

BLADDER CANCER



| NUMBER OF CASES PER YEAR (2009-2013) | | | NUMBER OF DEATHS PER YEAR (2009-2013) | | |
|---|--------|------------|--|--------|------------|
| Male | Female | Both sexes | Male | Female | Both sexes |
| 150 | 61 | 211 | 80 | 35 | 115 |
| FIVE-YEAR SURVIVAL (2004-2008) | | | 21-YEAR PREVALENCE (2013) | | |
| Male | Female | Both sexes | Male | Female | Both sexes |
| 59.4% | 51.5% | 57.2% | 1,028 | 348 | 1,376 |

INCIDENCE

Between 2009 and 2013 there were an average of 150 males and 61 females diagnosed with bladder cancer each year in Northern Ireland. The probability that a male will develop bladder cancer before the age of 75 is approximately 1 in 98 whilst the probability that a female will develop bladder cancer before the age of 75 is 1 in 346.

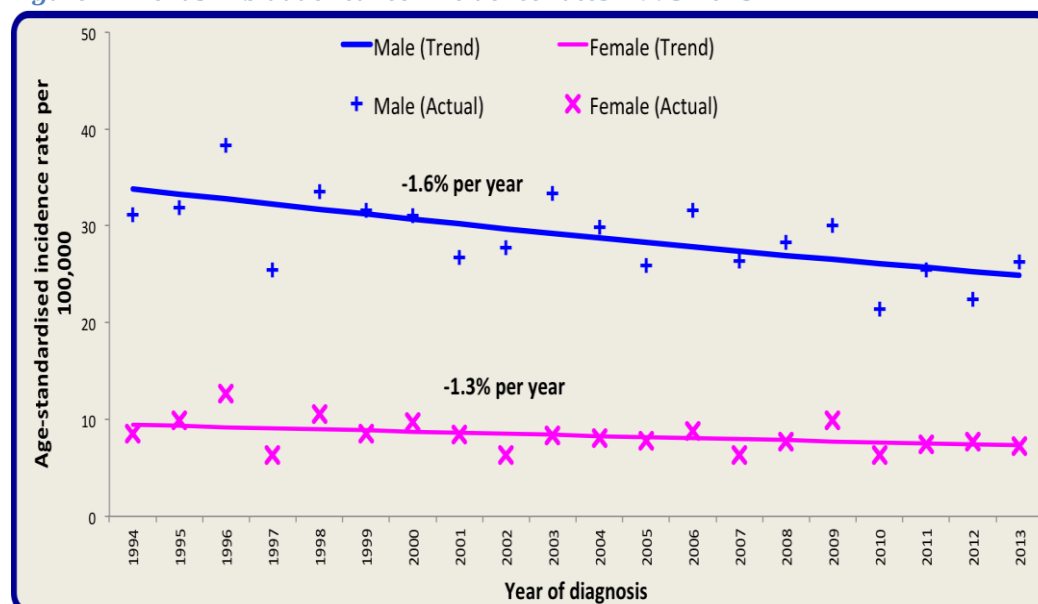
Incidence trends

Table 1: Incidence of bladder cancer by gender and year of diagnosis: 2004-2013

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---------|------|------|------|------|------|------|------|------|------|------|
| Males | 150 | 135 | 159 | 145 | 155 | 177 | 131 | 146 | 137 | 157 |
| Females | 58 | 57 | 66 | 47 | 59 | 76 | 50 | 58 | 64 | 59 |
| Both | 208 | 192 | 225 | 192 | 214 | 253 | 181 | 204 | 201 | 216 |

Over a ten-year period the number of bladder cancer cases has increased in males and females from 208 in 2003 to 216 in 2013. After accounting for our ageing population, there has been a 1.6% decrease in yearly incidence of bladder cancer in males and a 1.3% yearly decrease in incidence of bladder cancer in females.

Figure 1: Trends in bladder cancer incidence rates: 1993-2013

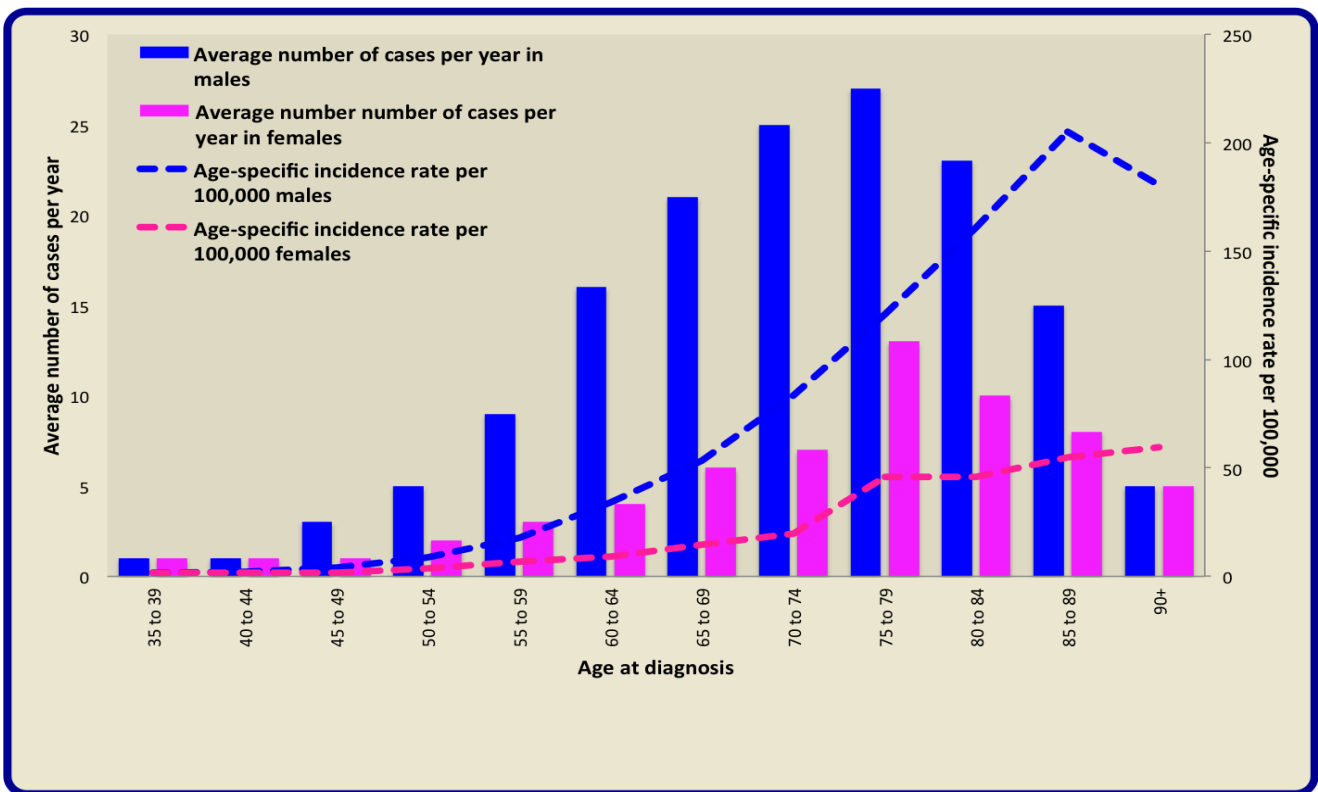


These observed decreases in incidence are possibly due to a reduction in exposure to bladder cancer risk factors such as smoking or toxin exposure.

Incidence and age

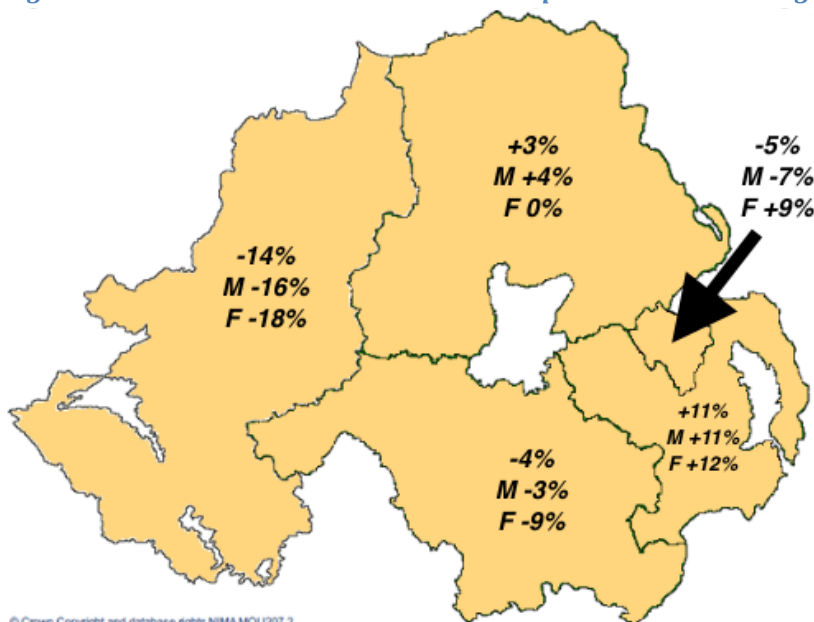
Bladder cancer incidence is associated with increasing age. More than 90% of patients diagnosed between 2009 and 2013 were over the age of 55. Incidence rates are highest among males aged 85-89 and highest amongst female’s aged 90 and over. There is an increase in the incidence of bladder cancer in men after the age of 50 whereas women experience a steady increase in incidence of bladder cancer, as they grow older.

Figure 2: Incidence of bladder cancer by age and gender: 2009-2013



Incidence by Trust area

Figure 3: Bladder cancer incidence rates compared to the NI average by sex and HSC trust of residence 2009-2013



No statistically significant differences in incidence of bladder cancer were observed for either males or females across the five Health and Social Care Trusts (HSCT) between 2009-2013.

Non-significantly lower incidence rates were observed in the Western HSCT while non-significantly higher incidence rates were observed in South Eastern HSCT.

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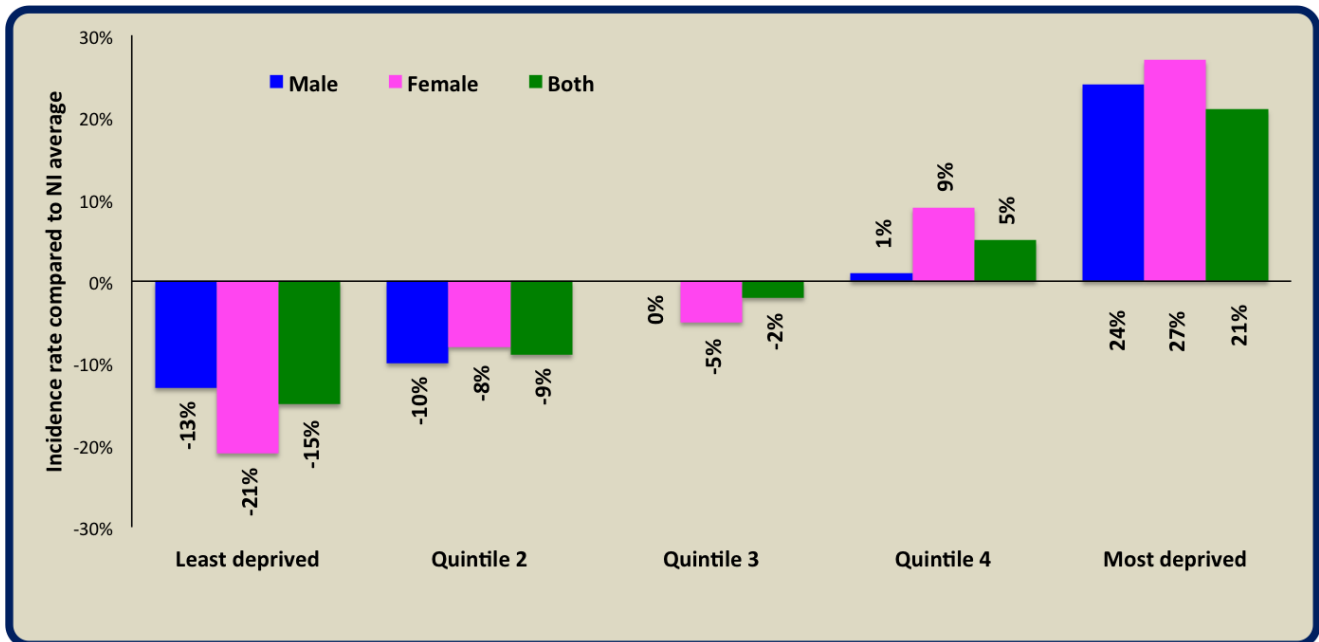
Significantly higher than average

Significantly lower than average

Incidence by deprivation

Bladder cancer incidence rates are 21% higher than NI average in the most deprived communities and 15% lower than the NI average in the least deprived communities. This may be due to historical differences in bladder cancer risk factor exposure such as higher smoking prevalence, particularly in males, in these areas.

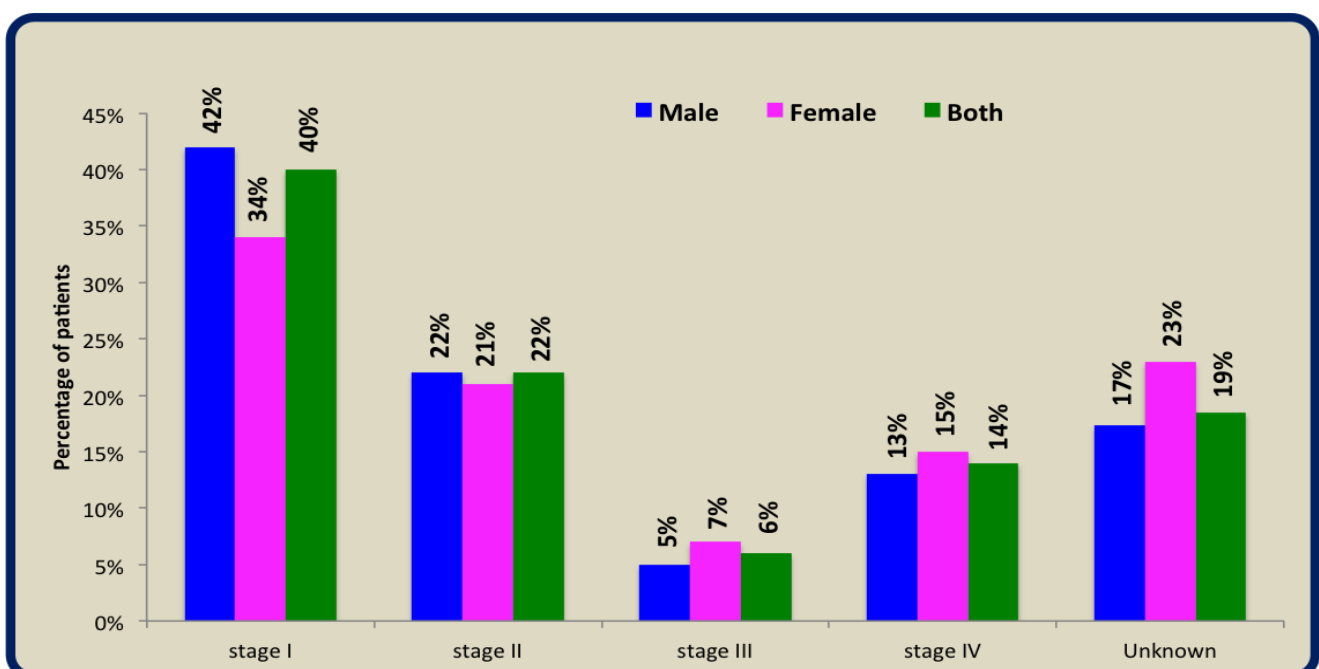
Figure 4: Bladder cancer incidence rates compared to the NI average by deprivation quintile: 2009-2013



Incidence by stage

More than 80% of patients were assigned a stage. The majority of patients were diagnosed with stage I bladder cancer (40% of staged cases) whilst the second most common stage to receive a diagnosis at was stage II (22% of staged cases). More than one in seven patients (14%) were diagnosed at stage IV.

Figure 5: Bladder cancer stage distribution: 2009-2013



SURVIVAL

The age-standardised net survival for men diagnosed with bladder cancer between 2004-2008 was 59.4% at five years. The net survival for women during the same time period was 51.5%.

Table 2: Five-year bladder cancer survival by survival time and gender

| Time since diagnosis | Diagnosed 2004-2008 | | |
|----------------------|---------------------|--------|------------|
| | Male | Female | Both sexes |
| 6 months | 88.6% | 77.9% | 85.5% |
| 1 year | 80.0% | 65.5% | 75.9% |
| 5 years | 59.4% | 51.5% | 57.2% |

Survival Trends

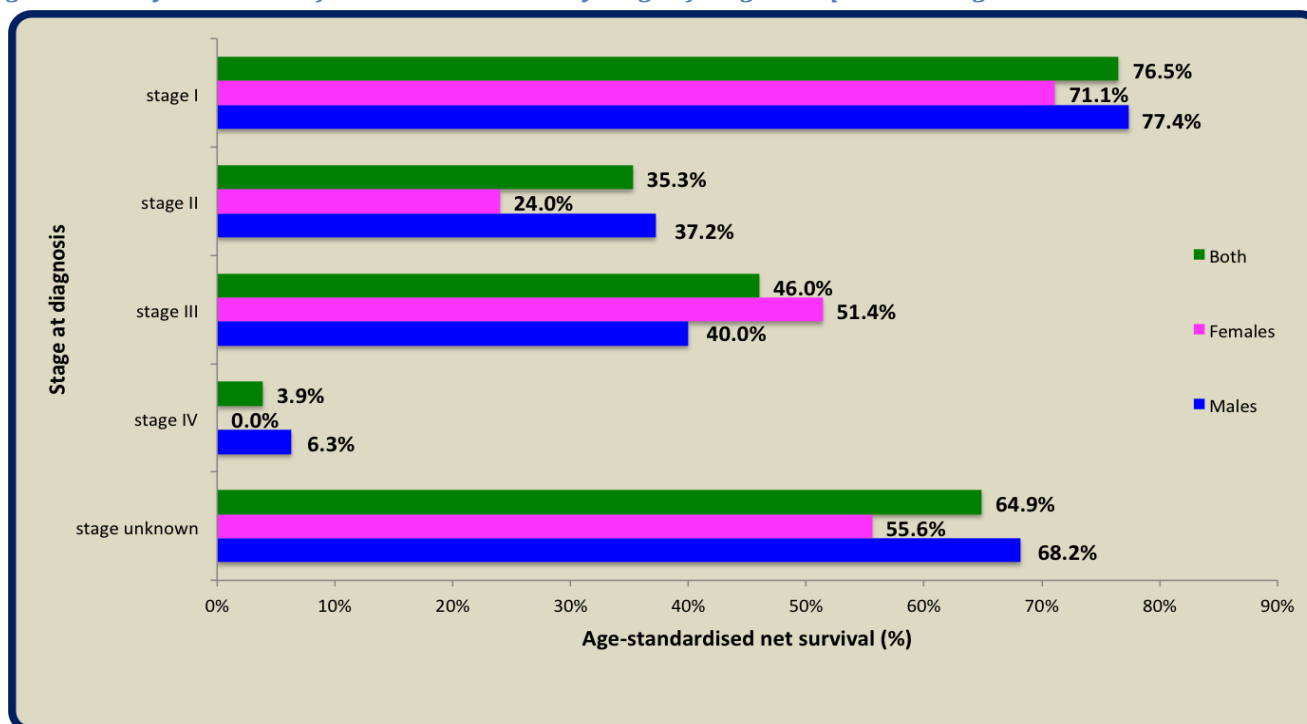
No differences in five-year survival for bladder cancer in Northern Ireland have been observed for patients who were diagnosed 1993-1998 compared to those diagnosed in 2004-2008. Five-year survival in men between 1993-1998 was 60.3% and 59.4% between 2004-2008. Five-year survival in women between 1993-1998 was 48.6% and 51.5% between 2004-2008.

Table 3: Five-year bladder cancer survival by period of diagnosis and gender

| Period of diagnosis | Male | Female | Both sexes |
|---------------------|-------|--------|------------|
| 1993-1998 | 60.3% | 48.6% | 56.9% |
| 1999-2003 | 63.9% | 50.0% | 60.3% |
| 2004-2008 | 59.4% | 51.5% | 57.2% |

Survival and stage

Figure 6: Five-year survival from bladder cancer by stage of diagnosis: patients diagnosed 2001-2008



Stage at diagnosis is one of the most important factors associated with bladder cancer survival. Five-year survival decreases from 77.4% for patients diagnosed with stage I to 6.3% for patients diagnosed with stage IV disease. Five-year survival rates for stage IV bladder cancer were poor with only 3.9% of females and nil males surviving five years after original diagnosis.

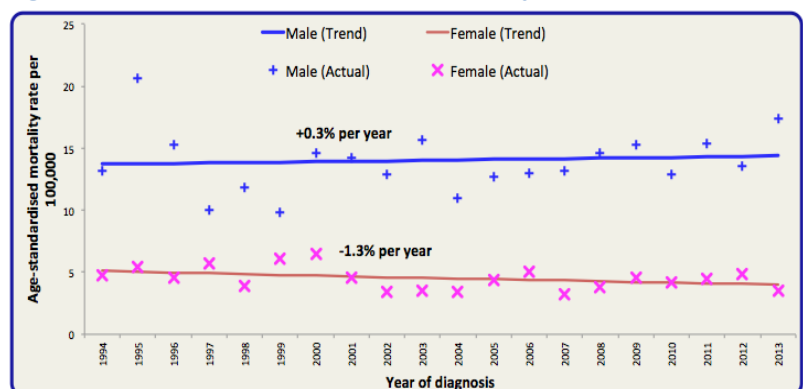
MORTALITY

In 2009-2013 there were an average of 80 male and 35 female deaths each year.

Mortality trends

When adjusted for age and population change, bladder cancer mortality rates in males and females have remained stable during the previous twenty-year period (+0.3% per year in men and -1.3% per year in women). Reasons for subtle differences in mortality rates between genders are not known.

Figure 7: Trends in bladder cancer mortality rates: 1993-2013



PREVALENCE

At the end of 2013 there were a total of 1376 people living in NI with a diagnosis of bladder cancer of which 75% were male, 12% had been diagnosed in the previous year, and 70% were over the age of 70.

Table 4: Number of people living with bladder cancer at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis and gender

| Sex | Age | Time since diagnosis | | | | 21-year Prevalence |
|--------|----------|----------------------|-----------|------------|-------------|--------------------|
| | | 0-1 year | 1-5 years | 5-10 years | 10-21 years | |
| Male | 0-69 | 35 | 111 | 83 | 82 | 311 |
| | 70+ | 84 | 207 | 178 | 248 | 717 |
| | All ages | 119 | 318 | 261 | 330 | 1028 |
| Female | 0-69 | 18 | 29 | 28 | 25 | 100 |
| | 70+ | 26 | 64 | 64 | 94 | 248 |
| | All ages | 44 | 93 | 92 | 119 | 348 |
| Both | 0-69 | 53 | 140 | 111 | 107 | 411 |
| | 70+ | 110 | 271 | 242 | 342 | 965 |
| | All ages | 163 | 411 | 353 | 449 | 1376 |

FURTHER INFORMATION

Further data is available from the Northern Ireland Cancer Registry web site: www.qub.ac.uk/nicr

NI Cancer Registry
Phone: +44 (0)28 9063 2573
e-mail: nicr@qub.ac.uk



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