

# 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.

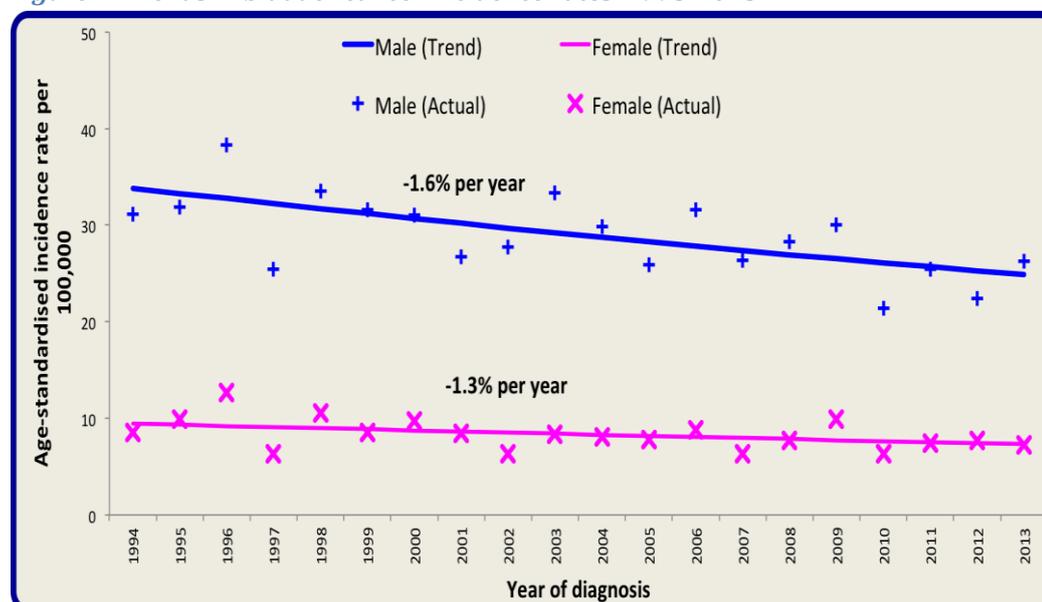
### Incidence trends

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

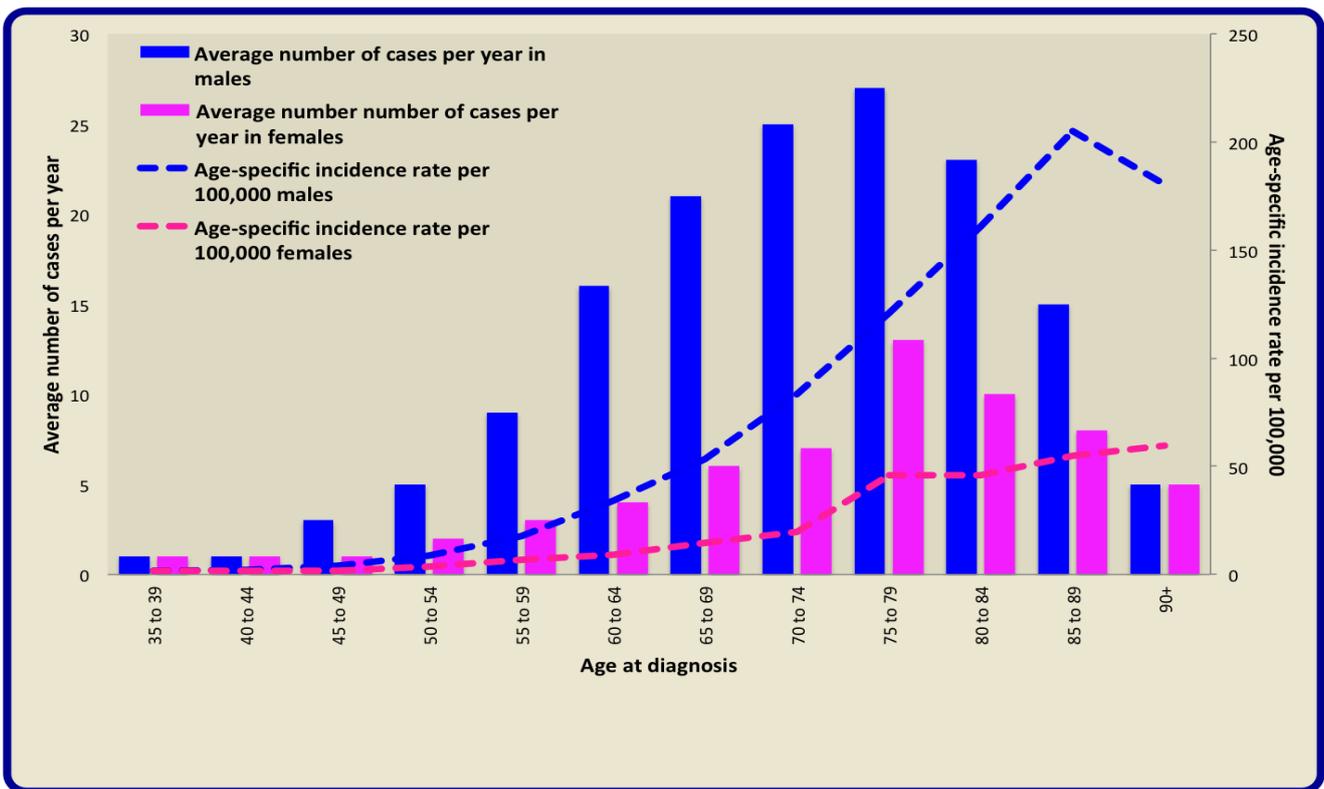


These observed decreases in incidence are possibly due to a reduction in exposure to bladder cancer risk factors such as smoking or toxin exposure.

### Incidence and age

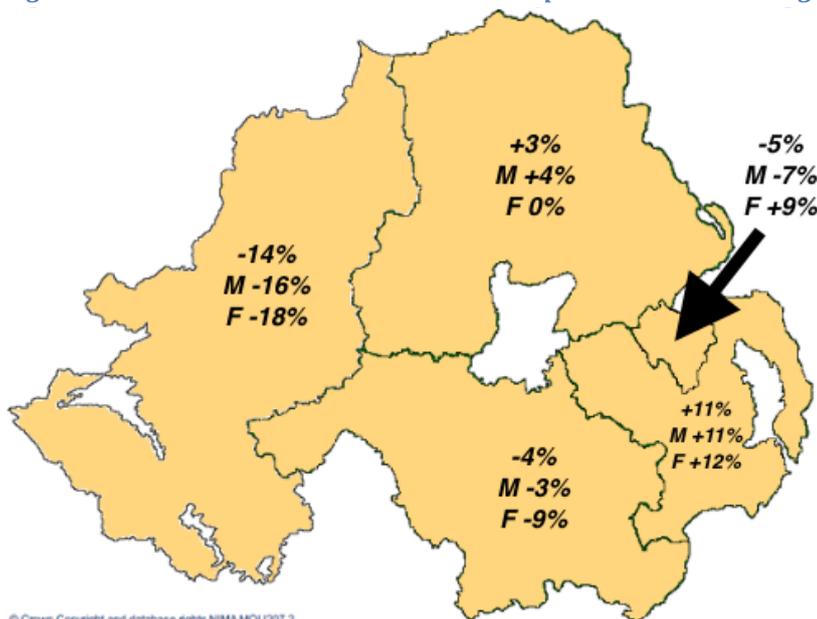
Bladder cancer incidence is associated with increasing age. More than 90% of patients diagnosed between 2009 and 2013 were over the age of 55. Incidence rates are highest among males aged 85-89 and highest amongst female’s aged 90 and over. There is an increase in the incidence of bladder cancer in men 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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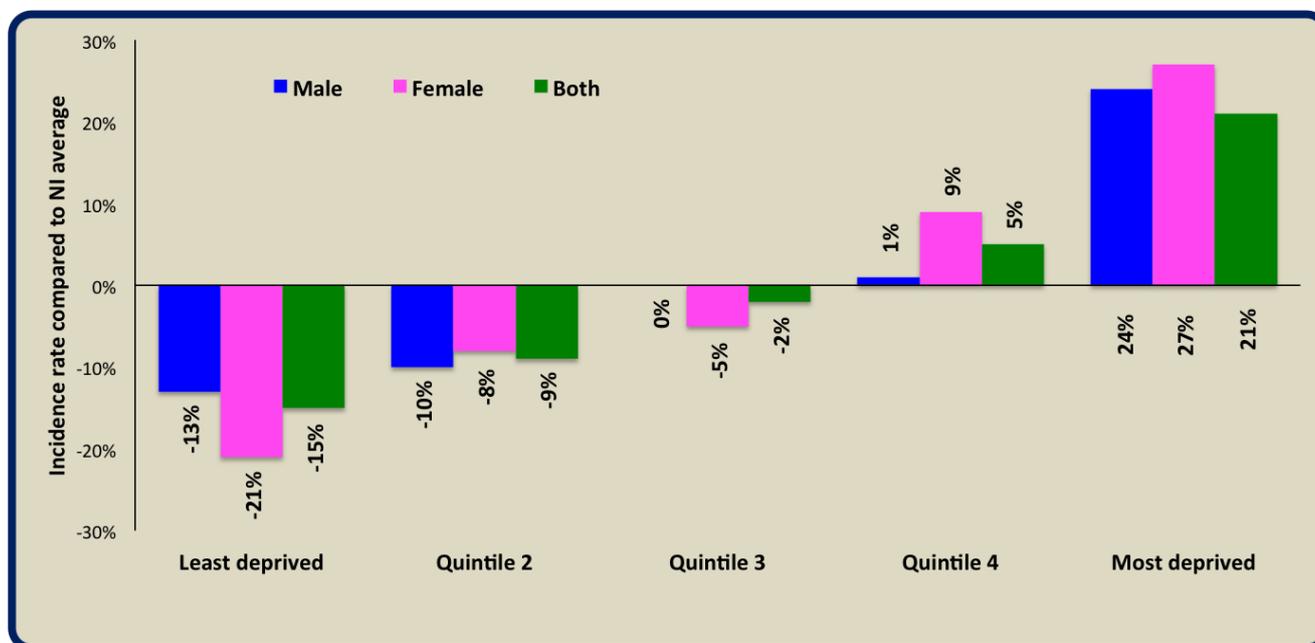
Significantly higher than average

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.

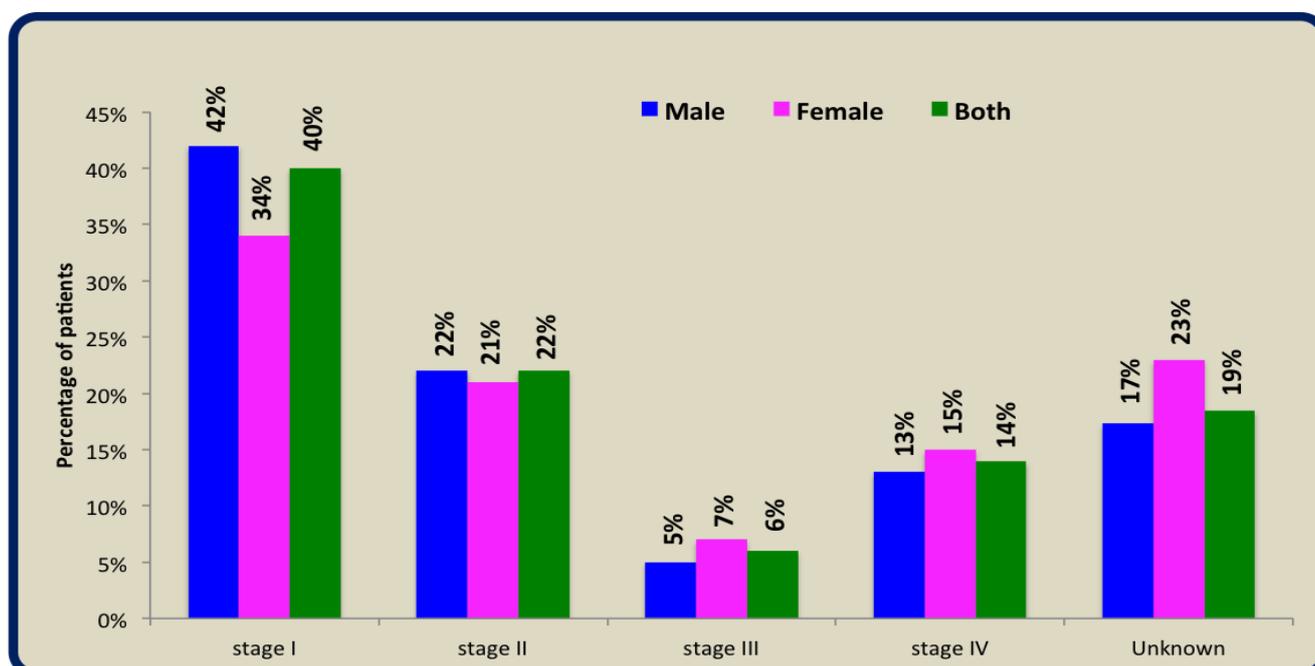
Figure 4: Bladder cancer incidence rates compared to the NI average by deprivation quintile: 2009-2013



## 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

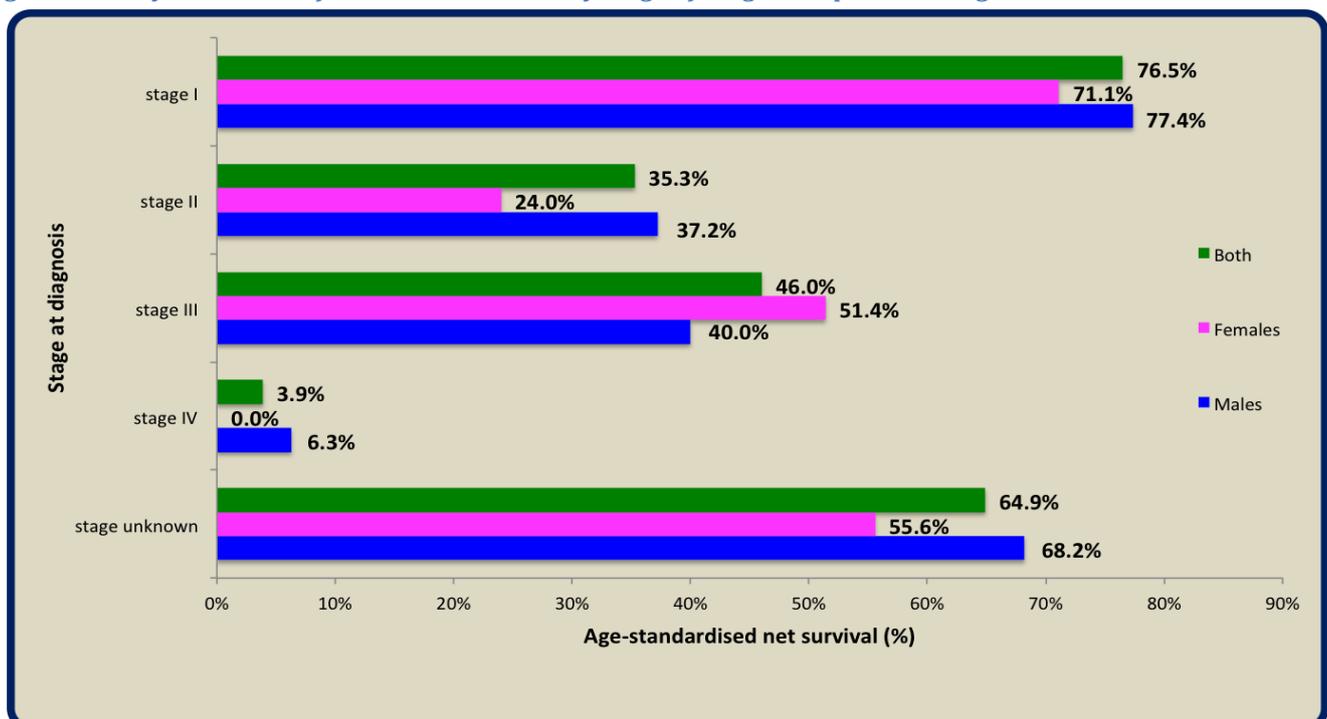
No differences in five-year survival for bladder cancer in Northern Ireland have been observed for patients who were diagnosed 1993-1998 compared to those diagnosed in 2004-2008. Five-year survival in men between 1993-1998 was 60.3% and 59.4% between 2004-2008. Five-year survival in women between 1993-1998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

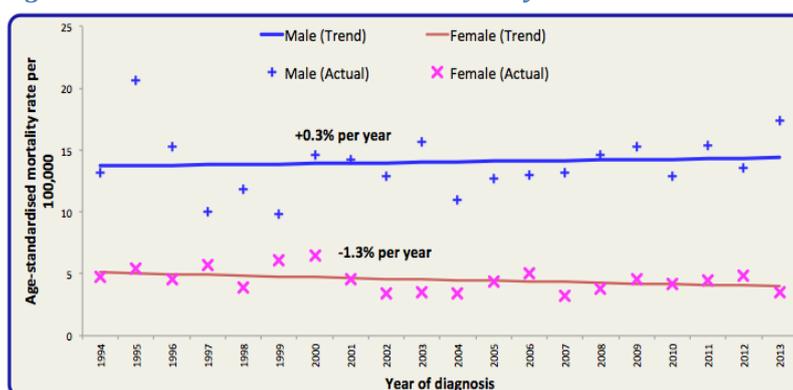
## MORTALITY

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](http://www.qub.ac.uk/nicr)

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## ACKNOWLEDGEMENTS

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# CANCERS OF THE BLOOD



This document provides statistical information about haematological and lymphoid tissue cancers (blood cancers) in Northern Ireland. This includes leukaemia, lymphoma, and myeloma.

## Leukaemia summary table

NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
116	80	196	65	44	109
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
48.4%	47.6%	48.2%	713	543	1,256

## Lymphoma summary table

NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
212	174	386	66	59	125
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
60.6%	65.3%	62.9%	1,627	1,521	3,148

## Myeloma summary table

NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
66	50	117	35	32	66
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
44.7%	50.8%	47.1%	366	261	627

## INCIDENCE

Between 2009 and 2013 there were an average of 699 people diagnosed with a form of blood cancer each year. Of these 699 diagnoses, 56% were in men and 44% were in women. The probability of being diagnosed with a form of blood cancer in Northern Ireland before the age of 75 varies from 1 in 250 for myeloma to approximately 1 in 70 for lymphoma (probability of a leukaemia diagnosis is 1 in 143). Men are consistently more likely to be diagnosed with all forms of blood cancer (including leukaemia, lymphoma, and myeloma) when compared to women.

**Incidence trends**

*Table 1: Incidence of leukaemia by gender and year of diagnosis: 2004-2013*

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	104	98	96	102	123	106	131	131	103	109
Females	74	90	88	69	89	84	83	98	70	67
Both	178	188	184	171	212	190	214	229	173	176

*Table 2: Incidence of lymphoma by gender and year of diagnosis: 2004-2013*

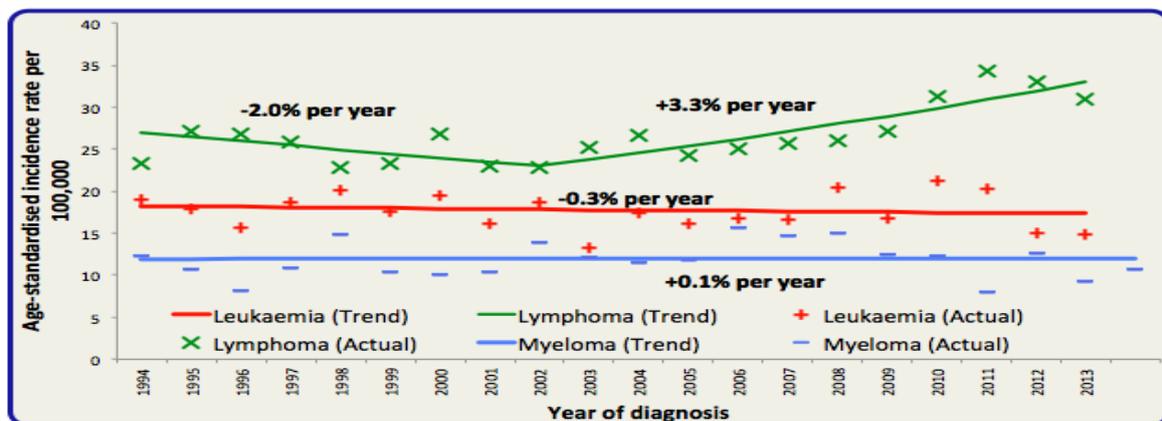
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	156	155	154	169	171	182	206	223	229	219
Females	165	154	142	188	164	159	178	193	171	169
Both	321	309	296	357	335	341	384	416	400	388

*Table 3: Incidence of myeloma by gender and year of diagnosis: 2004-2013*

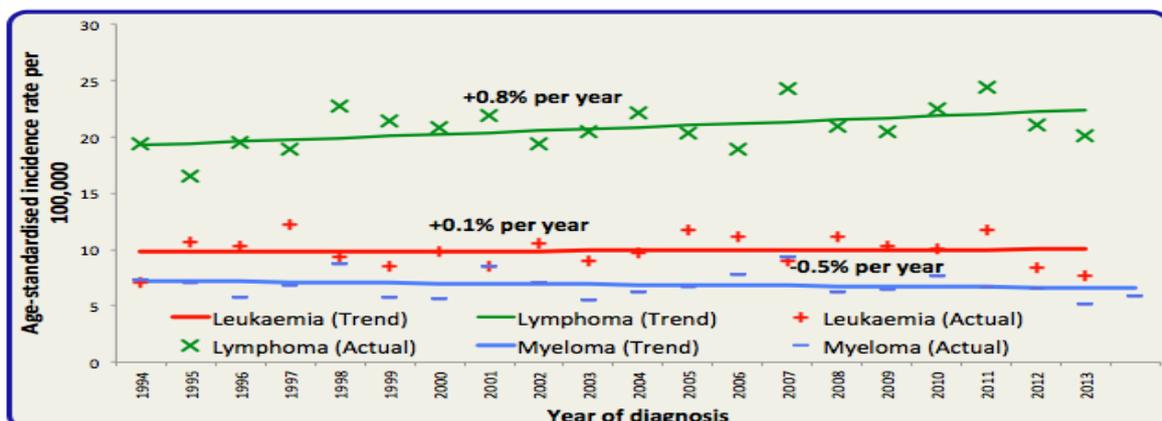
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	64	87	80	85	70	73	50	78	61	69
Females	48	57	69	45	49	58	52	52	41	49
Both	112	144	149	130	119	131	102	130	102	118

Over a ten-year period the number of blood cancer cases each year has increased in males and females from 611 in 2004 to 682 in 2013. After accounting for changes in the age of the population, incidence of leukaemia and myeloma has remained stable in men and women in Northern Ireland. Incidence of lymphoma in men has increased by over 3% each year since 2002 after a non-statistically significant decrease in incidence between 1994 and 2002 (see figure 1). Incidence of lymphoma in women has steadily increased by almost 1% each year since 1994 (see figure 2).

*Figure 1: Trends in blood cancer incidence rates: 1993-2013 in males : 1993-2013*



*Figure 2: Trends in blood cancer incidence rates: 1993-2013 in females : 1993-2013*

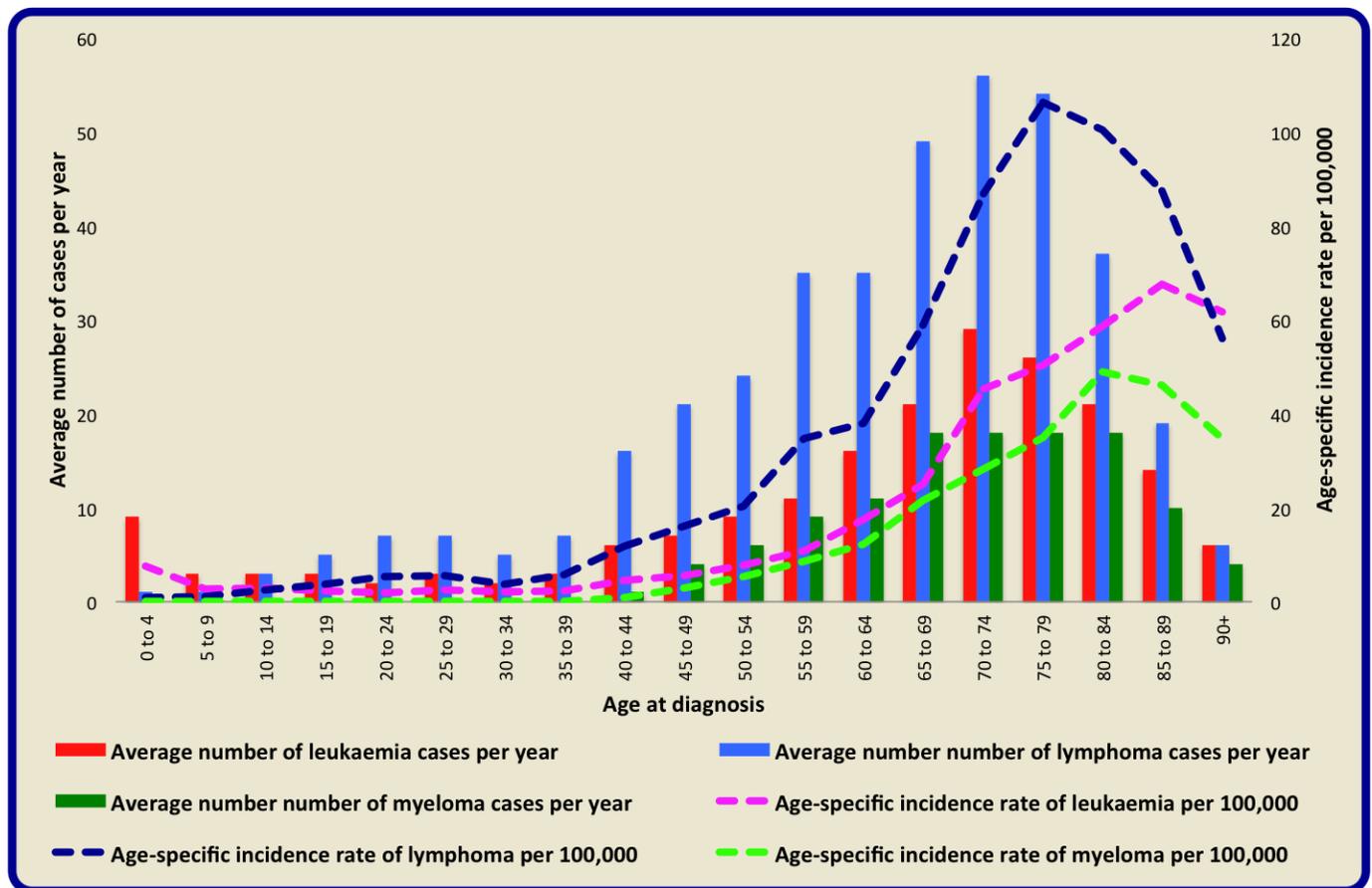


## Incidence and age

The incidence of all three forms of blood cancer is associated with increasing age although some subtle differences exist between each type of cancer. There is an early peak in leukaemia incidence rate per 100,000 between the ages of 0-4 before incidence falls to a baseline of approximately 3-4 cases per 100,000 of the population. After the age of 60 there is a steady increase in incidence of leukaemia, which peaks at almost 70 cases per 100,000 of the population between ages of 85-89.

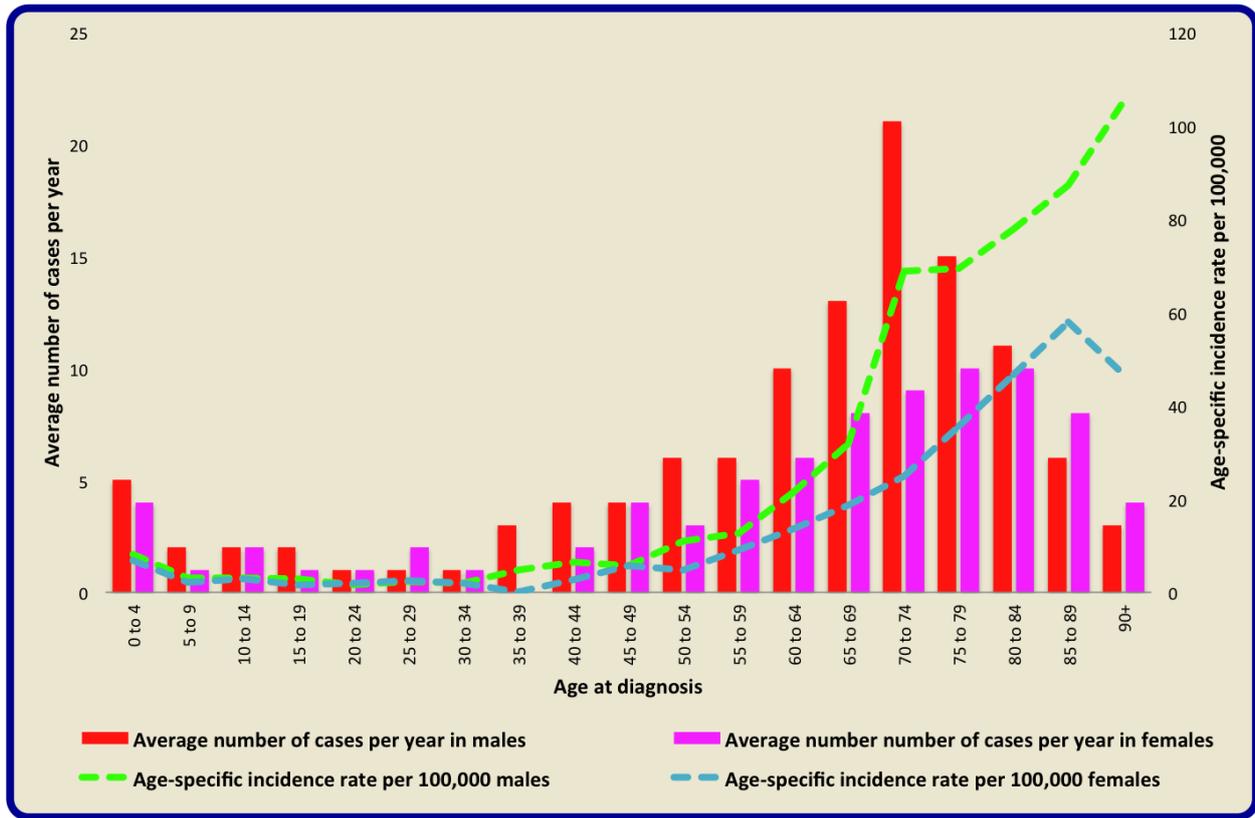
Incidence of lymphoma remains low until the age of 50. Thereafter, incidence steadily rises before reaching a peak of over 100 cases per 100,000 of the population (i.e. 1 case per 1,000) between the ages of 75 and 85. Incidence of lymphoma steadily decreases after the age of 85. Myeloma incidence is *strongly linked* with age. Adults aged between 80 and 89 years experience the highest incidence (almost 50 cases per 100,000 of the population) of myeloma.

Figure 3: Incidence of blood cancer by age, gender, and type: 2009-2013



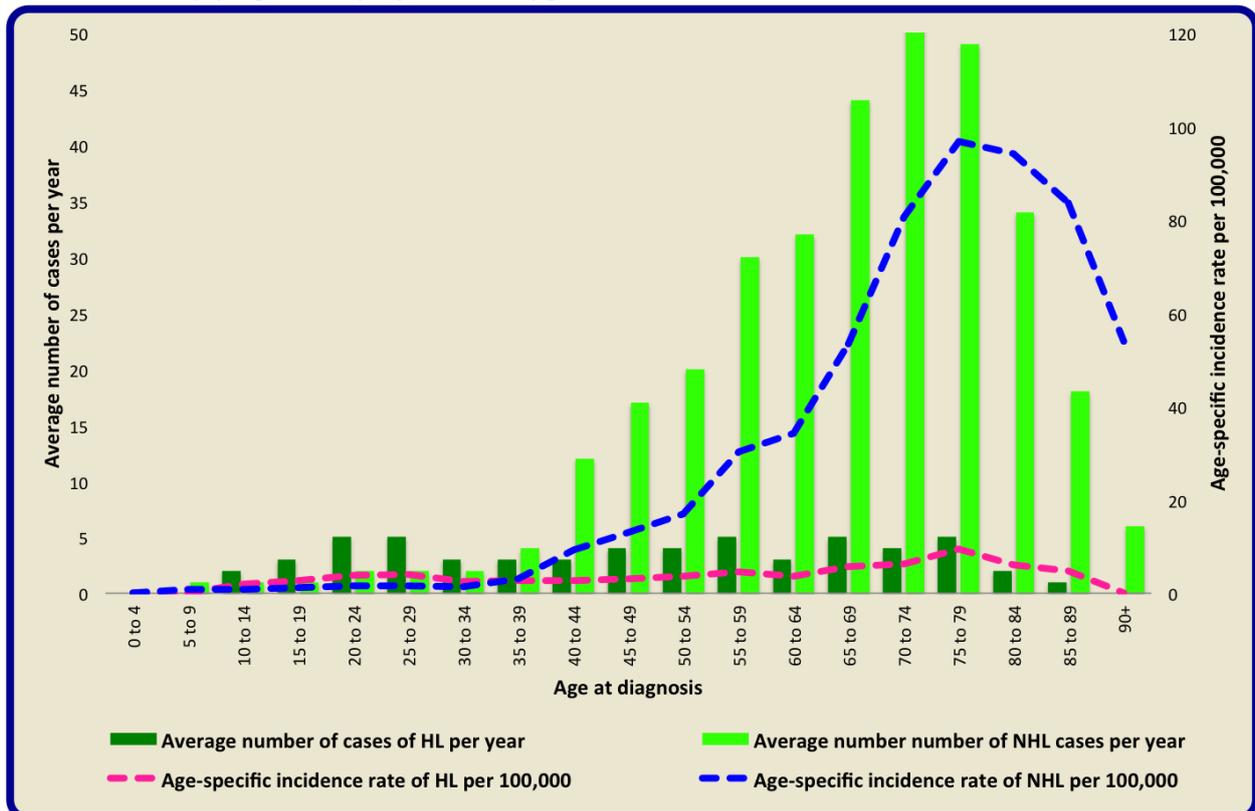
Further analysis to explore differences in incidence of blood cancers between gender and type produces some interesting information. Incidence of leukaemia in males and females remains low after an early peak during infancy. After the age of 60 incidence of leukaemia in males and females begins to separate out, with male incidence rate increasing to a peak of over 100 cases per 100,000 people in males over the age of 90. Women experience a lower leukaemia incidence rate than men with a peak of 57.8 cases per 100,000 females between the ages of 85 and 89 (see figure 4).

Figure 4: Incidence of leukaemia by age and gender: 2009-2013



Age-standardised incidence of NHL (non-Hodgkin’s lymphoma) in males and females combined is higher than HL (Hodgkin’s lymphoma) per 100,00 of the population (see figure 5). Incidence of NHL is strongly linked with age with peak incidence in patients aged 70-89. Incidence of HL never exceeds an average of 10 cases per 100,000 of the population in both genders are combined.

Figure 5: Incidence of lymphoma by age and subtype: 2009-2013

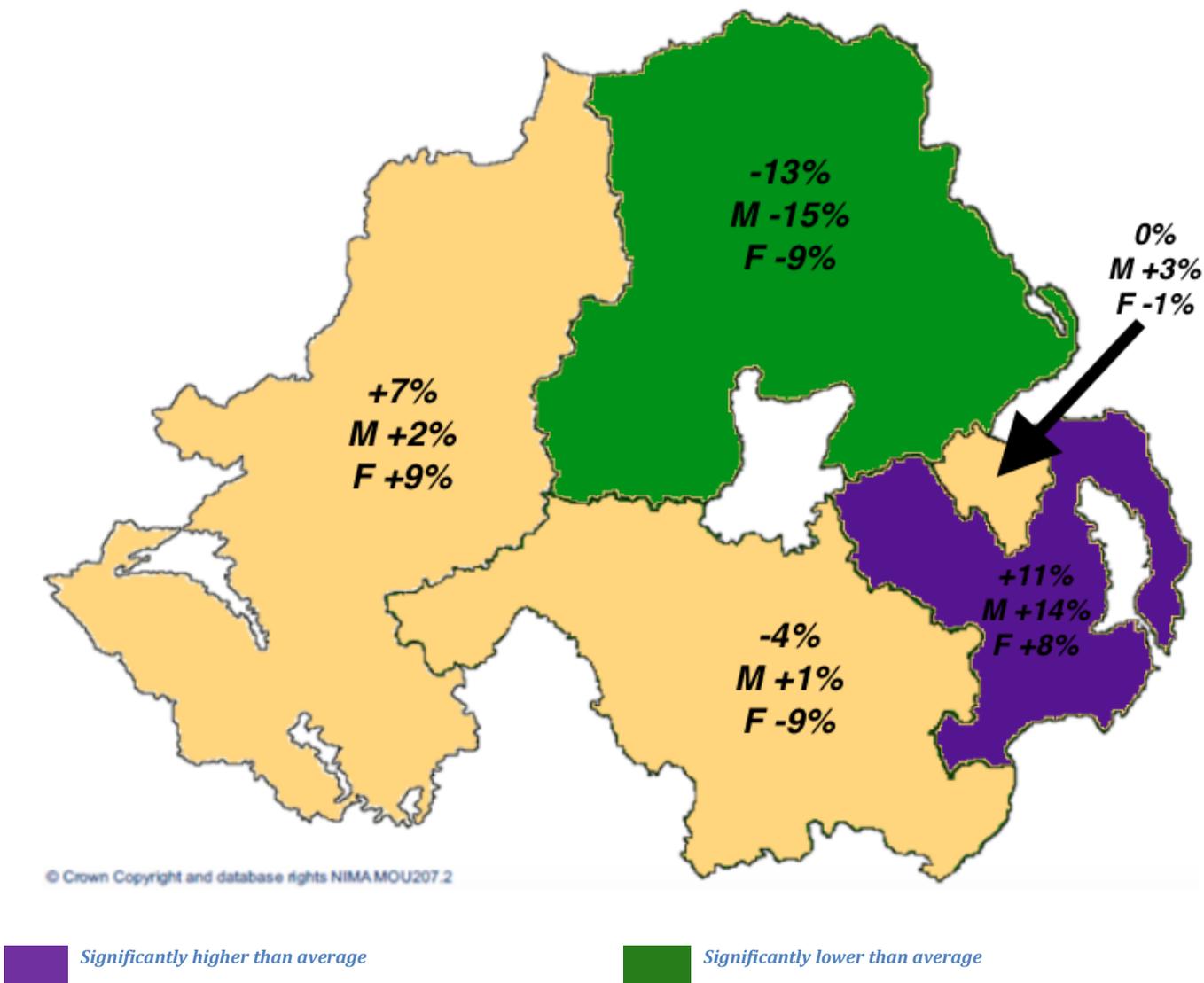


## Incidence by Trust area

Leukaemia incidence rates in 2009-2013 were 11% above the NI average in people living in the South Eastern Health and Social Care Trust (HSCT) and 13% below the NI average in people living in the Northern Health and Social Care Trust (refer to figure 5).

When both genders were combined there were no statistically significant differences in incidence of lymphoma or myeloma between trusts when compared to the NI average incidence.

Figure 6: Leukaemia incidence rates compared to the NI average by HSC Trust of residence: 2009-2013



## Incidence by deprivation

In 2009-2013 no association between incidences of any of the three forms of blood cancer and socioeconomic deprivation were observed in Northern Ireland suggesting that blood cancer risk factors are independent of socioeconomic status.

## SURVIVAL

The age-standardised five-year survival for people diagnosed with leukaemia between 2004-2008 was 48.2% at five years. The age-standardised five-year survival for people diagnosed with lymphoma during the same time period was 62.9% whilst the age-standardised five-year survival for people diagnosed with myeloma during 2004-2008 was 47.1%. Therefore, lymphoma is the most survivable of the blood cancers (HL has a higher five-year survival rate than NHL).

*Table 4: Five-year leukaemia survival by survival time and gender*

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	76.3%	74.0%	75.3%
1 year	69.2%	64.1%	67.3%
5 years	48.4%	47.6%	48.2%

*Table 5: Five-year lymphoma survival by survival time and gender*

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	81.1%	82.2%	81.7%
1 year	76.1%	77.4%	76.8%
5 years	60.6%	65.3%	62.9%

*Table 6: Five-year myeloma survival by survival time and gender*

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	83.4%	86.7%	84.8%
1 year	74.7%	82.0%	77.7%
5 years	44.7%	50.8%	47.1%

### Survival Trends

Five-year survival for all forms of blood cancer in Northern Ireland has increased from the 1993-1998-diagnosis period to the 2004-2008-diagnosis period in both males and females. Five-year survival after a diagnosis of leukaemia between 1993-1998 was 32.2% and 48.2% between 2004-2008. Five-year survival after a diagnosis of lymphoma between 1993-1998 was 46.2% and 62.9% between 2004-2008. Five-year survival after a diagnosis of myeloma between 1993-1998 was 29.6% and 47.1% between 2004-2008.

This means that five-year survival for all forms of blood cancer has increased by at least 15% from the 1993-1998 to 2004-2008 diagnostic period.

Table 7: Five-year leukaemia survival by period of diagnosis and gender

Period of diagnosis	Male	Female	Both sexes
1993-1998	31.3%	33.3%	32.2%
1999-2003	36.8%	44.5%	40.4%
2004-2008	48.4%	47.6%	48.2%

Table 8: Five-year lymphoma survival by period of diagnosis and gender

Period of diagnosis	Male	Female	Both sexes
1993-1998	43.4%	48.5%	46.2%
1999-2003	50.5%	55.7%	53.1%
2004-2008	60.6%	65.3%	62.9%

Table 9: Five-year myeloma survival by period of diagnosis and gender

Period of diagnosis	Male	Female	Both sexes
1993-1998	26.7%	33.1%	29.6%
1999-2003	31.3%	43.1%	36.2%
2004-2008	44.7%	50.8%	47.1%

## MORTALITY

In 2009-2013 there were an average of 300 deaths from blood cancer each year of which 125 (42%) were due to lymphoma, 109 (36%) were due to leukaemia, and 66 (22%) were due to myeloma.

### Mortality trends

When adjusted for age and population change, mortality rates amongst all forms of blood cancer in men are falling. Leukaemia rates decreased by 2.2% each year from 1994 to 2008 before a non-significant rise of 5%. Myeloma rates fell by 7.6% after 2006 and lymphoma rates by 1.6% each year.

Figure 7: Trends in blood cancer mortality rates in men: 1993-2013

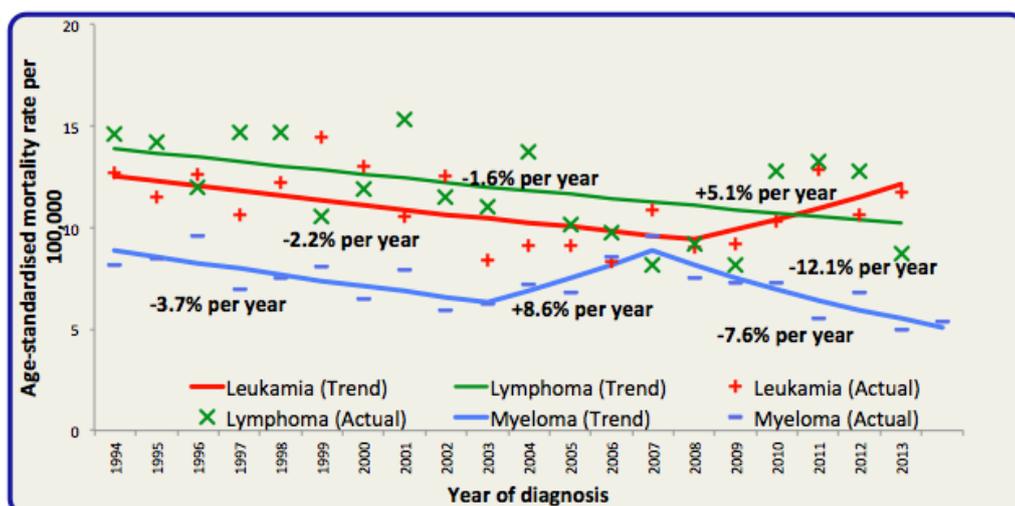
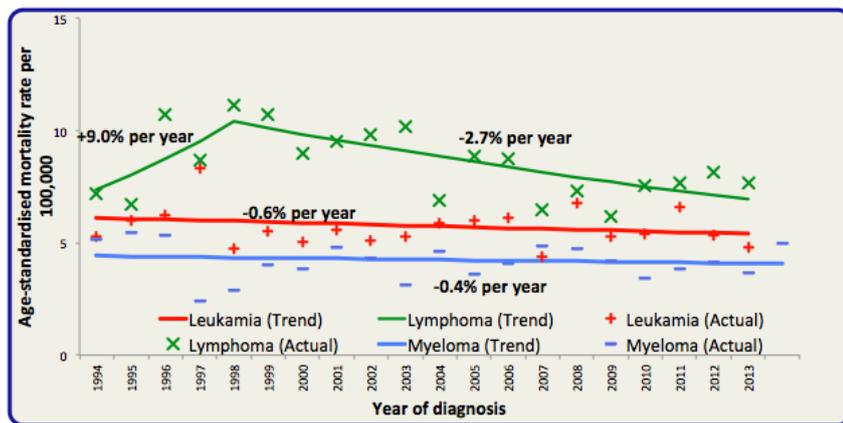


Figure 8: Trends in blood cancer mortality rates in women: 1993-2013



Leukaemia and myeloma mortality rates have remained stable in women during the previous twenty-year period. Lymphoma mortality rates have declined by almost 3% each year between 1998 and 2013 after a non-statistically significant rise.

## PREVALENCE

At the end of 2013 there were a total of 5,031 people living with a haematological malignancy (blood cancer) of which 63% had a diagnosis of lymphoma (25% had a diagnosis of leukaemia and 13% had a diagnosis of myeloma), 54% of those diagnosed were men, 11% had been diagnosed within the previous year, and 61% were living with a diagnosis of blood cancer whilst under the age of 70.

Table 10: Number of people living with leukaemia at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Type	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Leukaemia	0-69	82	241	224	279	826
	70+	44	175	123	88	430
	All ages	126	416	347	367	1256

Table 11: Number of people living with lymphoma at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Type	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Lymphoma	0-69	206	597	532	621	1956
	70+	123	402	318	349	1192
	All ages	329	999	850	970	3148

Table 12: Number of people living with myeloma at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Type	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Myeloma	0-69	52	114	85	43	294
	70+	49	147	92	45	333
	All ages	101	261	177	88	627

## FURTHER INFORMATION

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

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



This document provides statistical information about non-malignant (purple table) and malignant (red table) brain and central nervous system (CNS) cancers in Northern Ireland.

NUMBER OF CASES PER YEAR (2008-2012)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
78	119	198	15	12	27
FIVE-YEAR SURVIVAL (2003-2007)			21-YEAR PREVALENCE (2012)		
Male	Female	Both sexes	Male	Female	Both sexes
75.5%	77.9%	77.1%	821	1,220	2,041

NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
81	55	136	66	43	109
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
24.1%	25.7%	24.8%	302	267	569

## INCIDENCE

A total of 692 males and 1,023 females were diagnosed with non-malignant brain tumours between 2003 and 2012. This compares with a total of 777 males and 534 females who were diagnosed with malignant brain tumours in a similar time period. The probability of developing a non-malignant brain tumour before the age of 75 are 1 in 159 for a male and 1 in 125 for a female whilst the probability of developing a malignant brain tumour before the age of 75 are 1 in 142 for a male and 1 in 235 for a female. Brain cancer of any variety is therefore *rare* in the general population.

### Incidence trends

*Table 1: Incidence of non-malignant brain and CNS cancer by sex and year of diagnosis: 2003-2012*

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Male	51	58	52	73	66	89	87	85	76	55
Female	74	79	78	82	113	137	117	122	112	109
Both sexes	125	137	130	155	179	226	204	207	188	164

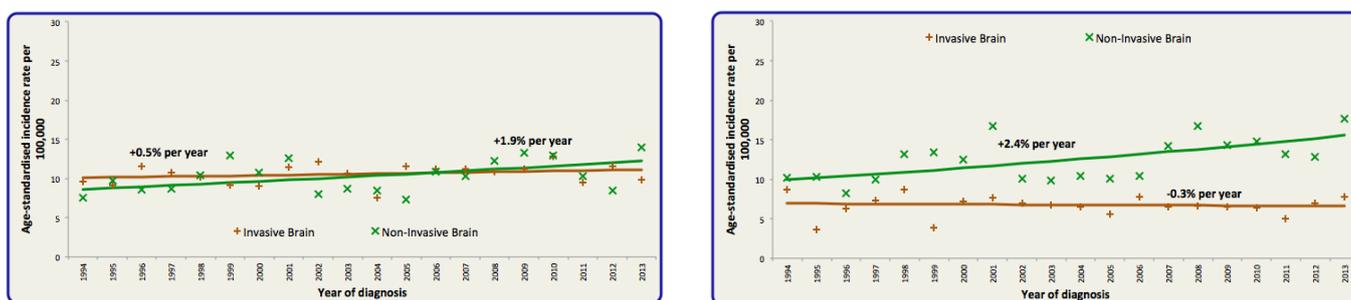
*Table 2: Incidence of malignant brain and CNS cancer by sex and year of diagnosis: 2004-2013*

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Male	53	79	81	83	77	80	91	73	83	77
Female	50	44	60	53	52	54	52	43	59	67
Both sexes	103	123	141	136	129	134	143	116	142	144

Non-malignant cancer of the brain and nervous system is more common in females than males but the trend is reversed for malignant brain tumours with males more commonly affected. The reasons for such differences are complex and still poorly understood but it is possible that variations in hormone levels account for the higher rate of non-malignant brain tumours such as meningioma in women. Non-malignant cancers of the brain are more common than malignant ones in both genders.

After accounting for the increasing number of older people in the NI population, incidence of invasive brain cancer has remained stable in men and women; however, there have been changes in the incidence of non-invasive brain cancer in both genders during the previous twenty-year period. Incidence of non-invasive brain cancer has increased by almost 2% each year in men and almost 2.5% each year in women.

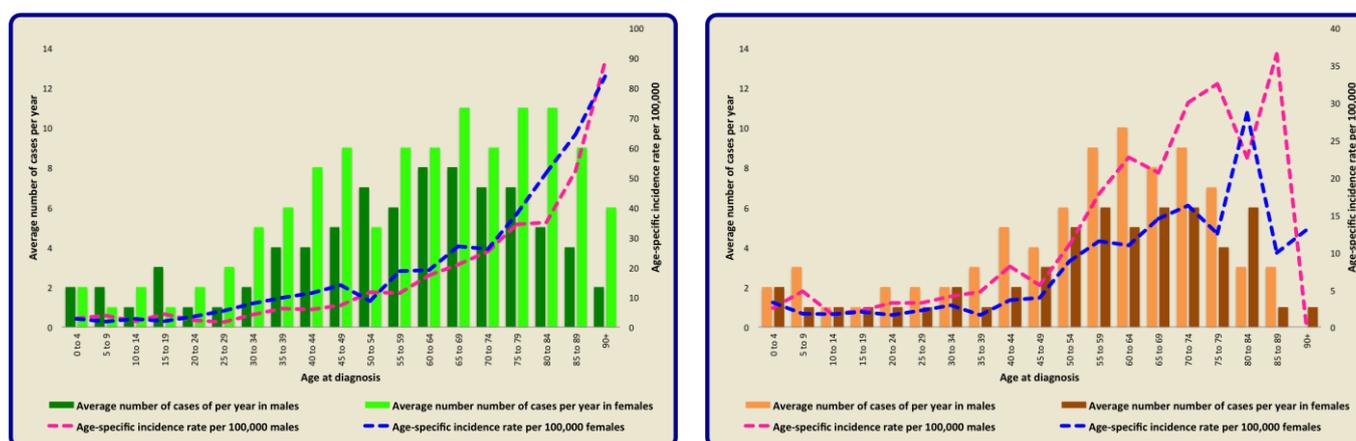
Figure 1: Male (left) and female (right) 20-year trend in both types of brain cancer incidence rates: 1993-2013



### Incidence and age

Incidence of both types of brain cancer increases with age. Females are consistently more likely than males to suffer from non-malignant brain and central nervous system cancer at all ages with peak incidence rates for both genders seen in the later years of life. Males are consistently more likely to develop malignant cancer of the brain and nervous system between the ages of 35 and 79. Thereafter, a greater number of women are diagnosed due to differences in life expectancy between genders (note the absence of any data for males aged 90 or above). Data is visually represented below (non-malignant incidence by age and sex on left and malignant incidence by age and sex on right).

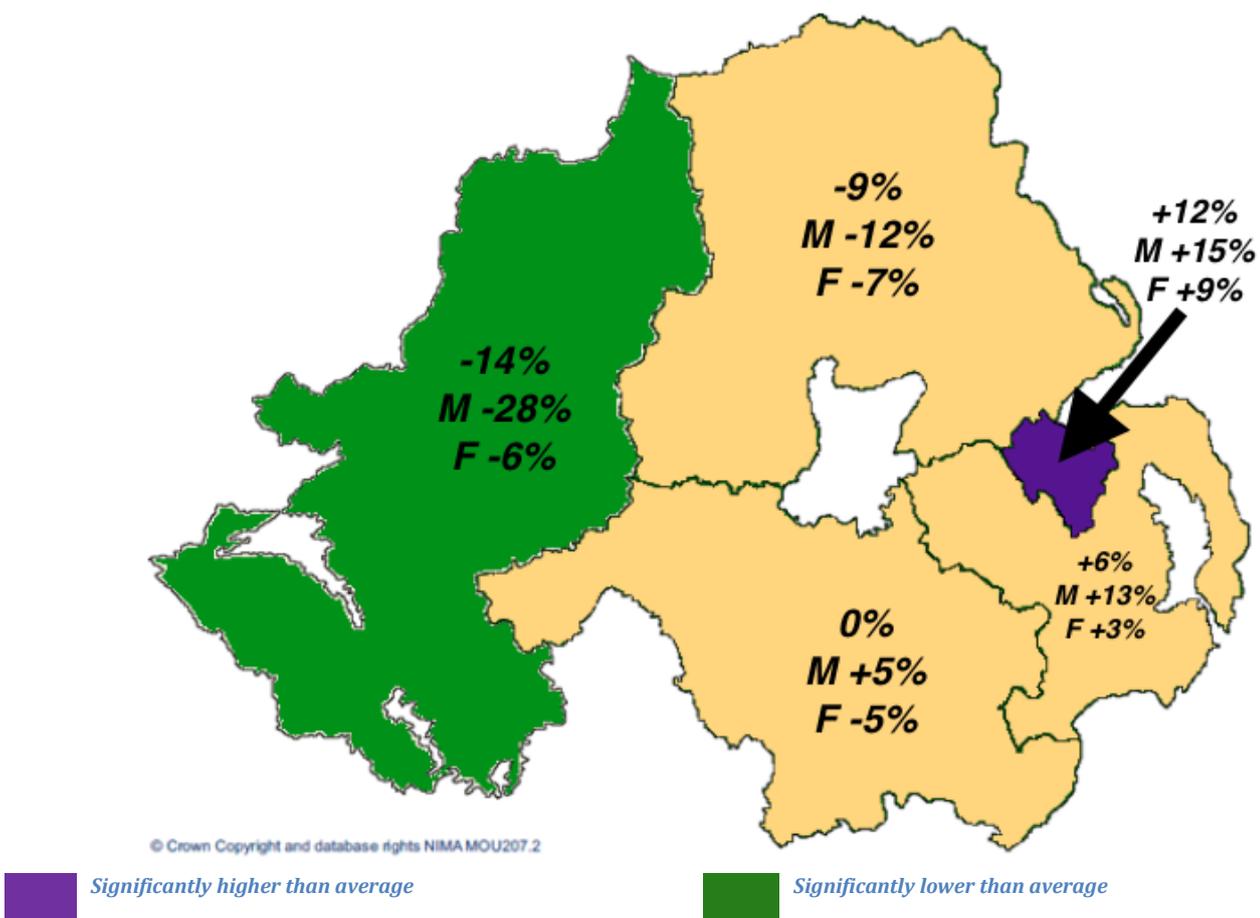
Figure 2: Incidence of brain and CNS cancer by age, sex, and type: 2009-2013: non-malignant brain cancer graph on left and malignant brain cancer graph on right



## Incidence by Trust area

Non-malignant brain and central nervous system cancer incidence rates in 2003-2012 among people living within the Belfast health and social care trust (HSCT) area were 12% higher than the NI average. However, they were 14% lower than the NI average among people living in the Western Trust area. There were no statistically different differences in the incidence rate of malignant brain and central nervous system cancers in any trust area when compared with the NI average.

*Figure 3: Non-malignant brain and nervous system cancer incidence rates compared to the NI average by health and social care trust of residence: 2003-2012*



## Incidence by deprivation

Incidences of both types of brain and central nervous system cancer were not strongly associated with social deprivation although some inter-quintile differences do exist. Patients in quintile 3 have a lower than average incidence of non-malignant brain and nervous system cancer whilst patients in quintile 2 (particularly females) have a lower than average incidence of malignant brain and nervous system cancer when compared to the NI average.

- Patients in quintile 3 are 12% less likely to develop non-malignant brain cancer
- Patients in quintile 2 are 15% less likely to develop malignant brain cancer

## SURVIVAL

Patients diagnosed with a non-malignant cancer of the brain or nervous system are more likely to survive longer than patients diagnosed with a malignant cancer of the brain or nervous system. Females are likely to survive longer than males regardless of which type of brain or nervous system cancer they have been diagnosed with.

*Table 3: Five-year non-malignant brain and CNS cancer survival by time and sex*

Time since diagnosis	Diagnosed 2003-2007		
	Male	Female	Both sexes
6 months	84.2%	90.2%	87.9%
1 year	83.0%	87.0%	85.5%
5 years	75.5%	77.9%	77.1%

*Table 4: Five-year malignant brain and CNS cancer survival by time and sex*

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	59.9%	62.4%	61.2%
1 year	43.9%	43.9%	44.1%
5 years	24.1%	25.7%	24.8%

## Survival Trends

Five-year survival for non-malignant brain and nervous system cancer has improved from the 1993-1997 diagnosis period to the 2003-2007 diagnosis period; increasing for men from 66.4% to 75.5%, and for women from 60.5% to 77.9%. Similar improvements in five-year survival rates are seen in malignant cancers of the brain and nervous system. In 1993-1998 a mere 15% of men diagnosed with malignant brain cancer survived to five years after diagnosis. This increased to 24.1% of men in 2004-2008. Female survival rates from malignant cancer followed a similar trend but to a lesser extent than men. In 2004-2008 about 1 in 4 patients diagnosed with malignant brain cancer survived for five years after diagnosis.

*Table 5: Five-year non-malignant brain and CNS cancer survival by period of diagnosis and sex*

Period of diagnosis	Male	Female	Both sexes
1993-1997	66.4%	60.5%	64.5%
1998-2002	70.8%	72.7%	72.4%
2003-2007	75.5%	77.9%	77.1%

*Table 6: Five-year malignant brain and CNS cancer survival by period of diagnosis and sex*

Period of diagnosis	Male	Female	Both sexes
1993-1998	15.0%	22.0%	18.3%
1999-2003	22.5%	25.8%	24.0%
2004-2008	24.1%	25.7%	24.8%

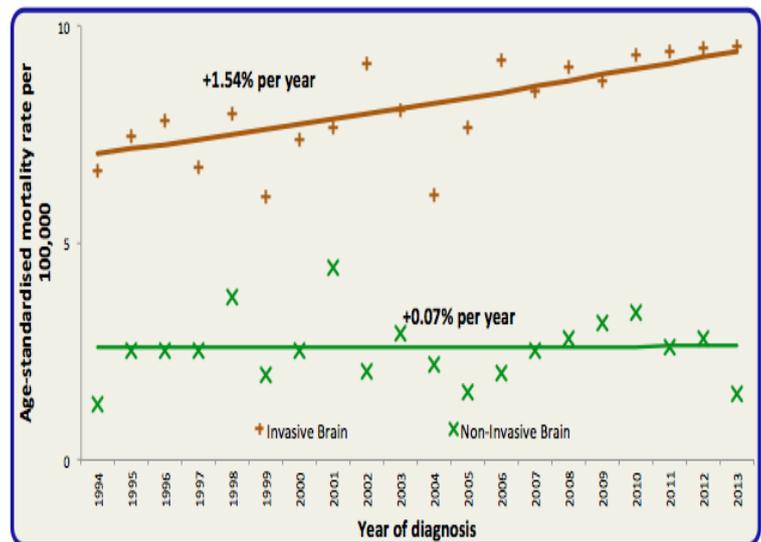
## MORTALITY

In 2009-2013 there were an average of 15 male and 12 female deaths from non-malignant brain and nervous system cancer each year. This contrasts with malignant brain cancer deaths during the same period where an average of 66 males and 43 females died each year.

### Mortality trends

The number of non-malignant brain cancer deaths has decreased from a total of 25 (14 in men and 11 in women) in 2003 to 22 (10 in men and 12 in women) in 2013. Numbers of malignant brain cancer deaths has increased from a total of 86 in 2003 (51 in men and 35 in women) to 113 (69 in men and 44 in women) in 2013. When adjusted for age and population change, mortality rates have remained stable in women whilst invasive brain mortality rates have increased by 1.5% each year since 1994.

Figure 4: Trends in male brain cancer mortality rates



## PREVALENCE

At the end of 2013 there were 2,610 people living in Northern Ireland who had been diagnosed with a form of brain or nervous system cancer. Of these people, 2,041 were living with non-malignant cancer whilst 569 were living with malignant cancer. Over one third of all adults living with a diagnosis of brain cancer in Northern Ireland are under the age of 50 and 9.1% had been diagnosed the previous year.

Table 7: Number of people of both genders living with brain and CNS cancer at the end of 2013 who were diagnosed from 1993-2013 divided into non-malignant and malignant subtypes

Type	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Non-malignant	0-69	82	442	362	560	1446
	70+	61	177	149	208	595
	All ages	143	619	511	768	2041
Malignant	0-69	76	119	125	186	506
	70+	18	11	10	24	63
	All ages	94	130	135	210	569

## FURTHER INFORMATION

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

### NI Cancer Registry

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
10	1,268	1278	3	302	305
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
-	81.2%	-	-	13,541	-

## INCIDENCE

In 2009-2013 there were 1,268 female patients diagnosed with breast cancer each year. The lifetime risk of developing a breast cancer was 1 in 11 for women.

### Incidence trends

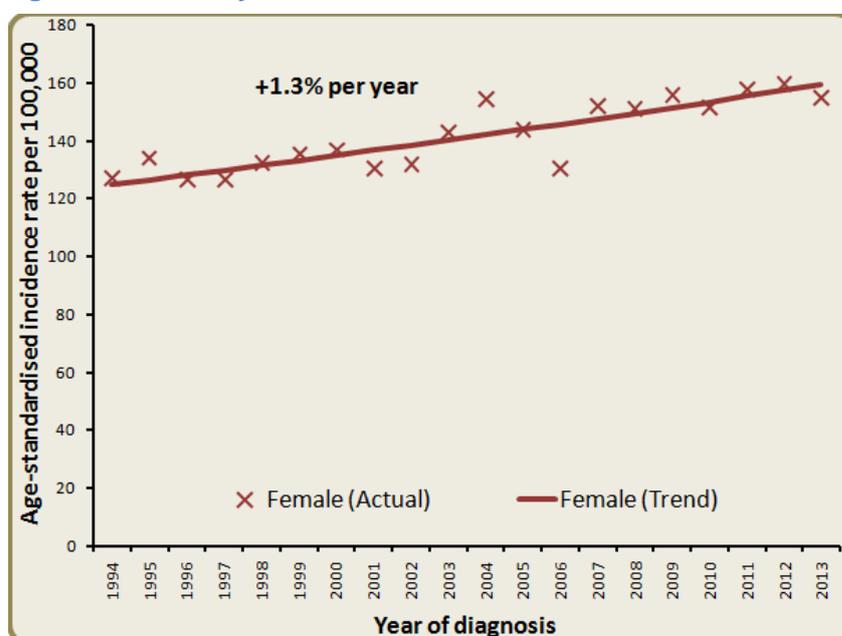
Table 1: Incidence of female breast cancer and year of diagnosis: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Female	1,137	1,079	990	1,166	1,179	1,227	1,217	1,287	1,316	1,294

Over the last ten years the number of breast cancers cases in women has increased from 1137 in 2004 to 1294 in 2013.

After accounting for the increasing number of older people in the NI population, breast cancer incidence rates in women have increased during 1993-2013 by an average of +1.3% per year.

Figure 1: Trends in female breast cancer incidence rates: 1993-2013



**Incidence and age**

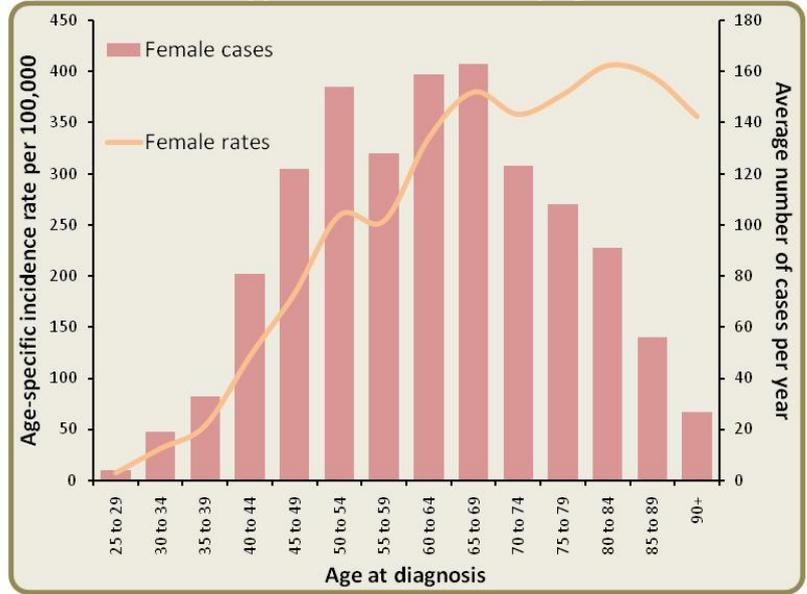
Breast cancer risk is strongly related to age with 80% of cases occurring in females over the age of 50 years and incidence rates greatest among women aged 80-89.

*Table 2: Average annual number of breast cancers diagnosed by age: 2009-2013*

Age	Female
0 to 49	259
50 to 64	441
65 to 74	286
75 and over	282
All ages	1,268

Due to rounding of yearly averages, 'All ages' may not equal the sum of age categories in tables.

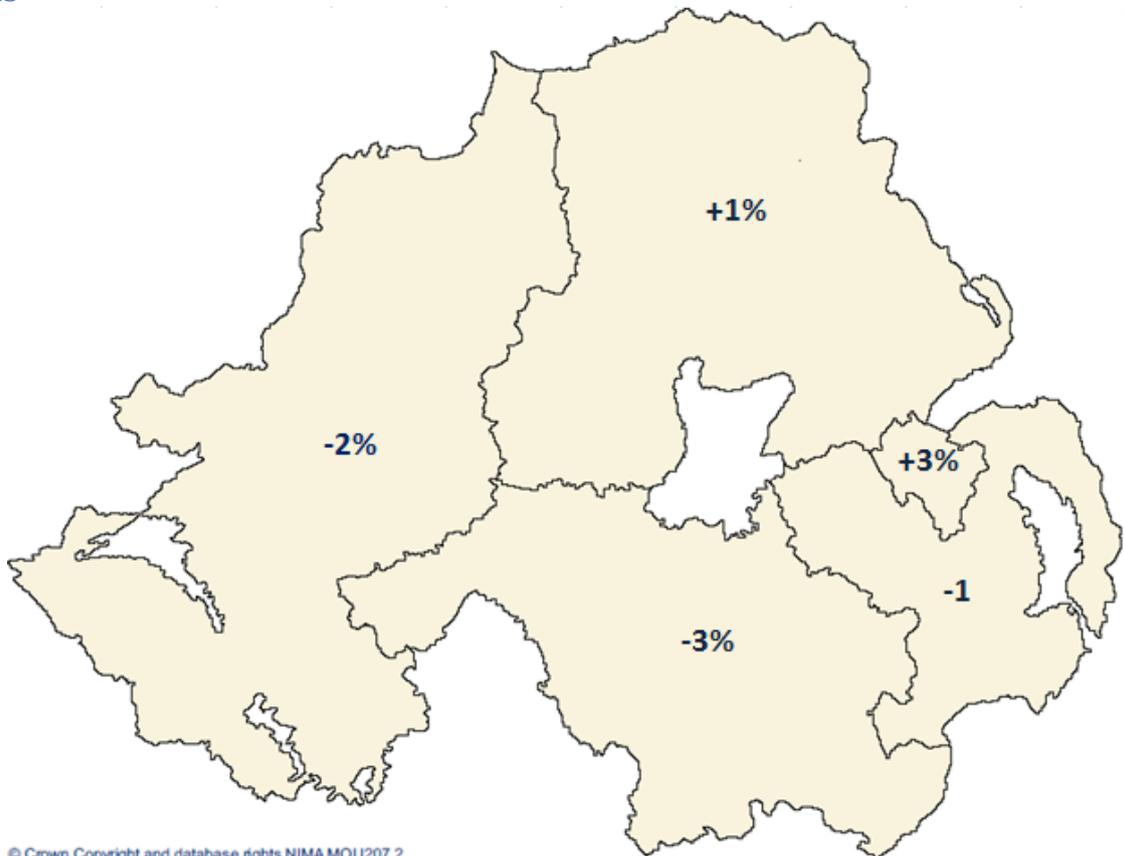
*Figure 2: Incidence of female breast cancer by age: 2009-2013*



**Incidence by Trust area**

Breast cancer incidence rates in 2009-2013 did not vary significantly across HSCT Trusts in Northern Ireland.

*Figure 3: Female breast cancer incidence rates compared to the NI average by sex and HSC Trust of residence: 2009-2013*



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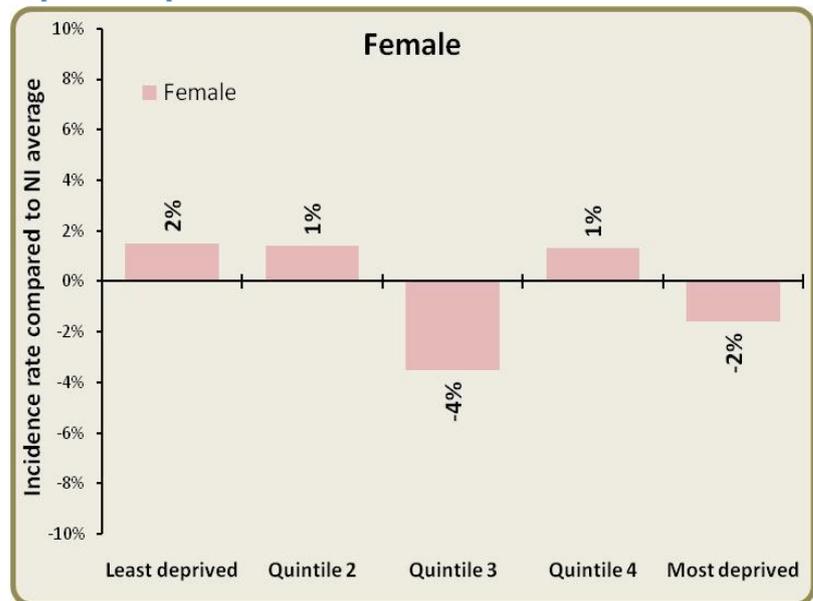
Significantly higher than average

Significantly lower than average

### Incidence by deprivation

While incidence of many cancers vary by socio economic deprivation, there is no evidence of this association for breast cancer incidence rates in Northern Ireland since 2009.

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

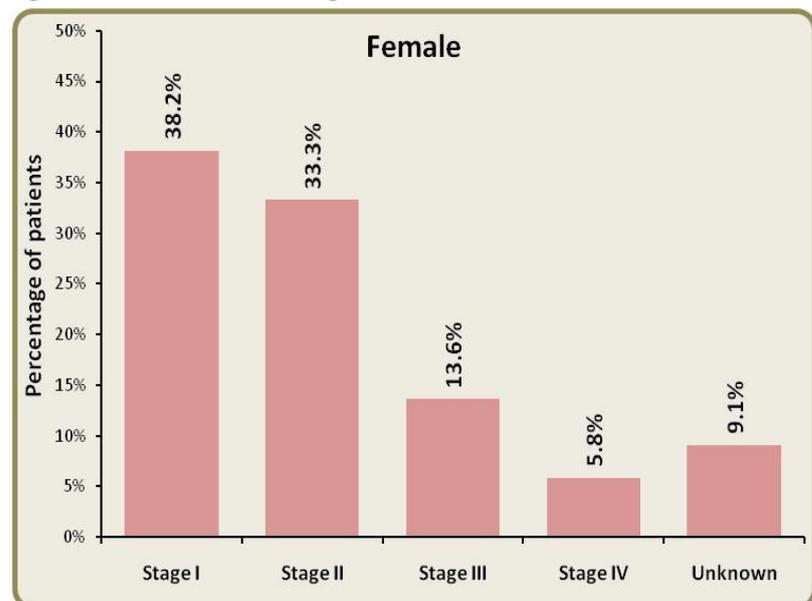


### Incidence by stage

Cancer stage is a way of describing the size of a cancer and how far it has grown and spread. This information is important in helping decide what treatments are needed and stage of disease at diagnosis is strongly associated with survival.

In 2009-2013 over 90% of female breast cancer patients in Northern Ireland were assigned a stage at diagnosis.

*Figure 5: Breast cancer stage distribution: 2009-2013*



The majority of breast cancer patients were diagnosed at Stage I (38.2%) and Stage II (33.3%) with 5.8% diagnosed at stage IV.

## SURVIVAL

The net survival for women with breast cancer was 94.2% at one year, and 81.2% at five years for patients diagnosed in 2004 to 2008.

*Table 3: Five-year female breast cancer survival by survival time: patients diagnosed 2004-2008*

Time since diagnosis	Diagnosed 2004-2008
	Female
6 months	95.8%
1 year	94.2%
5 years	81.2%

### Survival by age

Breast cancer survival varies depending upon age at diagnosis with five-year survival ranging from 88.6% for those aged 15-54 to 70.1% for those aged 75 and over.

*Table 4: Survival from breast cancer by age at diagnosis: patients diagnosed 2004-2008*

Age (years)	6 months	One year	Five years
15 to 54	99.1%	98.2%	88.6%
55 to 64	98.7%	98.2%	88.7%
65 to 74	96.2%	95.2%	81.3%
75 and over	91.0%	87.6%	70.1%

### Survival Trends

Five-year survival for breast cancer in women has improved over time with survival increasing from 74.5% in the 1993-1998 diagnosis period to 81.2% in the 2004-2008 diagnosis period.

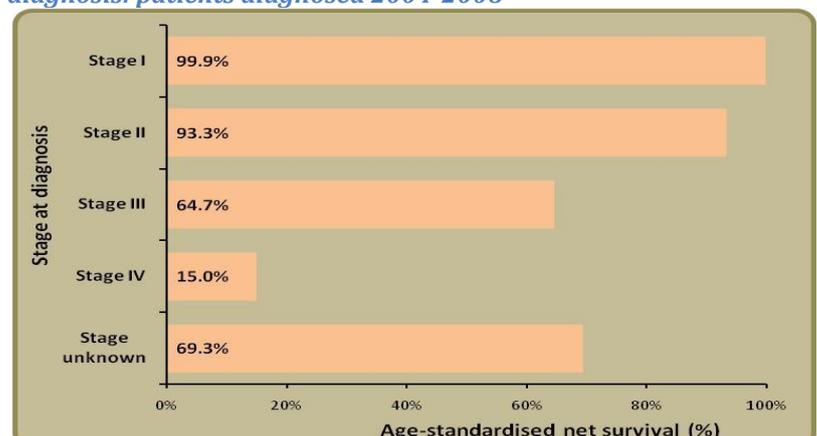
*Table 5: Five-year breast cancer survival by period of diagnosis*

Period of diagnosis	Female
1993-1998	74.5%
1999-2003	77.8%
2004-2008	81.2%

### Survival and stage

Stage at diagnosis is one of the most important factors in breast cancer survival with five year survival decreasing as stage at diagnosis increases. Five-year survival ranged from 99.9% for early (stage I) disease to 15.0% for late (stage IV) disease highlighting the importance of early diagnosis.

*Figure 6: Five year survival from breast cancer by stage of diagnosis: patients diagnosed 2004-2008*



## MORTALITY

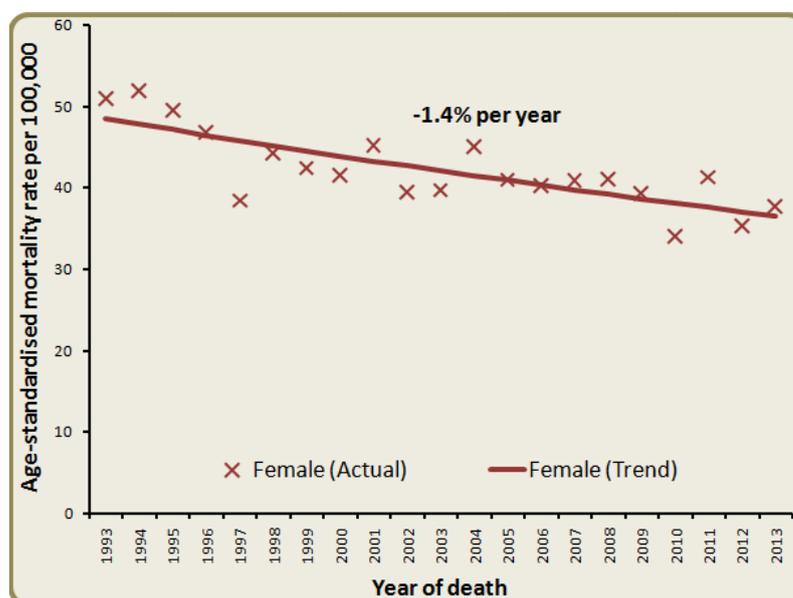
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2009-2013 there were 302 female deaths from breast cancer each year.

### Mortality trends

Over the last ten years the number of breast cancer deaths has not changed from 324 among women in 2004 to 313 among women in 2013.

When adjusted for age and population change, female breast cancer mortality rates decreased by -1.4% per year during 1993-2013.

Figure 7: Trends in female breast cancer mortality rates: 1993-2013



## PREVALENCE

At the end of 2013 there were 13,541 people living in NI who had been diagnosed with breast cancer from 1993-2013 (Table 6). Of these, 38.9% were aged 70 and over and 8.7% had been diagnosed in the previous year.

Table 6: Number of people living with breast cancer at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Female	0-69	812	2,734	2,403	2,324	8,273
	70+	363	1,422	1,280	2,203	5,268
	All ages	1,175	4,156	3,683	4,527	13,541

## FURTHER INFORMATION

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

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



# CERVICAL CANCER



This document contains statistical information about cervical cancer and carcinoma in situ. Carcinoma in situ can be found during cervical screening tests and is when some of the cells within the surface layer of the cervix have cancerous changes. Information about cervical cancer is displayed in purple whilst information about cervical carcinoma in situ is displayed in red.

NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
0	103	-	0	22	-
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
-	66.4%	-	0	1,277	-

NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
0	1,335	-	0	0	-
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
-	-	-	0	18,932	-

## INCIDENCE

Between 2009 and 2013, there were an average of 103 female patients diagnosed with cervical cancer each year in Northern Ireland. The probability that a female will develop cervical cancer before the age of 75 is approximately 1 in 128. This compares with an average of 1,335 cases of cervical carcinoma in situ each year with lifetime probability of being diagnosed less than 1 in 10.

### Incidence trends

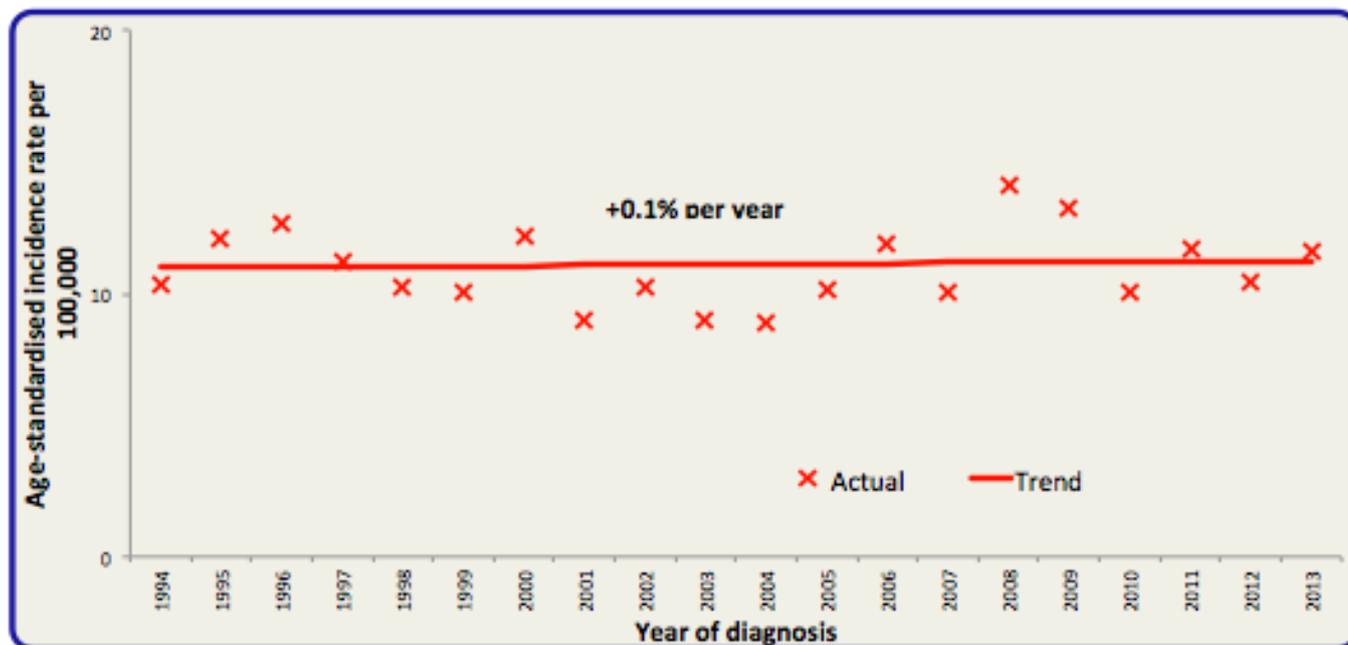
*Table 1: Incidence of cervical cancer and carcinoma in situ cervical cancer by year of diagnosis: 2004-2013*

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cervical Cancer	74	88	103	88	127	119	90	106	95	104
Cervical carcinoma in situ	798	861	1003	1045	1282	1730	1439	1260	1148	1096

Over a ten-year period the number of cervical cancer cases increased from 74 in 2004 to 104 in 2013. Similarly, the number of cervical carcinoma in situ cancers diagnosed has increased, reaching a peak in 2009 before beginning to decline. After accounting for population changes, cervical cancer incidence has remained stable (figure 1) whilst incidence of cervical carcinoma in situ cancer has increased by an

average of approximately 3.7% each year. It is possible that higher uptake of screening services has at least partially accounted for such a dramatic rise in incidence of in situ cervical carcinoma.

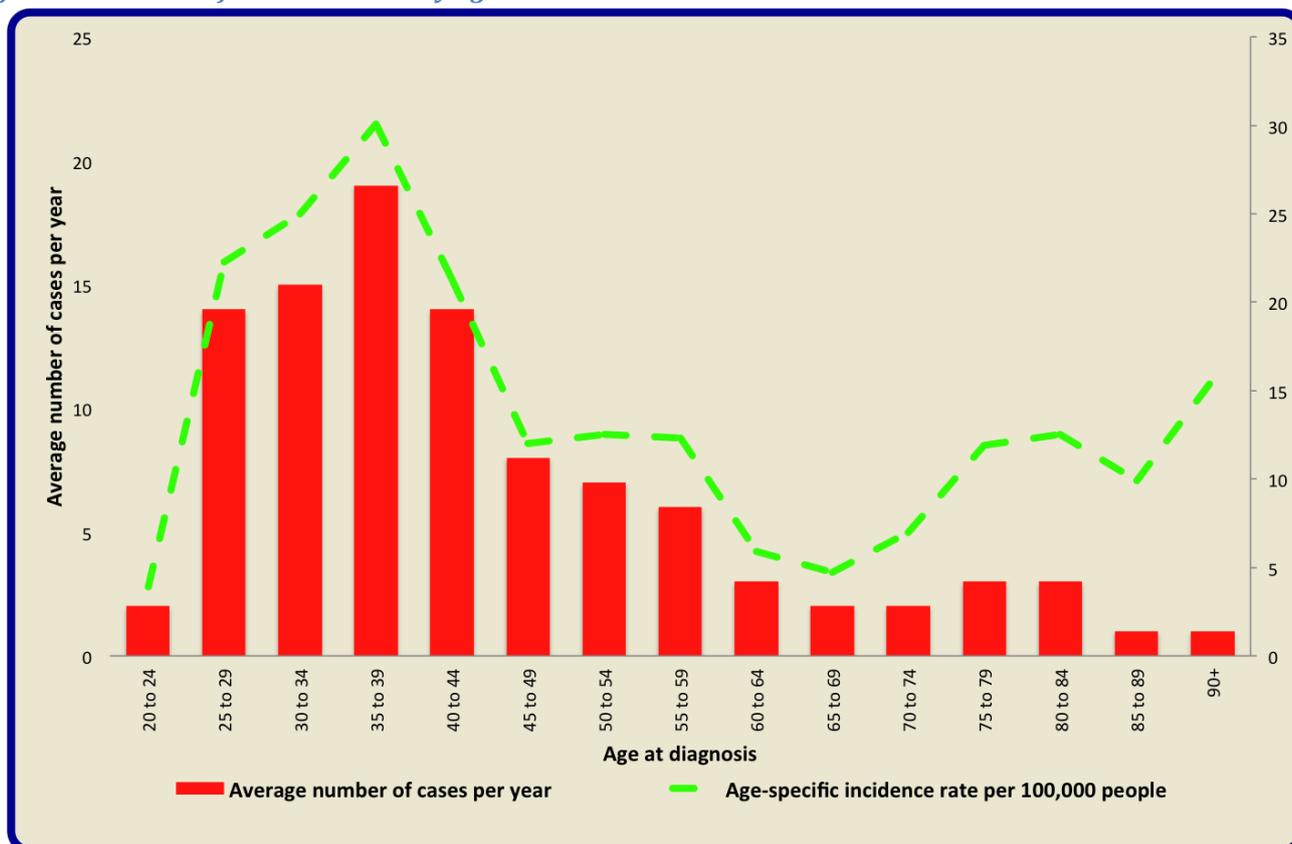
Figure 1: Trends in cervical cancer incidence rates: 1993-2013



### Incidence and age

During 2009-2013, 80% of patients were diagnosed with cervical cancer between the ages of 25 and 59. Incidence rates are highest among women aged 35-39. Over 95% of women were diagnosed with cervical carcinoma in situ between the ages of 20 and 49. Peak age of incidence occurred among women aged 25-29.

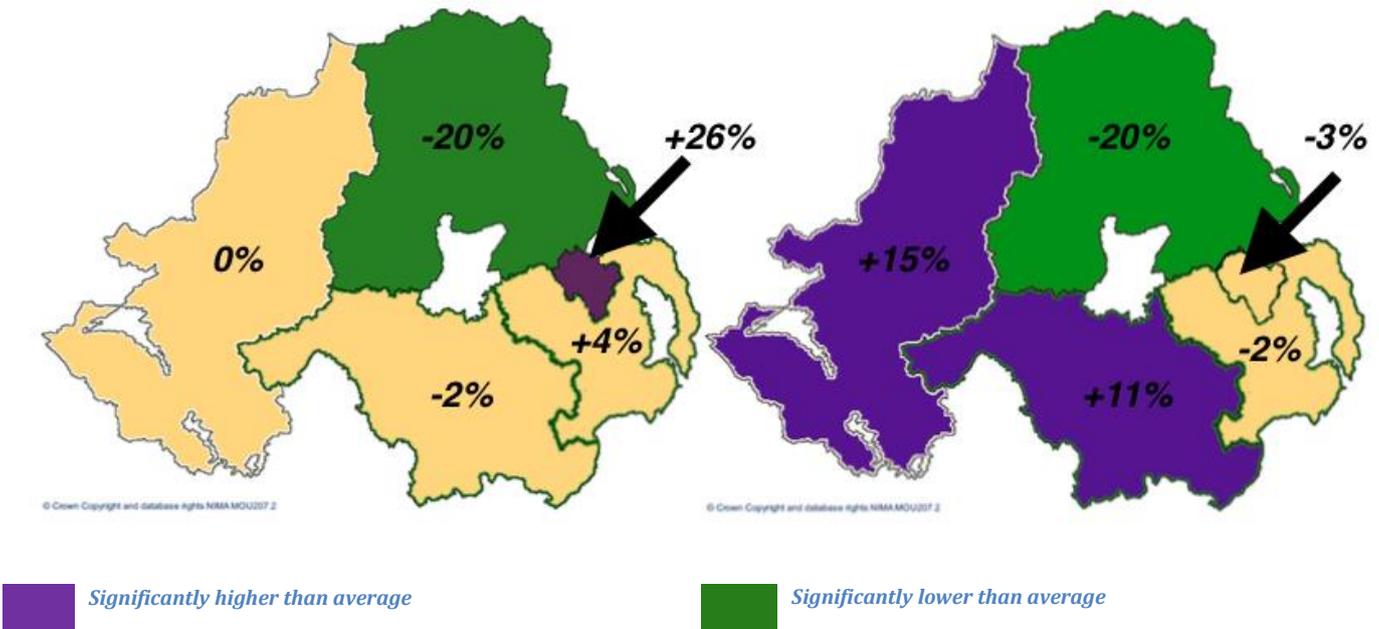
Figure 2: Incidence of cervical cancer by age: 2009-2013



### Incidence by Trust area

Cervical cancer incidence rates in 2009-2013 were 26% higher than the NI average among women living within the Belfast HSC area and 20% lower among women living in the Northern trust area. Cervical carcinoma in situ rates were lower in the Northern trust area when compared with NI average (-20%) but higher than the NI average in both the Southern and Western trusts (+11% and +15% higher, respectively).

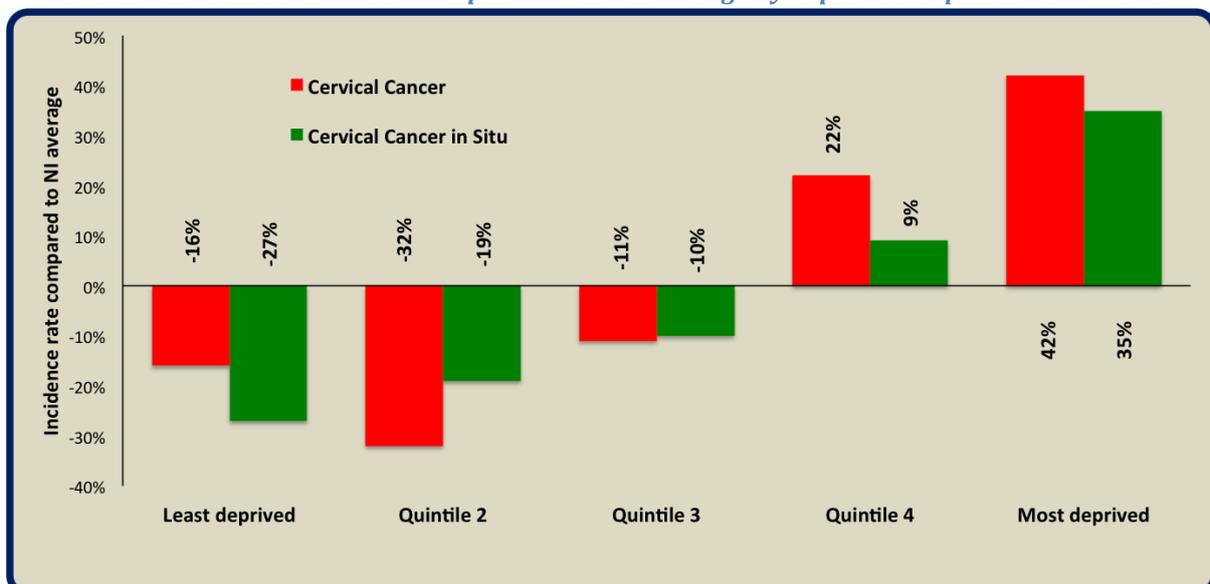
Figure 3: Cervical cancer and cervical carcinoma in situ incidence rates compared to the NI average by HSC Trust of residence: 2009-2013 comparison (cervical cancer map on left; carcinoma in situ on right)



### Incidence by deprivation

Cervical cancer and cervical carcinoma in situ incidence is highest within the most deprived communities in Northern Ireland with cervical cancer incidence rates 42% above NI average and cervical carcinoma in situ rates 35% above NI average.

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



### Incidence by stage

In 2009-2013, over 95% of patients with cervical cancer were assigned a stage at diagnosis. The majority of cervical cancer patients were diagnosed at stage I (55%). The next most common stage to be diagnosed at was stage III (17%). Cervical carcinoma in situ is a distinct early stage of cervical cancer that precedes stage I. Therefore; diagnosis of cervical carcinoma in situ confers a good prognosis.

## SURVIVAL

Net survival for women diagnosed with cervical cancer between 2004-2008 was 83.2% at one year and 66.4% at five years. Survival statistics are not applicable to cervical carcinoma in situ.

*Table 2: Five-year cervical cancer survival by survival time: patients diagnosed 2004-2008*

Time since diagnosis	Diagnosed 2004-2008	
	Female	
6 months	90.7%	
1 year	83.2%	
5 years	66.4%	

### Survival Trends

Five-year survival for cervical cancer in Northern Ireland has increased from 56.3% in the 1993-1998-diagnosis period to 66.4% in the 2004-2008-diagnosis period.

*Table 3: Five-year cervical cancer survival by period of diagnosis*

Period of diagnosis	Female
1993-1998	56.3%
1999-2003	59.4%
2004-2008	66.4%

### Survival and stage

Five-year survival for patients diagnosed with cervical cancer in 2001-2008 ranged from 94.8% for early (stage I) disease to 11.8% for late (stage IV) disease, thus highlighting the importance of an early diagnosis.

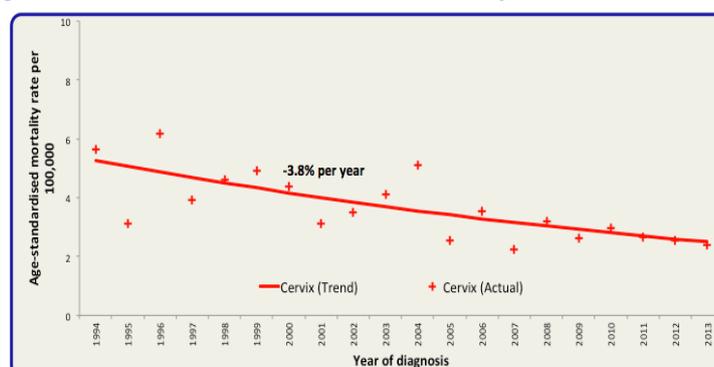
## MORTALITY

In 2009-2013 there were an average of 22 deaths from cervical cancer each year.

### Mortality trends

After adjusting for age and population change, cervical cancer mortality rates decreased by approximately 3.8% each year during the previous twenty year time period.

Figure 5: Trends in cervical cancer mortality rates: 1993-2013



## PREVALENCE

At the end of 2013 there were 1,277 women living in Northern Ireland who had been diagnosed with cervical cancer from 1993-2013 (table 4). Of these, 56.8% were under the age of 50 and 7.8% had been diagnosed in the previous year.

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

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Female	0-69	90	326	329	406	1151
	70+	10	19	21	76	126
	All ages	100	345	350	482	1277

At the end of 2013 there were 18,932 women living in Northern Ireland who had been diagnosed with cervical carcinoma in situ from 1993-2013 (table 5). Of these, 84% were under the age of 50 and 6% had been diagnosed in the previous year.

Table 5: Number of people living with cervical carcinoma in situ at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Female	0-69	1091	5552	4907	7129	18679
	70+	5	8	23	217	253
	All ages	1096	5560	4930	7346	18932

## FURTHER INFORMATION

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

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
670	526	1,196	229	192	422
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
54.2%	55.8%	54.9%	4,163	3,601	7,764

## INCIDENCE

In 2009-2013 there were 670 male and 526 female patients diagnosed with colorectal cancer each year. The lifetime risk of developing a colorectal cancer was 1 in 19 for men and 1 in 31 for women.

### Incidence trends

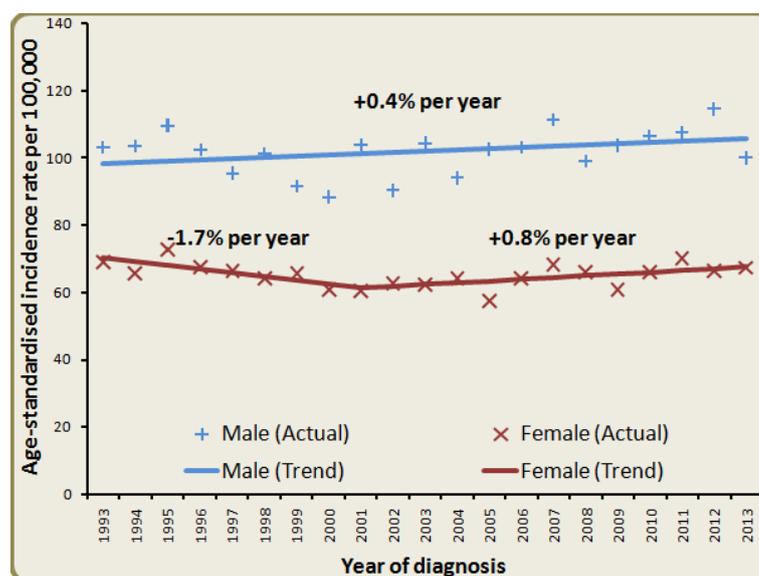
Table 1: Incidence of colorectal cancer by sex and year of diagnosis: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Male	512	570	570	641	589	606	654	680	742	668
Female	457	414	471	511	502	469	513	552	538	558
Both sexes	969	984	1,041	1,152	1,091	1,075	1,167	1,232	1,280	1,226

Over a ten year period the number of colorectal cancer cases increased from 512 among men and 457 among women in 2004 to 668 among men and 558 among women in 2013.

After accounting for the increasing number of older people in the NI population, colorectal cancer incidence rates among males during 1993-2013 have remained constant. While female incidence rates decreased by -1.7% per year from 1993-2001, they have been increasing from 2001-2013 by +0.8% per year.

Figure 1: Trends in colorectal cancer incidence rates by sex: 1993-2013



**Incidence and age**

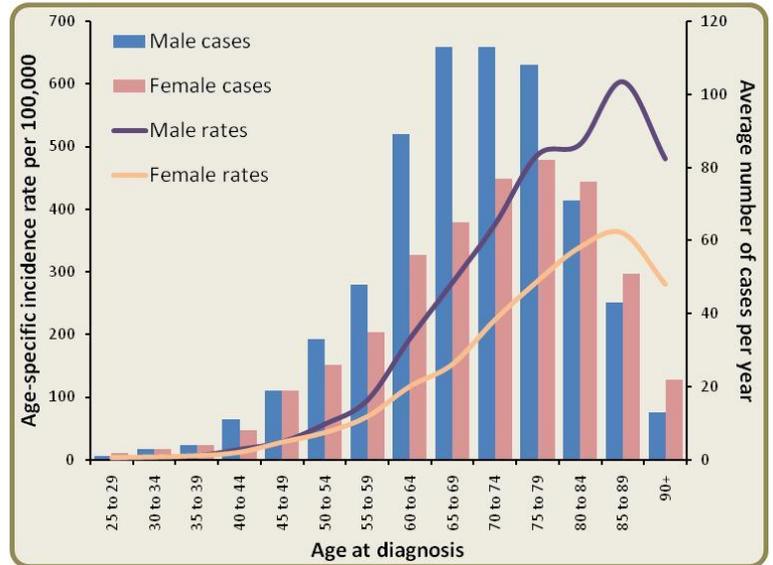
Colorectal cancer risk is strongly related to age with almost 70% of patients diagnosed over the age of 65 years. Incidence rates are highest among men and women aged 85-89.

*Table 2: Average annual number of colorectal cancers diagnosed by sex and age: 2009-2013*

Age	Male	Female	Total
0 to 49	39	37	74
50 to 64	170	117	286
65 to 74	226	142	368
75 and over	235	231	465
All ages	670	526	1,196

Due to rounding of yearly averages, 'All ages' may not equal the sum of age categories in tables.

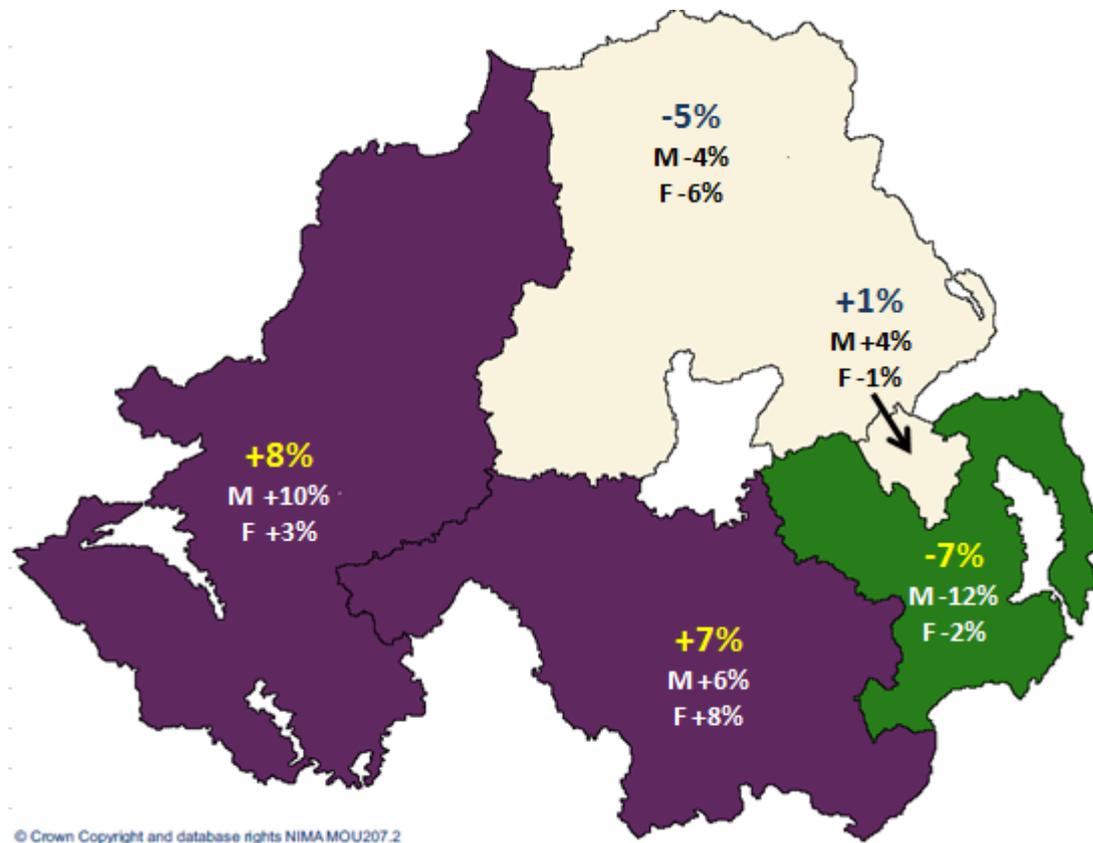
*Figure 2: Incidence of colorectal cancer by age and sex: 2009-2013*



**Incidence by Trust area**

Colorectal cancer incidence rates in 2009-2013 were 7% and 8% higher than the NI average among people living within the Southern and Western HSCT areas, respectively. Incidence rates were lower than the NI average in the South-Eastern Trust area, particularly for men.

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



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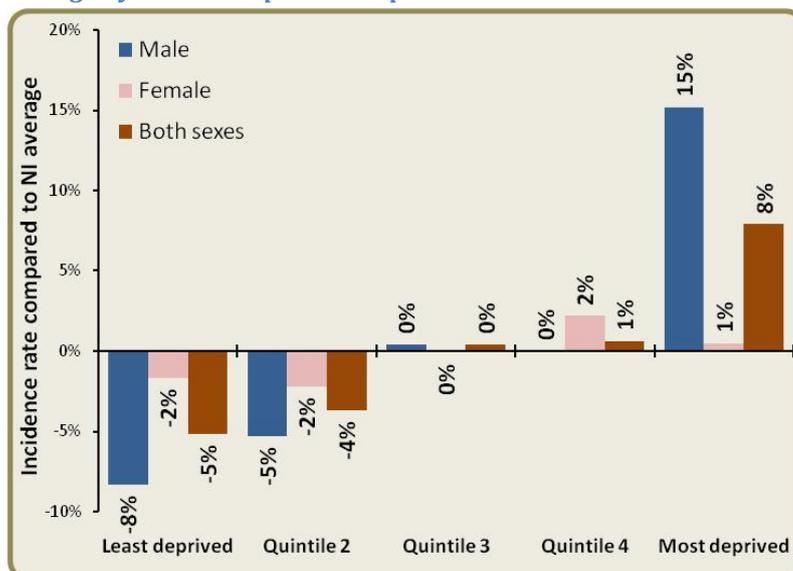
**Significantly higher than average**

**Significantly lower than average**

### Incidence by deprivation

Colorectal cancer incidence rates are associated with socio-economic deprivation with incidence rates increasing with levels of deprivation. This pattern is particularly marked for male colorectal cancer with incidence 15% higher in the most deprived communities than the NI average and 8% lower in the least deprived areas compared to NI as a whole.

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

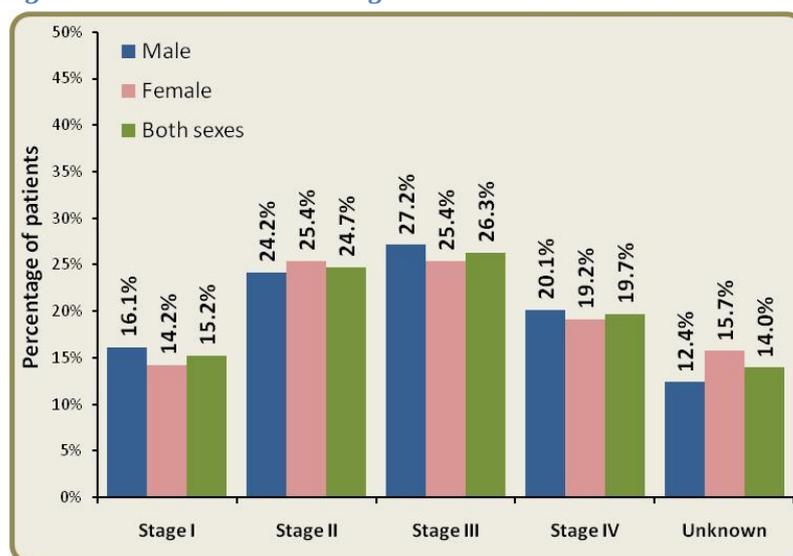


### Incidence by stage

Cancer stage is a way of describing the size of a cancer and how far it has grown and spread. This information is important in helping decide what treatments are needed and stage of disease at diagnosis is strongly associated with cancer survival.

In 2009-2013 over four fifths (86.0%) of colorectal cancer patients in Northern Ireland were assigned a stage at diagnosis.

Figure 5: Colorectal cancer stage distribution: 2009-2013



A significant proportion of colorectal cancer patients were diagnosed at a later stages with 26.3% at stage III and 19.7% at stage IV, compared to 15.2% at stage I. There were no significant differences in stage distribution between males and females.

## SURVIVAL

The net survival was 76.4% at one year, and 54.9% at five years for colorectal cancer patients diagnosed in 2004 to 2008.

*Table 3: Five-year colorectal cancer survival by survival time and sex: patients diagnosed 2004-2008*

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	83.7%	82.1%	82.9%
1 year	77.5%	74.9%	76.4%
5 years	54.2%	55.8%	54.9%

### Survival by age

Colorectal cancer survival varies depending upon age at diagnosis with five-year survival ranging from 60.8% for those aged 15-54 to 47.6% for those aged 75 and over.

*Table 4: Survival from colorectal cancer by age at diagnosis: patients diagnosed 2004-2008*

Age (years)	6 months	One year	Five years
15 to 54	91.9%	86.4%	60.8%
55 to 64	89.3%	83.4%	57.6%
65 to 74	83.4%	77.2%	56.1%
75 and over	71.6%	63.4%	47.6%

### Survival Trends

Five-year survival for colorectal cancer has improved from the 1993-1998 diagnosis period to the 2004-2008 diagnosis period; increasing from 49.4% to 54.9%.

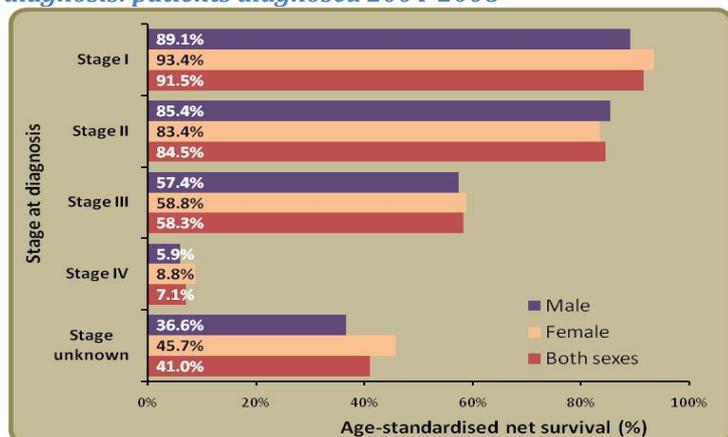
*Table 5: Five-year colorectal cancer survival by period of diagnosis and sex*

Period of	Male	Female	Both sexes
1993-1998	49.2%	49.9%	49.4%
1999-2003	50.6%	55.0%	52.9%
2004-2008	54.2%	55.8%	54.9%

### Survival and stage

Stage at diagnosis is one of the most important factors in colorectal cancer survival with five year survival decreasing as stage increases. Five-year survival ranged from 91.5% for early (stage I) disease to 7.1% for late (stage IV) disease highlighting the importance of early diagnosis.

*Figure 6: Five year survival from colorectal cancer by stage of diagnosis: patients diagnosed 2004-2008*



## MORTALITY

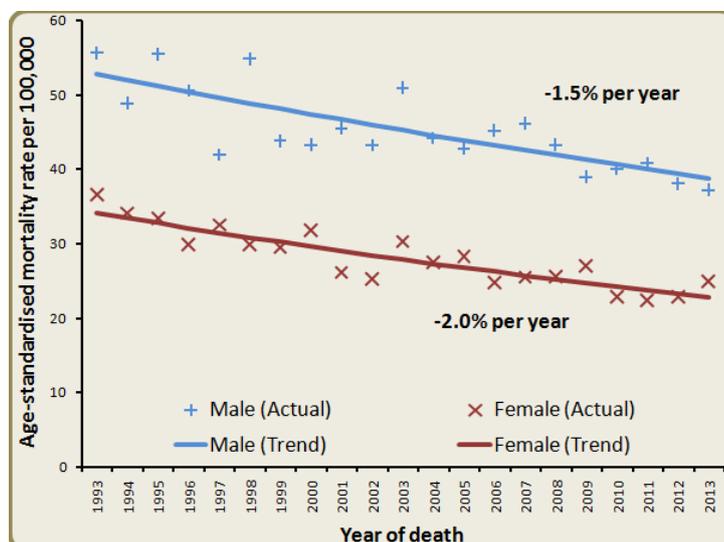
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2009-2013 there were 229 male and 192 female deaths from colorectal cancer each year.

### Mortality trends

Over the last ten years the number of colorectal cancer deaths has increased from 229 among men and 196 among women in 2004 to 230 among men and 207 among women in 2013.

When adjusted for age and population change, colorectal cancer mortality rates decreased for males by -1.5% per year during 1993-2013, and decreased by -2.0% per year for females.

Figure 7: Trends in colorectal cancer mortality rates by sex: 1993-2013



## PREVALENCE

At the end of 2013 there were 7,764 people living in NI who had been diagnosed with colorectal cancer from 1993-2013 (Table 6). Of these, 53.6% were male, 63.1% were aged 70 and over and 12.8% had been diagnosed in the previous year.

Table 6: Number of people living with colorectal cancer at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Male	0-69	276	705	390	234	1,605
	70+	276	833	655	794	2,558
	All ages	552	1,538	1,045	1,028	4,163
Female	0-69	201	508	286	264	1,259
	70+	245	680	589	828	2,342
	All ages	446	1,188	875	1,092	3,601
Both sexes	0-69	477	1,213	676	498	2,864
	70+	521	1,513	1,244	1,622	4,900
	All ages	998	2,726	1,920	2,120	7,764

## OTHER INFORMATION

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

### NI Cancer Registry

Phone: +44 (0)28 9063 2573  
e-mail: [nicr@qub.ac.uk](mailto:nicr@qub.ac.uk)



## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
173	115	288	63	42	105
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
55.0%	51.4%	53.3%	1056	756	1,812

## INCIDENCE

Between 2009 and 2013 there were an average of 173 males and 115 females diagnosed with kidney cancer each year in Northern Ireland. The probability that a male will develop kidney cancer before the age of 75 is approximately 1 in 74 whilst the probability that a female will develop malignant melanoma before the age of 75 is 1 in 124.

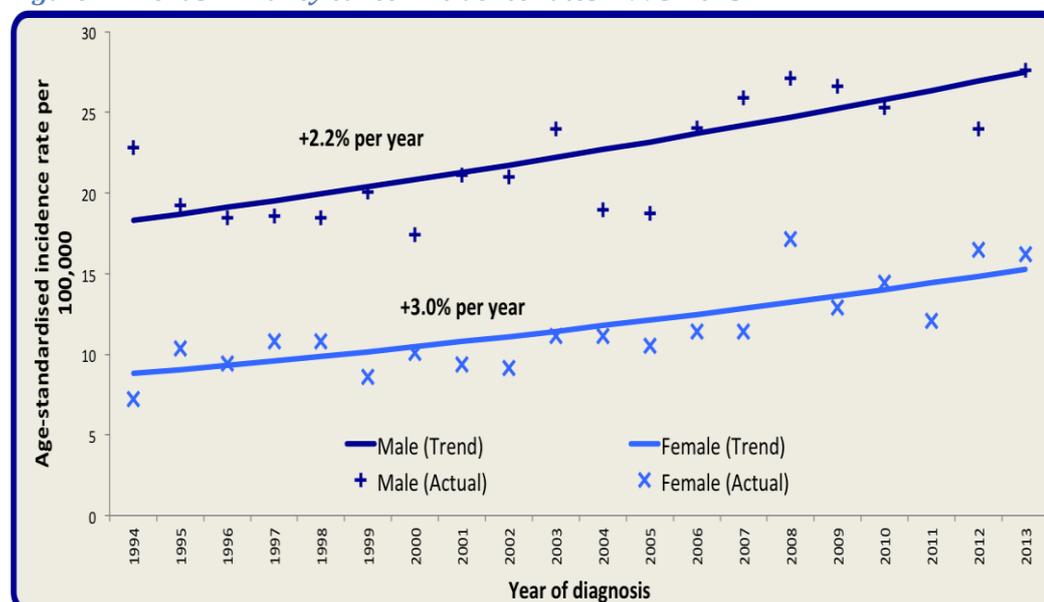
### Incidence trends

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	110	105	137	156	167	160	160	192	163	189
Females	81	77	83	85	131	98	113	95	135	135
Both	191	182	220	241	298	258	273	287	298	324

Over a ten-year period the number of kidney cancer cases has increased in males and females from 191 in 2004 to 324 in 2013. After accounting for our ageing population, there has been a 2.2% increase in yearly incidence of kidney cancer in males and a 3.0% yearly increase in incidence of kidney cancer in females.

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

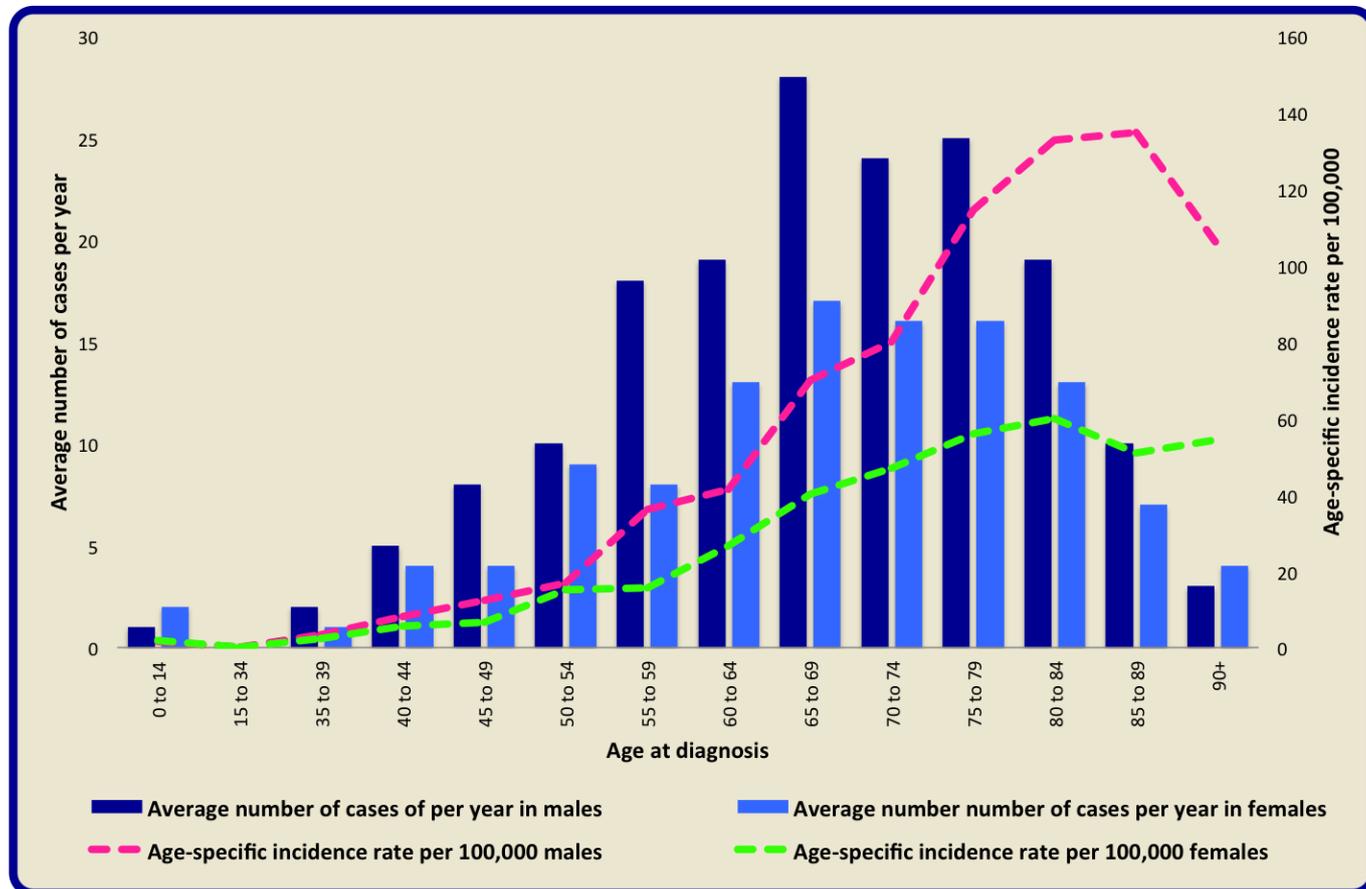


This is likely at least partly due to an increase in incidental diagnosis of early-stage disease during abdominal imaging.

### Incidence and age

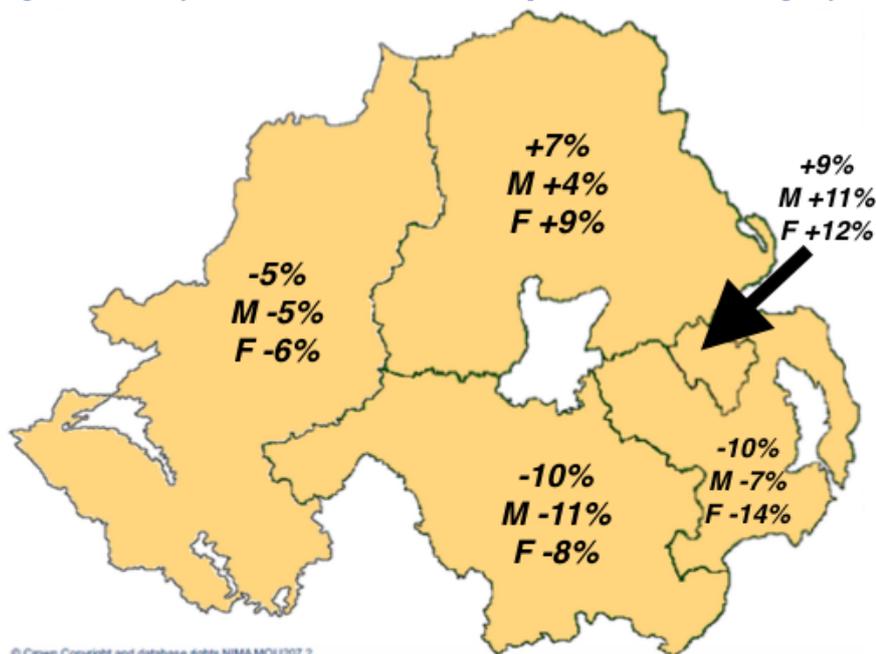
With the exception of people aged 0-49 years, kidney cancer incidence rates increased among all age groups for both males and females during 1993-2013.

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



### Incidence by Trust area

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



There were no statistically significant differences in kidney cancer incidence rates between health and social care trusts between 2009 and 2013.

Incidence of kidney cancer was not statistically significantly lower in males or females across any of the six trusts.

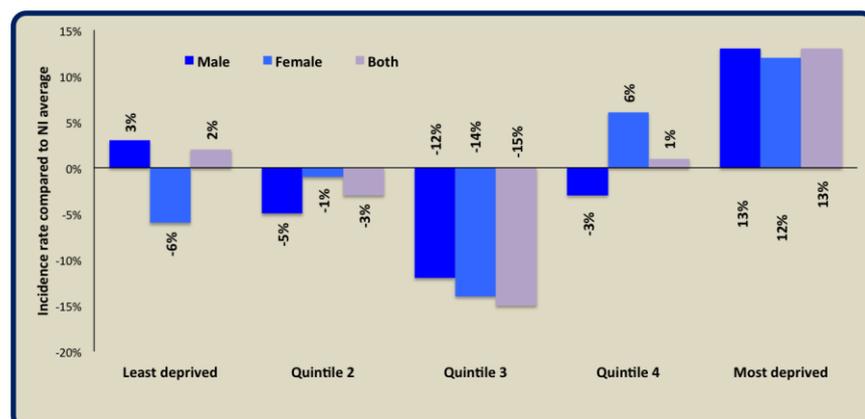
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Significantly higher than average

Significantly lower than average

## Incidence by deprivation

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

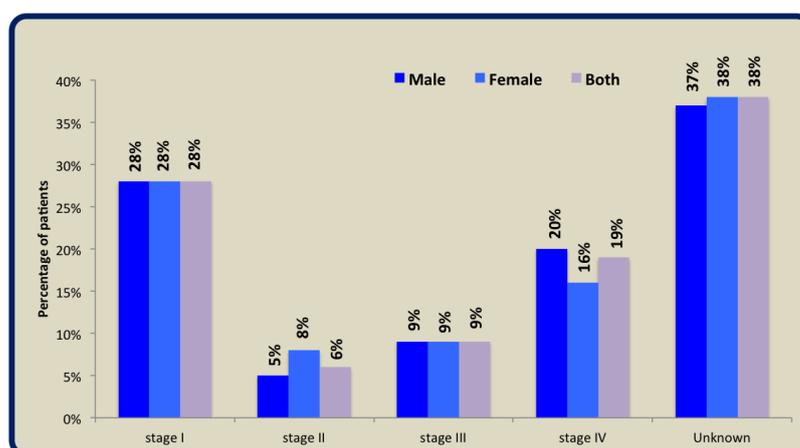


Incidence of kidney cancer is not strongly linked with socioeconomic deprivation in Northern Ireland. Cancer incidence rates are lower than NI average in those who are classified as living in quintile 3 communities and higher in the most deprived communities.

## Incidence by stage

Approximately 62.5% of patients were assigned a stage at diagnosis. The majority of patients staged were diagnosed with stage I kidney cancer (28%). The second most common stage to be diagnosed at was stage IV (19%) suggesting that a large number of kidney cancers are diagnosed late.

Figure 5: Kidney cancer stage distribution: 2009-2013



## SURVIVAL

The age-standardised survival for men diagnosed with kidney cancer between 2004-2008 was 55.0% at five years. The age-standardised survival for women during the same time period was 51.4%.

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

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	81.1%	78.6%	80.0%
1 year	73.8%	70.5%	72.3%
5 years	55.0%	51.4%	53.3%

## Survival Trends

Five-year survival for kidney cancer in Northern Ireland has improved from the 1993-1998-diagnosis period to the 2004-2008-diagnosis period in both males and females with men experiencing the largest improvement (see table 3).

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

Period of diagnosis	Male	Female	Both sexes
1993-1998	47.3%	50.4%	48.8%
1999-2003	45.9%	49.7%	47.5%
2004-2008	55.0%	51.4%	53.3%

## MORTALITY

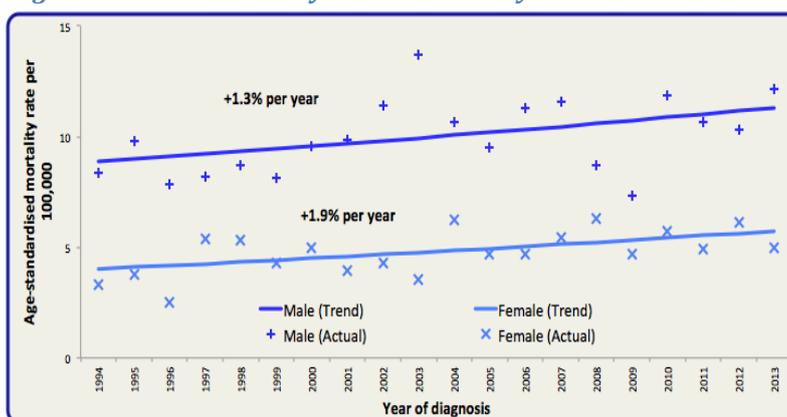
In 2009-2013 there were an average of 63 male and 43 female deaths from kidney cancer each year.

### Mortality trends

After adjusting for our ageing population, the male kidney cancer mortality rate has increased over the previous twenty years, increasing by 1.3% per year.

Female mortality rates have also increased by approximately 1.9% per year during the previous twenty-year period.

Figure 6: Trends in kidney cancer mortality rates: 1993-2013



## PREVALENCE

At the end of 2013 there were a total of 1812 people living in NI with a diagnosis of kidney cancer of which 58% were male, 15% had been diagnosed in the previous year, and 51% were over the age of 70.

Table 4: Number of people living with kidney 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	81	229	123	100	533
	70+	73	168	146	136	523
	All ages	154	397	269	236	1056
Female	0-69	60	137	82	82	361
	70+	57	127	93	118	395
	All ages	117	264	175	200	756
Both	0-69	141	366	205	182	894
	70+	130	295	239	254	918
	All ages	271	661	444	436	1812

## FURTHER INFORMATION

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

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



## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
649	484	1134 <sup>1</sup>	542	384	926

FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
9.6%	11.7%	10.4%	1001	899	1900

## INCIDENCE

In 2009-2013 there were 649 male and 484 female patients diagnosed with lung cancer each year. The lifetime risk of developing a lung cancer was 1 in 20 for men and 1 in 30 for women.

### Incidence trends

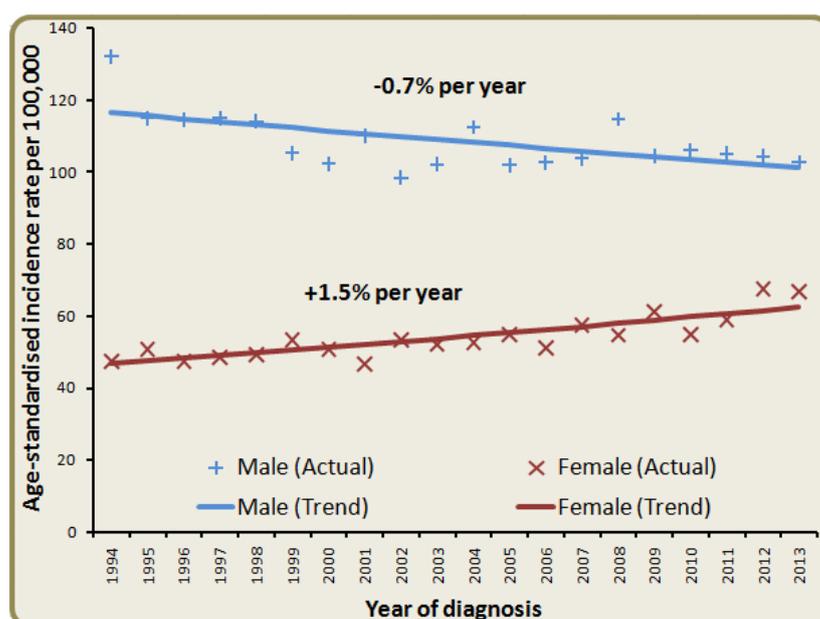
Table 1: Incidence of lung cancer by sex and year of diagnosis: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Male	592	558	574	602	653	620	642	657	655	673
Female	374	396	369	423	409	462	423	464	534	539
Both sexes	966	954	943	1,025	1,062	1,082	1,065	1,121	1,189	1,212

Over a ten year period the number of lung cancer cases increased from 592 among men and 374 among women in 2004 to 673 among men and 539 among women in 2013.

After accounting for the increasing number of older people in the NI population, lung cancer incidence rates decreased among males during 1993-2013 by an average of 0.7% per year. However for the same period, female incidence rates increased by an average of 1.5% per year. These patterns reflect historic smoking trends, (the most important risk factor for lung cancer), with decreasing rates of smoking among males and increasing rates among females influencing recent trends.

Figure 1: Trends in lung cancer incidence rates by sex: 1993-2013



<sup>1</sup> Mean yearly incidence data for period 2009-2013 has been rounded to nearest integer, and thus some numbers in tables will not add to give the exact total.

### Incidence and age

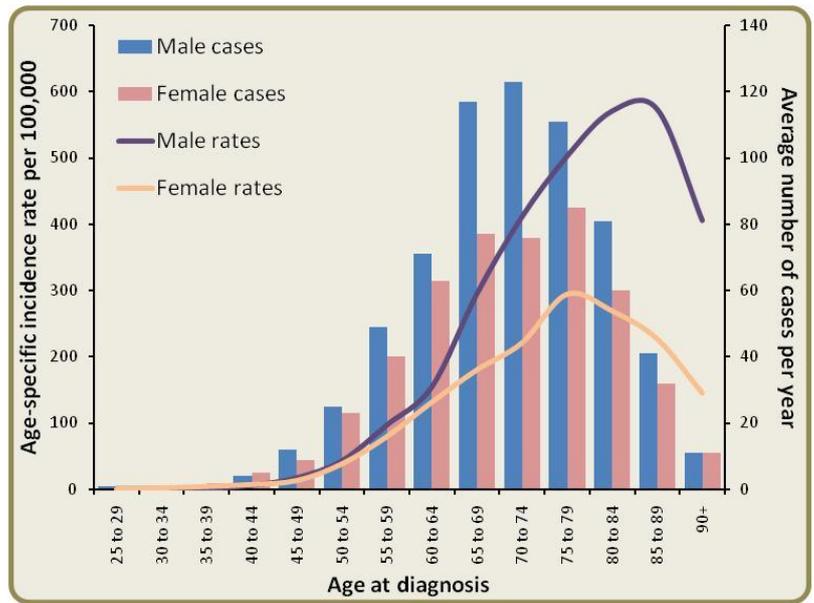
Lung cancer risk is strongly related to age with 73% of patients diagnosed over the age of 65 years. Incidence rates are highest among men aged 80-89 and among women aged 75-79.

**Table 2: Average number of lung cancers diagnosed per year by sex and age: 2009-2013**

Age	Male	Female	Total
0 to 49	19	17	36
50 to 64	145	126	271
65 to 74	240	153	395
75 and over	244	188	432
All ages	649	484	1,134

Due to rounding of yearly averages, 'All ages' may not equal the sum of age categories in tables.

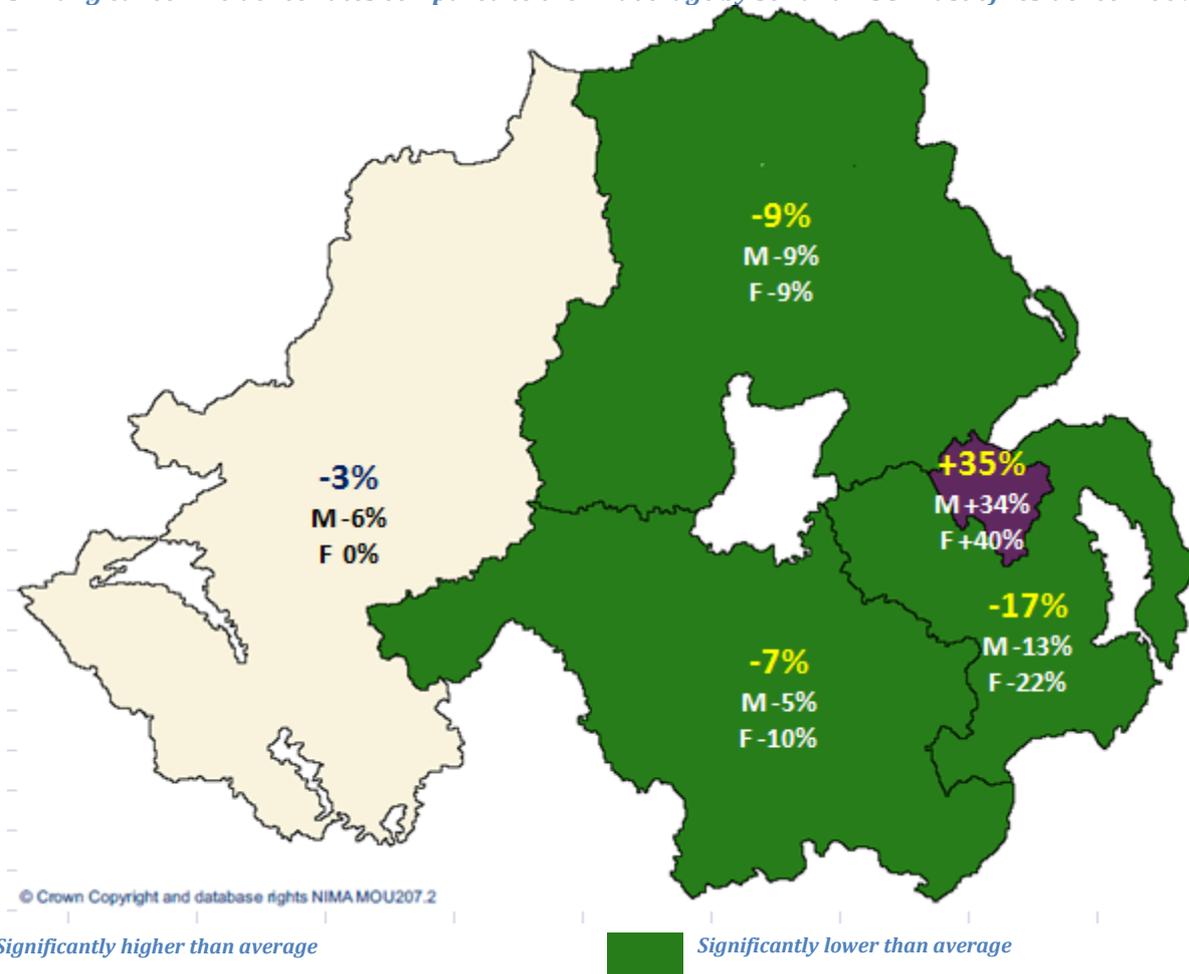
**Figure 2: Incidence of lung cancer by age and sex: 2009-2013**



### Incidence by Trust area

Lung cancer incidence rates in 2009-2013 were 35% higher than the NI average among people living within the Belfast HSC area. Incidence rates were lower than the NI average in the Northern, Southern, and South-Eastern Trust areas.

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

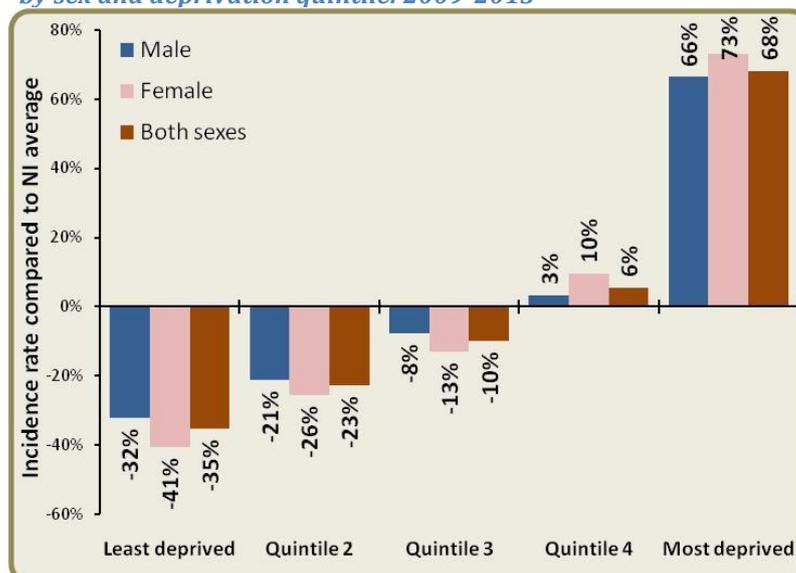


### Incidence by deprivation

Lung cancer incidence is higher among the most deprived communities in Northern Ireland. This likely relates to higher smoking prevalence in these areas.

It is estimated that 200 fewer men and 190 fewer women would be diagnosed each year in Northern Ireland if the lung cancer incidence rates (in years 2009-2013) in the least deprived regions applied to all Northern Ireland.

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



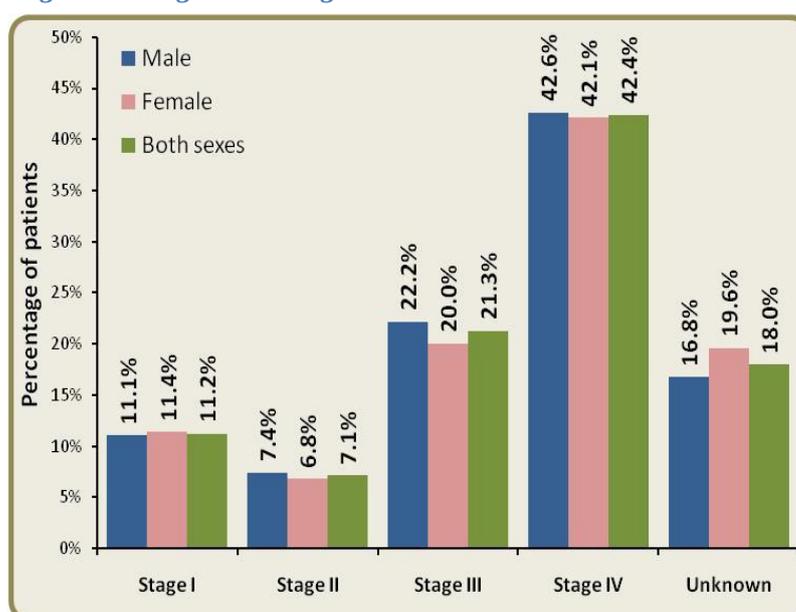
### Incidence by stage

Cancer stage is a way of describing the size of a cancer and how far it has grown and spread. This information is important in helping decide what treatments are needed and stage of disease at diagnosis is strongly associated with cancer survival.

In 2009-2013 over four fifths (82.0%) of lung cancer patients in Northern Ireland were assigned a stage at diagnosis.

The majority of lung cancer patients were diagnosed at a later stage with 42.4% (51.7% of staged disease) diagnosed at stage IV compared to 11.2% (13.7% of staged disease) at stage I. There was no significant

Figure 5: Lung cancer stage distribution: 2009-2013



difference in the distribution of stage at diagnosis between men and women.

## SURVIVAL

The net survival was 30.4% at one year, and 10.4% at five years for lung cancer patients diagnosed in 2004 to 2008.

*Table 3: Five-year lung cancer survival by survival time and sex: patients diagnosed 2004-2008*

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	45.2%	51.4%	47.6%
1 year	28.4%	33.6%	30.4%
5 years	9.6%	11.7%	10.4%

### Survival by age

Lung cancer survival varies depending upon age at diagnosis with five-year survival ranging from 16.2% for those aged 15-54 to 6.3% for those aged 75 and over.

*Table 4: Survival from lung cancer by age at diagnosis: patients diagnosed 2004-2008*

Age (years)	6 months	One year	Five years
15 to 54	61.6%	40.4%	16.2%
55 to 64	52.4%	33.4%	11.3%
65 to 74	45.9%	29.4%	10.0%
75 and over	36.4%	22.6%	6.3%

### Survival Trends

Five-year survival for lung cancer has improved from the 1993-1998 diagnosis period to the 2004-2008 diagnosis period; increasing for men from 7.4% to 9.6% and for women from 9.5% to 11.7%.

*Table 5: Five-year lung cancer survival by period of diagnosis and sex*

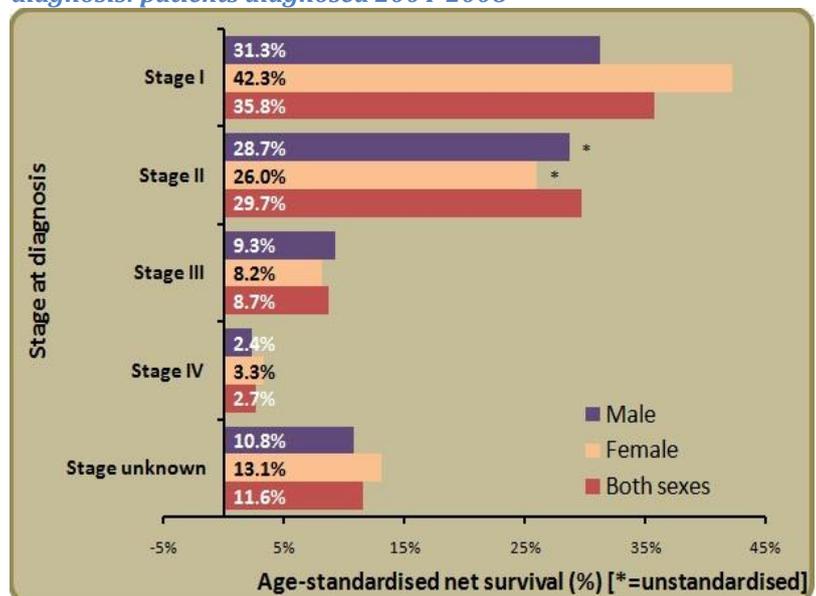
Period of diagnosis	Male	Female	Both sexes
1993-1998	7.4%	9.5%	8.2%
1999-2003	8.6%	10.1%	9.2%
2004-2008	9.6%	11.7%	10.4%

### Survival and stage

Stage at diagnosis is one of the most important factors in lung cancer survival with five year survival decreasing as stage increases. Five-year survival ranged from 35.8% for early (stage I) disease to 2.7% for late (stage IV) disease highlighting the importance of early diagnosis.

Differences in survival between males and females diagnosed with stage I lung cancer is also apparent with 31.3% of males surviving five years compared to 42.3% of females.

*Figure 6: Five year survival from lung cancer by stage of diagnosis: patients diagnosed 2004-2008*



## MORTALITY

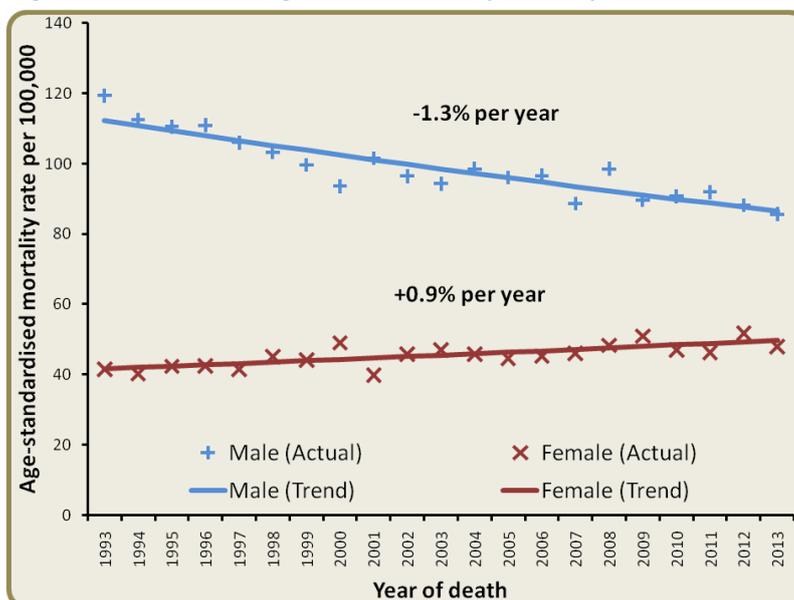
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2009-2013 there were 542 male and 384 female deaths from lung cancer each year.

### Mortality trends

Over the last ten years the number of lung cancer deaths has increased from 508 among men and 328 among women in 2004 to 553 among men and 387 among women in 2013.

When adjusted for age and population change, lung cancer mortality rates decreased for males by -1.3% per year during 1993-2013, but increased by 0.9% per year for females.

Figure 7: Trends in lung cancer mortality rates by sex: 1999-2013



## PREVALENCE

At the end of 2013 there were 1,900 people living in NI who had been diagnosed with lung cancer from 1993-2013 (Table 6). Of these, 52.7% were male, 55.1% were aged 70 and over and 34.3% had been diagnosed in the previous year.

Table 6: Number of people living with lung cancer at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Male	0-69	160	164	71	42	437
	70+	189	196	85	94	564
	All ages	349	360	156	136	1,001
Female	0-69	152	160	59	44	415
	70+	150	155	92	87	484
	All ages	302	315	151	131	899
Both sexes	0-69	312	324	130	86	852
	70+	339	351	177	181	1,048
	All ages	651	675	307	267	1,900

## FURTHER INFORMATION

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

### NI Cancer Registry

Phone: +44 (0)28 9063 2573  
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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



# MALIGNANT MELANOMA



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
138	181	319	24	22	46
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
88.3%	92.5%	90.8%	1,389	2,215	3,604

## INCIDENCE

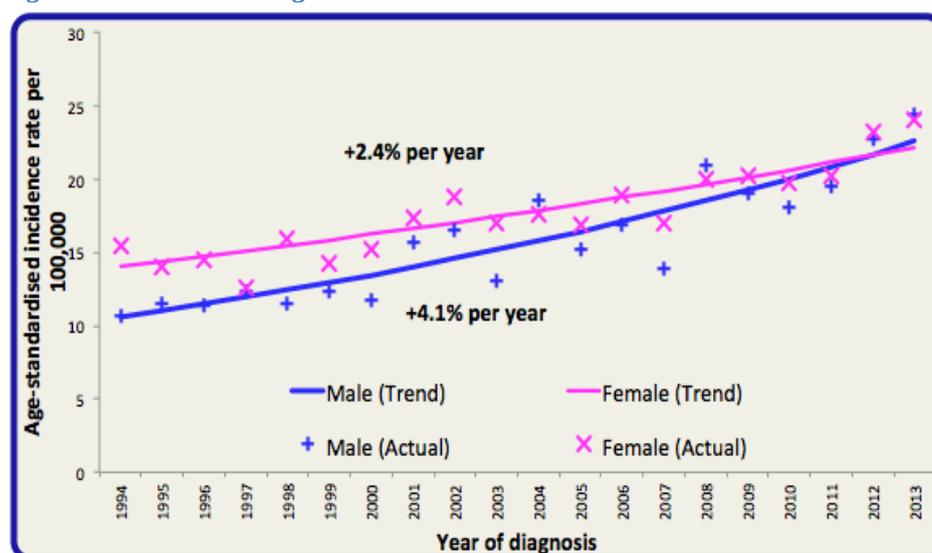
Between 2009 and 2013 there were an average of 138 males and 181 females diagnosed with malignant melanoma cancer each year in Northern Ireland. The probability that a male will develop malignant melanoma before the age of 75 is approximately 1 in 94 whilst the probability that a female will develop malignant melanoma before the age of 75 is 1 in 74. Over a ten-year period the number of malignant melanoma cases has increased in males and females from 244 in 2004 to 377 in 2013 (Table 1).

### Incidence trends

Table 1: Incidence of malignant melanoma by gender and year of diagnosis: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	108	99	109	95	137	123	116	129	152	170
Females	136	133	151	138	164	165	166	172	197	207
Both	244	232	260	233	301	288	282	301	349	377

Figure 1: Trends in malignant melanoma incidence rates: 1993-2013



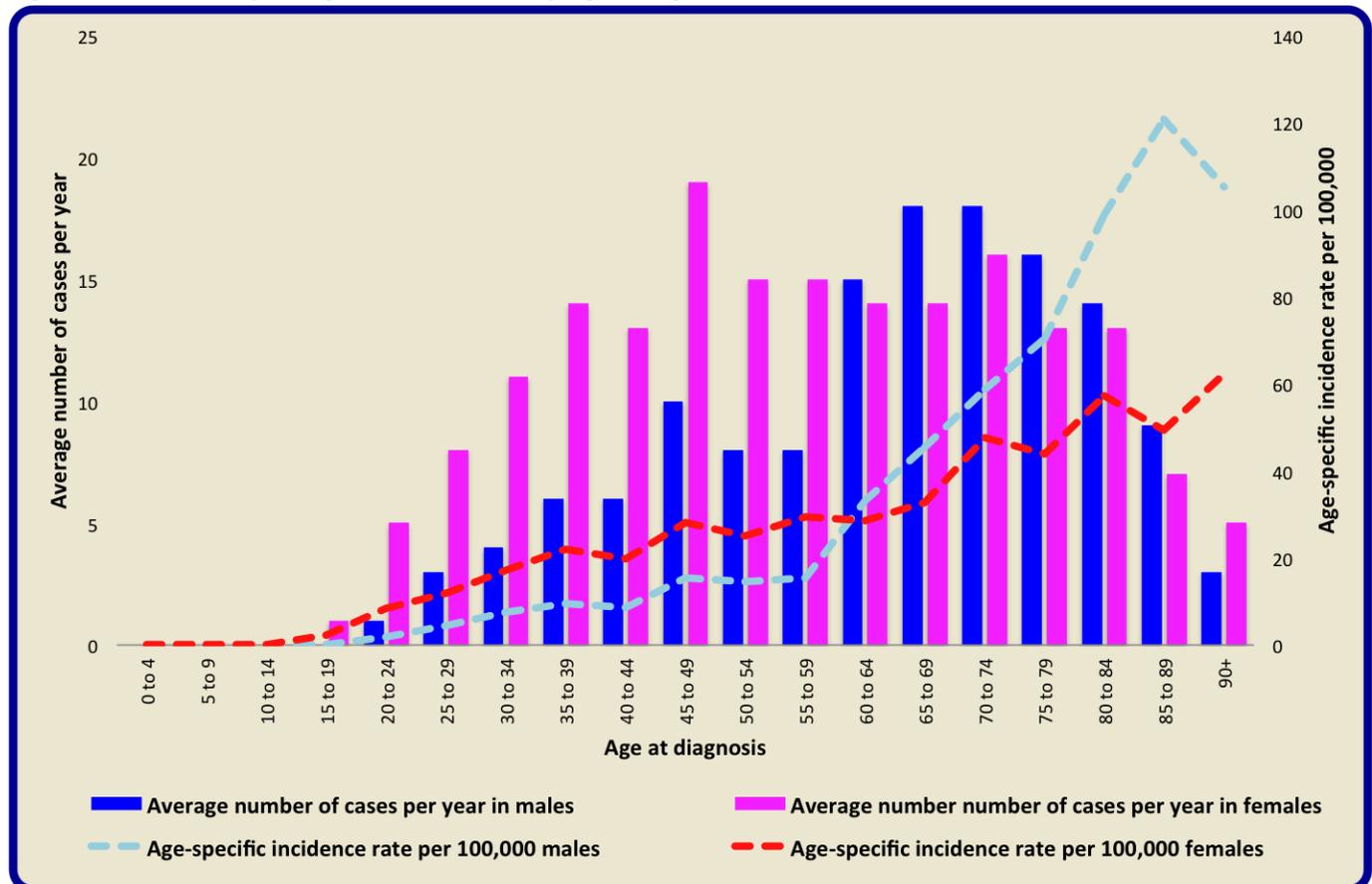
After accounting for the ageing population, there has been a 4.1% increase in yearly incidence of malignant melanoma in males and a 2.4% yearly increase in incidence of malignant melanoma in females.

Reasons for increasing incidence in both genders is potentially associated with higher levels of UV exposure.

## Incidence and age

Malignant melanoma incidence is associated with increasing age. Almost 70% of patients diagnosed were over the age of 50. Incidence rates are highest among males aged 85-89 and highest amongst females aged 90 and over. There is an increase in the incidence of malignant melanoma in men after the age of 60 whereas women experience an increase in incidence of malignant melanoma as they grow older.

Figure 2: Incidence of malignant melanoma by age and gender: 2009-2013



## Incidence by Trust area

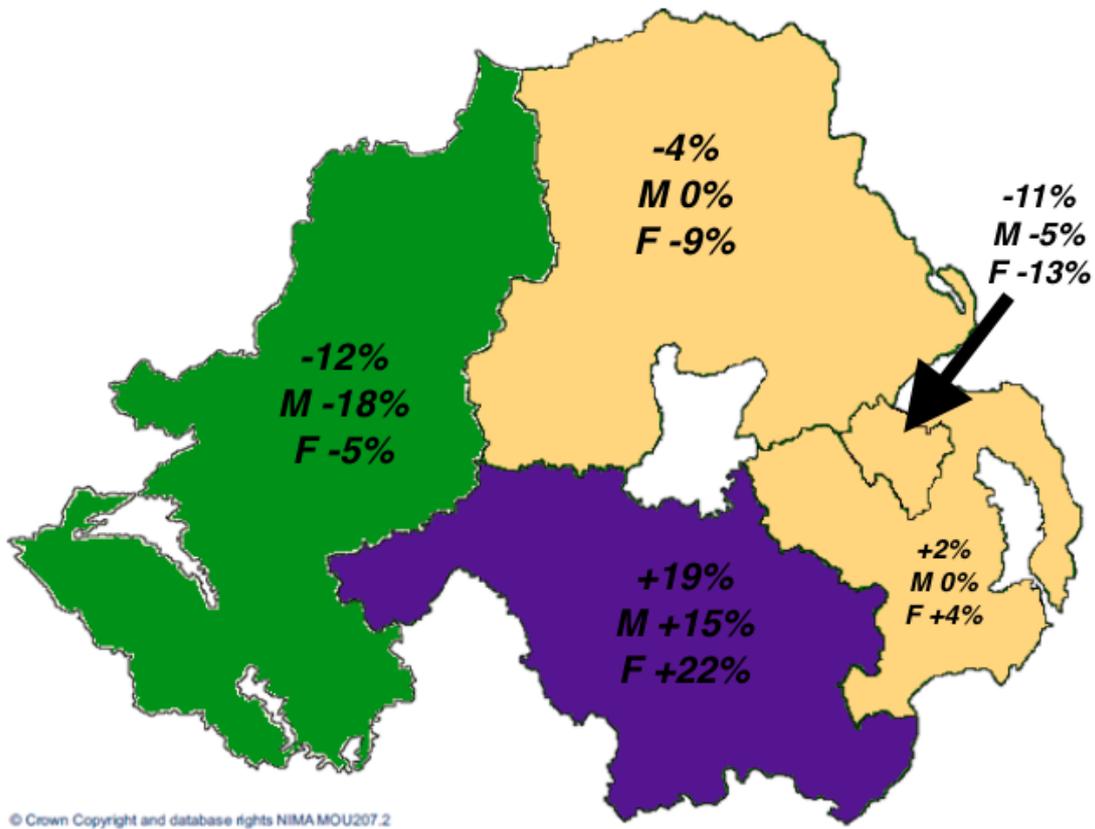
Malignant melanoma incidence rates in 2009-2013 were 19% above the NI average in people living in the Southern health and social care trust (HSCT) with females accounting for the majority of this increased incidence (female melanoma incidence 22% above the NI average in this trust).

Malignant melanoma incidence rates in 2009-2013 were 12% below the NI average in people living in the Western health and social care trust (HSCT) with males accounting for the majority of this decreased incidence (male melanoma incidence 18% below the NI average in this trust).

There was no statistically significant difference in the incidence of malignant melanoma in any of the other health and social care trusts when compared to the NI average.

Please refer to figure 3.

Figure 3: Malignant melanoma incidence rates compared to the NI average by HSC Trust of residence: 2009-2013 comparison

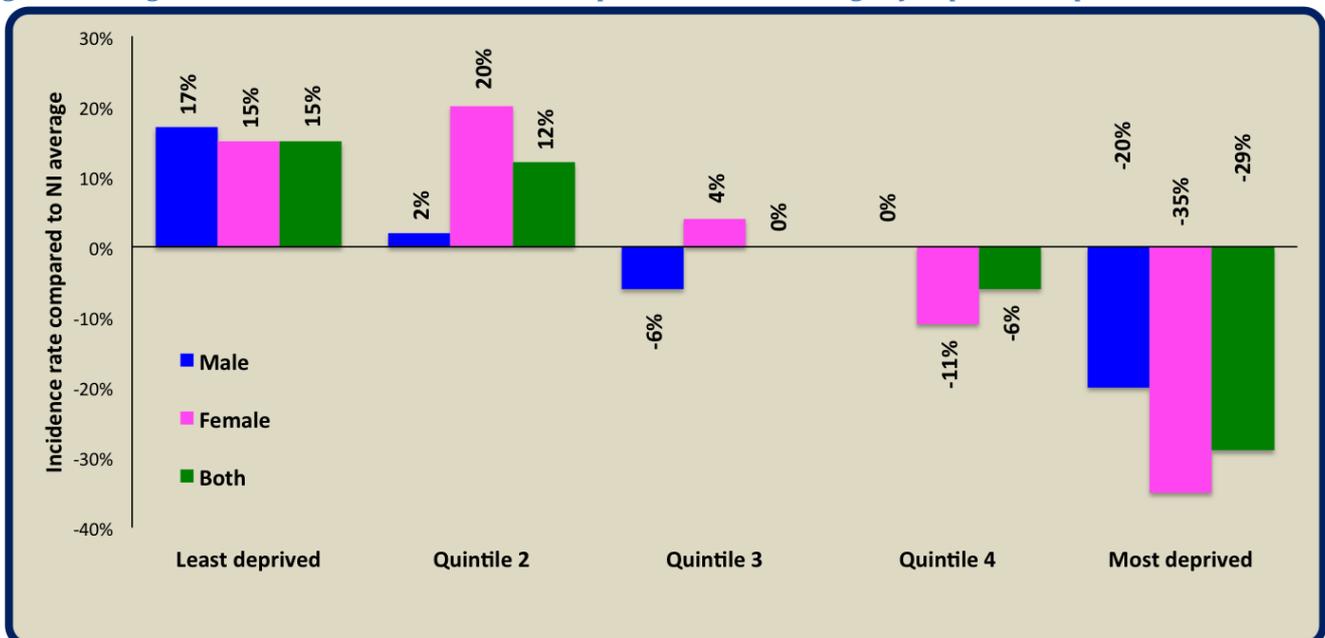


Significantly higher than average      Significantly lower than average

### Incidence by deprivation

Cancer incidence rates are consistently lower than the NI average among males and females within the most deprived communities (-29%) and higher amongst the least deprived communities (+15%) suggesting a relationship between socioeconomic status and risk factor (UV) exposure.

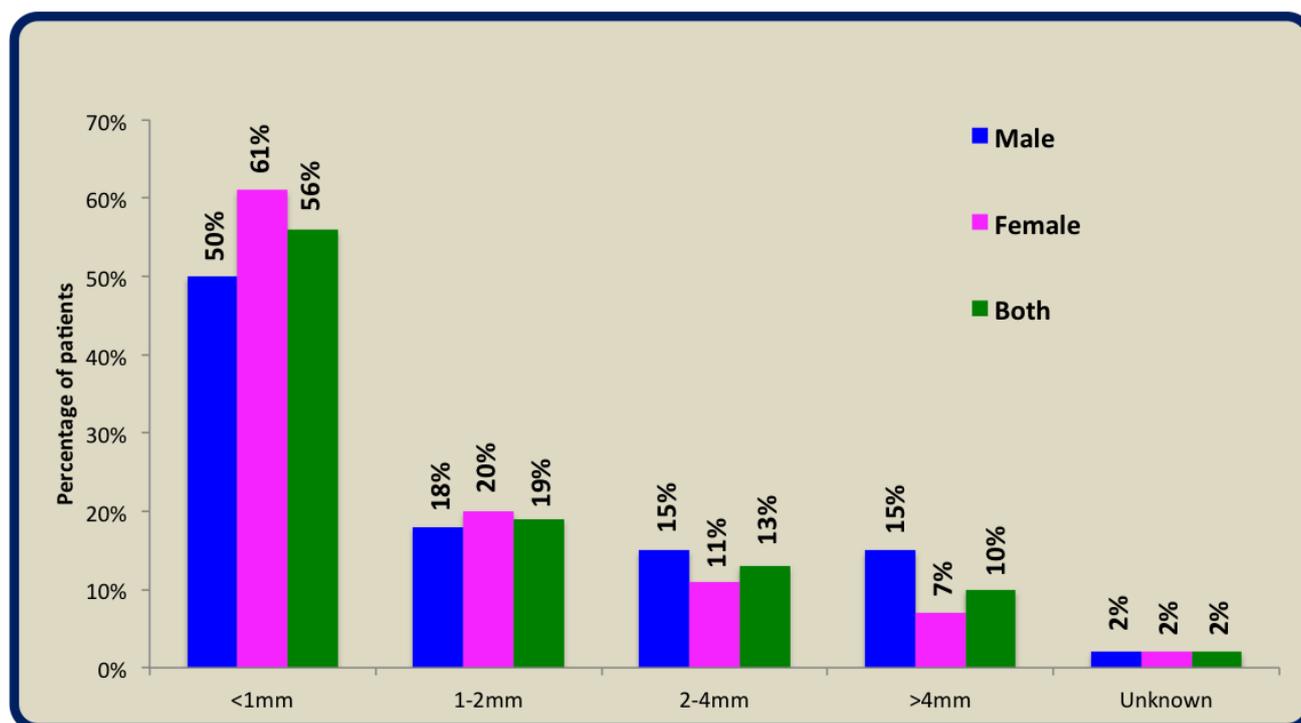
Figure 4: Malignant melanoma incidence rates compared to the NI average by deprivation quintile: 2009-2013



### Incidence by stage

Cancer stage is a way of describing the size of a cancer and how far it has grown and spread. This information is important in helping decide what treatments are needed and stage of disease at diagnosis is strongly associated with survival. Malignant melanoma is staged according to depth of tumour at diagnosis (Breslow depth) measured in millimetres (mm) up to a maximum of 4mm. More than 98% of patients diagnosed with malignant melanoma were assigned a stage at diagnosis.

Figure 5: Malignant melanoma stage distribution: 2009-2013



The majority of patients diagnosed with malignant melanoma were diagnosed with a Breslow depth of less than or equal to 1mm (56%). The next most common stage to be diagnosed at was a Breslow depth of 1.01-2.00mm (19%). A total of 167 patients (86 males and 81 females) were diagnosed with malignant melanoma with a Breslow depth of more than or equal to 4mm during the 2009-2013 diagnostic period.

## SURVIVAL

The age-standardised survival for men diagnosed with malignant melanoma between 2004-2008 was 88.3% at five years. The age-standardised survival for women during the same time period was 92.5%. Survival is consistently higher in females compared to males.

Table 2: Five-year malignant melanoma survival by survival time and gender

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	99.1%	99.8%	99.6%
1 year	97.5%	99.1%	98.6%
5 years	88.3%	92.5%	90.8%

## Survival Trends

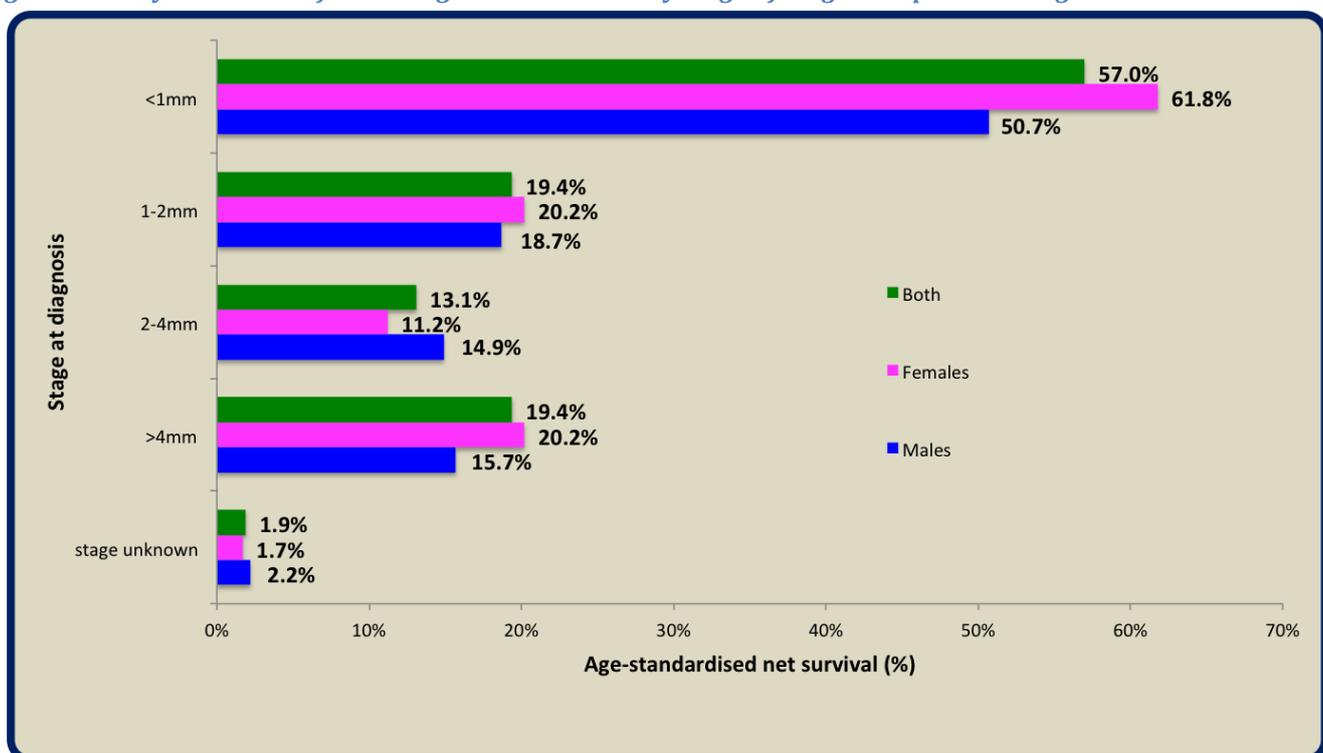
Five-year survival for malignant melanoma in Northern Ireland has increased from the 1993-1998-diagnosis period to the 2004-2008-diagnosis period in both males and females. Five-year survival in men between 1993-1998 was 82.8% and 88.3% between 2004-2008. Five-year survival in women between 1993-1998 was 90.6% and 92.5% between 2004-2008. This makes malignant melanoma one of the most survivable cancers alongside non-melanoma skin cancers such as basal cell and squamous cell cancer.

*Table 3: Five-year malignant melanoma survival by period of diagnosis and gender*

Period of diagnosis	Male	Female	Both sexes
1993-1998	82.8%	90.6%	87.9%
1999-2003	84.5%	92.3%	89.2%
2004-2008	88.3%	92.5%	90.8%

## Survival and stage

*Figure 6: Five-year survival from malignant melanoma by stage of diagnosis: patients diagnosed 2001-2008*



Stage at diagnosis is one of the most important factors in malignant melanoma survival with five-year survival decreasing as stage at diagnosis increases. Five-year survival ranged from 99.7% for early (Breslow depth less than or equal to 1mm) disease to 49.1% for late (Breslow depth more than 4mm) disease, thus highlighting the importance of an early diagnosis.

Females in Northern Ireland are more likely to survive for at least five years after diagnosis of a malignant melanoma with Breslow depth exceeding 4mm than males with 54.6% of females alive for at least five years after this diagnosis and only 42% of males able to achieve the same.

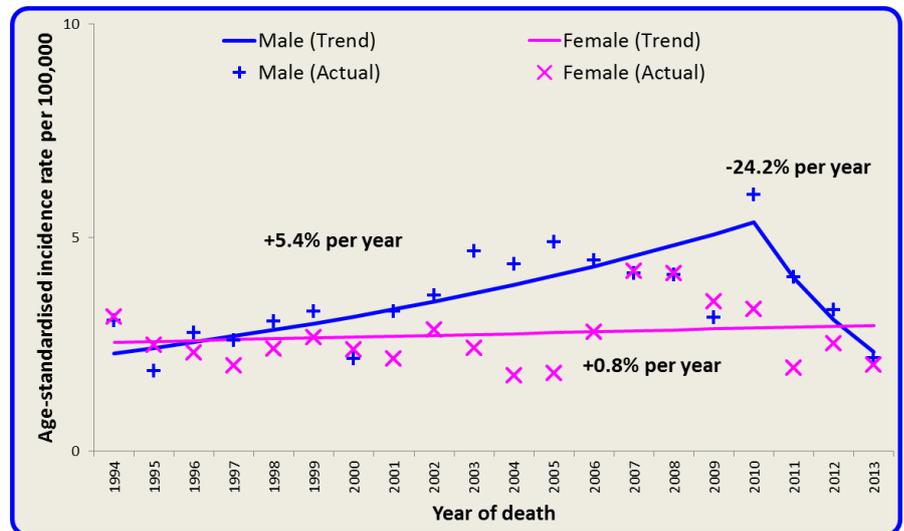
## MORTALITY

In 2009-2013 there were an average of 46 deaths from malignant melanoma each year.

### Mortality trends

When adjusted for age and population change, melanoma mortality rates in males increased by 5.4% each year until 2010 before falling by 24.2% each year until 2013, however this fall is not statistically significant. Female mortality remained relatively unchanged with a 0.8% increase per year.

Figure 7: Trends in malignant melanoma mortality rates: 1993-2013



## PREVALENCE

At the end of 2013 there were a total of 3,604 people living in Northern Ireland with a diagnosis of malignant melanoma between 1993 and 2013 of which over 60% were female, 10% had been diagnosed in the previous year, and 35% were over 70 and 28% were under the age of 50.

Table 4: Number of people living with malignant melanoma 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	97	235	246	249	827
	70+	70	198	137	157	562
	All ages	167	433	383	406	1389
Female	0-69	142	445	405	523	1515
	70+	62	191	156	291	700
	All ages	204	636	561	814	2215
Both	0-69	239	680	651	772	2342
	70+	132	389	293	448	1262
	All ages	371	1069	944	1220	3604

## FURTHER INFORMATION

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

### NI Cancer Registry

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.





# NON-MELANOMA SKIN CANCER



This document provides information about non-melanoma skin cancer (squamous cell and basal cell skin cancers) in Northern Ireland. For information about malignant melanoma, please see the separate malignant melanoma fact sheet. Information about cancer stage and survival is not presented due to high survival rates associated with non-melanoma skin cancer.

NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
1,885	1,474	3,359	11	7	18
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
-	-	-	16,736	15,144	31,880

## INCIDENCE

Between 2009 and 2013 there were an average of 1,885 males and 1,474 females diagnosed with non-melanoma skin cancer each year in Northern Ireland. The probability that a male will develop skin cancer before the age of 75 is approximately 1 in 8 whilst the probability that a female will develop skin cancer before the age of 75 is 1 in 12.

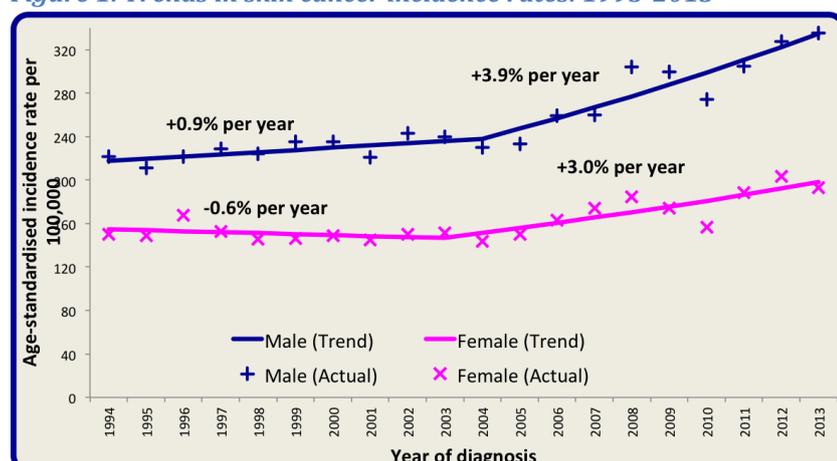
### Incidence trends

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	1190	1263	1416	1452	1707	1745	1619	1855	2074	2134
Females	1044	1100	1211	1308	1415	1358	1238	1507	1663	1602
Both	2234	2363	2627	2760	3122	3103	2857	3362	3737	3736

Over a ten-year period the number of skin cancer cases has increased in males and females from 2234 in 2004 to 3736 in 2013. After accounting for our ageing population, cancer incidence rates have remained stable in males and females between 1994 and 2003. Thereafter, yearly incidence rates begin to rise.

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

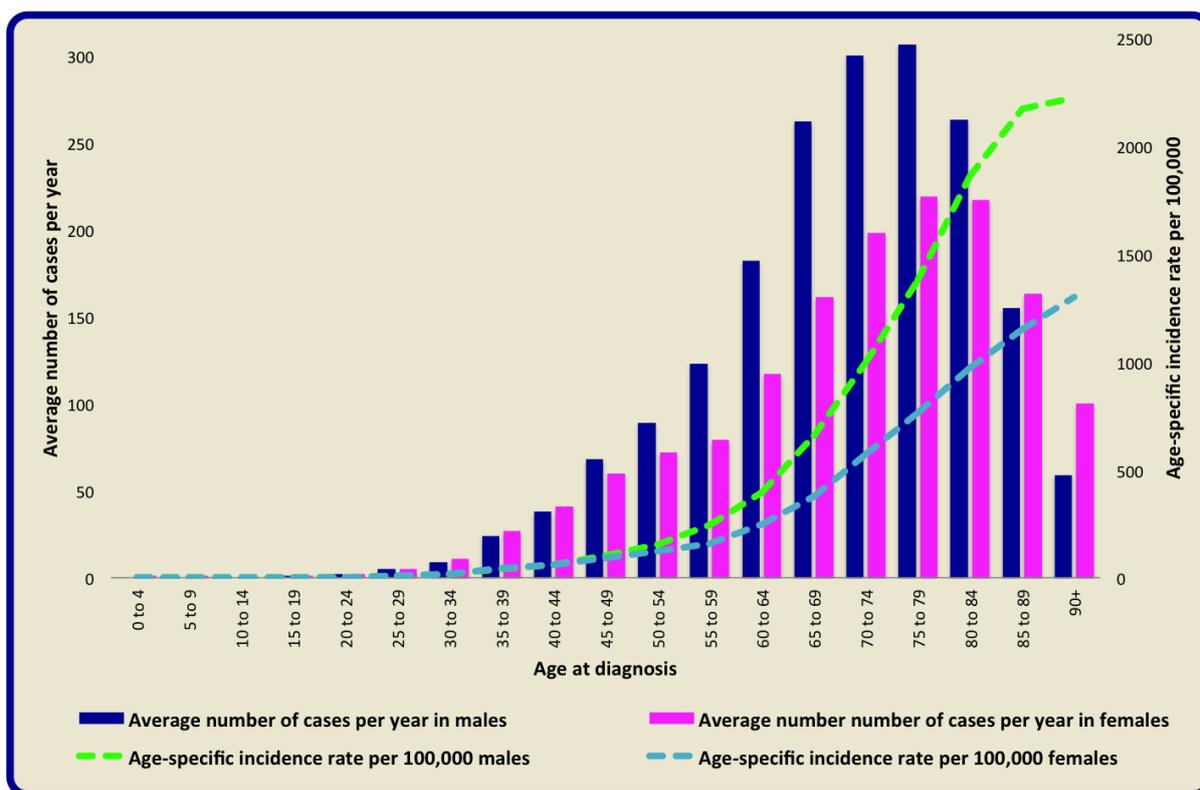


Skin cancer incidence rate in men has risen by 3.9% per year whilst incidence rate has risen by 3.0% each year in women (between 2004 and 2013). This is likely due to increased sun exposure in the population, something that is closely linked to increasing prosperity and more frequent overseas travel.

### Incidence and age

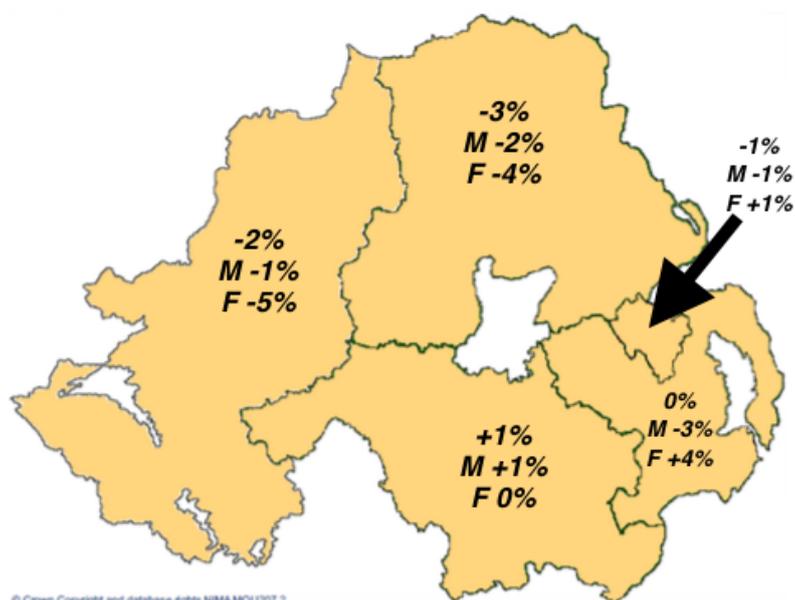
Skin cancer incidence is associated with increasing age. Almost 60% of patients diagnosed were over the age of 70. Incidence rates are highest among males and female’s aged 90 and over. There is a sharp increase in the incidence of skin cancer in men after the age of 60 whereas women experience a more steady increase in incidence of skin cancer, as they grow older. Skin cancer affects persons of all ages but there are very few cases diagnosed in those under the age of 30.

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



### Incidence by Trust area

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



There were no statistically significant differences in skin cancer incidence rates between health and social care trusts between 2009 and 2013.

No statistically significant differences in non-melanoma skin cancer were observed in either males or females between Health and Social Care Trusts.

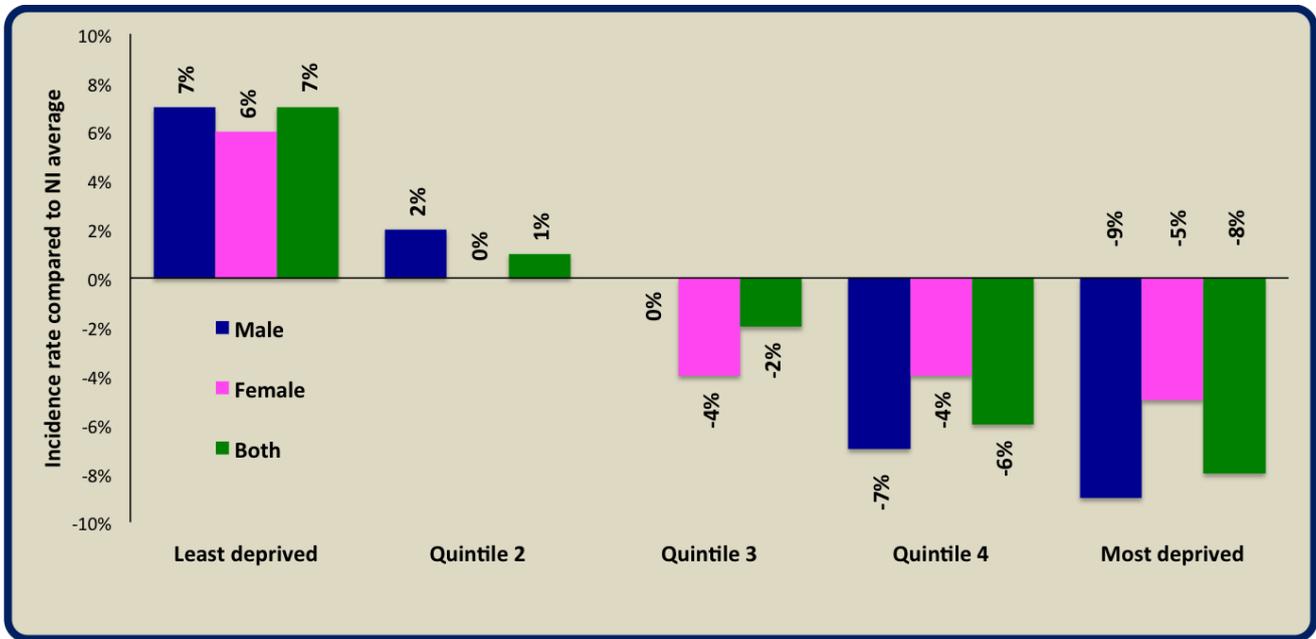
Significantly higher than average

Significantly lower than average

### Incidence by deprivation

Non-melanoma skin cancer incidence rates are 7% higher than the NI average in the least deprived communities and 8% lower than the NI average in the most deprived communities. This is likely due to differences in skin cancer risk factor exposure (radiation from sunlight), which is in turn strongly linked to number and duration of overseas holidays taken each year.

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

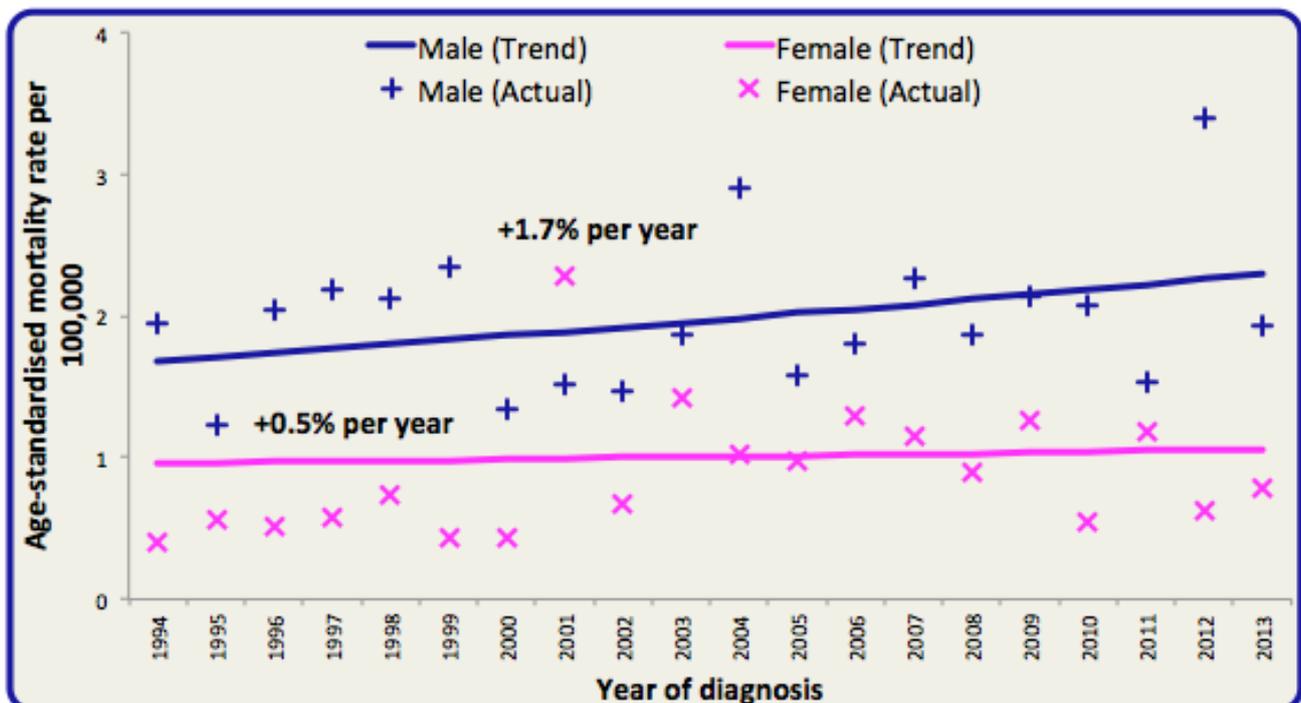


## MORTALITY

In 2009-2013 there were an average of 11 male and 7 female deaths from non-melanoma skin cancer each year (average of 18 each year in total).

### Mortality trends

Figure 5: Trends in skin cancer mortality rates: 1993-2013



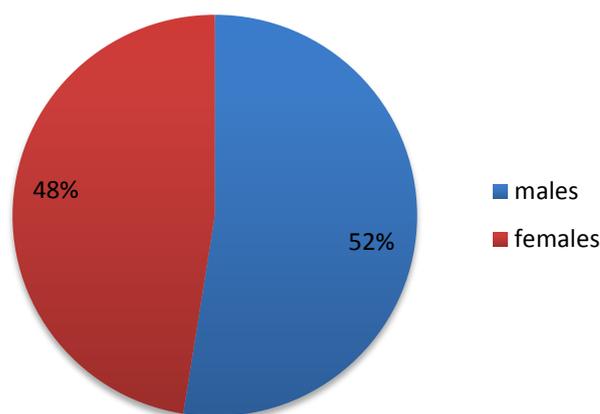
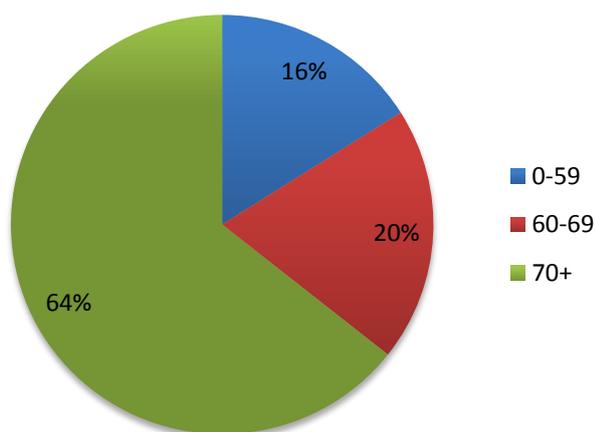
Skin cancer has the lowest mortality rate of all cancers. After adjusting for our ageing population, mortality rates from non-melanoma skin cancer have remained stable during the previous twenty year period in males and females.

## PREVALENCE

At the end of 2013 there were a total of 31880 people living with a diagnosis of non-melanoma skin cancer making it the most prevalent form of cancer in Northern Ireland. There is a relatively even gender split (52% of non-melanoma skin cancer cases affect males whilst 48% of non-melanoma skin cancer cases affect females), 10% of people had been diagnosed in the previous year, and almost 65% were over the age of 70.

*Table 4: Number of people living with skin 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	779	2347	1628	1431	6185
	70+	1028	3282	2874	3367	10551
	All ages	1807	5629	4502	4798	16736
Female	0-69	595	1788	1431	1367	5181
	70+	844	2993	2677	3449	9963
	All ages	1439	4781	4108	4816	15144
Both	0-69	1374	4135	3059	2798	11366
	70+	1872	6275	5551	6816	20514
	All ages	3246	10410	8610	9614	31880



## FURTHER INFORMATION

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

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



# OESOPHAGEAL CANCER



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
127	65	192	108	56	164
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
17.4%	15.9%	16.7%	360	176	536

## INCIDENCE

Between 2009 and 2013 there were an average of 127 males and 65 females diagnosed with cancer of the oesophagus (gullet) each year in Northern Ireland. The probability that a male will develop oesophageal cancer before the age of 75 is approximately 1 in 96 whilst the probability that a female will develop oesophageal cancer before the age of 75 is 1 in 262.

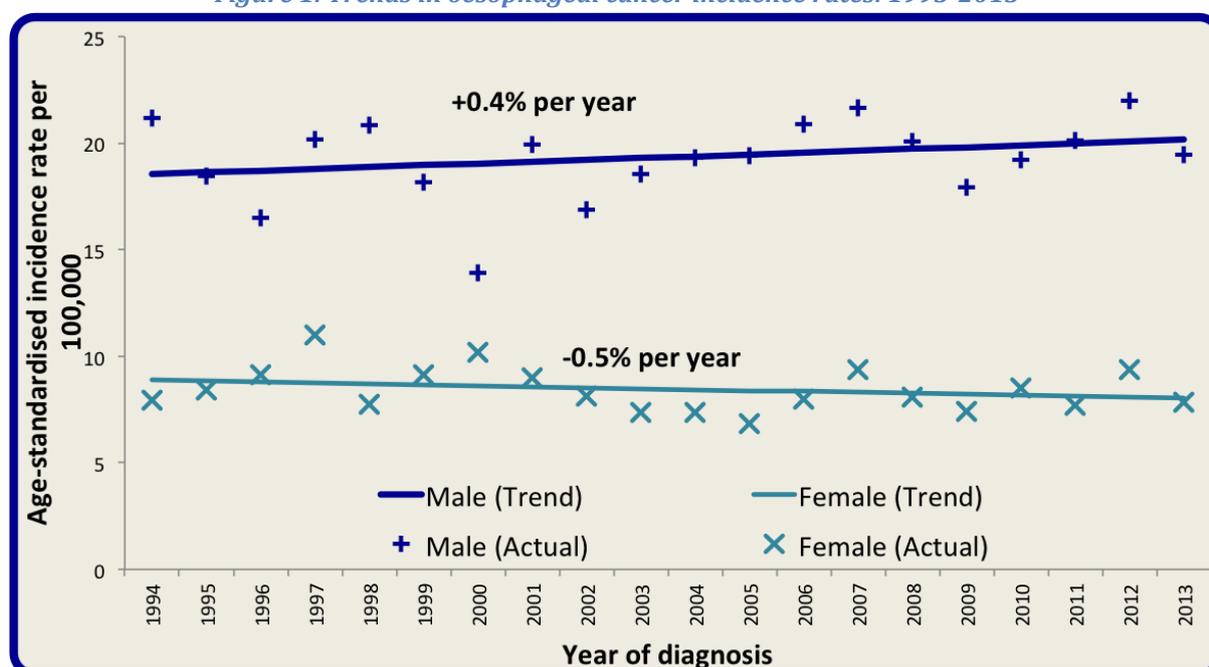
### Incidence trends

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	107	112	121	126	127	114	121	125	139	136
Females	53	49	59	71	62	58	66	61	75	65
Both	160	161	180	197	189	172	187	186	214	201

Over a ten-year period the number of oesophageal cancer cases has increased in males and females from 160 in 2004 to 201 in 2013. After accounting for population changes, the incidence of oesophageal cancer in males and females has remained stable.

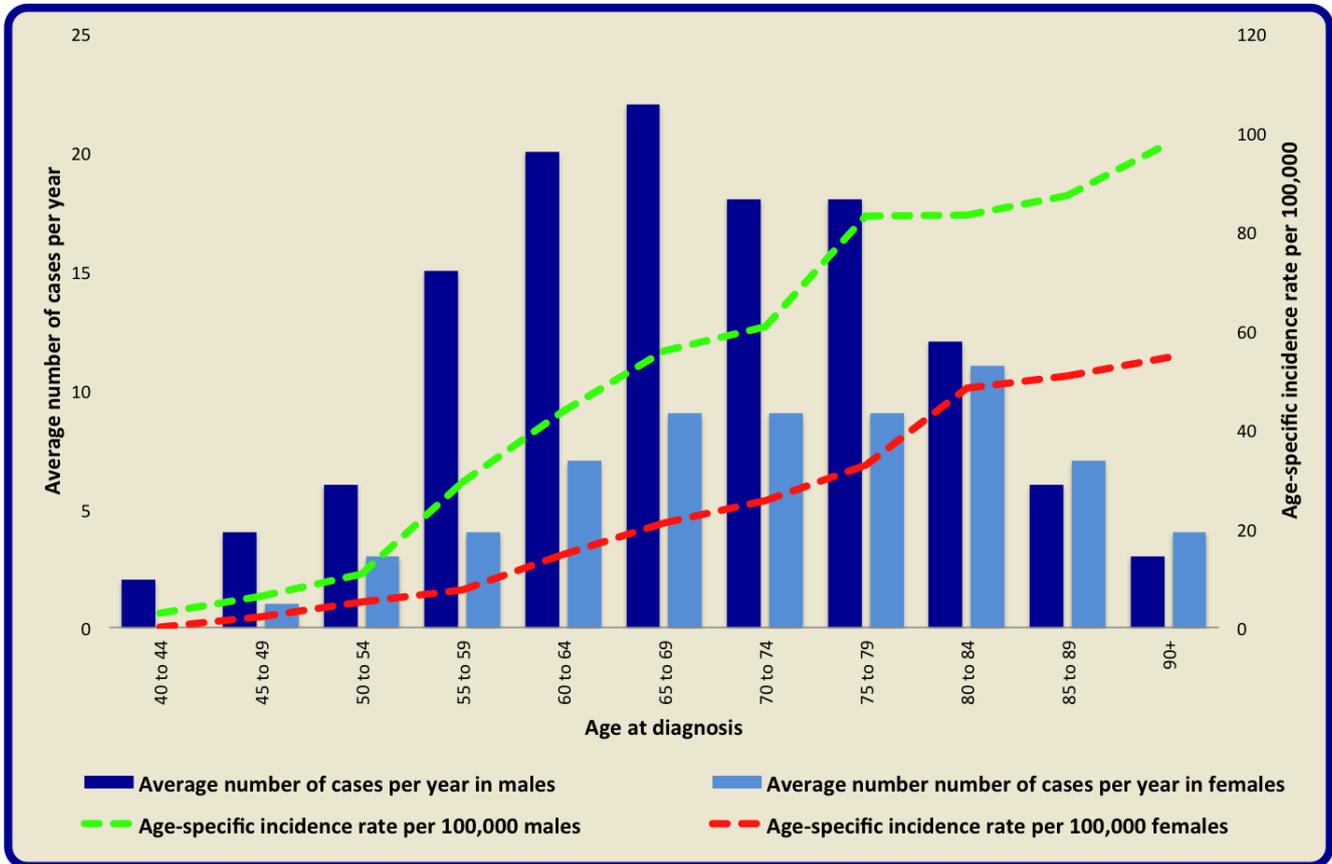
Figure 1: Trends in oesophageal cancer incidence rates: 1993-2013



### Incidence and age

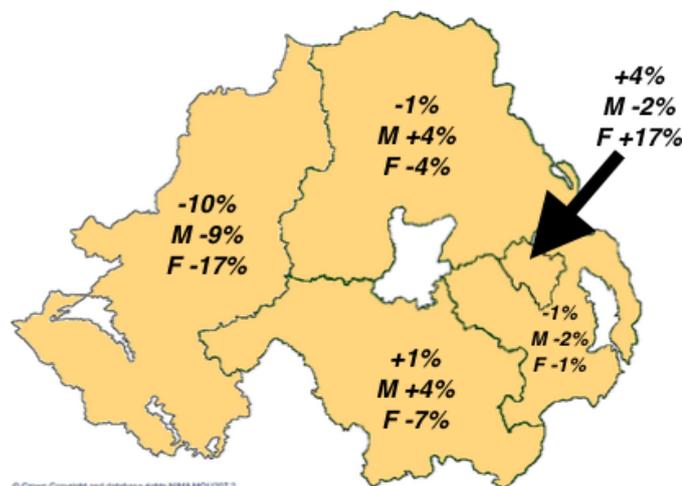
Oesophageal cancer incidence is associated with increasing age. Over 80% of patients diagnosed were over the age of 60. Incidence rates are highest among men and women aged 90 and over. There is an increase in the incidence of oesophageal cancer in men after the age of 50 whereas women experience a steady increase in incidence of oesophageal cancer, as they grow older.

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



### Incidence by Trust area

Figure 3: Oesophageal cancer incidence rates compared to the NI average by HSC Trust of residence: 2009-2013 comparison



There were no statistically significant differences in incidence of oesophageal cancer between health and social care trusts in 2009-2013.

No statistically significant difference in incidence of oesophageal cancer was observed in males or females in any of the five Health and Social Care Trusts in NI.

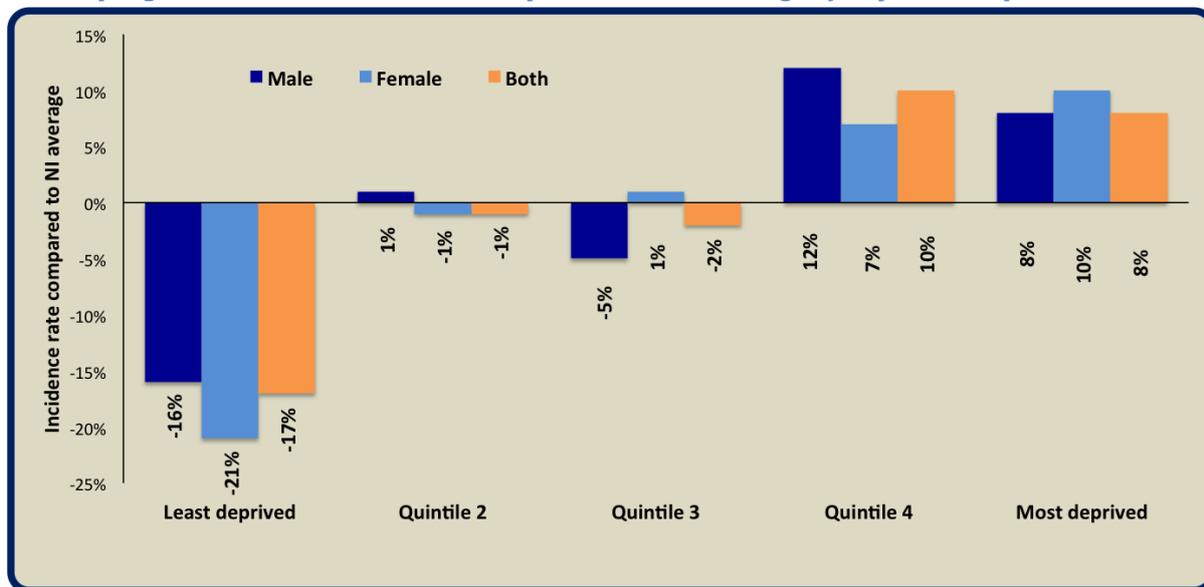
Significantly higher than average

Significantly lower than average

### Incidence by deprivation

Cancer incidence rates are consistently lower than NI average among males and females within the least deprived communities (17% lower). This is likely due to reduced incidence of cigarette smoking and obesity within the least deprived communities (both identified as risk factors for oesophageal cancer).

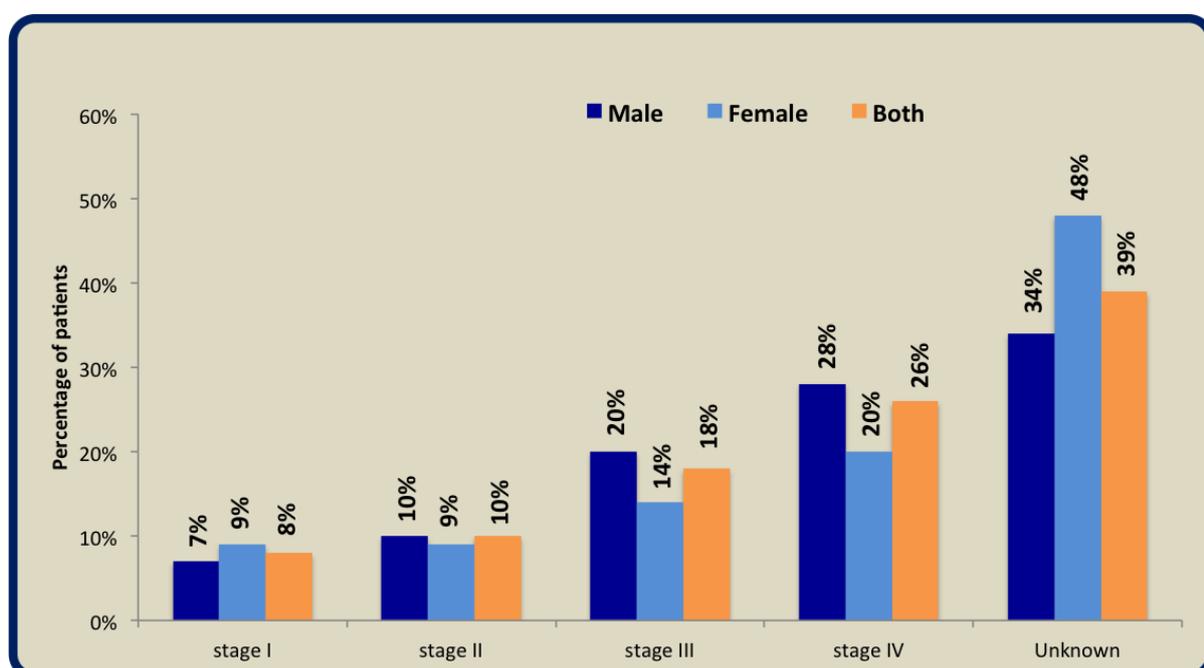
Figure 4: Oesophageal cancer incidence rates compared to the NI average by deprivation quintile: 2009-2013



### Incidence by stage

Approximately 60% of patients in Northern Ireland were assigned a stage at diagnosis. The majority of patients (39%) were diagnosed with a cancer that could not be staged. The next most common stage to receive a diagnosis of oesophageal cancer at was stage IV, which confers a poor prognosis. Only 8% of all oesophageal cancer patients were diagnosed at stage I disease.

Figure 5: Oesophageal cancer stage distribution: 2009-2013



## SURVIVAL

The age-standardised survival for men diagnosed with oesophageal cancer between 2004-2008 was 17.4% at five years. The age-standardised 5-year survival for women during the same time period was 15.9%. Cancer of the oesophagus is amongst the least survivable cancers in Northern Ireland.

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

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	60.9%	65.7%	62.0%
1 year	40.6%	42.6%	41.1%
5 years	17.4%	15.9%	16.7%

## Survival Trends

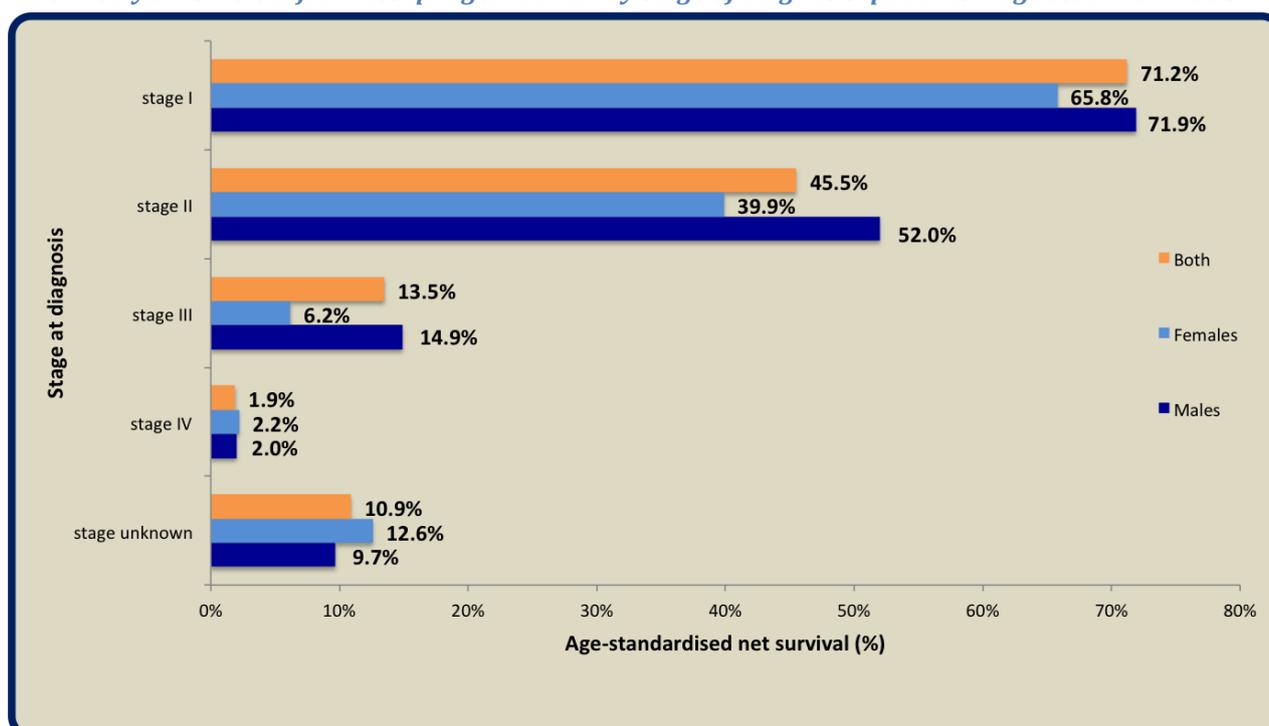
Five-year survival for oesophageal cancer in Northern Ireland has increased from the 1993-1998-diagnosis period to the 2004-2008-diagnosis period in males but decreased in females. Five-year survival in men between 1993-1998 was 7.9% and 17.4% between 2004-2008. Five-year survival in women between 1993-1998 was 17.2% and 15.9% between 2004-2008.

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

Period of diagnosis	Male	Female	Both sexes
1993-1998	7.9%	17.2%	9.9%
1999-2003	10.4%	14.5%	12.6%
2004-2008	17.4%	15.9%	16.7%

## Survival and stage

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



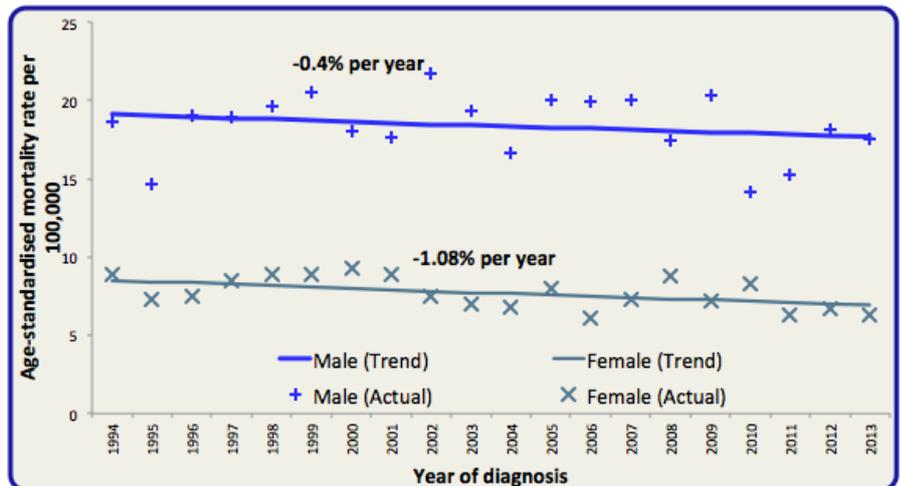
Stage at diagnosis is one of the most important factors in oesophageal cancer survival with five-year survival decreasing as stage at diagnosis increases (71.2% for stage I compared to 1.9% for stage IV). Five-year survival for females is significantly higher at all stages at diagnosis when compared to males.

## MORTALITY

### Mortality trends

In 2009-2013 there were an average of 164 deaths from oesophagus cancer each year. When adjusted for age and population change, the male cancer mortality rate has remained stable whilst female mortality rates have decreased by approximately 1.1% during the previous twenty-year period.

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



## PREVALENCE

At the end of 2013 there were a total of 536 people living with a diagnosis of oesophageal cancer of which 67% were male, 27% had been diagnosed in the previous year, and 84% were over 60. The largest group of people living with cancer of the oesophagus are males over the age of 60.

Table 4: Number of people living with oesophageal 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	0-59	28	21	11	2	62
	60+	73	110	71	44	298
	All ages	101	131	82	46	360
Female	0-59	6	13	4	2	25
	60+	38	51	24	38	151
	All ages	44	64	28	40	176
Both	0-59	34	34	15	4	87
	60+	111	161	95	82	449
	All ages	145	195	110	86	536

## FURTHER INFORMATION

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

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
0	158	-	0	119	-

FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
-	31.9%	-	0	1,175	-

## INCIDENCE

Between 2009 and 2013 there were an average of 159 patients diagnosed with ovarian cancer each year in Northern Ireland. The probability of developing ovarian cancer before the age of 75 is approximately 1 in 90.

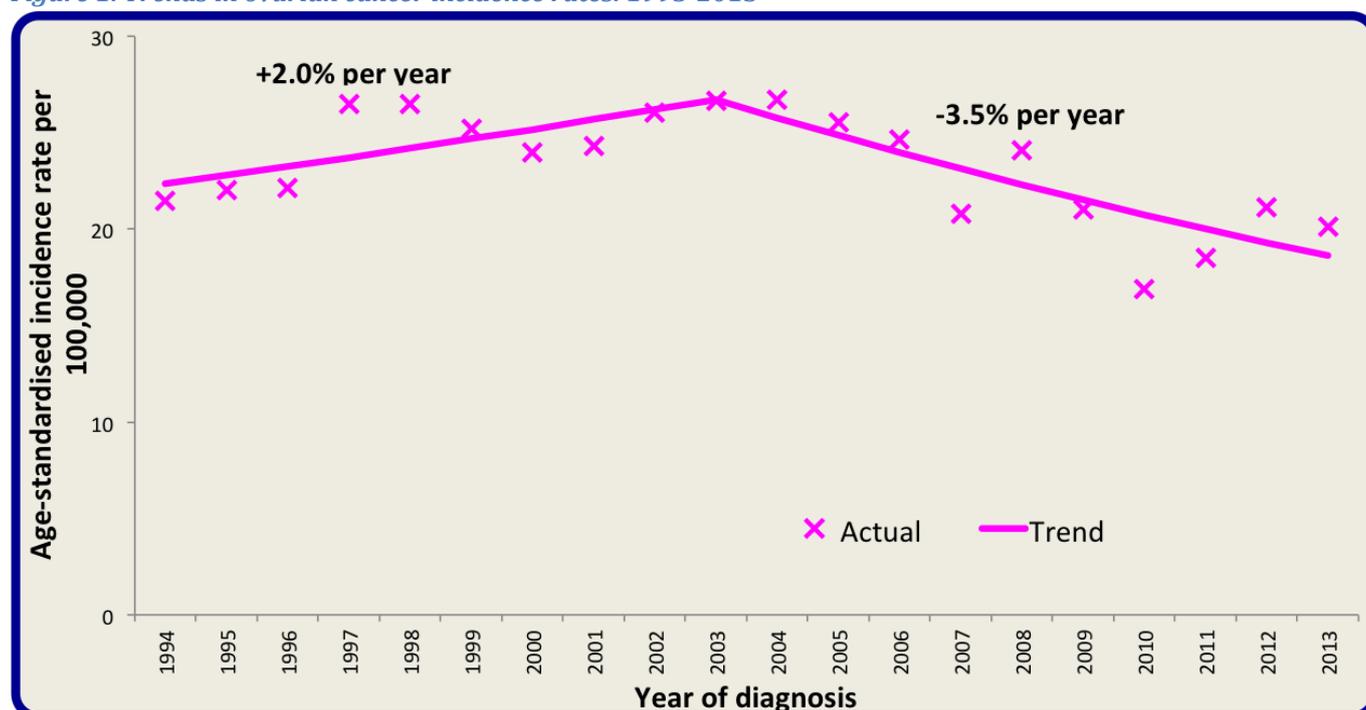
### Incidence trends

Table 1: Incidence of ovarian cancer by year of diagnosis: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Female	197	187	185	157	186	164	134	150	175	169

Over a ten-year period the number of ovarian cancer cases decreased from 195 in 2003 to 169 in 2013. After accounting for population changes, ovarian cancer incidence increased by 2.0% annually between 1994 and 2003 before declining by 3.5% annually between 2004 and 2013.

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



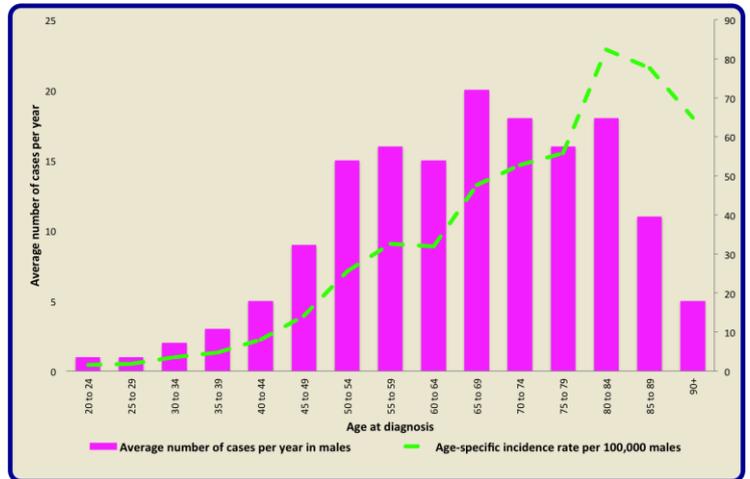
**Incidence and age**

Ovarian cancer risk is strongly related to age with almost 85% of patients diagnosed over the age of 50 years. Incidence rates are highest among women aged 80-84.

There were no reported cases of ovarian cancer in women under the age of 20 in 2009-2013 and incidence remains low until middle age.

Incidence of ovarian cancer increases after the age of 50 but menopause is not considered to be a risk factor for developing ovarian cancer.

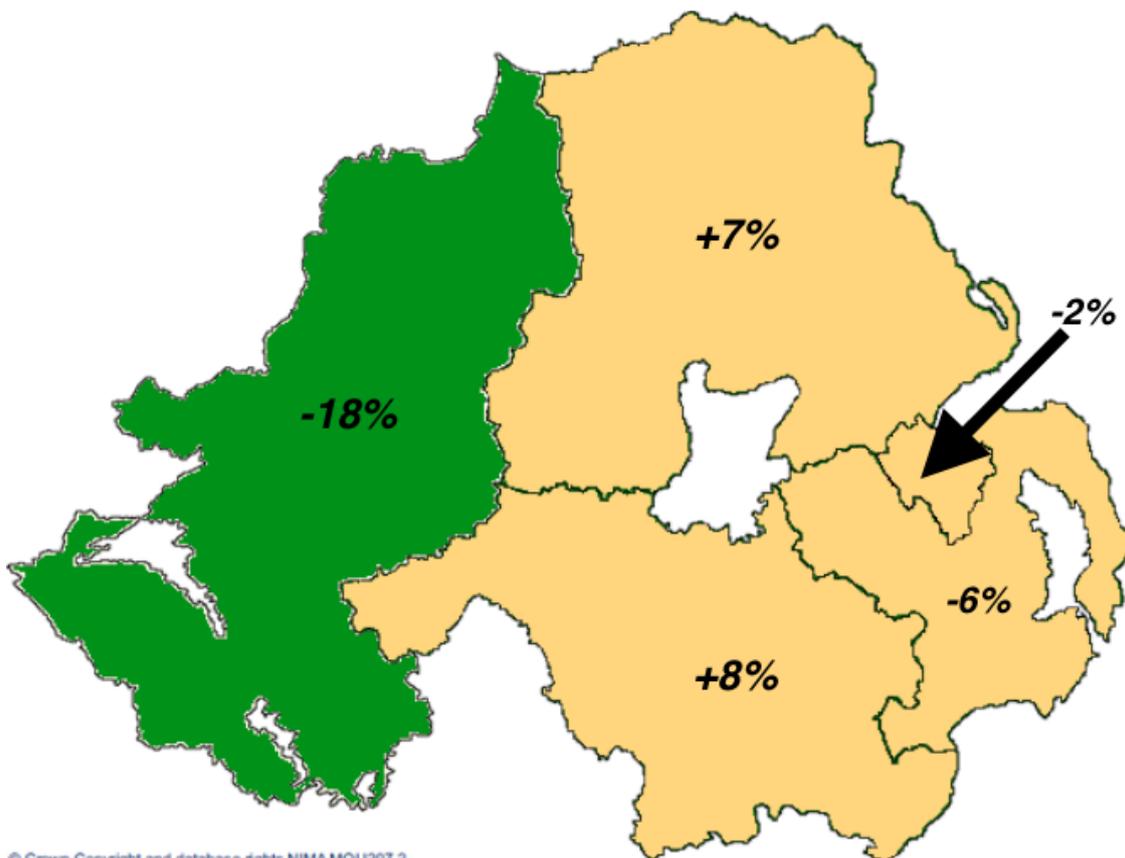
*Figure 2: Incidence of ovarian cancer by age: 2009-2013*



**Incidence by Trust area**

Ovarian cancer incidence rates in 2009-2013 were 18% lower than the NI average among people living within the Western trust area. There were no statistically significant differences in incidence rates of ovarian cancer in any of the other trusts when compared with the NI average during the same time period.

*Figure 3: Ovarian cancer incidence rates compared to the NI average by HSC Trust of residence: 2009-2013*



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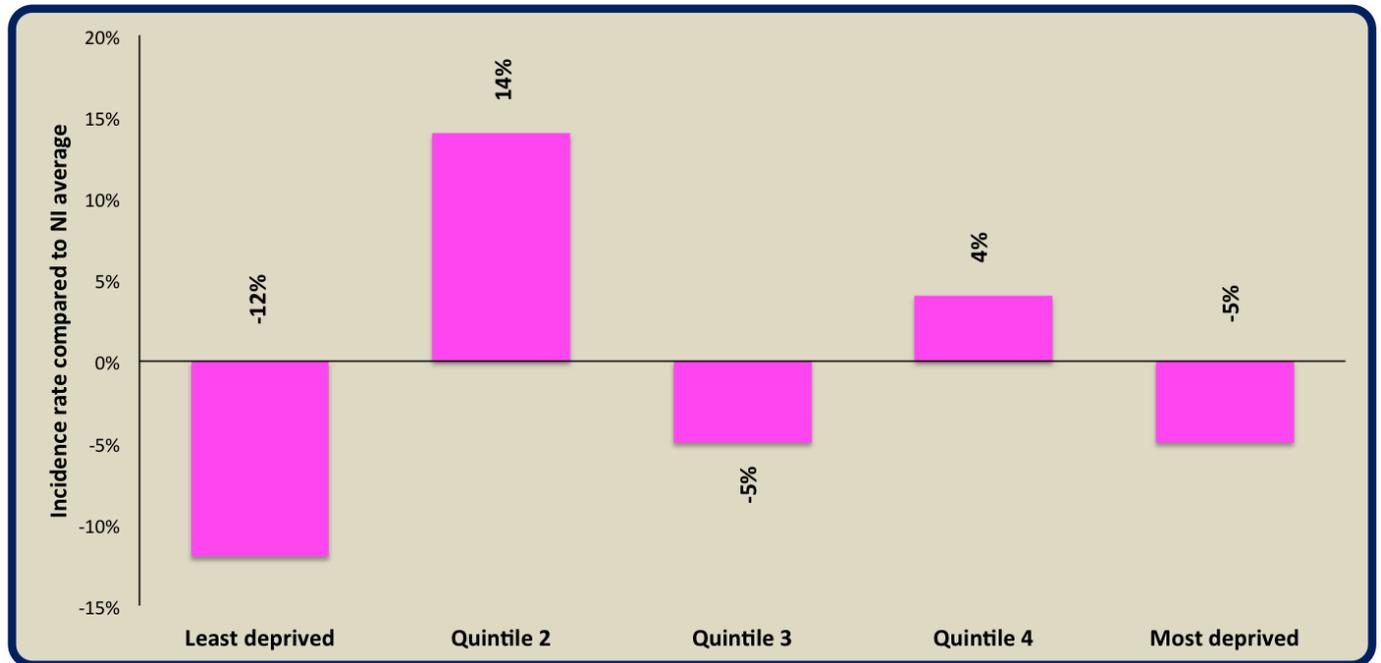
 Significantly higher than average

 Significantly lower than average

## Incidence by deprivation

Ovarian cancer incidence is highest among communities within quintile 2 who experience a 14% greater incidence of cancer compared to the NI average. However, no strong relationship between ovarian cancer incidence and socioeconomic status in Northern Ireland was observed.

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

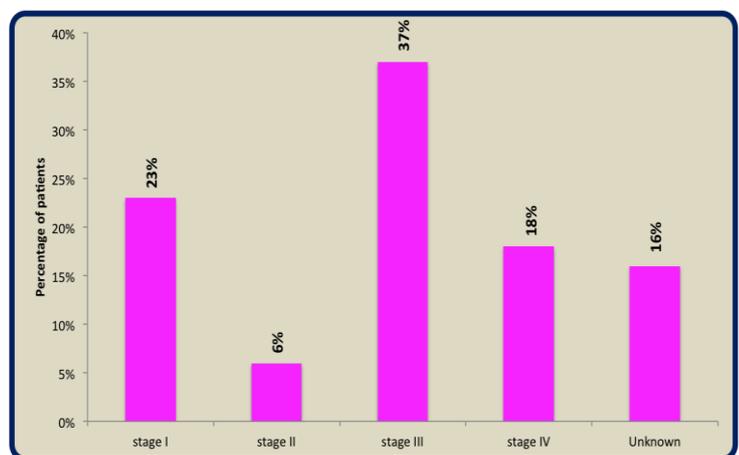


## Incidence by stage

Cancer stage is a way of describing the size of a cancer and how far it has grown and spread. This information is important in helping decide what treatments are needed and stage of disease at diagnosis is strongly associated with survival.

Over 80% of ovarian cancer patients were assigned a stage at diagnosis in 2009-2013.

Figure 5: Ovarian cancer stage distribution: 2009-2013



The majority of ovarian cancer patients were diagnosed at stage III (37%). The next most common stage to be diagnosed at was stage I (23%). Almost one fifth of women were diagnosed with stage IV ovarian cancer between 2009-2013, which confers a poor prognosis. A total of 286 women (representing 16% of those diagnosed with ovarian cancer between 2009-2013) could not be staged at time of diagnosis.

## SURVIVAL

Approximately 70% of all ovarian cancer patients survive at least six months after diagnosis. Almost two thirds of patients survive for one year after diagnosis and one third are alive five years after diagnosis.

*Table 2: Five-year ovarian cancer survival by survival time: patients diagnosed 2004-2008*

Time since diagnosis	Diagnosed 2004-2008
	Female
6 months	70.8%
1 year	63.2%
5 years	31.9%

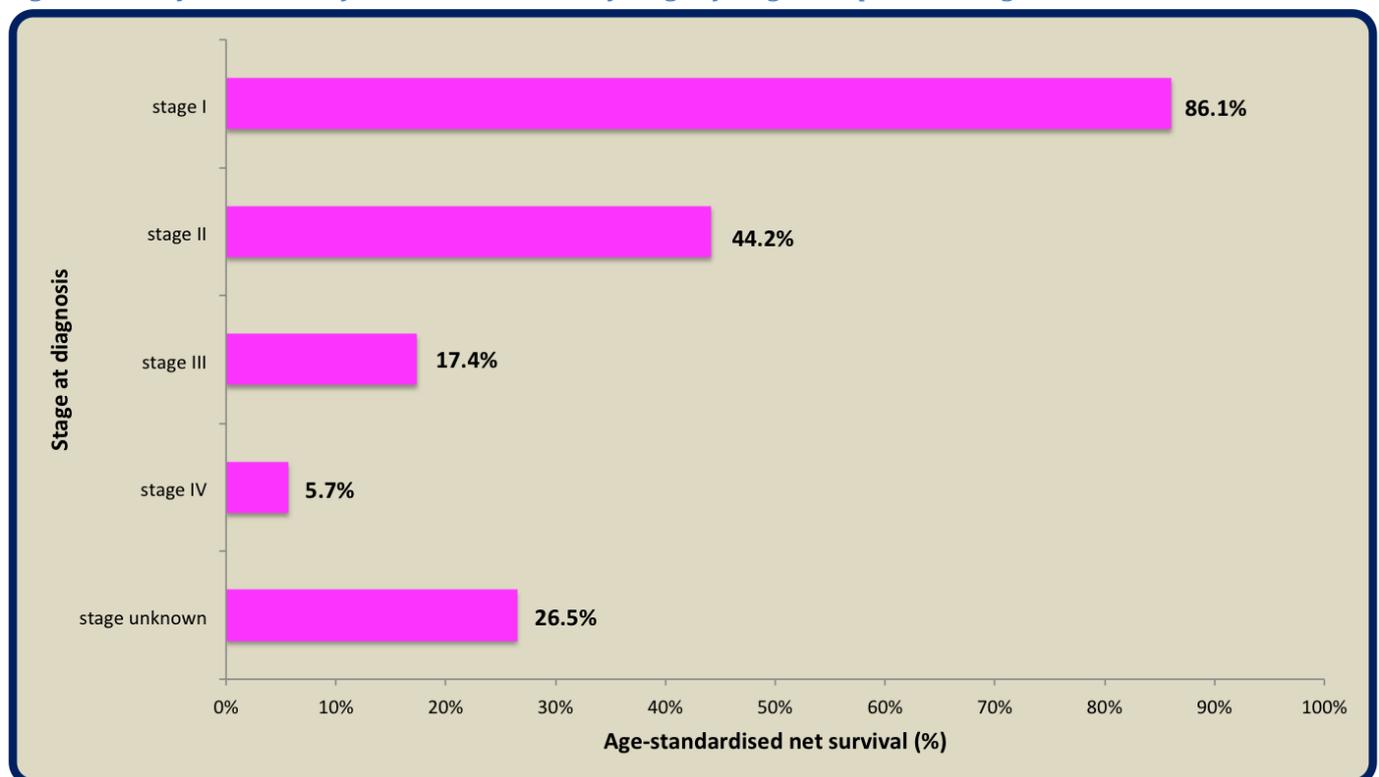
### Survival Trends

Five-year survival for ovarian cancer has failed to significantly improve in Northern Ireland from the 1993-1998-diagnosis period to the 2004-2008-diagnosis period. Five-year survival between 1993-1998 was 31.1% and 31.9% between 2004-2008 representing a very small increase in survival.

*Table 3: Five-year ovarian cancer survival by period of diagnosis*

Period of diagnosis	Female
1993-1998	31.1%
1999-2003	31.2%
2004-2008	31.9%

### Survival and stage

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

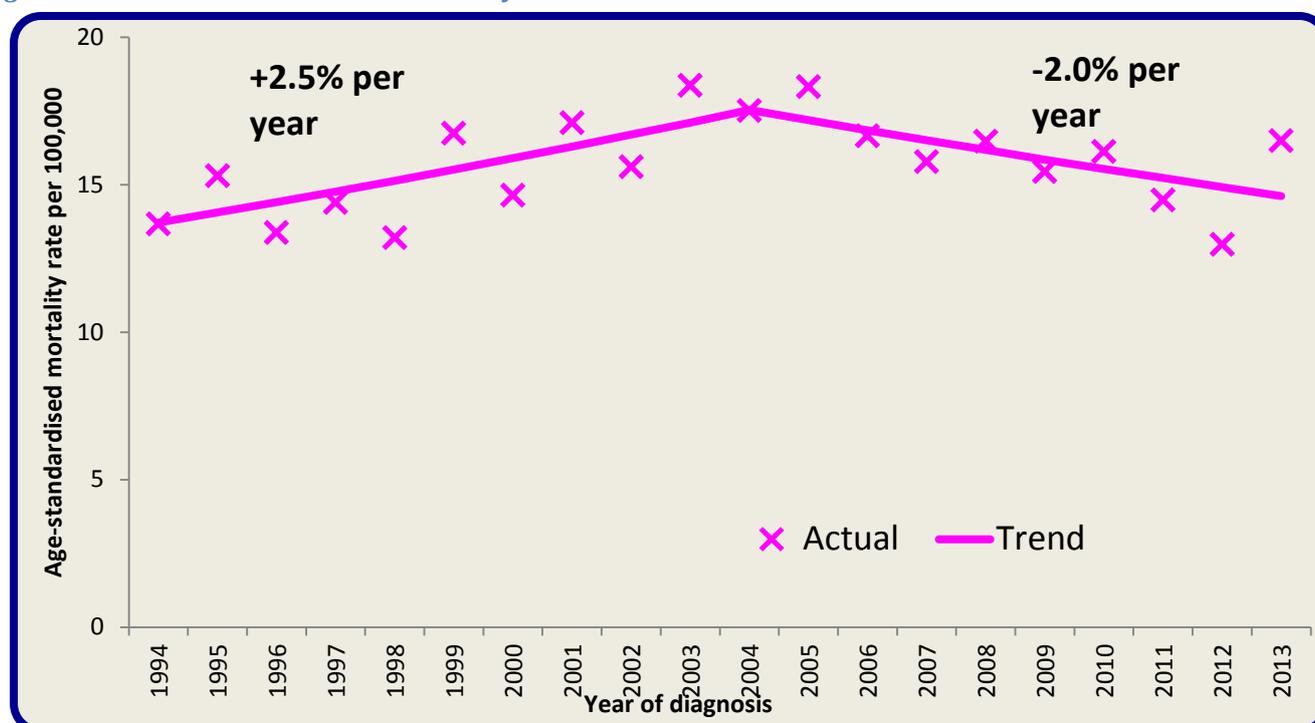
Stage at diagnosis is one of the most important factors in ovarian cancer survival with five-year survival decreasing as stage at diagnosis increases. Five-year survival ranged from 86.1% for early (stage I) disease to 5.7% for late (stage IV) disease highlighting the importance of an early diagnosis.

## MORTALITY

In 2009-2013 there were an average of 119 deaths from ovarian cancer each year.

### Mortality trends

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



Over the last ten years the number of ovarian cancer deaths has increased from 130 in 2003 to 136 in 2013. When adjusted for age and population change, ovarian cancer mortality rates increased by approximately 2.5% each year from 1994 to 2004, before decreasing by 2.0% each year until 2013.

## PREVALENCE

At the end of 2013 there were 1,175 women living in Northern Ireland who had been diagnosed with ovarian cancer from 1993-2013 (Table 4). Of these, 11% had been diagnosed in the previous year.

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

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Female	0-69	89	205	206	291	791
	70+	39	69	84	192	384
	All ages	128	274	290	483	1175

## FURTHER INFORMATION

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

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



# PANCREAS CANCER



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
105	116	220	100	115	215
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
5.1%	5.3%	5.0%	83	95	178

## INCIDENCE

Between 2009 and 2013 there were an average of 105 males and 116 females diagnosed with pancreatic cancer each year in Northern Ireland. The probability that a male will develop pancreatic cancer before the age of 75 is approximately 1 in 120 whilst the probability that a female will develop pancreatic cancer before the age of 75 is 1 in 156.

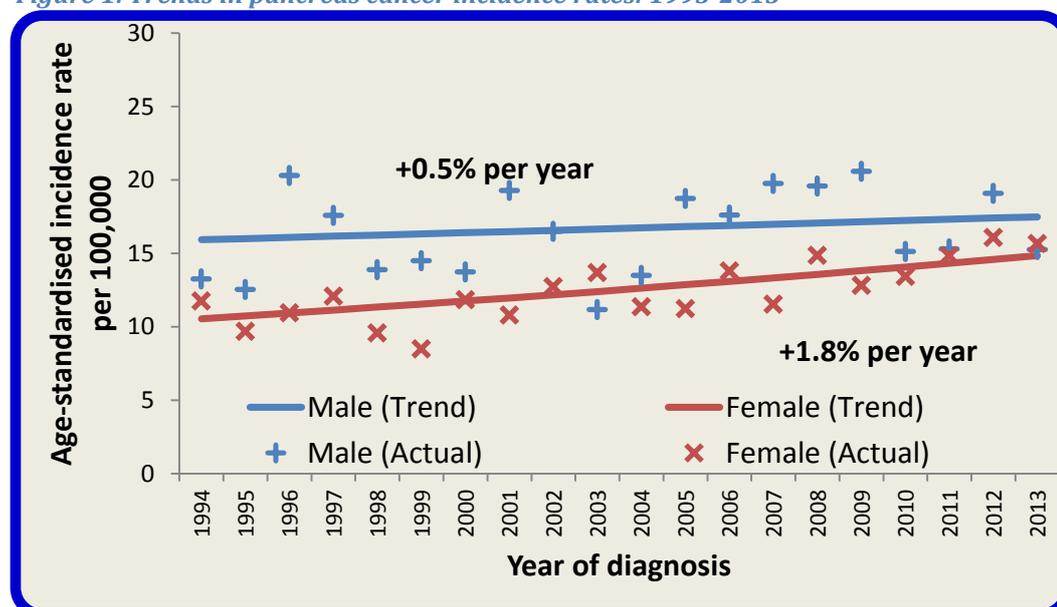
### Incidence trends

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	77	100	104	108	112	113	91	95	124	101
Females	83	81	102	85	112	98	105	118	131	126
Both	160	181	206	193	224	211	196	213	255	227

Over a ten-year period the number of pancreatic cancer cases has increased in males and females from 158 in 2003 to 227 in 2013. After accounting for population changes, cancer incidence rates in males have remained stable during the previous twenty-year period whilst cancer incidence rates in females have increased by 1.8% each year.

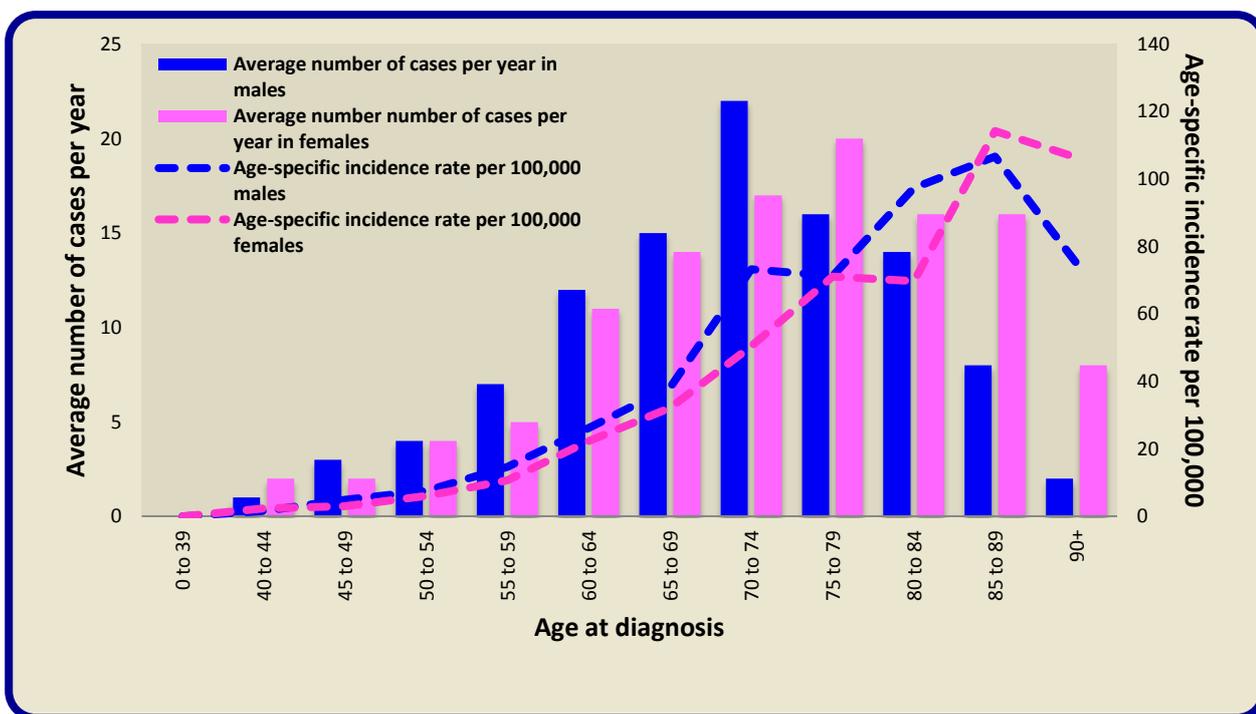
Figure 1: Trends in pancreas cancer incidence rates: 1993-2013



### Incidence and age

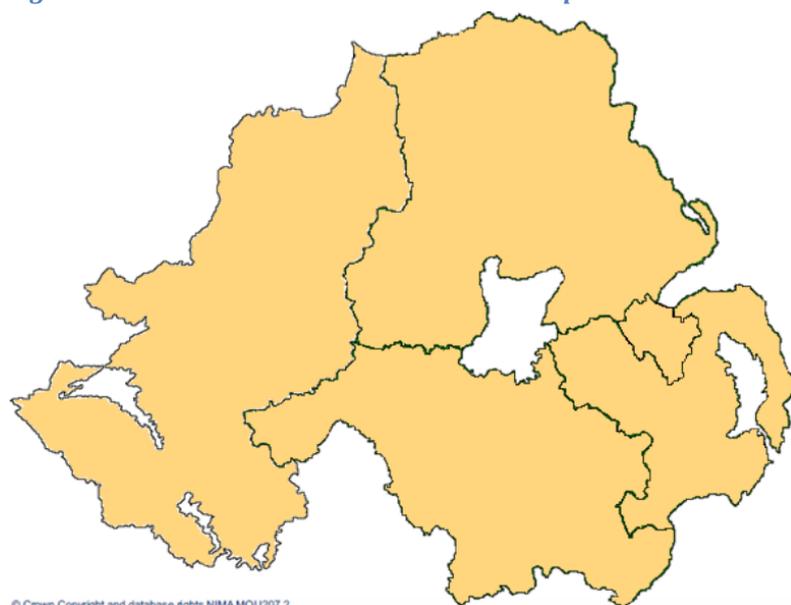
Pancreatic cancer incidence is associated with increasing age. More than 85% of patients diagnosed were over the age of 60. Incidence rates are highest among men and women aged 85-89. There is a sharp increase in the incidence of pancreatic cancer in men after the age of 70. Women experience a steady increase in incidence of pancreatic cancer slightly later (after the age of 80). There were no patients diagnosed under the age of 40.

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



### Incidence by Trust area

Figure 3: Pancreas cancer incidence rates compared with NI average by sex and HSC trust of residence 2009-2013



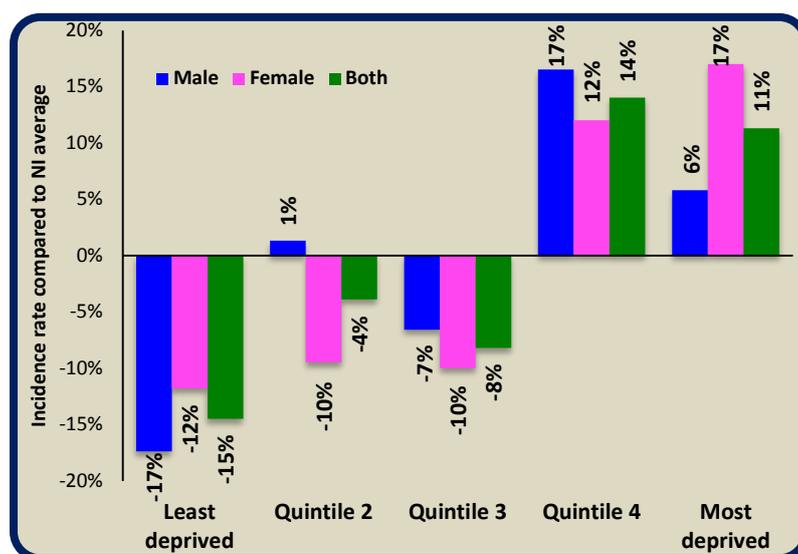
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Significantly higher than average

Significantly lower than average

There were no statistically significant differences in pancreatic cancer incidence rates between health and social care trusts between 2009 and 2013. Incidence of pancreatic cancer was higher than the NI average in females living within the area served by the Belfast HSCT but when both sets of gender data were combined it was no longer statistically significant.

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



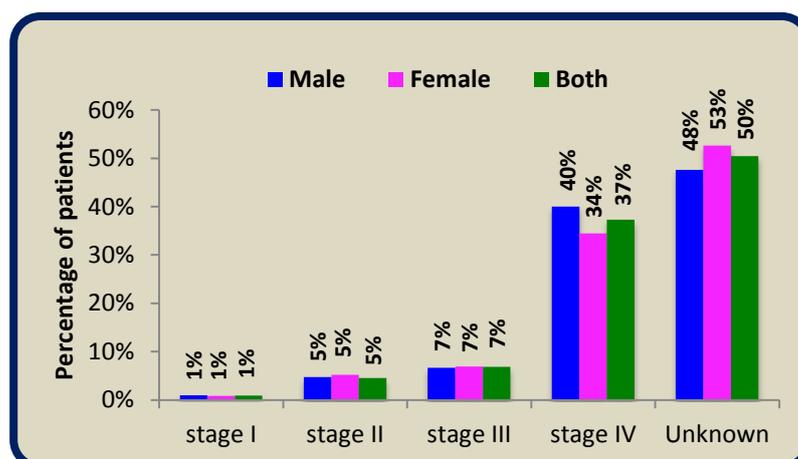
### Incidence by deprivation

Incidence rates of pancreatic cancer are associated with socioeconomic deprivation. Cancer incidence rates are 11% higher than the NI average in the most deprived communities and 15% lower than the NI average amongst those living in the least deprived communities compared to NI as a whole.

### Incidence by stage

Less than half of patients were assigned a stage at diagnosis. The majority of patients who received a stage at diagnosis were diagnosed with stage IV pancreatic cancer (75% of staged cases or 37% of total cases diagnosed). Only 1% of all pancreatic cancer was diagnosed at stage I in Northern Ireland.

Figure 5: Pancreas cancer stage distribution: 2009-2013



## SURVIVAL

The age-standardised survival for men diagnosed with pancreatic cancer between 2004-2008 was 5.1% at five years. The age-standardised survival for women during the same time period was 5.3%. This makes pancreatic cancer the least survivable cancer in Northern Ireland.

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

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	32.4%	28.8%	30.5%
1 year	17.2%	16.2%	16.6%
5 years	5.1%	5.3%	5.0%

## Survival Trends

Five-year survival for pancreatic cancer in Northern Ireland has improved slightly from the 1993-1998 diagnosis period to the 2004-2008 diagnosis period; increasing from 3.0% to 5.0%

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

Period of diagnosis	Male	Female	Both sexes
1993-1998	3.0%	3.1%	3.0%
1999-2003	1.5%	2.3%	1.9%
2004-2008	5.1%	5.3%	5.0%

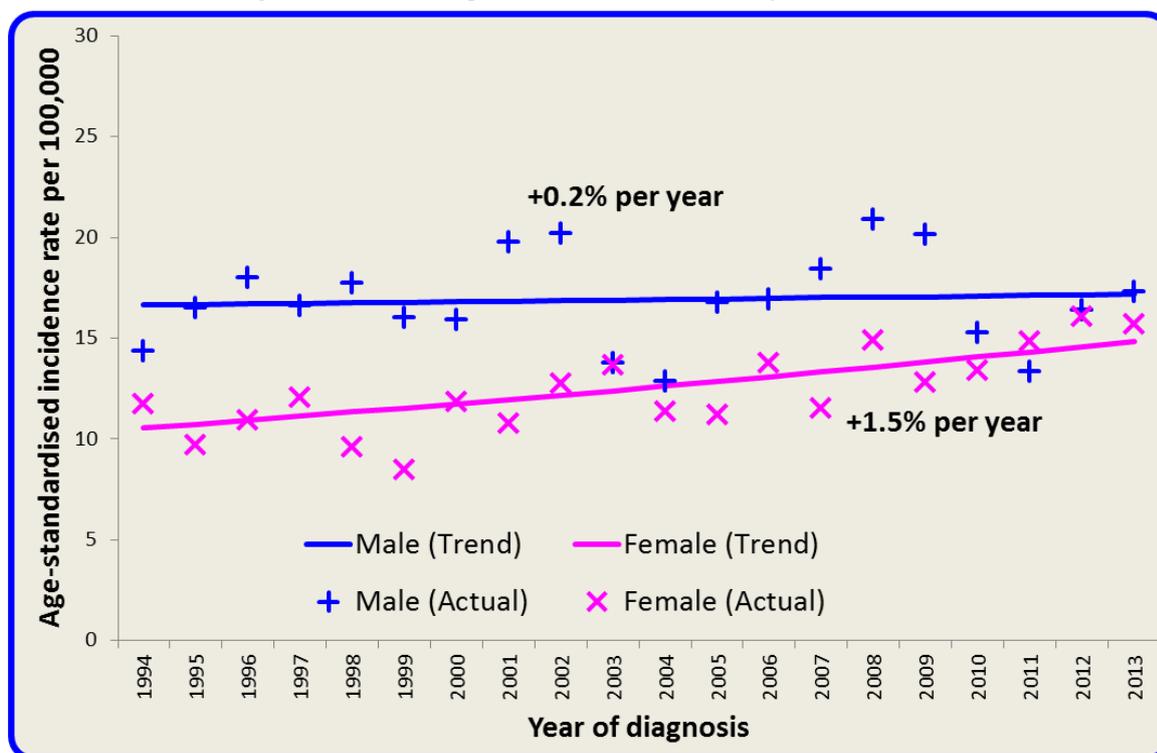
## MORTALITY

In 2009-2013 there was an average of 215 deaths from pancreatic cancer each year.

### Mortality trends

The male pancreatic cancer mortality rate has remained unchanged during the previous twenty-year period. In contrast, female mortality rates have steadily increased by approximately 1.5% during the previous twenty-year period. The reasons for differences in mortality rates between genders are not known.

*Figure 6: Trends in pancreas cancer mortality rates: 1993-2013*



## PREVALENCE

At the end of 2013 there were a total of 178 people living with a diagnosis of pancreatic cancer of which 53% were female, 43% had been diagnosed in the previous year, and 51% were over the age of 70.

*Table 4: Number of people living with pancreas 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	18	17	7	4	46
	70+	14	10	10	3	37
	All ages	32	27	17	7	83
Female	0-69	16	16	6	3	41
	70+	28	16	7	3	54
	All ages	44	32	13	6	95
Both	0-69	34	33	13	7	87
	70+	42	26	17	6	91
	All ages	76	59	30	13	178

## FURTHER INFORMATION

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

### NI Cancer Registry

Phone: +44 (0)28 9063 2573

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## ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast.



NUMBER OF CASES PER YEAR (2009-2013)	NUMBER OF DEATHS PER YEAR (2009-2013)
Male	Male
1,039	244
FIVE-YEAR SURVIVAL (2004-2008)	21-YEAR PREVALENCE (2013)
Male	Male
87.0%	8,323

## INCIDENCE

In 2009-2013 there were 1,039 men diagnosed with prostate cancer each year. The risk for men of developing a prostate cancer up to the age of 75 was 1 in 12; this risk was 1 in 71 up to the age of 60, and 1 in 7 up to the age of 85.

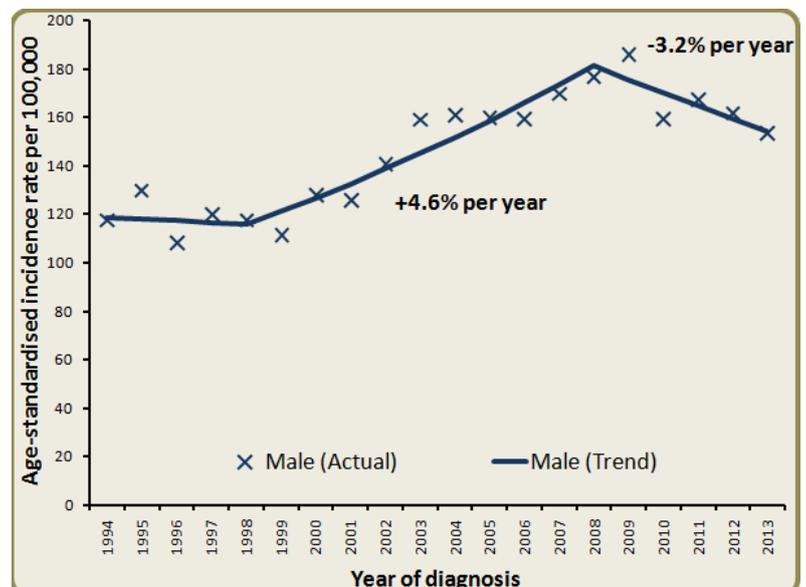
### Incidence trends

Table 1: Incidence of prostate cancer and year of diagnosis: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Male	832	842	879	969	1,023	1,114	958	1,053	1,052	1,018

Over a ten year period from 2004 to 2013 the number of prostate cancers cases in men has increased from 832 to 1,018. Prostate cancer incidence rates in men have increased during 1998-2008 by an average of +4.6% per year, and then have decreased by -3.2% from 2008-2013. Incidence rates of prostate cancer have increased internationally. This is primarily a result of the widespread use of prostate specific antigen (PSA) testing which is a blood test that is used as a diagnostic approach to detect prostate cancer at an early stage but which also detects very slowly growing cancers that would never cause any problems or symptoms in a man's lifetime.

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



### Incidence and age

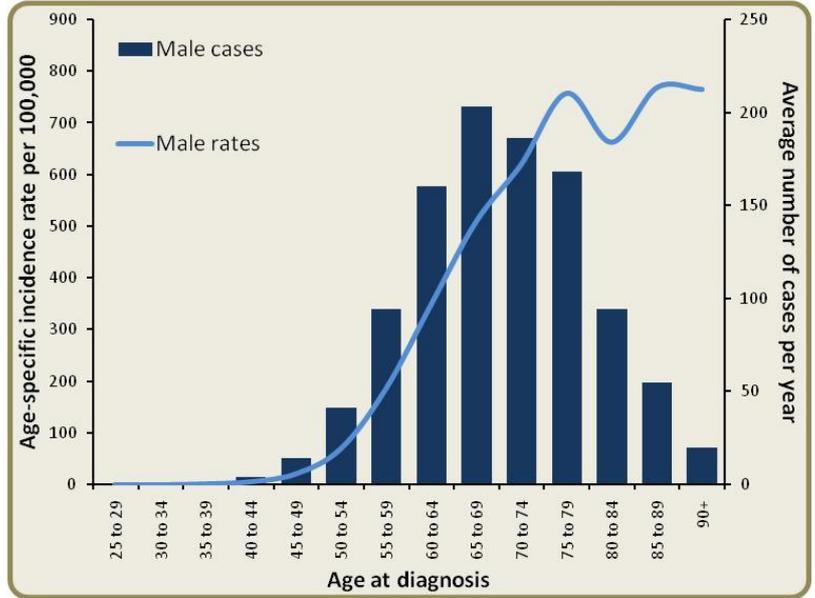
Prostate cancer risk is strongly related to age with approximately 70% of patients diagnosed over the age of 65 years and incidence rates greatest among those aged over 70.

**Table 2: Average number of prostate cancers diagnosed per yr by age: 2009-2013**

Age	Male
0 to 49	19
50 to 64	295
65 to 74	389
75 and over	337
All ages	1,039

Due to rounding of yearly averages, 'All ages' may not equal the sum of age categories in tables.

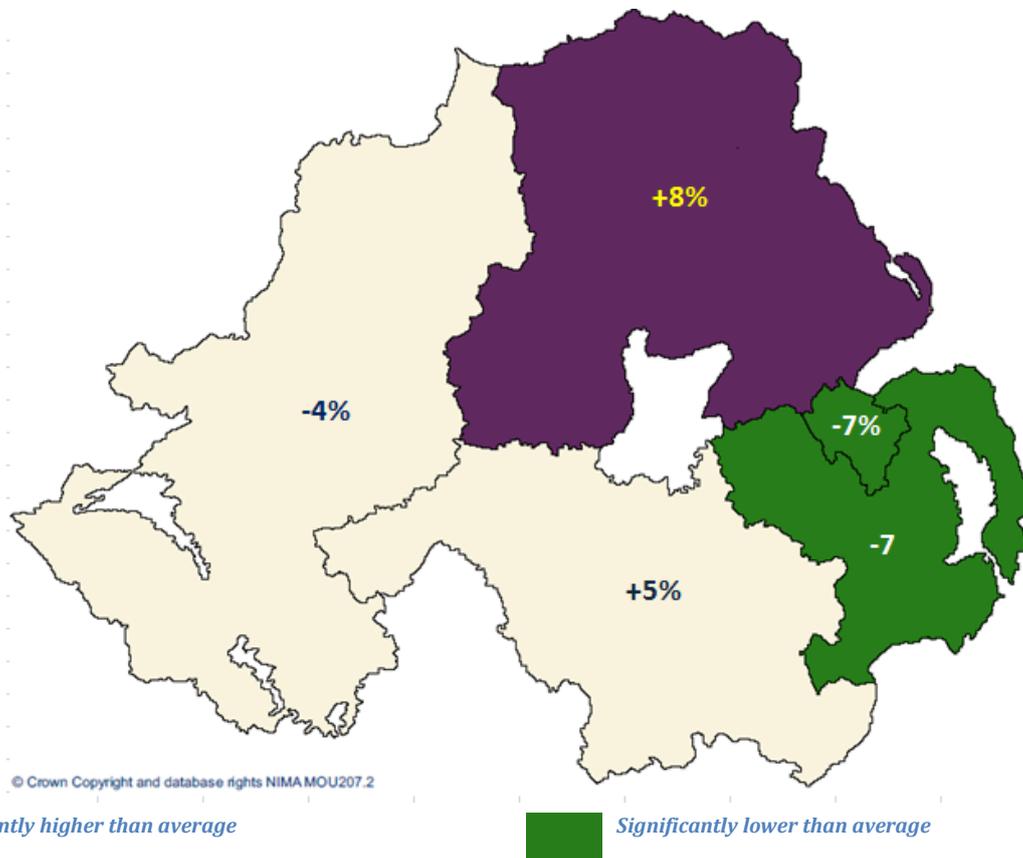
**Figure 2: Incidence of prostate cancer by age: 2009-2013**



### Incidence by Trust area

Prostate cancer incidence rates in 2009-2013 were 8% higher among people living in the Northern Trust area than in Northern Ireland as a whole while those living in Belfast and the South-Eastern Trust areas had 7% lower incidence of prostate cancer than the Northern Ireland Average.

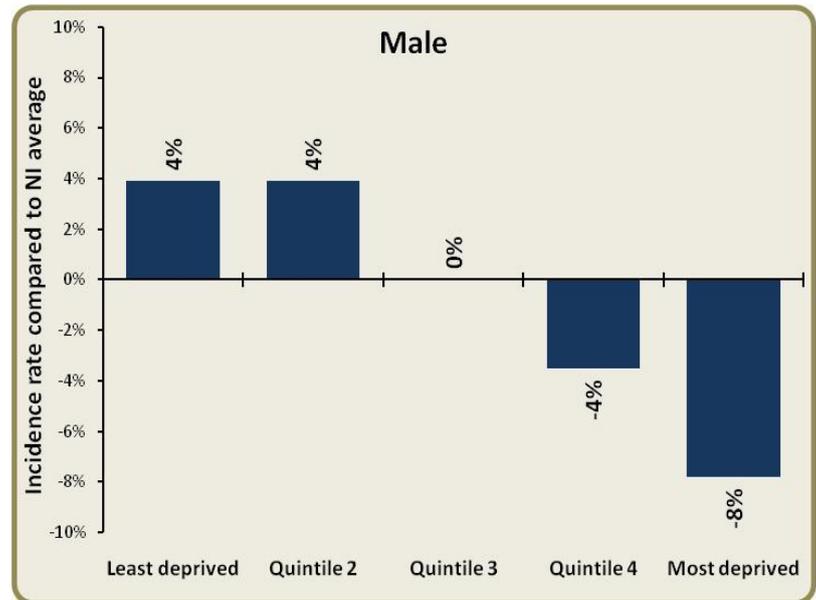
**Figure 3: Prostate cancer incidence rates compared to the NI average by sex and HSC Trust of residence: 2009-2013**



## Incidence by deprivation

Prostate cancer incidence rates varied depending upon socio-economic deprivation. Incidence is significantly lower (-8%) in the most-deprived areas in comparison to Northern Ireland as a whole. This pattern most likely reflects higher rates of PSA testing in the most-affluent communities compared to the most-deprived.

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

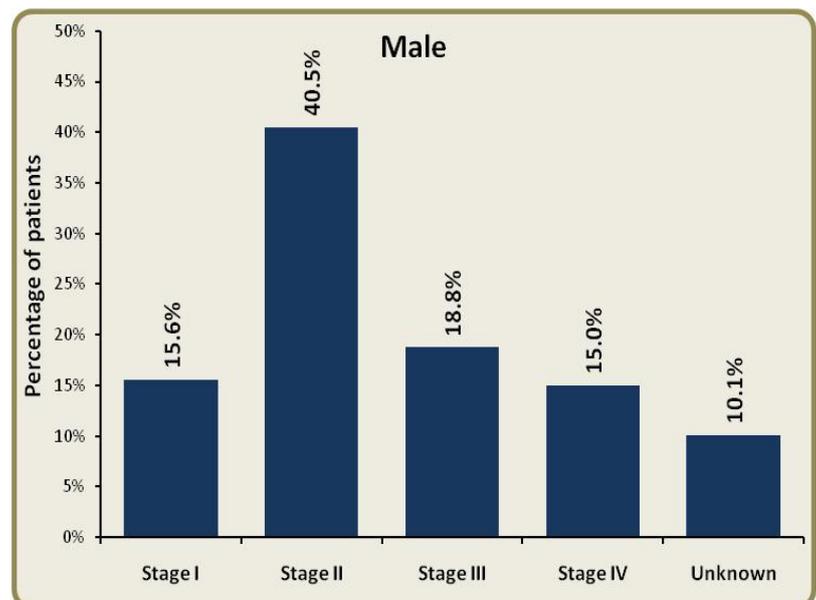


## Incidence by stage

Cancer stage is a way of describing the size of a cancer and how far it has grown and spread. This information is important in helping decide what treatments are needed and stage of disease at diagnosis is strongly associated with cancer survival.

From 2009 to 2013 almost 90% of prostate cancer patients in Northern Ireland were assigned a stage at diagnosis.

*Figure 5: Prostate cancer stage distribution: 2009-2013*



The majority of prostate cancer patients were diagnosed at early stage (15.6% at stage I and 40.5% at Stage II) and 15.0% diagnosed at late stage (stage IV).

## SURVIVAL

The net survival was 97.2% at one year, and 87.0% at five years for prostate cancer patients diagnosed in 2004 to 2008.

*Table 3: Five-year prostate cancer survival by survival time: patients diagnosed 2004-2008*

Time since diagnosis	Diagnosed 2004-2008
	Male
6 months	97.2%
1 year	95.8%
5 years	87.0%

### Survival by age

Prostate cancer survival varies depending upon age at diagnosis with five-year survival ranging from 93.4% for those aged 15-64 to 64.3% for those aged 85 and over.

*Table 4: Survival from prostate cancer by age at diagnosis: patients diagnosed 2004-2008*

Age (years)	6 months	One year	Five years
15 to 64	99.5%	98.7%	93.4%
65 to 74	98.6%	97.3%	88.1%
75 to 84	94.4%	92.3%	80.0%
85 and over	85.3%	80.5%	64.3%

### Survival Trends

Five-year survival for prostate cancer in men has improved from 59.5% in the 1993-1998 diagnosis period to 87.0% in the 2004-2008 diagnosis period. Improvements are largely due to increased detection of slow growing prostate cancer and increasing diagnosis in younger men because of PSA testing. Consequently, epidemiologists consider mortality rates as a better indicator of cancer outcome than survival

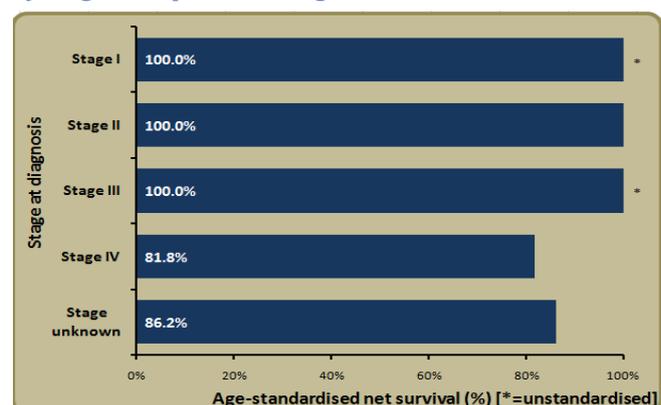
*Table 5: Five-year prostate cancer survival by period of diagnosis*

Period of diagnosis	Male
1993-1998	59.5%
1999-2003	79.8%
2004-2008	87.0%

### Survival and stage

Stage at diagnosis is one of the most important factors in prostate cancer survival with one-year survival decreasing as stage increases. Stage at diagnosis data is available for cancer patients diagnosed since 2009. One-year survival was 100% for all patients except those diagnosed with late stage IV disease (81.8%).

*Figure 6: One year survival from prostate cancer by stage of diagnosis: patients diagnosed 2009-2013*



## MORTALITY

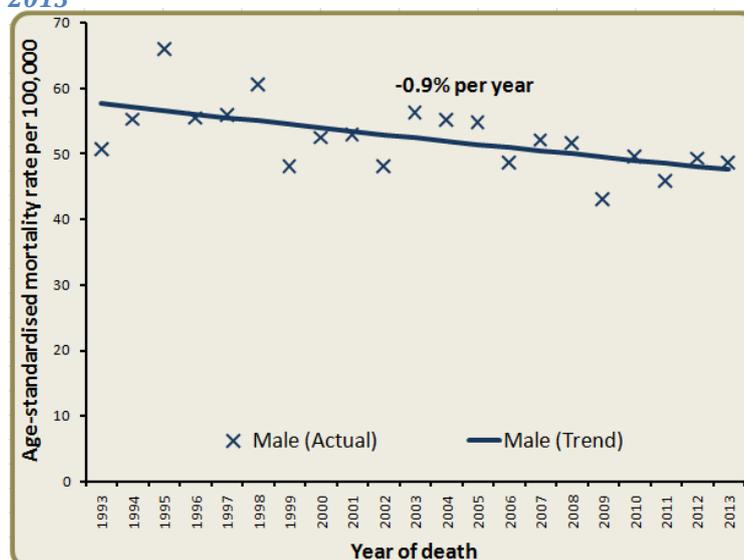
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2009-2013 there were 244 deaths from prostate cancer each year.

### Mortality trends

Over the last ten years the number of prostate cancer deaths has not changed significantly from 240 among men in 2004 to 268 among men in 2013.

When adjusted for age and population change, prostate cancer mortality rates decreased by -0.9% per year during 1993-2013.

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



## PREVALENCE

At the end of 2013 there were 8,323 men living in NI who had been diagnosed with prostate cancer from 1993-2013 (Table 6). Of these, 64.6% were aged 70 and over and 11.8% had been diagnosed in the previous year.

Table 6: Number of men living with prostate cancer at the end of 2013 who were diagnosed from 1993-2013 by time since diagnosis

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Male	0-69	491	1,496	789	169	2,945
	70+	489	1,864	1,936	1,089	5,378
	All ages	980	3,360	2,725	1,258	8,323

## FURTHER INFORMATION

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

### NI Cancer Registry

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## ACKNOWLEDGEMENTS

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NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
141	81	222	84	58	141
FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
15.4%	22.1%	18.0%	417	237	654

## INCIDENCE

Between 2009 and 2013 there were an average of 141 males and 81 females diagnosed with stomach cancer each year in Northern Ireland. The probability that a male will develop stomach cancer before the age of 75 is approximately 1 in 99 whilst the probability that a female will develop stomach cancer before the age of 75 is 1 in 269.

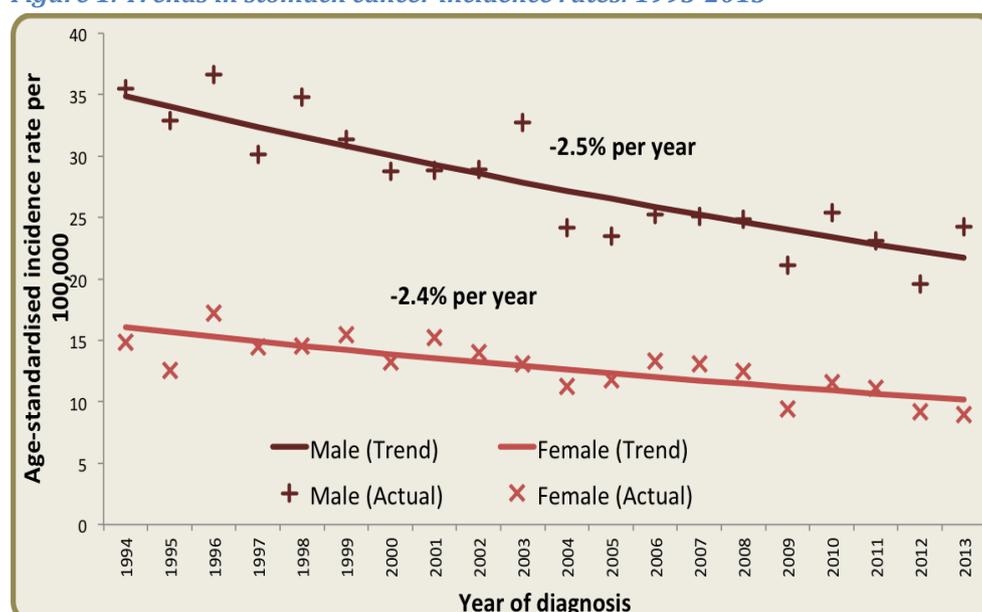
### Incidence trends

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Males	128	125	133	134	140	127	154	145	120	159
Females	81	85	98	99	97	74	92	89	76	74
Both	209	210	231	233	237	201	246	234	196	233

Over a ten-year period the number of stomach cancer cases has increased in males and females from 209 in 2004 to 233 in 2013.

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

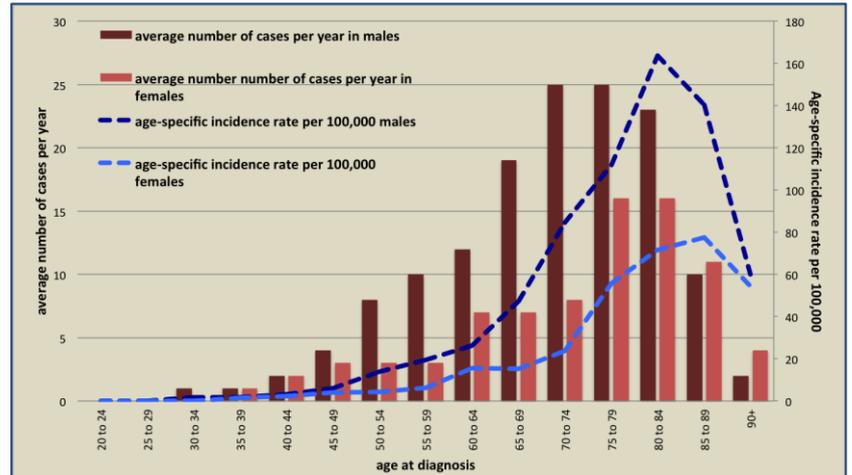


However, after accounting for population changes, there has been a 2.5% decrease in yearly incidence of stomach cancer in males and a 2.4% yearly decrease in incidence of stomach cancer in females.

### Incidence and age

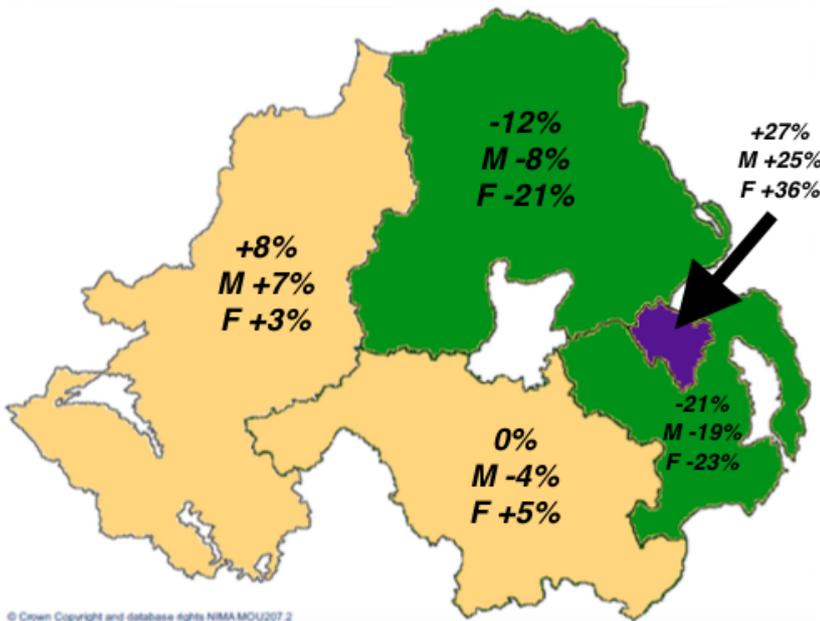
Stomach cancer incidence is associated with increasing age. More than 80% of patients diagnosed were over the age of 60. Incidence rates are highest among men and women in their eighth decade of life. There were no patients diagnosed under the age of 30.

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



### Incidence by Trust area

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



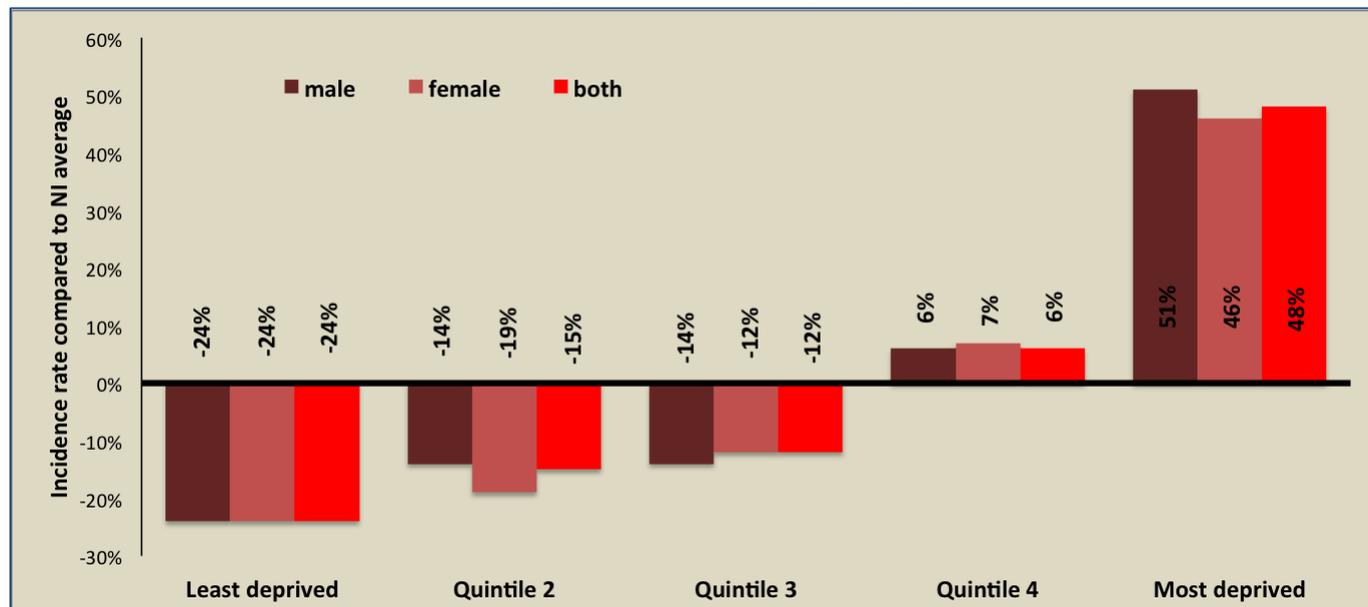
Incidence of stomach cancer was 27% above average in the Belfast health and social care trust whilst it was 12% and 21% lower for the Northern and South Eastern health and social care trusts, respectively.

This trend is present for both males and females across all five health and social care trusts.

## Incidence by deprivation

Incidence of stomach cancer is strongly associated with socioeconomic deprivation in Northern Ireland. Cancer incidence rates are 48% higher than the NI average in the most deprived communities and 24% lower than the NI average in the least deprived communities. This is likely due to historical differences in stomach cancer risk factor exposure such as smoking.

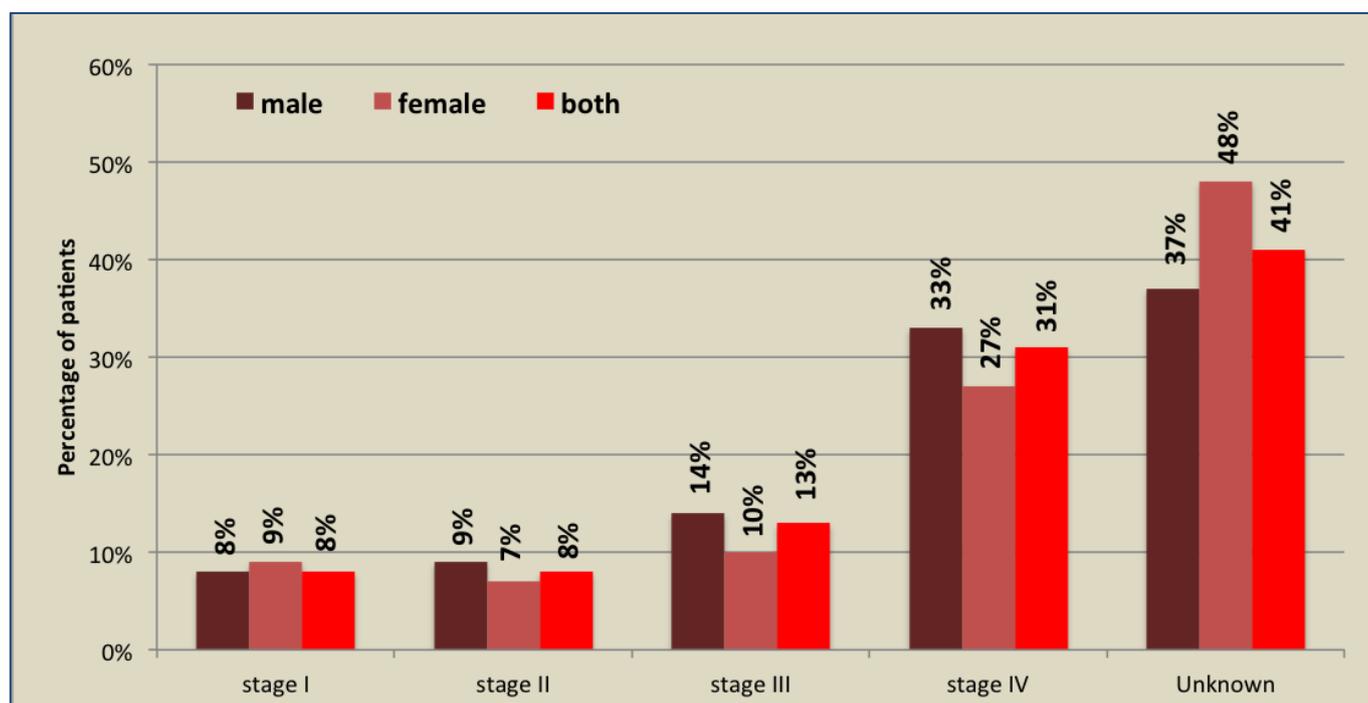
Figure 4: Stomach cancer incidence rates compared to the NI average by deprivation quintile: 2009-2013



## Incidence by stage

Almost 60% of patients were assigned a stage at diagnosis. The majority of patients who could be staged were diagnosed with stage IV stomach cancer (52% of staged cases or 31% of total cases) whilst stage III was the next most common stage at diagnosis (21% of staged cases or 13% of total cases).

Figure 5: Stomach cancer stage distribution: 2009-2013



## SURVIVAL

The age-standardised survival for men diagnosed with stomach cancer between 2004-2008 was 15.4% at five years. The age-standardised survival for women during the same time period was 22.1%.

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

Time since diagnosis	Diagnosed 2004-2008		
	Male	Female	Both sexes
6 months	61.1%	56.2%	59.7%
1 year	40.0%	38.9%	39.6%
5 years	15.4%	22.1%	18.0%

## Survival Trends

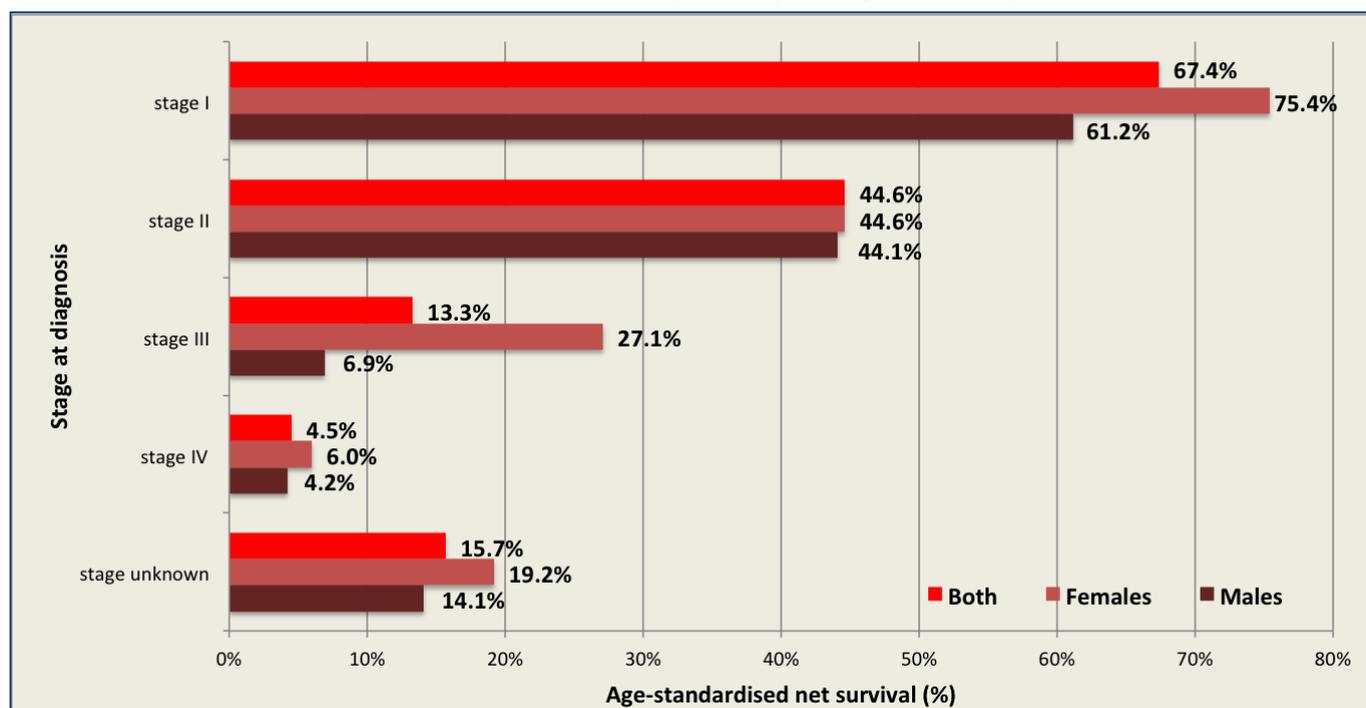
There has been no change in five-year survival for stomach cancer in Northern Ireland in the 1993-1998 diagnosis period to the 2004-2008 diagnosis period in men, whilst only slightly improving in women. Five-year survival in women between 1993-1998 was 16.7% and 22.1% between 2004-2008.

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

Period of diagnosis	Male	Female	Both sexes
1993-1998	15.4%	16.7%	15.4%
1999-2003	16.5%	18.1%	17.1%
2004-2008	15.4%	22.1%	18.0%

## Survival and stage

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



Stage at diagnosis is one of the most important factors in stomach cancer survival with five-year survival decreasing for cancers diagnosed as stage III or above. Five-year survival rates for stage IV stomach cancer were poor with only 4.2% of males and 6.0% of females surviving five years.

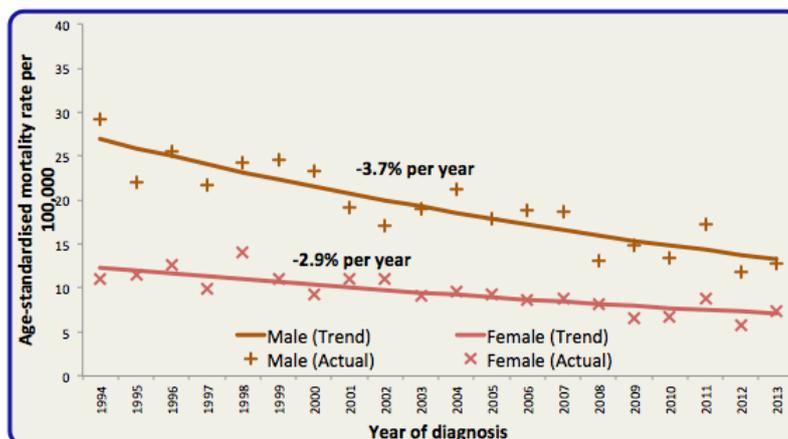
## MORTALITY

Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2009-2013 there were an average of 141 deaths from stomach cancer each year.

### Mortality trends

After adjusting for population changes, mortality rates from stomach cancer have decreased in both males and females. The male stomach cancer mortality rate has decreased by 3.7% each year during 1993-2013. Female mortality rates have also decreased, by 2.9% annually, during 1993-2013.

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



## PREVALENCE

At the end of 2013 there were a total of 654 people living with a diagnosis of stomach cancer of which 64% were male, 24% had been diagnosed in the previous year, and 66% were over the age of 70.

Table 4: Number of people living with stomach 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	42	57	20	23	142
	70+	69	76	46	84	275
	All ages	111	133	66	107	417
Female	0-69	19	26	18	18	81
	70+	28	40	36	52	16
	All ages	47	66	54	70	237
Both	0-69	61	83	38	41	223
	70+	97	116	82	136	431
	All ages	158	199	120	177	654

## FURTHER INFORMATION

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

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## ACKNOWLEDGEMENTS

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# UTERUS BODY CANCER



NUMBER OF CASES PER YEAR (2009-2013)			NUMBER OF DEATHS PER YEAR (2009-2013)		
Male	Female	Both sexes	Male	Female	Both sexes
0	238	-	0	49	-

FIVE-YEAR SURVIVAL (2004-2008)			21-YEAR PREVALENCE (2013)		
Male	Female	Both sexes	Male	Female	Both sexes
-	75.1%	-	0	2,257	-

## INCIDENCE

Between 2009 and 2013 there were an average of 238 female patients diagnosed with uterus body cancer each year in Northern Ireland. The probability that a female will develop uterus body cancer before the age of 75 is approximately 1 in 50.

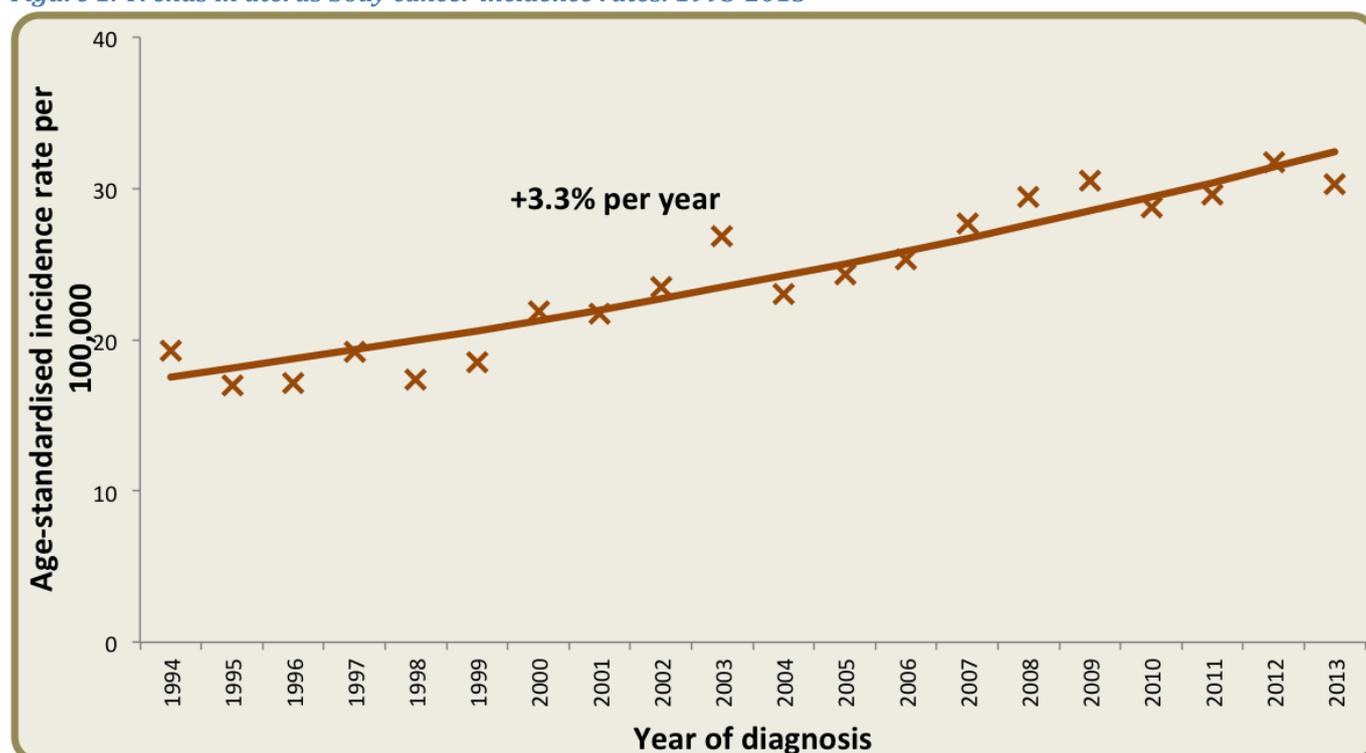
### Incidence trends

Table 1: Incidence of uterus body cancer by year of diagnosis: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Female	165	176	187	205	223	234	223	231	253	248

Over a ten-year period the number of uterus body cancer cases increased from 165 in 2004 to 248 in 2013. After accounting for population changes, uterus cancer incidence has increased by 3.3% per year.

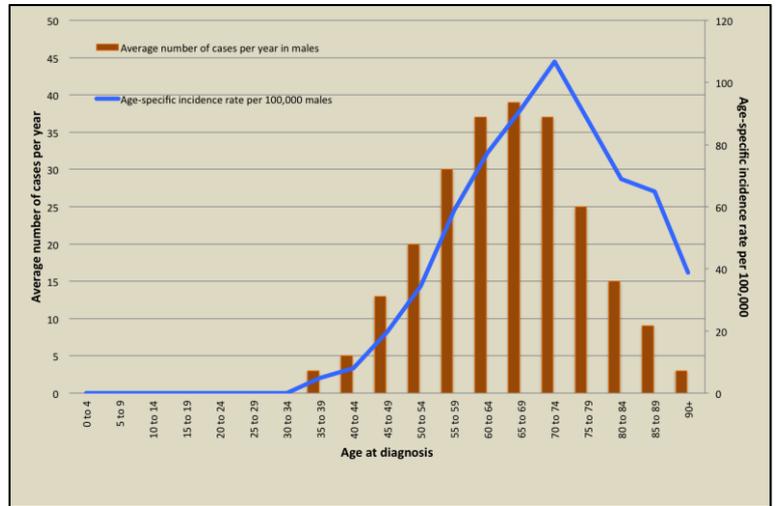
Figure 1: Trends in uterus body cancer incidence rates: 1993-2013



**Incidence and age**

Uterus body cancer risk is strongly related to age with 100% of women diagnosed in Northern Ireland over the age of 35 years at the time of diagnosis. Incidence rates are highest among women aged 70-74. Incidence rates decrease thereafter.

*Figure 2: Incidence of uterus body cancer by age: 2009-2013*



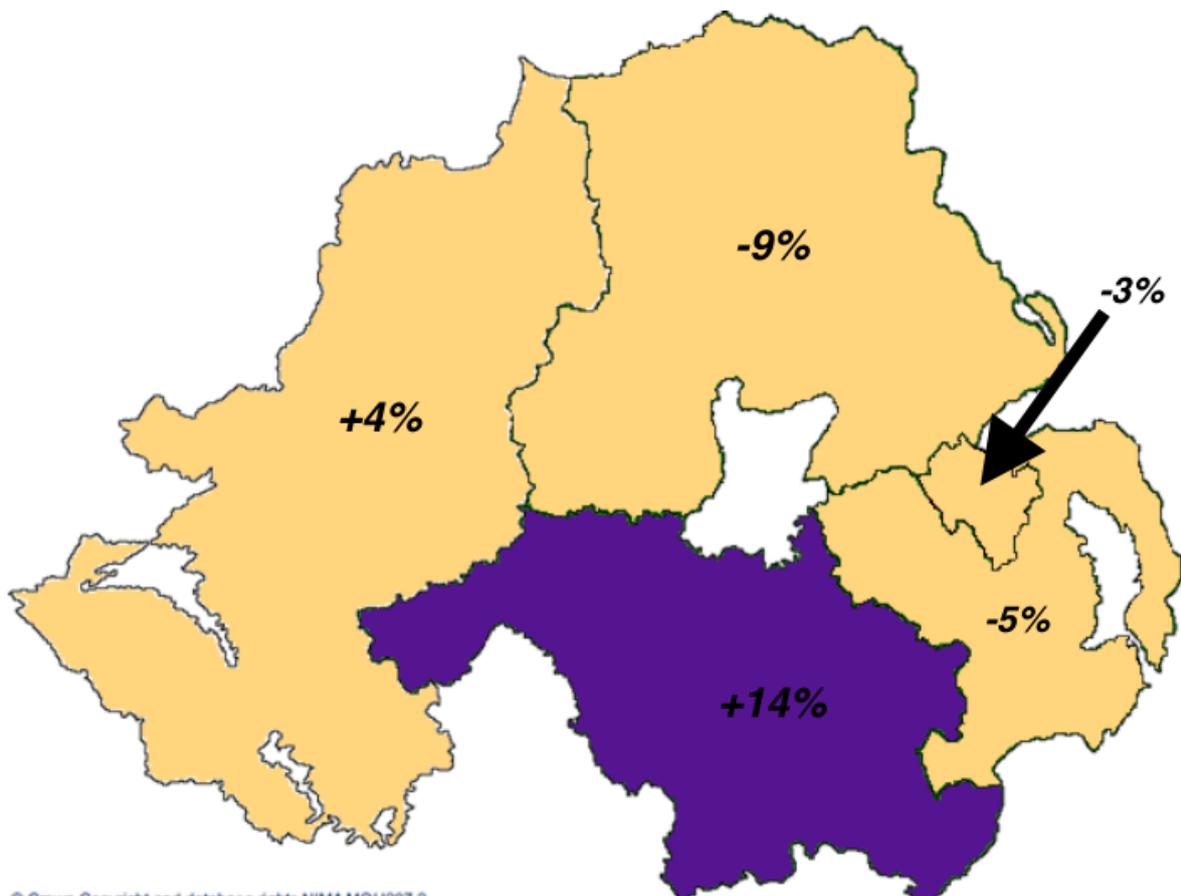
There were no reported cases of uterus body cancer in women under the age of 35 in 2009-2013 and incidence remains low until middle age.

Approximately 85% of all cases of uterus body cancer occur between the ages of 45 and 79 with almost one third of all cases diagnosed during the 6<sup>th</sup> decade of life.

**Incidence by Trust area**

Uterus body cancer incidence rates in 2009-2013 were 14% higher than the NI average among people living within the Southern trust area.

*Figure 3: Uterus body cancer incidence rates compared to the NI average by HSC Trust of residence: 2009-2013*



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Significantly higher than average

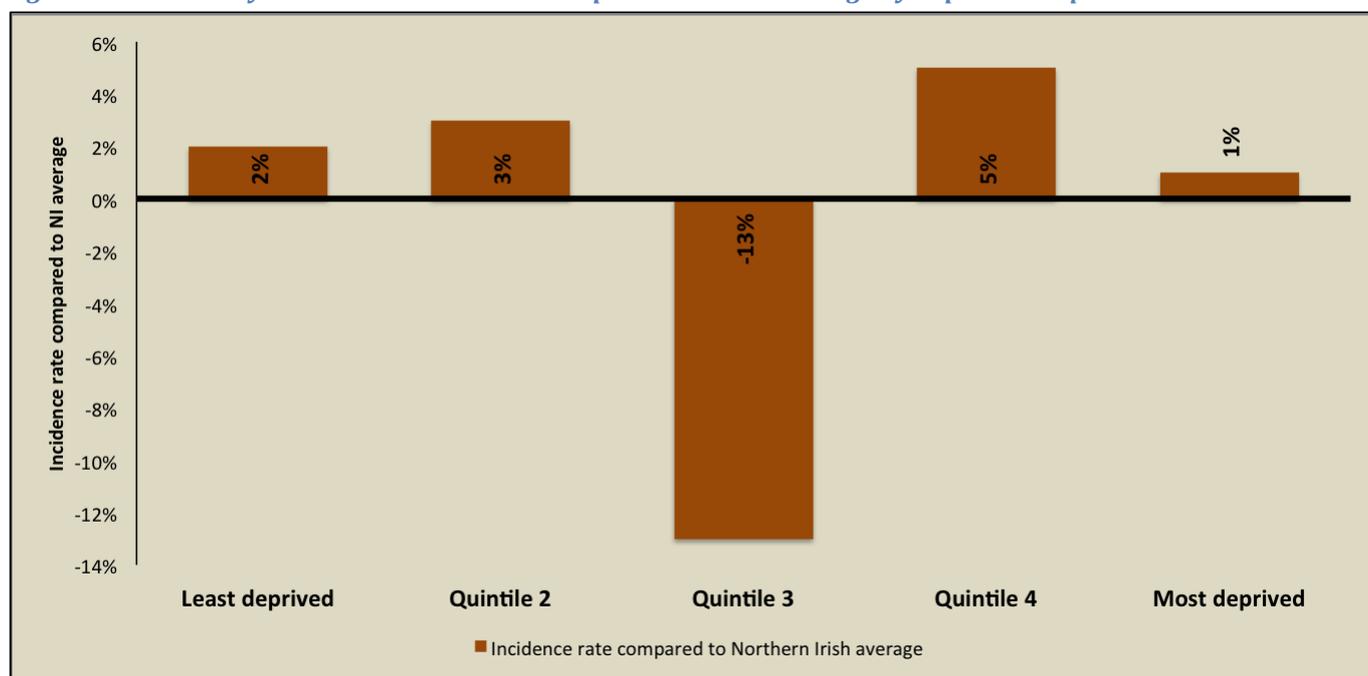


Significantly lower than average

## Incidence by deprivation

Uterus body cancer incidence is 13% lower among communities within deprivation quintile 3 compared to the NI average. However, there appears to be no trend in incidence rates of uterus body cancer and socioeconomic deprivation.

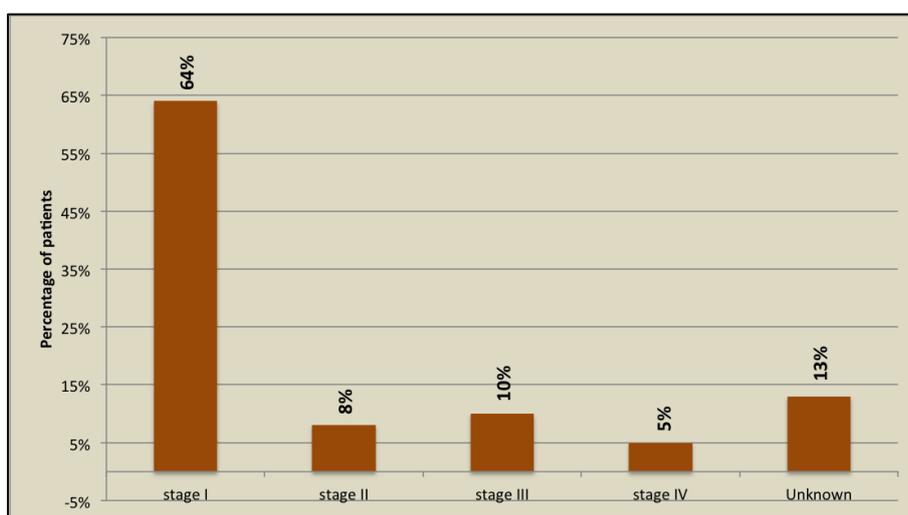
Figure 4: Uterus body cancer incidence rates compared to the NI average by deprivation quintile: 2009-2013



## Incidence by stage

Cancer stage is a way of describing the size of a cancer and how far it has grown and spread. This information is important in helping decide what treatments are needed and stage of disease at diagnosis is strongly associated with survival.

Figure 5: Uterus body cancer stage distribution: 2009-2013



Over 85% of uterus body cancer patients were assigned a stage at diagnosis. The majority of uterus body cancer patients were diagnosed at stage I (64%). The next most common stage to be diagnosed at was stage III (10%).

## SURVIVAL

The net survival was 88.4% at one year, and 75.1% at five years for patients diagnosed with uterus body cancer in 2004-2008.

*Table 2: Five-year uterus body cancer survival by survival time: patients diagnosed 2004-2008*

Time since diagnosis	Diagnosed 2004-2008	
	Female	
6 months	93.3%	
1 year	88.4%	
5 years	75.1%	

### Survival Trends

Five-year survival for uterus body cancer has increased in Northern Ireland from the 1993-1998-diagnosis period to the 2004-2008-diagnosis period. Five-year survival between 1993-1998 was 63.8% and 75.1% between 2004-2008 representing a significant increase in survival.

*Table 3: Five-year uterus body cancer survival by period of diagnosis*

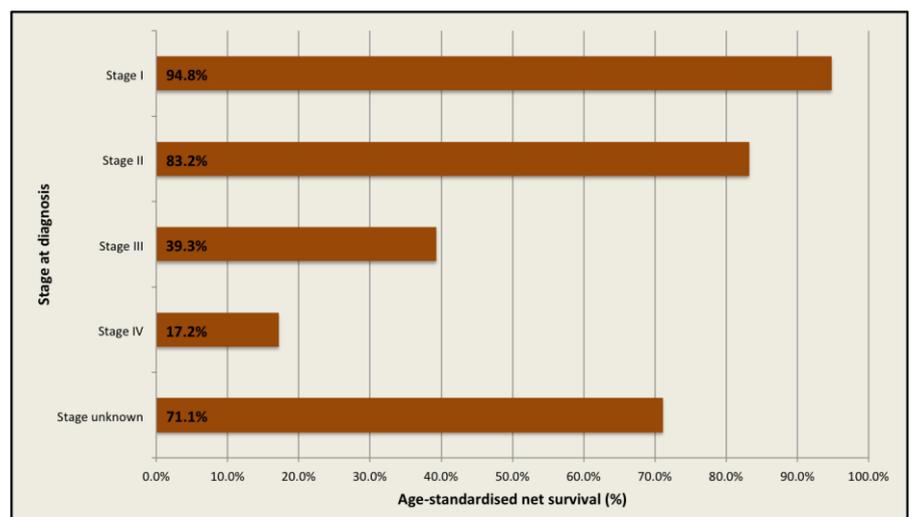
Period of diagnosis	Female
1993-1998	63.8%
1999-2003	67.2%
2004-2008	75.1%

### Survival and stage

Stage at diagnosis is one of the most important factors in uterus body cancer survival with five-year survival decreasing as stage at diagnosis increases.

Five-year survival ranged from 94.8% for early (stage I) disease to 17.2% for late (stage IV) disease thus highlighting the importance of an early diagnosis.

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

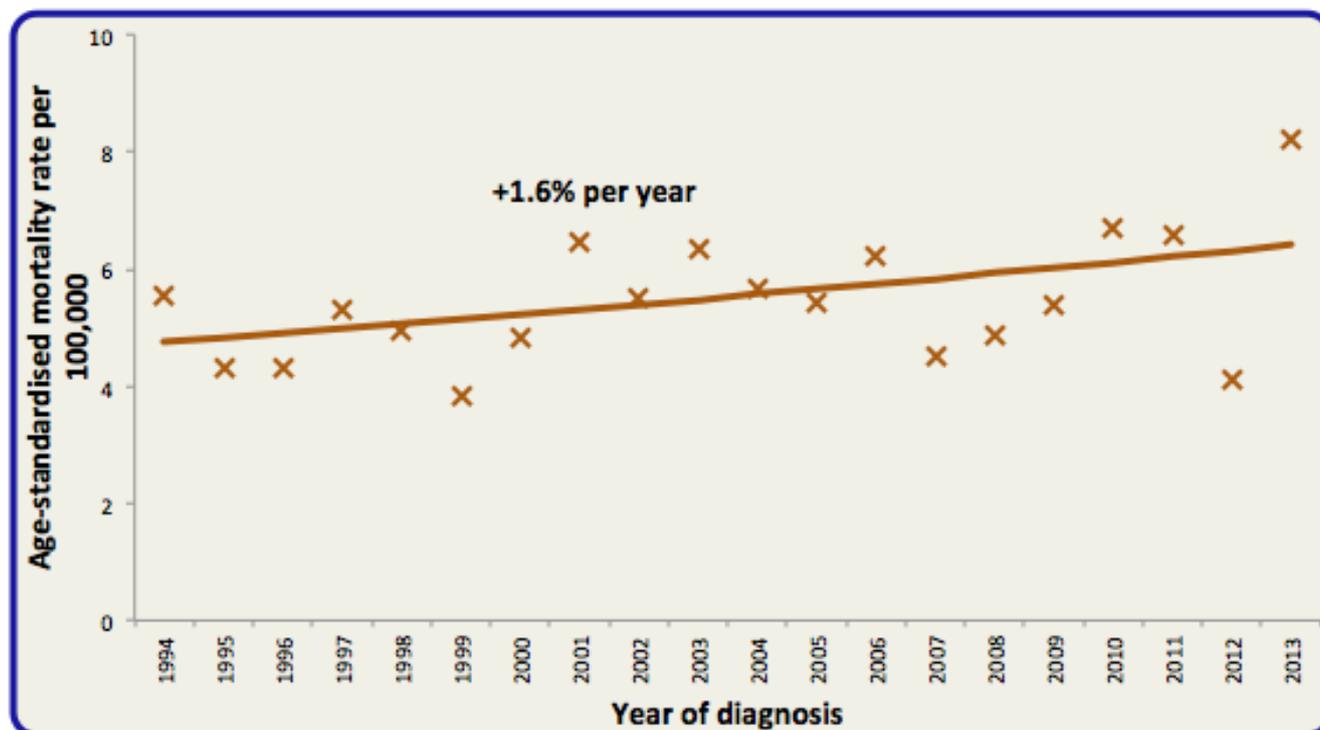


## MORTALITY

In 2009-2013 there were an average of 49 deaths from uterus body cancer each year.

### Mortality trends

Figure 7: Trends in uterus body cancer mortality rates: 1993-2013



Over the last ten years the number of uterus body cancer deaths has increased from 44 in 2003 to 67 in 2013. When adjusted for age and population change, uterus body cancer mortality rates increased by approximately 1.6% each year.

## PREVALENCE

At the end of 2013 there were 2,257 women living in Northern Ireland who had been diagnosed with uterus body cancer from 1993-2013 (table 4). Of these, 10% had been diagnosed in the previous year.

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

Sex	Age	Time since diagnosis				21-year Prevalence
		0-1 year	1-5 years	5-10 years	10-21 years	
Female	0-69	145	437	343	220	1145
	70+	83	311	284	434	1112
	All ages	228	748	627	654	2257

## FURTHER INFORMATION

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

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