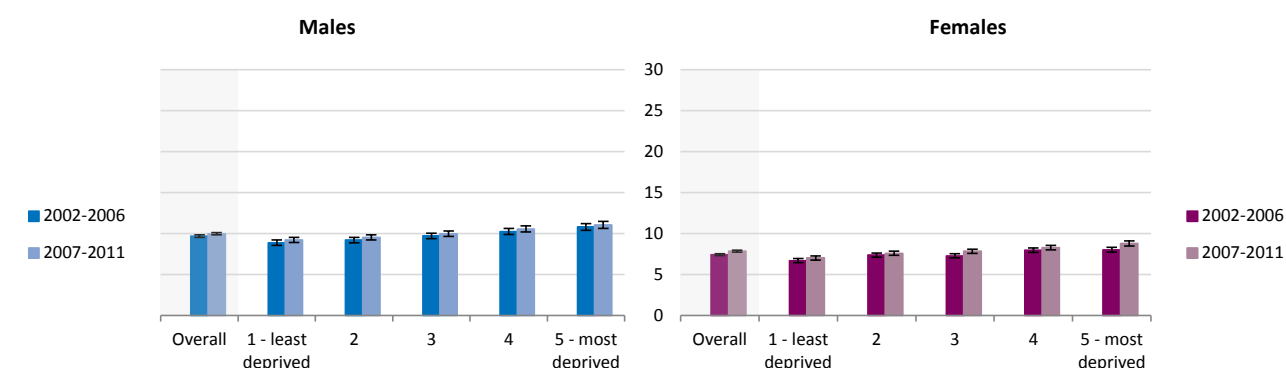
## Pancreas (C25)

## Latest mortality for pancreatic cancer (England; rate per 100,000 population; excess 5yr average)

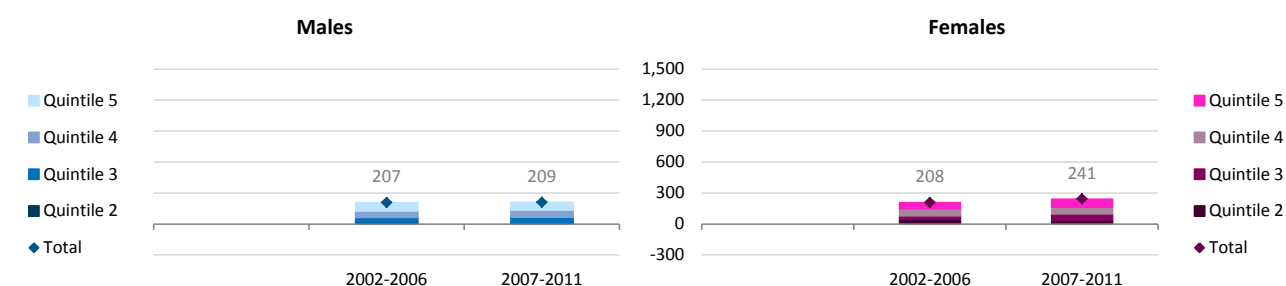
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	3,331	9.2	(8.9 - 9.5)	1	-
2	3,579	9.5	(9.2 - 9.8)	1.03	19
3	3,495	10.0	(9.6 - 10.3)	1.08	49
4	3,159	10.6	(10.2 - 10.9)	1.15	66
5 - most deprived	2,692	11.1	(10.6 - 11.5)	1.20	75
<b>Overall</b>	<b>16,256</b>	<b>10.0</b>	<b>(9.8 - 10.1)</b>		<b>209</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	3,164	7.0	(6.8 - 7.3)	1	-
2	3,685	7.6	(7.3 - 7.8)	1.08	36
3	3,728	7.8	(7.6 - 8.1)	1.12	61
4	3,430	8.3	(8.0 - 8.6)	1.18	65
5 - most deprived	2,879	8.8	(8.5 - 9.1)	1.25	78
<b>Overall</b>	<b>16,886</b>	<b>7.8</b>	<b>(7.7 - 8.0)</b>		<b>241</b>

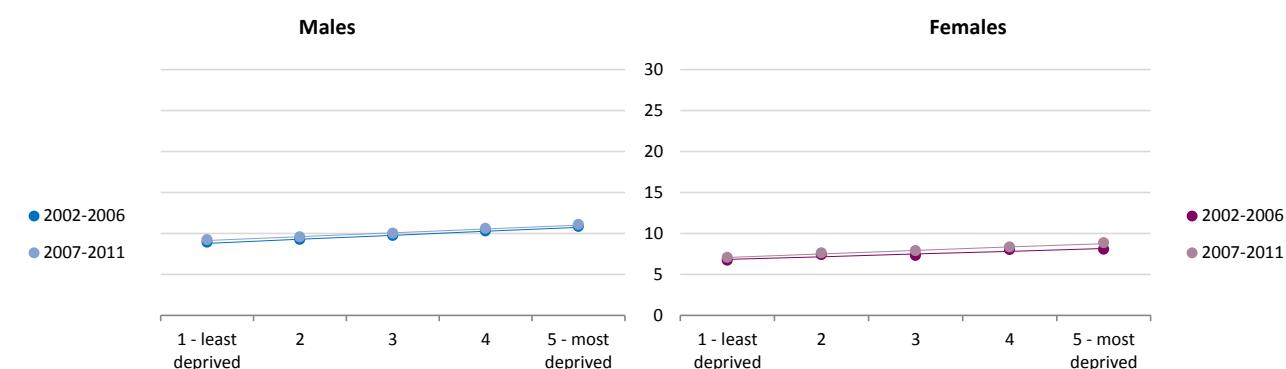
## Age-standardised\* mortality for pancreatic cancer (England; rate per 100,000 population)



## Yearly excess deaths for pancreatic cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for pancreatic cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	1.9	(1.6 - 2.3)	22%	0.0004
2007-2011	1.9	(1.5 - 2.3)	20%	0.0006
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.7760</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	1.3	(0.4 - 2.3)	19%	0.0222
2007-2011	1.7	(1.3 - 2.0)	24%	0.0006
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.4808</b>

Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.235; 0.514).
- In 2007-2011 there would have been around 430 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

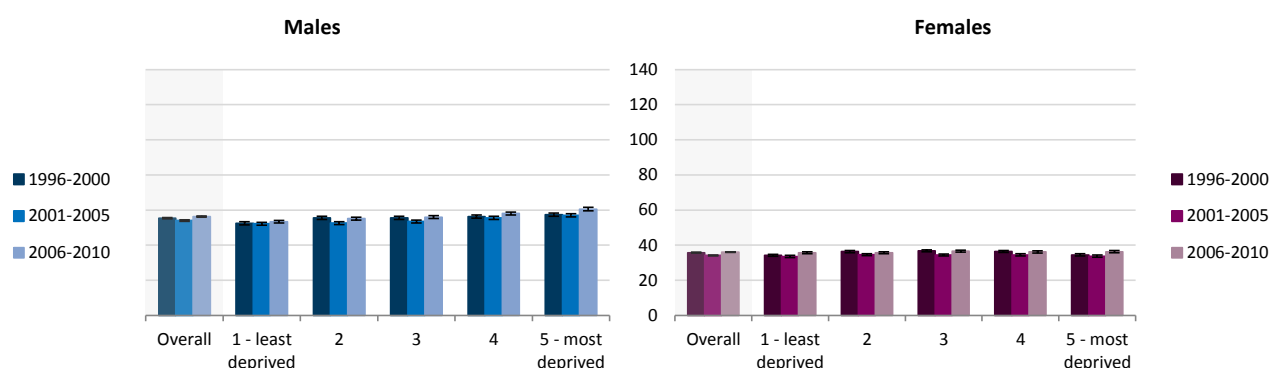
<sup>#</sup> Please see pp. 20-21 for further details

## Colorectal (C18-C20)

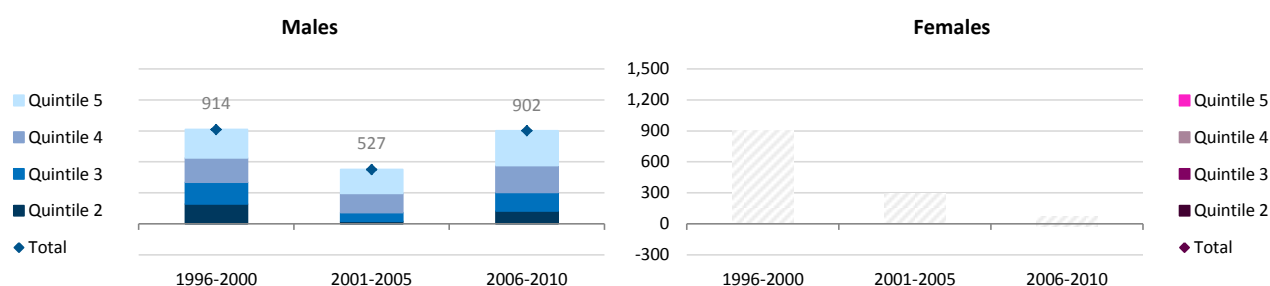
## Latest incidence for colorectal cancer (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	18,461	53.4	(52.6 - 54.1)	1	-	1 - least deprived	14,575	35.6	(35.0 - 36.2)	1	-
2	19,911	55.1	(54.3 - 55.9)	1.03	124	2	15,862	35.7	(35.1 - 36.2)	1.00	-17
3	18,931	56.0	(55.2 - 56.8)	1.05	181	3	15,801	36.6	(36.0 - 37.2)	1.03	Not statistically significant
4	17,133	58.0	(57.1 - 58.9)	1.09	258	4	14,278	36.1	(35.6 - 36.7)	1.01	-9
5 - most deprived	14,873	60.5	(59.5 - 61.5)	1.13	338	5 - most deprived	11,592	36.3	(35.6 - 37.0)	1.02	44
<b>Overall</b>	<b>89,309</b>	<b>56.3</b>	<b>(55.9 - 56.6)</b>		<b>902</b>	<b>Overall</b>	<b>72,108</b>	<b>36.0</b>	<b>(35.8 - 36.3)</b>		

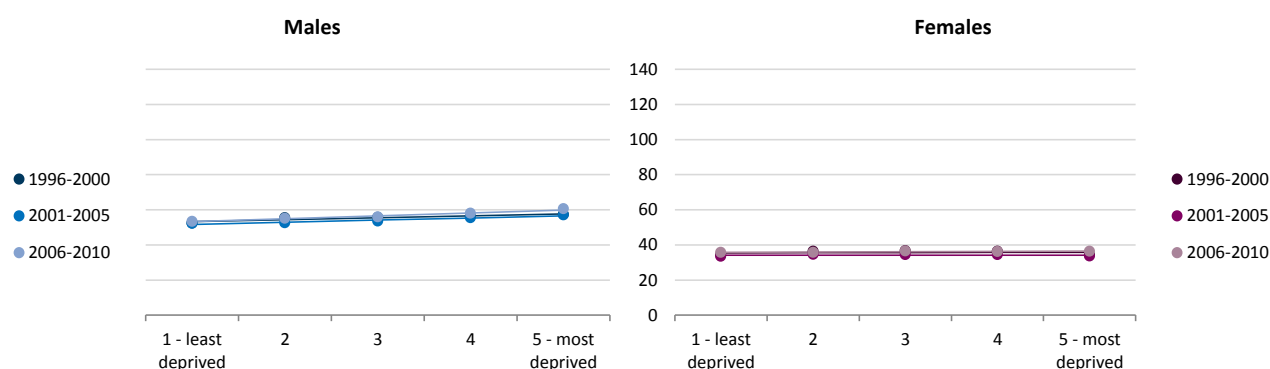
## Age-standardised\* incidence rate for colorectal cancer (England; rate per 100,000 population)



## Yearly excess cases for colorectal cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for colorectal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	4.3	(0.7 - 7.9)	8%	0.0321
2001-2005	4.9	(2.3 - 7.5)	9%	0.0088
2006-2010	6.7	(4.7 - 8.8)	13%	0.0019
p-value for difference in trend 2001-2005 to 2006-2010				0.2759
p-value for difference in trend 1996-2000 to 2006-2010				0.2500

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.3	(-5.3 - 5.8)	1%	0.8802
2001-2005	0.1	Not statistically significant	0%	0.8861
2006-2010	0.8	(-0.7 - 2.2)	2%	0.1899
p-value for difference in trend 2001-2005 to 2006-2010				0.6406
p-value for difference in trend 1996-2000 to 2006-2010				0.8698

Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for males in the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in two of the three periods (p-values: 0.235; 0.007; <0.001).
- In 2006-2010 there would have been around 770 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

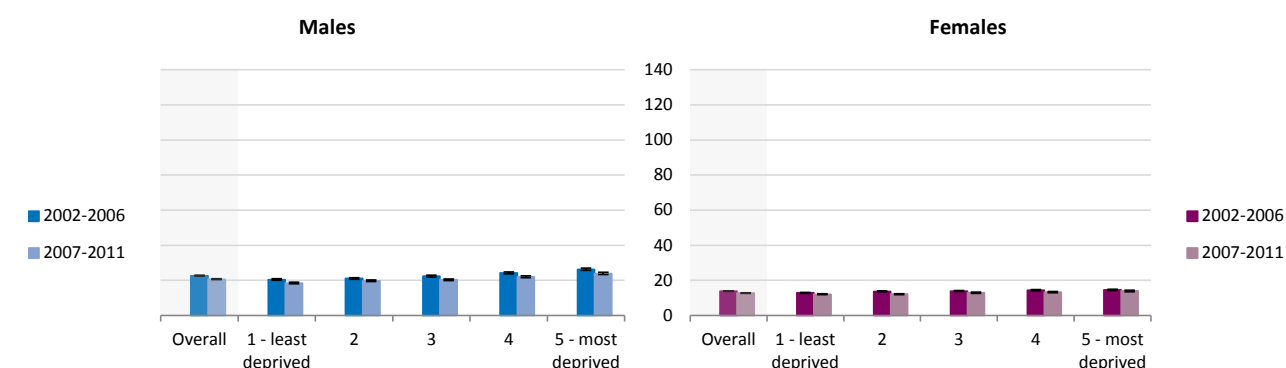
## Colorectal (C18-C20)

## Latest mortality for colorectal cancer (England; rate per 100,000 population; excess 5yr average)

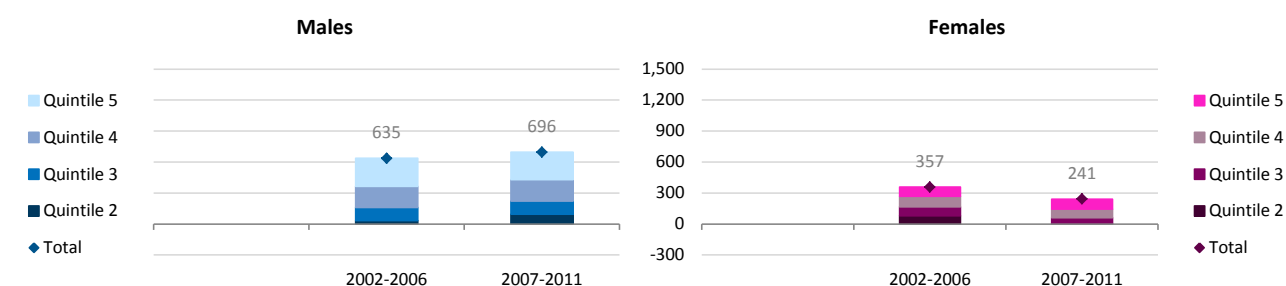
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	6,805	18.5	(18.1 - 18.9)	1	-
2	7,632	19.7	(19.3 - 20.2)	1.07	95
3	7,338	20.4	(19.9 - 20.9)	1.10	126
4	6,904	22.0	(21.5 - 22.6)	1.19	208
5 - most deprived	6,120	24.0	(23.4 - 24.6)	1.30	268
<b>Overall</b>	<b>34,799</b>	<b>20.7</b>	<b>(20.5 - 20.9)</b>		<b>696</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	5,632	12.1	(11.8 - 12.4)	1	-
2	6,313	12.2	(11.9 - 12.5)	1.00	1
3	6,529	13.0	(12.7 - 13.3)	1.07	61
4	6,096	13.3	(13.0 - 13.6)	1.10	84
5 - most deprived	5,006	14.0	(13.6 - 14.4)	1.15	96
<b>Overall</b>	<b>29,576</b>	<b>12.8</b>	<b>(12.7 - 13.0)</b>		<b>241</b>

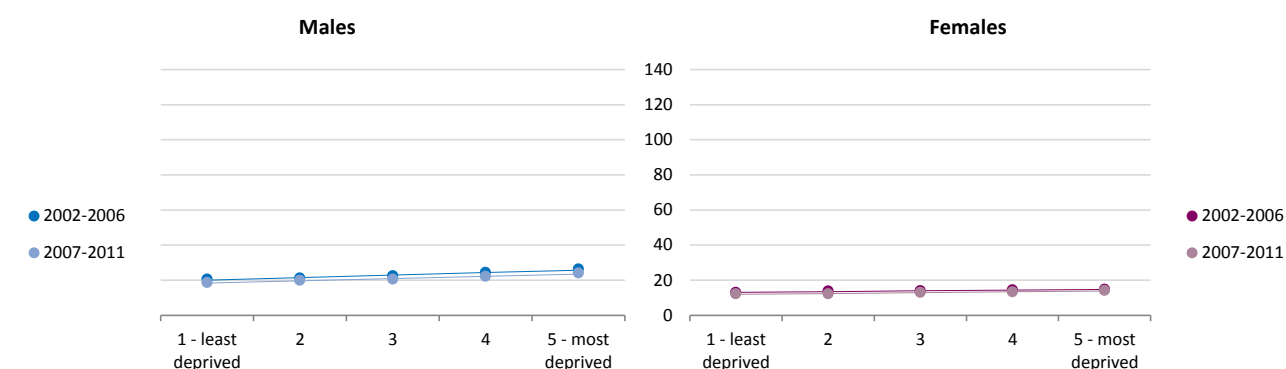
## Age-standardised\* mortality for colorectal cancer (England; rate per 100,000 population)



## Yearly excess deaths for colorectal cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for colorectal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	5.7	(3.5 - 8.0)	29%	0.0040
2007-2011	5.1	(3.4 - 6.9)	28%	0.0026
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.6935</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	1.7	(0.8 - 2.6)	13%	0.0095
2007-2011	1.9	(1.0 - 2.8)	16%	0.0065
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.7133</b>

Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant for the two periods (p-values: 0.001; 0.001).
- In 2007-2011 there would have been around 860 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

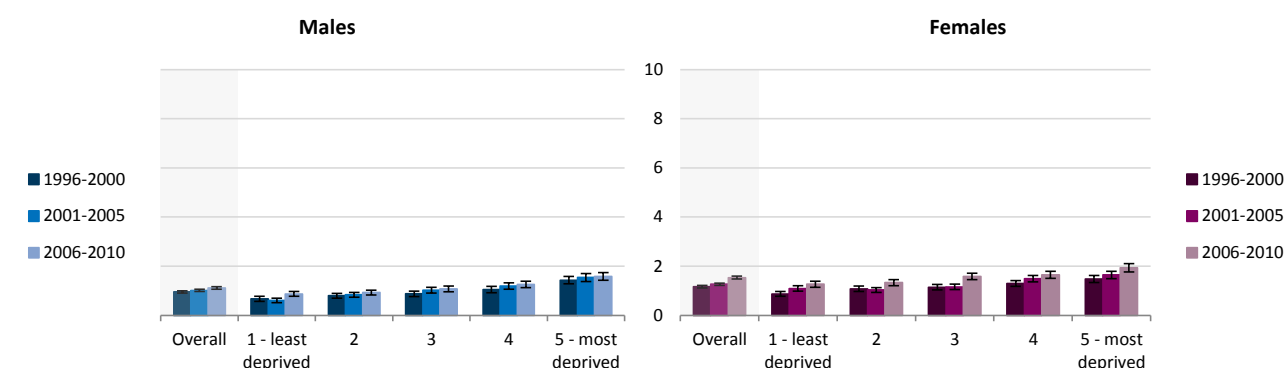
# Cancer incidence (1996-2010) by deprivation quintile, in England

## Anus (C21)

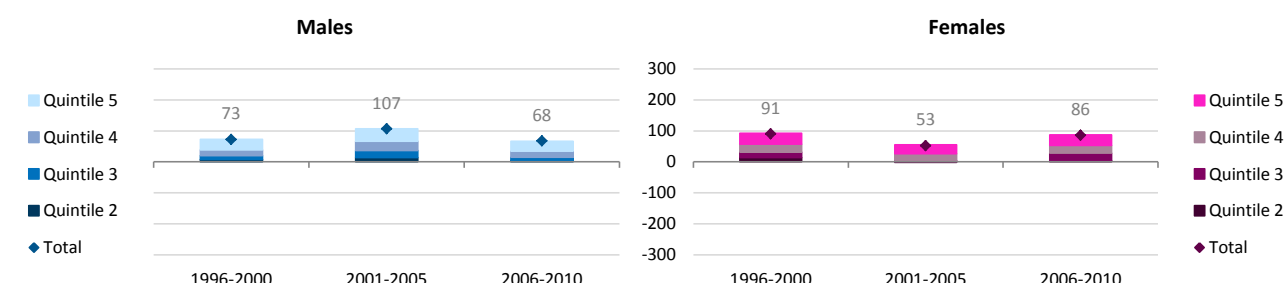
### Latest incidence for anal cancer (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	282	0.9	(0.8 - 1.0)	1	-	1 - least deprived	451	1.3	(1.1 - 1.4)	1	-
2	314	0.9	(0.8 - 1.0)	1.07	5	2	506	1.3	(1.2 - 1.4)	1.05	5
3	326	1.1	(1.0 - 1.2)	1.23	10	3	566	1.6	(1.5 - 1.7)	1.25	23
4	344	1.3	(1.1 - 1.4)	1.45	20	4	538	1.7	(1.5 - 1.8)	1.30	25
5 - most deprived	368	1.6	(1.4 - 1.7)	1.82	32	5 - most deprived	524	1.9	(1.8 - 2.1)	1.53	34
<b>Overall</b>	<b>1,634</b>	<b>1.1</b>	<b>(1.1 - 1.2)</b>		<b>68</b>	<b>Overall</b>	<b>2,585</b>	<b>1.5</b>	<b>(1.5 - 1.6)</b>		<b>86</b>

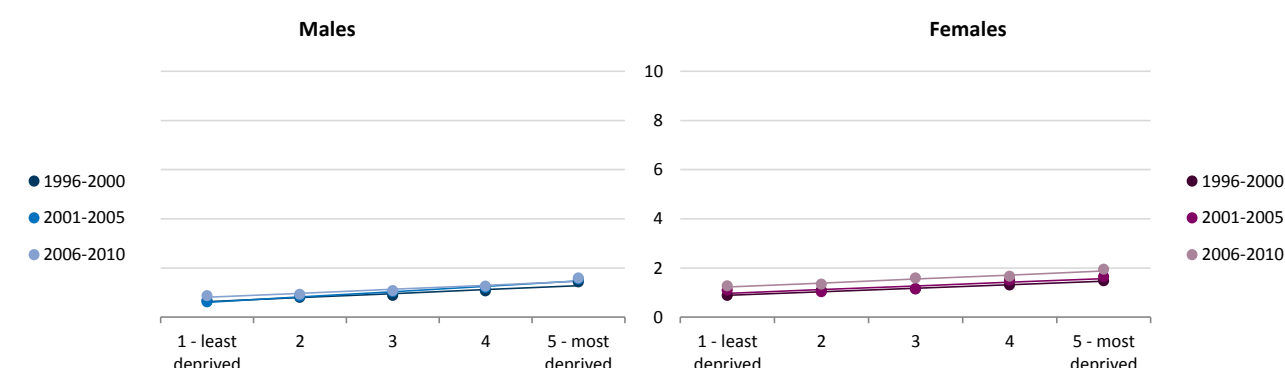
### Age-standardised\* incidence rate for anal cancer (England; rate per 100,000 population)



### Yearly excess cases for anal cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for anal cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.7	(0.3 - 1.0)	103%	0.0123
2001-2005	0.9	(0.7 - 1.0)	143%	0.0006
2006-2010	0.6	(0.3 - 1.0)	80%	0.0104
p-value for difference in trend 2001-2005 to 2006-2010				0.2870
p-value for difference in trend 1996-2000 to 2006-2010				0.9924

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.6	(0.4 - 0.7)	64%	0.0014
2001-2005	0.6	(0.0 - 1.2)	61%	0.0432
2006-2010	0.6	(0.4 - 0.9)	53%	0.0052
p-value for difference in trend 2001-2005 to 2006-2010				0.8627
p-value for difference in trend 1996-2000 to 2006-2010				0.6279

### Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.699; 0.365; 0.997).
- In 2006-2010 there would have been around 150 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details



# Cancer mortality (2002-2011) by deprivation quintile, in England

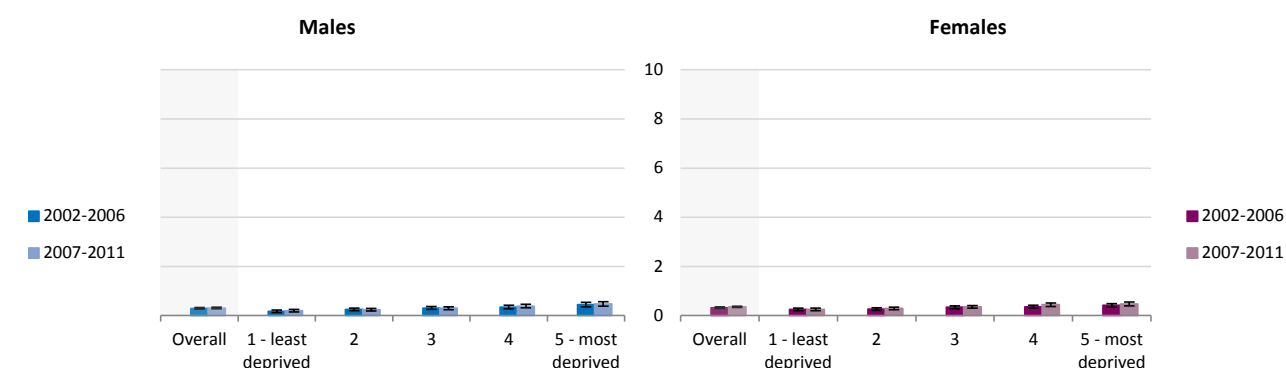
## Anus (C21)

### Latest mortality for anal cancer (England; rate per 100,000 population; excess 5yr average)

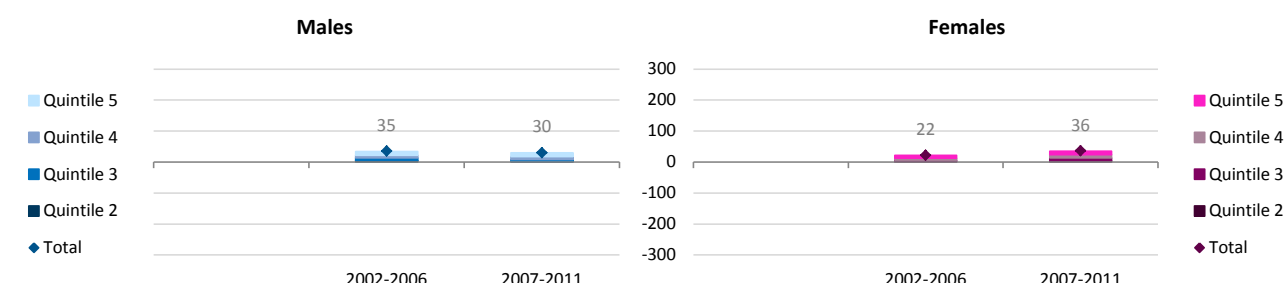
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	69	0.2	(0.2 - 0.2)	1	-
2	84	0.2	(0.2 - 0.3)	1.20	2
3	99	0.3	(0.2 - 0.4)	1.48	6
4	109	0.4	(0.3 - 0.5)	1.91	10
5 - most deprived	113	0.5	(0.4 - 0.6)	2.34	12
<b>Overall</b>	<b>474</b>	<b>0.3</b>	<b>(0.3 - 0.3)</b>		<b>30</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	109	0.3	(0.2 - 0.3)	1	-
2	140	0.3	(0.2 - 0.3)	1.15	4
3	164	0.4	(0.3 - 0.4)	1.40	9
4	162	0.4	(0.4 - 0.5)	1.74	11
5 - most deprived	142	0.5	(0.4 - 0.5)	1.85	11
<b>Overall</b>	<b>717</b>	<b>0.4</b>	<b>(0.3 - 0.4)</b>		<b>36</b>

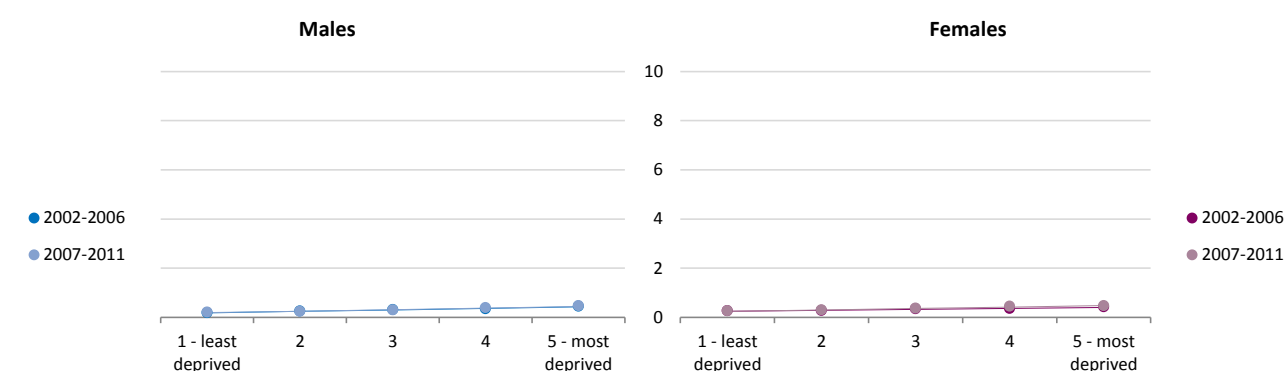
### Age-standardised\* mortality for anal cancer (England; rate per 100,000 population)



### Yearly excess deaths for anal cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for anal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.3	(0.2 - 0.3)	142%	0.0009
2007-2011	0.3	(0.2 - 0.3)	137%	0.0022
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.9196</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.2	(0.1 - 0.2)	68%	0.0053
2007-2011	0.2	(0.2 - 0.3)	94%	0.0014
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.1685</b>

### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.067; 0.623).
- In 2007-2011 there would have been around 65 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

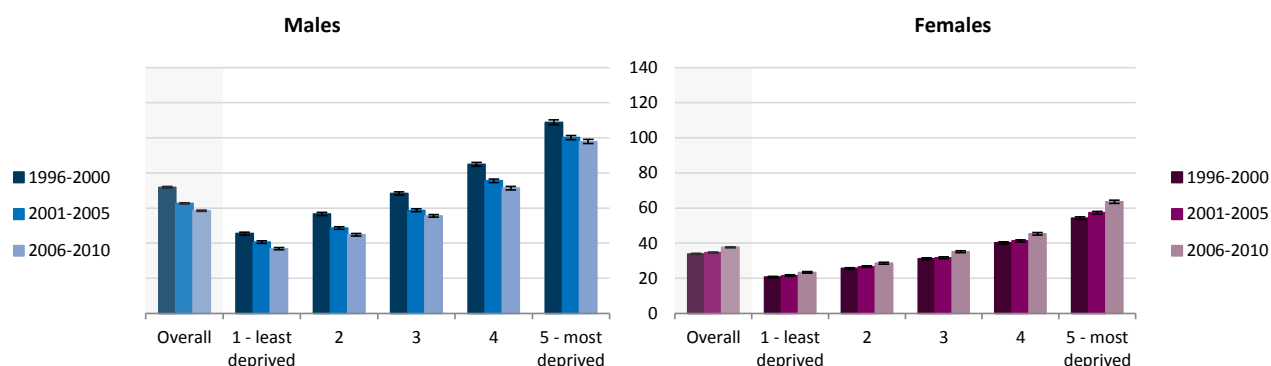
## Lung (C33-C34)

## Latest incidence for lung cancer (England; rate per 100,000 population; excess 5yr average)

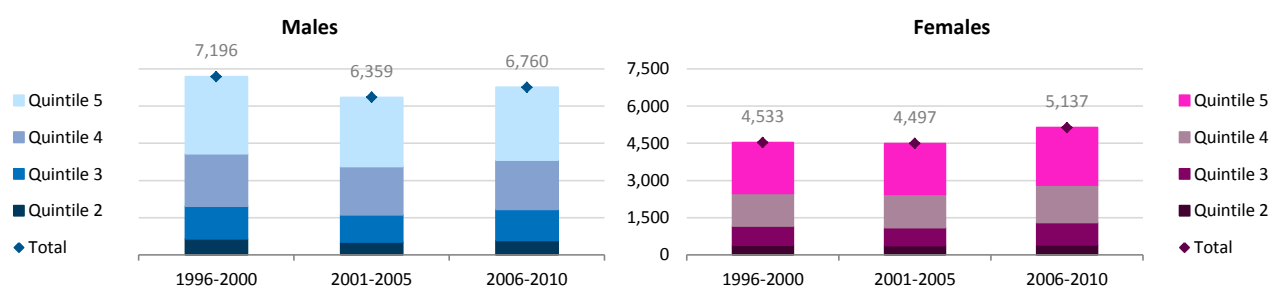
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	13,132	36.8	(36.2 - 37.4)	1	-
2	16,695	44.8	(44.1 - 45.4)	1.22	576
3	19,192	55.5	(54.7 - 56.3)	1.51	1,254
4	21,271	71.3	(70.4 - 72.3)	1.94	1,992
5 - most deprived	24,001	97.9	(96.7 - 99.2)	2.66	2,938
<b>Overall</b>	<b>94,291</b>	<b>58.4</b>	<b>(58.1 - 58.8)</b>		<b>6,760</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	9,594	23.3	(22.8 - 23.8)	1	-
2	12,480	28.5	(28.0 - 29.0)	1.22	399
3	14,705	35.1	(34.5 - 35.7)	1.51	903
4	16,796	45.4	(44.7 - 46.1)	1.95	1,509
5 - most deprived	19,206	63.6	(62.7 - 64.5)	2.73	2,327
<b>Overall</b>	<b>72,781</b>	<b>37.6</b>	<b>(37.3 - 37.9)</b>		<b>5,137</b>

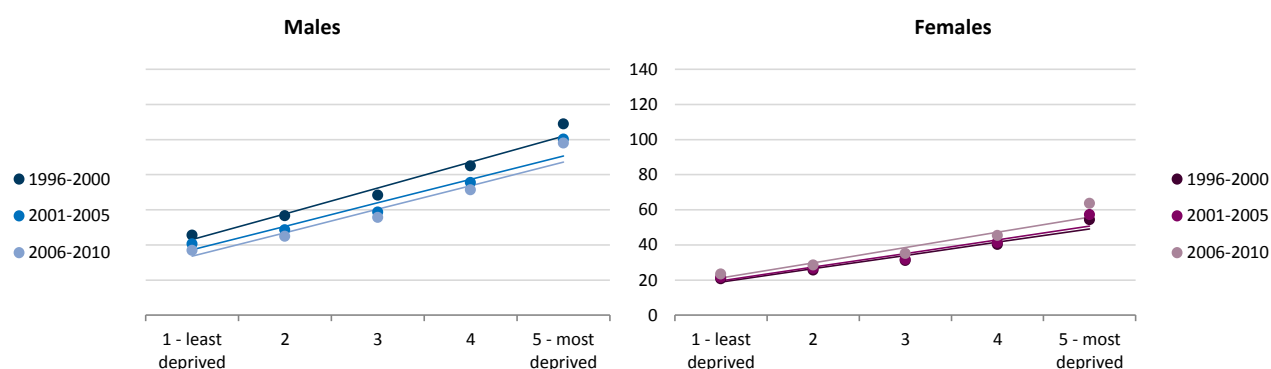
## Age-standardised\* incidence rate for lung cancer (England; rate per 100,000 population)



## Yearly excess cases for lung cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for lung cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	58.9	(40.3 - 77.6)	137%	0.0021
2001-2005	53.5	(29.0 - 78.0)	144%	0.0061
2006-2010	53.5	(28.1 - 79.0)	159%	0.0068
p-value for difference in trend 2001-2005 to 2006-2010				0.9993
p-value for difference in trend 1996-2000 to 2006-2010				0.7366

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	30.2	(16.8 - 43.7)	160%	0.0056
2001-2005	31.1	(15.1 - 47.1)	159%	0.0085
2006-2010	34.8	(16.9 - 52.7)	165%	0.0085
p-value for difference in trend 2001-2005 to 2006-2010				0.7638
p-value for difference in trend 1996-2000 to 2006-2010				0.6903

Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the three periods (p-values: 0.014; 0.133; 0.238).
- In 2006-2010 there would have been around 11,700 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer mortality (2002-2011) by deprivation quintile, in England

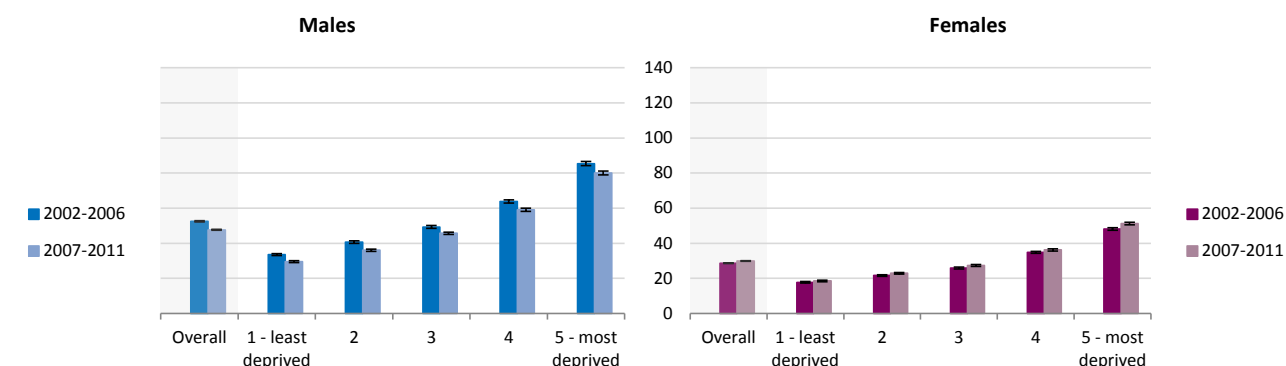
## Lung (C33-C34)

### Latest mortality for lung cancer (England; rate per 100,000 population; excess 5yr average)

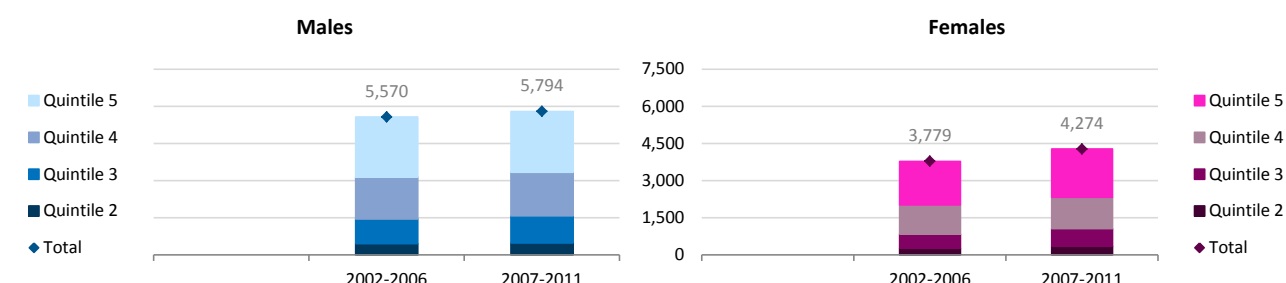
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	10,966	29.6	(29.1 - 30.2)	1	-
2	13,934	36.1	(35.5 - 36.7)	1.22	480
3	16,305	45.7	(45.0 - 46.4)	1.54	1,107
4	18,098	59.1	(58.3 - 60.0)	2.00	1,745
5 - most deprived	19,931	80.1	(79.0 - 81.2)	2.70	2,462
<b>Overall</b>	<b>79,234</b>	<b>47.7</b>	<b>(47.4 - 48.0)</b>		<b>5,794</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	8,066	18.6	(18.2 - 19.0)	1	-
2	10,594	22.9	(22.5 - 23.4)	1.24	348
3	12,206	27.4	(26.9 - 27.8)	1.47	720
4	14,088	36.3	(35.7 - 36.9)	1.95	1,262
5 - most deprived	16,005	51.3	(50.5 - 52.1)	2.76	1,944
<b>Overall</b>	<b>60,959</b>	<b>29.9</b>	<b>(29.7 - 30.2)</b>		<b>4,274</b>

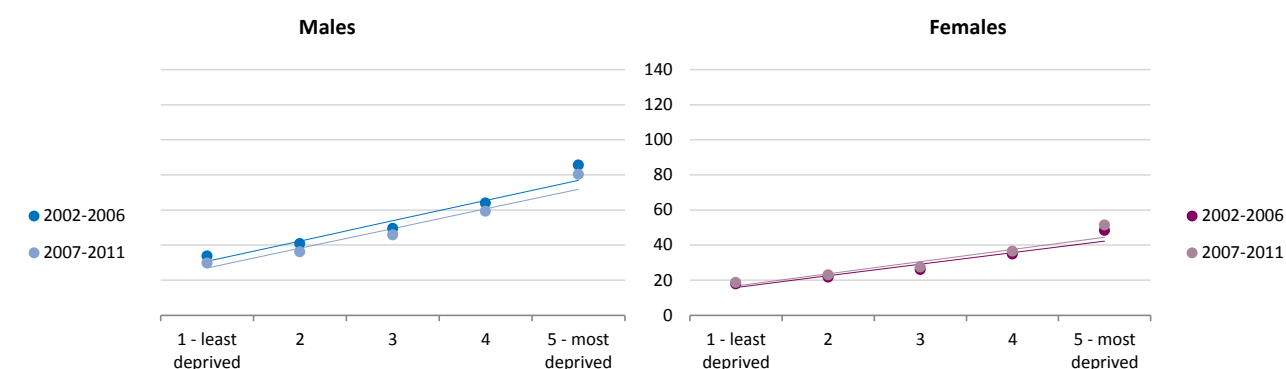
### Age-standardised\* mortality for lung cancer (England; rate per 100,000 population)



### Yearly excess deaths for lung cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for lung cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	46.2	(24.9 - 67.5)	150%	0.0063
2007-2011	44.9	(24.9 - 64.9)	166%	0.0057
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.9293</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	26.4	(11.9 - 41.0)	166%	0.0103
2007-2011	27.8	(12.1 - 43.4)	166%	0.0110
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.9017</b>

### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.133; 0.187).
- In 2007-2011 there would have been around 9,900 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

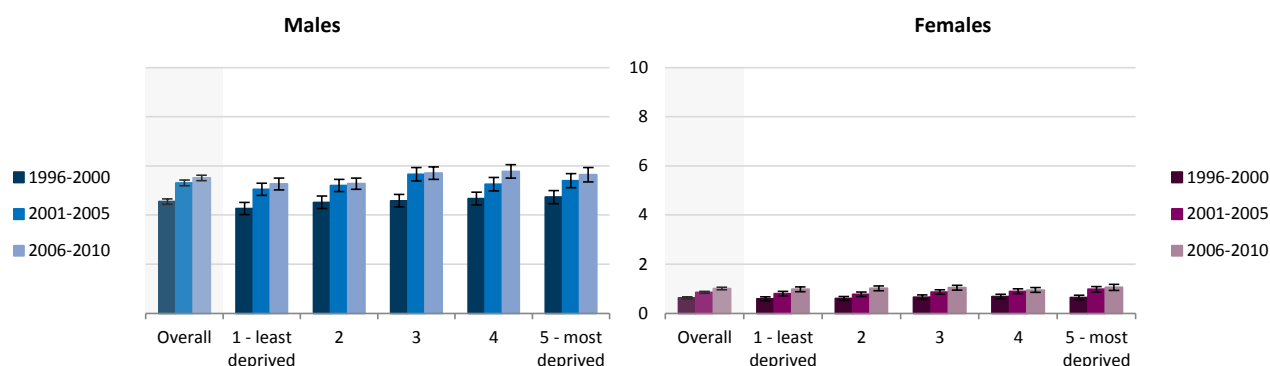
## Mesothelioma (C45)

## Latest incidence for mesothelioma (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,879	5.3	(5.0 - 5.5)	1	-
2	1,964	5.3	(5.0 - 5.5)	1.00	-2
3	1,965	5.7	(5.5 - 6.0)	1.08	25
4	1,745	5.8	(5.5 - 6.1)	1.10	Not statistically significant
5 - most deprived	1,410	5.6	(5.3 - 5.9)	1.07	17
Overall	8,963	5.5	(5.4 - 5.6)		66

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	392	1.0	(0.9 - 1.1)	1	-
2	438	1.0	(0.9 - 1.1)	1.04	3
3	420	1.0	(0.9 - 1.1)	1.07	2
4	351	1.0	(0.9 - 1.0)	0.97	Not statistically significant
5 - most deprived	321	1.1	(0.9 - 1.2)	1.08	3
Overall	1,922	1.0	(1.0 - 1.1)		4

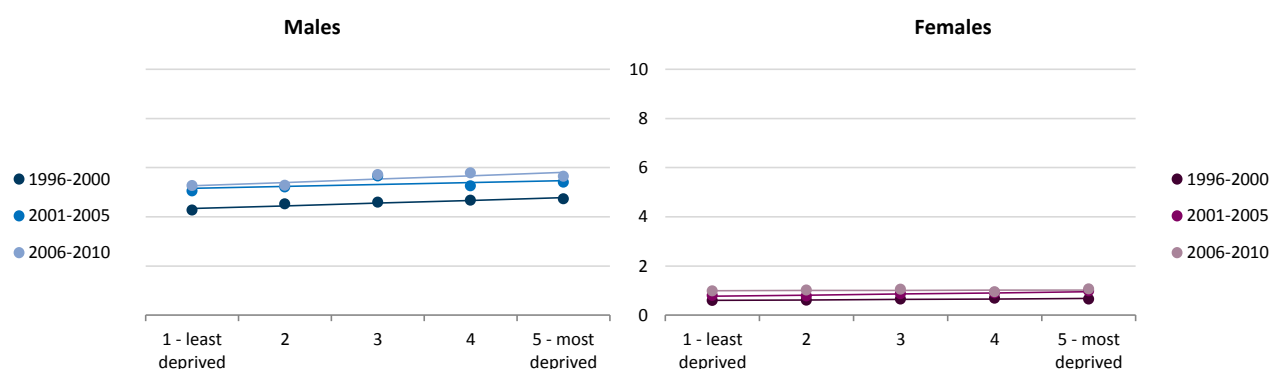
## Age-standardised\* incidence rate for mesothelioma (England; rate per 100,000 population)



## Yearly excess cases for mesothelioma (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for mesothelioma (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.4	(0.2 - 0.7)	10%	0.0137
2001-2005	0.3	(0.1 - 0.5)	6%	0.3515
2006-2010	0.5	Not statistically significant	10%	0.0840
p-value for difference in trend 2001-2005 to 2006-2010				0.7111
p-value for difference in trend 1996-2000 to 2006-2010				0.7838

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.1	Not statistically significant	13%	0.1135
2001-2005	0.2	(0.1 - 0.3)	25%	0.0211
2006-2010	0.0	Not statistically significant	3%	0.6830
p-value for difference in trend 2001-2005 to 2006-2010				0.1998
p-value for difference in trend 1996-2000 to 2006-2010				0.6783

Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for males in one period and females in one period.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the three periods (p-values: 0.015; 0.784; 0.155).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

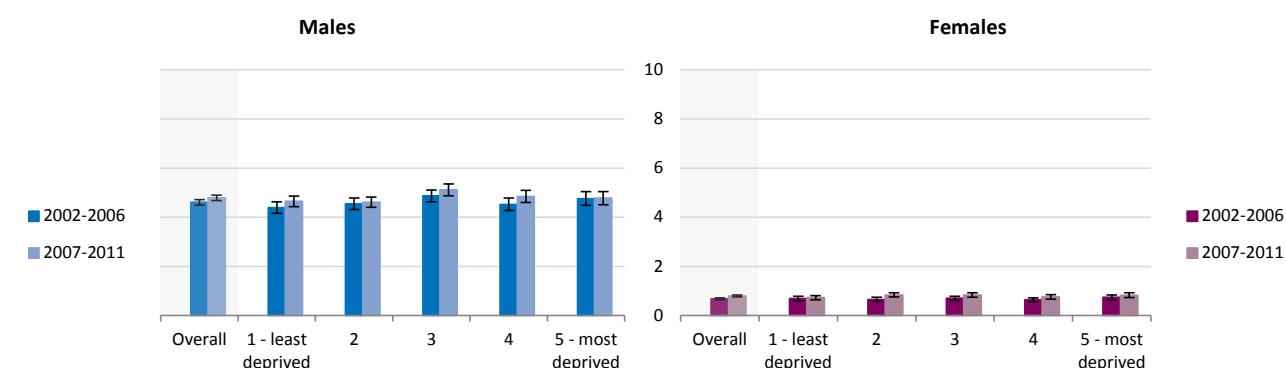
## Mesothelioma (C45)

## Latest mortality for mesothelioma (England; rate per 100,000 population; excess 5yr average)

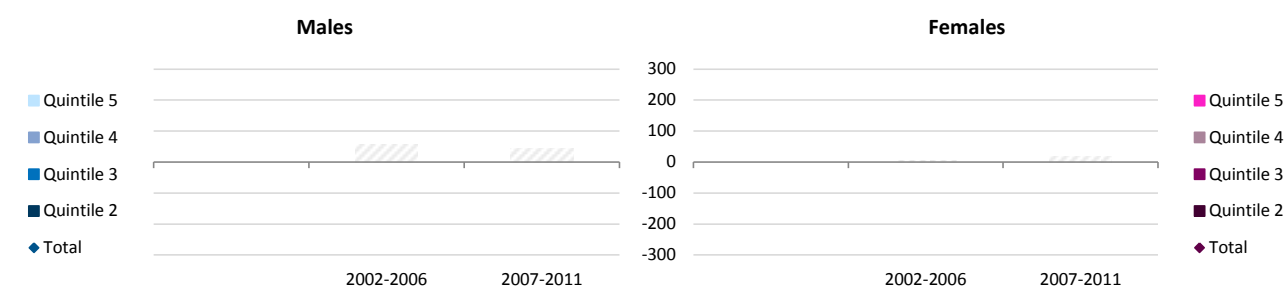
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,710	4.6	(4.4 - 4.9)	1	-
2	1,783	4.6	(4.4 - 4.8)	0.99	-2
3	1,811	5.1	(4.9 - 5.4)	1.10	38
4	1,497	4.8	(4.6 - 5.1)	1.04	10
5 - most deprived	1,209	4.8	(4.5 - 5.0)	1.03	5
Overall	8,010	4.8	(4.7 - 4.9)		41

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	307	0.7	(0.6 - 0.8)	1	-
2	378	0.8	(0.8 - 0.9)	1.16	8
3	359	0.8	(0.8 - 0.9)	1.16	7
4	290	0.8	(0.7 - 0.8)	1.05	4
5 - most deprived	255	0.8	(0.7 - 0.9)	1.14	20
Overall	1,589	0.8	(0.8 - 0.8)		20

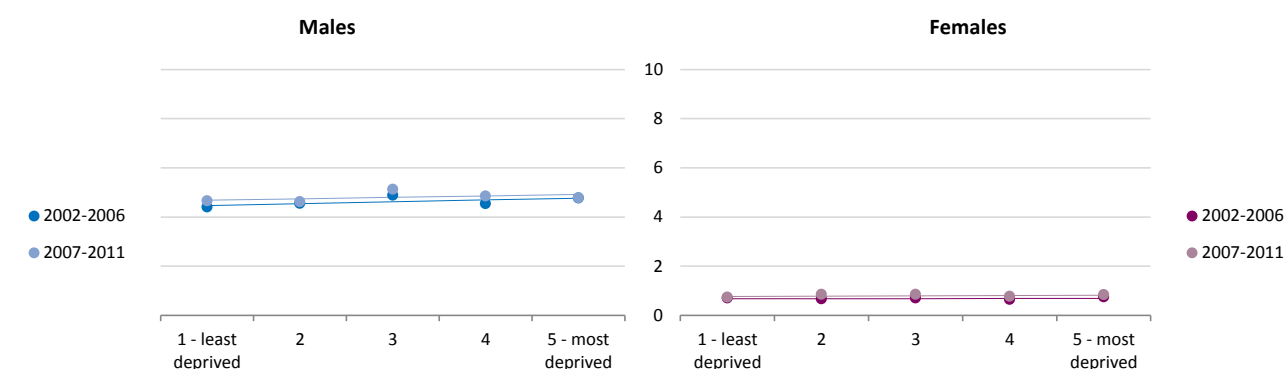
## Age-standardised\* mortality for mesothelioma (England; rate per 100,000 population)



## Yearly excess deaths for mesothelioma (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for mesothelioma (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.3	(-0.4 - 1.0)	7%	0.2906
2007-2011	0.2	(-0.4 - 0.8)	5%	0.4517
p-value for difference in trend 2002-2006 to 2007-2011				0.9176

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.0	(-0.2 - 0.2)	4%	0.6961
2007-2011	0.1	(-0.1 - 0.3)	7%	0.5263
p-value for difference in trend 2002-2006 to 2007-2011				0.8496

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.059; 0.061).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

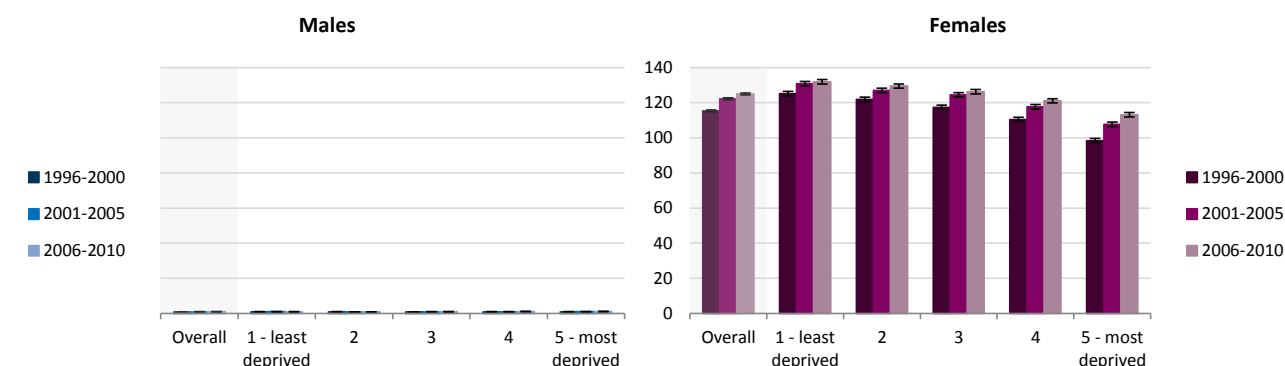
## Breast (C50)

### Latest incidence for breast cancer (England; rate per 100,000 population; excess 5yr average)

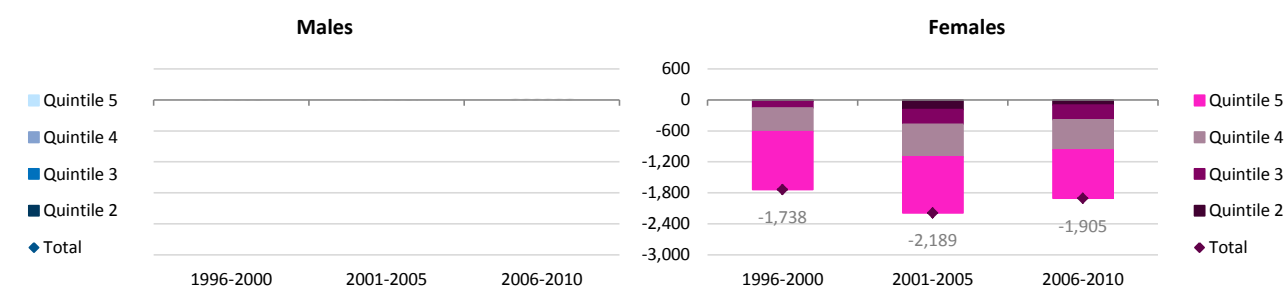
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	296	0.9	(0.8 - 1.0)	1	-
2	287	0.8	(0.7 - 0.9)	0.93	-4
3	322	1.0	(0.9 - 1.1)	1.11	7
4	301	1.0	(0.9 - 1.2)	1.20	7
5 - most deprived	249	1.0	(0.9 - 1.1)	1.17	7
<b>Overall</b>	<b>1,455</b>	<b>0.9</b>	<b>(0.9 - 1.0)</b>		<b>19</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	44,468	132.0	(130.7 - 133.2)	1	-
2	45,770	129.5	(128.4 - 130.7)	0.98	-100
3	42,705	126.3	(125.1 - 127.5)	0.96	-284
4	37,400	121.1	(119.9 - 122.3)	0.92	-586
5 - most deprived	30,071	113.2	(111.9 - 114.5)	0.86	-935
<b>Overall</b>	<b>200,414</b>	<b>125.0</b>	<b>(124.4 - 125.5)</b>		<b>-1,905</b>

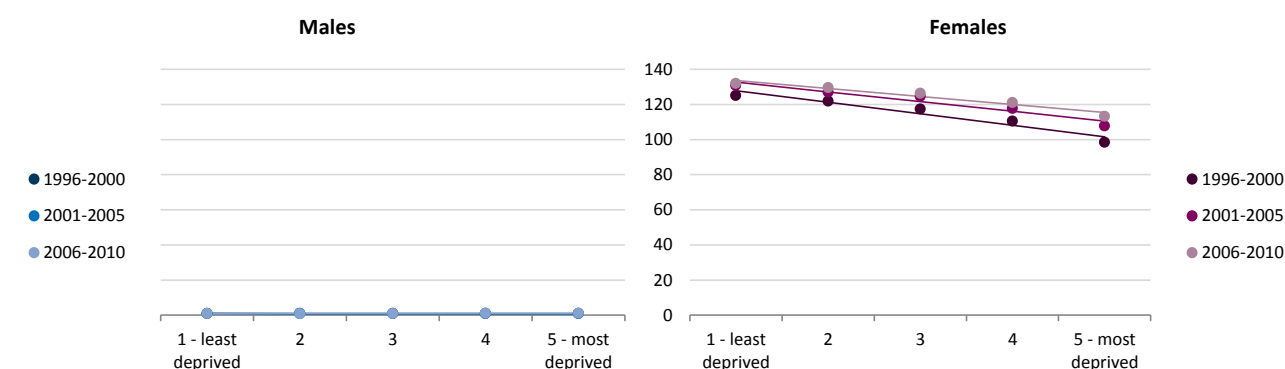
### Age-standardised\* incidence rate for breast cancer (England; rate per 100,000 population)



### Yearly excess cases for breast cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for breast cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.0	(-0.2 - 0.2)	-3%	0.6915
2001-2005	0.0	Not statistically significant	4%	0.5861
2006-2010	0.2	(-0.1 - 0.5)	26%	0.0830
p-value for difference in trend 2001-2005 to 2006-2010				0.3064
p-value for difference in trend 1996-2000 to 2006-2010				0.1602

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-26.3	(-39.2 - -13.4)	-21%	0.0075
2001-2005	-22.1	(-33.3 - -10.9)	-17%	0.0081
2006-2010	-18.3	(-26.5 - -10.1)	-14%	0.0058
p-value for difference in trend 2001-2005 to 2006-2010				0.5852
p-value for difference in trend 1996-2000 to 2006-2010				0.3040

### Notes<sup>#</sup>

- The decrease in the incidence rate (ASR), as deprivation increased, was statistically significant for females in the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- In 2006-2010 there would have been around 1,900 more cases (females) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer mortality (2002-2011) by deprivation quintile, in England

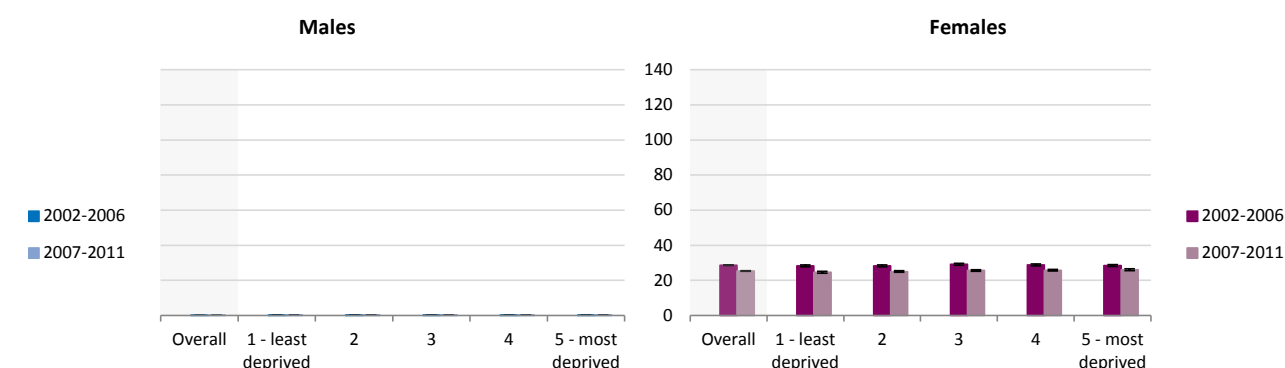
## Breast (C50)

### Latest mortality for breast cancer (England; rate per 100,000 population; excess 5yr average)

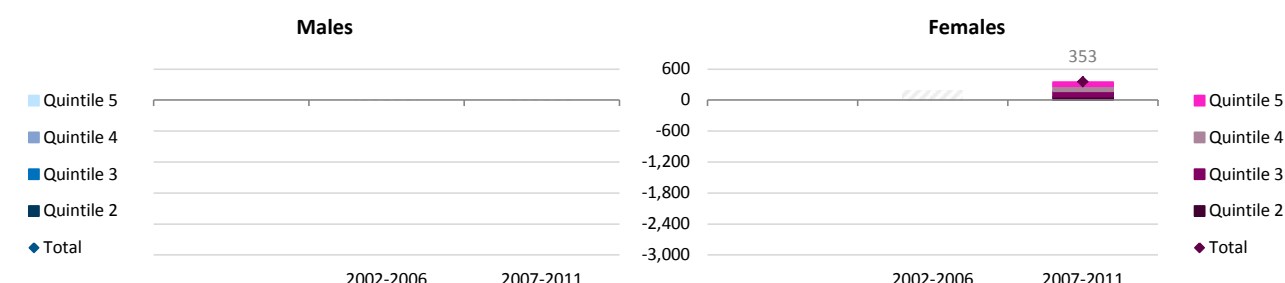
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	65	0.2	(0.1 - 0.2)	1	-
2	64	0.2	(0.1 - 0.2)	0.96	-1
3	61	0.2	(0.1 - 0.2)	0.96	-
4	62	0.2	(0.2 - 0.3)	1.18	-
5 - most deprived	60	0.2	(0.2 - 0.3)	1.36	-
Overall	312	0.2	(0.2 - 0.2)		1

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	9,743	24.6	(24.1 - 25.1)	1	-
2	10,836	25.1	(24.6 - 25.5)	1.02	64
3	10,738	25.7	(25.2 - 26.2)	1.04	109
4	9,748	25.8	(25.3 - 26.3)	1.05	95
5 - most deprived	8,071	26.1	(25.6 - 26.7)	1.06	84
Overall	49,136	25.4	(25.2 - 25.6)		353

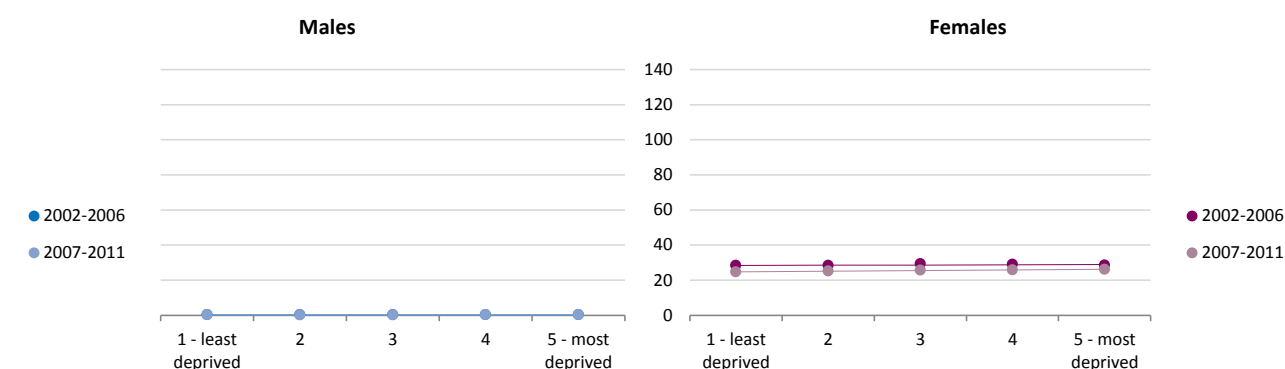
### Age-standardised\* mortality for breast cancer (England; rate per 100,000 population)



### Yearly excess deaths for breast cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for breast cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.0	(0.0 - 0.0)	-1%	0.8876
2007-2011	0.1	(0.0 - 0.1)	35%	0.1123
p-value for difference in trend 2002-2006 to 2007-2011				0.2110

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.4	(0.0 - 0.8)	2%	0.4797
2007-2011	1.5	(1.0 - 2.1)	6%	0.0032
p-value for difference in trend 2002-2006 to 2007-2011				0.2470

### Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for females in one of the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- In 2007-2011 there would have been around 350 fewer deaths (females) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

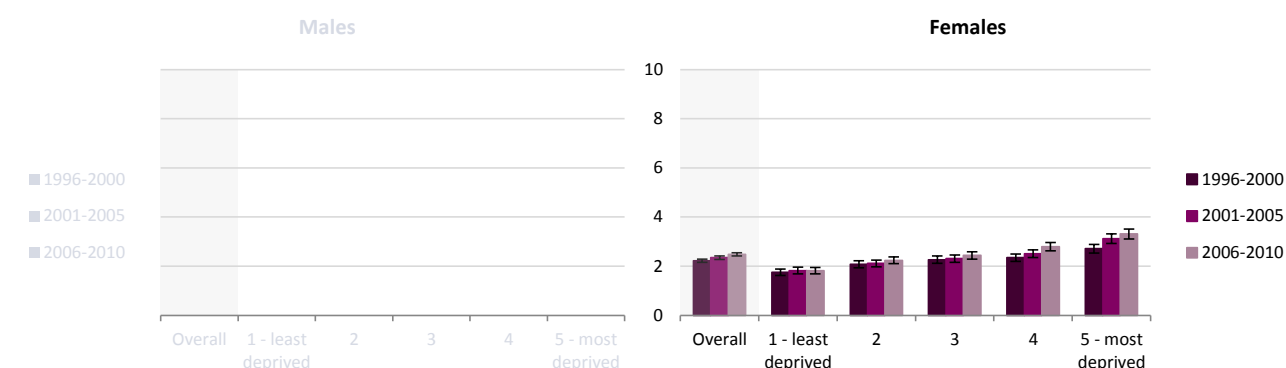
## Vulva (C51)

### Latest incidence for vulval cancer (England; rate per 100,000 population; excess 5yr average)

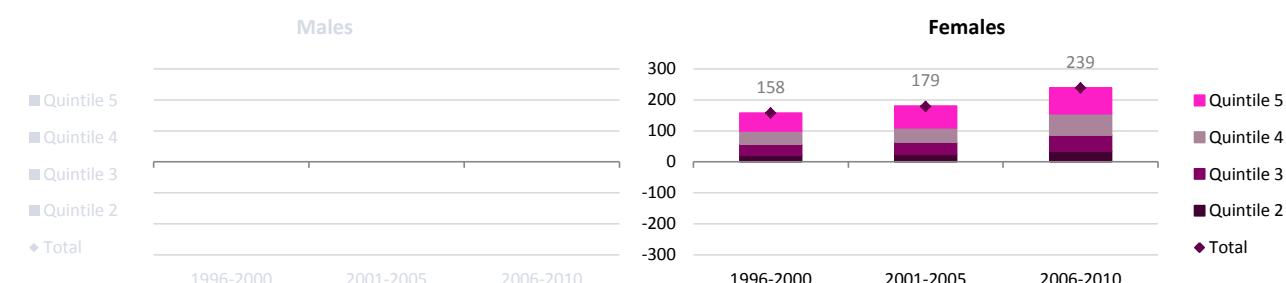
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived					
2					
3					
4					
5 - most deprived					
Overall					

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	726	1.8	(1.7 - 2.0)	1	-
2	966	2.2	(2.1 - 2.4)	1.23	35
3	1,027	2.4	(2.3 - 2.6)	1.34	51
4	1,055	2.8	(2.6 - 3.0)	1.54	69
5 - most deprived	1,010	3.3	(3.1 - 3.5)	1.82	84
Overall	4,784	2.5	(2.4 - 2.6)		239

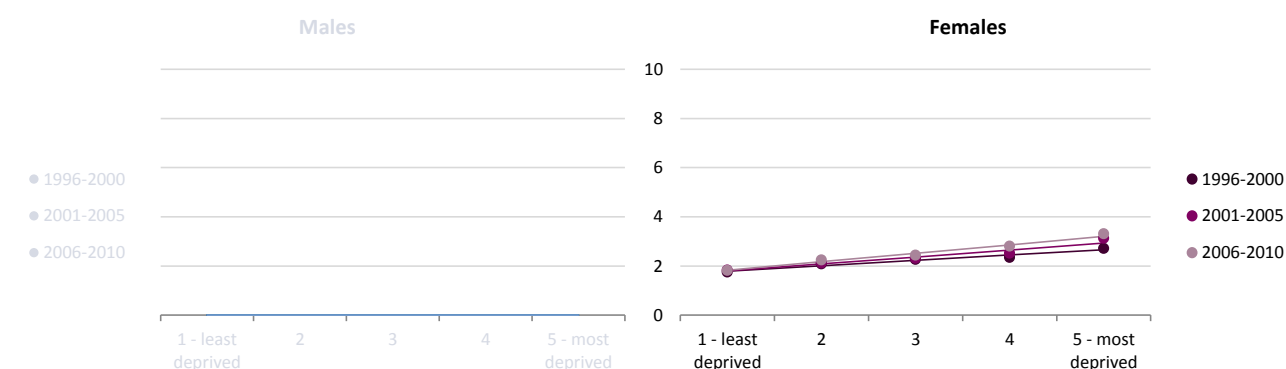
### Age-standardised\* incidence rate for vulval cancer (England; rate per 100,000 population)



### Yearly excess cases for vulval cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for vulval cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000				
2001-2005				
2006-2010				
p-value for difference in trend 2001-2005 to 2006-2010				
p-value for difference in trend 1996-2000 to 2006-2010				

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.9	(0.5 - 1.2)	49%	0.0036
2001-2005	1.1	(0.6 - 1.6)	63%	0.0060
2006-2010	1.4	(1.0 - 1.7)	75%	0.0012
p-value for difference in trend 2001-2005 to 2006-2010				0.4386
p-value for difference in trend 1996-2000 to 2006-2010				0.0417

### Notes<sup>#</sup>

- The incidence rate (ASR) for females increased as deprivation increased; this was statistically significant for the three periods.
- There was a statistically significant increase in the estimated deprivation gap between 1996-2000 to 2006-2010 for females.
- In 2006-2010 there would have been around 240 fewer cases (females) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details



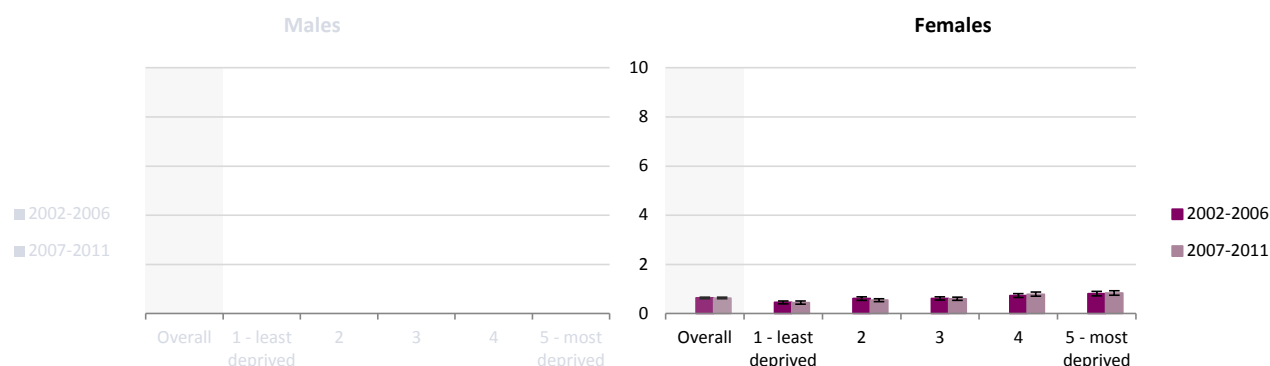
# Cancer mortality (2002-2011) by deprivation quintile, in England

## Vulva (C51)

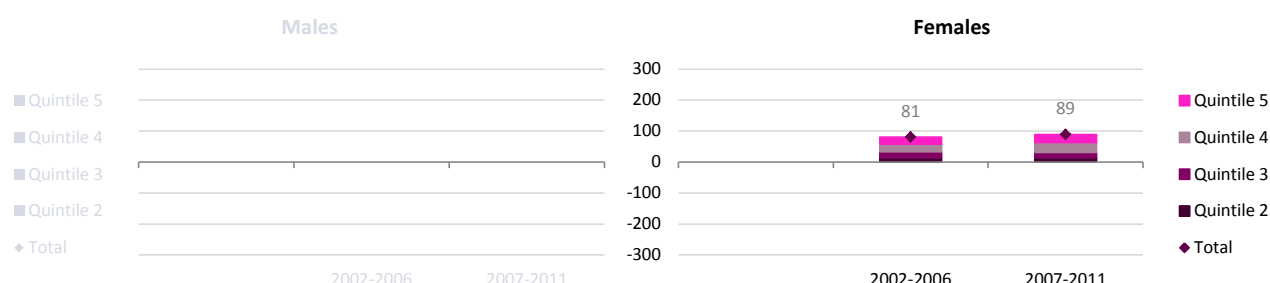
### Latest mortality for vulval cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	-	-	-	-	-	1 - least deprived	225	0.4	(0.4 - 0.5)	1	-
2	-	-	-	-	-	2	316	0.5	(0.5 - 0.6)	1.23	13
3	-	-	-	-	-	3	343	0.6	(0.5 - 0.7)	1.35	18
4	-	-	-	-	-	4	394	0.8	(0.7 - 0.9)	1.77	32
5 - most deprived	-	-	-	-	-	5 - most deprived	315	0.8	(0.7 - 0.9)	1.88	26
Overall	-	-	-	-	-	Overall	1,593	0.6	(0.6 - 0.7)		89

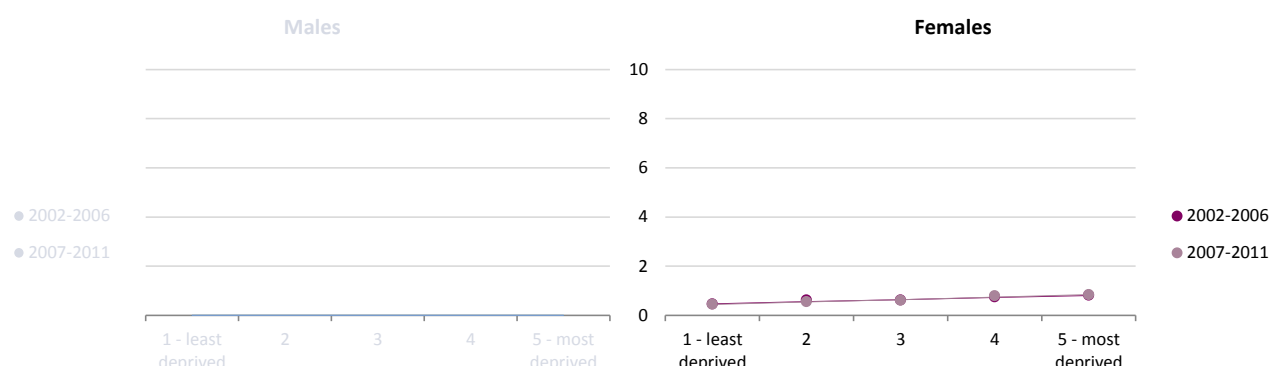
### Age-standardised\* mortality for vulval cancer (England; rate per 100,000 population)



### Yearly excess deaths for vulval cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for vulval cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.3	(0.2 - 0.5)	71%	0.0071
2007-2011	0.4	(0.3 - 0.6)	92%	0.0035
p-value for difference in trend 2002-2006 to 2007-2011				0.5469

## Notes<sup>#</sup>

- Mortality (ASR) for females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- In 2007-2011 there would have been around 90 fewer deaths (females) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

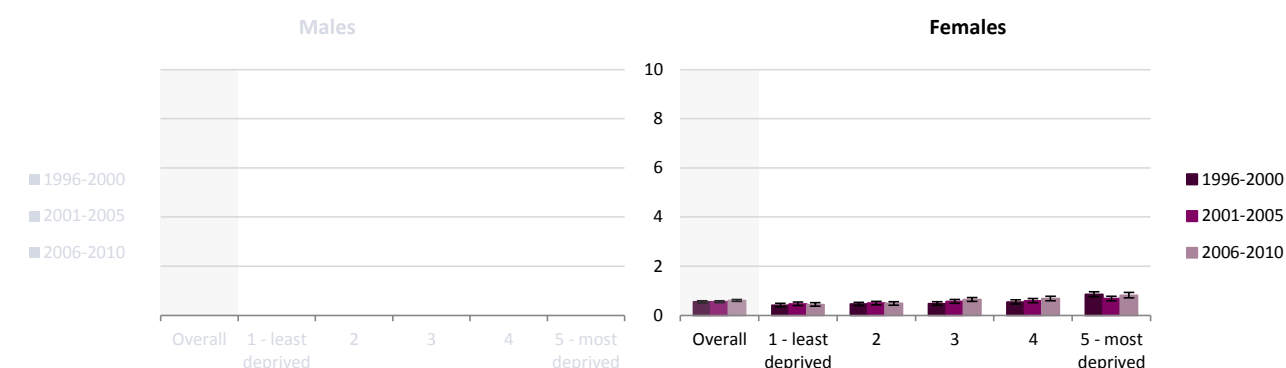
## Vagina (C52)

### Latest incidence for vaginal cancer (England; rate per 100,000 population; excess 5yr average)

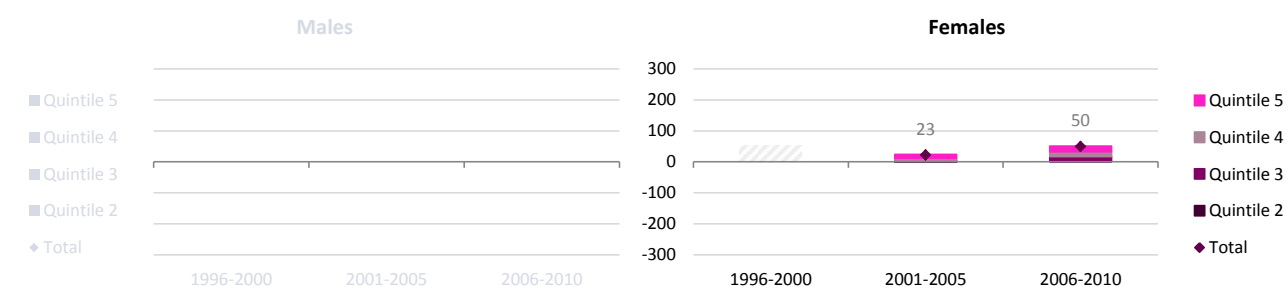
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived					
2					
3					
4					
5 - most deprived					
Overall					

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	168	0.4	(0.4 - 0.5)	1	-
2	191	0.5	(0.4 - 0.6)	1.10	2
3	252	0.6	(0.6 - 0.7)	1.47	15
4	233	0.7	(0.6 - 0.8)	1.57	15
5 - most deprived	228	0.8	(0.7 - 0.9)	1.85	19
Overall	1,072	0.6	(0.6 - 0.6)		50

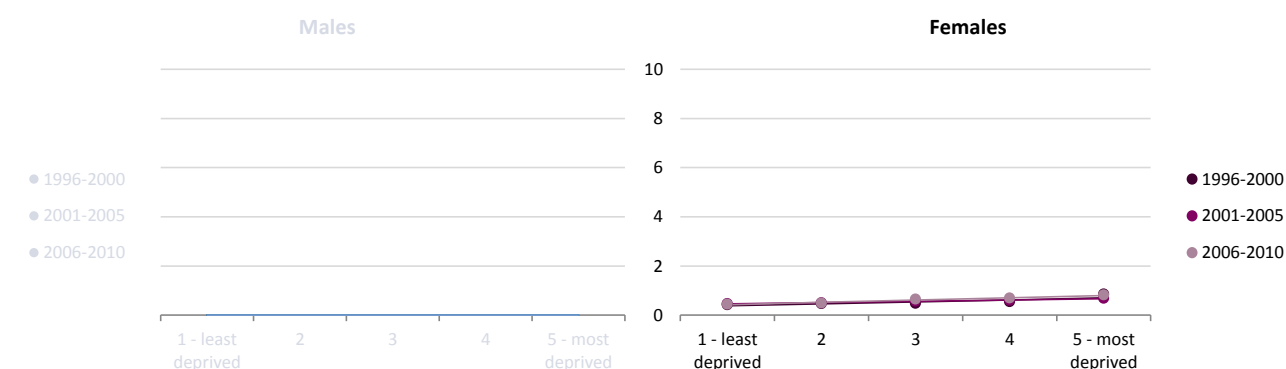
### Age-standardised\* incidence rate for vaginal cancer (England; rate per 100,000 population)



### Yearly excess cases for vaginal cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for vaginal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.3	Not statistically significant	87%	0.0786
2001-2005	0.2	(0.1 - 0.3)	47%	0.0021
2006-2010	0.4	(0.2 - 0.5)	89%	0.0034
p-value for difference in trend 2001-2005 to 2006-2010				0.0399
p-value for difference in trend 1996-2000 to 2006-2010				0.8080

#### Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for females in two of the three periods.
- There was a statistically significant increase in the estimated deprivation gap between 2001-2005 to 2006-2010 for females.
- In 2006-2010 there would have been around 50 fewer cases (females) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

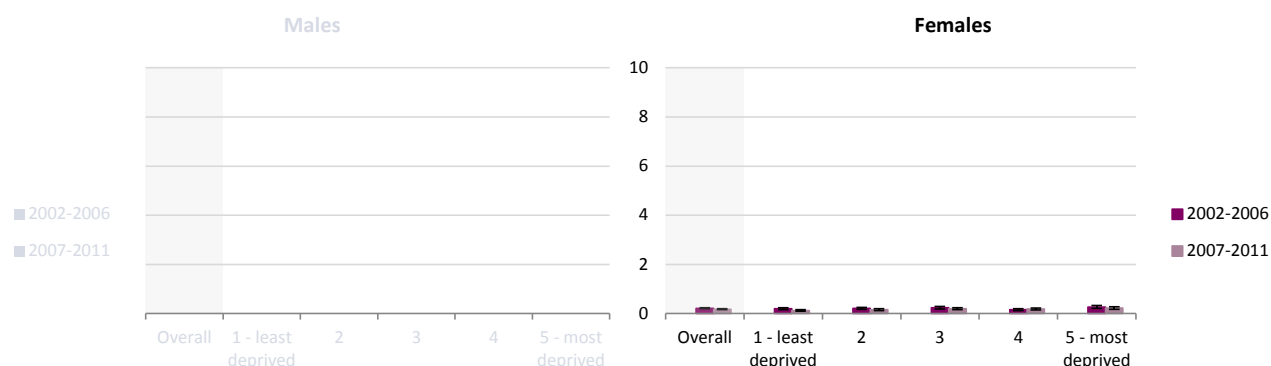
# Cancer mortality (2002-2011) by deprivation quintile, in England

## Vagina (C52)

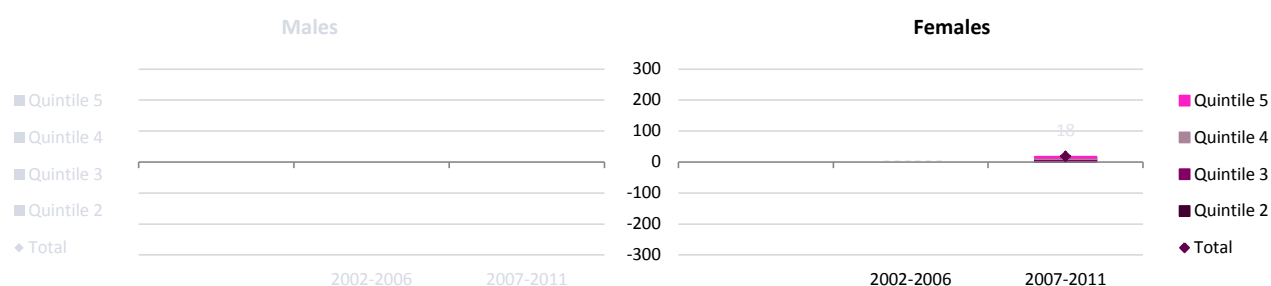
### Latest mortality for vaginal cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	-	-	-	-	-	1 - least deprived	52	0.1	(0.1 - 0.2)	1	-
2	-	-	-	-	-	2	70	0.2	(0.1 - 0.2)	1.27	2
3	-	-	-	-	-	3	92	0.2	(0.2 - 0.2)	1.56	7
4	-	-	-	-	-	4	73	0.2	(0.1 - 0.2)	1.47	4
5 - most deprived	-	-	-	-	-	5 - most deprived	67	0.2	(0.2 - 0.3)	1.75	5
Overall	-	-	-	-	-	Overall	354	0.2	(0.2 - 0.2)		18

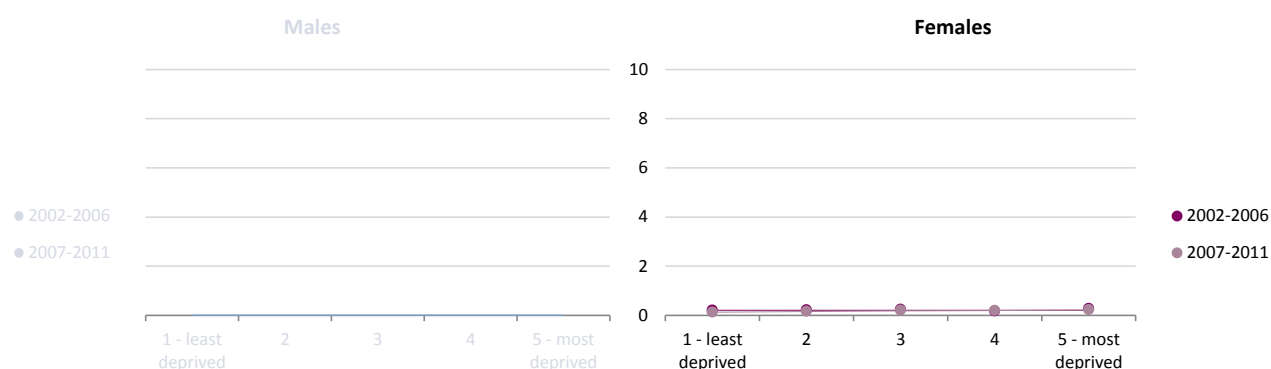
### Age-standardised\* mortality for vaginal cancer (England; rate per 100,000 population)



### Yearly excess deaths for vaginal cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for vaginal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend	Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.0	Not statistically significant	5%	0.8663	2002-2006	0.0	Not statistically significant	5%	0.8663
2007-2011	0.1	(0.0 - 0.2)	66%	0.0203	2007-2011	0.1	(0.0 - 0.2)	66%	0.0203
p-value for difference in trend 2002-2006 to 2007-2011					p-value for difference in trend 2002-2006 to 2007-2011				
					0.4180				

## Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for females in one of the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- In 2007-2011 there would have been around 20 fewer deaths (females) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

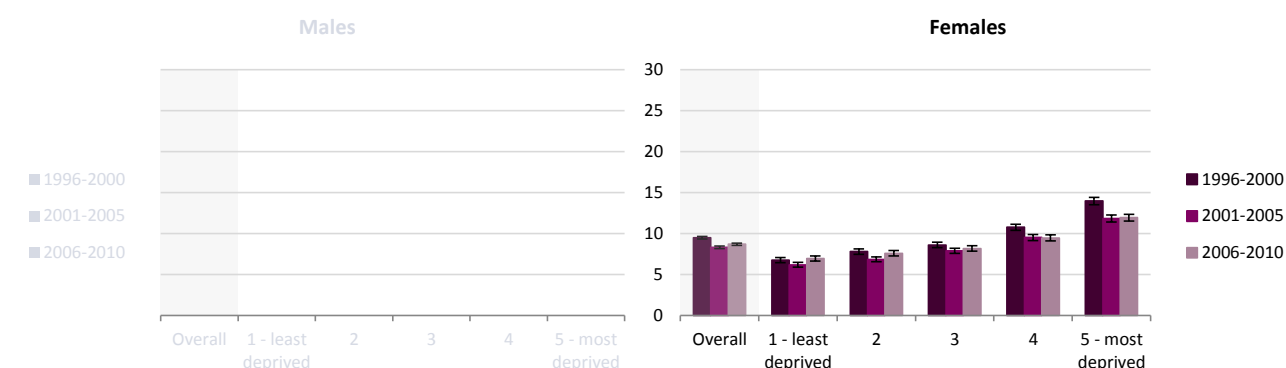
## Cervix (C53)

### Latest incidence for cervical cancer (England; rate per 100,000 population; excess 5yr average)

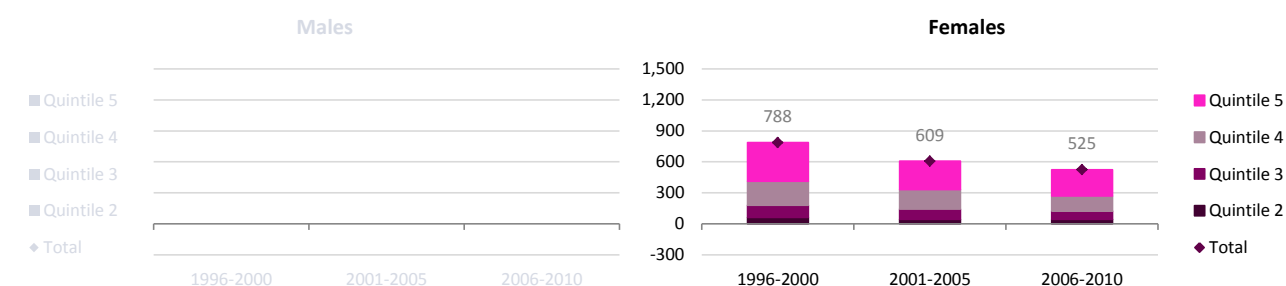
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived					
2					
3					
4					
5 - most deprived					
Overall					

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,854	6.9	(6.6 - 7.2)	1	-
2	2,146	7.6	(7.3 - 7.9)	1.09	44
3	2,369	8.2	(7.8 - 8.5)	1.18	79
4	2,719	9.5	(9.1 - 9.8)	1.37	146
5 - most deprived	3,191	11.9	(11.5 - 12.3)	1.72	255
Overall	12,279	8.7	(8.5 - 8.8)		525

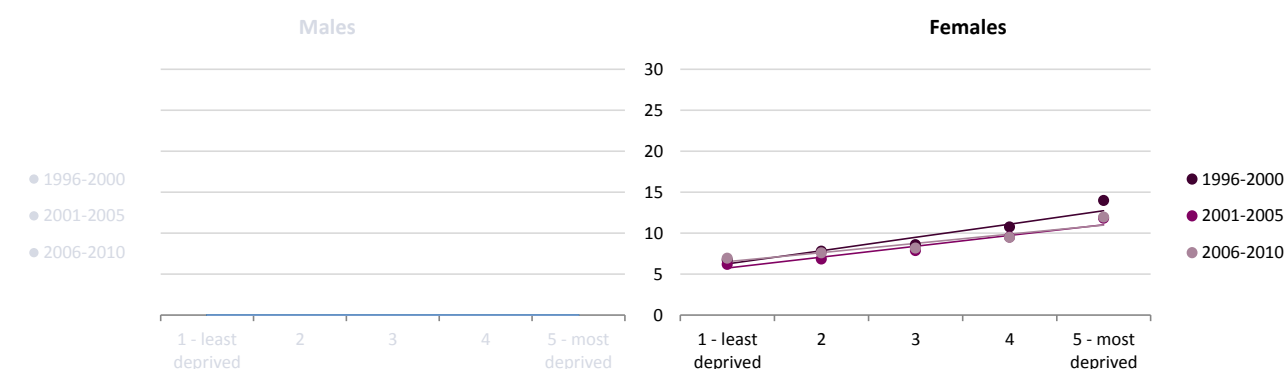
### Age-standardised\* incidence rate for cervical cancer (England; rate per 100,000 population)



### Yearly excess cases for cervical cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for cervical cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	6.5	(2.9 - 10.1)	104%	0.0106
2001-2005	5.3	(2.9 - 7.7)	92%	0.0062
2006-2010	4.5	(1.7 - 7.3)	69%	0.0147
p-value for difference in trend 2001-2005 to 2006-2010				0.6672
p-value for difference in trend 1996-2000 to 2006-2010				0.3873

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	6.5	(2.9 - 10.1)	104%	0.0106
2001-2005	5.3	(2.9 - 7.7)	92%	0.0062
2006-2010	4.5	(1.7 - 7.3)	69%	0.0147
p-value for difference in trend 2001-2005 to 2006-2010				0.6672
p-value for difference in trend 1996-2000 to 2006-2010				0.3873

#### Notes<sup>#</sup>

- The incidence rate (ASR) for females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- In 2006-2010 there would have been around 520 fewer cases (females) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

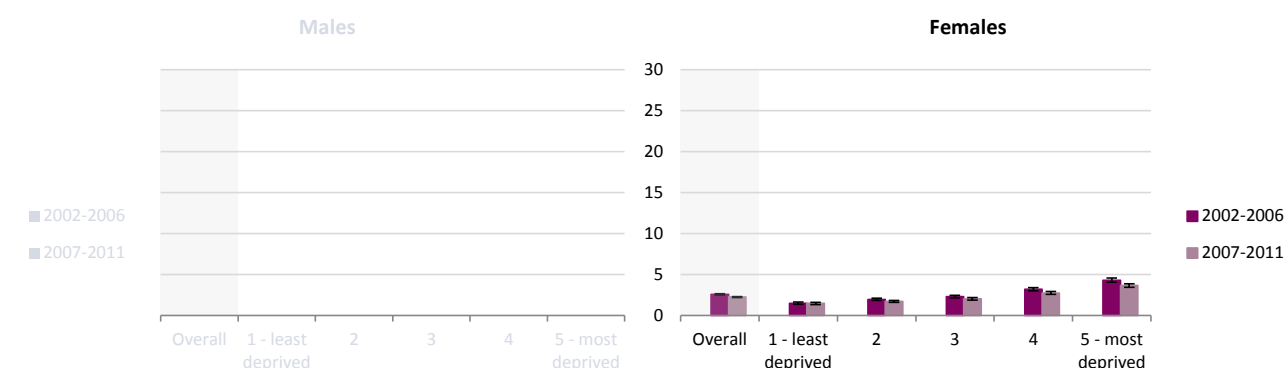
# Cancer mortality (2002-2011) by deprivation quintile, in England

## Cervix (C53)

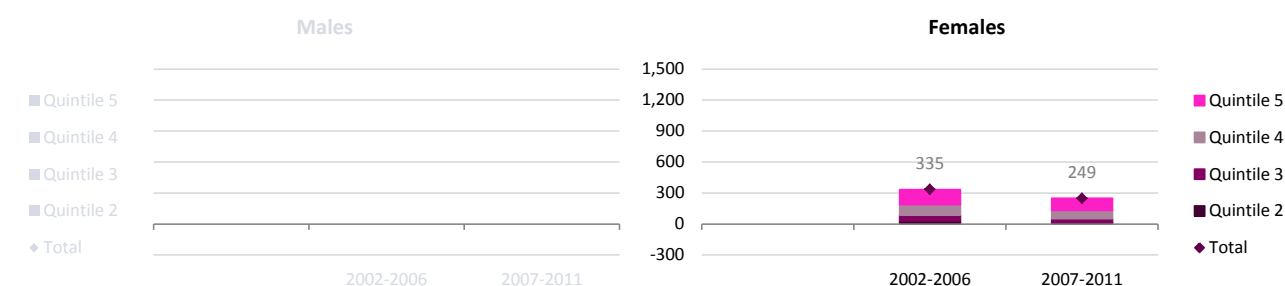
### Latest mortality for cervical cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	-	-	-	-	-	1 - least deprived	520	1.5	(1.4 - 1.6)	1	-
2	-	-	-	-	-	2	628	1.7	(1.6 - 1.9)	1.16	15
3	-	-	-	-	-	3	730	2.0	(1.9 - 2.2)	1.38	37
4	-	-	-	-	-	4	907	2.7	(2.6 - 2.9)	1.86	79
5 - most deprived	-	-	-	-	-	5 - most deprived	1,037	3.7	(3.4 - 3.9)	2.48	119
Overall	-	-	-	-	-	Overall	3,822	2.3	(2.2 - 2.3)		249

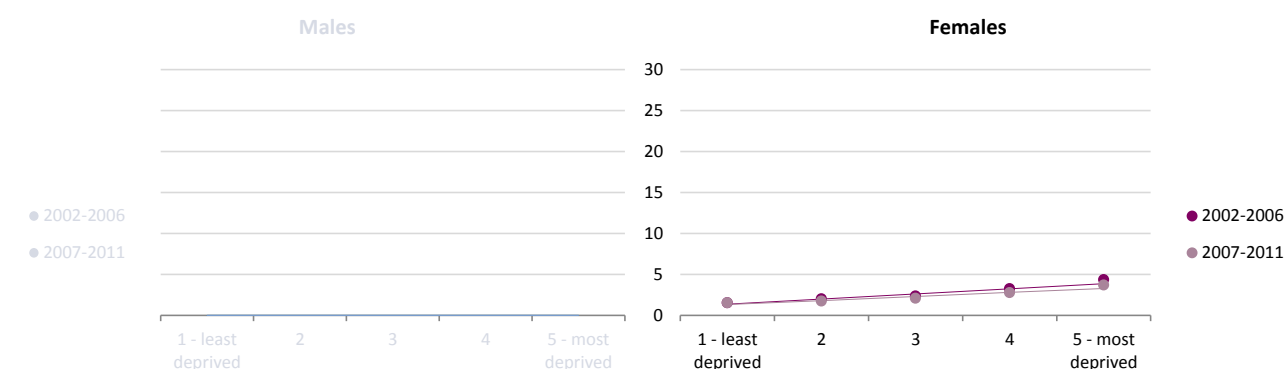
### Age-standardised\* mortality for cervical cancer (England; rate per 100,000 population)



### Yearly excess deaths for cervical cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for cervical cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	2.5	(1.3 - 3.7)	180%	0.0067
2007-2011	2.0	(0.9 - 3.1)	148%	0.0110
p-value for difference in trend 2002-2006 to 2007-2011				0.5183

## Notes<sup>#</sup>

- Mortality (ASR) for females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- In 2007-2011 there would have been around 250 fewer deaths (females) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

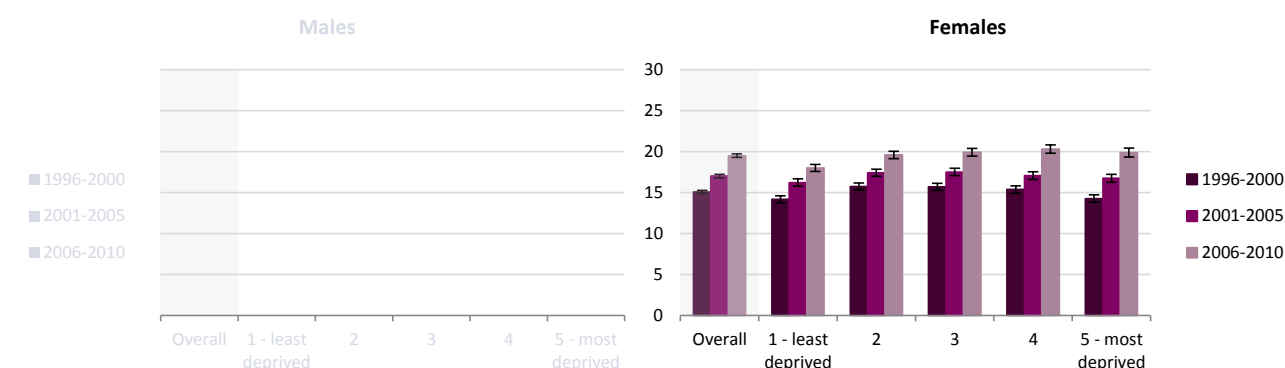
## Uterus (C54-C55)

### Latest incidence for uterine cancer (England; rate per 100,000 population; excess 5yr average)

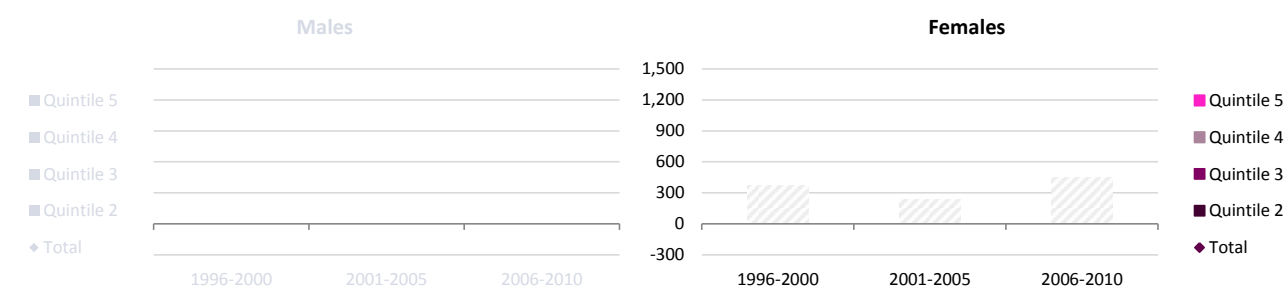
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived					
2					
3					
4					
5 - most deprived					
Overall					

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	6,384	18.0	(17.5 - 18.4)	1	-
2	7,266	19.6	(19.1 - 20.0)	1.09	109
3	7,015	19.9	(19.4 - 20.4)	1.11	Not statistically significant
4	6,384	20.3	(19.8 - 20.8)	1.13	83
5 - most deprived	5,235	19.9	(19.3 - 20.4)	1.11	
Overall	32,284	19.5	(19.3 - 19.7)		451

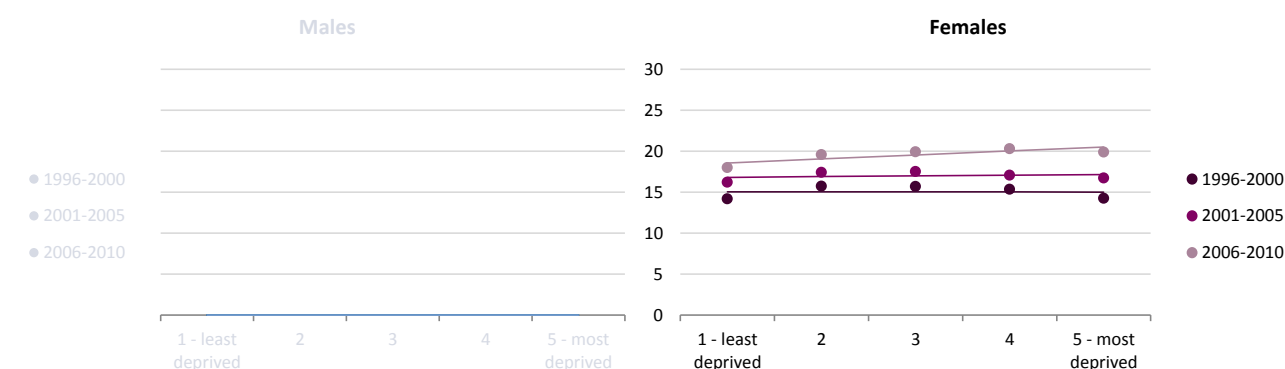
### Age-standardised\* incidence rate for uterine cancer (England; rate per 100,000 population)



### Yearly excess cases for uterine cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for uterine cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.0	(-3.6 - 3.6)	-0%	0.9797
2001-2005	0.4	Not statistically significant	2%	0.6827
2006-2010	2.0	(-0.7 - 4.6)	11%	0.0984
p-value for difference in trend 2001-2005 to 2006-2010				0.3837
p-value for difference in trend 1996-2000 to 2006-2010				0.3835

#### Notes<sup>#</sup>

- There was no statistically significant difference in the female incidence rate (ASR) as deprivation increased, for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- There were no statistically significant excess cases for females in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

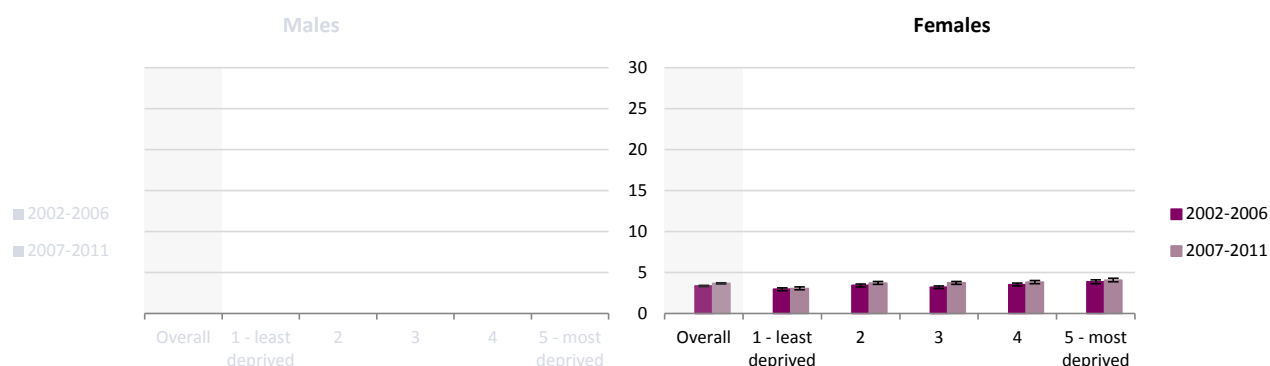
# Cancer mortality (2002-2011) by deprivation quintile, in England

## Uterus (C54-C55)

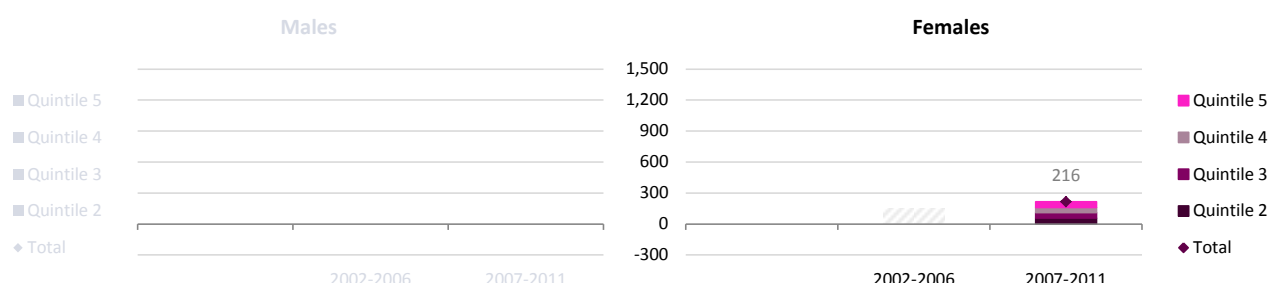
### Latest mortality for uterine cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	-	-	-	-	-	1 - least deprived	1,306	3.1	(2.9 - 3.2)	1	-
2	-	-	-	-	-	2	1,715	3.7	(3.6 - 3.9)	1.21	58
3	-	-	-	-	-	3	1,656	3.8	(3.6 - 3.9)	1.22	53
4	-	-	-	-	-	4	1,507	3.8	(3.6 - 4.0)	1.25	50
5 - most deprived	-	-	-	-	-	5 - most deprived	1,290	4.1	(3.9 - 4.3)	1.33	55
Overall	-	-	-	-	-	Overall	7,474	3.7	(3.6 - 3.7)		216

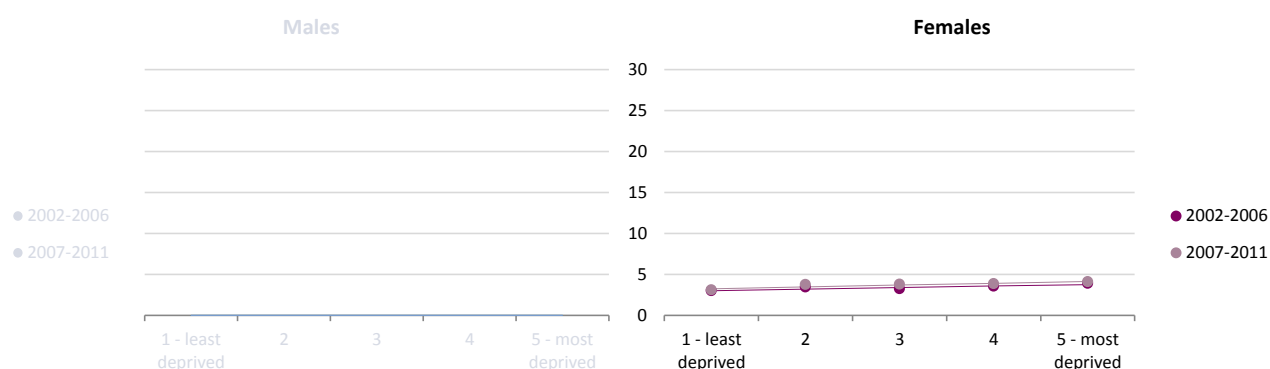
### Age-standardised\* mortality for uterine cancer (England; rate per 100,000 population)



### Yearly excess deaths for uterine cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for uterine cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.7	Not statistically significant	24%	0.0643
2007-2011	0.9	(0.0 - 1.7)	27%	0.0444
p-value for difference in trend 2002-2006 to 2007-2011				0.7993

### Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for females in one of the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- In 2007-2011 there would have been around 220 fewer deaths (females) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

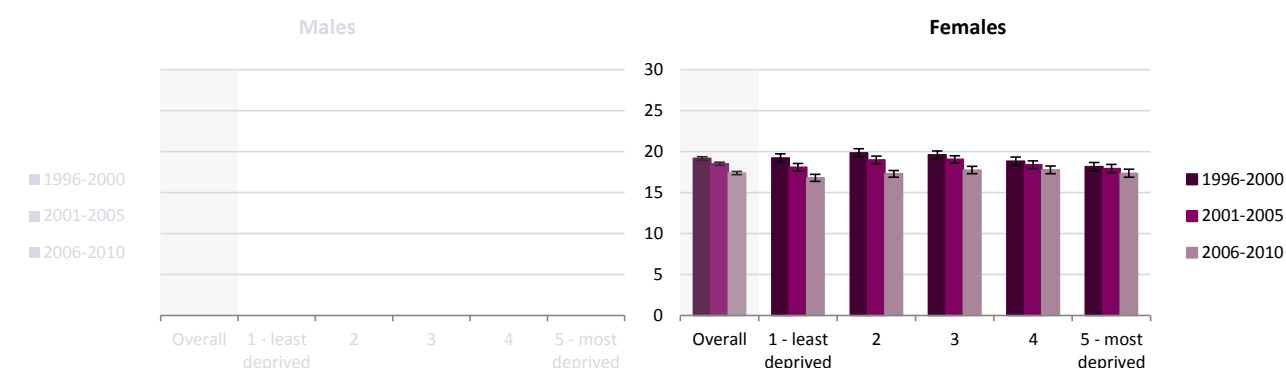
## Ovary (C56-C57)

### Latest incidence for ovarian cancer (England; rate per 100,000 population; excess 5yr average)

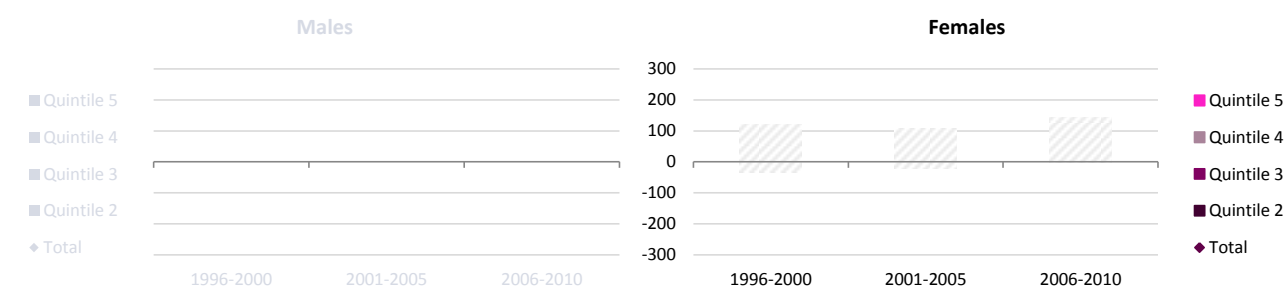
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived					
2					
3					
4					
5 - most deprived					
Overall					

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	5,882	16.8	(16.3 - 17.2)	1	-
2	6,367	17.3	(16.9 - 17.7)	1.03	30
3	6,236	17.7	(17.3 - 18.2)	1.06	Not statistically significant
4	5,738	17.8	(17.3 - 18.2)	1.06	13
5 - most deprived	4,745	17.3	(16.9 - 17.8)	1.03	143
Overall	28,968	17.4	(17.2 - 17.6)		

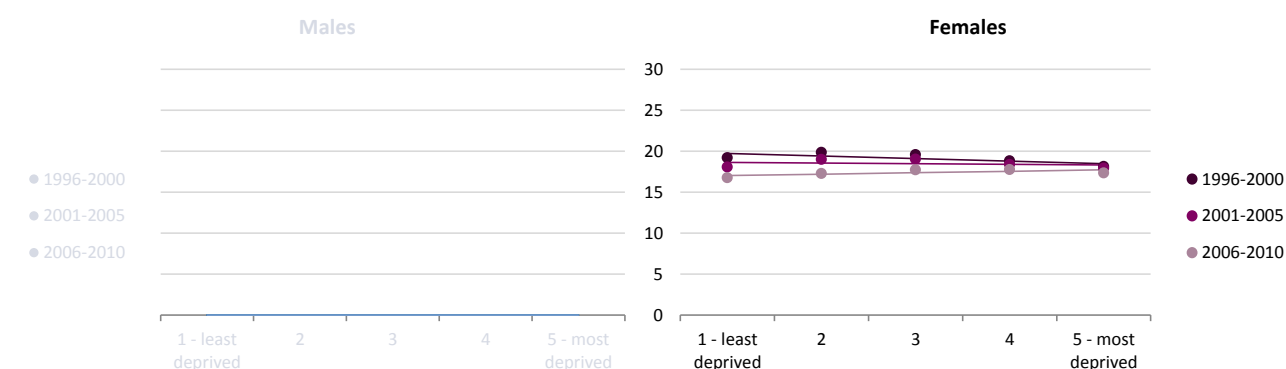
### Age-standardised\* incidence rate for ovarian cancer (England; rate per 100,000 population)



### Yearly excess cases for ovarian cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for ovarian cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-1.2	(-3.3 - 0.8)	-6%	0.1539
2001-2005	-0.3	Not statistically significant	-2%	0.6988
2006-2010	0.7	(-0.7 - 2.2)	4%	0.2103
p-value for difference in trend 2001-2005 to 2006-2010				0.4593
p-value for difference in trend 1996-2000 to 2006-2010				0.1289

#### Notes<sup>#</sup>

- There was no statistically significant difference in the female incidence rate (ASR) as deprivation increased, for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- There were no statistically significant excess cases for females in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details



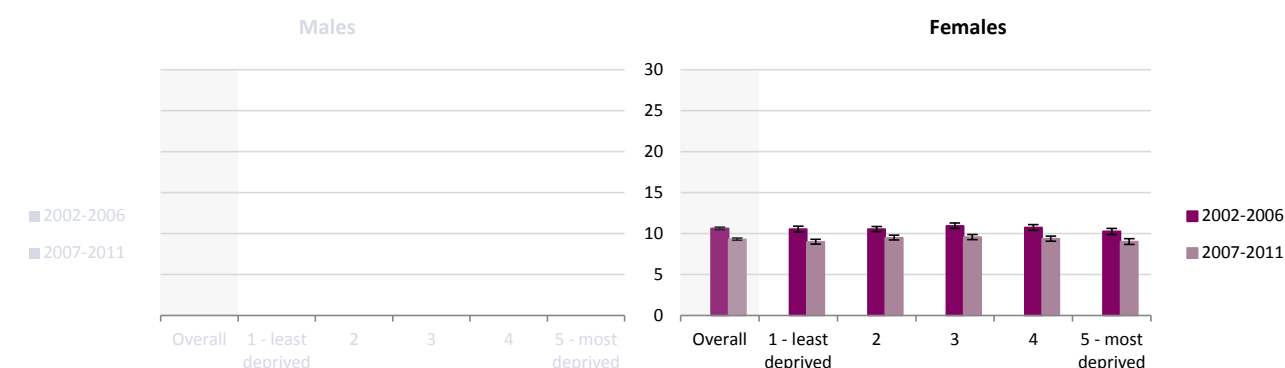
# Cancer mortality (2002-2011) by deprivation quintile, in England

## Ovary (C56-C57)

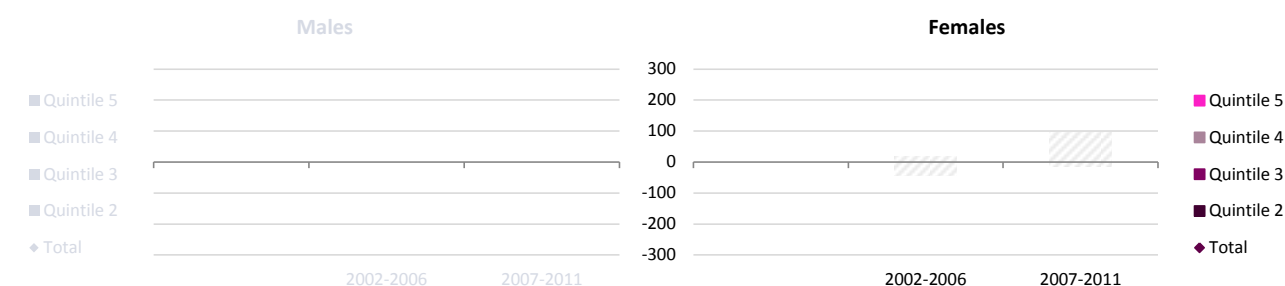
### Latest mortality for ovarian cancer (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	-	-	-	-	-	1 - least deprived	3,603	9.0	(8.7 - 9.3)	1	-
2	-	-	-	-	-	2	4,094	9.5	(9.2 - 9.8)	1.06	41
3	-	-	-	-	-	3	3,920	9.6	(9.3 - 9.9)	1.06	Not statistically significant
4	-	-	-	-	-	4	3,458	9.4	(9.1 - 9.7)	1.04	-13
5 - most deprived	-	-	-	-	-	5 - most deprived	2,697	9.0	(8.7 - 9.4)	1.00	82
Overall	-	-	-	-	-	Overall	17,772	9.3	(9.2 - 9.5)		

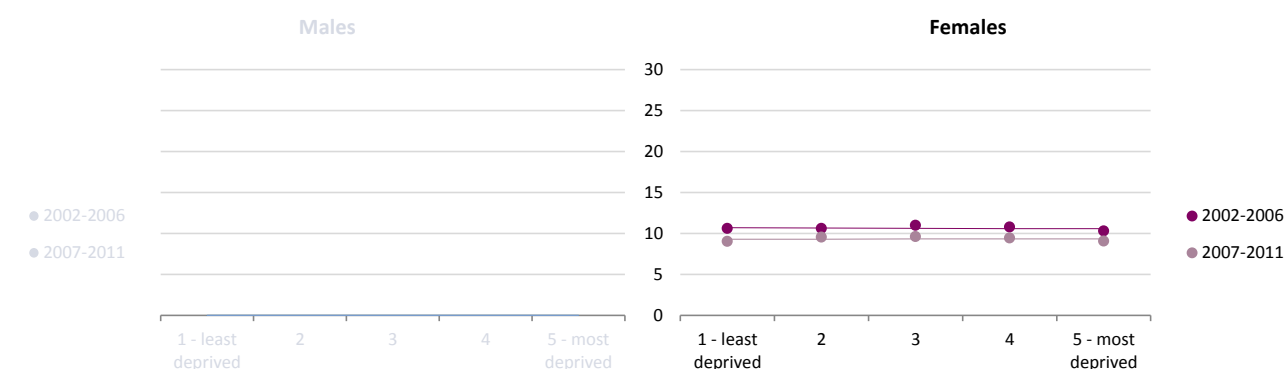
### Age-standardised\* mortality for ovarian cancer (England; rate per 100,000 population)



### Yearly excess deaths for ovarian cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for ovarian cancer (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.1	(-1.3 - 1.1)	-1%	0.7729
2007-2011	0.0	Not statistically significant	0%	0.9408
p-value for difference in trend 2002-2006 to 2007-2011				0.8665

### Notes<sup>#</sup>

- There was no statistically significant difference in female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for females.
- There were no statistically significant excess deaths for females in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

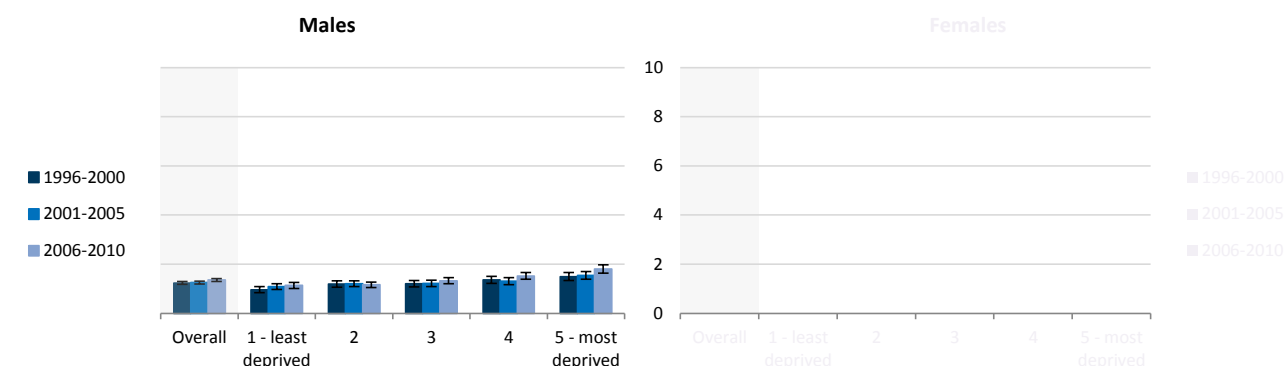
## Penis (C60)

### Latest incidence for penile cancer (England; rate per 100,000 population; excess 5yr average)

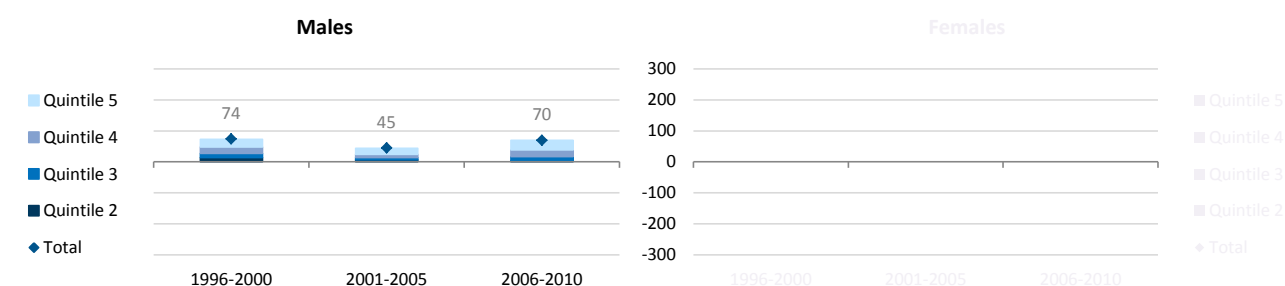
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	370	1.1	(1.0 - 1.3)	1	-
2	399	1.2	(1.0 - 1.3)	1.02	4
3	421	1.3	(1.2 - 1.5)	1.17	13
4	428	1.5	(1.4 - 1.7)	1.34	22
5 - most deprived	428	1.8	(1.6 - 2.0)	1.59	31
<b>Overall</b>	<b>2,046</b>	<b>1.4</b>	<b>(1.3 - 1.4)</b>		<b>70</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived					
2					
3					
4					
5 - most deprived					
<b>Overall</b>					

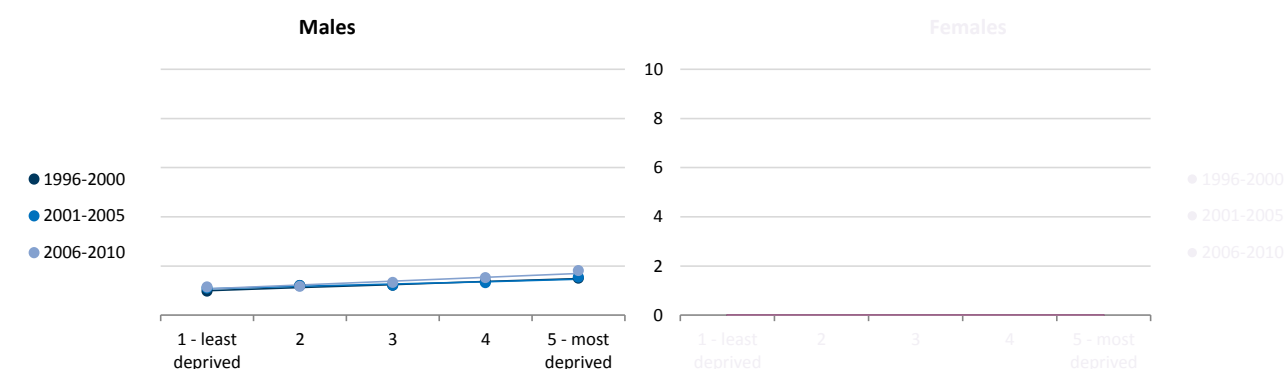
### Age-standardised\* incidence rate for penile cancer (England; rate per 100,000 population)



### Yearly excess cases for penile cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for penile cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.5	(0.3 - 0.7)	50%	0.0056
2001-2005	0.4	(0.1 - 0.6)	35%	0.0189
2006-2010	0.6	(0.3 - 1.0)	60%	0.0107
p-value for difference in trend 2001-2005 to 2006-2010				<b>0.2579</b>
p-value for difference in trend 1996-2000 to 2006-2010				<b>0.5166</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000				
2001-2005				
2006-2010				
p-value for difference in trend 2001-2005 to 2006-2010				
p-value for difference in trend 1996-2000 to 2006-2010				

#### Notes<sup>#</sup>

- The incidence rate (ASR) for males increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males.
- In 2006-2010 there would have been around 70 fewer cases (males) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer mortality (2002-2011) by deprivation quintile, in England

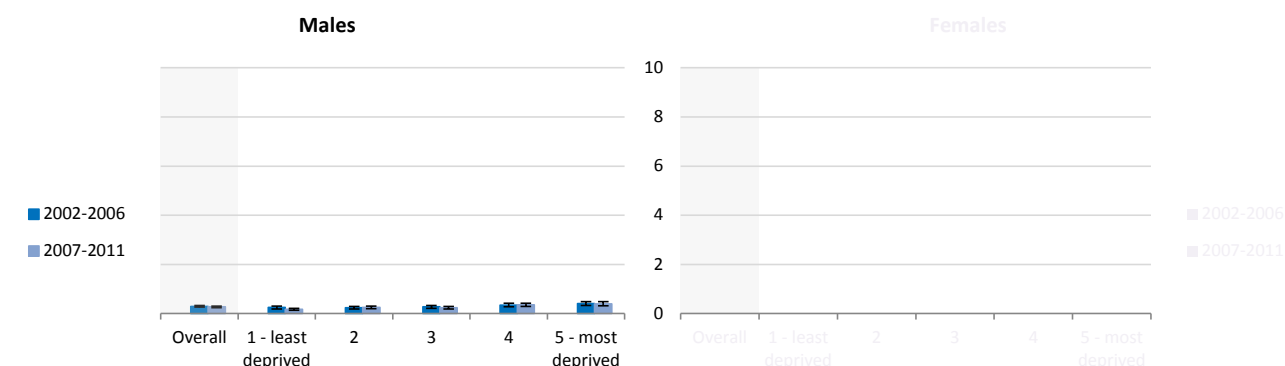
## Penis (C60)

### Latest mortality for penile cancer (England; rate per 100,000 population; excess 5yr average)

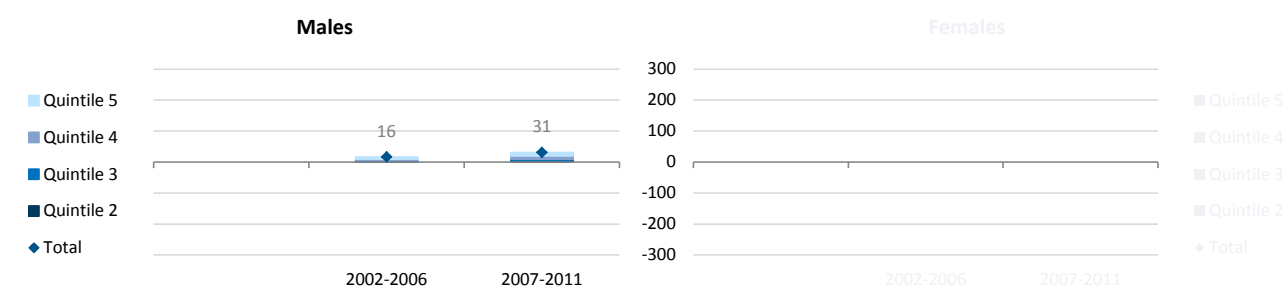
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	59	0.2	(0.1 - 0.2)	1	-
2	86	0.2	(0.2 - 0.3)	1.49	5
3	80	0.2	(0.2 - 0.3)	1.42	4
4	106	0.4	(0.3 - 0.4)	2.13	11
5 - most deprived	96	0.4	(0.3 - 0.5)	2.38	11
<b>Overall</b>	<b>427</b>	<b>0.3</b>	<b>(0.2 - 0.3)</b>		<b>31</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived					
2					
3					
4					
5 - most deprived					
<b>Overall</b>					

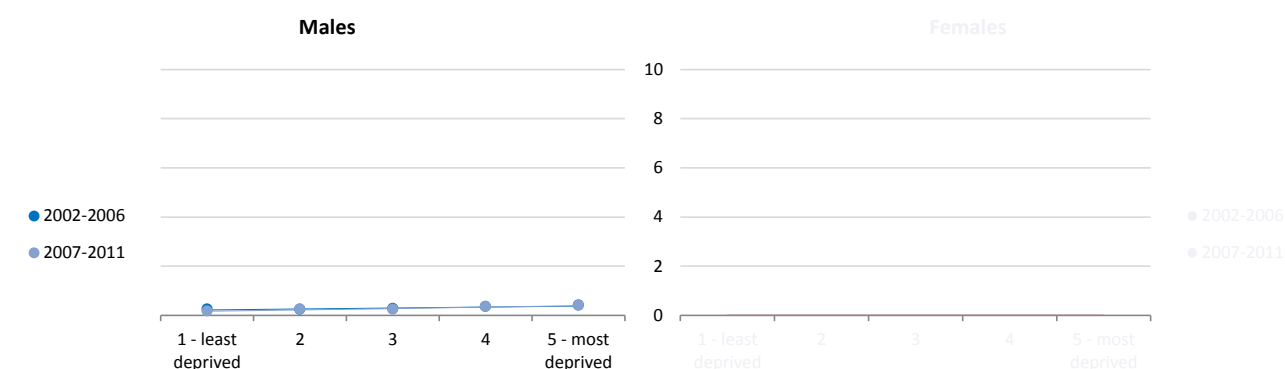
### Age-standardised\* mortality for penile cancer (England; rate per 100,000 population)



### Yearly excess deaths for penile cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for penile cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.2	(0.0 - 0.3)	72%	0.0313
2007-2011	0.2	(0.1 - 0.4)	131%	0.0141
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.5163</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006				
2007-2011				
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				

#### Notes<sup>#</sup>

- Mortality (ASR) for males increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males.
- In 2007-2011 there would have been around 30 fewer deaths (males) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer incidence (1996-2010) by deprivation quintile, in England

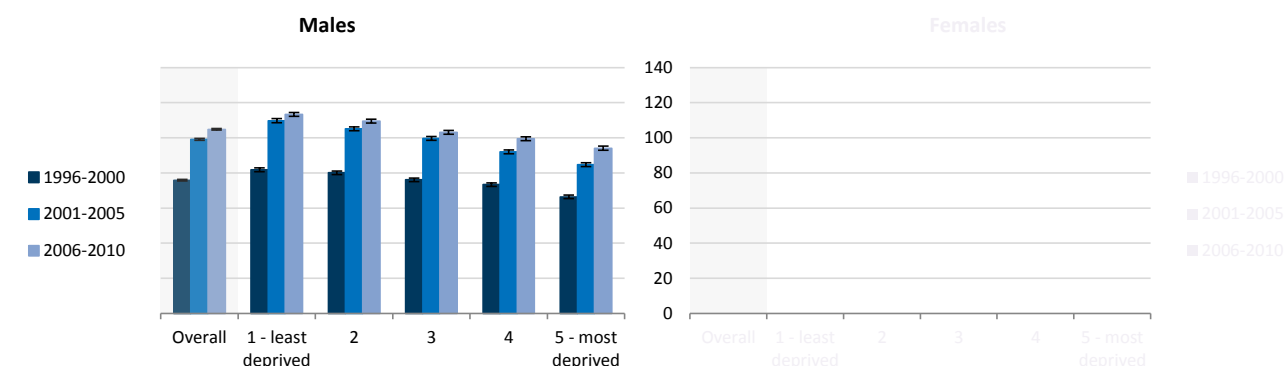
## Prostate (C61)

### Latest incidence for prostate cancer (England; rate per 100,000 population; excess 5yr average)

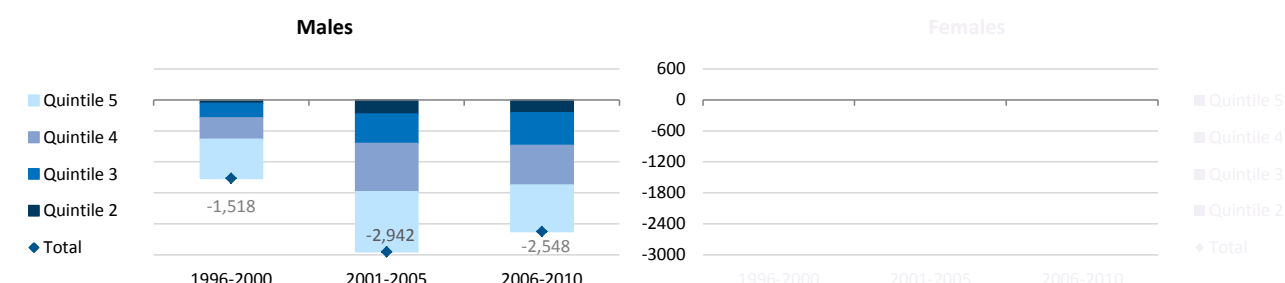
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	39,279	113.3	(112.2 - 114.4)	1	-
2	39,806	109.4	(108.4 - 110.5)	0.97	-251
3	34,954	103.2	(102.1 - 104.3)	0.91	-627
4	29,306	99.5	(98.4 - 100.7)	0.88	-771
5 - most deprived	22,991	94.1	(92.9 - 95.3)	0.83	-898
<b>Overall</b>	<b>166,336</b>	<b>104.8</b>	<b>(104.3 - 105.3)</b>		<b>-2,548</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived					
2					
3					
4					
5 - most deprived					
<b>Overall</b>					

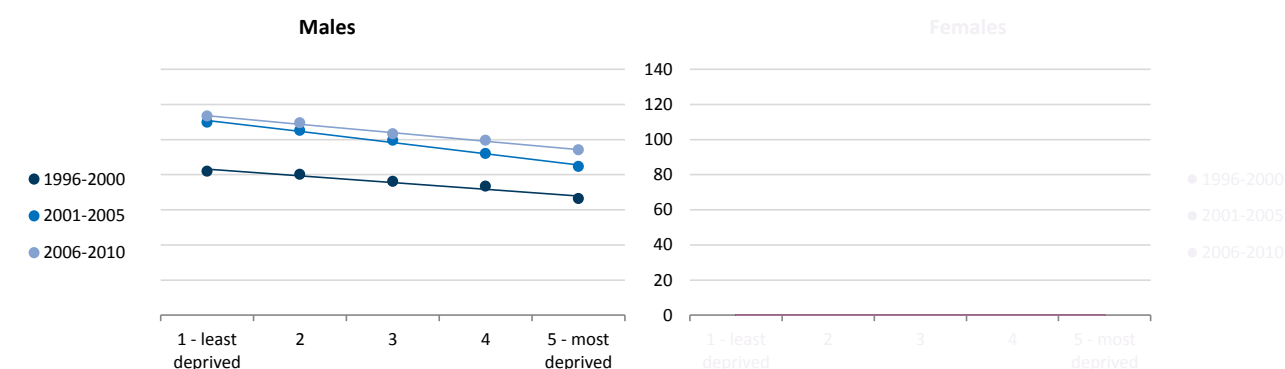
### Age-standardised\* incidence rate for prostate cancer (England; rate per 100,000 population)



### Yearly excess cases for prostate cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for prostate cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-15.2	(-21.8 - -8.7)	-18%	0.0051
2001-2005	-25.3	(-30.2 - -20.4)	-23%	0.0005
2006-2010	-19.4	(-22.2 - -16.5)	-17%	0.0002
p-value for difference in trend 2001-2005 to 2006-2010				0.0376
p-value for difference in trend 1996-2000 to 2006-2010				0.2587

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000				
2001-2005				
2006-2010				
p-value for difference in trend 2001-2005 to 2006-2010				
p-value for difference in trend 1996-2000 to 2006-2010				

### Notes<sup>#</sup>

- The incidence rate (ASR) for males decreased as deprivation increased; this was statistically significant for the three periods.
- There was a statistically significant decrease in the estimated deprivation gap between 2001-2005 to 2006-2010 for males.
- In 2006-2010 there would have been around 2,500 more cases (males) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer mortality (2002-2011) by deprivation quintile, in England

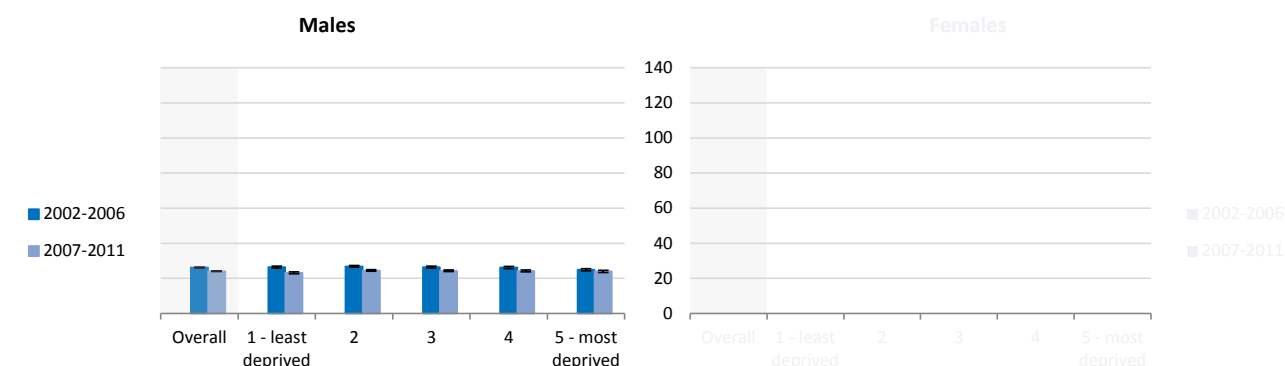
## Prostate (C61)

### Latest mortality for prostate cancer (England; rate per 100,000 population; excess 5yr average)

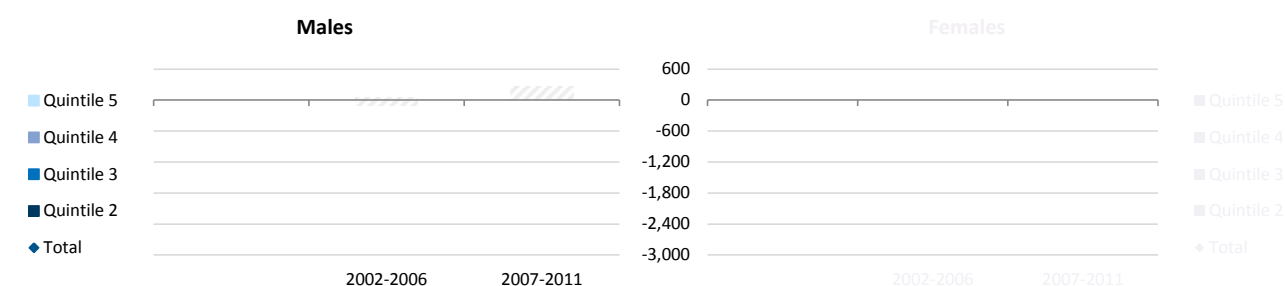
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	9,200	23.2	(22.7 - 23.7)	1	-
2	10,384	24.5	(24.1 - 25.0)	1.06	106
3	9,761	24.4	(23.9 - 24.8)	1.05	Not statistically significant
4	8,417	24.3	(23.8 - 24.8)	1.05	35
5 - most deprived	6,541	24.0	(23.4 - 24.6)	1.04	24
Overall	44,303	24.1	(23.9 - 24.3)		271

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived					
2					
3					
4					
5 - most deprived					
Overall					

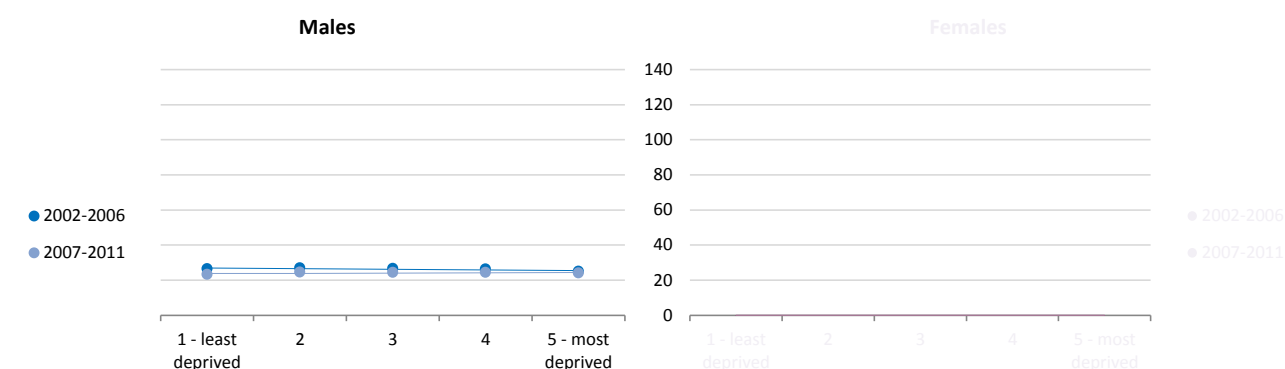
### Age-standardised\* mortality for prostate cancer (England; rate per 100,000 population)



### Yearly excess deaths for prostate cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for prostate cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-1.4	(-3.6 - 0.9)	-5%	0.1357
2007-2011	0.7	Not statistically significant	3%	0.4414
p-value for difference in trend 2002-2006 to 2007-2011				0.2124

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006				
2007-2011				
p-value for difference in trend 2002-2006 to 2007-2011				

#### Notes<sup>#</sup>

- There was no statistically significant difference in male mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males.
- There were no statistically significant excess deaths for males in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

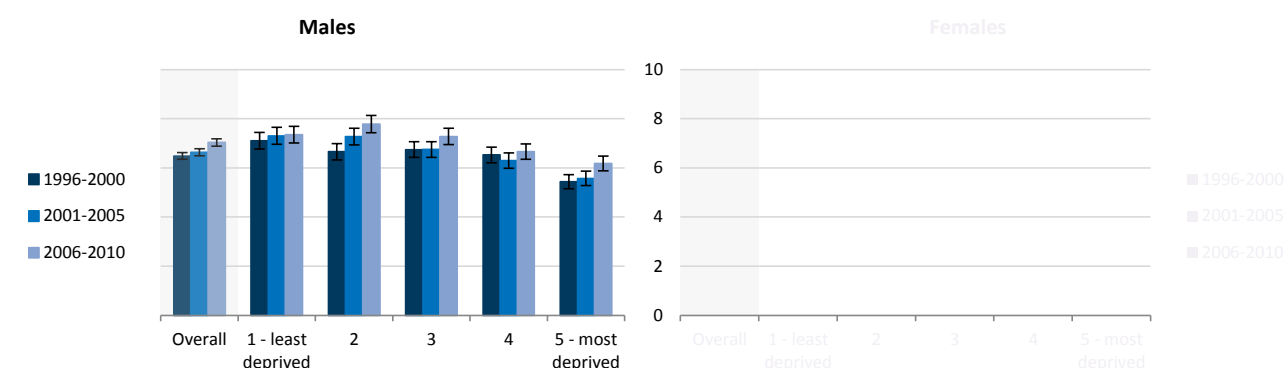
# Cancer incidence (1996-2010) by deprivation quintile, in England

## Testis (C62)

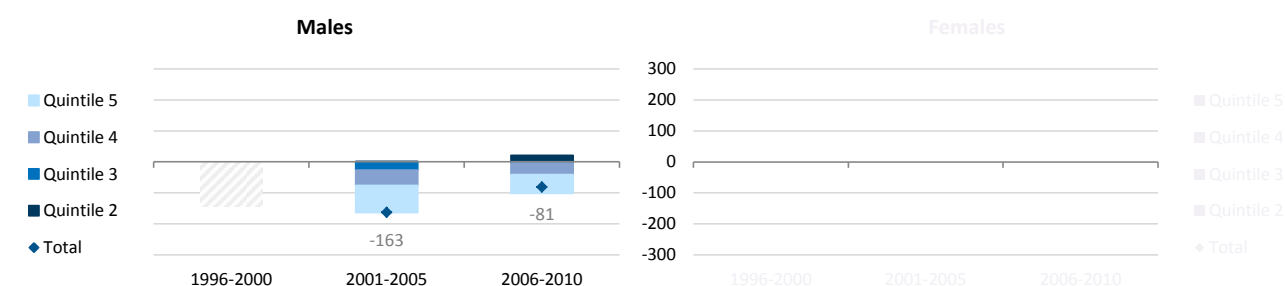
### Latest incidence for testicular cancer (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,794	7.4	(7.0 - 7.7)	1	-	1 - least deprived					
2	1,911	7.8	(7.4 - 8.1)	1.06	21	2					
3	1,874	7.3	(7.0 - 7.6)	0.99	-4	3					
4	1,784	6.7	(6.4 - 7.0)	0.91	-37	4					
5 - most deprived	1,632	6.2	(5.9 - 6.5)	0.84	-61	5 - most deprived					
Overall	8,995	7.0	(6.9 - 7.2)		-81	Overall					

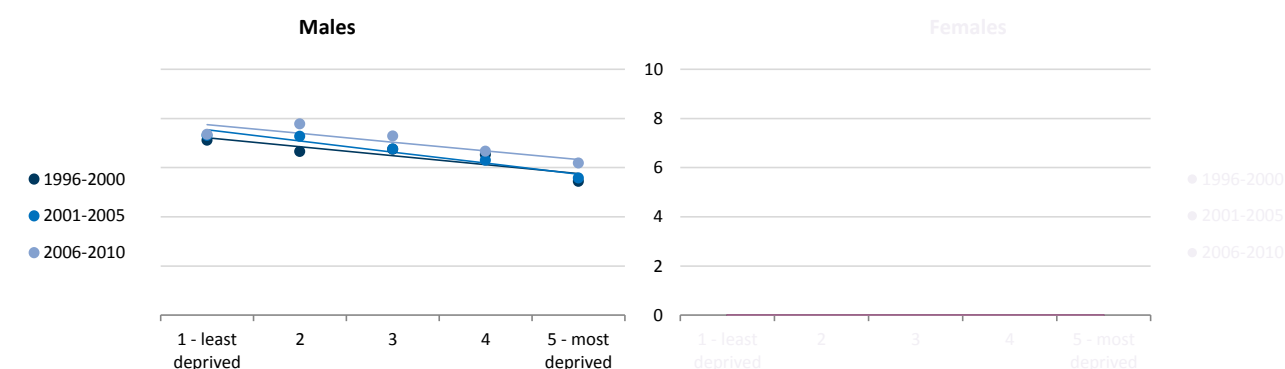
### Age-standardised\* incidence rate for testicular cancer (England; rate per 100,000 population)



### Yearly excess cases for testicular cancer (England; excess 5yr average)



### Statistical significance of incidence ASR\* trends for testicular cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-1.5	Not statistically significant	-20%	0.0500
2001-2005	-1.8	(-2.7 - -1.0)	-24%	0.0065
2006-2010	-1.4	(-2.8 - 0.0)	-18%	0.0460
p-value for difference in trend 2001-2005 to 2006-2010				0.6282
p-value for difference in trend 1996-2000 to 2006-2010				0.9707

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000				
2001-2005				
2006-2010				
p-value for difference in trend 2001-2005 to 2006-2010				
p-value for difference in trend 1996-2000 to 2006-2010				

### Notes<sup>#</sup>

- The decrease in the incidence rate (ASR), as deprivation increased, was statistically significant for males in two of the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males.
- In 2006-2010 there would have been around 80 more cases (males) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Cancer mortality (2002-2011) by deprivation quintile, in England

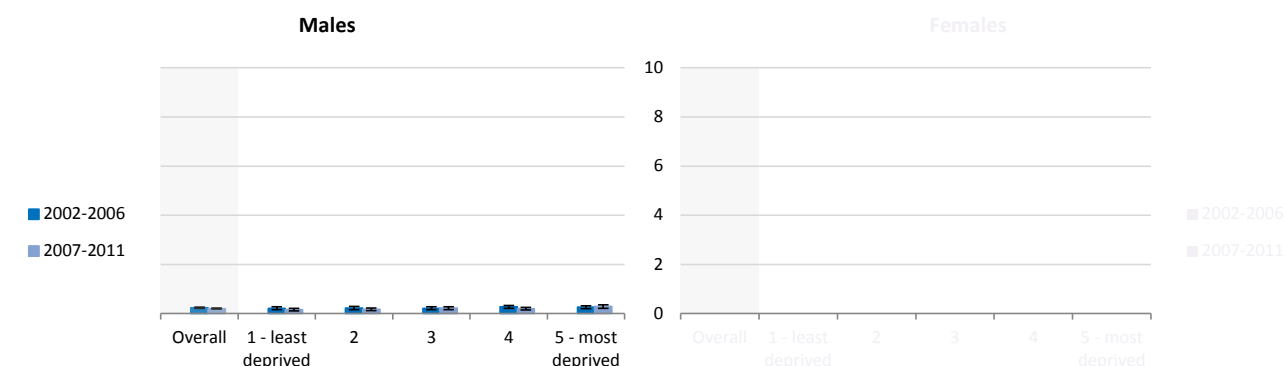
## Testis (C62)

### Latest mortality for testicular cancer (England; rate per 100,000 population; excess 5yr average)

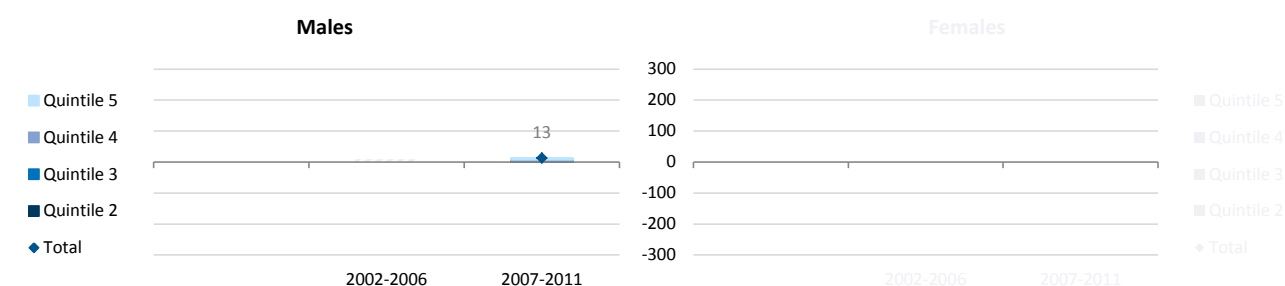
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	43	0.2	(0.1 - 0.2)	1	-
2	48	0.2	(0.1 - 0.2)	1.08	1
3	60	0.2	(0.2 - 0.3)	1.41	3
4	56	0.2	(0.1 - 0.3)	1.28	3
5 - most deprived	72	0.3	(0.2 - 0.3)	1.82	6
<b>Overall</b>	<b>279</b>	<b>0.2</b>	<b>(0.2 - 0.2)</b>		<b>13</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived					
2					
3					
4					
5 - most deprived					
<b>Overall</b>					

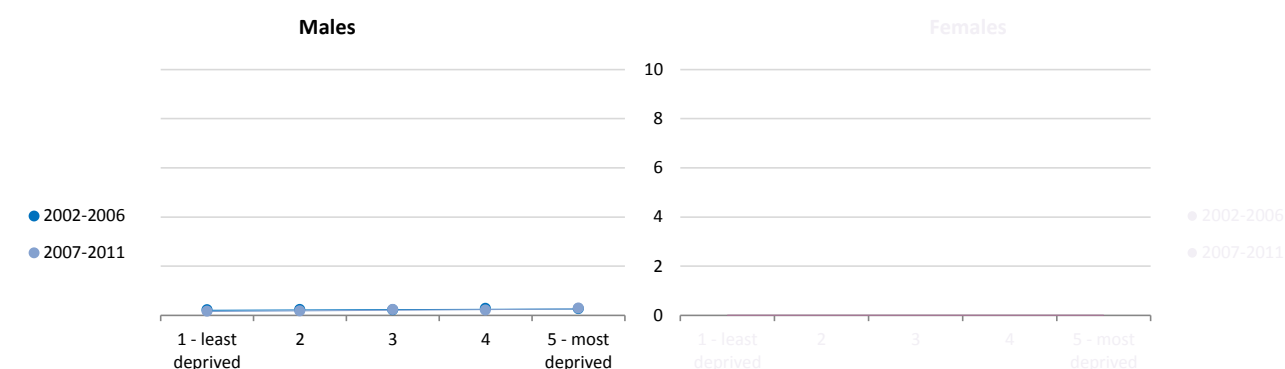
### Age-standardised\* mortality for testicular cancer (England; rate per 100,000 population)



### Yearly excess deaths for testicular cancer (England; excess 5yr average)



### Statistical significance of mortality ASR\* trends for testicular cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	Not statistically significant	25%	0.1064
2007-2011	0.1	(0.0 - 0.2)	70%	0.0444
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.3934</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006				
2007-2011				
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				

## Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for males in one of the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males.
- In 2007-2011 there would have been around 15 fewer deaths (males) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

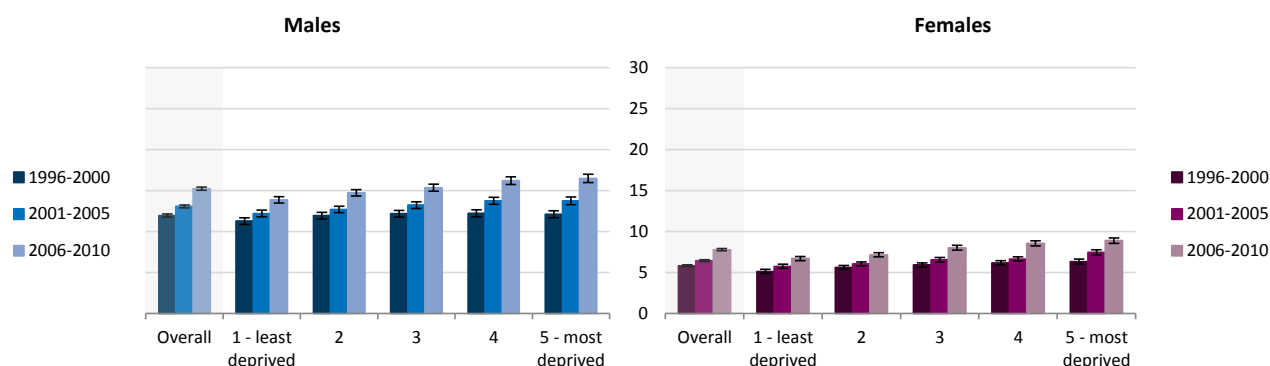
## Kidney and unspecified urinary organs (C64-C66,C68)

## Latest incidence for renal cancer (England; rate per 100,000 population; excess 5yr average)

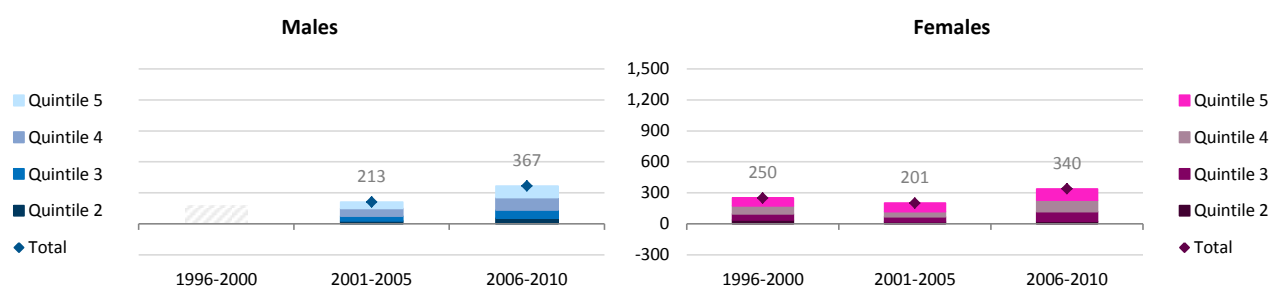
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	4,640	13.9	(13.5 - 14.2)	1	-
2	5,087	14.7	(14.3 - 15.1)	1.06	55
3	4,898	15.3	(14.9 - 15.8)	1.11	79
4	4,584	16.2	(15.7 - 16.7)	1.17	119
5 - most deprived	3,938	16.5	(16.0 - 17.0)	1.19	114
<b>Overall</b>	<b>23,147</b>	<b>15.2</b>	<b>(15.0 - 15.4)</b>		<b>367</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	2,540	6.7	(6.4 - 6.9)	1	-
2	2,861	7.1	(6.9 - 7.4)	1.07	25
3	3,121	8.0	(7.7 - 8.3)	1.20	93
4	2,992	8.5	(8.2 - 8.9)	1.28	112
5 - most deprived	2,584	8.9	(8.5 - 9.2)	1.33	109
<b>Overall</b>	<b>14,098</b>	<b>7.8</b>	<b>(7.6 - 7.9)</b>		<b>340</b>

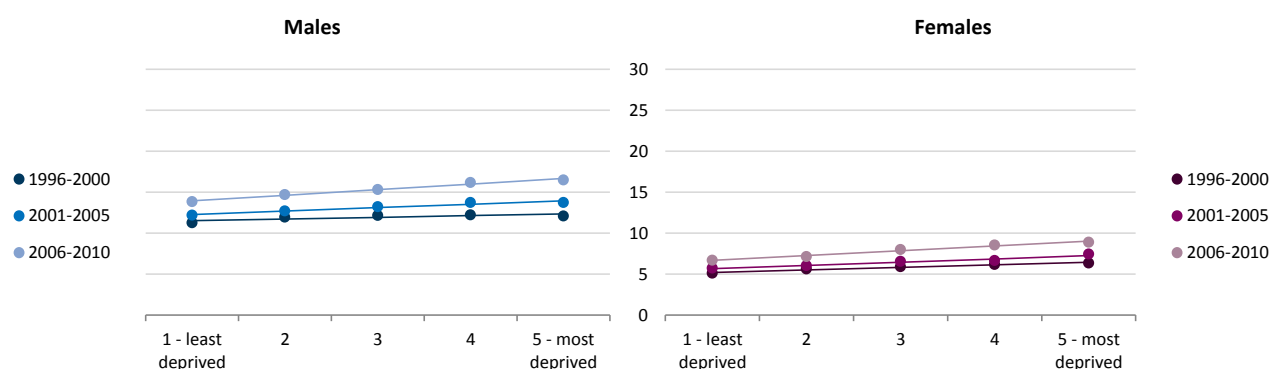
## Age-standardised\* incidence rate for renal cancer (England; rate per 100,000 population)



## Yearly excess cases for renal cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for renal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.8	Not statistically significant	7%	0.1064
2001-2005	1.7	(1.0 - 2.4)	14%	0.0053
2006-2010	2.7	(2.1 - 3.4)	20%	0.0010
p-value for difference in trend 2001-2005 to 2006-2010				0.0429
p-value for difference in trend 1996-2000 to 2006-2010				0.0046

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	1.2	(0.8 - 1.7)	23%	0.0036
2001-2005	1.6	(0.9 - 2.3)	28%	0.0054
2006-2010	2.4	(1.7 - 3.0)	35%	0.0013
p-value for difference in trend 2001-2005 to 2006-2010				0.0994
p-value for difference in trend 1996-2000 to 2006-2010				0.0049

Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for males in two periods and females in three periods.
- There was a statistically significant increase in the estimated deprivation gap between 1996-2010 for males and females, and 2001-2010 for males.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.519; 0.798; 0.417).
- In 2006-2010 there would have been around 640 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details



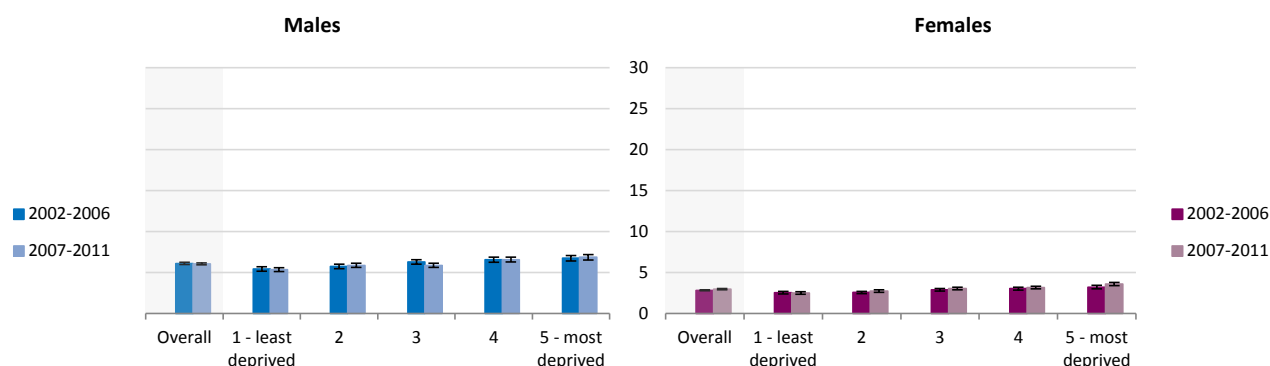
# Kidney and unspecified urinary organs (C64-C66,C68)

## Latest mortality for renal cancer (England; rate per 100,000 population; excess 5yr average)

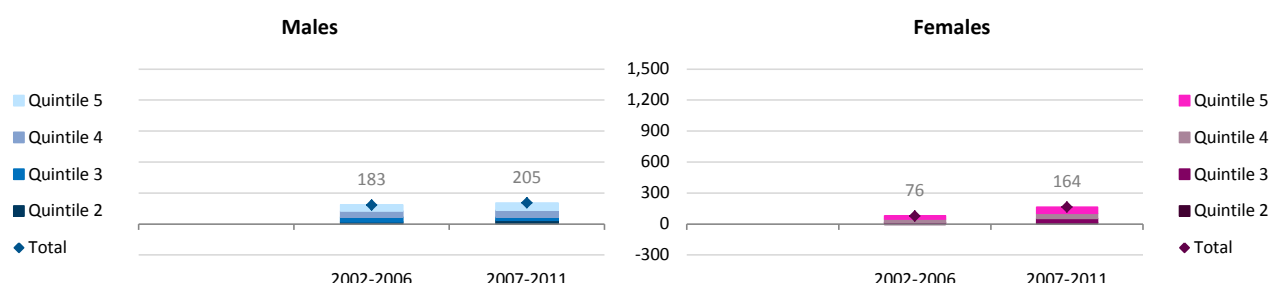
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,920	5.4	(5.1 - 5.6)	1	-
2	2,193	5.9	(5.6 - 6.1)	1.10	37
3	2,031	5.9	(5.6 - 6.1)	1.10	31
4	1,986	6.6	(6.3 - 6.9)	1.23	68
5 - most deprived	1,697	6.9	(6.5 - 7.2)	1.28	68
<b>Overall</b>	<b>9,827</b>	<b>6.1</b>	<b>(5.9 - 6.2)</b>		<b>205</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,100	2.5	(2.4 - 2.7)	1	-
2	1,291	2.7	(2.6 - 2.9)	1.09	15
3	1,395	3.0	(2.9 - 3.2)	1.22	41
4	1,316	3.2	(3.0 - 3.3)	1.27	47
5 - most deprived	1,191	3.6	(3.4 - 3.8)	1.44	61
<b>Overall</b>	<b>6,293</b>	<b>3.0</b>	<b>(2.9 - 3.0)</b>		<b>164</b>

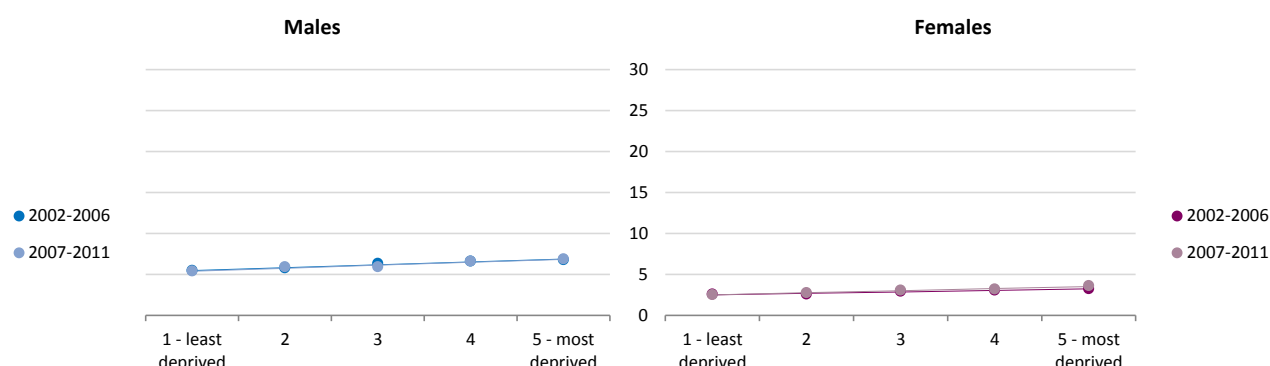
## Age-standardised\* mortality for renal cancer (England; rate per 100,000 population)



## Yearly excess deaths for renal cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for renal cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	1.4	(0.9 - 1.9)	26%	0.0024
2007-2011	1.5	(0.7 - 2.2)	27%	0.0076
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.9067</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.7	(0.4 - 1.1)	29%	0.0054
2007-2011	1.0	(0.7 - 1.3)	42%	0.0014
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.1680</b>

### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the two periods (p-values: 0.019; 0.279).
- In 2007-2011 there would have been around 340 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

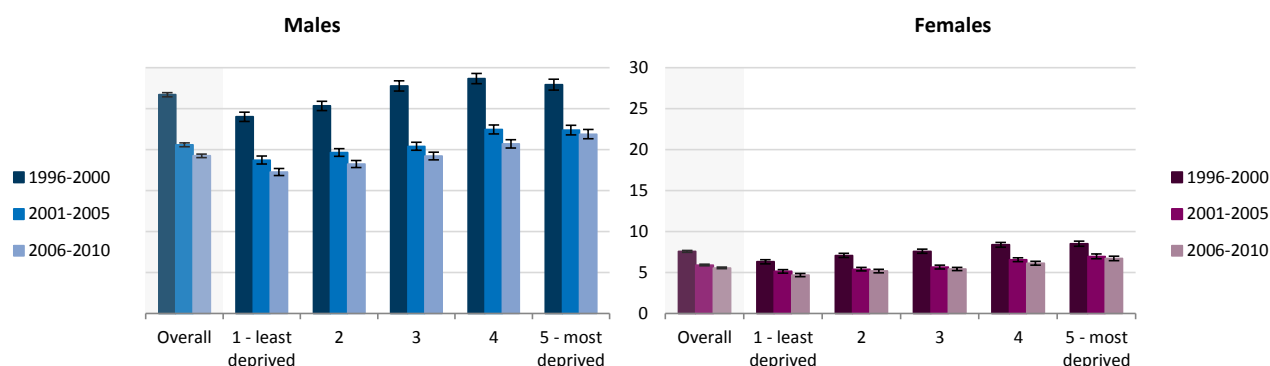
## Bladder (C67)

## Latest incidence for bladder cancer (England; rate per 100,000 population; excess 5yr average)

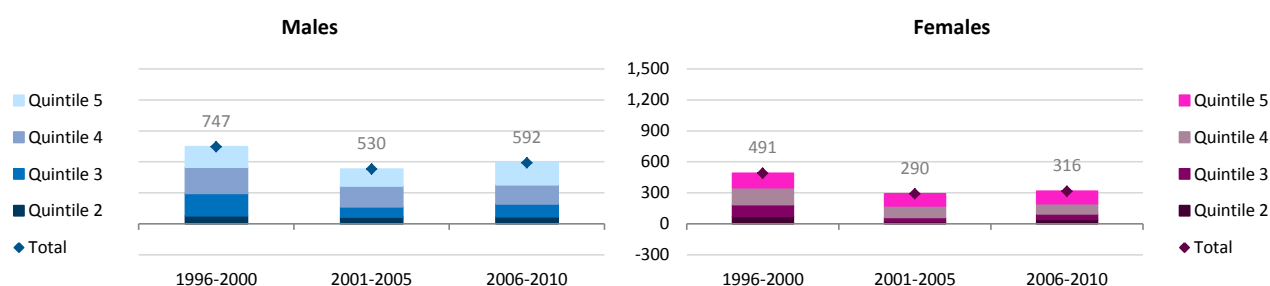
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	6,245	17.3	(16.8 - 17.7)	1	-
2	6,938	18.2	(17.8 - 18.7)	1.06	68
3	6,816	19.2	(18.7 - 19.7)	1.11	124
4	6,369	20.7	(20.2 - 21.2)	1.20	187
5 - most deprived	5,511	21.9	(21.3 - 22.5)	1.27	213
<b>Overall</b>	<b>31,879</b>	<b>19.2</b>	<b>(19.0 - 19.5)</b>		<b>592</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	2,117	4.7	(4.5 - 4.9)	1	-
2	2,580	5.2	(5.0 - 5.4)	1.10	42
3	2,610	5.4	(5.2 - 5.6)	1.16	54
4	2,635	6.1	(5.9 - 6.4)	1.31	99
5 - most deprived	2,328	6.7	(6.4 - 7.0)	1.43	121
<b>Overall</b>	<b>12,270</b>	<b>5.5</b>	<b>(5.4 - 5.6)</b>		<b>316</b>

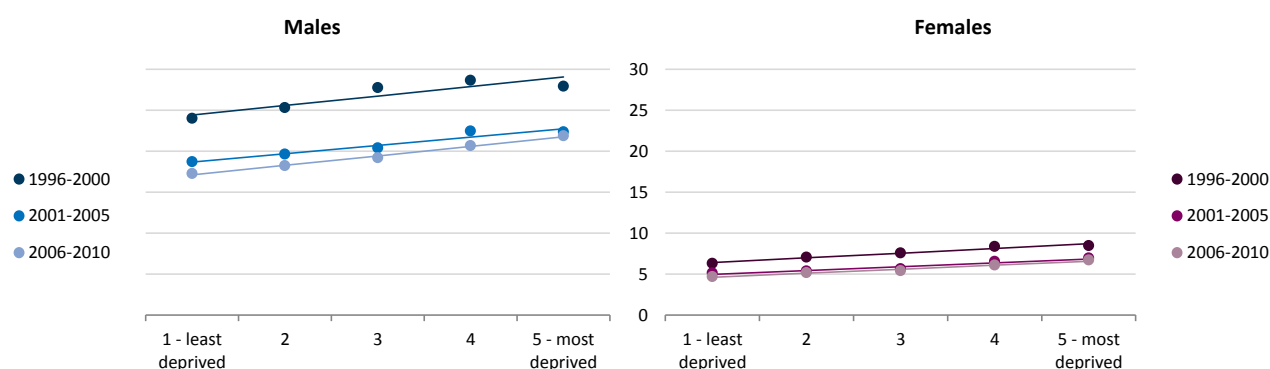
## Age-standardised\* incidence rate for bladder cancer (England; rate per 100,000 population)



## Yearly excess cases for bladder cancer (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for bladder cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	4.6	(0.6 - 8.7)	19%	0.0348
2001-2005	4.1	(2.1 - 6.1)	22%	0.0072
2006-2010	4.6	(3.8 - 5.4)	27%	0.0003
p-value for difference in trend 2001-2005 to 2006-2010				0.6264
p-value for difference in trend 1996-2000 to 2006-2010				0.9961

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	2.3	(1.5 - 3.1)	36%	0.0025
2001-2005	1.9	(1.0 - 2.8)	38%	0.0074
2006-2010	2.0	(1.4 - 2.5)	42%	0.0017
p-value for difference in trend 2001-2005 to 2006-2010				0.8927
p-value for difference in trend 1996-2000 to 2006-2010				0.4678

Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in two of the three periods (p-values: 0.265; 0.048; <0.001).
- In 2006-2010 there would have been around 730 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

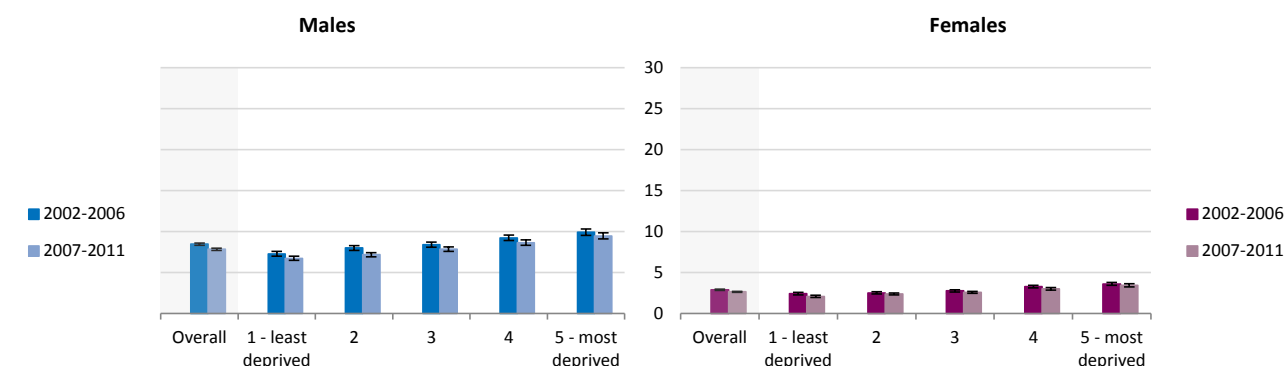
## Bladder (C67)

## Latest mortality for bladder cancer (England; rate per 100,000 population; excess 5yr average)

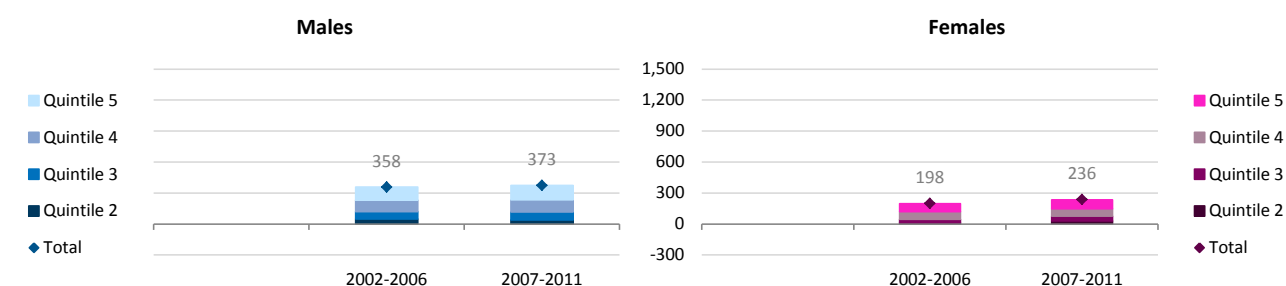
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	2,611	6.7	(6.5 - 7.0)	1	-
2	2,980	7.2	(6.9 - 7.4)	1.07	39
3	3,025	7.9	(7.6 - 8.2)	1.17	78
4	2,884	8.7	(8.3 - 9.0)	1.29	117
5 - most deprived	2,519	9.5	(9.1 - 9.8)	1.41	139
<b>Overall</b>	<b>14,019</b>	<b>7.8</b>	<b>(7.7 - 8.0)</b>		<b>373</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,098	2.1	(2.0 - 2.2)	1	-
2	1,418	2.4	(2.3 - 2.5)	1.14	31
3	1,486	2.6	(2.4 - 2.7)	1.23	45
4	1,520	3.0	(2.9 - 3.2)	1.44	73
5 - most deprived	1,333	3.4	(3.3 - 3.6)	1.64	86
<b>Overall</b>	<b>6,855</b>	<b>2.7</b>	<b>(2.6 - 2.7)</b>		<b>236</b>

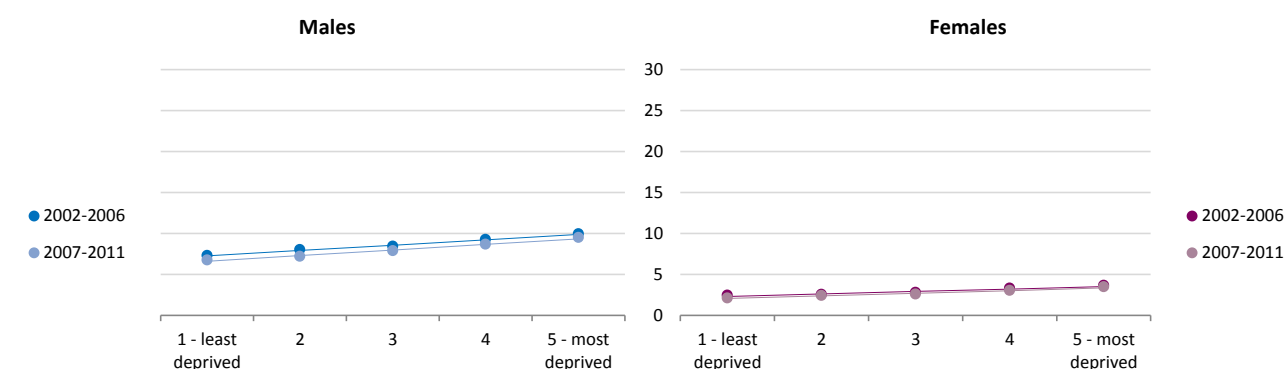
## Age-standardised\* mortality for bladder cancer (England; rate per 100,000 population)



## Yearly excess deaths for bladder cancer (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for bladder cancer (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	2.6	(2.1 - 3.1)	36%	0.0005
2007-2011	2.7	(2.1 - 3.3)	41%	0.0006
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.7343</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	1.2	(0.6 - 1.8)	53%	0.0078
2007-2011	1.3	(0.9 - 1.7)	63%	0.0018
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.8703</b>

Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant for the two periods (p-values: <0.001; <0.001).
- In 2007-2011 there would have been around 520 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

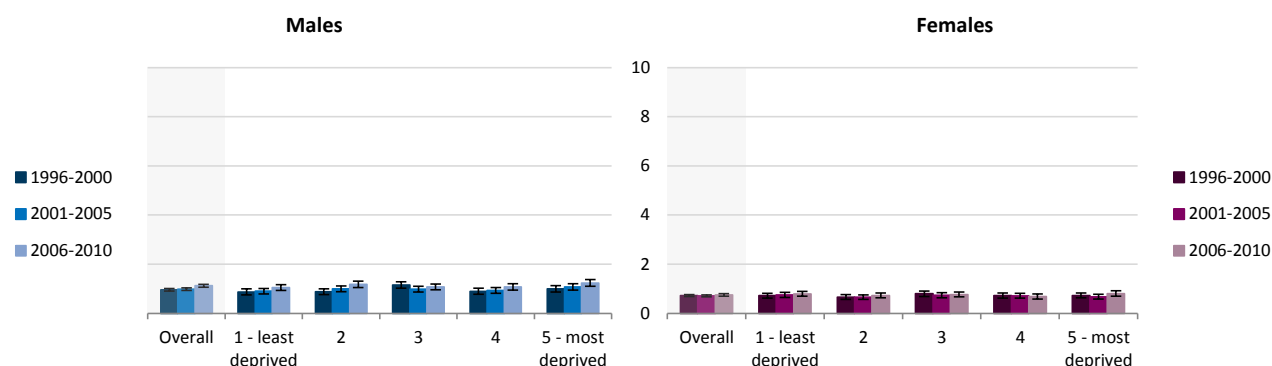
<sup>#</sup> Please see pp. 20-21 for further details

## Bone Sarcoma (C40-C41)

## Latest incidence for bone sarcoma (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	293	1.0	(0.9 - 1.2)	1	-	1 - least deprived	226	0.8	(0.7 - 0.9)	1	-
2	330	1.2	(1.1 - 1.3)	1.13	8	2	213	0.7	(0.6 - 0.8)	0.92	-3
3	287	1.1	(1.0 - 1.2)	1.03	Not statistically significant	3	211	0.8	(0.7 - 0.9)	0.96	Not statistically significant
4	280	1.1	(0.9 - 1.2)	1.03		4	199	0.7	(0.6 - 0.8)	0.87	
5 - most deprived	312	1.2	(1.1 - 1.4)	1.18		5 - most deprived	216	0.8	(0.7 - 0.9)	1.01	
<b>Overall</b>	<b>1,502</b>	<b>1.1</b>	<b>(1.1 - 1.2)</b>		<b>16</b>	<b>Overall</b>	<b>1,065</b>	<b>0.8</b>	<b>(0.7 - 0.8)</b>		<b>-12</b>

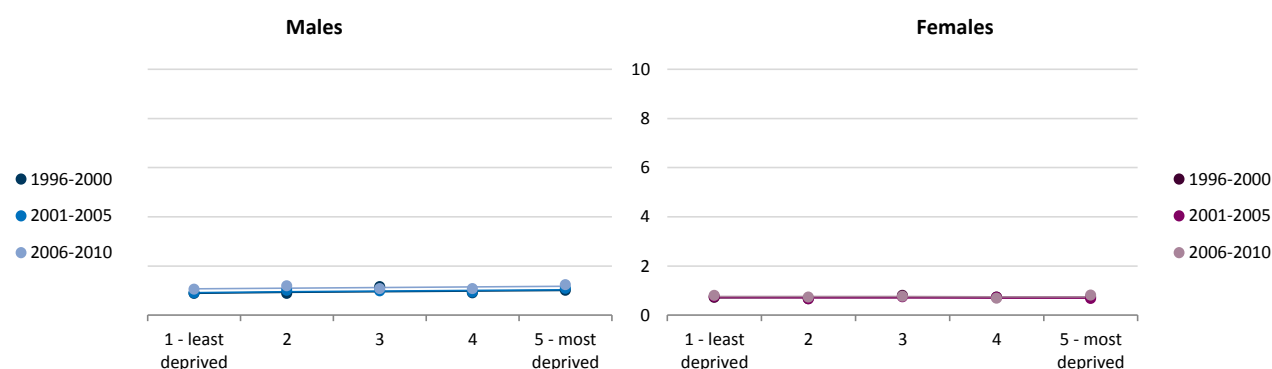
## Age-standardised\* incidence rate for bone sarcoma (England; rate per 100,000 population)



## Yearly excess cases for bone sarcoma (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for bone sarcoma (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.1	(-0.4 - 0.6)	13%	0.5103
2001-2005	0.1	Not statistically significant	13%	0.2127
2006-2010	0.1	(-0.2 - 0.4)	10%	0.3909
p-value for difference in trend 2001-2005 to 2006-2010				0.9504
p-value for difference in trend 1996-2000 to 2006-2010				0.9705

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.0	(-0.2 - 0.2)	5%	0.6428
2001-2005	-0.0	Not statistically significant	-4%	0.6286
2006-2010	-0.0	(-0.2 - 0.2)	-2%	0.8500
p-value for difference in trend 2001-2005 to 2006-2010				0.9159
p-value for difference in trend 1996-2000 to 2006-2010				0.7590

Notes<sup>#</sup>

- There was no statistically significant difference in the male or female incidence rate (ASR) as deprivation increased, for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.767; 0.332; 0.564).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

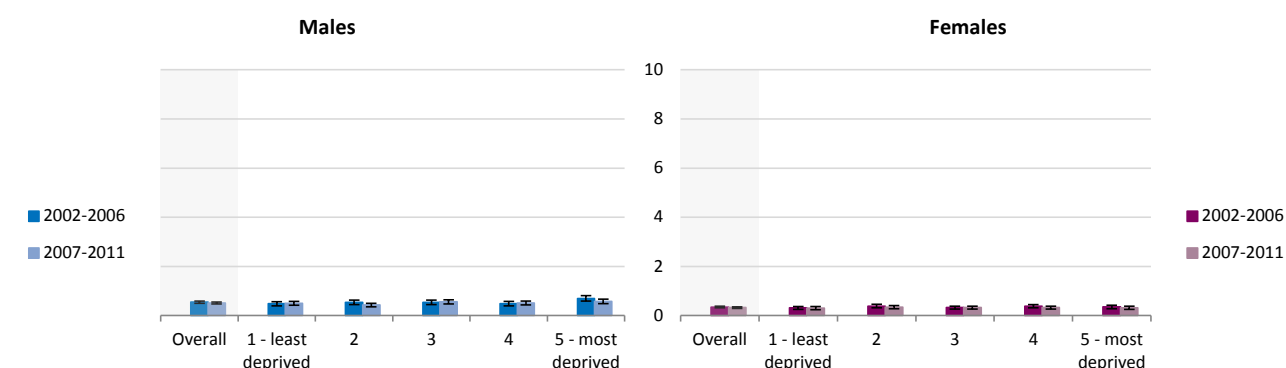
<sup>#</sup> Please see pp. 20-21 for further details

## Bone Sarcoma (C40-C41)

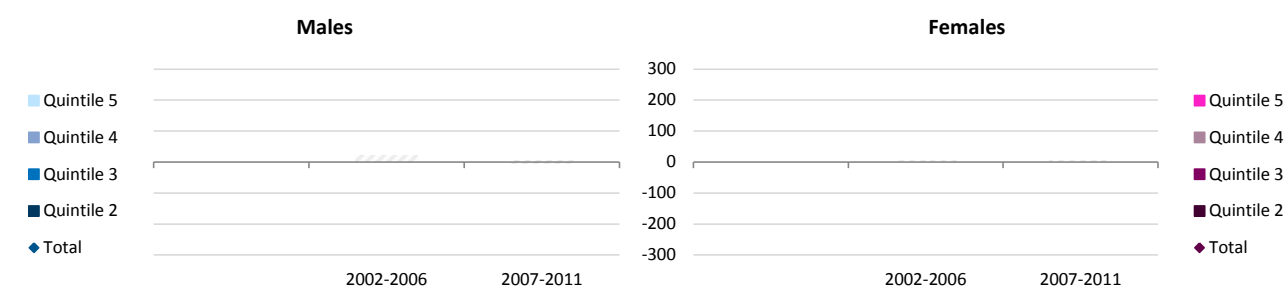
## Latest mortality for bone sarcoma (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	152	0.5	(0.4 - 0.6)	1	-	1 - least deprived	99	0.3	(0.2 - 0.4)	1	-
2	126	0.4	(0.4 - 0.5)	0.86	-4	2	114	0.3	(0.3 - 0.4)	1.12	2
3	164	0.6	(0.5 - 0.6)	1.12	3	3	112	0.3	(0.3 - 0.4)	1.07	1
4	138	0.5	(0.4 - 0.6)	1.02	Not statistically significant	4	108	0.3	(0.3 - 0.4)	1.07	Not statistically significant
5 - most deprived	145	0.6	(0.5 - 0.7)	1.15	3	5 - most deprived	92	0.3	(0.3 - 0.4)	1.04	5
<b>Overall</b>	<b>725</b>	<b>0.5</b>	<b>(0.5 - 0.5)</b>		<b>2</b>	<b>Overall</b>	<b>525</b>	<b>0.3</b>	<b>(0.3 - 0.3)</b>		<b>5</b>

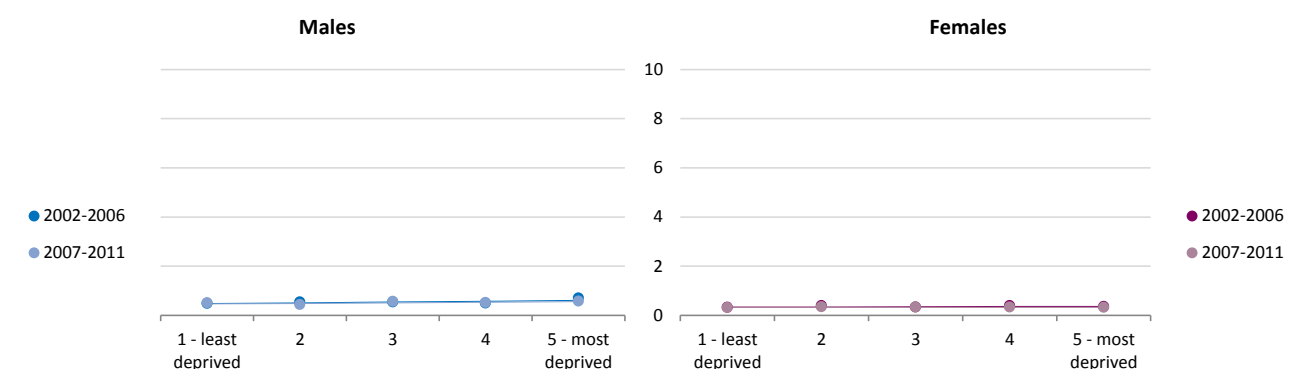
## Age-standardised\* mortality for bone sarcoma (England; rate per 100,000 population)



## Yearly excess deaths for bone sarcoma (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for bone sarcoma (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(-0.3 - 0.4)	27%	0.2455
2007-2011	0.1	Not statistically significant	20%	0.2645
p-value for difference in trend 2002-2006 to 2007-2011				0.8365

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.0	(-0.1 - 0.2)	10%	0.4909
2007-2011	0.0	Not statistically significant	2%	0.8227
p-value for difference in trend 2002-2006 to 2007-2011				0.7099

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.549; 0.444).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

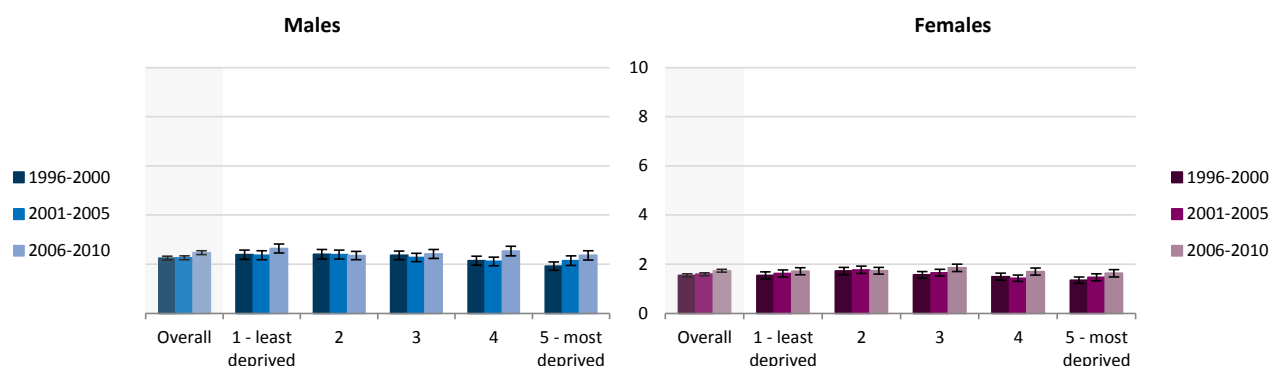
## Connective and Soft Tissue Sarcoma (C49)

## Latest incidence for connective and soft tissue sarcoma (England; rate per 100,000 population; excess 5yr average)

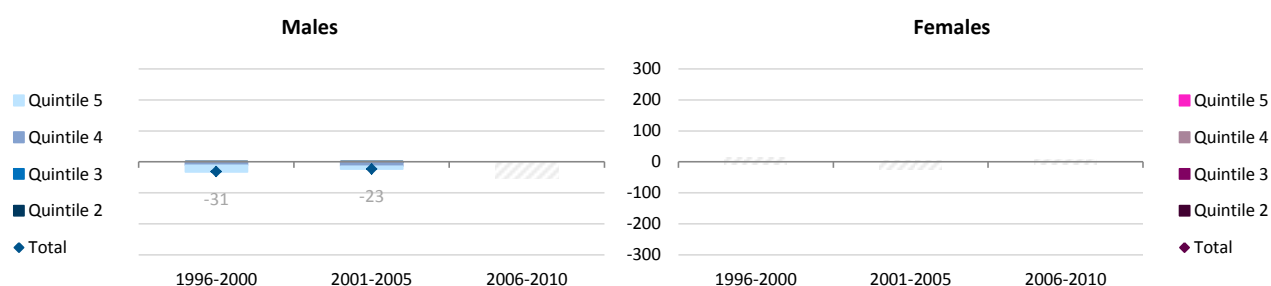
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	822	2.6	(2.5 - 2.8)	1	-
2	762	2.4	(2.2 - 2.5)	0.89	-17
3	726	2.4	(2.2 - 2.6)	0.92	Not statistically significant
4	702	2.5	(2.3 - 2.7)	0.96	-16
5 - most deprived	585	2.4	(2.2 - 2.5)	0.89	-13
<b>Overall</b>	<b>3,597</b>	<b>2.5</b>	<b>(2.4 - 2.5)</b>		<b>-53</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	573	1.7	(1.6 - 1.9)	1	-
2	607	1.7	(1.6 - 1.9)	1.01	1
3	623	1.9	(1.7 - 2.0)	1.08	7
4	540	1.7	(1.6 - 1.8)	0.99	Not statistically significant
5 - most deprived	452	1.6	(1.5 - 1.8)	0.95	-6
<b>Overall</b>	<b>2,795</b>	<b>1.7</b>	<b>(1.7 - 1.8)</b>		<b>1</b>

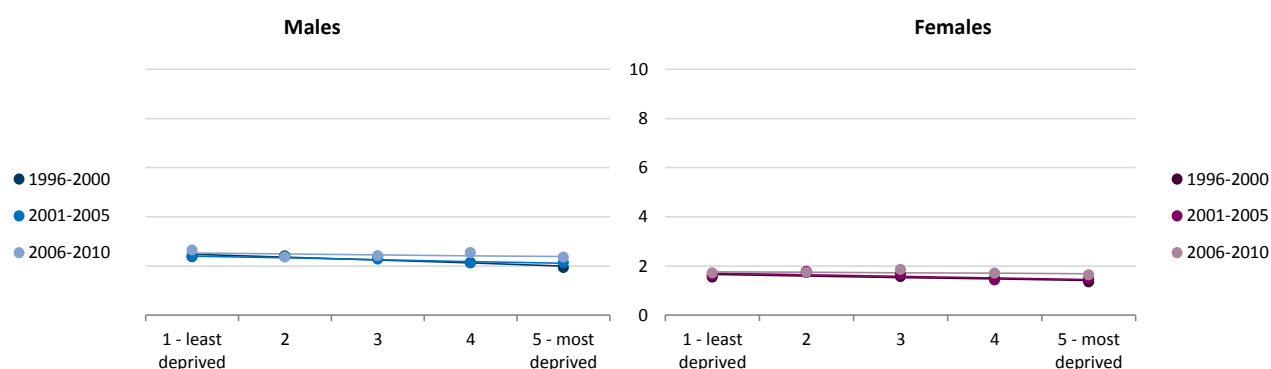
## Age-standardised\* incidence rate for connective and soft tissue sarcoma (England; rate per 100,000 population)



## Yearly excess cases for connective and soft tissue sarcoma (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for connective and soft tissue sarcoma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.5	(-0.9 - -0.1)	-19%	0.0320
2001-2005	-0.3	(-0.6 - 0.0)	-12%	0.0375
2006-2010	-0.1	Not statistically significant	-6%	0.4414
p-value for difference in trend 2001-2005 to 2006-2010				0.6150
p-value for difference in trend 1996-2000 to 2006-2010				0.3150

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.2	(-0.7 - 0.2)	-15%	0.1512
2001-2005	-0.3	Not statistically significant	-15%	0.1620
2006-2010	-0.1	(-0.4 - 0.3)	-4%	0.5266
p-value for difference in trend 2001-2005 to 2006-2010				0.5224
p-value for difference in trend 1996-2000 to 2006-2010				0.5274

Notes<sup>#</sup>

- The decrease in the incidence rate (ASR), as deprivation increased, was statistically significant for males in two of the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.430; 0.898; 0.830).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

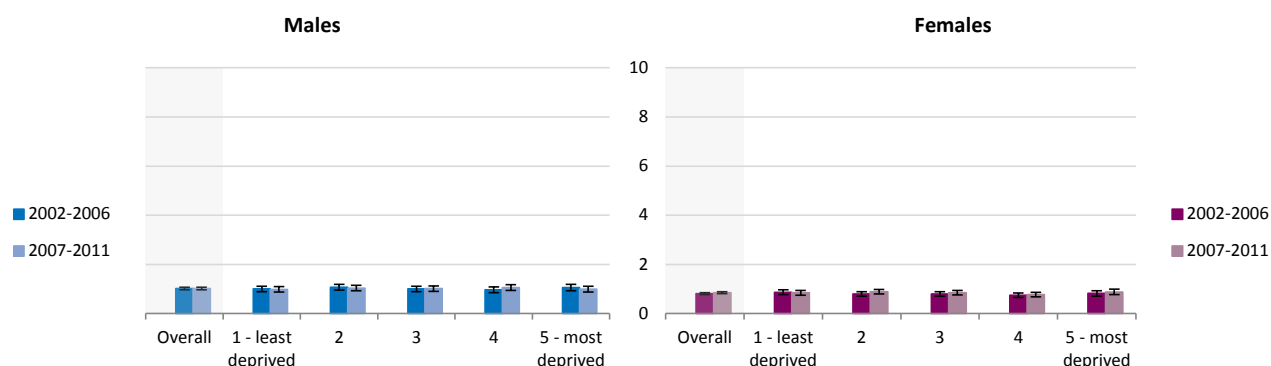
<sup>#</sup> Please see pp. 20-21 for further details

## Connective and Soft Tissue Sarcoma (C49)

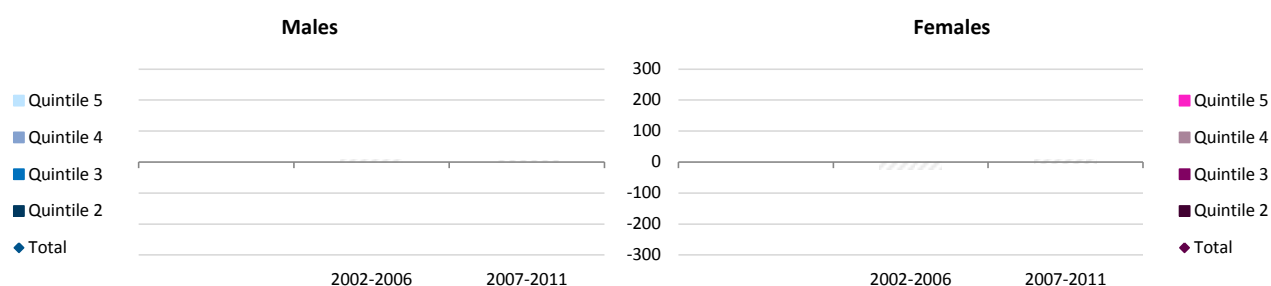
## Latest mortality for connective and soft tissue sarcoma (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	332	1.0	(0.9 - 1.1)	1	-	1 - least deprived	299	0.8	(0.7 - 0.9)	1	-
2	357	1.0	(0.9 - 1.1)	1.06	2	2	345	0.9	(0.8 - 1.0)	1.06	6
3	333	1.0	(0.9 - 1.1)	1.03	1	3	316	0.9	(0.8 - 0.9)	1.01	1
4	307	1.1	(0.9 - 1.2)	1.08	-	4	273	0.8	(0.7 - 0.9)	0.92	-1
5 - most deprived	251	1.0	(0.9 - 1.1)	1.01	-	5 - most deprived	243	0.9	(0.8 - 1.0)	1.04	-1
<b>Overall</b>	<b>1,580</b>	<b>1.0</b>	<b>(1.0 - 1.1)</b>		<b>5</b>	<b>Overall</b>	<b>1,476</b>	<b>0.8</b>	<b>(0.8 - 0.9)</b>		<b>4</b>

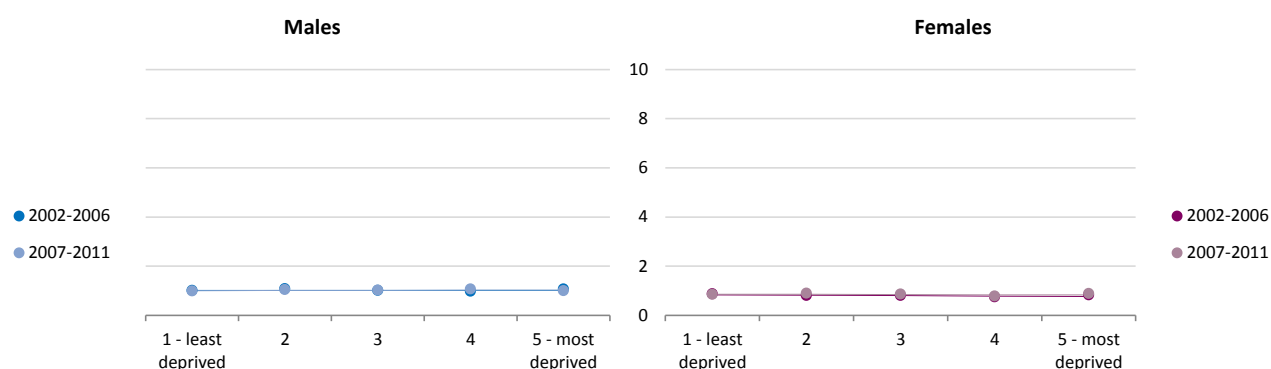
## Age-standardised\* mortality for connective and soft tissue sarcoma (England; rate per 100,000 population)



## Yearly excess deaths for connective and soft tissue sarcoma (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for connective and soft tissue sarcoma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.0	(-0.3 - 0.3)	-0%	0.9625
2007-2011	0.0	Not statistically significant	3%	0.6061
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.8203</b>

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.1	(-0.3 - 0.1)	-8%	0.3495
2007-2011	-0.0	Not statistically significant	-4%	0.6738
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.8266</b>

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.666; 0.665).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

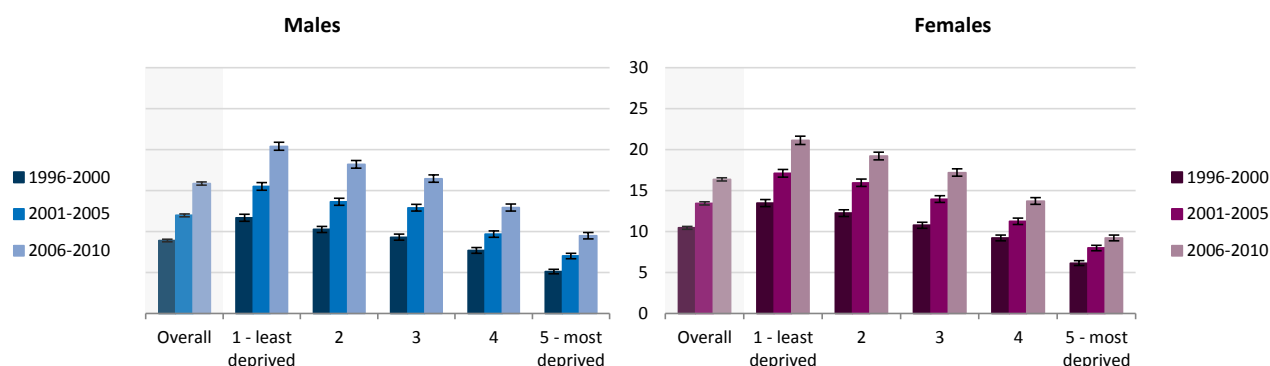
## Melanoma (C43)

## Latest incidence for melanoma (England; rate per 100,000 population; excess 5yr average)

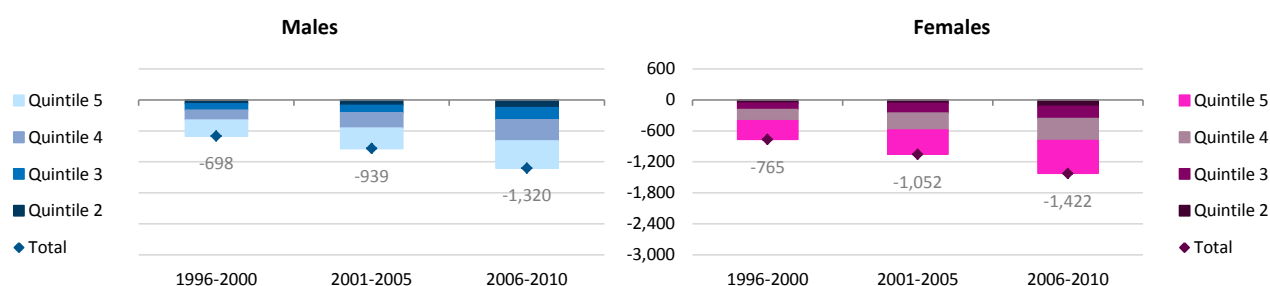
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	6,409	20.4	(19.9 - 20.9)	1	-
2	5,841	18.2	(17.7 - 18.6)	0.89	-147
3	5,031	16.4	(16.0 - 16.9)	0.81	-239
4	3,600	12.9	(12.5 - 13.3)	0.63	-409
5 - most deprived	2,285	9.5	(9.1 - 9.9)	0.47	-524
<b>Overall</b>	<b>23,166</b>	<b>15.8</b>	<b>(15.6 - 16.1)</b>		<b>-1,320</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	6,720	21.1	(20.6 - 21.6)	1	-
2	6,370	19.2	(18.8 - 19.7)	0.91	-122
3	5,608	17.2	(16.7 - 17.6)	0.81	-237
4	4,228	13.7	(13.3 - 14.1)	0.65	-432
5 - most deprived	2,557	9.2	(8.8 - 9.6)	0.44	-630
<b>Overall</b>	<b>25,483</b>	<b>16.4</b>	<b>(16.1 - 16.6)</b>		<b>-1,422</b>

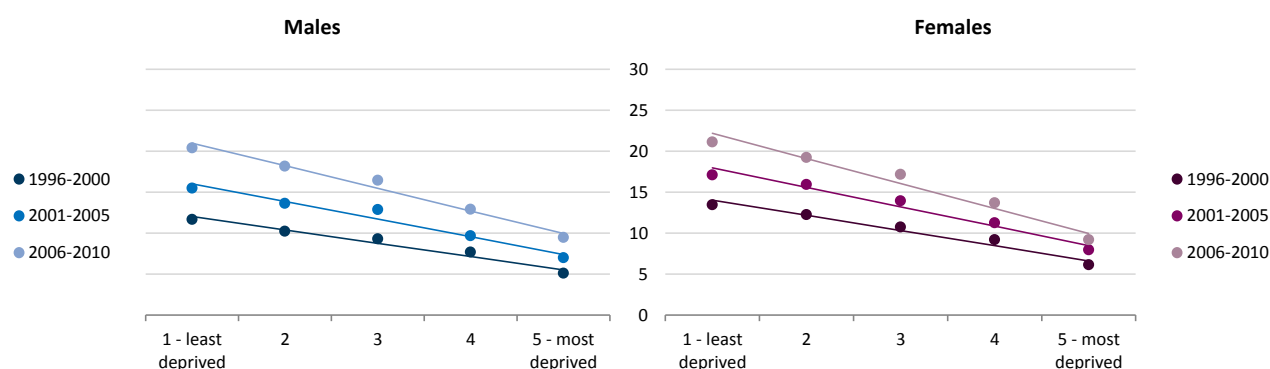
## Age-standardised\* incidence rate for melanoma (England; rate per 100,000 population)



## Yearly excess cases for melanoma (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for melanoma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-6.5	(-8.7 - -4.3)	-54%	0.0025
2001-2005	-8.6	(-11.7 - -5.6)	-54%	0.0029
2006-2010	-11.0	(-13.9 - -8.2)	-53%	0.0011
p-value for difference in trend 2001-2005 to 2006-2010				0.2563
p-value for difference in trend 1996-2000 to 2006-2010				0.0143

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-7.4	(-10.1 - -4.8)	-53%	0.0030
2001-2005	-9.5	(-12.5 - -6.5)	-53%	0.0021
2006-2010	-12.2	(-16.4 - -8.0)	-55%	0.0027
p-value for difference in trend 2001-2005 to 2006-2010				0.2994
p-value for difference in trend 1996-2000 to 2006-2010				0.0585

Notes<sup>#</sup>

- The incidence rate (ASR) for males and females decreased as deprivation increased; this was statistically significant for the three periods.
- There was a statistically significant increase in the estimated deprivation gap between 1996-2000 to 2006-2010 for males.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.613; 0.685; 0.645).
- In 2006-2010 there would have been around 2,800 more cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details



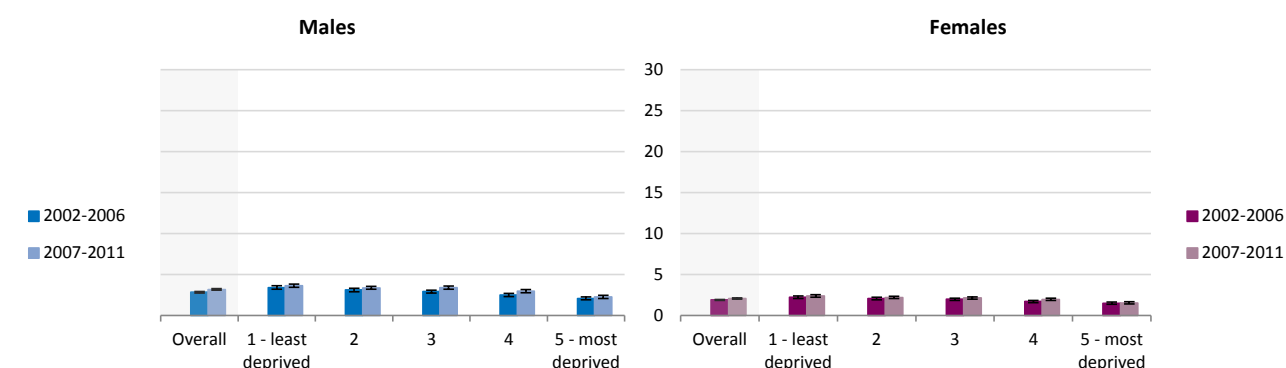
## Melanoma (C43)

## Latest mortality for melanoma (England; rate per 100,000 population; excess 5yr average)

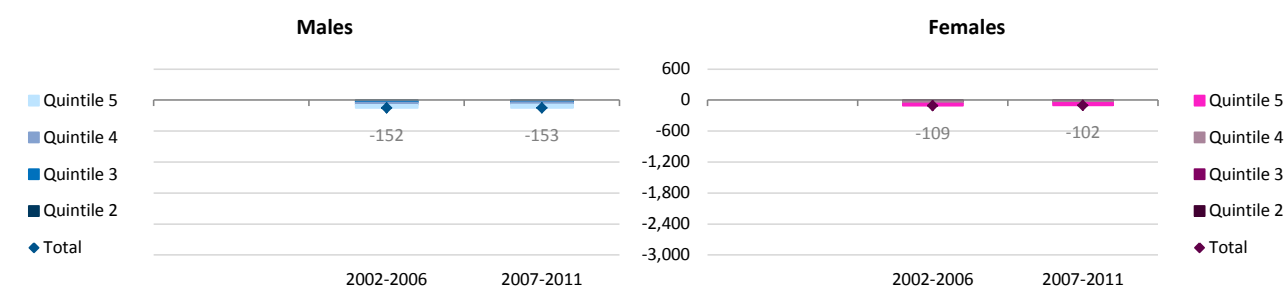
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,246	3.7	(3.5 - 3.9)	1	-
2	1,189	3.4	(3.2 - 3.6)	0.93	-21
3	1,107	3.4	(3.2 - 3.6)	0.93	-21
4	863	3.0	(2.8 - 3.2)	0.81	-43
5 - most deprived	562	2.3	(2.1 - 2.5)	0.63	-68
<b>Overall</b>	<b>4,967</b>	<b>3.2</b>	<b>(3.1 - 3.3)</b>		<b>-153</b>

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	908	2.4	(2.2 - 2.5)	1	-
2	936	2.2	(2.1 - 2.3)	0.92	-7
3	858	2.1	(2.0 - 2.3)	0.90	-17
4	710	2.0	(1.8 - 2.1)	0.83	-30
5 - most deprived	479	1.5	(1.4 - 1.7)	0.65	-48
<b>Overall</b>	<b>3,891</b>	<b>2.1</b>	<b>(2.0 - 2.1)</b>		<b>-102</b>

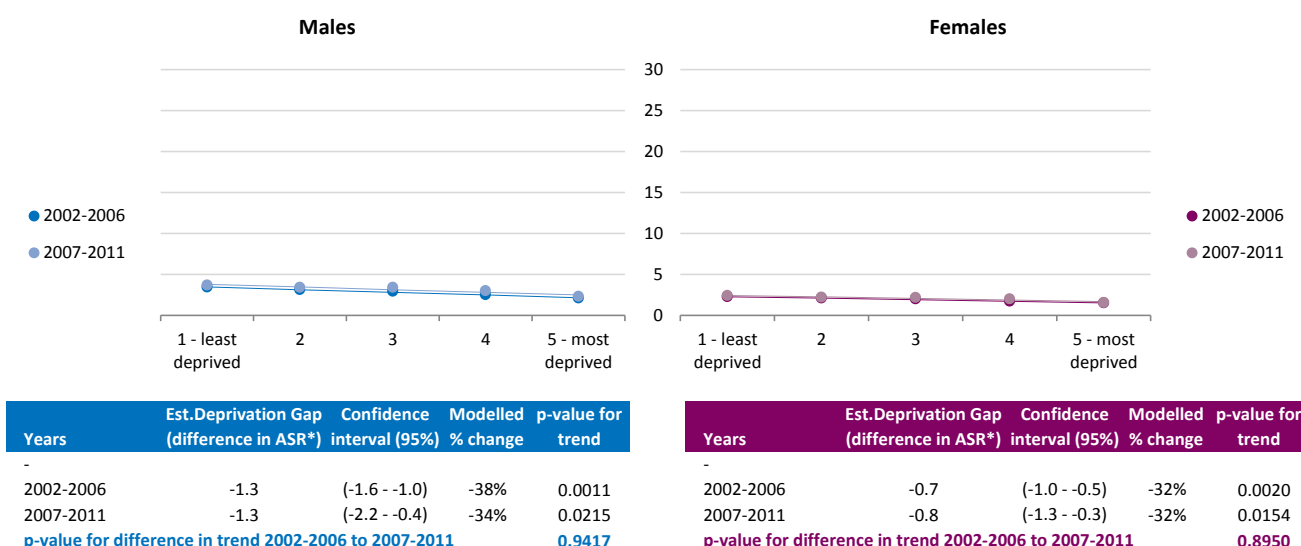
## Age-standardised\* mortality for melanoma (England; rate per 100,000 population)



## Yearly excess deaths for melanoma (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for melanoma (England; rate per 100,000 population)

Notes<sup>#</sup>

- Mortality (ASR) for males and females decreased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR decrease was greater for males than females; this was statistically significant in one of the two periods (p-values: 0.005; 0.341).
- In 2007-2011 there would have been around 270 more deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

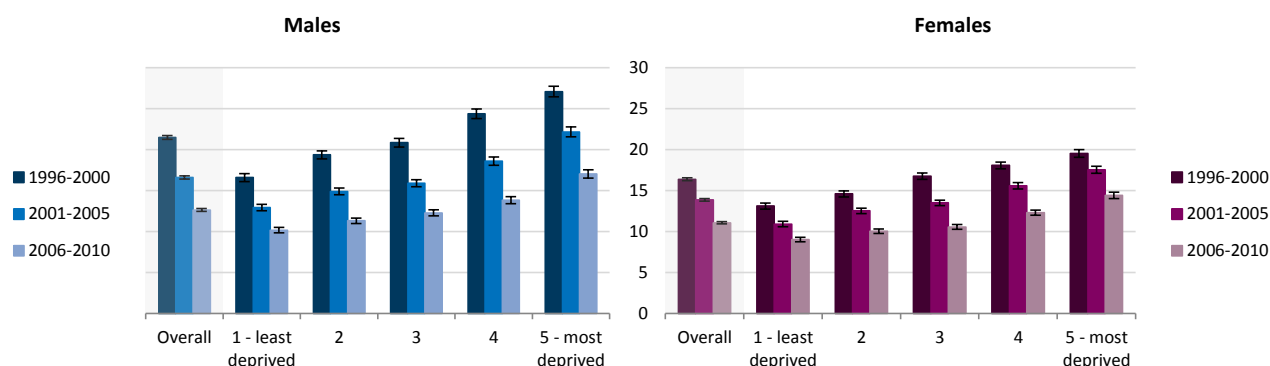
## Cancer of Unknown Primary (C77-C80)

## Latest incidence for cancer of unknown primary (England; rate per 100,000 population; excess 5yr average)

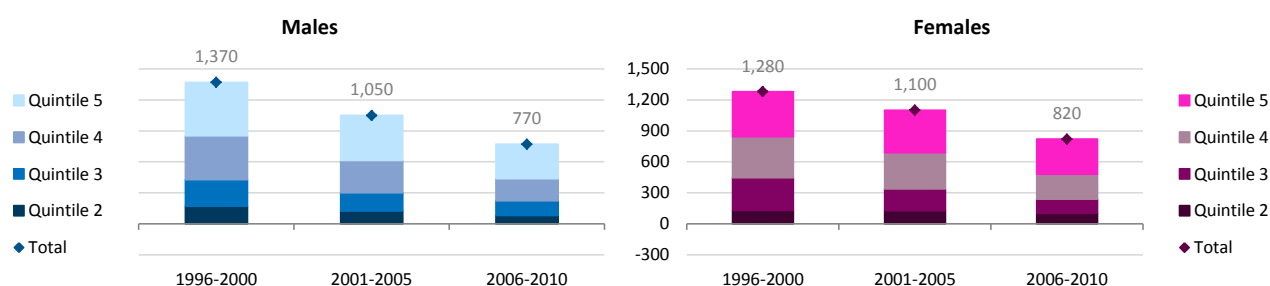
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	3,600	10.2	(9.8 - 10.5)	1	-
2	4,203	11.3	(11.0 - 11.6)	1.11	82
3	4,282	12.3	(11.9 - 12.6)	1.21	140
4	4,230	13.8	(13.4 - 14.2)	1.36	214
5 - most deprived	4,272	17.0	(16.5 - 17.5)	1.67	335
<b>Overall</b>	<b>20,587</b>	<b>12.6</b>	<b>(12.4 - 12.8)</b>		<b>770</b>

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	3,977	9.0	(8.7 - 9.3)	1	-
2	4,947	10.0	(9.7 - 10.3)	1.11	101
3	5,076	10.5	(10.2 - 10.8)	1.17	137
4	5,241	12.3	(12.0 - 12.6)	1.36	243
5 - most deprived	4,953	14.4	(14.0 - 14.8)	1.60	339
<b>Overall</b>	<b>24,194</b>	<b>11.1</b>	<b>(10.9 - 11.2)</b>		<b>820</b>

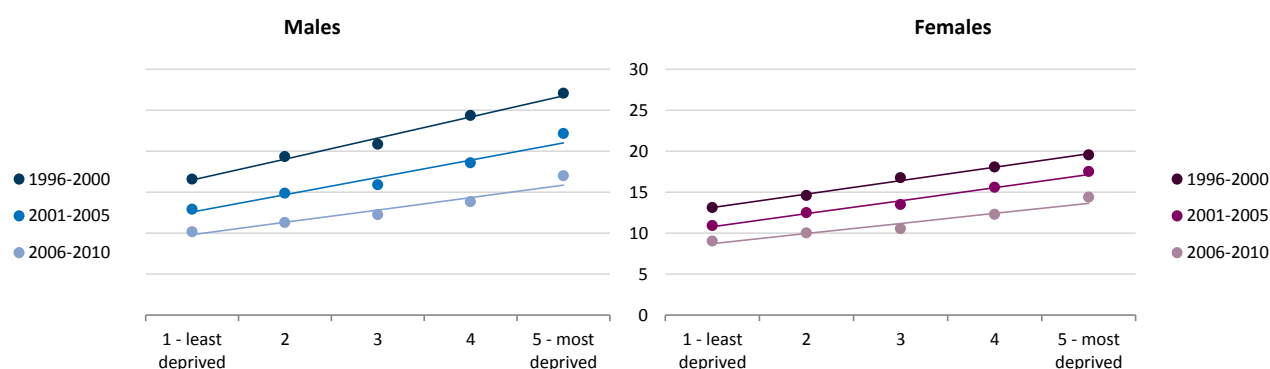
## Age-standardised\* incidence rate for cancer of unknown primary (England; rate per 100,000 population)



## Yearly excess cases for cancer of unknown primary (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for cancer of unknown primary (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	10.3	(8.1 - 12.5)	62%	0.0007
2001-2005	8.4	(5.0 - 11.9)	67%	0.0044
2006-2010	6.0	(3.0 - 9.0)	61%	0.0077
p-value for difference in trend 2001-2005 to 2006-2010				0.3008
p-value for difference in trend 1996-2000 to 2006-2010				0.0257

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	6.6	(5.6 - 7.6)	50%	0.0003
2001-2005	6.4	(4.9 - 7.9)	59%	0.0009
2006-2010	4.9	(2.5 - 7.3)	56%	0.0072
p-value for difference in trend 2001-2005 to 2006-2010				0.3078
p-value for difference in trend 1996-2000 to 2006-2010				0.2111

Notes<sup>#</sup>

- The incidence rate (ASR) for males and females increased as deprivation increased; this was statistically significant for the three periods.
- There was a statistically significant decrease in the estimated deprivation gap between 1996-2000 to 2006-2010 for males.
- The ASR increase was greater for males than females; this was statistically significant in one of the three periods (p-values: 0.003; 0.287; 0.573).
- In 2006-2010 there would have been around 1,600 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

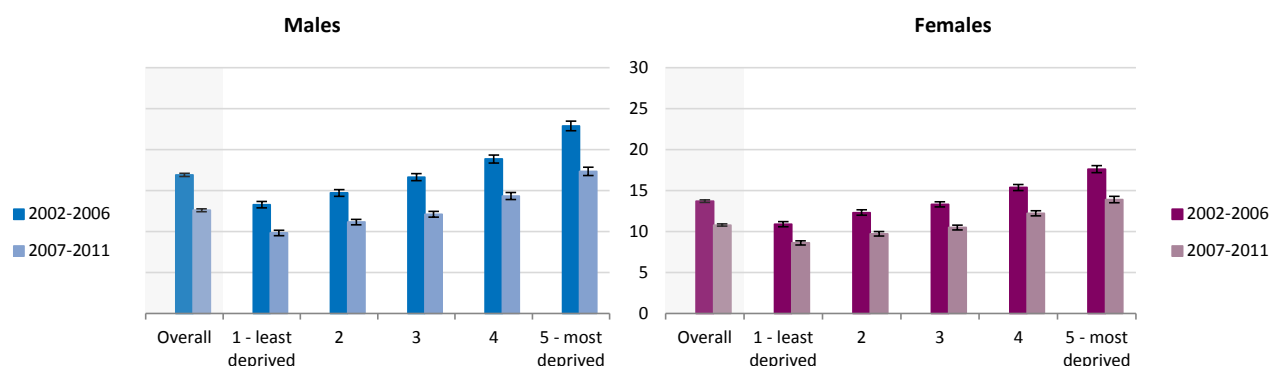
<sup>#</sup> Please see pp. 20-21 for further details

# Cancer of Unknown Primary (C77-C80)

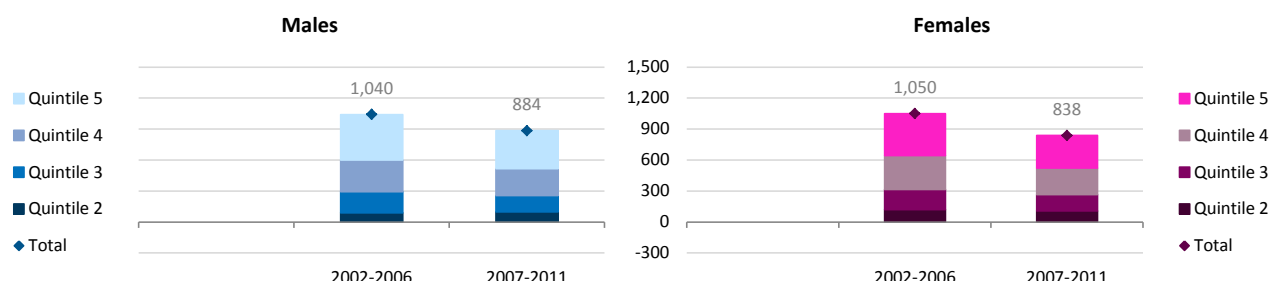
## Latest mortality for cancer of unknown primary (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	3,667	9.8	(9.5 - 10.2)	1	-	1 - least deprived	4,114	8.6	(8.4 - 8.9)	1	-
2	4,378	11.2	(10.8 - 11.5)	1.14	98	2	5,158	9.8	(9.5 - 10.0)	1.13	106
3	4,448	12.1	(11.8 - 12.5)	1.23	157	3	5,380	10.5	(10.2 - 10.8)	1.22	160
4	4,512	14.3	(13.9 - 14.8)	1.46	261	4	5,472	12.2	(11.9 - 12.6)	1.42	258
5 - most deprived	4,430	17.3	(16.8 - 17.8)	1.76	368	5 - most deprived	4,901	13.9	(13.5 - 14.3)	1.61	314
<b>Overall</b>	<b>21,435</b>	<b>12.6</b>	<b>(12.4 - 12.8)</b>		<b>884</b>	<b>Overall</b>	<b>25,025</b>	<b>10.8</b>	<b>(10.7 - 10.9)</b>		<b>838</b>

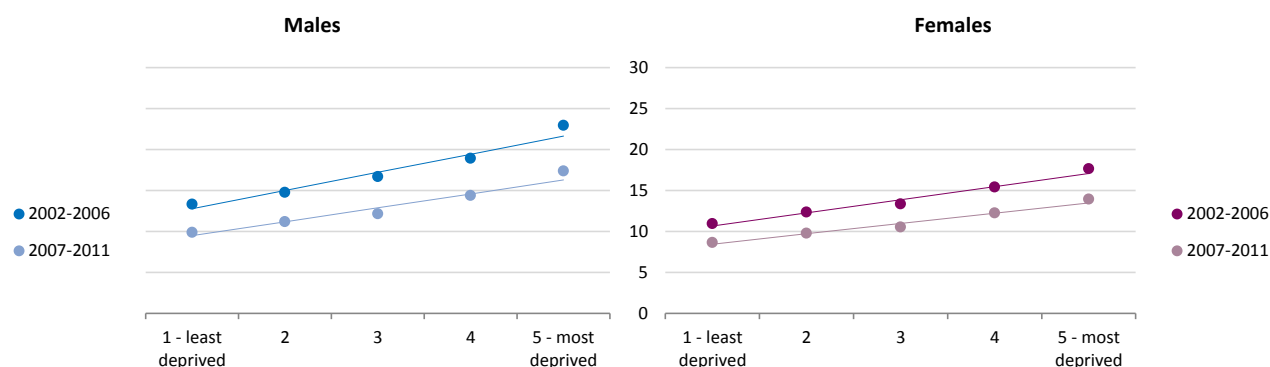
## Age-standardised\* mortality for cancer of unknown primary (England; rate per 100,000 population)



## Yearly excess deaths for cancer of unknown primary (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for cancer of unknown primary (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend	Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	8.8	(5.4 - 12.3)	69%	0.0038	2002-2006	6.4	(4.5 - 8.3)	60%	0.0017
2007-2011	6.8	(3.8 - 9.8)	72%	0.0055	2007-2011	5.0	(3.5 - 6.6)	60%	0.0019
<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.3769</b>	<b>p-value for difference in trend 2002-2006 to 2007-2011</b>				<b>0.2734</b>

### Notes<sup>#</sup>

- Mortality (ASR) for males and females increased as deprivation increased; this was statistically significant for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.219; 0.306).
- In 2007-2011 there would have been around 1,700 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

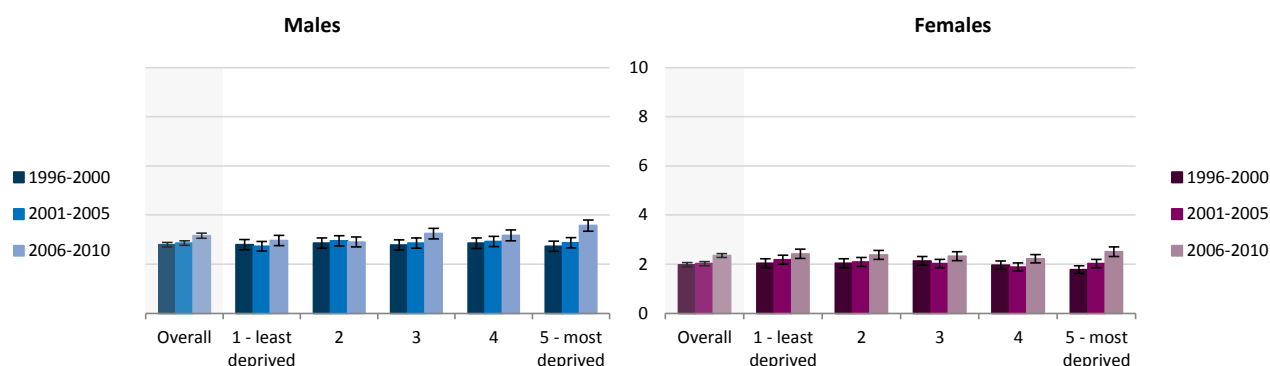
<sup>#</sup> Please see pp. 20-21 for further details

## Hodgkin Lymphoma (C81)

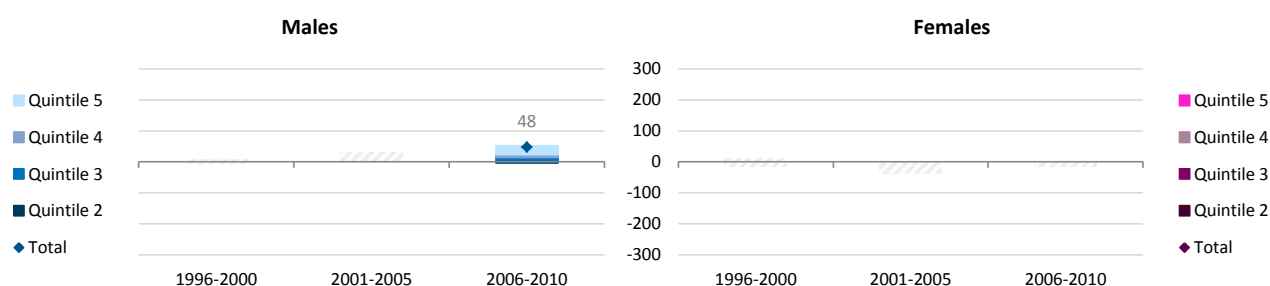
## Latest incidence for Hodgkin lymphoma (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	795	3.0	(2.8 - 3.2)	1	-	1 - least deprived	637	2.4	(2.2 - 2.6)	1	-
2	780	2.9	(2.7 - 3.1)	0.98	-4	2	640	2.4	(2.2 - 2.6)	0.98	-2
3	868	3.2	(3.0 - 3.5)	1.09	14	3	656	2.3	(2.1 - 2.5)	0.96	Not statistically significant
4	837	3.2	(3.0 - 3.4)	1.07	9	4	623	2.2	(2.0 - 2.4)	0.92	1
5 - most deprived	900	3.6	(3.3 - 3.8)	1.20	29	5 - most deprived	680	2.5	(2.3 - 2.7)	1.04	-15
<b>Overall</b>	<b>4,180</b>	<b>3.2</b>	<b>(3.1 - 3.3)</b>		<b>48</b>	<b>Overall</b>	<b>3,236</b>	<b>2.3</b>	<b>(2.3 - 2.4)</b>		

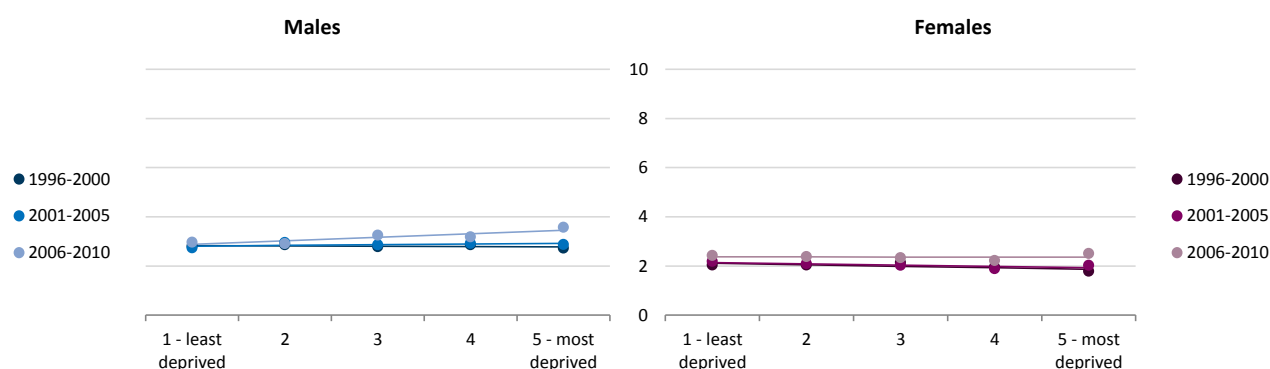
## Age-standardised\* incidence rate for Hodgkin lymphoma (England; rate per 100,000 population)



## Yearly excess cases for Hodgkin lymphoma (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for Hodgkin lymphoma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.1	(-0.3 - 0.2)	-2%	0.4631
2001-2005	0.1	(-0.2 - 0.5)	4%	0.3855
2006-2010	0.6	(0.0 - 1.2)	20%	0.0491
p-value for difference in trend 2001-2005 to 2006-2010				0.1685
p-value for difference in trend 1996-2000 to 2006-2010				0.0429

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.3	(-0.7 - 0.2)	-12%	0.1555
2001-2005	-0.2	(-0.5 - 0.1)	-10%	0.1439
2006-2010	-0.0	(-0.5 - 0.5)	-0%	0.9794
p-value for difference in trend 2001-2005 to 2006-2010				0.5110
p-value for difference in trend 1996-2000 to 2006-2010				0.4620

Notes<sup>#</sup>

- The change in the incidence rate (ASR), as deprivation increased, was statistically significant for males in one of the three periods.
- There was a statistically significant change in the estimated deprivation gap between 1996-2000 to 2006-2010 for males.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.440; 0.195; 0.136).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

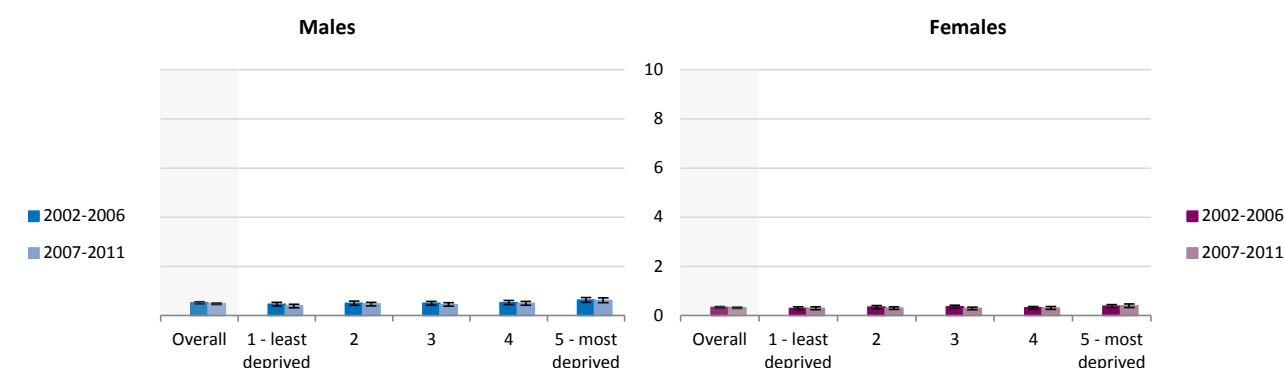
<sup>#</sup> Please see pp. 20-21 for further details

## Hodgkin Lymphoma (C81)

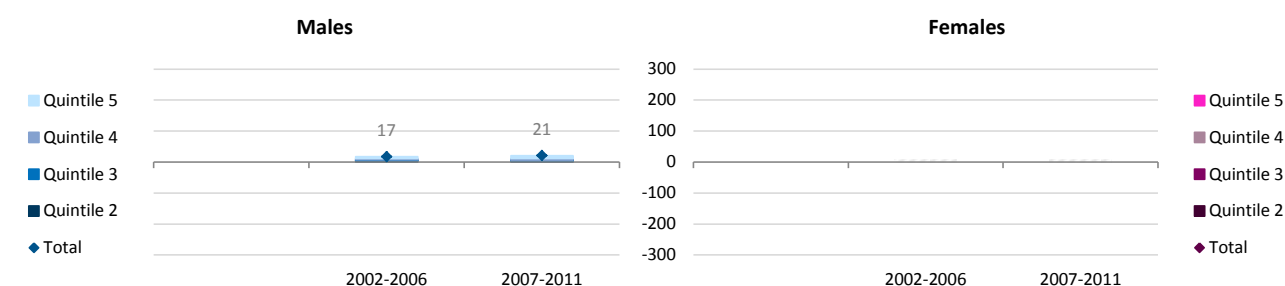
## Latest mortality for Hodgkin lymphoma (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	129	0.4	(0.3 - 0.5)	1	-	1 - least deprived	105	0.3	(0.2 - 0.3)	1	-
2	151	0.5	(0.4 - 0.5)	1.20	2	2	122	0.3	(0.2 - 0.4)	1.04	2
3	145	0.4	(0.4 - 0.5)	1.15	4	3	115	0.3	(0.2 - 0.3)	0.98	1
4	144	0.5	(0.4 - 0.6)	1.29	5	4	106	0.3	(0.2 - 0.4)	1.05	5
5 - most deprived	153	0.6	(0.5 - 0.7)	1.59	10	5 - most deprived	117	0.4	(0.3 - 0.5)	1.36	8
Overall	722	0.5	(0.4 - 0.5)		21	Overall	565	0.3	(0.3 - 0.3)		

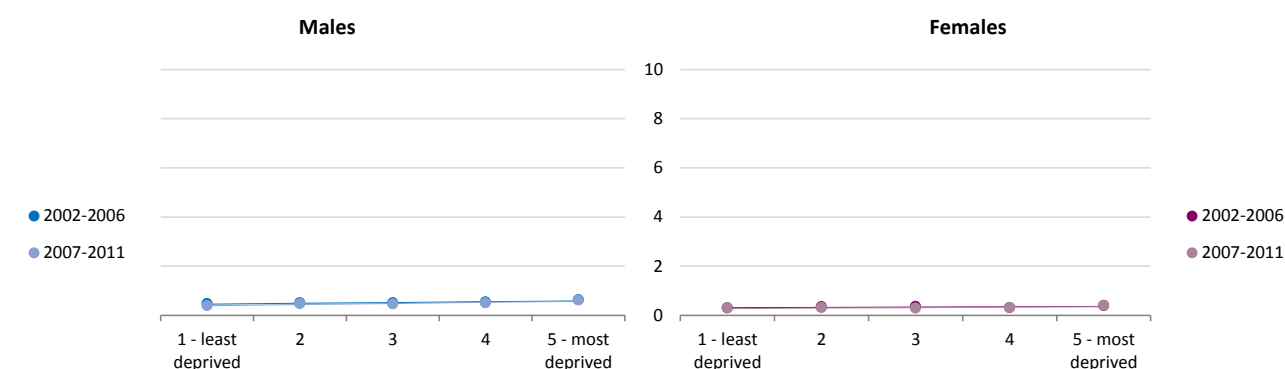
## Age-standardised\* mortality for Hodgkin lymphoma (England; rate per 100,000 population)



## Yearly excess deaths for Hodgkin lymphoma (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for Hodgkin lymphoma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(0.0 - 0.3)	30%	0.0406
2007-2011	0.2	(0.0 - 0.3)	47%	0.0324
p-value for difference in trend 2002-2006 to 2007-2011				0.6327

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(0.1 - 0.2)	18%	0.2769
2007-2011	0.1	Not statistically significant	26%	0.2095
p-value for difference in trend 2002-2006 to 2007-2011				0.8609

Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for males in the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.373; 0.292).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

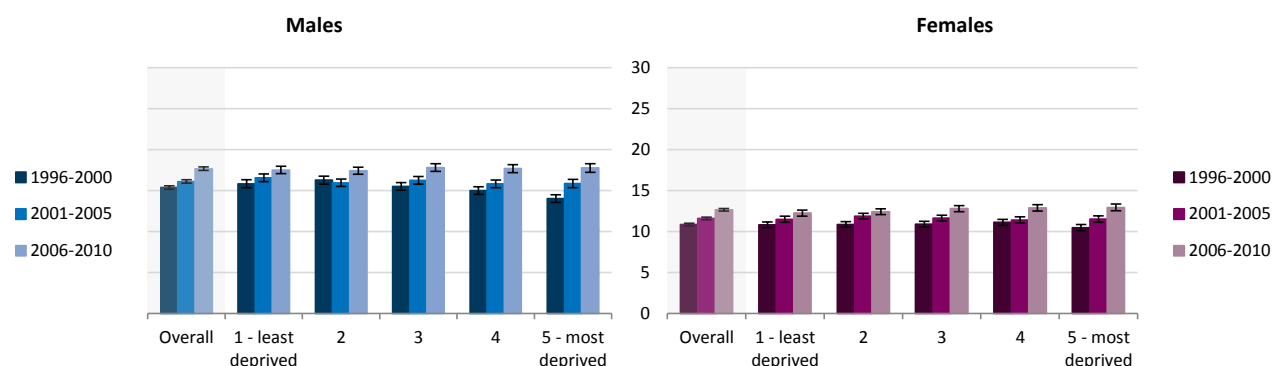
## Non-Hodgkin Lymphoma (C82-C85)

## Latest incidence for non-Hodgkin lymphoma (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	5,744	17.5	(17.1 - 18.0)	1	-
2	5,892	17.4	(17.0 - 17.9)	0.99	-9
3	5,640	17.8	(17.3 - 18.3)	1.02	12
4	5,000	17.7	(17.2 - 18.2)	1.01	2
5 - most deprived	4,290	17.7	(17.2 - 18.3)	1.01	3
Overall	26,566	17.7	(17.4 - 17.9)		7

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	4,540	12.2	(11.9 - 12.6)	1	-
2	4,948	12.4	(12.1 - 12.8)	1.01	17
3	4,890	12.8	(12.4 - 13.1)	1.04	38
4	4,421	12.9	(12.5 - 13.3)	1.05	25
5 - most deprived	3,748	12.9	(12.5 - 13.4)	1.06	25
Overall	22,547	12.6	(12.5 - 12.8)		105

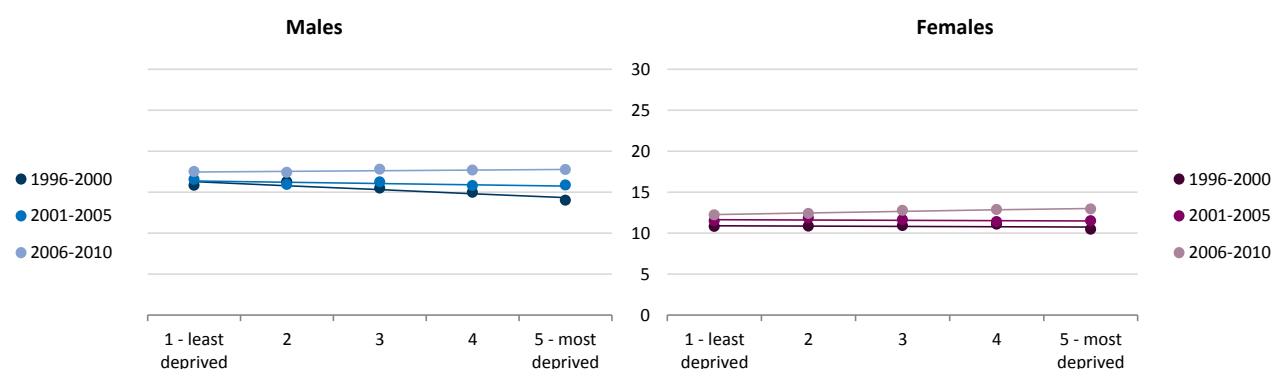
## Age-standardised\* incidence rate for non-Hodgkin lymphoma (England; rate per 100,000 population)



## Yearly excess cases for non-Hodgkin lymphoma (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for non-Hodgkin lymphoma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-2.0	(-3.8 - -0.2)	-12%	0.0391
2001-2005	-0.6	(-1.6 - 0.4)	-4%	0.1356
2006-2010	0.3		2%	0.1769
p-value for difference in trend 2001-2005 to 2006-2010				0.1047
p-value for difference in trend 1996-2000 to 2006-2010				0.0169

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.2	(-1.2 - 0.9)	-1%	0.6549
2001-2005	-0.2	(-1.0 - 0.6)	-2%	0.5284
2006-2010	0.8	(0.3 - 1.2)	6%	0.0103
p-value for difference in trend 2001-2005 to 2006-2010				0.0387
p-value for difference in trend 1996-2000 to 2006-2010				0.0992

Notes<sup>#</sup>

- The change in the incidence rate (ASR), as deprivation increased, was statistically significant for males in one period and for females in one period.
- There was a statistically significant change in the estimated deprivation gap between 1996 to 2010 for males and 2001 to 2010 for females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.084; 0.488; 0.199).
- In 2006-2010 there would have been around 65 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

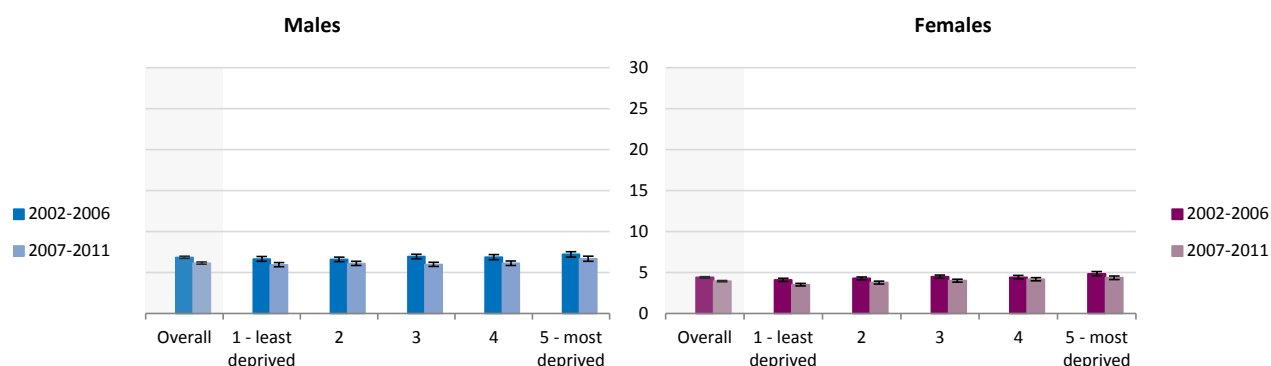
## Non-Hodgkin Lymphoma (C82-C85)

## Latest mortality for non-Hodgkin lymphoma (England; rate per 100,000 population; excess 5yr average)

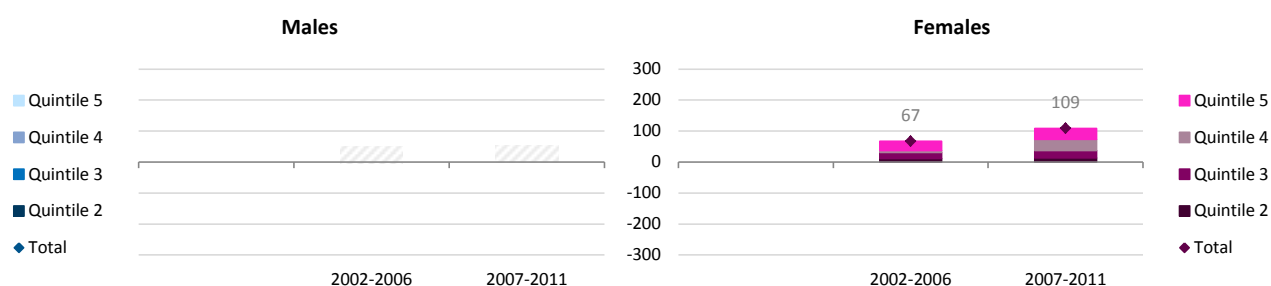
Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	2,162	6.0	(5.7 - 6.2)	1	-
2	2,350	6.1	(5.9 - 6.4)	1.03	16
3	2,125	6.0	(5.7 - 6.3)	1.01	Not statistically significant
4	1,894	6.1	(5.9 - 6.4)	1.03	32
5 - most deprived	1,692	6.7	(6.4 - 7.0)	1.12	52
<b>Overall</b>	<b>10,223</b>	<b>6.2</b>	<b>(6.0 - 6.3)</b>		

Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,619	3.5	(3.4 - 3.7)	1	-
2	1,866	3.8	(3.6 - 4.0)	1.08	13
3	1,892	4.0	(3.8 - 4.2)	1.14	24
4	1,789	4.2	(4.0 - 4.4)	1.19	36
5 - most deprived	1,470	4.4	(4.1 - 4.6)	1.24	36
<b>Overall</b>	<b>8,636</b>	<b>3.9</b>	<b>(3.9 - 4.0)</b>		<b>109</b>

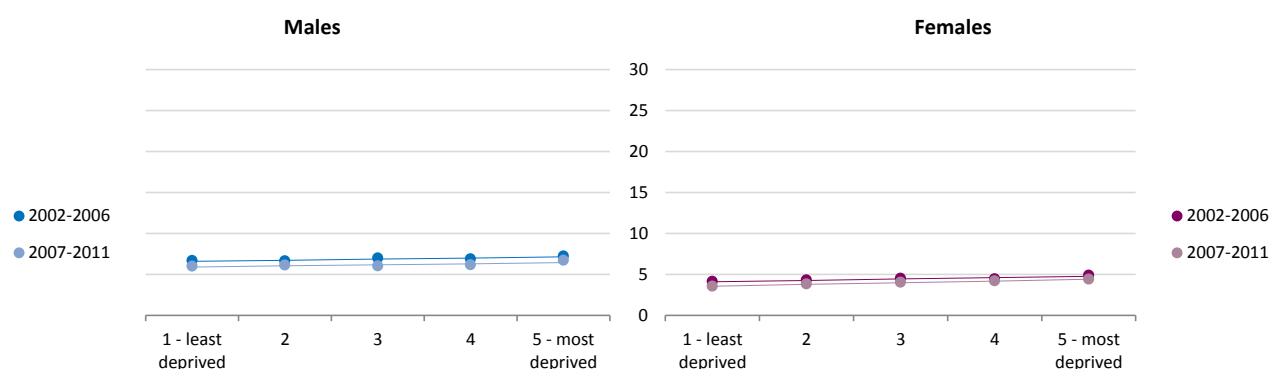
## Age-standardised\* mortality for non-Hodgkin lymphoma (England; rate per 100,000 population)



## Yearly excess deaths for non-Hodgkin lymphoma (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for non-Hodgkin lymphoma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.5	(0.0 - 1.1)	8%	0.0526
2007-2011	0.5	Not statistically significant	9%	0.1253
p-value for difference in trend 2002-2006 to 2007-2011				0.9881

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.6	(0.2 - 1.1)	16%	0.0252
2007-2011	0.8	(0.7 - 1.0)	24%	0.0004
p-value for difference in trend 2002-2006 to 2007-2011				0.4235

Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for females in the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.798; 0.455).
- In 2007-2011 there would have been around 130 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

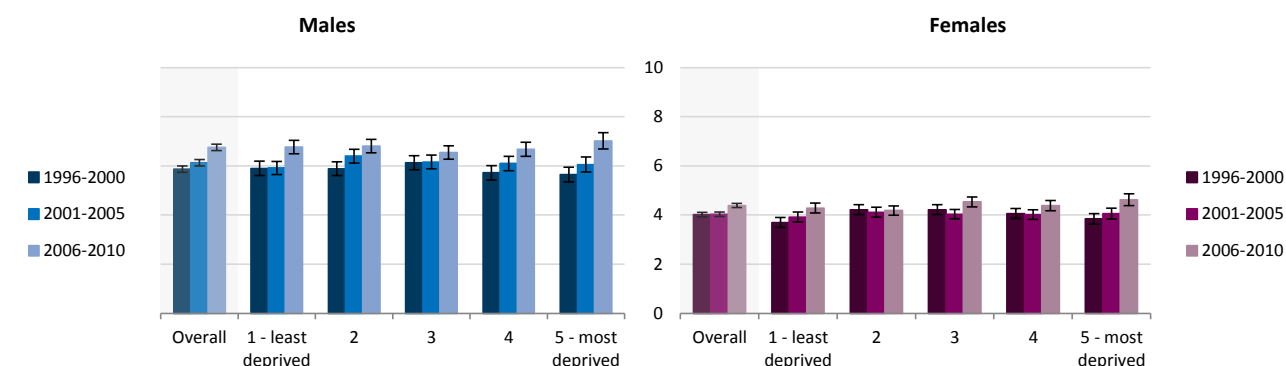
## Multiple Myeloma (C90)

## Latest incidence for multiple myeloma (England; rate per 100,000 population; excess 5yr average)

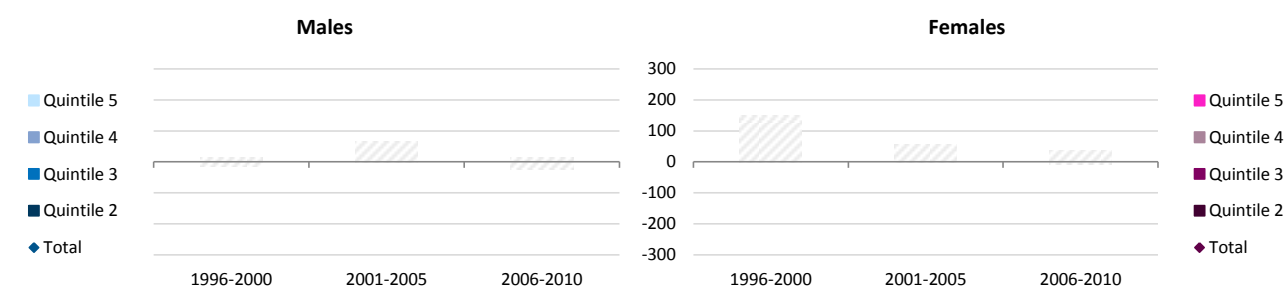
Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	2,342	6.8	(6.5 - 7.0)	1	-
2	2,448	6.8	(6.5 - 7.1)	1.01	1
3	2,176	6.5	(6.3 - 6.8)	0.97	Not statistically significant
4	1,993	6.7	(6.4 - 7.0)	0.99	13
5 - most deprived	1,731	7.0	(6.7 - 7.3)	1.04	-9
Overall	10,690	6.8	(6.6 - 6.9)		

Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,736	4.3	(4.1 - 4.5)	1	-8
2	1,852	4.2	(4.0 - 4.4)	0.98	21
3	1,942	4.5	(4.3 - 4.7)	1.06	Not statistically significant
4	1,675	4.4	(4.2 - 4.6)	1.02	15
5 - most deprived	1,447	4.6	(4.4 - 4.9)	1.08	30
Overall	8,652	4.4	(4.3 - 4.5)		

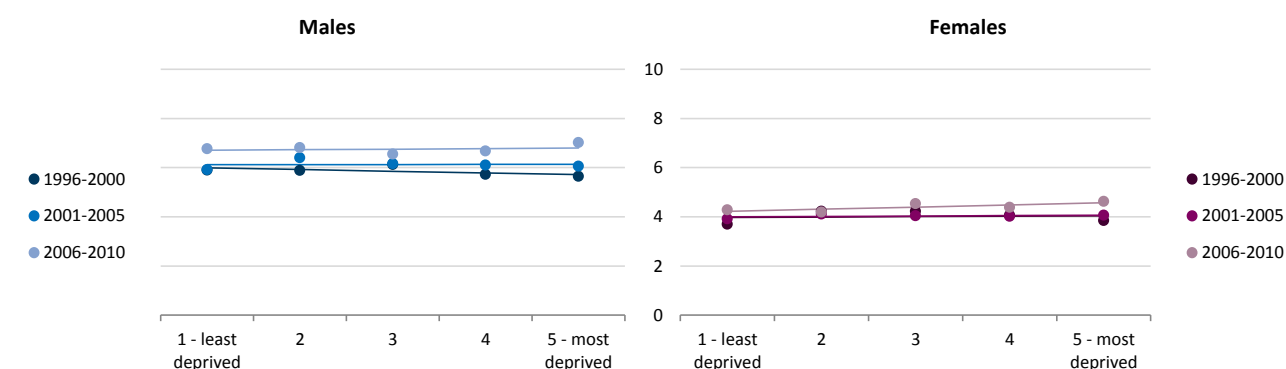
## Age-standardised\* incidence rate for multiple myeloma (England; rate per 100,000 population)



## Yearly excess cases for multiple myeloma (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for multiple myeloma (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.3	(-1.0 - 0.5)	-4%	0.3238
2001-2005	0.0	Not statistically significant	0%	0.9716
2006-2010	0.1	(-0.7 - 0.9)	1%	0.7167
p-value for difference in trend 2001-2005 to 2006-2010				0.8831
p-value for difference in trend 1996-2000 to 2006-2010				0.5000

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.1	(-1.0 - 1.2)	2%	0.8436
2001-2005	0.1	Not statistically significant	2%	0.5210
2006-2010	0.3	(-0.2 - 0.9)	8%	0.1457
p-value for difference in trend 2001-2005 to 2006-2010				0.4057
p-value for difference in trend 1996-2000 to 2006-2010				0.6589

Notes<sup>#</sup>

- There was no statistically significant difference in the male or female incidence rate (ASR) as deprivation increased, for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.608; 0.894; 0.608).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

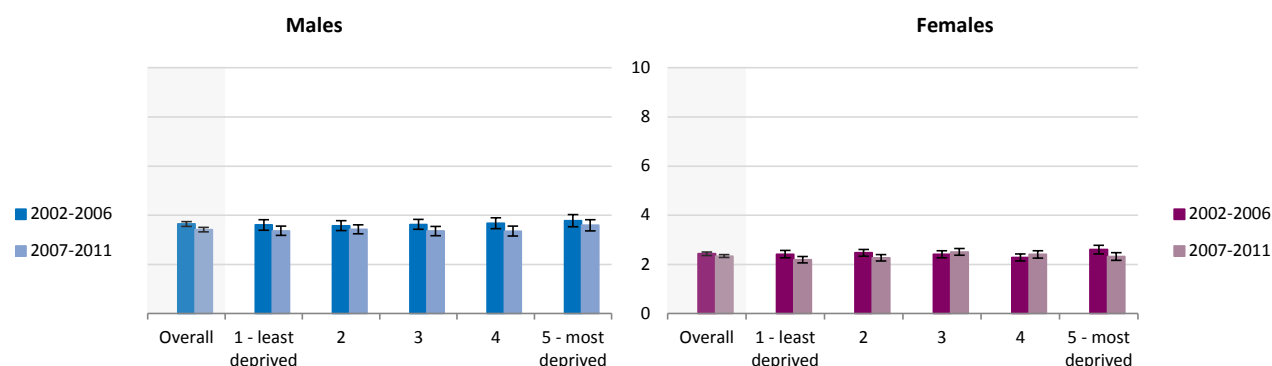


## Multiple Myeloma (C90)

## Latest mortality for multiple myeloma (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,257	3.4	(3.2 - 3.6)	1	-	1 - least deprived	1,017	2.2	(2.1 - 2.3)	1	-
2	1,342	3.4	(3.2 - 3.6)	1.02	4	2	1,158	2.3	(2.1 - 2.4)	1.03	5
3	1,222	3.4	(3.2 - 3.5)	1.00	Not statistically significant	3	1,235	2.5	(2.4 - 2.6)	1.14	Not statistically significant
4	1,071	3.4	(3.2 - 3.6)	1.00	10	4	1,039	2.4	(2.3 - 2.6)	1.10	3
5 - most deprived	927	3.6	(3.4 - 3.8)	1.07	10	5 - most deprived	818	2.3	(2.2 - 2.5)	1.06	39
Overall	5,819	3.4	(3.3 - 3.5)			Overall	5,267	2.3	(2.3 - 2.4)		

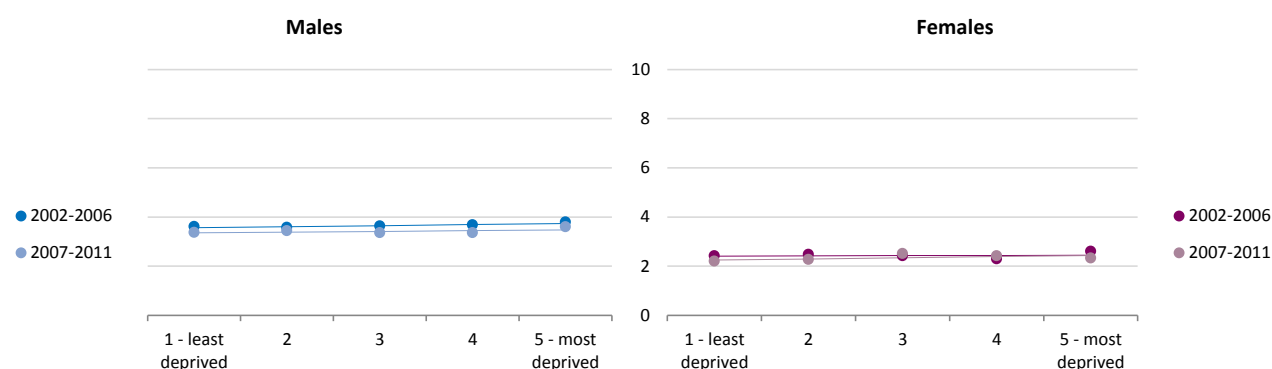
## Age-standardised\* mortality for multiple myeloma (England; rate per 100,000 population)



## Yearly excess deaths for multiple myeloma (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for multiple myeloma (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.2	(0.0 - 0.4)	5%	0.0519
2007-2011	0.1	(0.0 - 0.2)	4%	0.3673
p-value for difference in trend 2002-2006 to 2007-2011				0.8096

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.0	(-0.5 - 0.6)	2%	0.8429
2007-2011	0.2	(0.0 - 0.4)	8%	0.3178
p-value for difference in trend 2002-2006 to 2007-2011				0.6859

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.626; 0.846).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

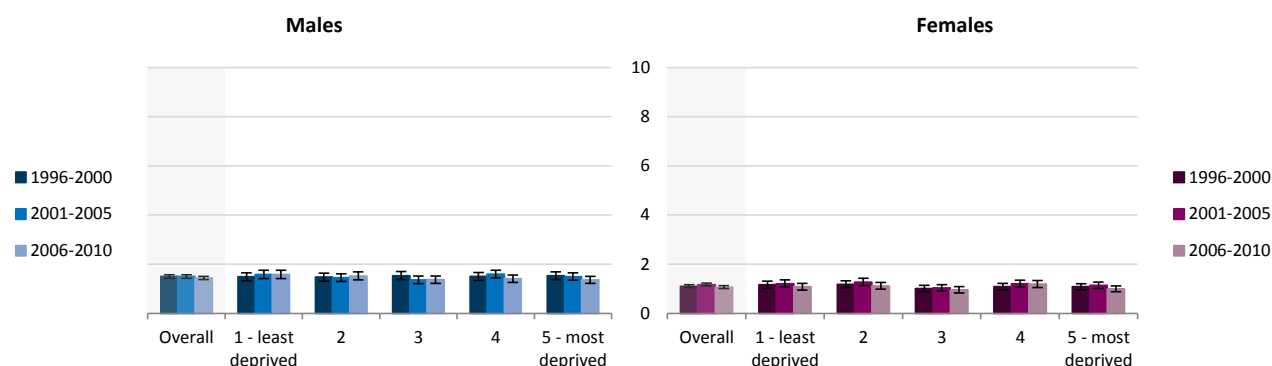
<sup>#</sup> Please see pp. 20-21 for further details

## Acute Lymphoblastic Leukaemia (C910)

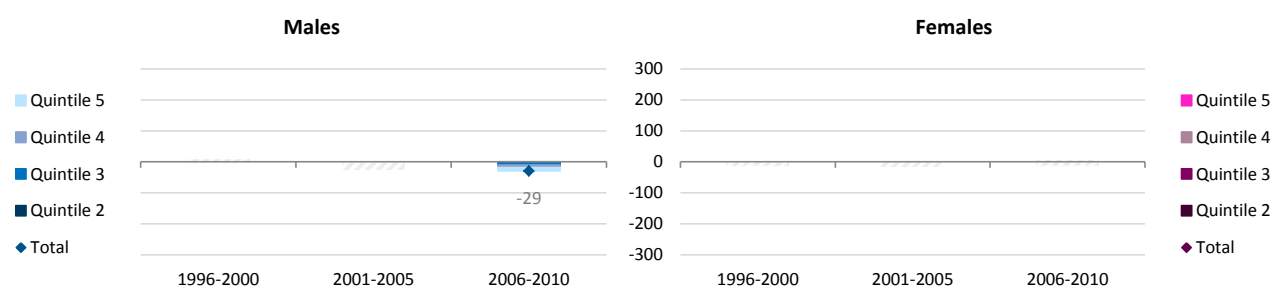
## Latest incidence for acute lymphoblastic leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	350	1.6	(1.4 - 1.8)	1	-	1 - least deprived	242	1.1	(0.9 - 1.2)	1	-
2	342	1.5	(1.4 - 1.7)	0.96	-	2	240	1.1	(1.0 - 1.3)	1.03	-1
3	301	1.4	(1.2 - 1.5)	0.86	-10	3	214	1.0	(0.8 - 1.1)	0.88	-6
4	328	1.4	(1.3 - 1.6)	0.89	-8	4	277	1.2	(1.0 - 1.3)	1.10	-4
5 - most deprived	348	1.4	(1.2 - 1.5)	0.86	-12	5 - most deprived	258	1.0	(0.9 - 1.1)	0.92	-7
Overall	1,669	1.4	(1.4 - 1.5)		-29	Overall	1,231	1.1	(1.0 - 1.1)		-7

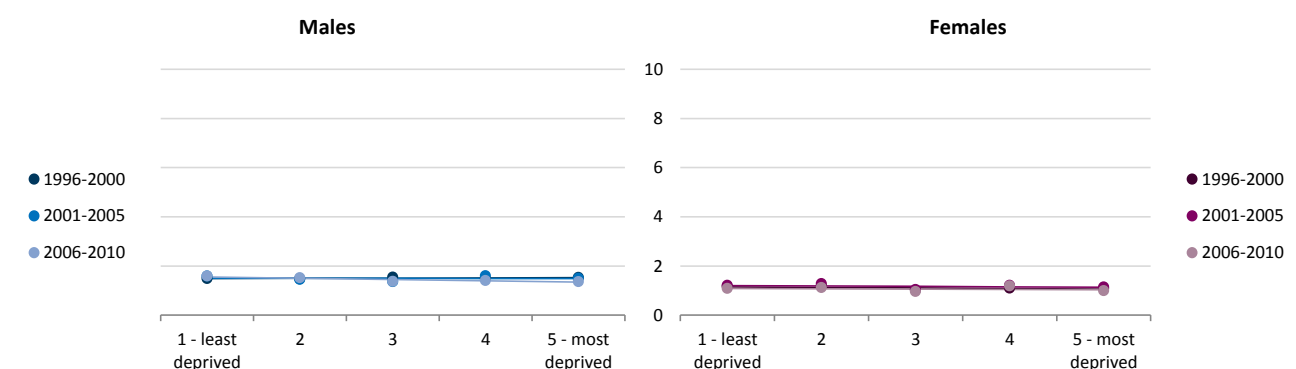
## Age-standardised\* incidence rate for acute lymphoblastic leukaemia (England; rate per 100,000 population)



## Yearly excess cases for acute lymphoblastic leukaemia (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for acute lymphoblastic leukaemia (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.0	(0.0 - 0.1)	3%	0.2391
2001-2005	-0.0	(-0.3 - 0.4)	-1%	0.9276
2006-2010	-0.2	(-0.4 - 0.0)	-14%	0.0445
p-value for difference in trend 2001-2005 to 2006-2010				0.4234
p-value for difference in trend 1996-2000 to 2006-2010				0.0249

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.1	(-0.4 - 0.2)	-8%	0.3290
2001-2005	-0.1	(-0.5 - 0.4)	-6%	0.6039
2006-2010	-0.1	(-0.5 - 0.4)	-5%	0.7251
p-value for difference in trend 2001-2005 to 2006-2010				0.9387
p-value for difference in trend 1996-2000 to 2006-2010				0.8578

Notes<sup>#</sup>

- The decrease in the incidence rate (ASR), as deprivation increased, was statistically significant for males in one of the three periods.
- There was a statistically significant change in the estimated deprivation gap between 1996-2000 to 2006-2010 for males.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.330; 0.847; 0.488).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

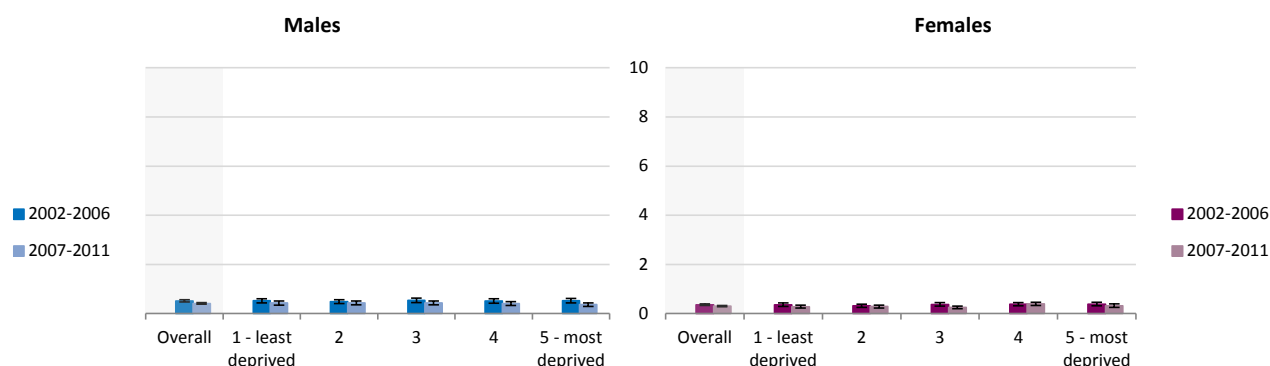
<sup>#</sup> Please see pp. 20-21 for further details

## Acute Lymphoblastic Leukaemia (C910)

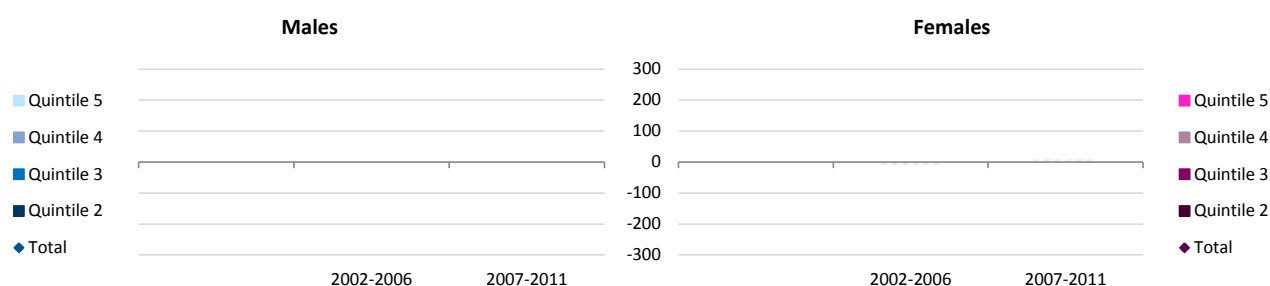
## Latest mortality for acute lymphoblastic leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	117	0.4	(0.3 - 0.5)	1	-	1 - least deprived	84	0.3	(0.2 - 0.3)	1	-
2	124	0.4	(0.4 - 0.5)	1.01	-1	2	83	0.3	(0.2 - 0.3)	1.02	-1
3	117	0.4	(0.4 - 0.5)	1.02	-	3	86	0.3	(0.2 - 0.3)	0.90	-
4	108	0.4	(0.3 - 0.5)	0.95	-	4	108	0.4	(0.3 - 0.5)	1.41	-
5 - most deprived	92	0.4	(0.3 - 0.4)	0.85	-3	5 - most deprived	87	0.3	(0.3 - 0.4)	1.15	2
Overall	558	0.4	(0.4 - 0.4)		-1	Overall	448	0.3	(0.3 - 0.3)		6

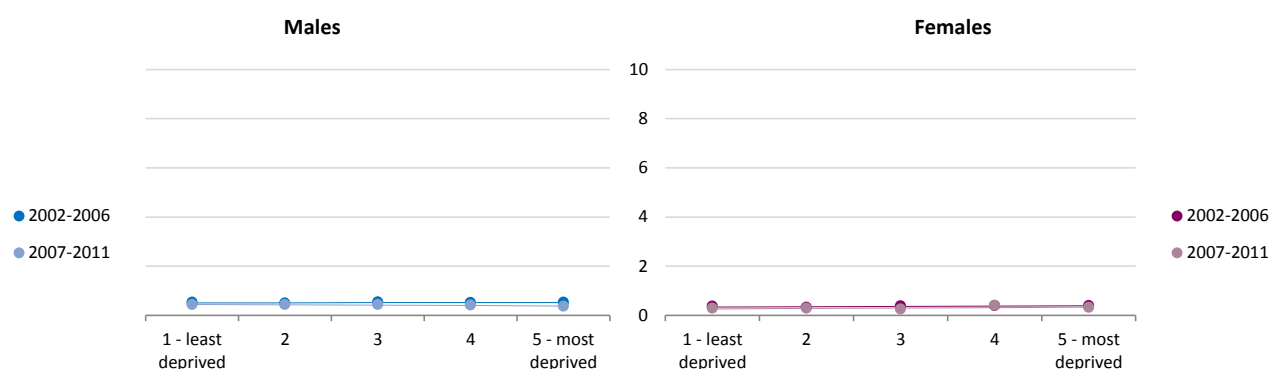
## Age-standardised\* mortality for acute lymphoblastic leukaemia (England; rate per 100,000 population)



## Yearly excess deaths for acute lymphoblastic leukaemia (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for acute lymphoblastic leukaemia (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.0	(-0.1 - 0.1)	3%	0.5487
2007-2011	-0.1	(-0.2 - 0.0)	-14%	0.0819
p-value for difference in trend 2002-2006 to 2007-2011				0.1599

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.0	(-0.1 - 0.2)	14%	0.2425
2007-2011	0.1	(0.0 - 0.2)	26%	0.3806
p-value for difference in trend 2002-2006 to 2007-2011				0.8648

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.645; 0.255).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

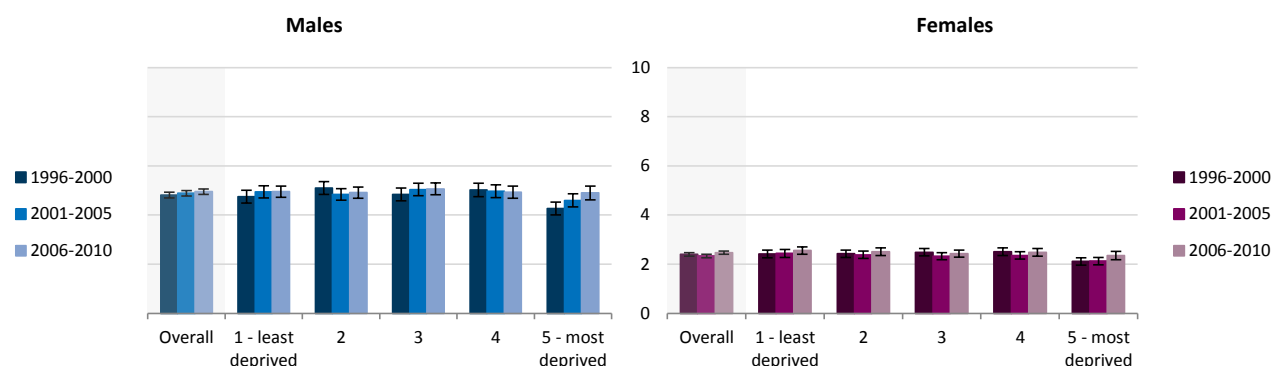
<sup>#</sup> Please see pp. 20-21 for further details

## Chronic Lymphocytic Leukaemia (C911)

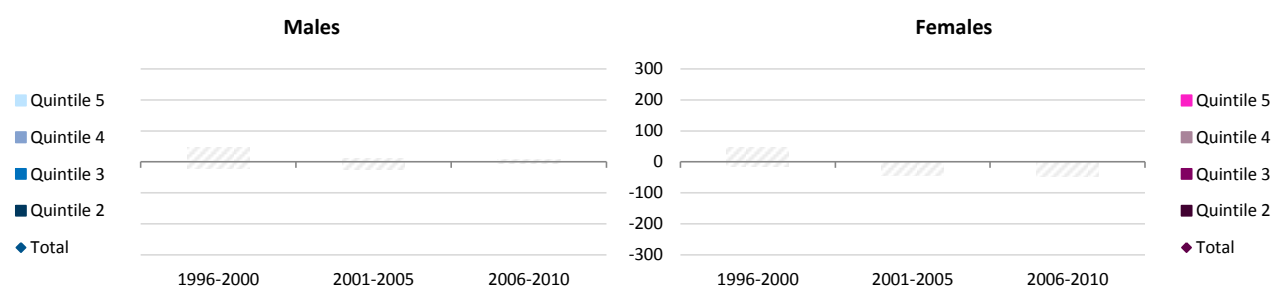
## Latest incidence for chronic lymphocytic leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,709	5.0	(4.7 - 5.2)	1	-	1 - least deprived	1,066	2.6	(2.4 - 2.7)	1	-
2	1,772	4.9	(4.7 - 5.1)	0.99	-2	2	1,143	2.5	(2.4 - 2.7)	0.98	-6
3	1,702	5.1	(4.8 - 5.3)	1.02	-	3	1,095	2.4	(2.3 - 2.6)	0.95	-
4	1,469	4.9	(4.7 - 5.2)	1.00	Not statistically significant	4	968	2.5	(2.3 - 2.6)	0.97	Not statistically significant
5 - most deprived	1,205	4.9	(4.6 - 5.2)	0.99	-2	5 - most deprived	752	2.4	(2.2 - 2.5)	0.92	-19
<b>Overall</b>	<b>7,857</b>	<b>5.0</b>	<b>(4.8 - 5.1)</b>		<b>5</b>	<b>Overall</b>	<b>5,024</b>	<b>2.5</b>	<b>(2.4 - 2.5)</b>		<b>-48</b>

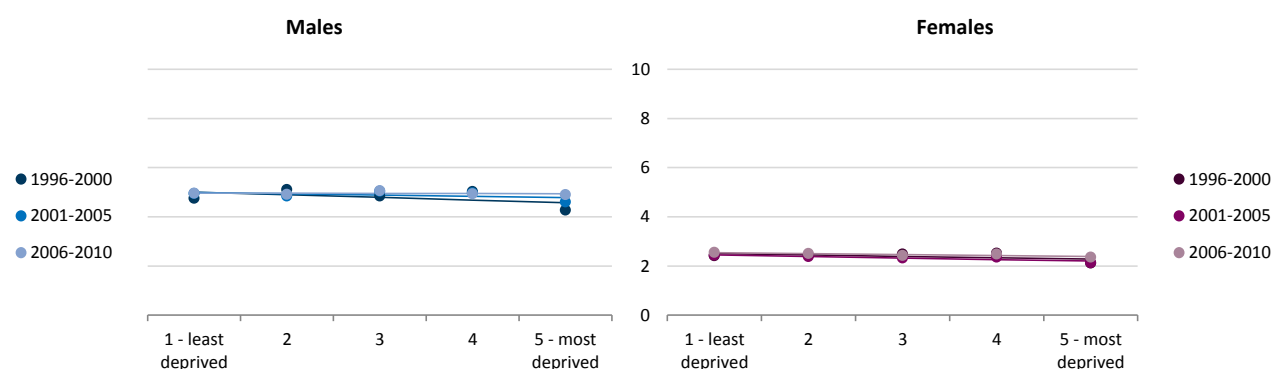
## Age-standardised\* incidence rate for chronic lymphocytic leukaemia (England; rate per 100,000 population)



## Yearly excess cases for chronic lymphocytic leukaemia (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for chronic lymphocytic leukaemia (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.4	(-1.7 - 0.9)	-9%	0.3690
2001-2005	-0.2	Not statistically significant	-4%	0.4065
2006-2010	-0.0	(-0.3 - 0.3)	-0%	0.8409
p-value for difference in trend 2001-2005 to 2006-2010				0.6260
p-value for difference in trend 1996-2000 to 2006-2010				0.5477

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.2	(-0.9 - 0.4)	-9%	0.3511
2001-2005	-0.3	Not statistically significant	-10%	0.0643
2006-2010	-0.2	(-0.4 - 0.0)	-7%	0.0629
p-value for difference in trend 2001-2005 to 2006-2010				0.6087
p-value for difference in trend 1996-2000 to 2006-2010				0.8751

Notes<sup>#</sup>

- There was no statistically significant difference in the male or female incidence rate (ASR) as deprivation increased, for the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the three periods (p-values: 0.778; 0.897; 0.419).
- In 2006-2010 there would have been around 70 more cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

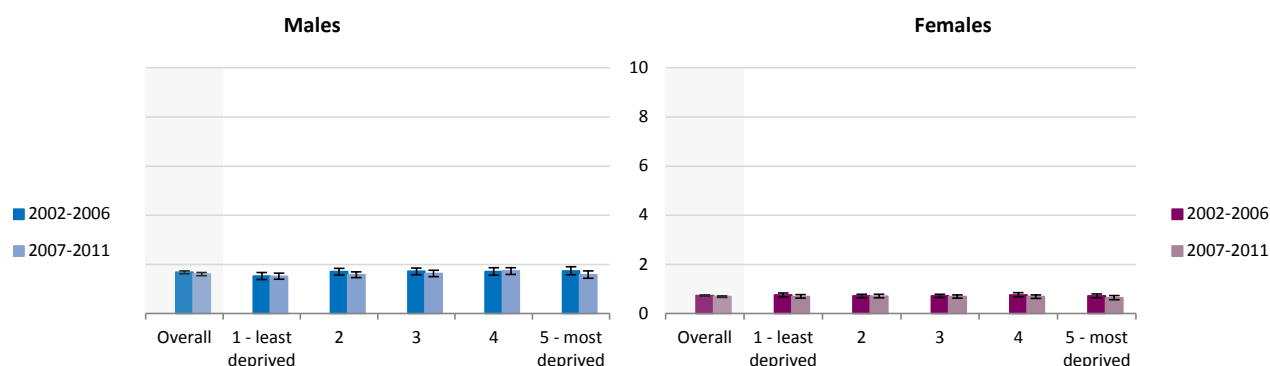
<sup>#</sup> Please see pp. 20-21 for further details

## Chronic Lymphocytic Leukaemia (C911)

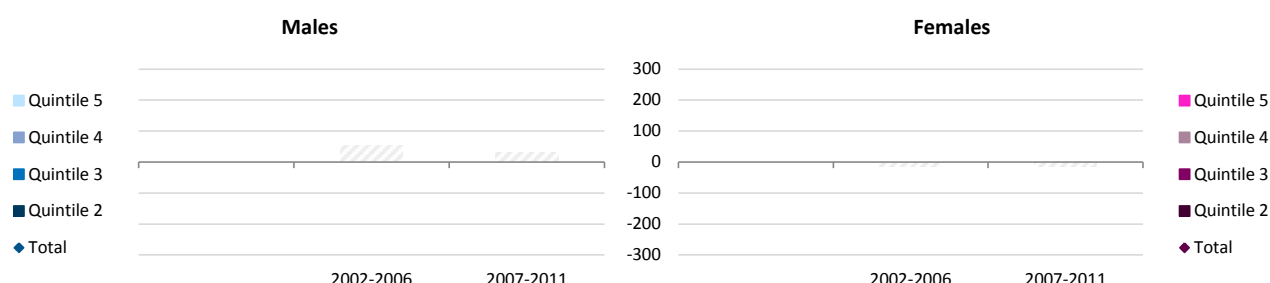
## Latest mortality for chronic lymphocytic leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	576	1.5	(1.4 - 1.6)	1	-	1 - least deprived	372	0.7	(0.6 - 0.8)	1	-
2	641	1.6	(1.5 - 1.7)	1.04	7	2	433	0.7	(0.6 - 0.8)	1.02	-
3	608	1.6	(1.5 - 1.8)	1.07	8	3	411	0.7	(0.6 - 0.8)	1.00	-
4	573	1.7	(1.6 - 1.9)	1.14	Not statistically significant	4	382	0.7	(0.6 - 0.8)	0.99	Not statistically significant
5 - most deprived	410	1.6	(1.4 - 1.7)	1.04	2	5 - most deprived	269	0.6	(0.6 - 0.7)	0.93	-8
<b>Overall</b>	<b>2,808</b>	<b>1.6</b>	<b>(1.5 - 1.7)</b>		<b>31</b>	<b>Overall</b>	<b>1,867</b>	<b>0.7</b>	<b>(0.7 - 0.7)</b>		<b>-13</b>

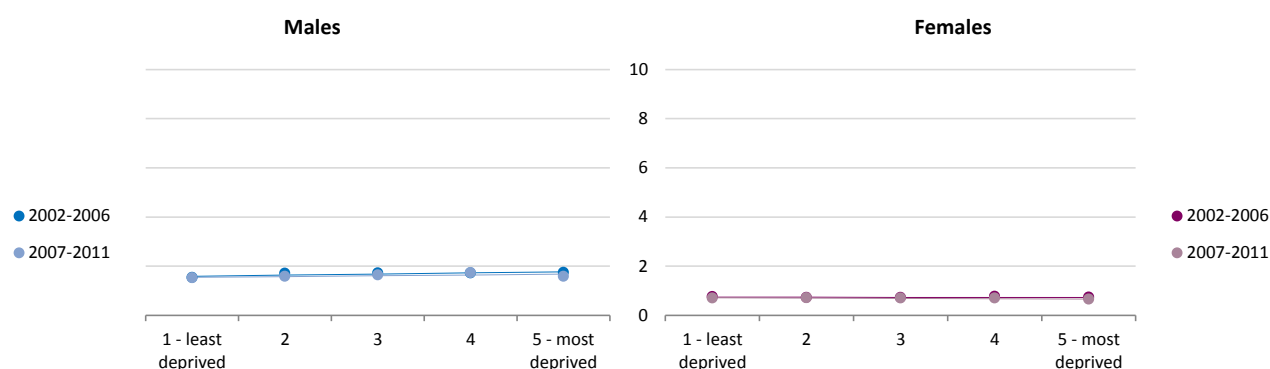
## Age-standardised\* mortality for chronic lymphocytic leukaemia (England; rate per 100,000 population)



## Yearly excess deaths for chronic lymphocytic leukaemia (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for chronic lymphocytic leukaemia (England; rate per 100,000 population)



Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.2	(-0.1 - 0.4)	12%	0.1162
2007-2011	0.1	Not statistically significant	8%	0.2540
p-value for difference in trend 2002-2006 to 2007-2011				0.7786

Years	Est. Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.0	(-0.1 - 0.1)	-0%	0.9555
2007-2011	-0.0	Not statistically significant	-6%	0.1321
p-value for difference in trend 2002-2006 to 2007-2011				0.5290

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.211; 0.251).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

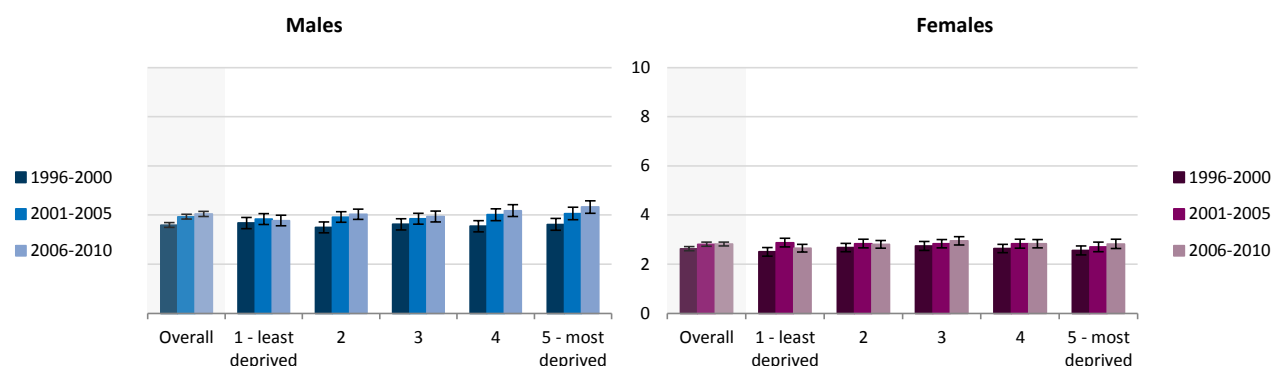
<sup>#</sup> Please see pp. 20-21 for further details

## Acute Myeloid Leukaemia (C920,C924,C925,C930,C940,C942)

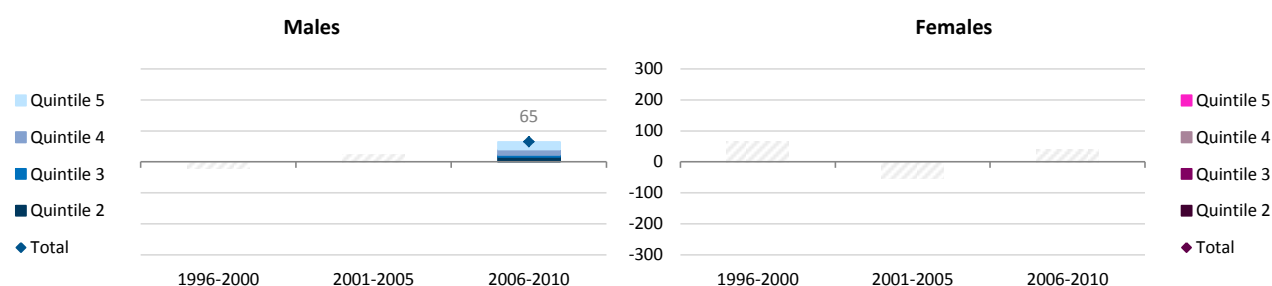
## Latest incidence for acute myeloid leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	1,261	3.8	(3.6 - 4.0)	1	-	1 - least deprived	995	2.7	(2.5 - 2.8)	1	-
2	1,392	4.0	(3.8 - 4.2)	1.07	16	2	1,120	2.8	(2.6 - 3.0)	1.06	9
3	1,275	3.9	(3.7 - 4.2)	1.04	6	3	1,141	2.9	(2.8 - 3.1)	1.11	Not statistically significant
4	1,211	4.2	(3.9 - 4.4)	1.11	18	4	1,013	2.8	(2.7 - 3.0)	1.07	6
5 - most deprived	1,084	4.3	(4.1 - 4.6)	1.15	25	5 - most deprived	863	2.8	(2.6 - 3.0)	1.06	39
<b>Overall</b>	<b>6,223</b>	<b>4.0</b>	<b>(3.9 - 4.1)</b>		<b>65</b>	<b>Overall</b>	<b>5,132</b>	<b>2.8</b>	<b>(2.7 - 2.9)</b>		

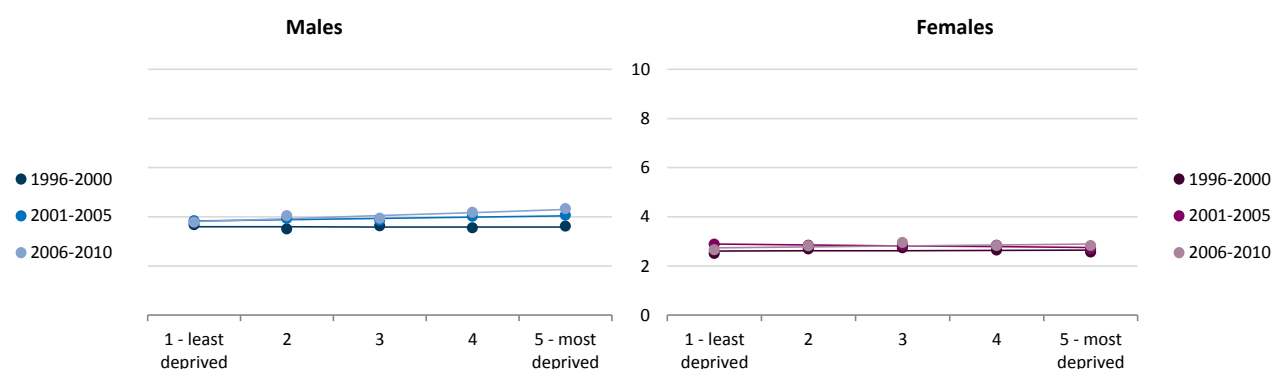
## Age-standardised\* incidence rate for acute myeloid leukaemia (England; rate per 100,000 population)



## Yearly excess cases for acute myeloid leukaemia (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for acute myeloid leukaemia (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.0	(-0.4 - 0.3)	-1%	0.8265
2001-2005	0.2	(0.0 - 0.5)	6%	0.0663
2006-2010	0.5	(0.1 - 0.9)	13%	0.0293
p-value for difference in trend 2001-2005 to 2006-2010				0.2484
p-value for difference in trend 1996-2000 to 2006-2010				0.0498

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.0	(-0.4 - 0.5)	1%	0.8490
2001-2005	-0.1	(-0.3 - 0.6)	-5%	0.0791
2006-2010	0.2	(-0.3 - 0.6)	6%	0.3101
p-value for difference in trend 2001-2005 to 2006-2010				0.1940
p-value for difference in trend 1996-2000 to 2006-2010				0.6732

Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for males in one of the three periods.
- There was a statistically significant change in the estimated deprivation gap between 1996-2000 to 2006-2010 for males.
- The ASR change was greater for males than females; this was statistically significant in one of the three periods (p-values: 0.849; 0.019; 0.261).
- In 2006-2010 there would have been around 90 fewer cases (persons) each year, if each quintile had the same incidence as the least deprived.

\* Age-standardised using 1976 European Standard Population

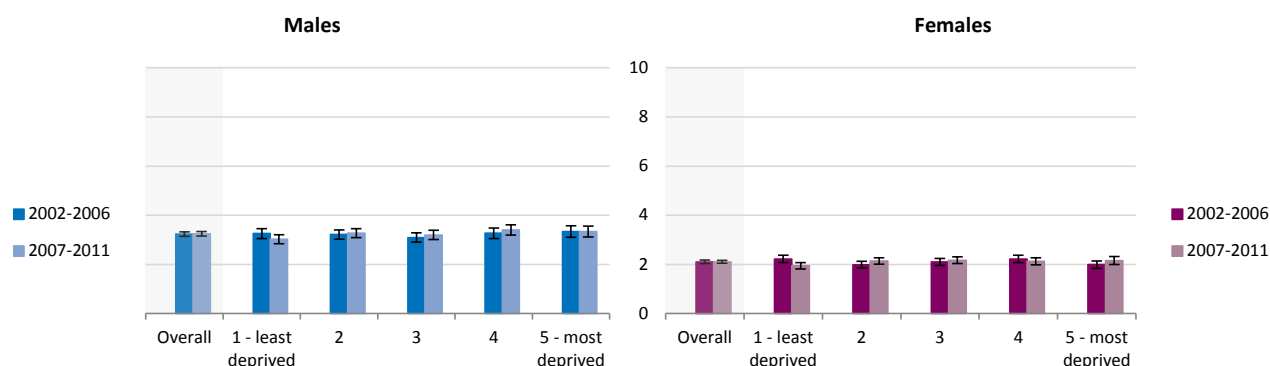
<sup>#</sup> Please see pp. 20-21 for further details

## Acute Myeloid Leukaemia (C920,C924,C925,C930,C940,C942)

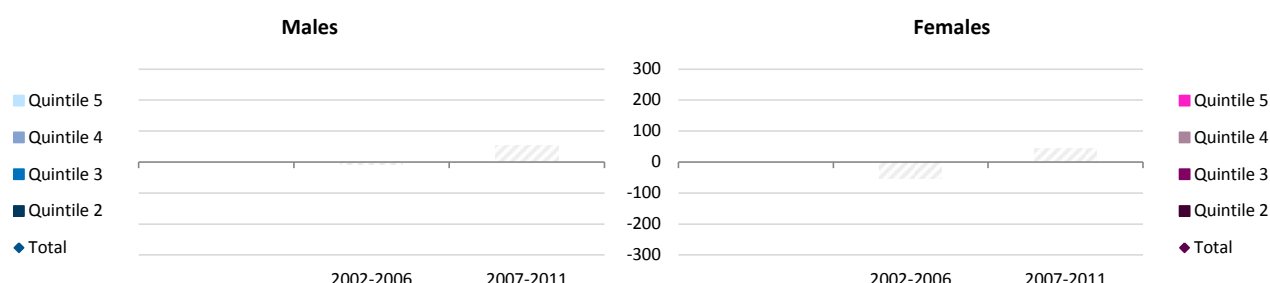
## Latest mortality for acute myeloid leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	1,099	3.0	(2.8 - 3.2)	1	-	1 - least deprived	830	1.9	(1.8 - 2.1)	1	-
2	1,223	3.3	(3.1 - 3.5)	1.08	14	2	983	2.1	(2.0 - 2.3)	1.10	14
3	1,120	3.2	(3.0 - 3.4)	1.06	8	3	959	2.2	(2.0 - 2.3)	1.12	12
4	1,042	3.4	(3.2 - 3.6)	1.12	Not statistically significant	4	861	2.1	(2.0 - 2.3)	1.10	Not statistically significant
5 - most deprived	855	3.3	(3.1 - 3.6)	1.10	14	5 - most deprived	713	2.2	(2.0 - 2.3)	1.11	8
Overall	5,339	3.2	(3.2 - 3.3)		54	Overall	4,346	2.1	(2.0 - 2.2)		42

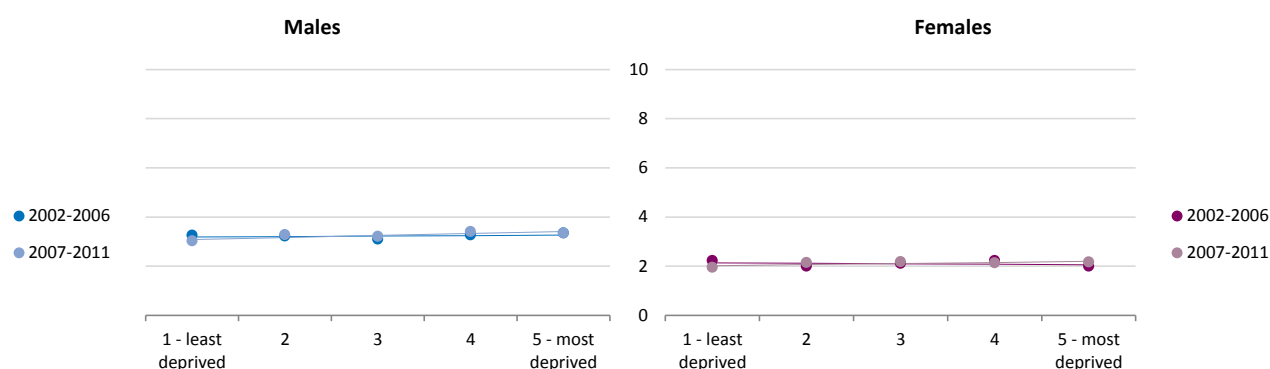
## Age-standardised\* mortality for acute myeloid leukaemia (England; rate per 100,000 population)



## Yearly excess deaths for acute myeloid leukaemia (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for acute myeloid leukaemia (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	0.1	(-0.3 - 0.5)	2%	0.6095
2007-2011	0.3	Not statistically significant	10%	0.0811
p-value for difference in trend 2002-2006 to 2007-2011				0.4006

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
2002-2006	-0.1	(-0.6 - 0.5)	-3%	0.6871
2007-2011	0.2	Not statistically significant	9%	0.1793
p-value for difference in trend 2002-2006 to 2007-2011				0.4223

Notes<sup>#</sup>

- There was no statistically significant difference in male or female mortality (ASR) as deprivation increased, for the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- There was no statistically significant difference in the ASR trend between males and females for the two periods (p-values: 0.666; 0.598).
- There were no statistically significant excess deaths for persons in the most recent period (2007-2011).

\* Age-standardised using 1976 European Standard Population

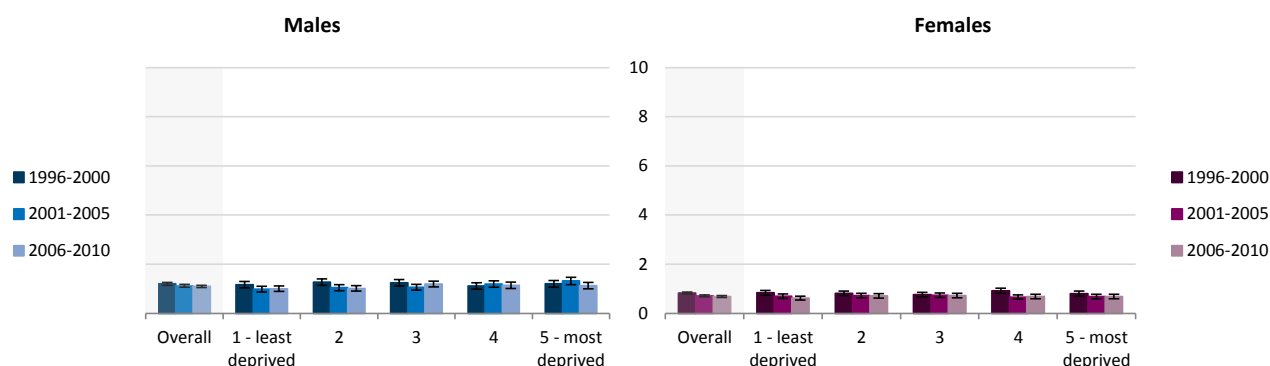
<sup>#</sup> Please see pp. 20-21 for further details

## Chronic Myeloid Leukaemia (C921)

## Latest incidence for chronic myeloid leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases	Females 2006-2010	Cases	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess cases
1 - least deprived	310	1.0	(0.9 - 1.1)	1	-	1 - least deprived	221	0.6	(0.5 - 0.7)	1	-
2	331	1.0	(0.9 - 1.1)	1.02	2	2	263	0.7	(0.6 - 0.8)	1.15	4
3	363	1.2	(1.1 - 1.3)	1.20	Not statistically significant	3	262	0.7	(0.6 - 0.8)	1.17	Not statistically significant
4	318	1.1	(1.0 - 1.3)	1.14	6	4	237	0.7	(0.6 - 0.8)	1.10	2
5 - most deprived	276	1.1	(1.0 - 1.3)	1.12	26	5 - most deprived	201	0.7	(0.6 - 0.8)	1.10	15
<b>Overall</b>	<b>1,598</b>	<b>1.1</b>	<b>(1.0 - 1.1)</b>			<b>Overall</b>	<b>1,184</b>	<b>0.7</b>	<b>(0.6 - 0.7)</b>		

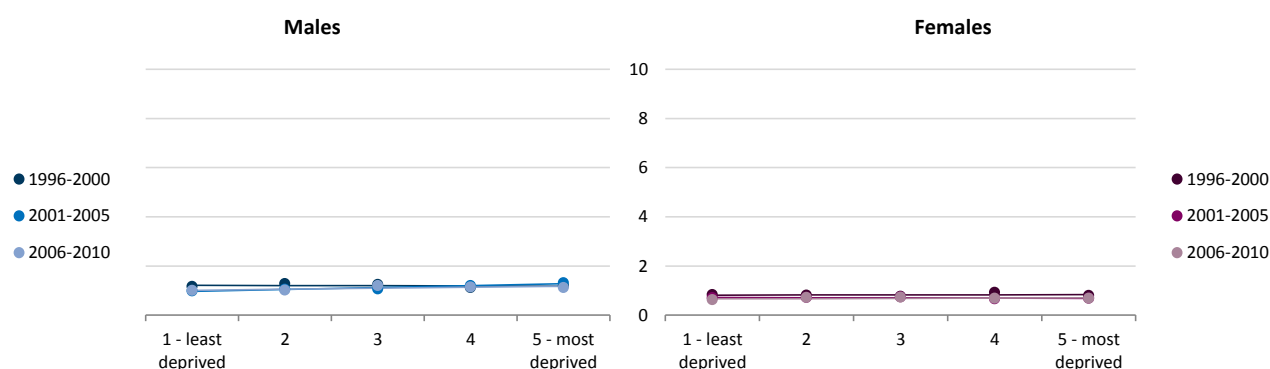
## Age-standardised\* incidence rate for chronic myeloid leukaemia (England; rate per 100,000 population)



## Yearly excess cases for chronic myeloid leukaemia (England; excess 5yr average)



## Statistical significance of incidence ASR\* trends for chronic myeloid leukaemia (England; rate per 100,000 population)



Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	-0.0	Not statistically significant	-3%	0.7018
2001-2005	0.3	(0.1 - 0.5)	32%	0.0098
2006-2010	0.2	Not statistically significant	16%	0.1625
p-value for difference in trend 2001-2005 to 2006-2010				0.3574
p-value for difference in trend 1996-2000 to 2006-2010				0.3238

Years	Est.Deprivation Gap (difference in ASR*)	Confidence interval (95%)	Modelled % change	p-value for trend
1996-2000	0.0	(-0.3 - 0.3)	2%	0.8720
2001-2005	-0.0	Not statistically significant	-5%	0.4118
2006-2010	0.0	(-0.1 - 0.2)	7%	0.4878
p-value for difference in trend 2001-2005 to 2006-2010				0.4648
p-value for difference in trend 1996-2000 to 2006-2010				0.8544

Notes<sup>#</sup>

- The increase in the incidence rate (ASR), as deprivation increased, was statistically significant for males in one of the three periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the three periods (p-values: 0.794; 0.001; 0.496).
- There were no statistically significant excess cases for persons in the most recent period (2006-2010).

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

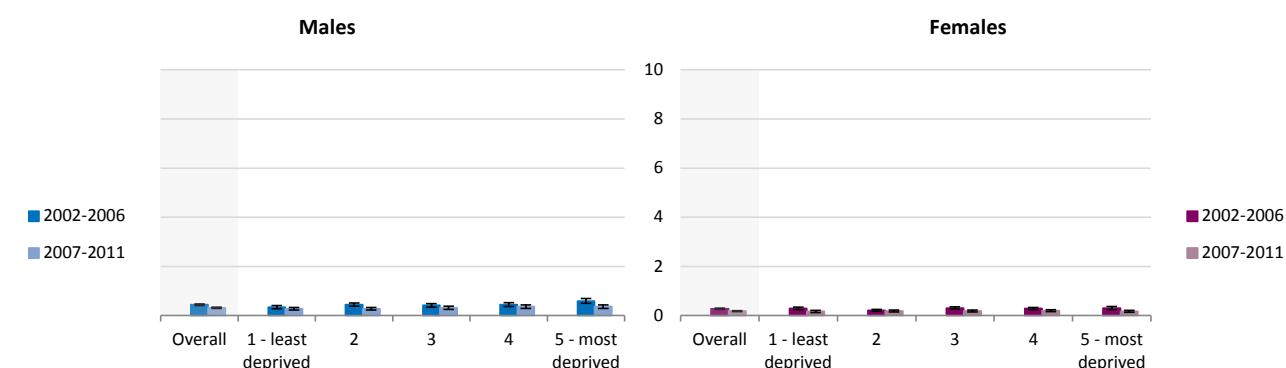


## Chronic Myeloid Leukaemia (C921)

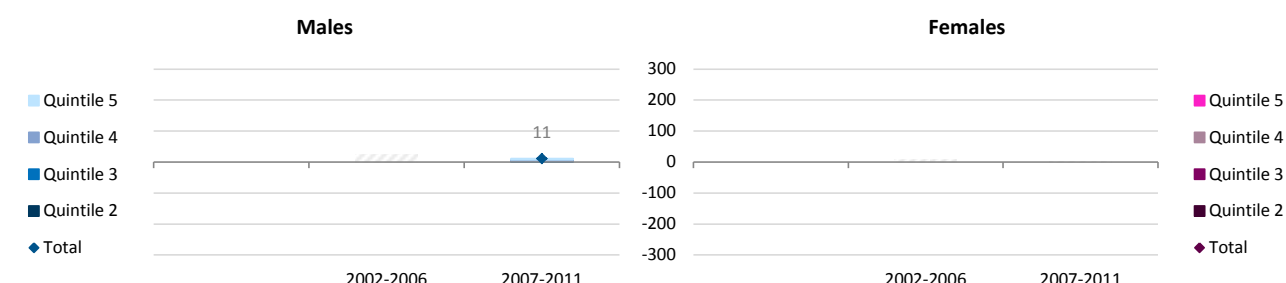
## Latest mortality for chronic myeloid leukaemia (England; rate per 100,000 population; excess 5yr average)

Males 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths	Females 2007-2011	Deaths	ASR*	Confidence interval (95%)	ASR ratio	Yearly excess deaths
1 - least deprived	100	0.3	(0.2 - 0.3)	1	-	1 - least deprived	82	0.2	(0.1 - 0.2)	1	-
2	106	0.3	(0.2 - 0.3)	1.02	-	2	103	0.2	(0.2 - 0.2)	1.14	2
3	108	0.3	(0.3 - 0.4)	1.14	2	3	101	0.2	(0.1 - 0.2)	1.12	Not statistically significant
4	115	0.4	(0.3 - 0.4)	1.32	5	4	91	0.2	(0.2 - 0.2)	1.19	-2
5 - most deprived	94	0.4	(0.3 - 0.4)	1.33	4	5 - most deprived	63	0.2	(0.1 - 0.2)	1.06	2
<b>Overall</b>	<b>523</b>	<b>0.3</b>	<b>(0.3 - 0.3)</b>		<b>11</b>	<b>Overall</b>	<b>440</b>	<b>0.2</b>	<b>(0.2 - 0.2)</b>		

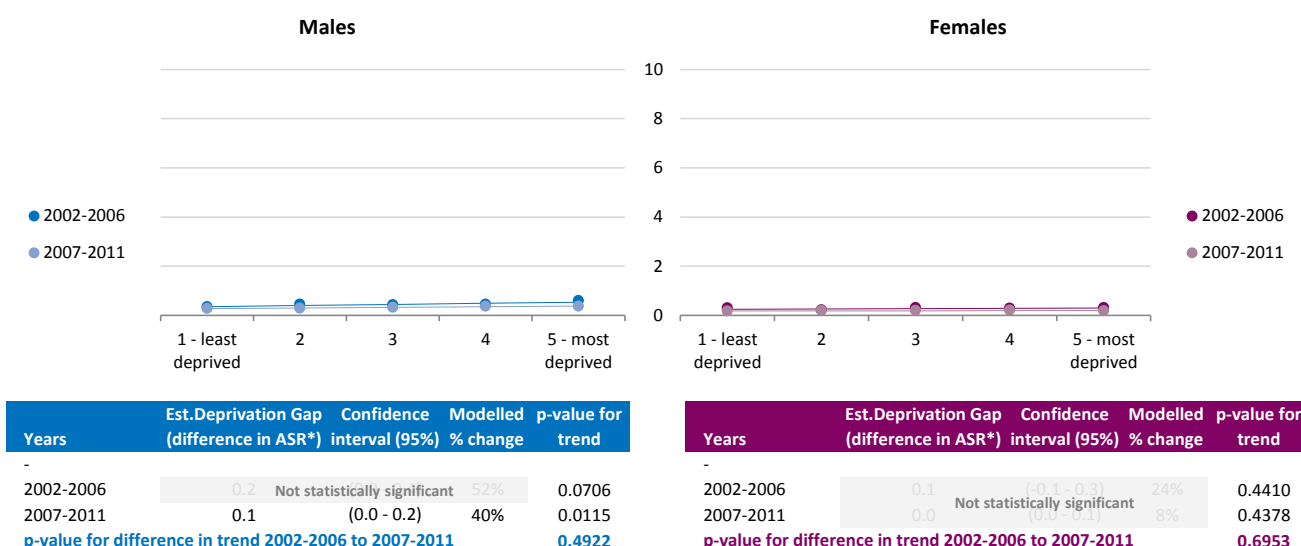
## Age-standardised\* mortality for chronic myeloid leukaemia (England; rate per 100,000 population)



## Yearly excess deaths for chronic myeloid leukaemia (England; excess 5yr average)



## Statistical significance of mortality ASR\* trends for chronic myeloid leukaemia (England; rate per 100,000 population)

Notes<sup>#</sup>

- The increase in mortality (ASR), as deprivation increased, was statistically significant for males in one of the two periods.
- There was no statistically significant change in the estimated deprivation gap between the time periods for males and females.
- The ASR increase was greater for males than females; this was statistically significant in one of the two periods (p-values: 0.407; 0.027).
- In 2007-2011 there would have been around 15 fewer deaths (persons) each year, if each quintile had the same mortality as the least deprived.

\* Age-standardised using 1976 European Standard Population

<sup>#</sup> Please see pp. 20-21 for further details

# Glossary

## Number of cases/deaths

These are the number of newly diagnosed cancer registrations or number of deaths from cancer within the specified five-year cohort; deaths were counted by the year of registration of death.

## Crude rate (shown only in the accompanying workbook)

The crude rate was calculated by dividing the number of cases/deaths by the population at risk for each deprivation quintile, or across all quintiles. The sum of cases over each five-year period was divided by the sum of the population over the corresponding five-year period to give an average annual crude rate. This rate does not take into account the age structure of the different populations and therefore does not adjust for the confounding effect this may have.

## Age-standardised rate

Age-standardised rates (ASR) adjust for the variation in the age structures of populations and so should be used for meaningful comparisons between different deprivation quintiles or over time. They are calculated by using an average of age-specific rates within each five-year age-group in the population, weighted according to a standard population. In this report age-standardisation has been undertaken using the 1976 European Standard Population [Waterhouse *et al* 1976].

## 95% confidence interval

Lower and upper 95% confidence intervals (LCI/UCI) have been given for age-standardised rates and modelled estimated deprivation gaps. Confidence intervals are used as a measure of uncertainty in estimated rates. The lower and upper limits of the interval show how big a contribution chance may have made to a particular statistic. The 95% confidence intervals quoted give the range in which the rate in question would fall 19 times out of 20, were it possible to repeat the analysis.

## ASR ratio

The ASR ratio was calculated by dividing the ASR of each deprivation quintile by the corresponding ASR of the least deprived quintile. The resulting ratio indicates the increase or decrease in ASR compared to the least deprived quintile.

## Excess cases/deaths

The number of excess cases/deaths for each quintile was calculated by multiplying the age-specific crude rates of quintile 1 with the corresponding population in each age-group of quintile 2 to quintile 5, thus resulting in an expected number of cases/deaths in each age-group, if each quintile had experienced the same age-specific rates as the least deprived quintile (quintile 1).

The differences, between the observed cases/deaths of quintiles 2 to 5 in each age-group and the corresponding expected number, were then summed across all ages to give a total for each quintile. This total had to be calculated individually for males, females and persons as the underlying age-structure of the populations varies in each age-bracket. As the numbers were calculated for 5-year cohorts, yearly excess cases/deaths figures were arrived at by dividing the totals by 5.

The total number of cases or deaths can be negative if there were fewer observed cases than expected from the quintile 1 rates, i.e., if the age-standardised incidence or mortality rate decreased with increasing deprivation. These negative figures can be considered the number of extra cases (or deaths) that would occur if the population of each quintile had the same rate as the least deprived quintile.

The excess figures for statistically significant deprivation trends are shown in black font and the corresponding columns for statistically non-significant trends have been faded.

## Estimated deprivation gap

In simple terms this is the best estimate of the difference between the ASR of the most and least deprived quintiles. Weighted ordinary least squares linear regression was used to model the trend across ASRs for the five deprivation quintiles. The weight used for the linear regression was the corresponding variance for the ASR of each quintile. This weighting was used to take into account any differences between the quintiles.

The estimated deprivation gap and corresponding confidence intervals were then derived as the modelled ASR for the most deprived quintile minus the modelled ASR for the least deprived quintile. Only estimated deprivation gaps for statistically significant deprivation trends are shown in black font; for statistically non-significant trends, the corresponding values in tables have been faded.

## Modelled percentage (%) change

This is the estimated deprivation gap as a percentage of the modelled ASR for the least deprived quintile. Where the regression analysis did not produce a statistically significant trend across the quintiles the values in the tables have been faded.

### *p*-value for trend (deprivation gap)

This statistical test is performed to determine whether there is a change in the incidence or mortality with increasing socio-economic deprivation. The *p*-value given in the table is the resulting *p*-value for the gradient of the weighted ordinary least squares linear regression deviating from zero. A trend is statistically significant when the *p*-value is less than 0.05.

### *p*-value for difference between trends (across time)

As a way of examining whether the trends have changed significantly over time, a z-test was performed using the regression coefficients (i.e., the gradients) and their corresponding standard errors from the linear regression analyses for each time period. The *p*-value shown in the bottom table is from the z-test for the trends over the two time periods for mortality and for the last and first period for incidence and the latest two periods for incidence. The difference in trend is statistically significant when the *p*-value is less than 0.05.

### Difference between males and females (*p*-value)

As a way of examining whether the trends were different between males and females, a z-test was performed using the regression coefficients (i.e., the gradients) and their corresponding standard errors from the linear regression analyses for each sex. In the report, these *p*-values are listed in the 3rd bullet point, from oldest to latest period. In the workbook they are shown in the bottommost table, alongside the estimated deprivation gaps for males and females. The difference in trend is statistically significant when the *p*-value is less than 0.05.

## Cancer site groupings

Section	ICD-10 group	Cases (1996-2010)	Deaths (2002-2011)
All cancers, excluding non-melanoma skin cancer (C00-C97, excluding C44)		3.6 million	1.2 million*
Head & Neck	Oropharynx (C01,C09-C10)	15,721	3,445
	Oral Cavity (C02-C04,C06)	27,091	7,039
	Salivary Glands (C07-C08)	7,179	1,569
	Larynx (C32)	27,019	6,353
	Thyroid (C73)	21,965	2,811
CNS	Central Nervous System, incl. brain (C70-C72,C751-3,D32-D33,D352-4, D42-D43,D443-5)	104,136	39,420
Upper GI	Oesophagus (C15)	93,983	60,643
	Stomach (C16)	107,444	44,068
	Small Intestine (C17)	10,588	2,901
	Liver (C22)	37,956	25,870
	Pancreas (C25)	95,316	62,847
Lower GI	Colorectal (C18-C20)	449,511	129,233
	Anus (C21)	10,913	2,250
Respiratory	Lung (C33-C34)	482,195	274,865
	Mesothelioma (C45)	27,261	17,699
Breast	Breast (C50)	560,235	101,905
Gynae	Vulva (C51)	13,405	3,099
	Vagina (C52)	2,969	768
	Cervix (C53)	37,335	8,144
	Uterus (C54-C55)	82,419	14,139
	Ovary (C56-C57)	87,259	36,493
Urology	Penis (C60)	5,415	865
	Prostate (C61)	421,384	86,873
	Testis (C62)	25,252	587
	Kidney and unspecified urinary organs (C64-C66,C68)	91,984	30,644
	Bladder (C67)	139,259	41,200
Sarcoma	Bone Sarcoma (C40-C41)	6,988	2,510
	Connective and Soft Tissue Sarcoma (C49)	17,196	5,842
Skin	Melanoma (C43)	111,139	16,246
CUP	Cancer of Unknown Primary (C77-C80)	160,928	102,169
Haematology	Hodgkin Lymphoma (C81)	19,670	2,566
	Non-Hodgkin Lymphoma (C82-C85)	129,022	37,876
	Multiple Myeloma (C90)	51,308	21,778
	Acute Lymphoblastic Leukaemia (C910)	8,873	2,189
	Acute Myeloid Leukaemia (C920,C924,C925,C930,C940,C942)	30,826	18,469
	Chronic Lymphocytic Leukaemia (C911)	35,911	9,149
	Chronic Myeloid Leukaemia (C921)	8,484	2,182

\* Deaths for all cancers combined, excluding non-melanoma skin cancer, for 1997-2011 total 1.9 million

In addition, there are some notable differences with a previous NCIN report on cancer by deprivation [NCIN 2008]:

<b>This report</b>	<b>Cancer Incidence by Deprivation [NCIN 2008]</b>
Individual sites for 'head and neck' cancers: Oropharynx (C01, C09-C10) Oral Cavity (C02-C04, C06) Salivary Glands (C07-C08) Larynx (C32) Thyroid (C73)	Grouped Head and Neck sites C00-C14 & C30-C32
Uterus (C54-C55)	Corpus Uteri (C54)
Ovary (C56-C57)	Ovary (C56)
Central Nervous System, including brain (C70-C72, C751-3, D32-D33, D352-4, D42-D43, D443-5)	Brain, and other parts of central nervous system (C70-C72)
Non-Hodgkin Lymphoma (C82-C85)	Non-Hodgkin Lymphoma (C82-C85 and C96)
Multiple Myeloma (C90)	Myeloma (C88-C90)
Individual sites for leukaemia: Acute Lymphoblastic (C910) Chronic Lymphocytic (C911) Acute Myeloid (C920, C924, C925, C930, C940, C942) Chronic Myeloid (C921)	Grouped Leukaemia site (C91-C95)

## Project team and acknowledgements

This report and the analysis it contains was prepared by, in alphabetical order, Sean McPhail, Claudia Oehler, Shereen Sreeharan, and Jennifer Yiallourous. Dr Mick Peake was the clinical advisor.

Thanks to John Broggio, Nicola Cooper, Diane Edwards, Lucy Elliss-Brookes, Tim Evans, Carl Francis, Dr Anna Gavin, Sara Hiom, Ant Lewis, Vivian Mak, Sarah Miller, Catherine Okello, Nick Ormiston-Smith, Jon Shelton, Alan Slater, James Thomas, Catherine Thomson. Also to other members of the NCIN Coordinating Team who have helped with this publication.

We would like to acknowledge the essential work of the cancer registries in the United Kingdom and Ireland Association of Cancer Registries (UKIACR), without which there would be no data.

## References

- [CLG 2011] The English Indices of Deprivation 2010. Communities and Local Government (2011) Available online at <http://www.communities.gov.uk/publications/corporate/statistics/indices2010>
- [De Angelis *et al* 2014] Cancer survival in Europe 1999—2007 by country and age: results of EUROCare-5—a population-based study. De Angelis R *et al* (2014) *Lancet Oncol* 15:1 23-34 doi:10.1016/S1470-2045(13)70546-1
- [DH 2011] Improving Outcomes: A Strategy for Cancer. Department of Health: London, England (2011). Available online at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/213785/dh\\_123394.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213785/dh_123394.pdf)
- [NCIN 2013] Routes to Diagnosis 2006-2010 Workbook, NCIN (2013). Available online at: [http://www.ncin.org.uk/publications/routes\\_to\\_diagnosis](http://www.ncin.org.uk/publications/routes_to_diagnosis)
- [NCIN 2008] Cancer Incidence by Deprivation, England, 1995-2004 NCIN (2009). Available online at: [www.ncin.org.uk/view?rid=73](http://www.ncin.org.uk/view?rid=73)
- [Quinn *et al* 2001] Cancer Trends in England and Wales 1950—1999. Quinn M J *et al* (2001) ONS Series SMPS no. 66, TSO: London.
- [Rowan 2007] Trends in cancer incidence by deprivation, England and Wales, 1990-2002. Rowan S (2007) *Health Statistics Quarterly* 36:24-35.
- [Shafique *et al* 2012] The impact of socio-economic circumstances on overall and grade-specific prostate cancer incidence: a population-based study. Shafique K *et al* (2012) *British Journal of Cancer* 107, 575–582. doi:10.1038/bjc.2012.289
- [Waterhouse *et al* 1976] Cancer incidence in five continents. Waterhouse J, Muir CS, Correa P, Powell J, eds. (1976) Lyon: IARC Vol.3:456. Quoted on p.25 of Revision of the European Standard Population. EUROSTAT (2013), available online at: [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-RA-13-028/EN/KS-RA-13-028-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-13-028/EN/KS-RA-13-028-EN.PDF)
- [WCISU 2009] Cancer Incidence, Mortality and Survival by Deprivation in Wales. Welsh Cancer Intelligence and Surveillance Unit (2009). Available online at: <http://www.wales.nhs.uk/sites3/Documents/242/Deprivation%20in%20Wales%201993-2007.pdf>
- [WMCIU 2010] Excess Cancer Incidence and Mortality due to Deprivation: Trends in the West Midlands 1996 – 2007. West Midlands Cancer Intelligence Unit (2010) Report No. R10/03. Available online at: <http://www.wmciu.nhs.uk/documents/Excess%20Incidence%20and%20Mortality%204.0.pdf>



## The intelligence networks

Public Health England operates a number of intelligence networks, which work with partners to develop world-class population health intelligence to help improve local, national and international public health systems.

### **National Cancer Intelligence Network**

The National Cancer Intelligence Network (NCIN) is a UK-wide initiative, working to drive improvements in cancer awareness, prevention, diagnosis and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research.

### **National Cardiovascular Intelligence Network**

The National cardiovascular intelligence network (NCVIN) analyses information and data and turns it into meaningful timely health intelligence for commissioners, policy makers, clinicians and health professionals to improve services and outcomes.

### **National Child and Maternal Health Intelligence Network**

The National Child and Maternal Health Intelligence Network (NCMHIN) provides information and intelligence to improve decision-making for high quality, cost effective services. Their work supports policy makers, commissioners, managers, regulators, and other health stakeholders working on children's, young people's and maternal health.

### **National Mental Health Intelligence Network**

The National Mental Health Intelligence Network (NMHIN) is a single shared network in partnership with key stakeholder organisations. The Network seeks to put information and intelligence into the hands of decision makers to improve mental health and wellbeing.

### **National End of Life Care Intelligence Network**

The National End of Life Care Intelligence Network (NEoLCIN) aims to improve the collection and analysis of information related to the quality, volume and costs of care provided by the NHS, social services and the third sector to adults approaching the end of life. This intelligence will help drive improvements in the quality and productivity of services.



## **This is a CRUK-NCIN Partnership report.**

In 2013 Cancer Research UK (CRUK) and the National Cancer Intelligence Network (NCIN) established a partnership to conduct analyses seen as priorities by both organisations to provide intelligence to support improved patient outcomes.

Recent developments in the extent and linkage of cancer data have provided CRUK and NCIN with the opportunity to enhance understanding of the patient pathway and, as a result, to support improvements in cancer service delivery and outcomes for patients. This partnership brings together the strengths of both organisations and is one small step towards saving 5,000+ lives a year.

For more information, including other publications, see the partnership page here: [www.ncin.org.uk/about\\_ncin/the\\_cruk\\_ncin\\_partnership\\_improving\\_outcomes\\_through\\_cancer\\_intelligence](http://www.ncin.org.uk/about_ncin/the_cruk_ncin_partnership_improving_outcomes_through_cancer_intelligence)

## **About Cancer Research UK**

- Cancer Research UK is the world's leading cancer charity dedicated to saving lives through research
- The charity's pioneering work into the prevention, diagnosis and treatment of cancer has helped save millions of lives.
- Cancer Research UK receives no government funding for its life-saving research. Every step it makes towards beating cancer relies on every pound donated.
- Cancer Research UK has been at the heart of the progress that has already seen survival rates in the UK double in the last forty years.
- Cancer Research UK supports research into all aspects of cancer through the work of over 4,000 scientists, doctors and nurses.
- Together with its partners and supporters, Cancer Research UK's vision is to bring forward the day when all cancers are cured.

For further information on Cancer Research UK visit the CRUK website, [www.cruk.org/cancerstats](http://www.cruk.org/cancerstats)