

Health and Wellbeing Board – 25th June 2014

Title of paper:	Cancer and Nottingham – June 2014	
Director(s)/ Corporate Director(s):	Chris Kenny – Director of Public Health, Nottingham City Council/ Nottinghamshire County Council	Wards affected: All
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Relevant Council Plan Strategic Priority:		
World Class Nottingham		x
Work in Nottingham		x
Safer Nottingham		x
Neighbourhood Nottingham		x
Family Nottingham		x
Healthy Nottingham		x
Leading Nottingham		x
Summary of issues (including benefits to citizens/service users):		
The paper outlines the impact of cancer on the citizens of Nottingham, highlighting the high incidence of the disease locally. It provides a rationale to improve efforts at primary prevention, the need to improve uptake of screening and early detection to improve citizens' health.		
Recommendation(s):		
	The Health and Well Being Board is asked to note and endorse the contents of the report and recommend that all partner organisations consider:	
1	Promoting the key primary prevention measures for cancer, prioritising funding for programmes which impact directly on the primary prevention of cancer, especially smoking cessation and weight management	
2	Promoting the national awareness and early detection initiatives locally	
3	Promoting cancer screening programmes, especially the uptake of bowel cancer screening	

1. REASONS FOR RECOMMENDATIONS

- 1.1 Cancer is the third highest cause of premature death in Nottingham, accounting for 28% of all deaths in the city. The incidence is increasing nationally and locally and mortality rates locally are significantly higher than the national average and have remained higher for many years. Cancer is therefore a major public health problem and relevant to the work of the Health and Wellbeing Board.
- 1.2 The evidence indicates that of all cancer-related deaths, almost 25–30% are due to tobacco, as many as 30–35% are linked to diet and about 15–20% are due to infections. Most skin cancers are the result of excess exposure to sunlight. Primary prevention is therefore an essential aspect of reducing the burden of cancer in Nottingham.
- 1.3 Many people are unaware of the common early symptoms of some cancers, such as a cough for over 3 weeks or blood in their pee or poo. The impact of the Be Clear on Cancer campaigns locally has resulted in marked increases in the referral of people for Chest Xrays and for 2 week wait (urgent cancer referrals), demonstrating the value of increased awareness locally.
- 1.4 Uptake of all 3 national cancer screening programmes for breast cancer, bowel cancer and cervical cancer has been reducing recently and uptake rates in Nottingham are below that of most other areas in the East Midlands. All national cancer screening programmes have been shown to reduce mortality, so it is important that Nottingham citizens are encouraged and enabled to take up these screening opportunities.

2. BACKGROUND

2.1 Cancer is an umbrella term used to cover over 200 different diseases resulting from cells dividing in a tissue or system in an uncontrolled way. The most common cancers affect the skin, lung, large bowel, breast and prostate. Many cancers are preventable: most skin cancers are caused by excessive exposure to sunlight and 90% of lung cancers are caused by tobacco smoke. Obesity is the second biggest contributor to cancer mortality. It is estimated that up to half of all cancer cases diagnosed in the UK could be avoided if people made changes to their lifestyle

2.2 Cancer is the 3rd highest cause of premature death in Nottingham City. Each year, 1,300 citizens are diagnosed with cancer and 653 people die from the condition. There are at least 4,499 people living with cancer in the city. Both mortality rates and annual incidence rates of people newly diagnosed with cancer are significantly higher than the average for England and the East Midlands. Cancer mortality is linked to deprivation and 50% of the population of Nottingham City live in the most deprived national quintile, with 75% of the population living in the 2 most deprived quintiles. Taking this into account, Nottingham City has the expected outcomes for the level of deprivation.

2.3 Cancer incidence is rising and cancer mortality is falling both nationally and locally. A number of factors will lead to increased incidence including increased awareness of symptoms, earlier detection and diagnosis and increases in the older population. Screening, increased awareness and early diagnosis will improve mortality and survival rates. Incidence of lung cancer is significantly higher in Nottingham than elsewhere in the East Midlands, while the incidence of other common cancers is similar to the national average. Nationally and locally, survival with cancer is improving gradually. Over 90% of women with breast cancer survive one year and over 80% survive 5 years. One year survival for prostate cancer is similarly 90% and 5 year survival 75-80%. Lung cancer survival remains poor at both 1 and 5 years.

2.4 The Clinical Commissioning Group (CCG) has identified priority targets for increasing survival rates for breast, lung and bowel cancer and improving uptake rates of the bowel and cervical screening programmes. One of the most common reasons for poor cancer outcomes experienced by people in England is late presentation. A number of interventions have been implemented across Nottingham City to address the issue of late presentation and early diagnosis.

2.5 It is estimated that approximately 5% of the NHS budget is spent on cancer - approximately £76 per head each year in England, costing around £4.5 billion a year in total. This would equate to approximately £26,600,000 across Nottingham City.

2.6 There are three national cancer screening programmes, for breast, large bowel and cervical cancer. However we know that some groups and communities are not accessing this service. Coverage for breast screening in Nottingham City was 75.5%, exceeding the national standard of 70%. Over 78% of eligible women in Nottingham City had received their cervical smear test, similar to the national average, although there is a decreasing trend in screening uptake nationally; particularly in younger women aged 25-49. Bowel screening uptake is less good, at 50%, compared to 60% in Nottinghamshire County and 54.8% nationally. Low uptake in BME communities has been identified as an issue.

2.7 End of life and palliative care services are especially important in respect of cancer care. People with cancer should be offered the opportunity of advance care planning, including their preferred place of death. In 2010/11, over half of the people with cancer died in hospital, many of whom had no clinical need of hospital care and most would prefer to die in their own home or be supported in a community setting.

3. OTHER OPTIONS CONSIDERED IN MAKING RECOMMENDATIONS

None.

4. FINANCIAL IMPLICATIONS (INCLUDING VALUE FOR MONEY)

There are no direct financial implications or value for money issues arising from this report.

5. RISK MANAGEMENT ISSUES (INCLUDING LEGAL IMPLICATIONS AND CRIME AND DISORDER ACT IMPLICATIONS)

Risk management issues relate to the increasing incidence and prevalence of cancer among citizens in Nottingham City, resulting mainly from the increase in the proportion of people aged over 65 and also from improved treatment for many cancers, so that there are now more cancer survivors in the population.

There are no implications relating to Crime and Disorder.

6. EQUALITY IMPACT ASSESSMENT

Has the equality impact been assessed?

Not needed (report does not contain proposals or financial decisions)

No

Yes – Equality Impact Assessment attached

7. LIST OF BACKGROUND PAPERS OTHER THAN PUBLISHED WORKS

OR THOSE DISCLOSING CONFIDENTIAL OR EXEMPT INFORMATION

1. Nottingham City Public Health Department: Evaluation of Blood in Pee campaign. 2013.
2. Nottingham City Public Health Department: Public Health Mortality Files, Office of National Statistics 2012
3. Nottingham City Public Health Department, Quality Outcome Framework Register 2012/13
4. Nottingham City Public Health Department: Health Informatics Service Data 2014
5. Nottinghamshire Bowel Cancer Screening Centre Data 2014
6. Nottingham City Public Health Department, Summary of the Change Maker programme 2013
7. Nottingham City Public Health Department: Smoking Prevalence: Citizens Survey 2010-2012

8. PUBLISHED DOCUMENTS REFERRED TO IN COMPILING THIS REPORT

1. Cancer Research 2012, The cost of cancer care, available at: <http://scienceblog.cancerresearchuk.org/2008/10/21/ncri-session-the-cost-of-cancer-care/>
2. Cancer Incidence: New cases of lung cancers, standardised registration ratio, 2005-2009. available at: <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/lung/survival/lung-cancer-survival-statistics>
3. Department of Health 2011, Improving Outcomes: A Strategy for Cancer, available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213785/dh_123394.pdf
4. Department of Health, 2012, The Public Health Outcomes Framework for England, 2013-2016: available at: <http://www.phoutcomes.info/>
5. Department of Health, 2010, NHS White Paper, Equity and Excellence: Liberating the NHS available at: <https://www.gov.uk/government/publications/liberating-the-nhs-white-paper>
6. Health and Social Care Information Centre Indicator Portal, 2009-2011, available at: <https://indicators.ic.nhs.uk/webview/>

7. Macmillan 2014, A tale of our time: The complexities of cancer diagnosis, treatment and survival, available at: <http://blogs.deloitte.co.uk/health/2014/04/a-tale-of-our-time-the-complexities-of-cancer-diagnosis-treatment-and-survival-.html>
8. National Cancer Intelligence Network, 2009, Cancer Incidence and Survival by Major Ethnic Group 2002-2006, available at: http://publications.cancerresearchuk.org/downloads/product/CS_REPORT_INCSUR_V_ETHNIC.pdf
9. NHS Nottingham City Clinical Commissioning Group, Working together for a healthier Nottingham: Our commissioning strategy 2013-2016 available at: <http://www.nottinghamcity.nhs.uk/about-us-284/publications/strategy-and-planning.html>
10. Parkin, D.M, 2011. Cancers attributable to consumption of alcohol in the UK in 2010, available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3252062/>
11. Thompson, R 2013, Hear Me Now: The uncomfortable reality of prostate cancer in black African-Caribbean Men, available at: <http://bmecancer.com/index.php/hmnreports/hear-me-now-reports/83-hear-me-now>
12. Trent Cancer Registry, Cancer Fact Sheet, available at: http://www.empho.org.uk/Download/Public/10923/1/Notts%20City_1.pdf

Appendix 1

CANCER AND NOTTINGHAM CITY

1. BACKGROUND

1.1 WHAT IS CANCER?

Cancer is a disease caused by normal cells changing so that they grow in an uncontrolled way. The uncontrolled growth usually causes a tumour to form. If not treated, the tumour can cause problems in one or more of the following ways:

- Spreading into normal tissues nearby
- Causing pressure on other body structures
- Spreading to other parts of the body through the lymphatic system or bloodstream

There are more than 200 different types of cancer, as there are many different types of cell in the body. Any of these cell types can grow into a primary cancer. Different types of cancer behave very differently. The type of cancer affects whether it is:

- Likely to grow quickly or slowly
- Likely to produce hormones or other chemicals that change the way the body works
- Likely to spread in the blood or lymphatic system
- Likely to respond well to particular treatments, such as surgery, chemotherapy or radiotherapy

Five sites: skin, breast, lung, large bowel (colorectal) and prostate, account for the majority of all new cancers. The majority of skin cancers, apart from a rare type called melanoma, are easily curable and are not included in most of the statistics in this report. Breast, large bowel, lung and prostate cancers account for over half (54%) of all new cancers excluding the non-melanoma skin cancers.

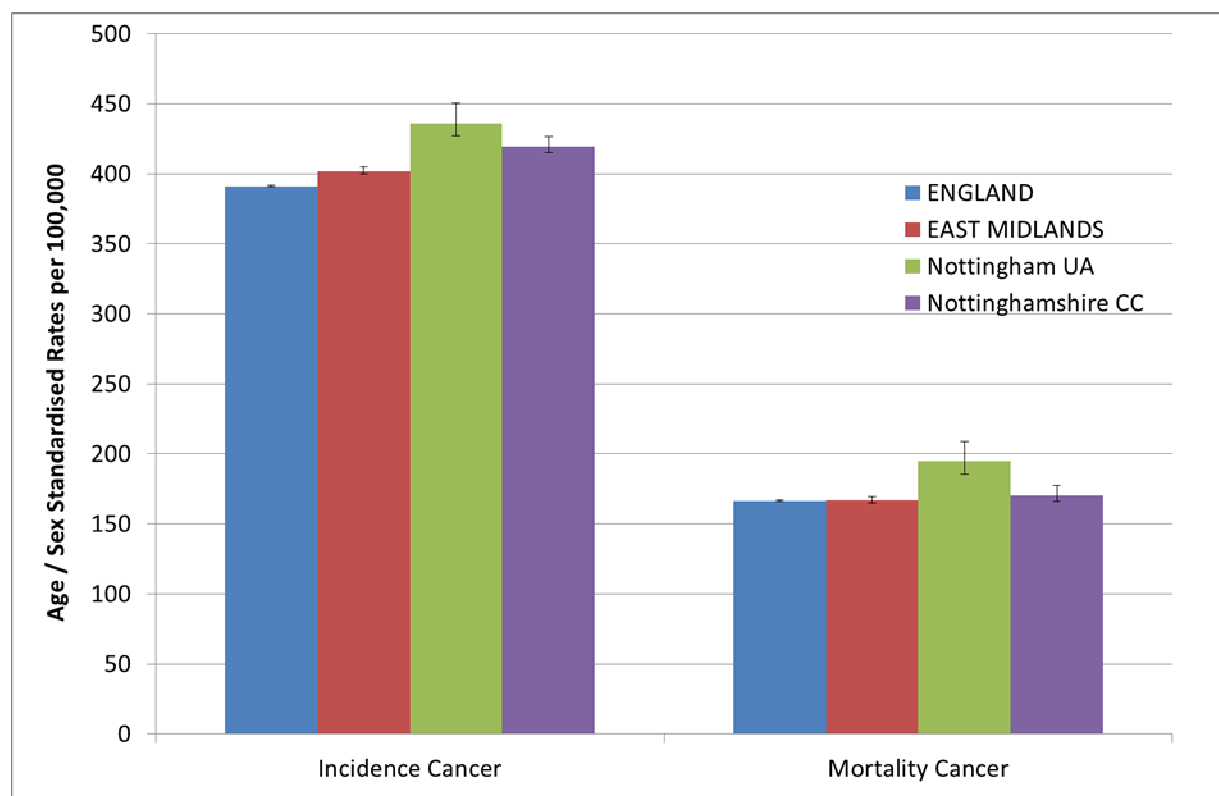
1.2 WHY IS CANCER A PUBLIC HEALTH ISSUE?

Cancer is the 3rd highest cause of premature death in Nottingham City, accounting for 28% of deaths and is therefore an important local health priority (Public Health Mortality File, ONS, 2012). In the City, there are at least 4,499 people living with cancer (QOF registers 2012/13). This is based on the number of people on GP lists with a diagnosis of cancer

recorded since 2003 and so is likely to be an under-estimate as many patients will have survived more than 10 years with their cancer.

The local mortality rates are significantly higher than the average for England and the East Midlands (see Fig 1.1). Incidence rates for people newly diagnosed with cancer each year are also significantly higher than the rates for England and the East Midlands.

Figure 1.1 Comparison of Cancer Incidence and Mortality Rates



Source: Health and Social Care Information Centre Indicator Portal, Incidence 2009-2011; Mortality All Cancers, 2010-2012

Cancer mortality is linked to deprivation and 50% of the population of Nottingham City live in the most deprived national quintile, with 75% of the population living in the 2 most deprived quintiles. Taking this into account, Nottingham City has the expected outcomes for the level of deprivation.

1.2 WHO IS AT RISK OF DEVELOPING CANCER?

An individual's risk of developing cancer depends on many factors, including age, lifestyle and genetic make-up. It is estimated that up to half of all cancer cases diagnosed in the UK could be avoided if people made changes to their lifestyle. The changes include:

- stopping smoking
- moderating alcohol intake
- maintaining a healthy weight
- having a high fibre diet
- increased consumption of fruit and vegetables
- reduced consumption of red and processed meats
- reduced salt intake
- reduced saturated fat intake
- reduced exposure to UV radiation

More than a quarter of all deaths from cancer (including 90% of lung cancer deaths) are linked to tobacco smoking. Estimates suggest that, in the UK, up to 12,500 new cancers each year could be avoided if alcohol consumption was reduced and 17,000 new cancers are linked to obesity (Parkin 2006). A small number of infectious agents, especially selected viruses, play a key role in causing certain types of cancer. It is estimated that inherited factors cause up to 10% of all cancers. Factors such as the age at which a woman has her first child and the number of children she has affect the risk of breast and gynaecological cancers. Cancer Research UK has summarised the research on the potential impact of known lifestyle and environmental factors and a graphical representation is shown at Appendix A.

The Health and Wellbeing Board priorities underpin many of these issues. Improvements in the lifestyle factors highlighted above would have an impact on cancer incidence through their contribution to decreased risk of cancer at individual and population levels.

2. HEALTH NEED

In Nottingham City about 1,300 people are diagnosed with cancer each year and 653 people die from the disease. Incidence of cancer in Nottingham women is higher than the national average but broadly similar to regional rates. Cancer incidence is higher in men than women.

2.1. Incidence of types of cancer

Skin cancers are the most common form of cancer but most of these are easily treated basal cell and squamous cancers, caused by sun damage. Only a small proportion of skin cancers are malignant melanoma. Breast cancer is the next most common cause of cancer

followed by prostate cancer in men, lung cancer and bowel cancer (Cancer Research UK) People under 75 years account for 64% of all those with newly diagnosed cancers in Nottingham City.

Table 2.1 Incidence of most common types of cancer per 100,000 population; all ages, 2009-2011; Nottingham City

Incidence of cancer	Incidence per 100,000		Number per year
	Male	Female	
Breast*	0.9	125.2	176
<i>Prostrate</i>	115.2	-	155
<i>Lung</i>	85.1	47.9	191
<i>Large Bowel</i>	64.6	35.9	152
<i>Bladder</i>	19.4	4.8	37
<i>Stomach</i>	19.6	6.3	39
<i>Oesophagus</i>	18.1	6.7	35
<i>All skin cancer</i>	135.1	96.1	363
Malignant melanoma	11.3	9.9	31
All Cancers	486.1	404.3	1298
All Cancers Under 75 years	355.8	344.0	832

*Breast cancer in men is rare; figure given is UK incidence rate.

Source: Health and Social Care Information Centre Indicator Portal, Incidence 2009-2011

2.3 Mortality from cancer

Cancer is responsible for around 25% of all deaths and is the second highest cause of death in BME groups. Lung cancer is by far the most common cause of death from cancer, followed by bowel cancer and breast cancer. Approximately 50% of all cancer deaths are in people under 75 years. The most common cancers causing death are lung cancer; bowel cancer and prostate cancer in men and breast cancer in women. Skin cancers, other than malignant melanoma, very rarely cause death (DH 2011)

Nottingham City has significantly poorer survival rates for cancer, with one year survival rates for breast, bowel and prostate cancer in the bottom 20% for England. This is thought to be partly as a result of patients leaving it longer before seeing a health professional, meaning that their cancer is more advanced when diagnosed

Table 2.2 Mortality from most common types of cancer (Directly Standardised Rate per 100,000 (2010-2012); Nottingham City

<i>Cancer Mortality</i>	Mortality per 100,000		Number per year
	Male	Female	
<i>Breast*</i>	0.2	24.1	42
<i>Prostrate</i>	22.06	-	34
<i>Lung</i>	62.6	35.4	148
<i>Large Bowel</i>	27.4	13.0	66
<i>Bladder</i>	8.7	4	21
<i>Stomach</i>	10.3	2.74	20
<i>Oesophagus</i>	16.0	4.9	31
All Cancers	230.8	169.1	634
All Cancer <75	143.0	121.6	316

*Breast cancer in men is rare; figure given is UK mortality rate.

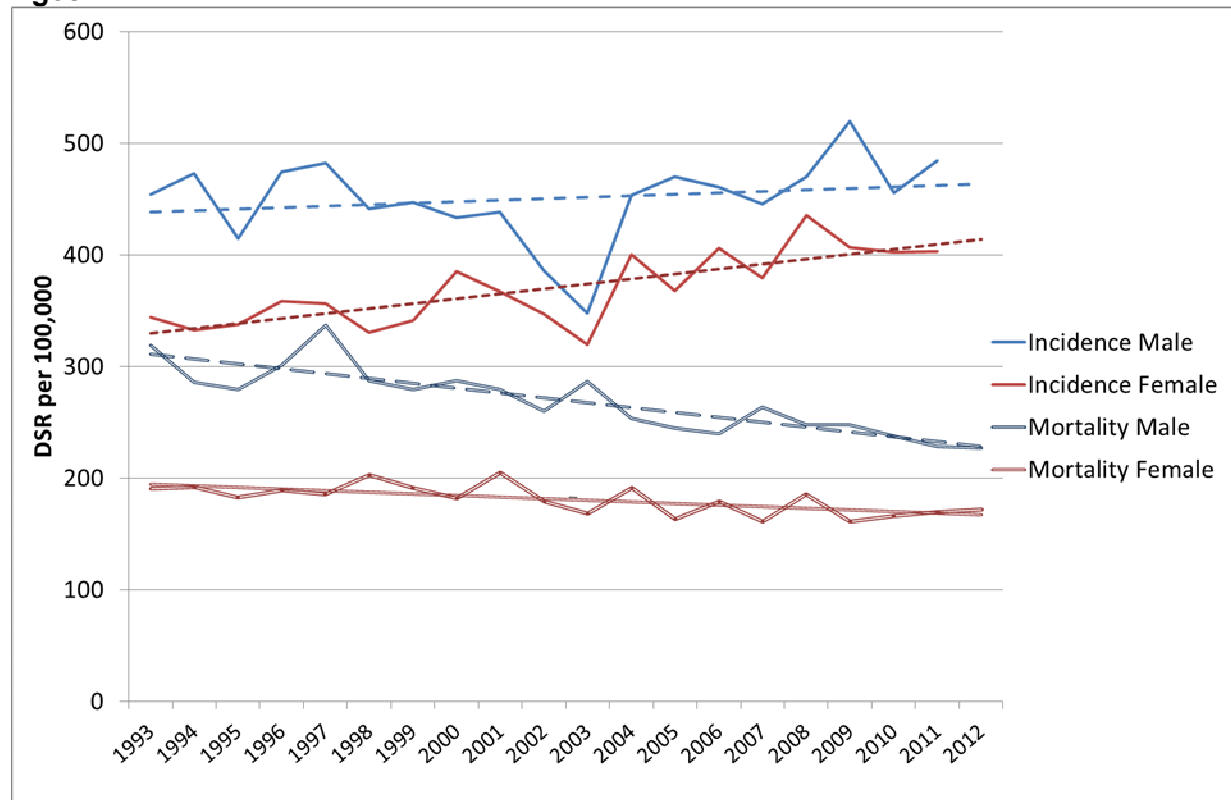
Source: Source: Health and Social Care Information Centre Indicator Portal:

<https://indicators.ic.nhs.uk/webview/>

2.4 Trends in cancer incidence and mortality

In both men and women, cancer death rates are falling and incidence is rising (Figure 2.1). Incidence of cancer in men is increasing at around 1.3% per year and 4.4% in women. However, mortality rates are falling more slowly in women than in men at 1.5% per year compared to 4.3% in men. A number of factors will lead to increased incidence including increased awareness of symptoms, earlier detection and diagnosis and increases in the older population. Increased awareness and early diagnosis will improve mortality and survival rates. The changes in incidence and mortality vary between tumour sites.

Figure 2.1 Incidence and Mortality trends in Males and Females; All Cancers, All Ages

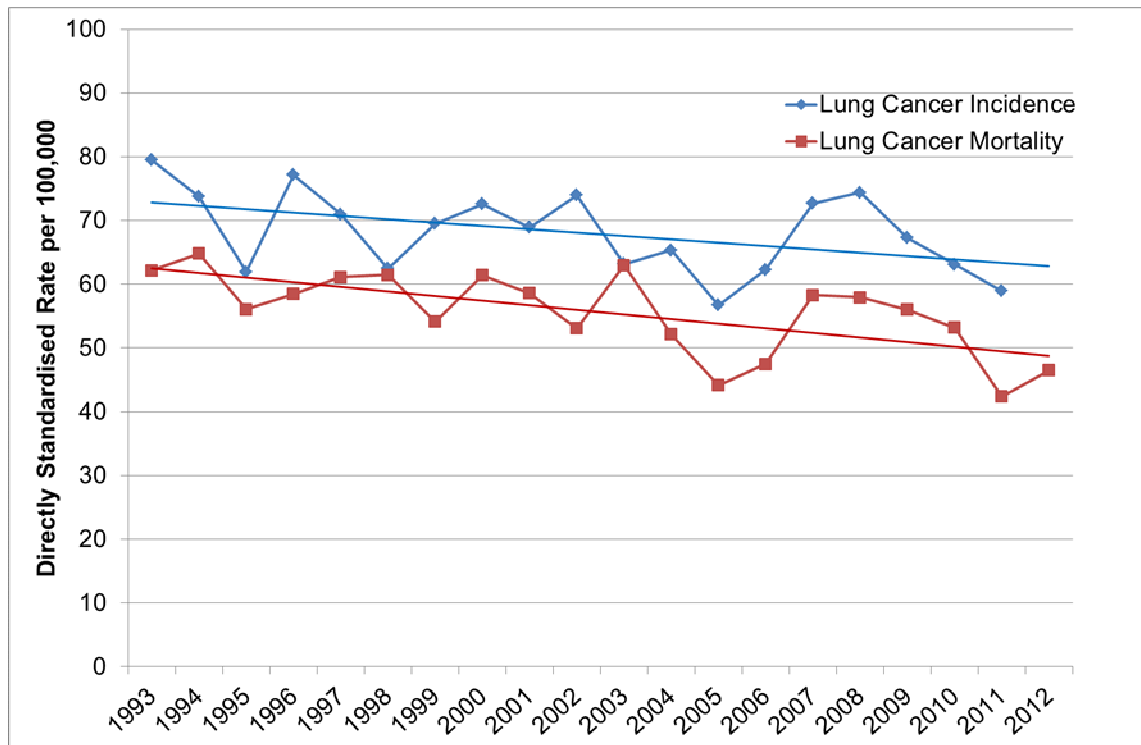


Source: Health and Social Care Information Centre Indicator Portal

2.5 Lung Cancer incidence and mortality

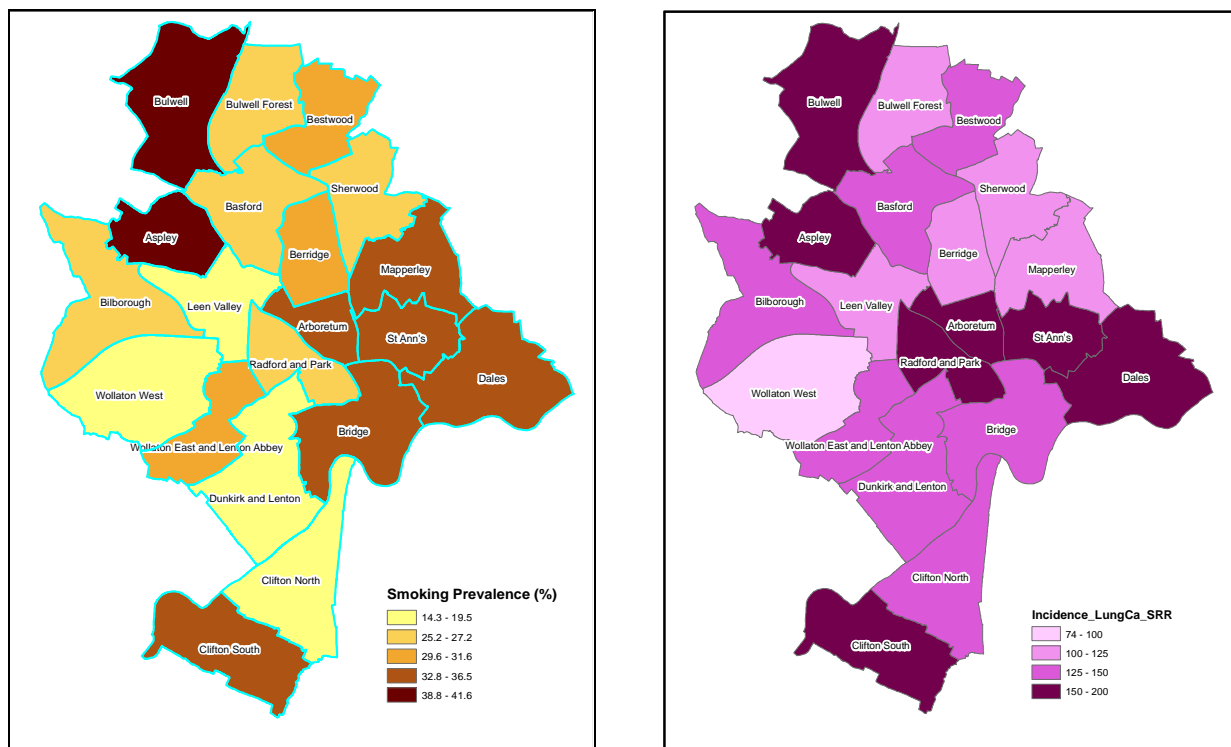
Incidence of lung cancer in Nottingham City is significantly higher than the national and regional average in both men and women. Levels are comparable with the more deprived area of the city and there is a clear correlation between deprivation and incidence, linked to smoking. Incidence and mortality from lung cancer are falling, reflecting reductions in smoking prevalence.

Figure 2.2 Incidence and mortality from Lung Cancer (All Persons, All Ages) in Nottingham City



Source: Health and Social Care Information Centre Indicator Portal, Incidence 2009-2011; mortality 2010-2012

Figure 2.3 Lung Cancer Incidence and Smoking Prevalence by Ward



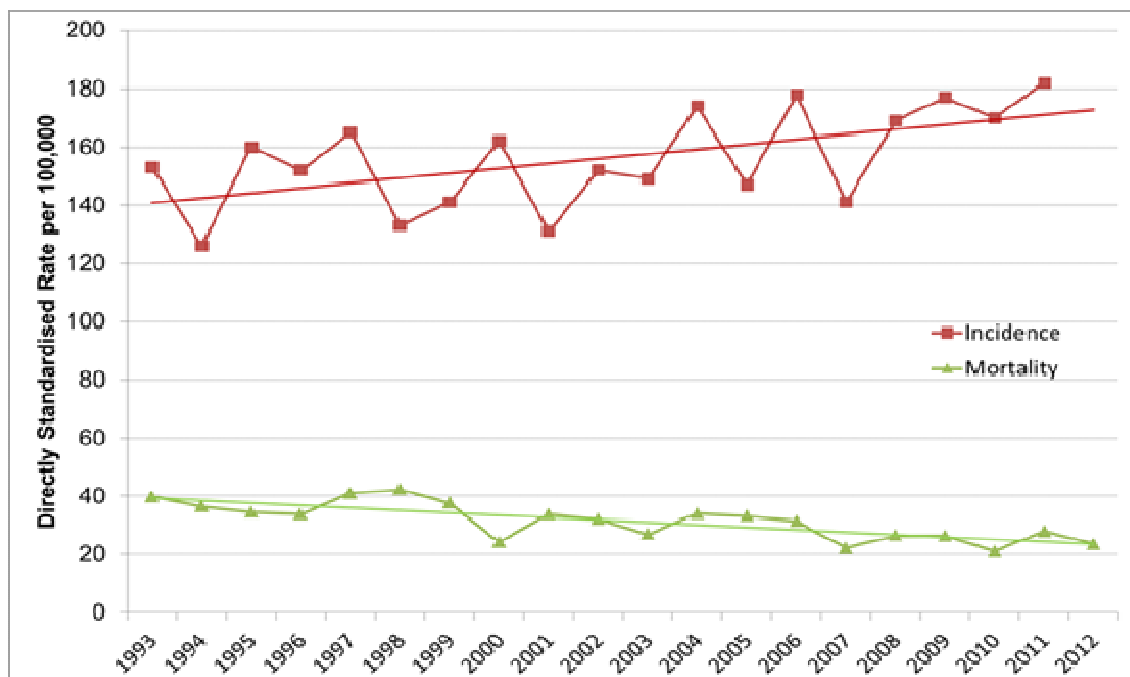
Source: Smoking Prevalence: Citizens Survey pooled 2010-2012; Cancer Incidence: New cases of lung cancers, standardised registration ratio, 2005-2009.

The maps in Figure 2.4 show the close relationship between smoking and lung cancer incidence, with the areas in the north and east of the city having the highest smoking prevalence and lung cancer incidence rates.

2.6 Breast Cancer incidence and mortality

Breast cancer incidence is not related to deprivation and local rates are similar to national and regional ones. Incidence of breast cancer is increasing, perhaps due to improved screening uptake and greater awareness of symptoms. Mortality rates are falling.

Figure 2.4 Incidence and mortality from Breast Cancer (All Persons, All Ages) in Nottingham City

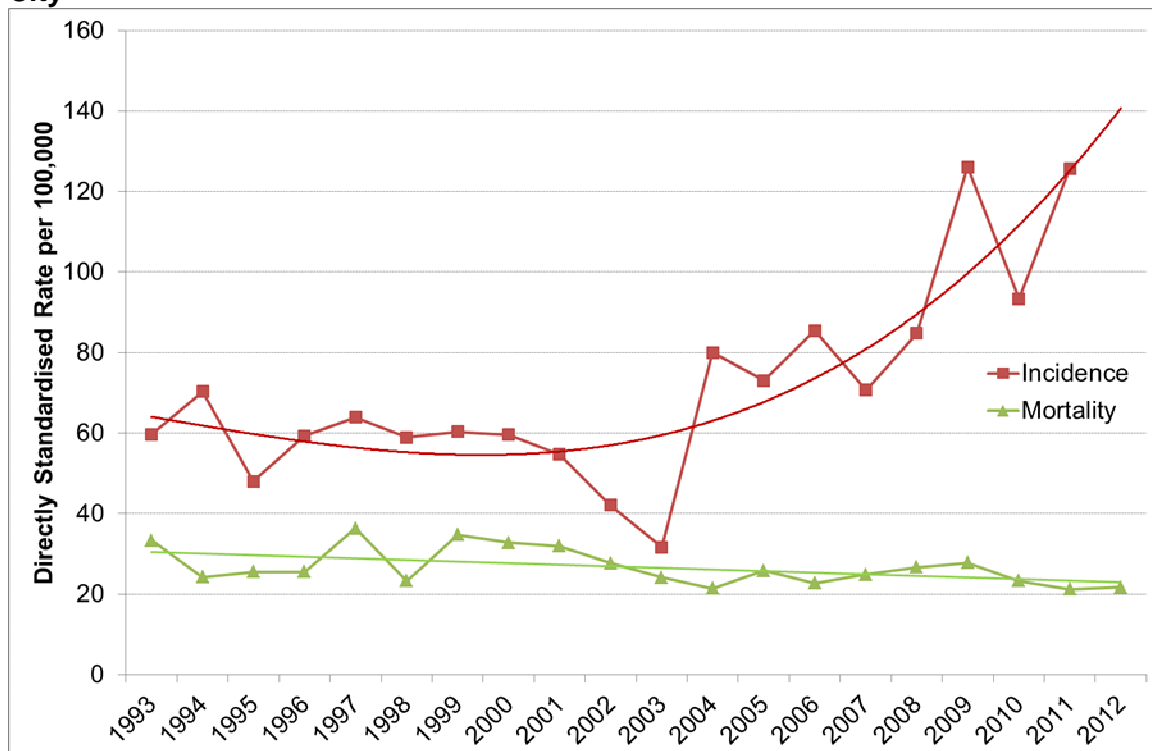


Source: Health and Social Care Information Centre Indicator Portal

2.7 Prostate Cancer incidence and mortality

Incidence of prostate cancer in Nottingham City is similar to the national and regional average and comparable to rates in the surrounding districts. The incidence of prostate cancer has risen sharply in recent years, reflecting the increased awareness of this disease and detection of very early disease using the PSA (Prostate Specific Antigen) test. Mortality rates are falling slowly.

Figure 2.5 Incidence and mortality from Prostate Cancer (All Persons, All Ages) in Nottingham City

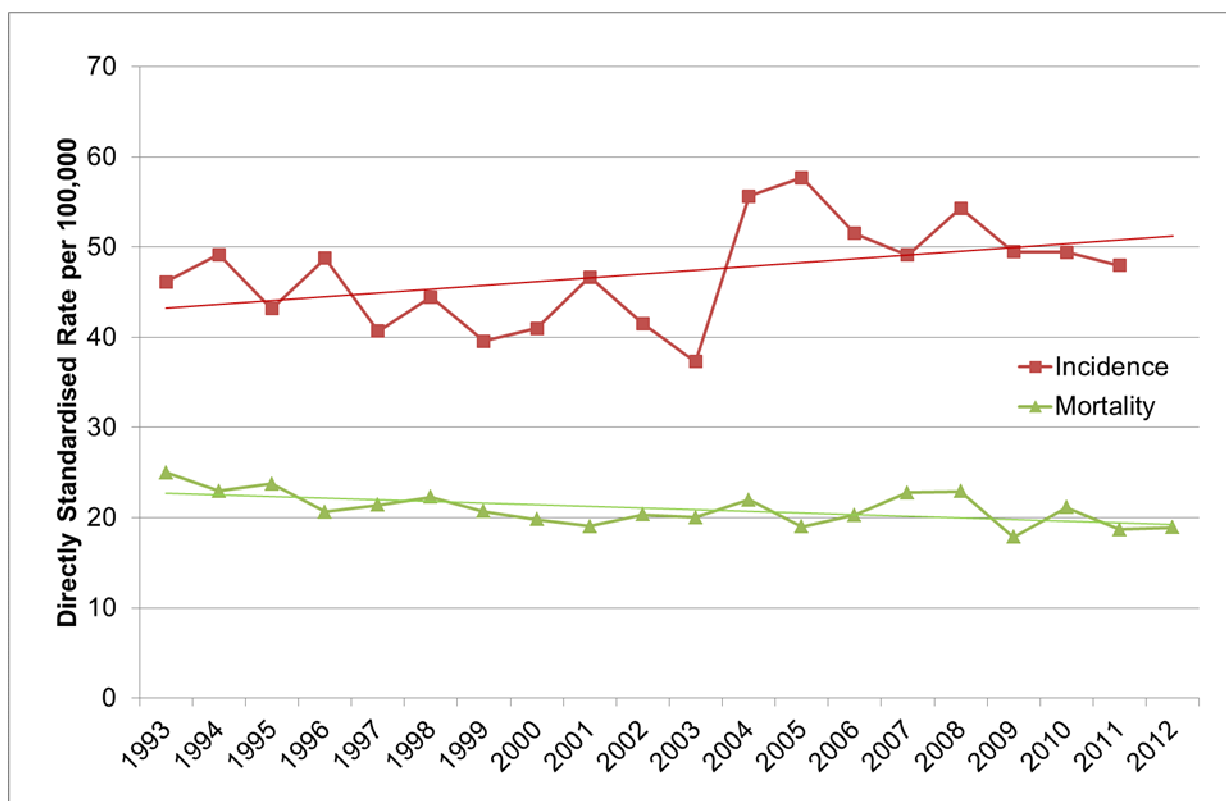


Source: Health and Social Care Information Centre Indicator Portal

2.8 Bowel Cancer incidence and mortality

Incidence of bowel cancer is not significantly different to England or the East Midlands. There is no clear association between incidence rate and deprivation. Incidence is much higher in men than in women. Incidence rates for bowel cancer have risen but it is unclear whether this is related to the introduction of screening in 2008 or due to the increase in the number of older people, as bowel cancer increases significantly with age. Mortality rates are falling slowly at around 1% per year.

Figure 2.6 Incidence and mortality from Bowel Cancer (All Persons, All Ages) in Nottingham City



Source: Health and Social Care Information Centre Indicator Portal, Incidence 2009-2011; mortality 2010-2012

2.9 Survival with cancer

Nationally and locally, survival with cancer is improving gradually. Over 90% of women with breast cancer survive one year and over 80% survive 5 years. One year survival for prostate cancer is similarly 90% and 5 year survival 75-80%. Lung cancer survival remains poor at both 1 and 5 years.