Middlesbrough JSNA

Cancer

More than one in three people in England will develop cancer at some stage in their lives and one in four will die from it. Consequently the prevention, detection and treatment of cancer are key priorities for Middlesbrough.

Over 250,000 people in England are diagnosed with cancer every year and around 130,000 die from the disease. Currently, about 1.8 million people are living with cancer. (Department of Health, 2011a).

The earlier a cancer can be diagnosed the greater the prospect of survival. Evidence suggests that later diagnosis of cancer has been a major factor in the poorer survival rates in the UK compared with some other countries in Europe.

Cancer is the leading cause of premature death (people under 75) nationally and the second highest cause of death across all age groups. Locally, cancer poses particular challenges to the health of the population of Middlesbrough. Overall, incidence of cancer is higher than national levels and survival from some cancers, is among the worst in the country.

Cancer services have changed considerably over the last decade. The NHS Cancer Plan (2000) and the Cancer Reform Strategy (2007) set out the objectives and vision to improve cancer services across the UK.

Lives can be saved from cancer, primarily through better awareness of the signs and symptoms and earlier diagnosis of cancer.

This is made even more important by the fact that the burden of cancer is increasing dramatically: it is expected that there will be 100,000 more cases per year over the next 15 years in the UK.

This topic is most closely linked to:

1. What are the key issues?

1. Premature deaths from cancer
Early death from cancer in Middlesbrough remains significantly higher than the England average. Cancer mortality is the largest contributor to premature death (deaths in people under 75 years).

2. Lifestyle risk factors
The high levels of excess mortality from cancer can be attributed in part, to the excessively high levels of risk factors in both socioeconomic and lifestyle terms. Lifestyle factors that contribute to the burden of cancer include high smoking prevalence rates, high and increasing levels of obesity combined with a low uptake of physical activity and excessive levels of alcohol consumption.

3. Improving screening uptake
Participation in the national screening programmes for breast, cervical, and bowel cancer can significantly reduce a person's risk of developing one of these cancers. Where screening is possible, it is an important method of detecting abnormalities at an early stage, enabling treatment when the cancer is most likely to be curable or, in some cases, even before it develops.

4. Improving awareness of cancer signs and symptoms
Several factors are associated with longer delay by patients in seeking help. These include failing to recognise that

symptoms were serious or could be due to cancer. The public's awareness of early cancer symptoms is poor and may be contributing to late presentation and poorer survival. NHS Middlesbrough and the Department of Health have successfully run a range of campaigns to improve the public's awareness of cancer symptoms and to encourage them to present promptly to the doctor. It will take time to bring about significant change in behaviour.

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2. What commissioning priorities are recommended?

2012/01
Reduce premature deaths from cancer through improved cancer prevention, early detection and prompt, effective treatment and care. This will help to reduce the death rate from cancer, improve prospects for survival and improve quality of life for those affected by cancer.

Reducing the delay before first going to see a GP among patients from disadvantaged groups can reduce inequalities in cancer outcomes. Ensuring patients are referred quickly to specialist services by GPs and improving access to diagnostics can reduce cancer mortality. Remains a commissioning priority.

2012/02
Tackle lifestyle risk factors by using interventions that reduce smoking and alcohol consumption, increase fruit and vegetable consumption, reduce obesity and encourage physical activity. Primary prevention (preventing people getting cancer in the first place) is seven times more effective than secondary prevention (detecting cancer before it is symptomatic leading to prompt treatment). Remains a commissioning priority.

2012/03
Improve screening uptake. Achieving adequate levels of uptake in cancer screening requires a variety of approaches that need to be shaped by the characteristics of both the screening programme and the target population. Addressing inequalities in uptake is a priority for screening programmes. Cancer screening has the potential to make a major contribution to early diagnosis initiatives and will best be achieved through uptake strategies that emphasise wide coverage, informed choice and equitable distribution of cancer screening services. Remains a commissioning priority.

2012/04
Improve awareness of cancer signs and symptoms. The public's awareness of early cancer symptoms is poor and may be contributing to late presentation and poorer survival. Early diagnosis and treatment of cancer is an important factor in improving outcomes for cancer services.

Early diagnosis requires that individuals are aware of the symptoms of early cancer, that they have access to primary care professionals and seek advice from them if symptoms occur, that these symptoms are then identified as potential symptoms of cancer, and finally that appropriate investigations and referrals are initiated. Remains a commissioning priority.

2014/01
Improve cancer staging data. Rapid diagnosis and treatment improves not only survival but also the quality of life of survivors and reduces their longer term care needs. Important to improving early diagnosis is to have better information on the stage of cancer at diagnosis. It is therefore important that we have systems and processes in place that can help obtaining more accurate and complete information on cancer staging.

2014/02
Improve patient experience. The needs of people with cancer needs to be identified and met so they feel well supported and informed, able to manage the effects of cancer treatment and the impact on everyday life.

It is important that people with cancer approaching the end of life feel well cared for and pain and symptom free. Each person with cancer has an individually tailored care plan which includes a holistic needs assessment, treatment summary and a cancer care review.

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3. Who is at risk and why?

Age
Cancer can develop at any age, but is most common amongst older people. This is because the changes that make a cell become cancerous in the first place take a long time to develop. More than three out of five new cancers are diagnosed in people aged 65 or over, and over one-third are diagnosed in those aged 75 or over.

Gender
Men are at significantly greater risk than women from nearly all of the common cancers that occur in both sexes with the exception of breast cancer.

Cancer Research UK (2010) considers the current overall burden of cancer among men in the UK and outlines the extent of the differences between the sexes. It also suggests possible reasons why men are at more risk of both getting and dying from so many cancers.

Socioeconomic status
Incidence and mortality rates from cancer are higher in disadvantaged areas. Therefore the greatest scope to make rapid improvements is by focusing activity on disadvantaged areas.

There is a range of inequalities in the outcomes and experience of cancer patients. These can occur at every stage of the patient pathway, including in awareness, incidence, access to treatment and care, patient experience and survival.

Ethnicity
Evidence from bowel screening pilot studies has shown that uptake of the screening test varies significantly between different groups. Typically, areas with high deprivation and high proportions of minority ethnic groups have the lowest uptake rates. Uptake is also lower among men than among women.

Lifestyle
Over half of all cancers could be prevented if people adopted healthy lifestyles such as:

- Stopping smoking;
- Avoiding obesity;
- Eating a healthy diet;
- Undertaking a moderate level of physical activity;
- Avoiding an excessive alcohol intake; and
- Avoiding excessive exposure to sunlight.

It is estimated that about one-third of all cancers are caused by smoking, unhealthy diets, alcohol and excess weight (Parkin et al, 2011).

Smoking causes more than four in five cases of lung cancer.

Cancer Research UK has developed a data visualisation 'infographic' that illustrates the number of cancers that could be prevented by changes to lifestyle and environment (Cancer Research UK, 2012).

Family history
Most cancers develop because of a combination of risk and the environment, and not because individuals have inherited a specific cancer gene, However, many people with cancer in the family worry that they are at greater risk of getting it themselves. Having a couple of relatives diagnosed with cancer when over the age of 60 doesn’t mean there is a cancer gene running in the family. Genetics specialists estimate that only about 2 or 3 in every 100 cancers diagnosed are linked to an inherited gene fault.

The more relatives who have had cancer, and the younger they were at diagnosis, the stronger the family history.

Occupational exposure
People who work in certain jobs, especially in the manufacturing industry, are most likely to be exposed to high levels of synthetic chemicals. This is known as ‘occupational exposure’.

Cancer Research UK estimates that occupational exposure to cancer-causing chemicals is responsible for about 2% of cancer deaths in the UK. This usually affects only a small number of people in very specific jobs. These exposures are less of a problem now in the UK because the most dangerous chemicals have been banned for several decades.

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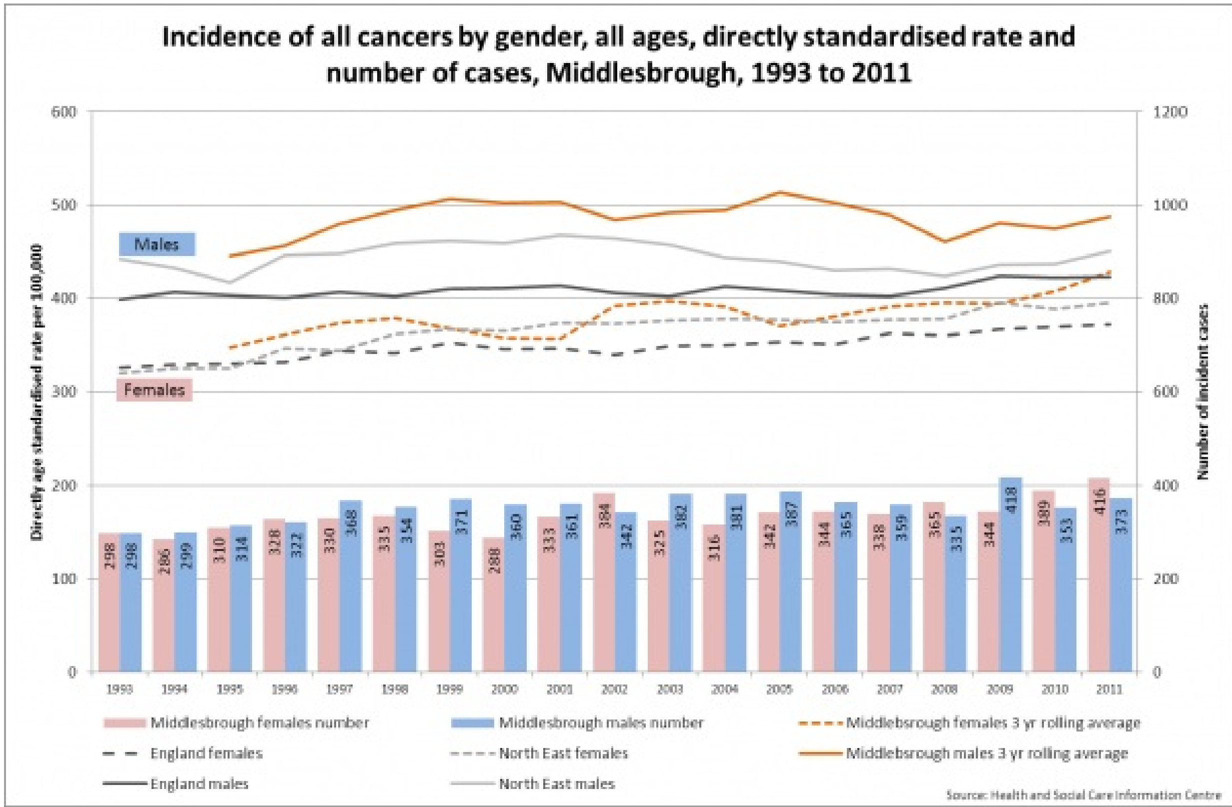
4. What is the level of need in the population?

This section focuses on all cancers, along with specific data for bowel, breast and lung cancer. The conclusions from a regional assessment of need for children and young people are included. The National Cancer Intelligence Network provides detailed cancer data, some of which is presented below.

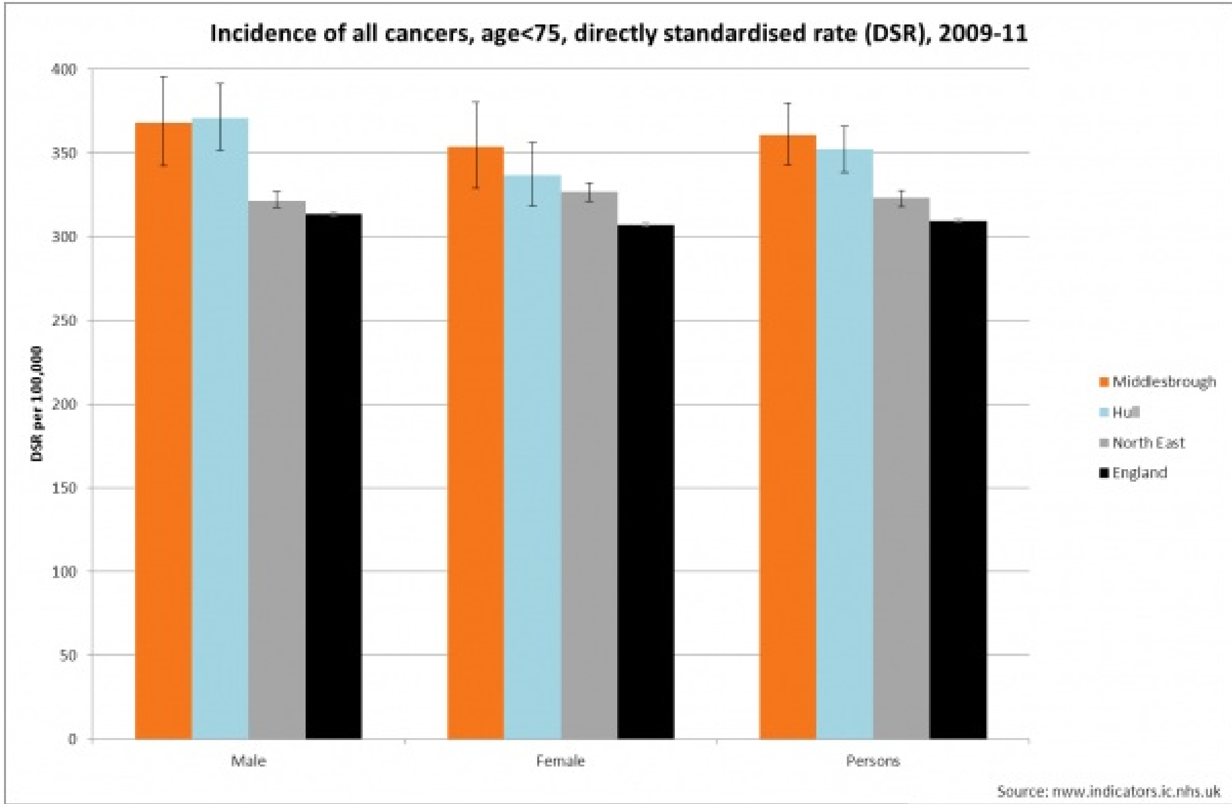
Definitions
Incidence – the number of new cases in a particular time period (usually 1 year).
Prevalence – the number of cases in living people at a particular moment in time.
Mortality – the number of deaths.
Survival – Sometimes known as relative survival, this is the proportion of the diagnosed population who are still alive at a certain time after diagnosis, taking into account mortality from other causes.

Cancers are classified according to the International Classification of Diseases, tenth revision (ICD-10). The following definitions are used here.
All cancers – ICD-10 C00-C97
Bowel cancer – ICD-10 C18-C20 (colorectal / lower gastrointestinal [GI])
Breast cancer – ICD-10 C50
Lung cancer – ICD-10 C33-C34
Prostate cancer – ICD-10 C61
Skin cancer (malignant melanoma) – ICD-10 C43

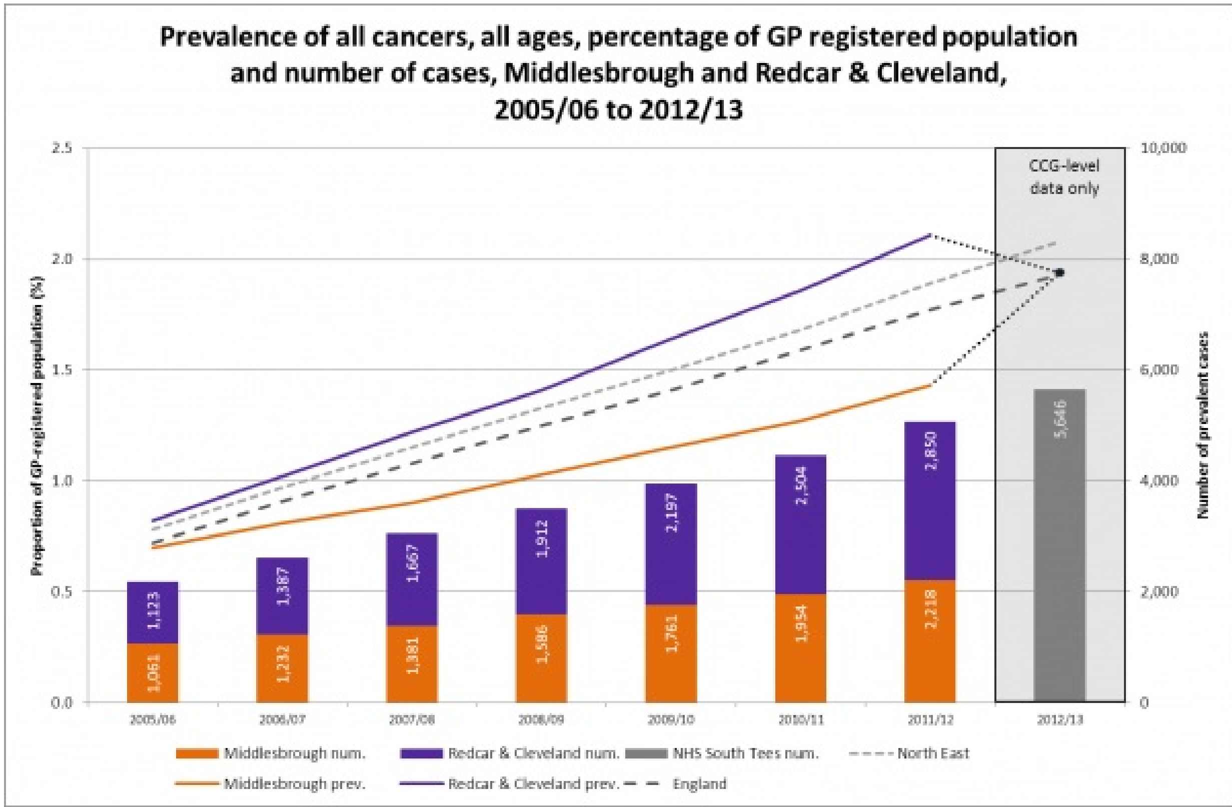
All cancers
Over 700 people are diagnosed with cancer in Middlesbrough annually. The incidence of all cancers in Middlesbrough tends to be higher than many comparable areas and above regional and national averages. Incidence rates are higher in males than females but rising a steeper rate in females than males.



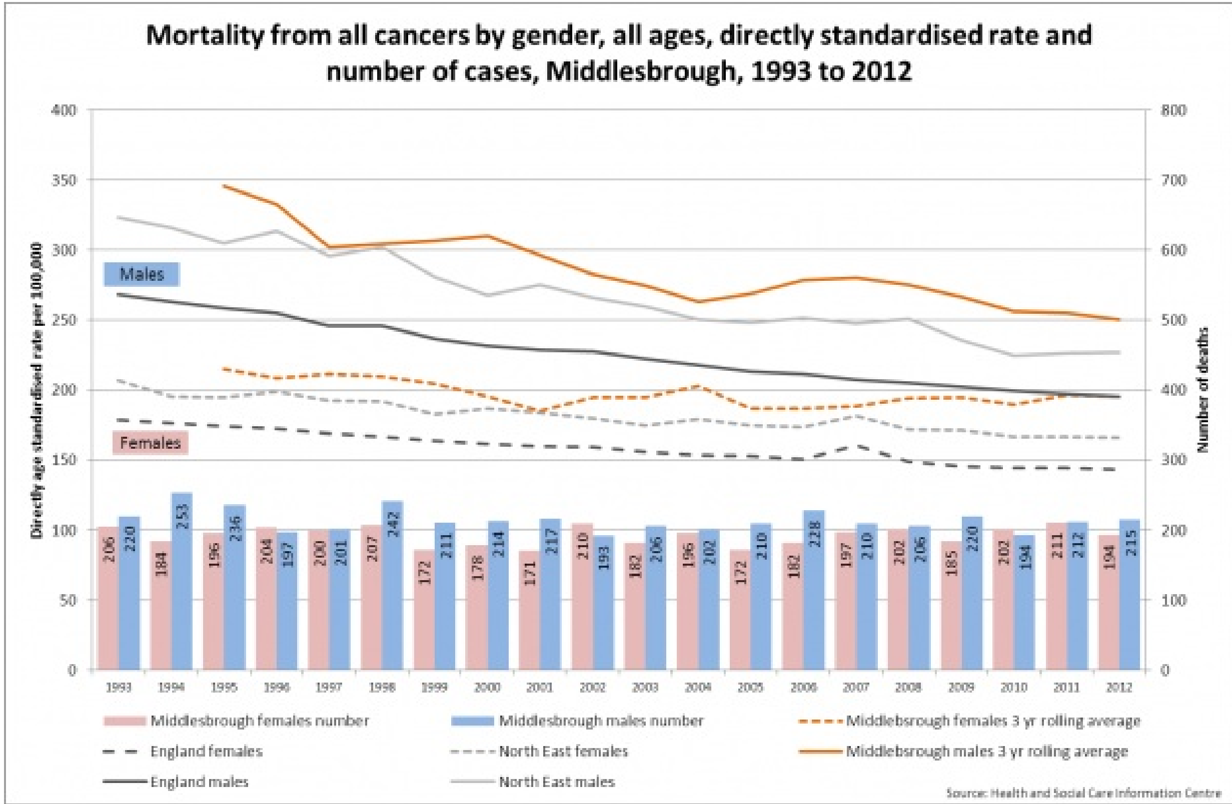
For cancer incidence, the differences compared to the North East and England are statistically significant for men age under 75, and for women age under 75 Middlesbrough is significantly higher than England.



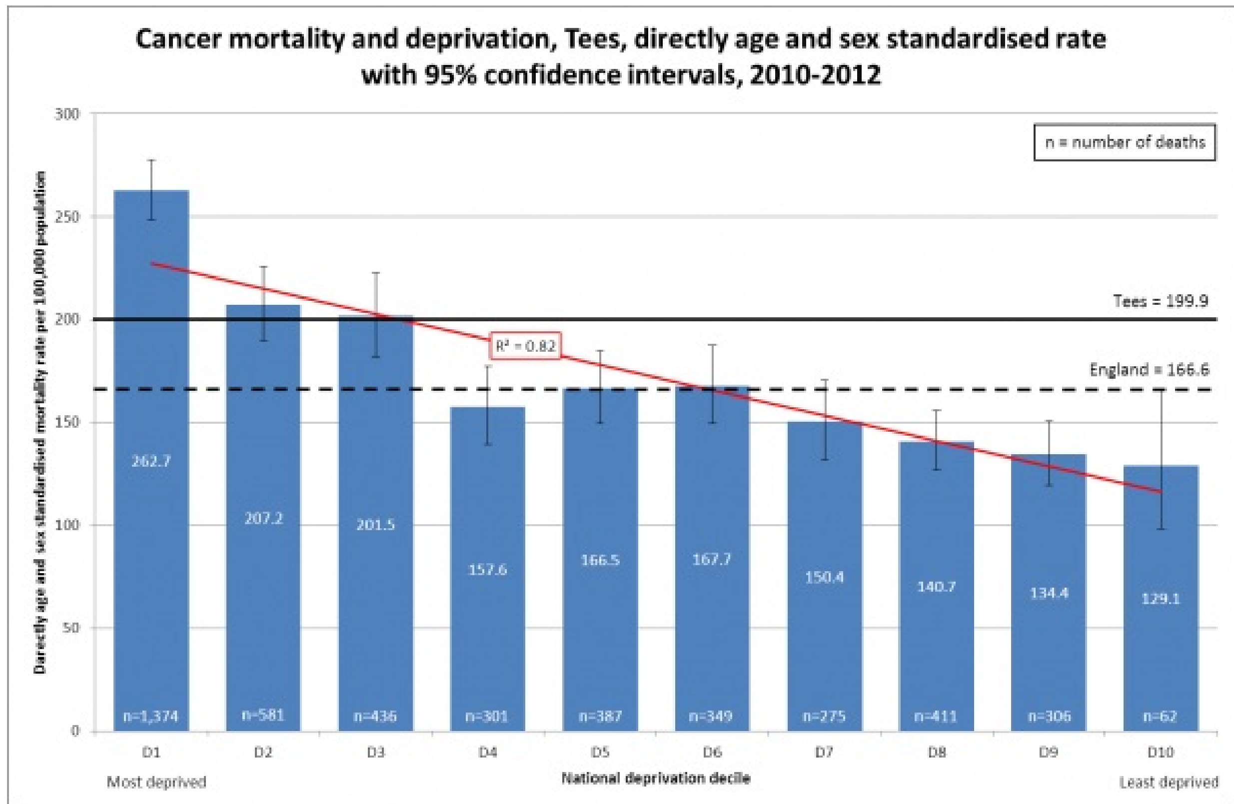
There are about 2,200 people living with cancer in Middlesbrough. The increase in prevalence is likely to be due to a combination of better data recording, improved survival and early diagnosis. Recent changes in NHS structures mean that Middlesbrough specific data is no longer available for this indicator.



On average there were 400 deaths due to cancer annually from 1993 to 2012. Mortality from all cancers has been falling in Middlesbrough, but does not match with the pace of reductions seen nationally. This results in a widening of the gap between Middlesbrough and England for cancer mortality. Mortality rates are decreasing faster in males than females, and there appears to be an increase in recent years for women.

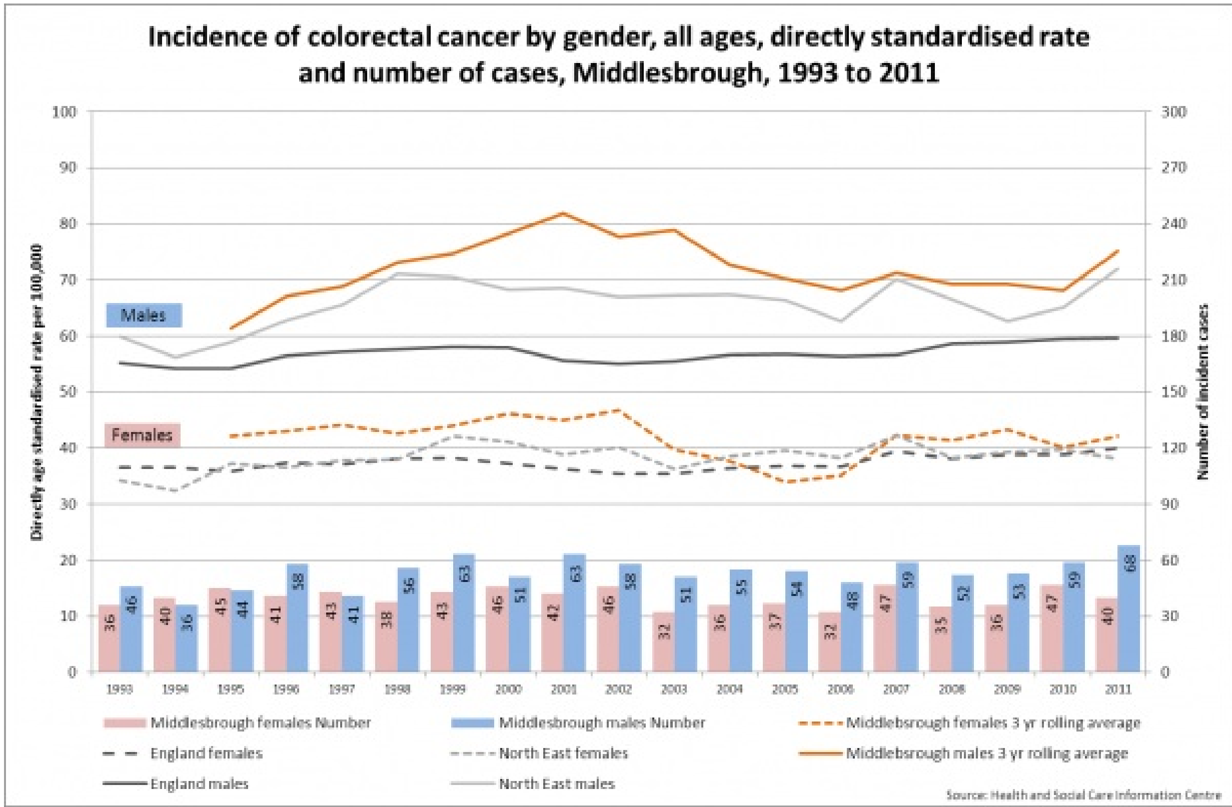


Within Tees there is a strong association between cancer mortality and deprivation. The mortality rate in the most deprived areas is about twice that seen in the least deprived areas. Areas in Tees that are in the 30% most deprived in England (D1-D3 below) have mortality rates significantly worse than England, whereas those in the 30% least deprived (D8-D10 below) have mortality rates significantly better than England.

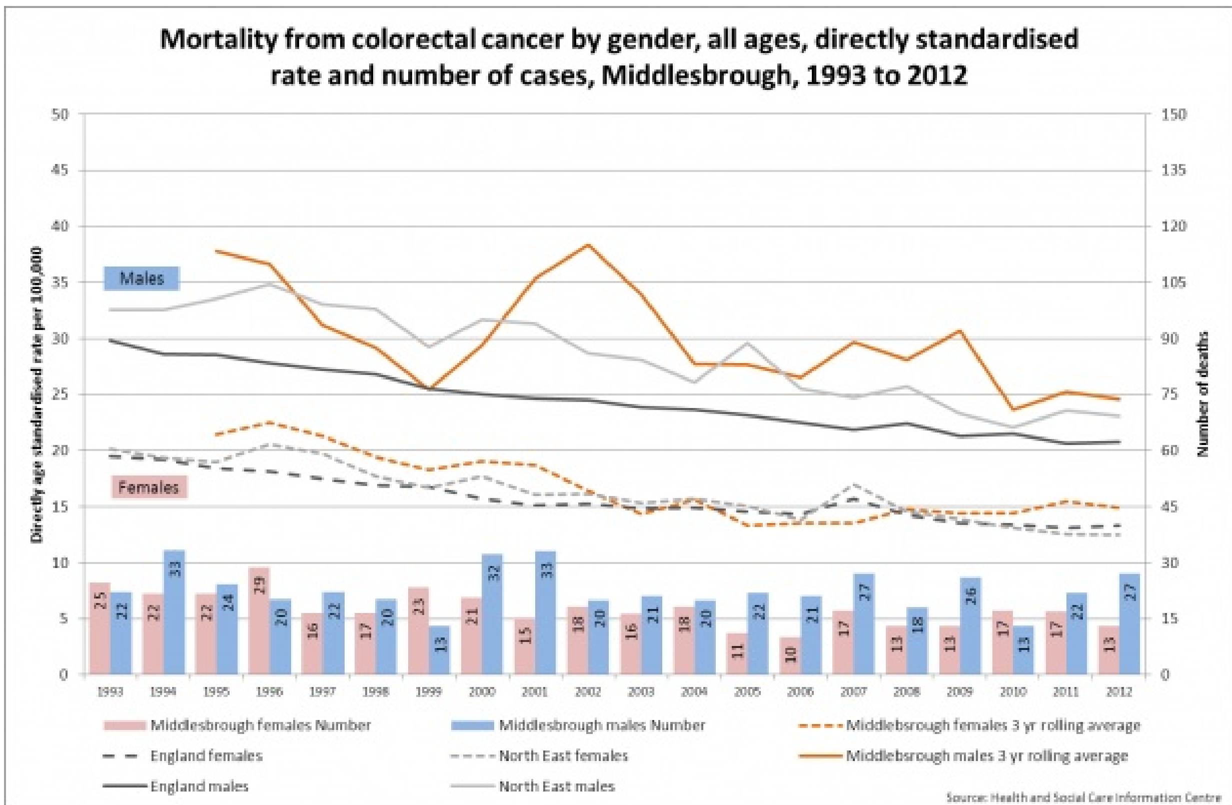


Bowel Cancer

Bowel cancer incidence in Middlesbrough varies somewhat, but is almost always higher than the national rate. Incidence rate is in males is about two-thirds higher than that in females. The introduction of bowel cancer screening in 2006 has helped to increase the identification of cases.

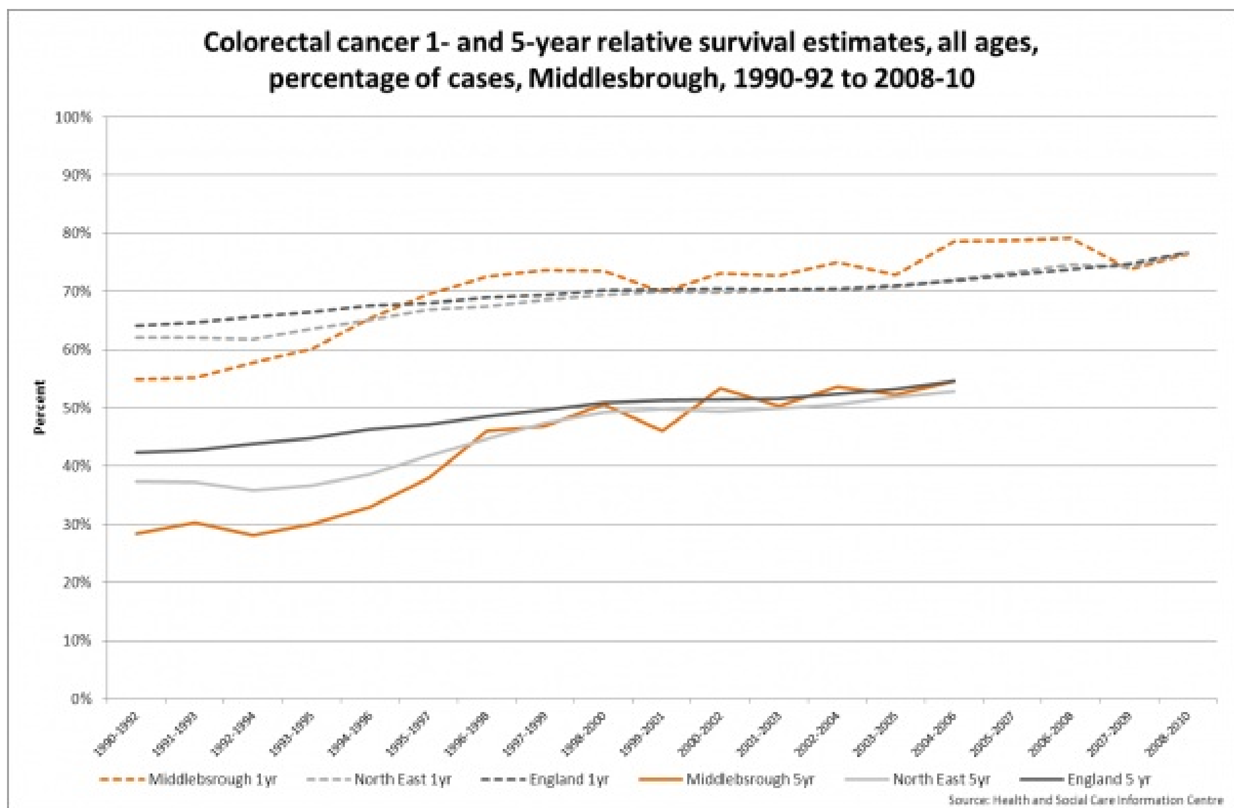


Bowel cancer mortality in Middlesbrough has been reducing at a faster rate than in England as a whole. Although bowel cancer mortality in Middlesbrough is still higher than in England, the gap has narrowed since 1996-2000. Mortality rate in males is about double that in females.

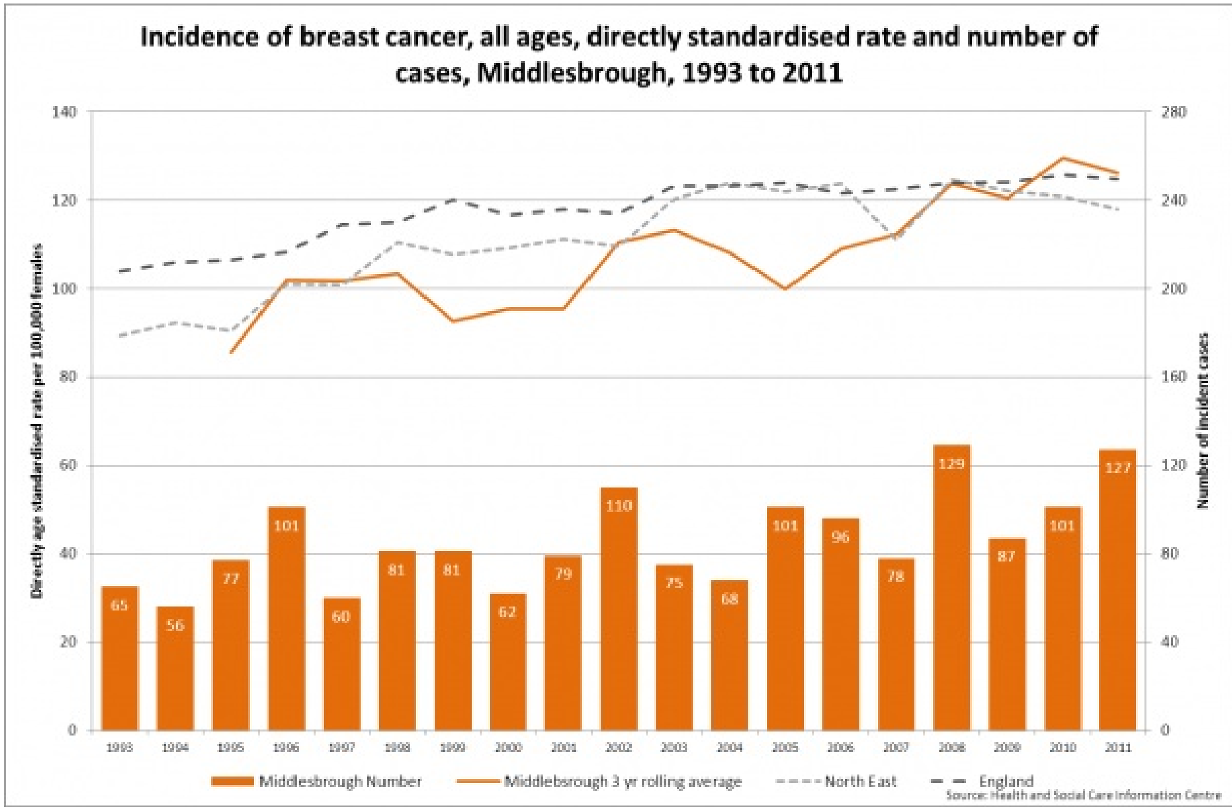


Bowel cancer survival in Middlesbrough has been increasing steadily and is similar to England at one and five

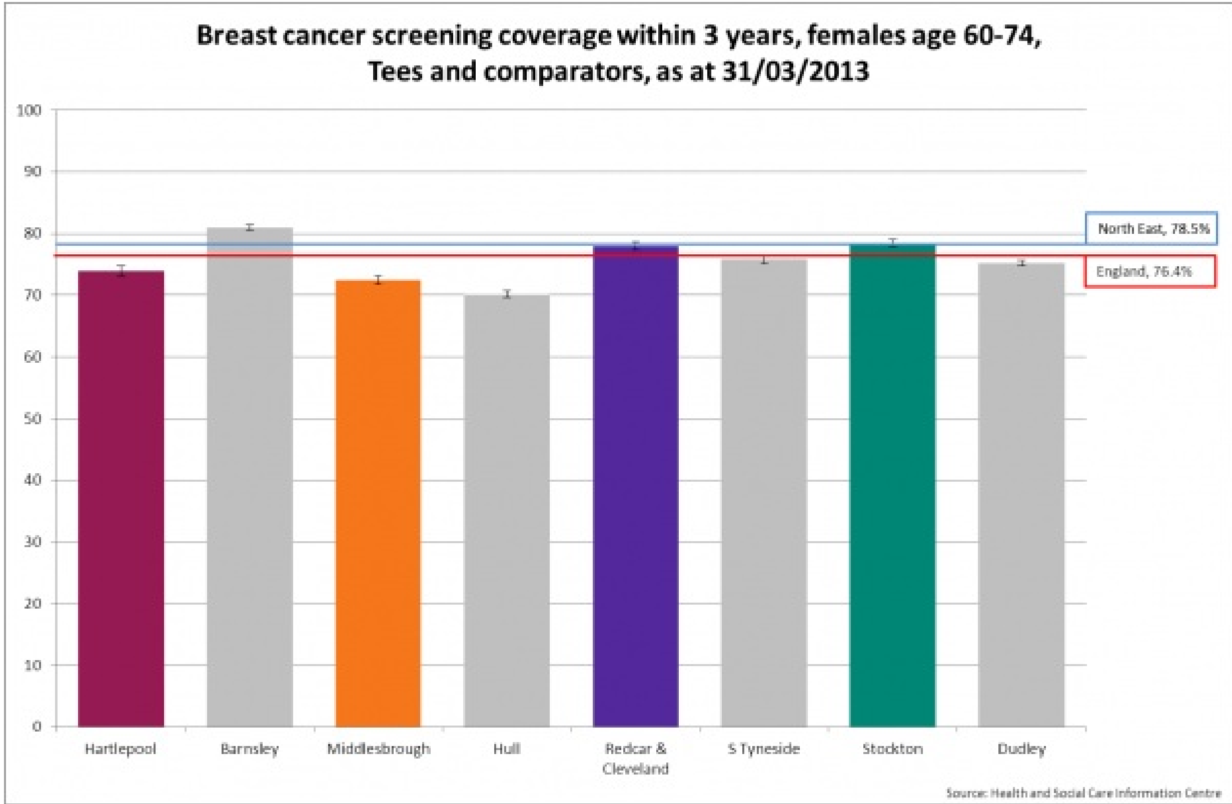
years after diagnosis. Taking into account population mortality from all causes, about 75% of people diagnosed with bowel cancer survive for 1 year and about 50% survive for five years.

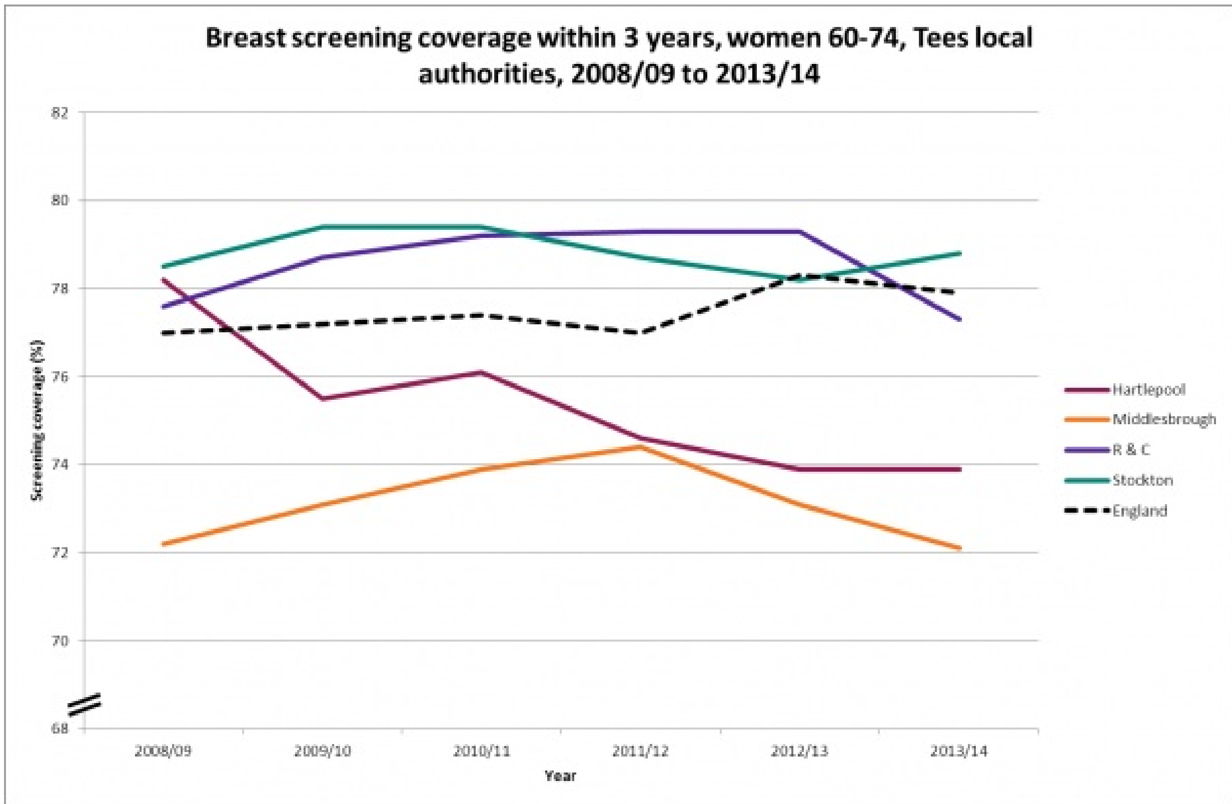


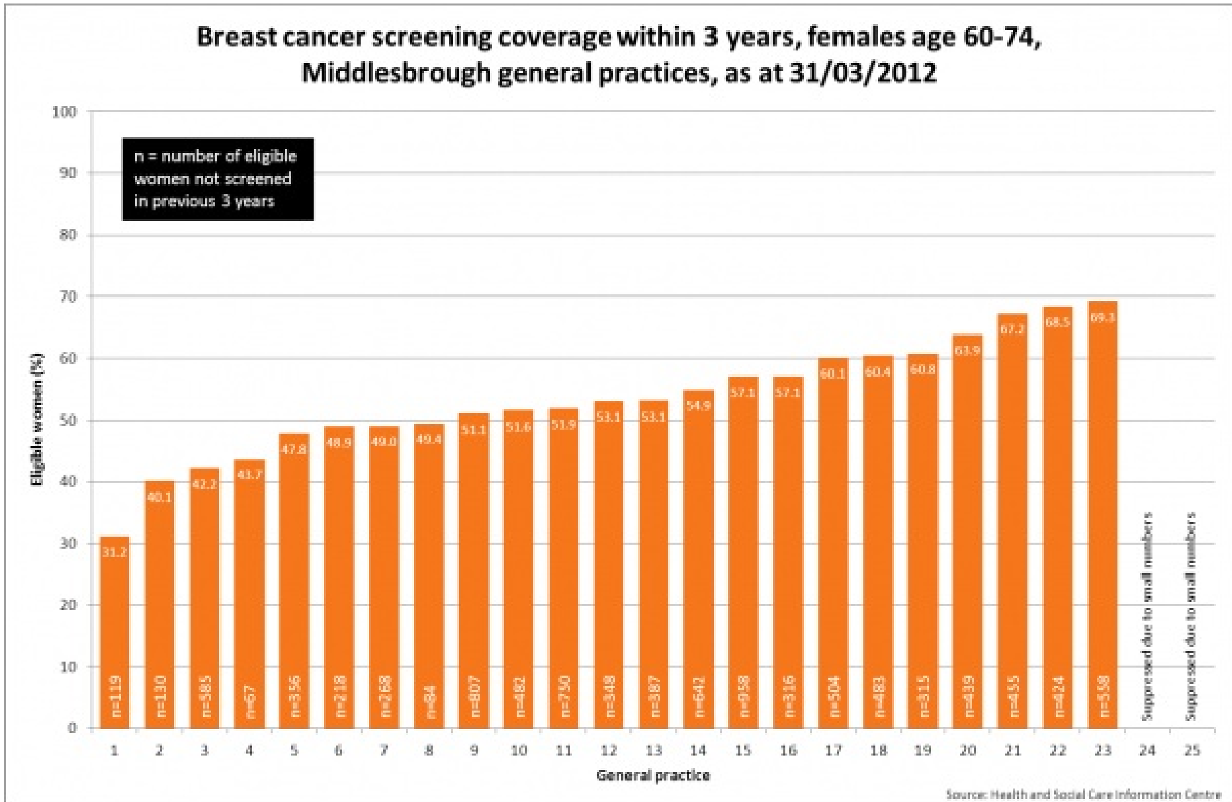
Breast cancer
Although fluctuating from year-to-year, breast cancer incidence in Middlesbrough has been rising during the last 14 years. Historically, the breast cancer incidence rate in Middlesbrough was below the England average rate but the gap has narrowed so that in recent years they are similar.



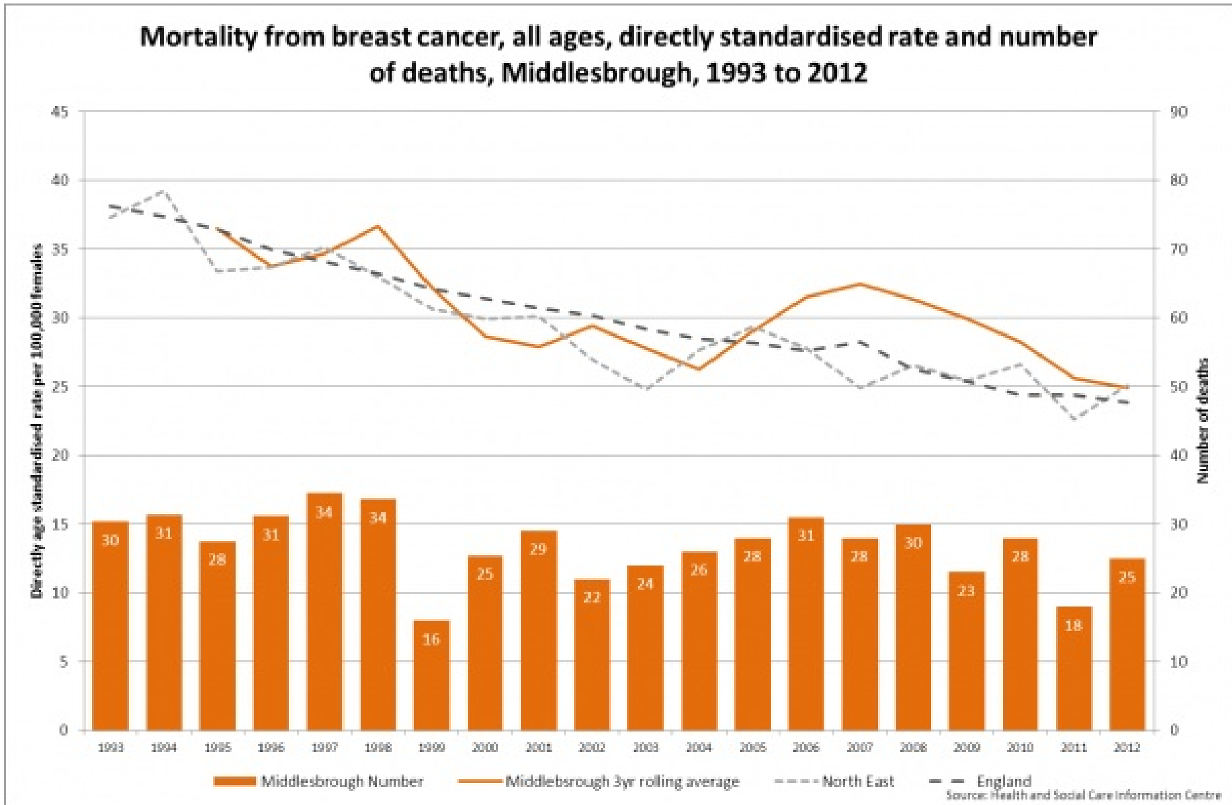
The screening rate for breast cancer in Middlesbrough is below the England average and below the nationally specified performance 'baseline of 75.3%. Over one quarter of eligible women (4,000) in Middlesbrough do not attend breast screening. The most recent years show a falling rate of coverage. There is variation in the number of women screened across general practices.



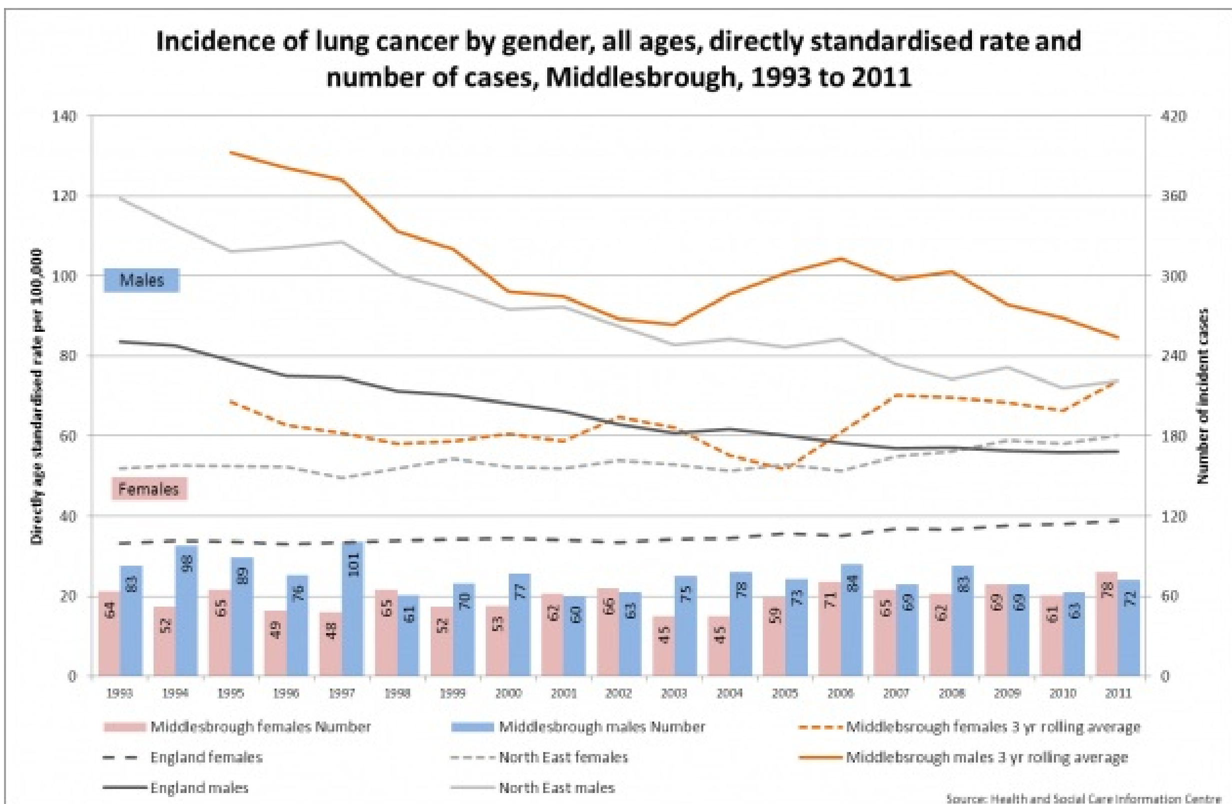




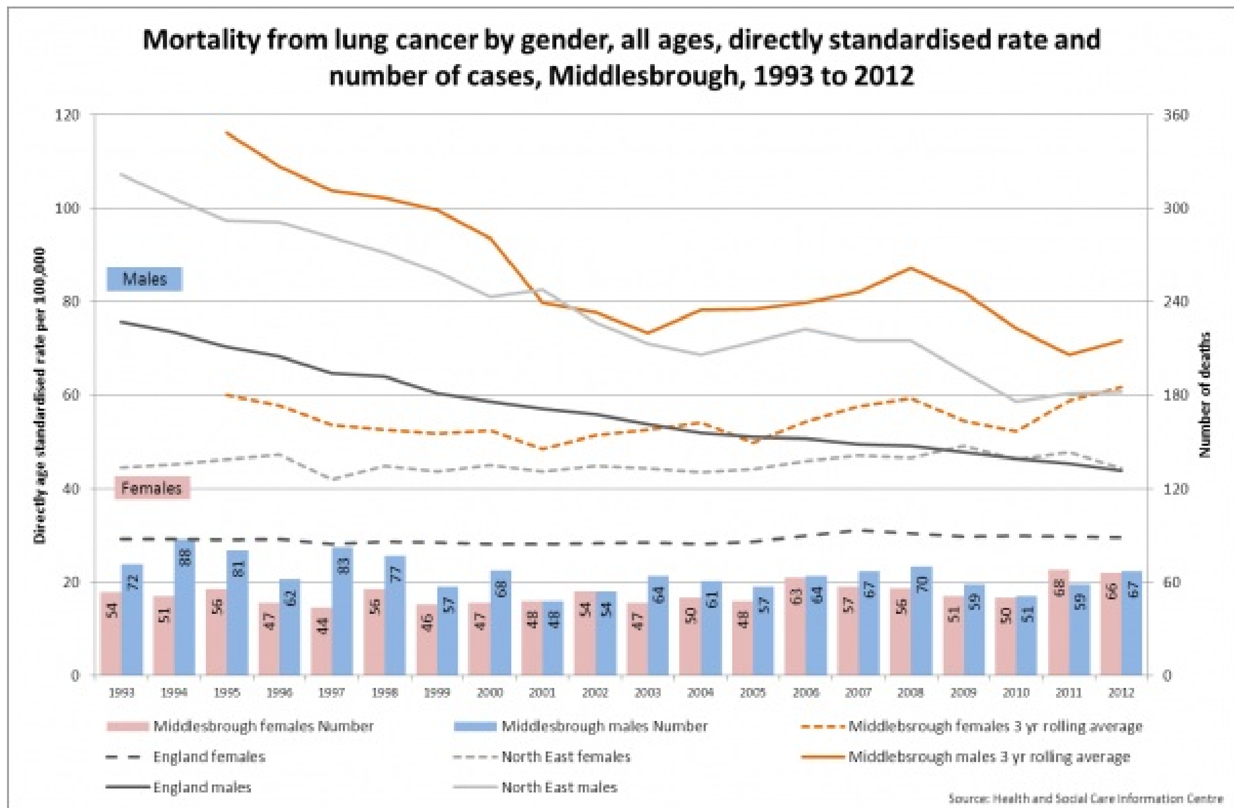
The rate of women dying from breast cancer in Middlesbrough increased from 2004 to 2007 but has declined slightly in recent years. This compares with a falling rate seen in England as a whole. In 1999-2005, deaths from breast cancer in Middlesbrough were marginally below the England rate and latest data shows the local rate is slightly above the national rate.



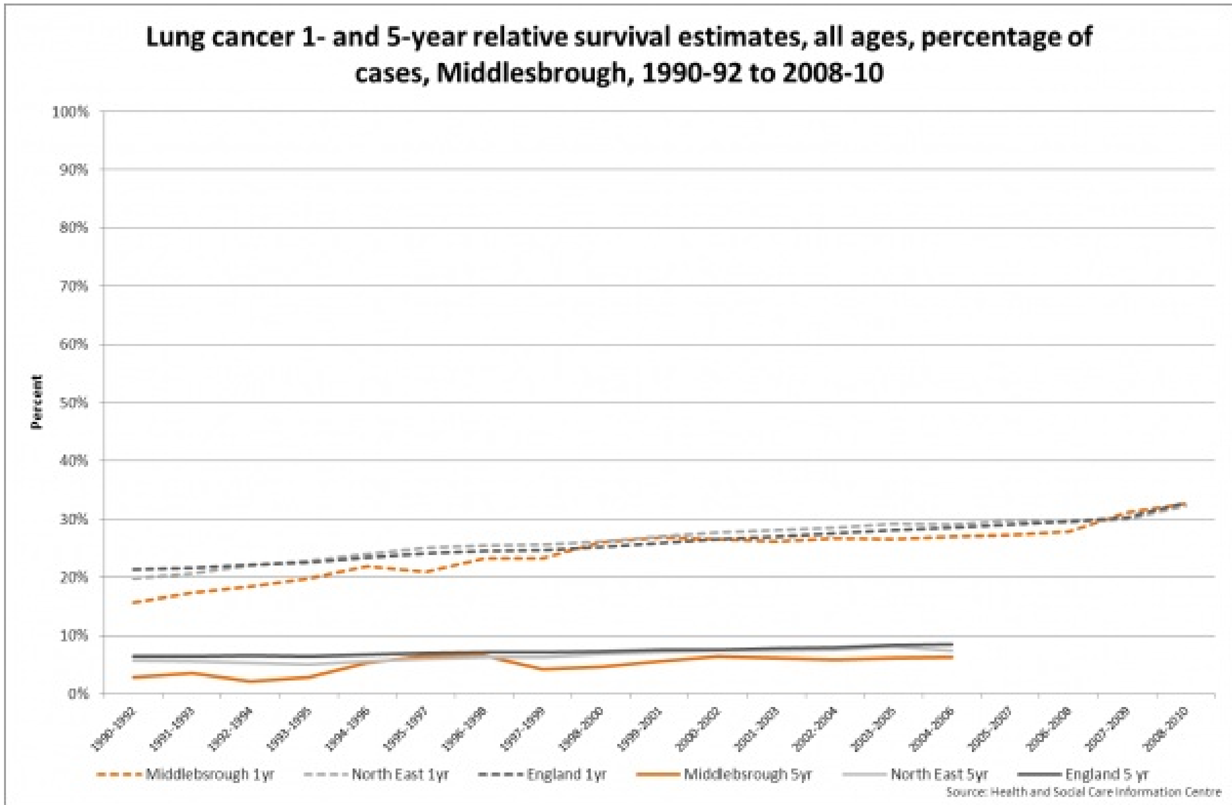
Lung Cancer
Although annual fluctuations are apparent, the incidence of lung cancer has remained broadly similar in Middlesbrough since 1996. Nationally rates have been falling slowly. Lung cancer incidence in Middlesbrough is about 70% higher than England. There is an overall declining trend in lung cancer incidence in males and a rising trend in females.



Deaths from lung cancer in Middlesbrough are nearly twice the rate seen in England. Locally rates appear to be reducing slowly, as in England. The gap between Middlesbrough and England is not narrowing. There is an overall declining trend in lung cancer mortality in males and a rising trend in females.



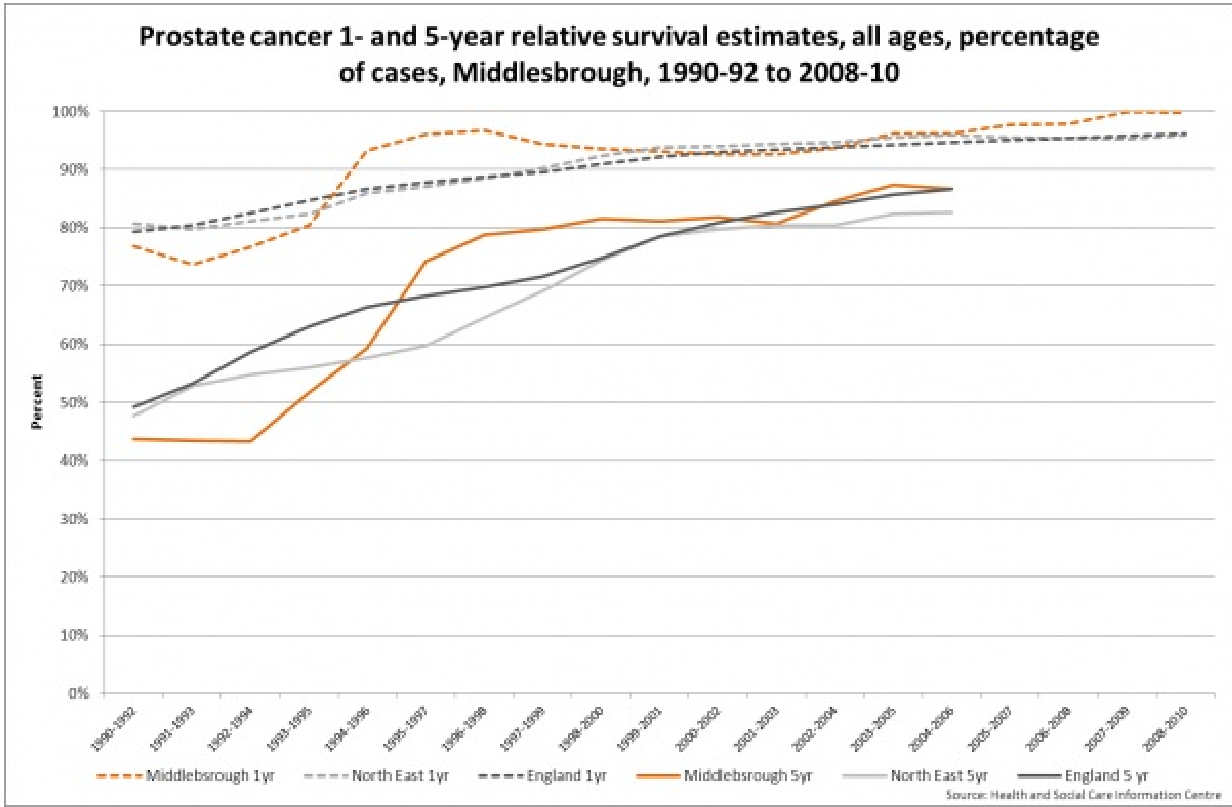
Survival following a diagnosis of lung cancer is much lower than for bowel and breast cancer. Taking into account population mortality from all causes, about 30% of people diagnosed with lung cancer survive for 1 year and about 5% survive for five years. Lung cancer survival has increased at both one and five years after diagnosis, slower at five years. Survival at one year in Middlesbrough is similar to that in England, whilst survival at five years is slightly below the England average.



Prostate Cancer
Prostate cancer incidence is fluctuating in Middlesbrough compared with increasing in England. Most recently, the incidence of prostate cancer in Middlesbrough is below England and has fallen since 2005, when it was above England. About 100 men per 100,000 population are diagnosed with prostate cancer in Middlesbrough, compared with about 105 per 100,000 in England. About 80 new cases per year occur in men in Middlesbrough.

Despite having a similar rate incident cases, mortality from prostate cancer in Middlesbrough tends to be higher than England. About 25 men die from prostate cancer annually in Middlesbrough.

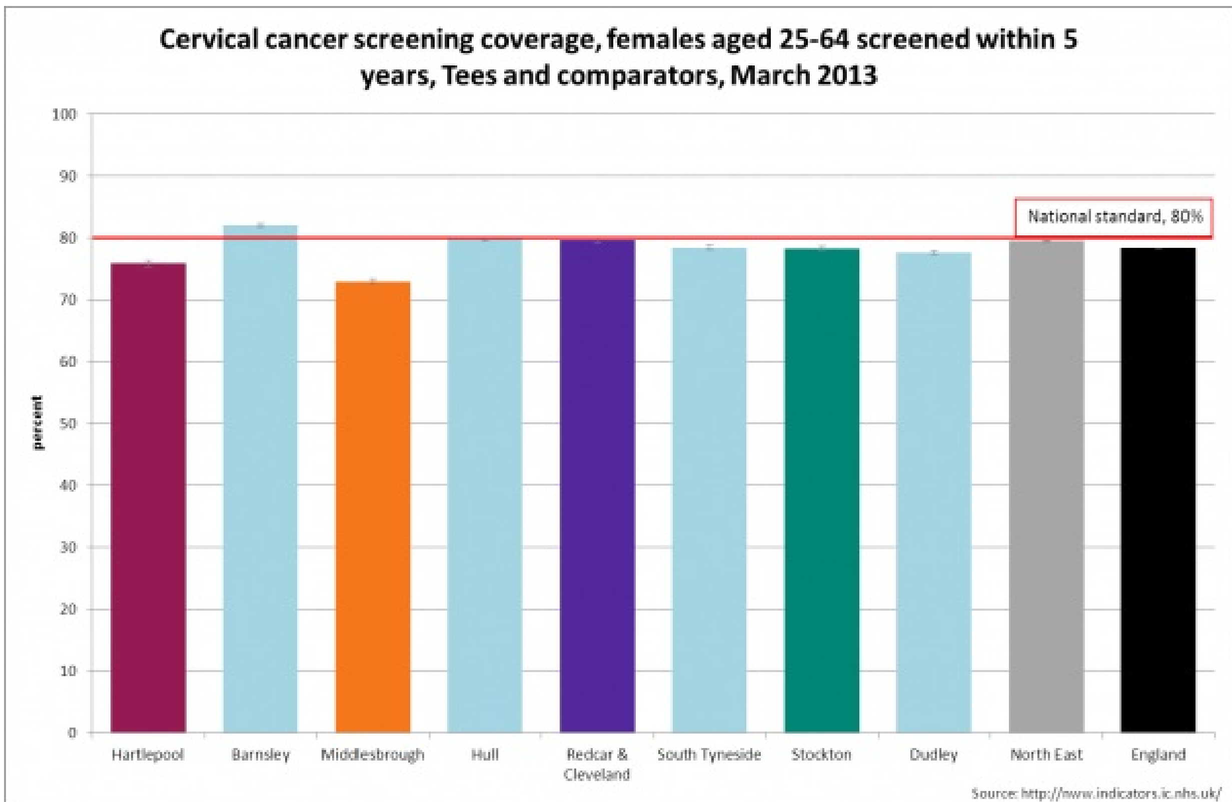
Prostate cancer survival has increased in Middlesbrough. Taking into account population mortality from all causes, almost all men diagnosed with prostate cancer survive for 1 year and about 85% survive for five years.

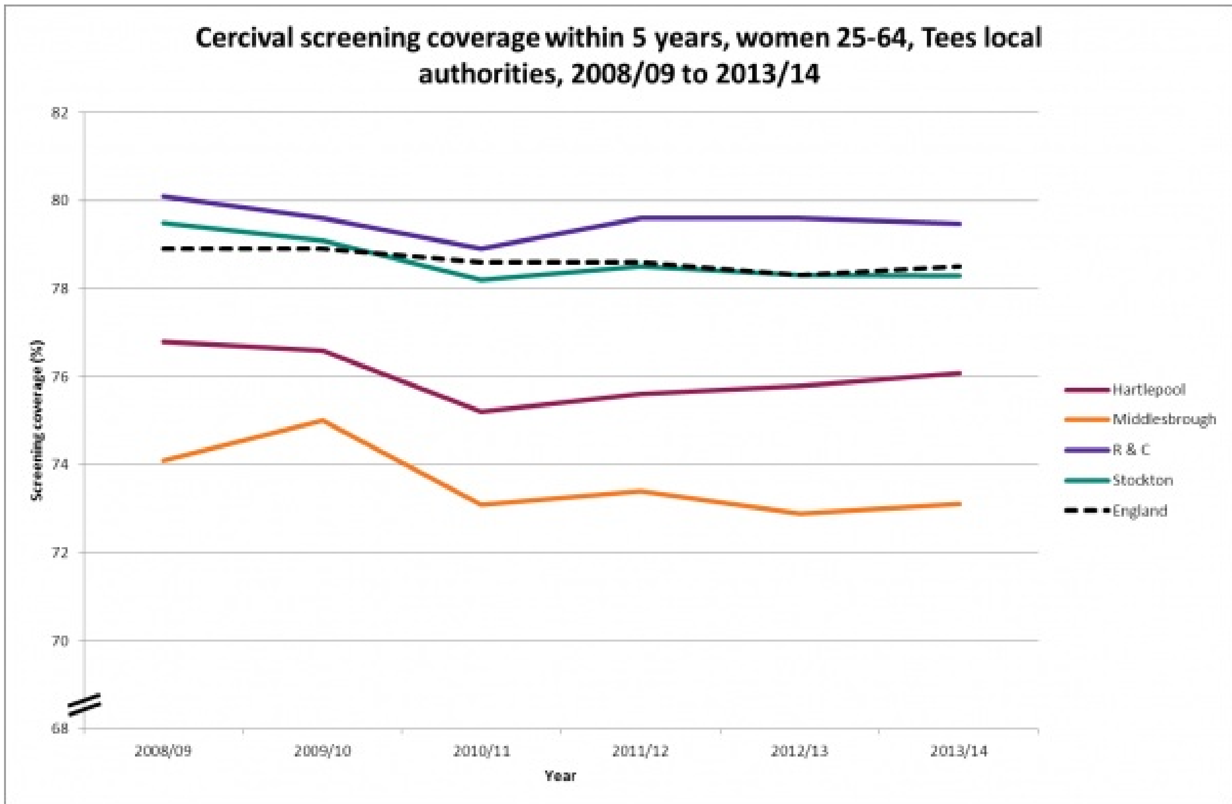


Cervical cancer

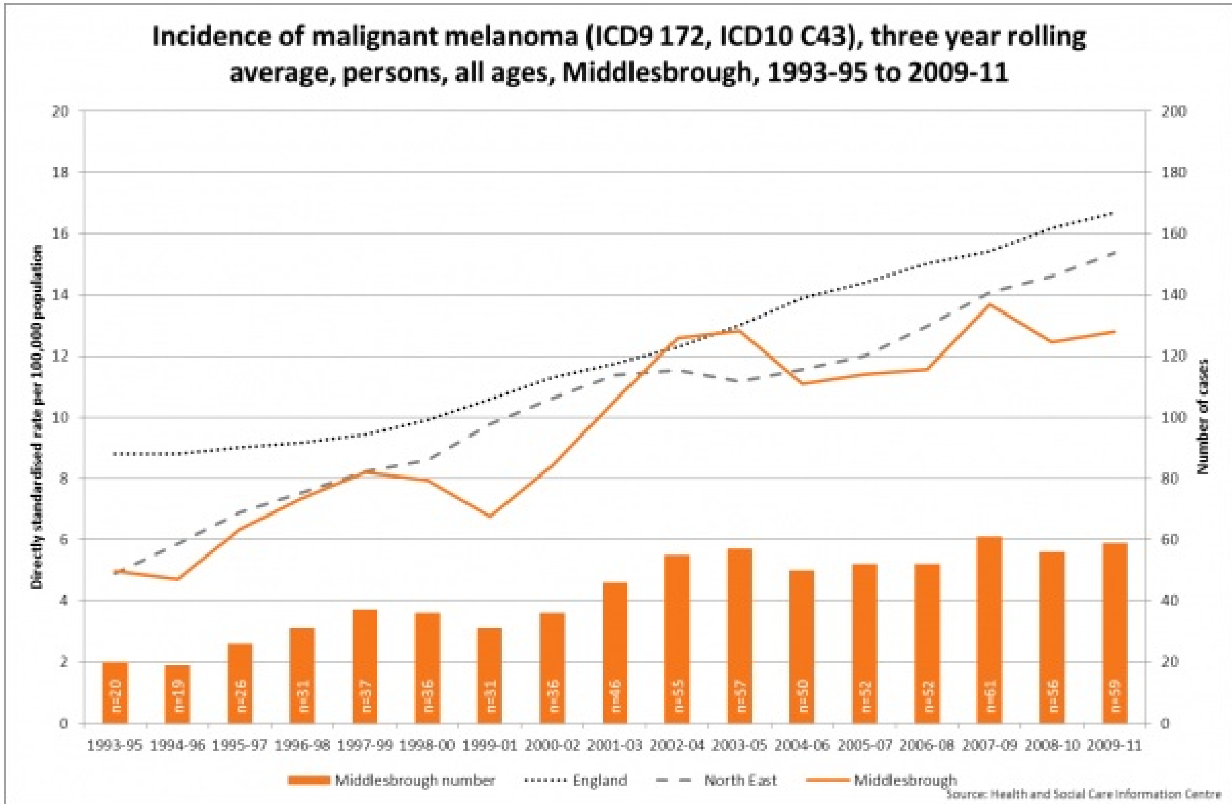
The incidence of cervical screening is significantly higher in Middlesbrough than England. Although incidence rate in Middlesbrough has been following the decreasing national trend, there have been steep increases since 2005.

Screening for cervical cancer in Middlesbrough is lower than the national standard and also below the England average. About 10,000 eligible women in Middlesbrough have not been screened within the past 5 years. An additional 8 women per working day over 5 years need to be screened to achieve full coverage.





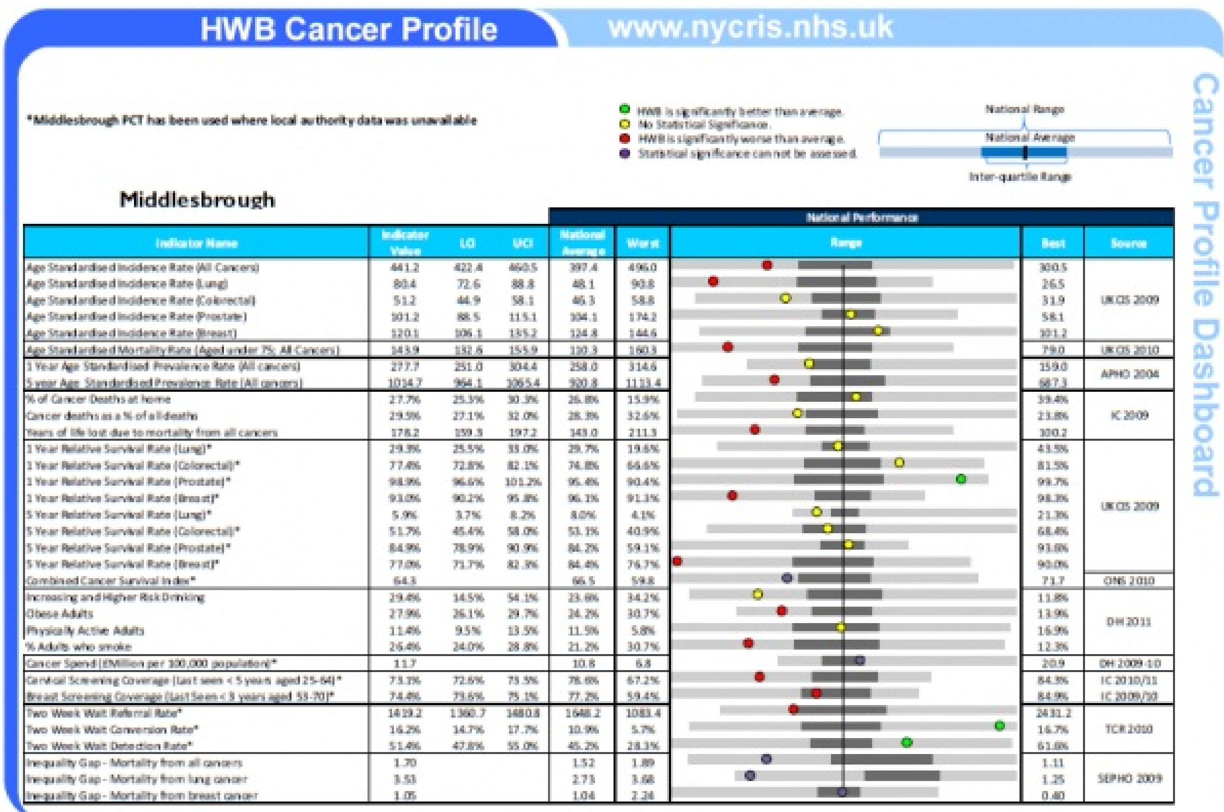
Skin Cancer
The incidence of skin cancer in Middlesbrough has been increasing steadily for 20 years. Generally, the incidence rate in Middlesbrough is lower than the England average. There are about 4 deaths annually in Middlesbrough.



Children and Young People
Within Middlesbrough fewer than 45 cancer cases were identified in people aged 0-24 in the five-year period 2006-

2010. A comprehensive needs assessment for this age-group has been carried out for the North of England Cancer Network (NEPHO, 2012). It shows that the incidence and mortality in this age group is similar to England while survival is better than England. Haematological cancers are most common in younger age groups whereas solid tumours are most common in teenagers, which has implications for service specification.

The following is an extract from the National Cancer Intelligence Network profile, and provides an overview of cancer indicators in Middlesbrough compared with England averages and the spread across all other localities in England.


HWB Cancer Profile

www.nycris.nhs.uk

Cancer Profile Dashboard

*Middlesbrough PCT has been used where local authority data was unavailable

- HWB is significantly better than average.
- No Statistical Significance.
- HWB is significantly worse than average.
- Statistical significance can not be assessed.

National Range / National Average / Inter-quartile Range

Middlesbrough

Indicator Name	Indicator Value	LCI	UCI	National Average	Worst	Range	Best	Source
Age Standardised Incidence Rate (All Cancers)	441.2	422.4	460.5	397.4	496.0		300.5	UKCIS 2009
Age Standardised Incidence Rate (Lung)	80.4	72.6	88.8	48.1	90.8		26.5	
Age Standardised Incidence Rate (Colorectal)	51.2	44.9	58.1	46.3	58.8		31.9	
Age Standardised Incidence Rate (Prostate)	101.2	88.5	115.1	104.1	174.2		58.1	
Age Standardised Incidence Rate (Breast)	120.1	106.1	135.2	124.8	144.6		101.2	
Age Standardised Mortality Rate (Aged under 75; All Cancers)	143.9	132.6	155.9	120.3	160.3		79.0	UKCIS 2010
1 Year Age Standardised Prevalence Rate (All cancers)	277.7	251.0	304.4	258.0	314.6		159.0	APHO 2004
5 year Age Standardised Prevalence Rate (All cancers)	1014.7	964.1	1065.4	920.8	1113.4		687.3	
% of Cancer Deaths at home	27.7%	25.3%	30.3%	26.8%	15.9%		39.4%	IC 2009
Cancer deaths as a % of all deaths	29.5%	27.1%	32.0%	28.3%	32.6%		23.8%	
Years of life lost due to mortality from all cancers	178.2	159.3	197.2	143.0	211.3		100.2	
1 Year Relative Survival Rate (Lung)*	29.3%	25.5%	33.0%	29.7%	19.6%		43.5%	UKCIS 2009
1 Year Relative Survival Rate (Colorectal)*	77.4%	72.8%	82.1%	74.8%	66.6%		81.5%	
1 Year Relative Survival Rate (Prostate)*	98.9%	96.6%	101.2%	95.4%	90.4%		99.7%	
1 Year Relative Survival Rate (Breast)*	93.0%	90.2%	95.8%	96.1%	91.3%		98.3%	
5 Year Relative Survival Rate (Lung)*	5.9%	3.7%	8.2%	8.0%	4.1%		21.3%	
5 Year Relative Survival Rate (Colorectal)*	51.7%	45.4%	58.0%	53.1%	40.9%		68.4%	
5 Year Relative Survival Rate (Prostate)*	84.9%	78.9%	90.9%	84.2%	59.1%		93.6%	
5 Year Relative Survival Rate (Breast)*	77.0%	71.7%	82.3%	84.4%	76.7%		90.0%	
Combined Cancer Survival Index*	64.3			66.5	59.8		71.7	ONS 2010
Increasing and Higher Risk Drinking	29.4%	14.5%	54.1%	23.6%	34.2%		11.8%	DH 2011
Obese Adults	27.9%	26.1%	29.7%	24.2%	30.7%		13.9%	
Physically Active Adults	11.4%	9.5%	13.5%	11.5%	5.8%		16.9%	
% Adults who smoke	26.4%	24.0%	28.8%	21.2%	30.7%		12.3%	
Cancer Spend (£Million per 100,000 population)*	11.7			10.8	6.8		20.9	DH 2009-10
Cervical Screening Coverage (Last seen < 5 years aged 25-64)*	73.1%	72.6%	73.5%	78.6%	67.2%		84.3%	IC 2010/11
Breast Screening Coverage (Last Seen < 3 years aged 53-70)*	74.4%	73.6%	75.1%	77.2%	59.4%		84.9%	IC 2009/10
Two Week Wait Referral Rate*	1419.2	1360.7	1480.8	1648.2	1083.4		2431.2	TCR 2010
Two Week Wait Conversion Rate*	16.2%	14.7%	17.7%	10.9%	5.7%		16.7%	
Two Week Wait Detection Rate*	51.4%	47.8%	55.0%	45.2%	28.3%		61.6%	
Inequality Gap - Mortality from all cancers	1.70			1.52	1.89		1.11	SEPHO 2009
Inequality Gap - Mortality from lung cancer	3.53			2.73	3.68		1.25	
Inequality Gap - Mortality from breast cancer	1.05			1.04	2.24		0.40	

Additional sources of cancer intelligence can be found at:

Health & Wellbeing Board Cancer Profiles 2012 - Middlesbrough (NYCRIS, 2012)

Cancer e-Atlas: http://www.ncin.org.uk/cancer_information_tools/eatlas.aspx

National Cancer Intelligence Network: http://www.ncin.org.uk/home.aspx

Cancer Mortality Profiles (Public Health England)

Gynaecological cancer hub (National Cancer Intelligence Network)

Head and neck cancer hub (National Cancer Intelligence Network)

Skin cancer hub (Public Health England)

Urological cancer hub (National Cancer Intelligence Network)

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5. What services are currently provided?

Tees cancer strategy 2014-2018
A Tees Cancer Strategy has been developed. It sets out a five year vision for improving cancer outcomes in Teesside. The strategic objective is to develop and promote services that reduce the risk of developing cancer in local communities and, when people develop cancer, they have an excellent chance of surviving, wherever they live. The strategy is being supported by prevention, diagnostic, treatment and support services that are comparable with the best in in similar areas in England.

The strategy also addresses information needs of professionals and patients. This concerns having systems and processes that support service improvements, and providing information on where and how people living with cancer can access financial, emotional and spiritual advice and support, to ensure a holistic person centred approach to care.

The Tees Cancer Locality Group, a multiagency group, oversees the implementation of the strategy. The group will ensure that partners have plans in place to deliver specified actions and monitor progress towards the achievement of outcomes.

Prevention

Tees Lung Cancer Awareness Programme
In 2010, the Tees National Awareness and Early Diagnosis Initiative (NAEDI) project was established in 2010 across Tees general practices. The aim was to raise awareness and promote early diagnosis of the signs and symptoms of cancer by identifying eligible people aged 40-74 at high risk of developing cardiovascular disease (CVD) and making them more aware of the signs and symptoms of cancer. In April 2014, the NAEDI project was replaced with a Lung Cancer Awareness Programme, integrated into the Tees Lung Health Check (LHC), as COPD and lung cancer share similar risk factors and symptoms. The LHC is aimed at detecting chronic obstructive pulmonary disease (COPD) in all smokers aged 35 or over who are greater risk of the disease.

The Lung Cancer Awareness Project involves patients attending the Lung Health Check being giving the opportunity to review the signs and symptoms of lung cancer, discuss any concerns with their GP and referred for further investigations if required. The project utilises the Cancer Research UK Lung Cancer: How to spot the symptoms and reduce your risk leaflet as a resource to focus on the signs and symptoms of lung cancer in the high risk COPD screened population. The rationale behind the project is that by developing a systematic approach to increasing awareness of the signs and symptoms of lung cancer. This will help reduce the delays that lead to patients being diagnosed with more advanced disease and thus experiencing poorer one and five year survival.

Be Clear on Cancer Campaigns
Be Clear on Cancer (BCOC) Campaigns were launched in 2010 and have been running since then.. The campaigns including breast cancer in women over 70, Blood in Pee, Oesophago-gastric, lung and ovarian, focus on the early signs and symptoms of cancers and encourage people to see their GP. They are helping to reach more people and drive earlier diagnosis of cancer. More campaigns are planned in 2014 and 2015

For each campaign there is a comprehensive evaluation process, with data collected on a number of metrics, reflecting key points along the patient pathway. These include: symptom awareness, attendances at primary care, urgent referrals and diagnostic investigation activity. Important measures of campaign outcomes include cancers diagnosed and stage distribution. The BCOC evaluation update show reported outcomes to include more people presenting with symptoms, increase in referral for diagnostic investigation, increase in the proportion of patients receiving surgical resection as a first definitive treatment and improved survival.

Tees Awareness and Early Diagnosis Roadshow
The Tees Awareness and Early Diagnosis Roadshow aims to increase awareness of long term health conditions such as heart disease and strokes, chronic obstructive pulmonary disease (COPD) and cancer in Teesside communities. It builds on the Macmillan Cancer Awareness Roadshow to deliver an interactive awareness roadshow that invites the local population to find out more about LTCs including cancer. It will deliver awareness activities from a variety of community settings and target all sections of the community to help increase awareness of signs and symptoms and the importance of early diagnosis.

Primary care

Rapid diagnosis and treatment improves not only survival but also the quality of life of survivors and reduces their longer term care needs. In Middlesbrough, like the rest of England, people are unfortunately still being diagnosed with advanced cancer, where an earlier diagnosis might have led to a much better outcome. Primary care is central to improving early diagnosis and a number of tools are in place to support this.

Significant Event Audit

The results of the Significant Event Audit carried out in 2012 by the North of England Cancer Network (NECN) in 55 practices across the North of England on the issues contributing to delay in cancer diagnosis are being used to improve care. The audit builds on primary care audit work started in 2009. Practices are able to review practice systems and processes and decision processes and use findings to reflect on cancer diagnosis.

General practice profiles

General practice cancer profiles produced by the Cancer Intelligence Network (NCIN) provide comparative information for benchmarking and reviewing variations at Clinical Commissioning and Groups and general practice level. There are now three years of data with trends at CCG and practice level. The profiles are being used to help practitioners think about clinical practice and service delivery for cancer and, in particular, early detection and diagnosis. GP locality cancer lead with support from Macmillan GPs use practice profiles to engage with GP practices in the cancer agenda. This includes focused work with practices highlighted as outliers as well as offering a practice visit to all practices in Middlesbrough.

Willie Hamilton Risk Assessment Tool

The National Cancer Action Team supported the piloting of a Risk Assessment Tool for lung and colorectal cancer based on Professor Willie Hamilton's CAPER studies (Cancer Prediction in Exeter) as part of its work to reduce delays in diagnosis of cancer and save an estimated 5,000 lives each year nationally. The Northern England Strategic Clinical Networks continue to work with GPs to implement evidence based Risk Assessment Tools (RATs) to help identify those at most risk of having cancer.

Educational activities

The Northern England Strategic Clinical Networks are disseminating various tools, guidance, training and best practice to GPs. Other educational opportunities are being used to push the cancer agenda. A quarterly cancer bulletin goes out to all GPs and practice managers in the area. There is also work carried out with GPs and practice managers to support Be Clear on Cancer public awareness campaigns and regional and national audits.

Secondary care

Screening

Screening involves testing individuals in the apparently healthy population to identify those who have, or are at risk from, disease but do not yet have symptoms. The three national cancer screening programmes are for breast, cervical and bowel cancer. These programmes aim to detect pre-cancerous changes or early stage cancer and prevent the development of cancer or improve the likelihood of survival.

There are significant variations in coverage of programmes across general practices. NHS England and Public Health England are working with the Tees Valley Public Health Shared Service (which monitors performance on behalf of the Middlesbrough Council's Director of Public Health), the local public health team and voluntary and community organisations and groups to address these.

Breast cancer screening

The NHS Breast Screening programme provides breast screening every three years for all women aged 47-73. Women over 73 can also request to be screened.

Breast screening can detect early changes in breast tissues which can be assessed and if they are cancerous are treated.

Cervical cancer screening

The NHS Cervical Screening programme invites women aged 25 to 50 for screening every three years and those aged 50 to 64 every five years.
Cervical screening can detect cancer in a woman's cervix (the neck of the womb) when she has no symptoms. It also prevents cancer in a much greater number of women by detecting and treating early abnormalities which, if left untreated, could lead to cancer.

Bowel cancer screening
The NHS Bowel Cancer Screening programme offers screening every two years to men and women aged 60 to 74. People over 75 can request a screening kit.

Bowel cancer screening aims to detect bowel cancer at an early stage (in people with no symptoms), when treatment is more likely to be effective. Diagnosing bowel cancer early through population screening is anticipated to greatly improve health outcomes and reduce mortality from bowel cancer by up to 16%. (Cochrane Database of Systematic Reviews, 2006). Bowel cancer screening can also detect polyps. These are not cancers, but may develop into cancers over time. They can easily be removed, reducing the risk of bowel cancer developing.

Hospital and community based services

Peer review
The National Cancer Peer Review (NCPR) Programme against service standards for all cancer sites and cross-cutting cancer services provide important information about the quality of clinical teams and a national benchmark of cancer services across the country. The programme now includes end of life care and is going well in the South Tees Hospitals Foundation Trust (STHFT). The Trust also participates in all relevant National Clinical Audits. These clinical audits and outcome reviews are critical to continuous service improvement. The commissioners (CCGs and NHS England) provide support to the Trust to implement the findings.

South Tees Hospitals Macmillan Integrated Care Project
The Macmillan Integrated Care Project across South Tees is aimed at redesigning/commissioning services to deliver the improvements. The transformed pathway of care for cancer survivors is based on a model of care for people with long term conditions. A stratification process helps to identify which care pathway is most suitable for each patient, based on the level of care needed for the disease, the treatment and the patient's ability to manage, and therefore what level of professional involvement will be required.

Willie Hamilton Risk Assessment Tool
South Tees Hospitals is working with NHS South Tees CCG to support the implementation of this model. There are plans to provide the capacity with the Trust to support the implementation of the tool.

Macmillan Cancer Information Service
Macmillan Cancer Support on a number of initiatives to improve patients' experience, with the need for bespoke personalised information and support delivered by Information and Support specialists at The Macmillan Information and Support Centre within James Cook Hospital and access to expert welfare benefits advice from the Macmillan Welfare Benefits adviser to deal with the costs associated with cancer. The recent development of Holistic Needs Assessments and Health and wellbeing Clinics across South Tees has also made a significant contribution to this work and should be extended to other areas of Teesside to ensure equity is delivered and high quality, locally provided services are available.

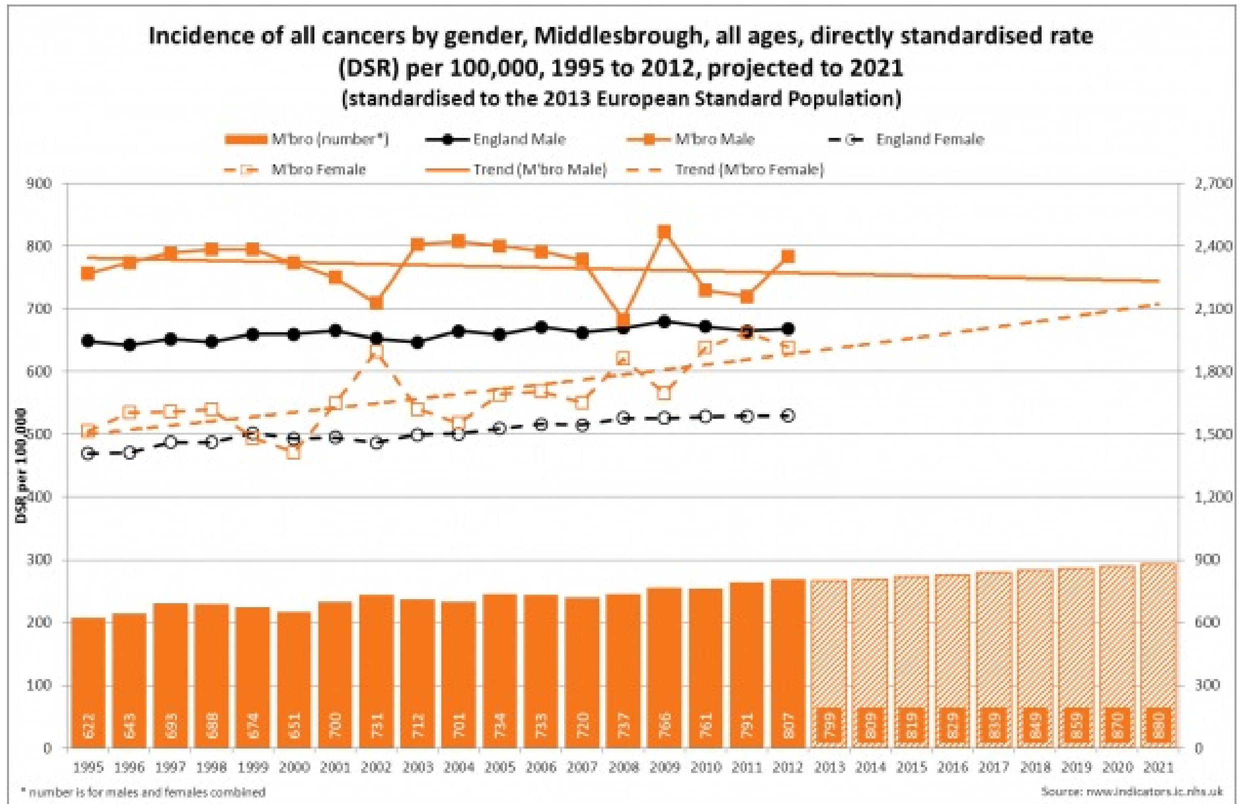
Survivorship programme
South Tees Hospitals are working with Macmillan Cancer Support and the CCG to ensure follow-up care for patients with cancer occurs in the most appropriate place for the patient. This should increasingly be in primary care and community, but only if appropriate for patient and should build on the Cancer Survivorship Recovery Package. A Survivorship Programme is being developed for people with specific cancers.

The Cancer Survivorship 'Recovery Package' is a combination of different interventions, which when delivered together, will greatly improve the outcomes and coordination of care for people living with and beyond cancer. These are:

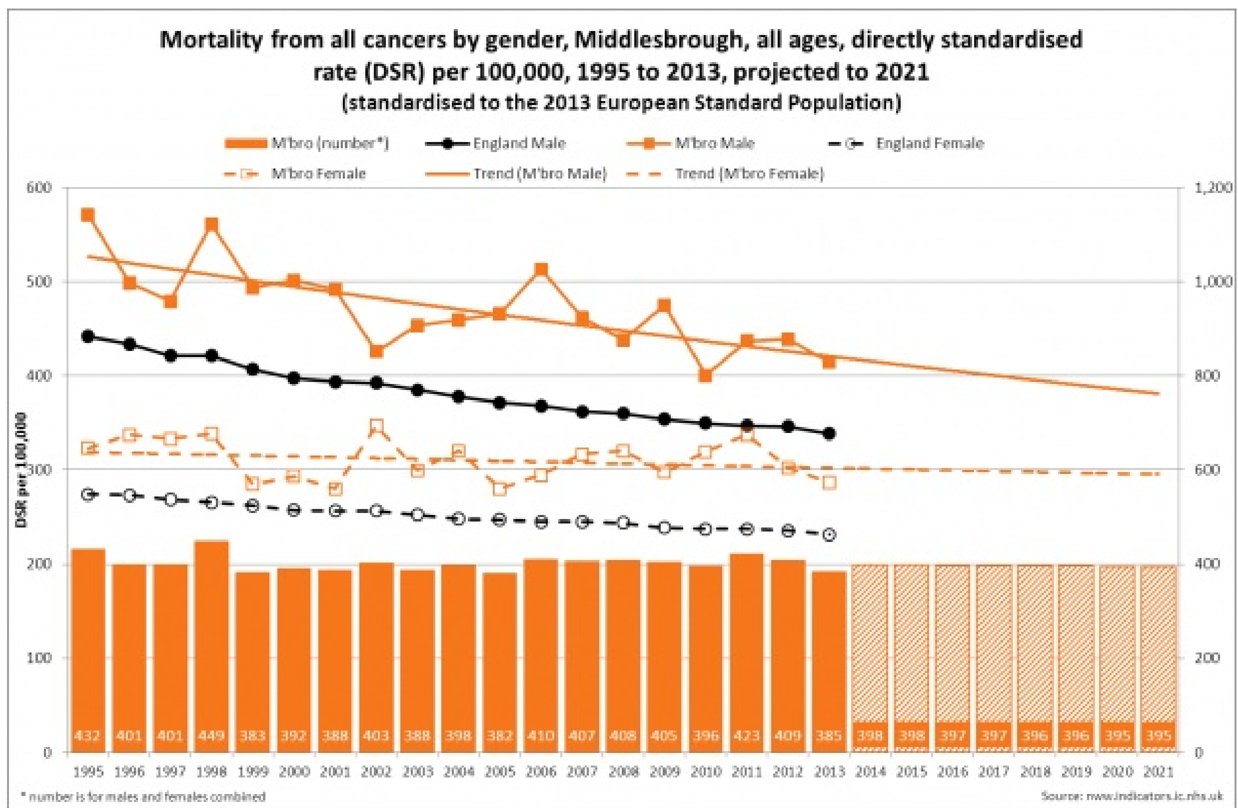
- Holistic Needs Assessments and care planning at key points of the care pathway,
- A Treatment Summary completed at the end of each acute treatment phase, sent to patient and GP
- A Cancer Care Review completed by GP or practice nurse to discuss the person's needs, and
- A patient education and support event, such as a Health and Wellbeing Clinic, to prepare the person for the transition to supported self-management, which will include advice on healthy lifestyle and physical activity.

6. What is the projected level of need?

Cancer incidence
In Middlesbrough cancer incidence is forecast to continue rising for women and fall slightly for men. Nationally cancer incidence is rising for both men and women. The total number of new cancer cases is forecast to increase from about 820 in 2015 to about 880 in 2021.



Cancer mortality
Cancer mortality rates in Middlesbrough for men are falling at a faster rate than for women. Cancer mortality is also falling nationally. For men, mortality in Middlesbrough is falling faster than in England as a whole but for women the mortality gap is widening. The number of cancer deaths is expected to remain broadly similar.



7. What needs might be unmet?

Low screening uptake
Participation in cancer screening programmes could be improved by:

- Better meeting the needs of those with physical and learning disabilities
- Ensuring people who are not registered with a GP have access to screening
- Working with local communities to raise awareness, address screening myths and improving participation in screening.

Stage of diagnosis
Early diagnosis and treatment of cancer is an important factor in improving outcomes for cancer. In addition to programmes targeted at the population such as awareness campaigns and population-based screening for cancer, providing fast access to efficiently managed services remains key to ensuring a patient moves along the pathway towards diagnosis and treatment in the most timely and appropriate manner.

GP support
Although GPs typically only see around eight or nine new cancer patients each year, they see many more patients presenting with symptoms that could be cancer. A range of support is available to help GPs assess when it is appropriate to refer patients for investigation for suspected cancer, such as NICE referral guidelines, but more could be done to support them.

Media campaigns to increase signs and symptoms awareness
The findings from the Tees NAEDI evaluation outlined that most primary care practitioners participants felt that a media campaign to support awareness and early diagnosis initiatives is beneficial. More media campaign and community activities are needed to support local initiatives and regional and national campaigns. Campaigns need to include specific activities that reflect the communication needs of different sections of the community.

8. What evidence is there for effective intervention?

National Institute for Health and Clinical Excellence

Public Health Guidance
Skin cancer prevention: information, resources and environmental changes (PH32)

Clinical Guidance
Prostate cancer (CG58)
Breast cancer (early & locally advanced) (CG80)
Advanced breast cancer: Diagnosis and treatment (CG81)
Colorectal cancer (CG131)
Ovarian cancer (CG122)
Lung cancer (CG121)

Quality Standards
Breast cancer quality standard (QS12)
Quality standard for lung cancer (QS17)
Quality standard for colorectal cancer (QS20)
Quality standard for ovarian cancer (QS18)

NICE lists over 250 sets of guidance relating to specific cancer anatomical sites. For the full list see:
http://www.nice.org.uk/guidance/index.jsp?action=byTopic&o=7165

Cancer Awareness Measure (CAM)
One of the main factors associated with a delay in seeking help for cancer is a failure to recognise early cancer symptoms and later diagnosis is strongly associated with poorer survival rates.

In 2010, Public Knowledge carried out the CAM on behalf of NHS Tees. This established a baseline level of cancer awareness in the area served by NHS Tees. In 2011, this research was replicated, to evaluate any change that had taken place in awareness levels in the intervening period.

There were notable positive changes in prompted awareness. These changes included increases in agreement levels with regard to many of the healthy lifestyle related risk factors, which tend to be the risk factors that respondents are least likely to agree with overall.

NHS Tees National Awareness and Early Diagnosis Initiative (NAEDI)
The approach to case finding (for generic cancer symptoms) adopted by NHS Tees via their NAEDI Cancer Awareness and Early Detection Programme provided an opportunity to target people at high risk of developing CVD who may also be more likely to develop cancer due to related lifestyle behaviours.

Tees Lung Cancer Awareness Project
The approach to raising the awareness of lung cancer signs and symptoms current smokers eligible for Lung Health Checks provide an opportunity to target smokers who are also at high risk of developing lung cancer.

Within the primary care setting there are further opportunities to target patients who are at higher risk of cancer due to lifestyle. This could include looking for lung cancer and/or other cancers in people with chronic obstructive pulmonary disease (COPD) and other long-term conditions.

Be Clear on Cancer Evaluation Update
The Be Clear on Cancer campaigns evaluation update show increased public awareness of cancer, referrals for diagnostic assessments and early diagnosis and treatments. A more coordinated approach to campaigns is being adopted to ensure that the potential impact on primary and hospital services are minimised.

Improving participation in cancer screening
Research has shown that individuals interpret their health status according to their own social and cultural experiences and beliefs. Working directly with these communities, and using evidence based methods of communication can help to change attitudes and encourage participation in screening (NHS Cancer Screening Programmes (2009) Communicating Risk Information about Breast and Cervical Cancer and Cancer Screening to Women from Minority Ethnic and Low Income Groups).

Increased awareness of less common cancers
It is important to make efforts to improve survival rates in the less common cancers. The Be Clear on Cancer campaigns aim to raise public awareness of some of these cancers.

McPhail S, et al. (2013). Emergency presentation of cancer and short-term mortality Br J Cancer. 109(8):2027-34. Shows that emergency presentation for breast, cervical, colorectal, lung and prostate cancer is predictive of short-term mortality even when age, stage, and co-morbidity are accounted for.

Health and Social Care Information Centre (2013). National Lung Cancer Audit 2013: Report for the audit period 2012.

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9. What do people say?

Tees Cancer Awareness Measure (CAM)
The 2010 Tees CAM was carried out to establish a baseline level of cancer awareness across Tees. The survey asked 585 participants to state reasons for delaying visiting the doctor if they suspected they had a sign or symptom of cancer.

Respondents were asked to identify reasons why people might put off going to see a doctor, even when they think the symptoms might be serious, and were asked if any of these reasons would personally cause them to delay contact.

The main reasons respondents gave for putting off visiting the doctor were: worries about what the doctor might find (39%); difficulties making an appointment (27%); feeling scared (24%); and worries about wasting the doctor's time (23%).

Cancer symptoms survey
The Cancer Symptoms Survey Report - Delay Kills (Cancer Research UK, 2013) highlighted that thousands of people are dying early because of ignorance and denial of cancer symptoms. It suggests that, based on latest figures, if Britain were to match the best cancer survival rates in Europe, 11,500 fewer people would die every year. Just matching the European average would save 6,000 to 7,000 lives every year.

The survey used the Cancer Awareness Measure (CAM) to explore awareness about warning signs and symptoms of cancer 2,090 British people. Some of the results are:

- More than three quarters of respondents failed to mention pain, coughing, bladder and bowel problems..
- People's attitudes to early possible signs of cancer when found was poor with about a third reporting that if they spot potential serious early signs of cancer they would delay getting them checked because they would be worried about what the result might be; another third that it would be difficult to make an appointment to see their GP and a quarter that might be a waste of the doctor's time.
- Generally, low level of awareness of some of the risk factors, the things that affect a person's chances of developing the disease.

The report highlights that much more efforts are needed to do to raise awareness about the early signs of cancer and for people to know that catching the disease early gives them much better chance of survival.

Cancer patient experience surveys
South Tees Hospitals encourage and support patients to participate in national cancer patient experience surveys. They include Cancer Patient Experience Survey, Radiotherapy Patient Experience Survey, National VOICES of bereaved people of palliative care patients and their families. Reported satisfaction levels for local cancer services are generally in line with national targets.

However survey results show that:

- black and minority ethnic (BME) patients were more likely to report not receiving understandable answers to their questions

- patients from more disadvantaged areas were more likely to report delayed diagnosis
- lesbian, gay and bisexual patients were less likely to report being treated with dignity and respect
- patients with mental health conditions and/or a learning disability were more likely to feel treated as "a set of cancer symptoms"
- women were less likely to feel they were treated with respect and dignity and given sufficient privacy.

Local partners use results to identify ways of to improve the experience of patients from all communities.

Macmillan's Nine Outcomes
This is the first in a regular series of state of the nation reports from Macmillan Cancer Support, aimed at showing how the UK is performing on the issues that matter most to people with cancer. It involves a comprehensive review of the available evidence which are applied to Macmillan's 'Nine Outcomes' – nine statements that people living with cancer say they want to see by 2030. They outcomes are:

- I was diagnosed early'
- I understand, so I make good decisions'
- I get the treatment and care which are best for my cancer, and my life
- Those around me are well supported'
- I am treated with dignity and respect'
- I know what I can do to help myself and who else can help me'
- 'I can enjoy life'
- I feel part of a community and I'm inspired to give something back'
- 'I want to die well'

The Tees Cancer Strategic objectives are in line with the nine outcomes.

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10. What additional needs assessment is required?

Early diagnosis and treatment of cancer is an important factor in improving outcomes for cancer services. In addition to programmes targeted at the population such as awareness campaigns and population-based screening for cancer, there is a need to provide fast access to efficiently managed services.

A regional assessment of children and young people's cancer needs has been carried out. The findings of this need to be considered within Teesside.
Health Needs Assessment for Children and Young People Across the North of England Cancer Network. (NEPHO, 2012)

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