



West Midlands
Cancer Intelligence Unit

West Midlands Cancer Intelligence Unit
Public Health Building
University of Birmingham
Birmingham B15 2TT

Tel: (0121) 414 7711

Fax: (0121) 414 7712

Email: wmciu@wmciu.nhs.uk

Web Site: <http://www.wmpho.org.uk/wmciu/>

PROSTATE CANCER IN THE WEST MIDLANDS

The West Midlands Cancer Intelligence Unit (WMCIU) is part of an international and national network of cancer registries. The WMCIU collects and records diagnostic and treatment information on all cases of cancer occurring in residents of the West Midlands region (covering a population of 5,365,000 in 2005). This fact sheet examines the incidence, mortality and survival trends of prostate cancer in the West Midlands region.

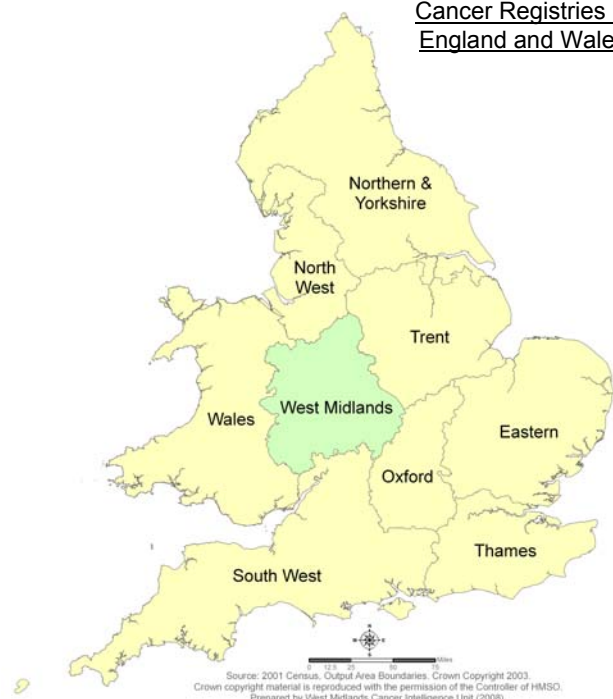
Key Points

- Prostate cancer incidence rates have increased by 181% over the last 25 years.
- Incidence rates have risen more in the most affluent men compared with their more deprived counterparts. This is probably because affluent men are more likely to request PSA tests.
- Prostate cancer mortality rates in the West Midlands have risen by 26% over the last 25 years.
- Prostate cancer incidence and mortality are strongly related to age; over 60% of cases occur in men aged 70 years or older whilst over 97% of deaths occur in men aged 60 years or older.
- The overall five year relative survival for prostate cancer has steadily improved over the last two decades and is now 83%.
- Men aged over 80 have significantly poorer relative survival rates at one and five years after diagnosis with prostate cancer than those aged between 50 and 79.

BACKGROUND

- 31,108 prostate cancers were diagnosed in England and Wales in 2005.^{1,2} Of these, 10.9% (n=3,383) were diagnosed in the West Midlands.
- Prostate cancer was the most common cancer diagnosed in men in the West Midlands in 2004, accounting for 26% of total cancers.³
- In 2005, there were 9,042 prostate cancer deaths in England and Wales.⁴ Of these, 9.8% (n=885) occurred in the West Midlands.
- Prostate cancer was the second most common cause of cancer death in men in the West Midlands in 2004, accounting for 13% of all cancer deaths.³
- Risk factors for prostate cancer include old age, ethnicity, family history, diet and alcohol. However, as many of these risk factors are impossible to modify there is currently little on which to base a preventative strategy.⁵

Cancer Registries in
England and Wales



¹ Office for National Statistics (2007). 'Cancer Registration Statistics England 2005'

² Welsh Cancer Intelligence and Surveillance Unit (2006). 'Cancer Incidence in Wales 2001-2005'

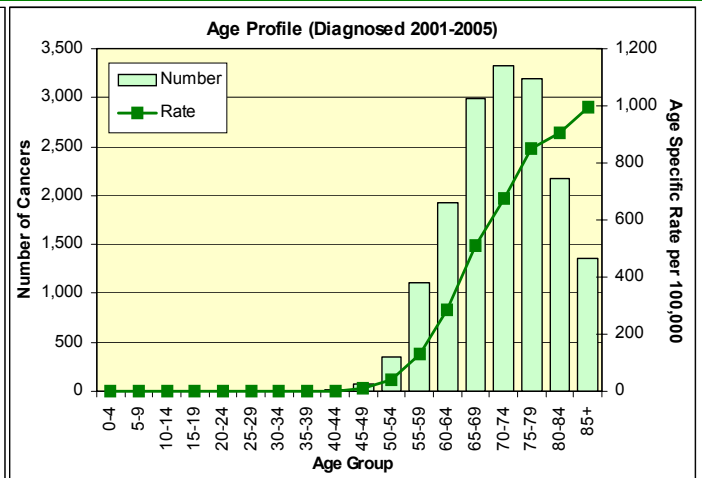
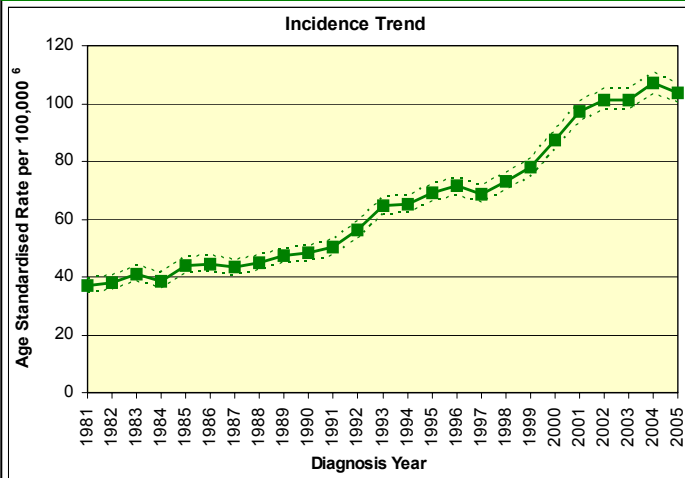
³ West Midlands Cancer Intelligence Unit (2006). 'The Top 10 Cancers in the West Midlands'

⁴ Office for National Statistics (2006). 'Mortality Statistics - Cause' Series DH2, No.32

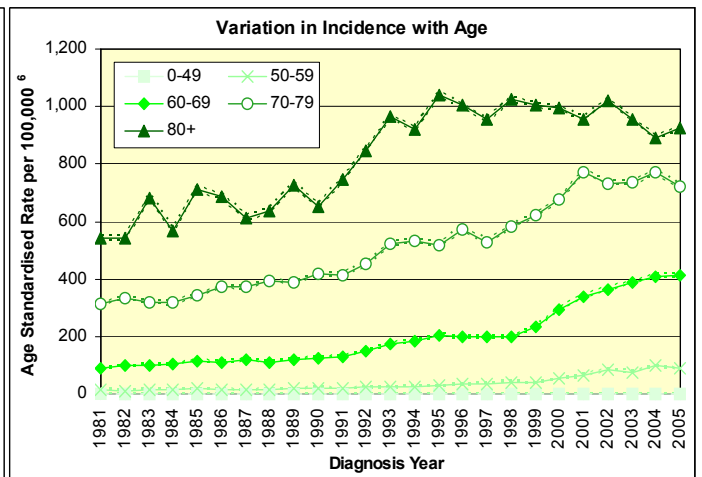
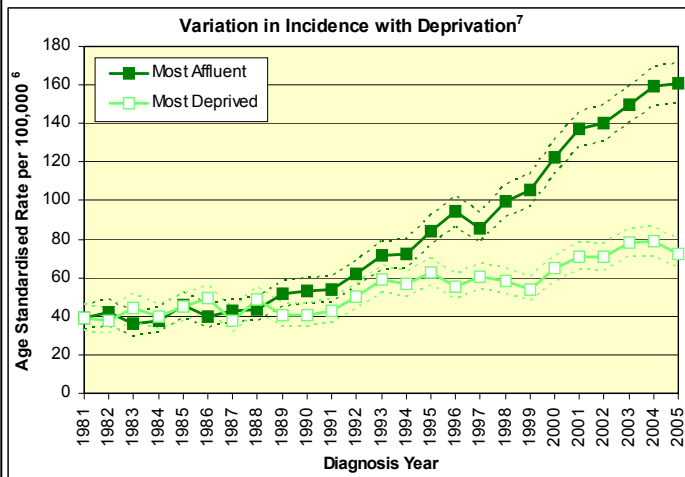
⁵ <http://info.cancerresearchuk.org/cancerstats/types/prostate/riskfactors/>



INCIDENCE OF PROSTATE CANCER IN THE WEST MIDLANDS



- Prostate cancer incidence rates have increased dramatically over the last 25 years, with the age standardised rates rising by 181% from 36.9 per 100,000 in 1981 to 103.8 per 100,000 in 2005.
- Much of the increase in incidence is attributable to the increased detection of prostate cancer through the use of the Prostate Specific Antigen (PSA) test which was made widely available in the West Midlands in the late 1980s. However, the smaller 28% rise in incidence observed before 1990 suggests a real increase in prostate cancer over this period.
- Prostate cancer incidence is strongly related to age with more than 60% of cases occurring in men aged 70 or older. The highest age specific incidence rates are in men aged over 85 (n=1,355). Prostate cancer is rarely diagnosed in men under the age of 50.
- The increase in prostate cancer incidence is apparent across all age groups. However, in more recent years, the incidence rate in men aged 70-79 has levelled off and that in men aged 80 and over has fallen slightly.



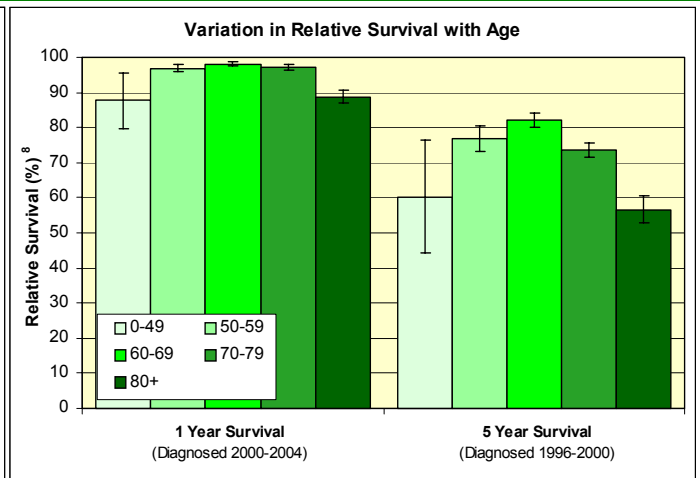
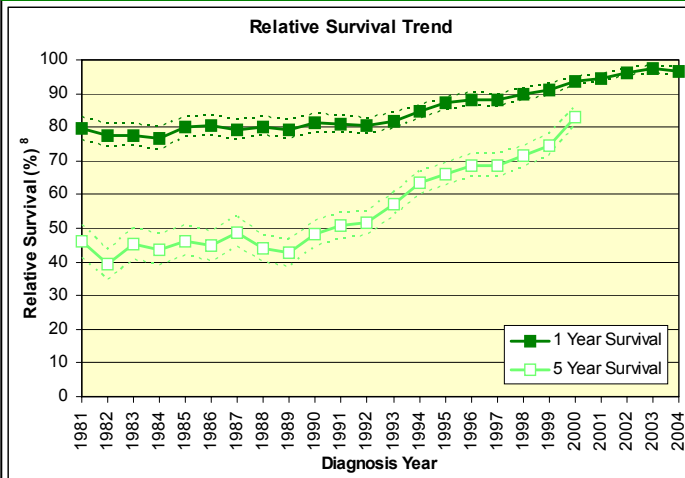
- The increase in prostate cancer incidence has mainly occurred in the most affluent men. In this group, incidence rates began to rise dramatically in the early 1990s and are now four times higher (161 per 100,000 in 2005) than in the early 1980s (39.4 per 100,000 in 1981). In the most deprived group, the increase in incidence has been more gradual, from 39.0 per 100,000 in 1981 to 72.2 per 100,000 in 2005.
- In 2005, the prostate cancer incidence rate in the most affluent men was 2.2 times higher than that in the most deprived men. This negative association between prostate cancer incidence and deprivation is unusual, as most cancers display a positive association with deprivation, and probably reflects increased access to PSA testing in the most affluent men.

⁶ Directly age standardised rates are calculated using the European Standard Population and population denominators from the Office for National Statistics. Dashed lines indicate 95% confidence intervals.

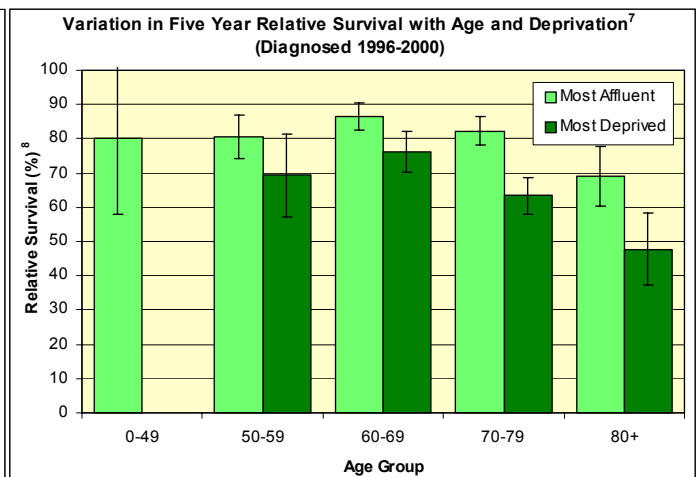
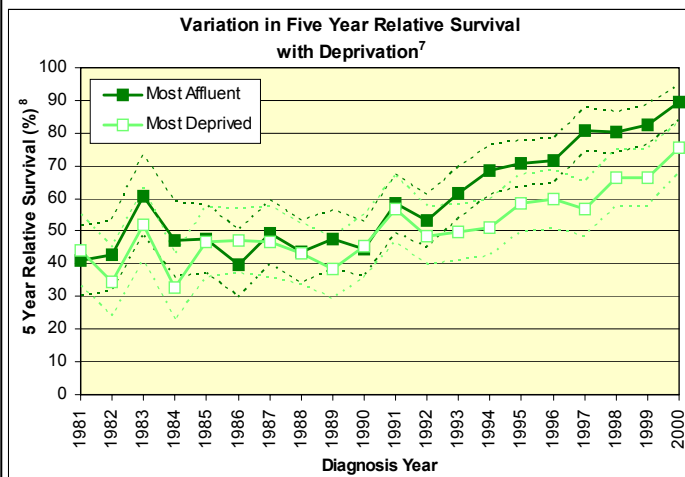
⁷ Townsend scores have been used as the measure of deprivation and are based on data collected for the 1991 Census. For further information, please see: West Midlands Cancer Intelligence Unit (2002). 'Cancer and Deprivation Report'.



SURVIVAL FROM PROSTATE CANCER IN THE WEST MIDLANDS



- The percentage of men surviving one and five years after the diagnosis of prostate cancer has increased significantly since 1981. The one year relative survival rate increased by 17 percentage points from 80% in 1981 to 97% in 2004 and the five year relative survival rate increased by 37 percentage points between 1981 and 2000 from 46% to 83%.
- Relative survival rates in men aged 50-59 and 60-69 at diagnosis are particularly good, with over 95% of men surviving one year, and nearly 80% surviving for five years. In the age group 70-79, relative survival at one year after diagnosis is 97% and 74% of men are alive five years after diagnosis.
- Men aged over 80 and under 50 have poorer survival rates compared to other age groups, but they are only significantly poorer in the older age group. In men under 50, one and five year survival rates are 88% and 60%, respectively. In men aged over 80, one and five year survival rates are 89% and 57%, respectively.



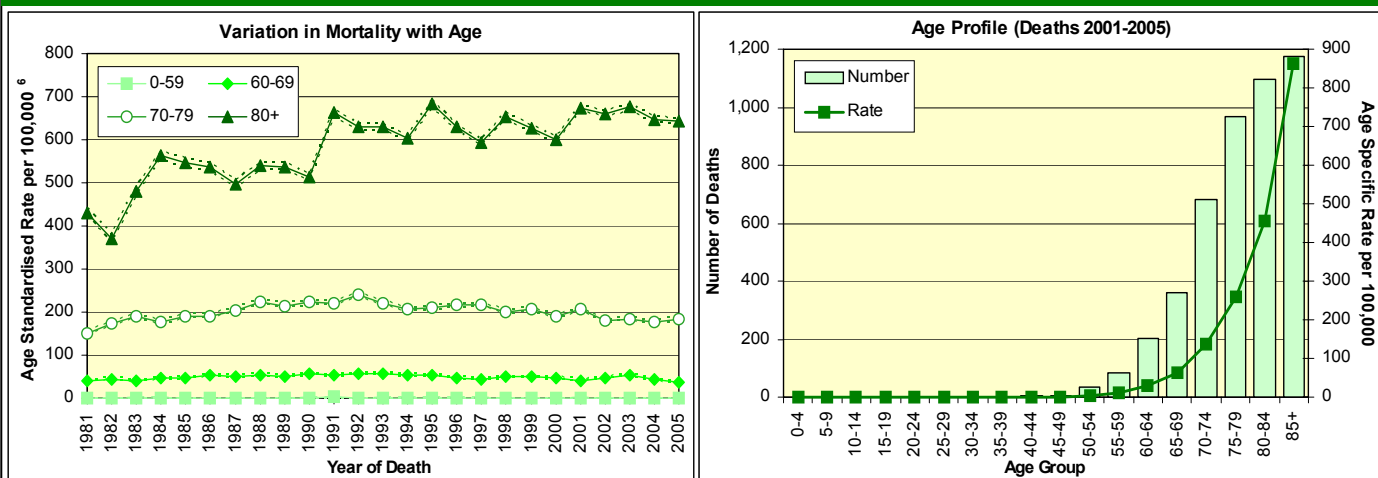
- The gap in relative survival rates between the most deprived and the most affluent groups has fluctuated throughout the 20 year period studied. In the 1980s and the first half of 1990s, the five year relative survival rates for prostate cancer in men in the most affluent and most deprived groups were quite similar. However, since this time the survival difference between the most affluent and most deprived groups has widened with affluent men having better outcomes.
- In 2000 five year relative survival for prostate cancer in men in the most affluent group was 1.2 times higher than for their counterparts in the most deprived group (89% vs. 75%). However, in the both most affluent and deprived men relative survival rates have improved over the last 20 years (by 118% and 71%, respectively).
- The difference in relative survival rates between the most affluent and most deprived men is apparent across all age groups but is most marked in men aged 70 and over.

⁷ Townsend scores have been used as the measure of deprivation and are based on data collected for the 1991 Census. For further information please see: West Midlands Cancer Intelligence Unit (2002). 'Cancer and Deprivation Report'.

⁸ Relative survival is defined as the observed survival rate divided by the expected survival rate of a similar cohort of people in the general population with respect to age, sex and year of observation. Dashed lines and error bars indicate 95% confidence intervals.



MORTALITY⁹ FROM PROSTATE CANCER IN THE WEST MIDLANDS



- Unlike incidence rates, prostate cancer mortality rates have risen only slightly over the last 25 years (an increase of 26%). The highest rise was in men aged 80 or older, with a 49% rise from 431.7 per 100,000 in 1981 to 642.8 per 100,000 in 2005.
- In the 1980s there was a rise in mortality from prostate cancer, reaching a peak in the early 1990s. More recently, there has been a slight fall in prostate cancer mortality. This decrease is most apparent in men aged 60-69 (falling by 38% from 56.3 per 100,000 in 1992 to 35.1 per 100,000 in 2005) and men in the 70-79 age group (falling by 23% from 238.4 per 100,000 in 1992 to 182.9 per 100,000 in 2005).
- Mortality from prostate cancer is strongly related to age with over 97% of deaths occurring in men aged 60 or older.

NHS Prostate Cancer Risk Management Programme

There is no organised screening programme for prostate cancer but an informed choice programme, the Prostate Cancer Risk Management has been introduced. This programme aims to provide high quality information on the available evidence about risks and benefits for men requesting the PSA test.

Further information about the programme can be found at:

www.cancerscreening.nhs.uk/prostate/index.html



Cancer Screening Programmes

FURTHER INFORMATION

- If you would like further information on prostate cancer statistics in the West Midlands, please contact the West Midlands Cancer Intelligence Unit's Information Team:

Telephone: (0121) 414 7711
Email: ciuinfo@wmciu.nhs.uk

- National cancer statistics are available from the Office for National Statistics website, and UK, Europe and worldwide cancer statistics are available from the Cancer Research UK website:

www.statistics.gov.uk
www.cancerresearchuk.org/statistics

- Further information relating to prostate cancer in general is available from the following websites:

<http://www.nhsdirect.nhs.uk>
<http://www.cancerbackup.org.uk>
<http://www.cancerhelp.org.uk>



For further information on the statistics used in this fact sheet, please see: <http://www.wmpho.org.uk/wmciu/RA18.htm>

⁶ Directly age standardised rates are calculated using the European Standard Population and population denominators from the Office for National Statistics. Dashed lines indicate 95% confidence intervals.

⁹ Directly age standardised and age specific rates have been calculated using raw data provided by the Office for National Statistics.