

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 ¹	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

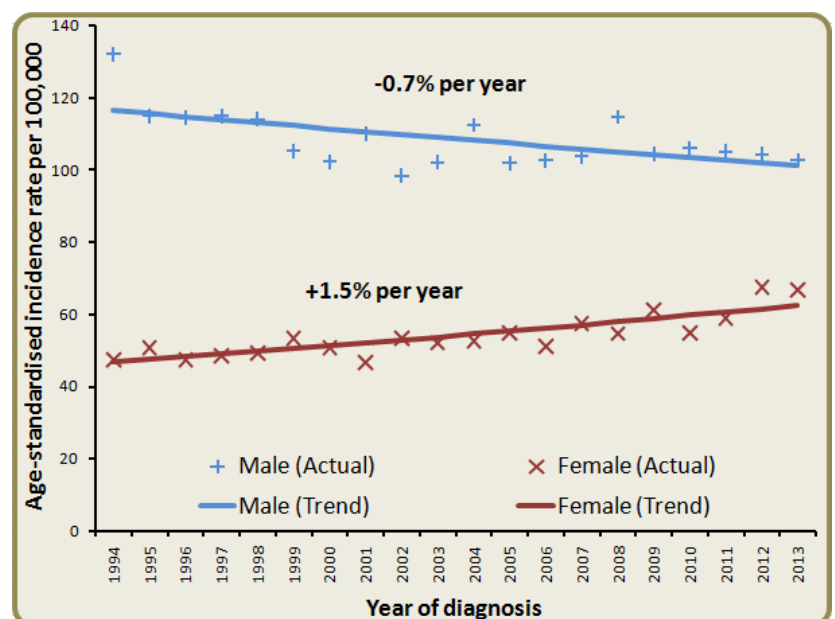
Table 1: Incidence of lung cancer by sex and year of diagnosis: 2004-2013

	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



¹ 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

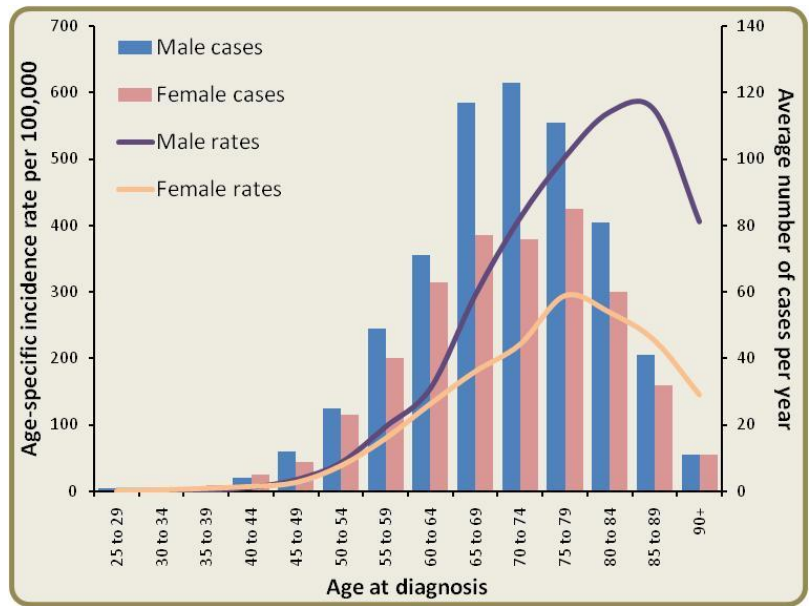
Lung cancer risk is strongly related to age with 73% of patients diagnosed over the age of 65 years. Incidence rates are highest among men aged 80-89 and among women aged 75-79.

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.

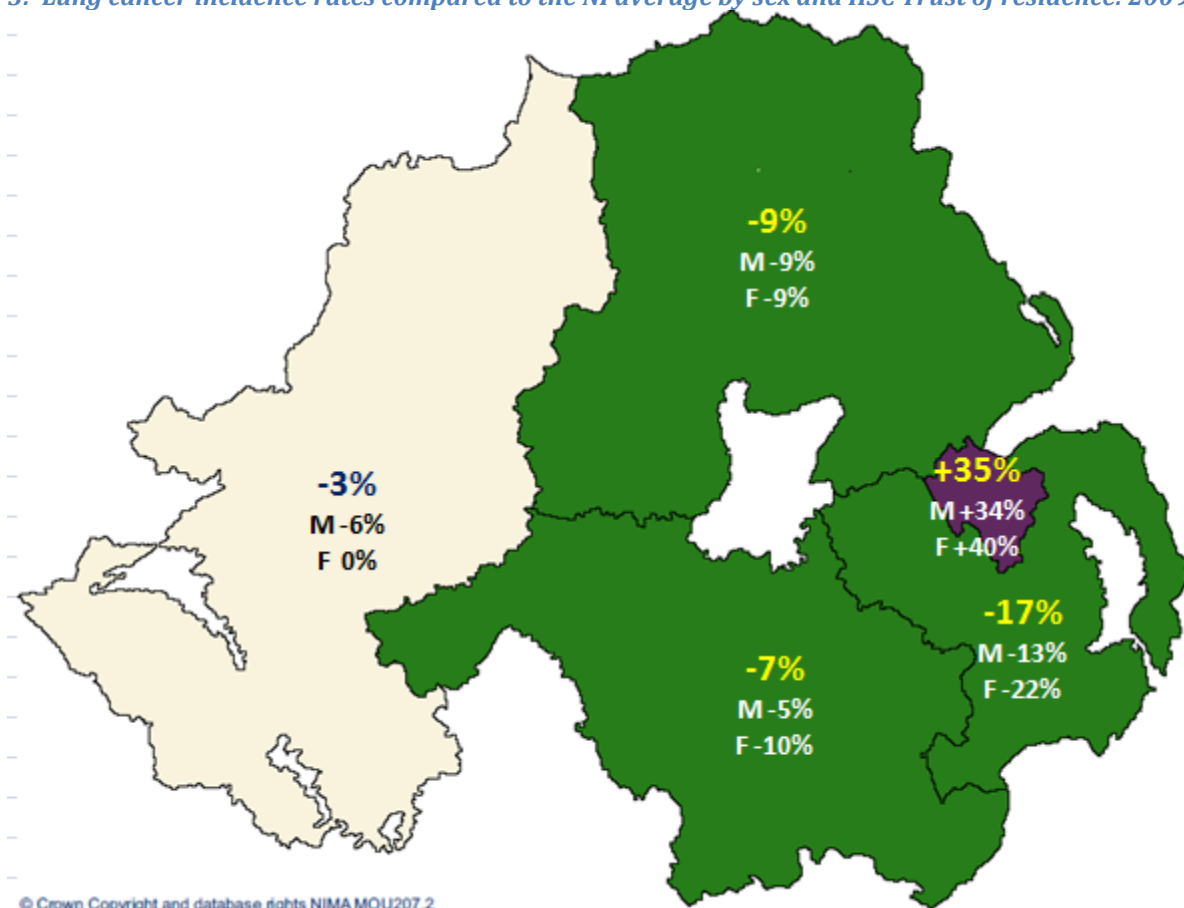
Figure 2: Incidence of lung cancer by age and sex: 2009-2013



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



© Crown Copyright and database rights NIMA MOU207.2

Significantly higher than average

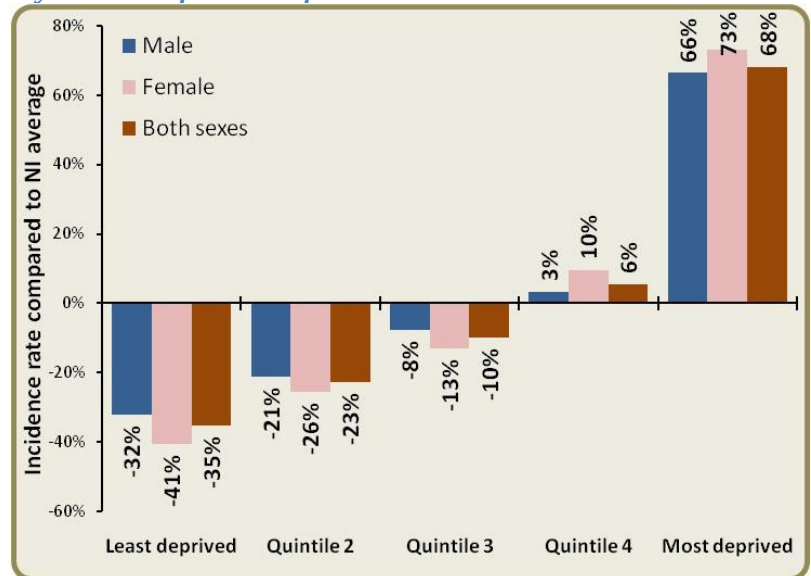
Significantly lower than average

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



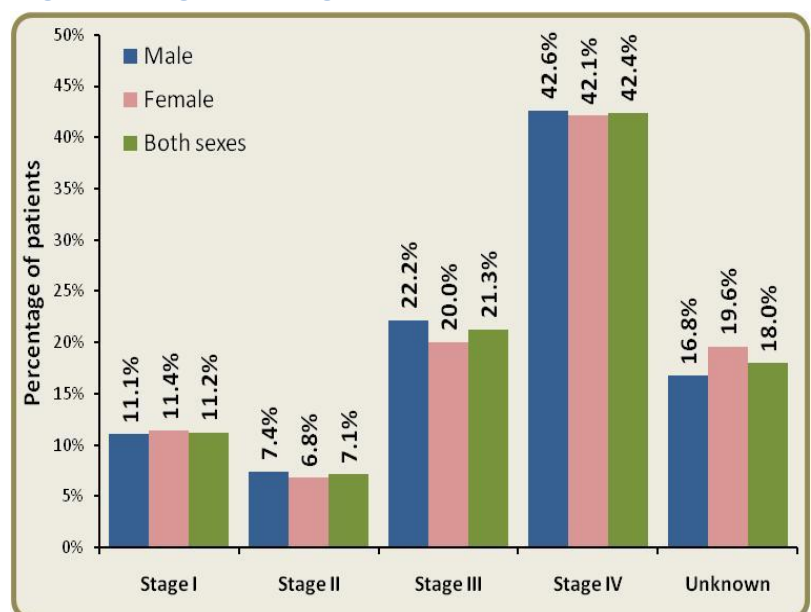
Incidence by stage

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

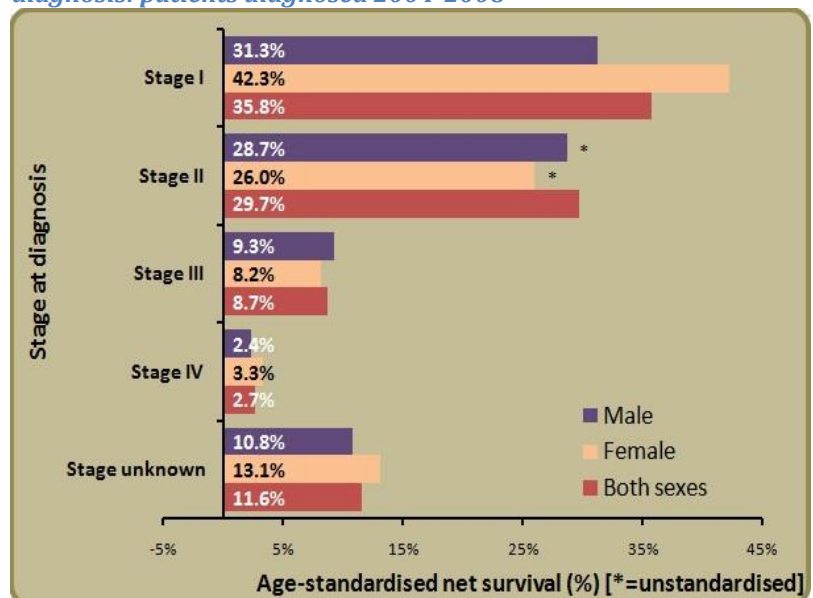
Period of diagnosis	Male	Female	Both sexes
1993-1998	7.4%	9.5%	8.2%
1999-2003	8.6%	10.1%	9.2%
2004-2008	9.6%	11.7%	10.4%

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

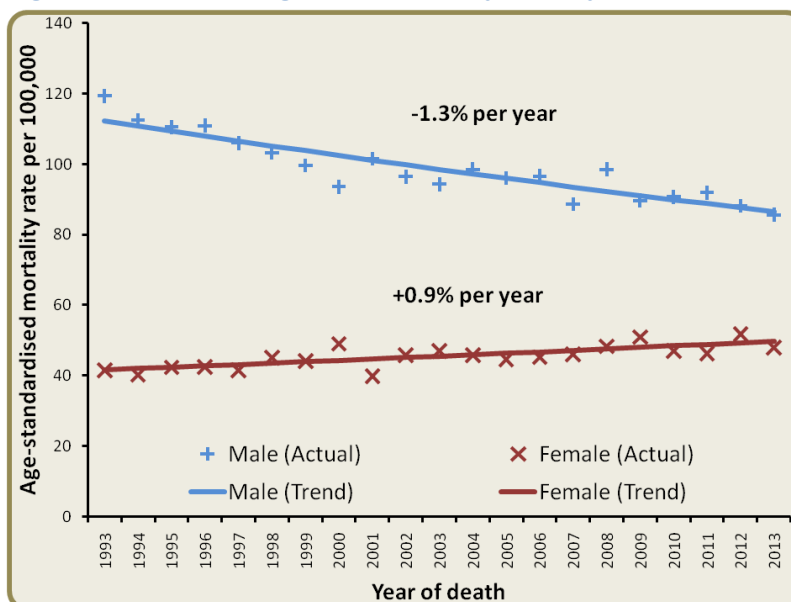
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2009-2013 there were 542 male and 384 female deaths from lung cancer each year.

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

NI Cancer Registry

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



ACKNOWLEDGEMENTS

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

