

NUMBER OF CASES PER YEAR (2010-2014)			NUMBER OF DEATHS PER YEAR (2010-2014)		
Male	Female	Both sexes	Male	Female	Both sexes
656	509	1165 ¹	544	397	940

FIVE-YEAR SURVIVAL (2004-2008)			22-YEAR PREVALENCE (2014)		
Male	Female	Both sexes	Male	Female	Both sexes
10.0%	11.4%	10.5%	1003	924	1927

INCIDENCE

In 2010-2014 there were 656 male and 509 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 29 for women.

Incidence trends

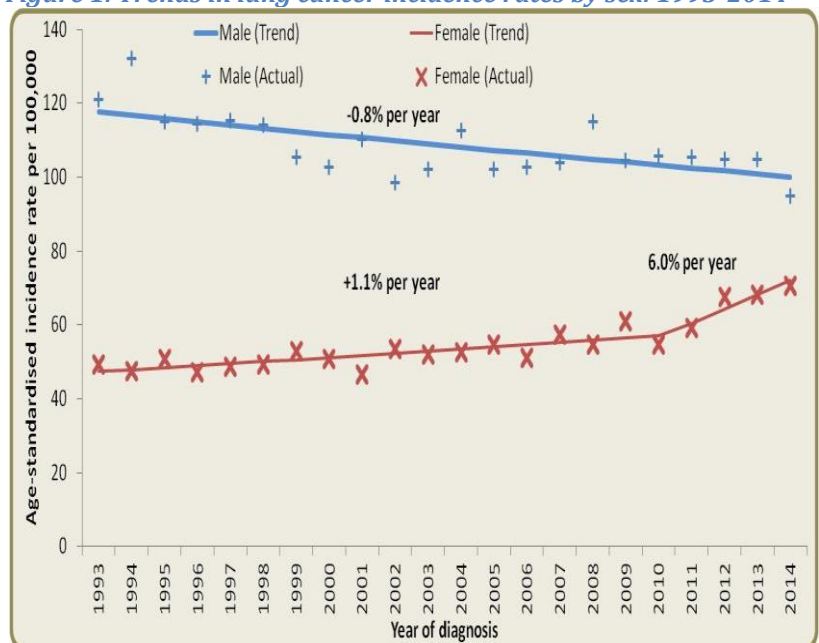
Table 1: Incidence of lung cancer by sex and year of diagnosis: 2005-2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Male	559	574	602	654	621	640	657	657	685	640
Female	395	369	423	410	462	422	465	535	551	574
Both sexes	954	943	1,025	1,064	1,083	1,062	1,122	1,192	1,236	1214

Over a ten year period the number of lung cancer cases increased from 559 among men and 395 among women in 2005 to 640 among men and 574 among women in 2014.

After accounting for the increasing number of older people in the NI population, lung cancer incidence rates decreased among males during 1993-2014 by an average of 0.8% per year. However for the same period, female incidence rates increased by an average of 1.1% per year between 1993 and 2009 and 6.0% per year between 2010 and 2014. 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: 1993-2014



¹ Mean yearly incidence data for period 2010-2014 has been rounded to nearest integer, and thus some numbers in tables will not add to give the exact total.

Incidence and age

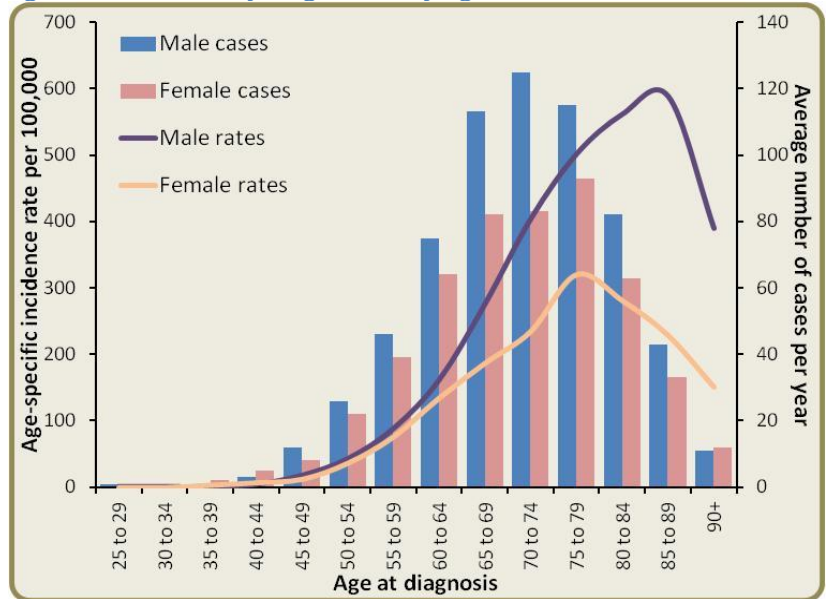
Lung cancer risk is strongly related to age with 73% of patients diagnosed over the age of 65 years. Incidence rates are highest among men aged 85-89 and among women aged 75-79.

Table 2: Average number of lung cancers diagnosed per year by sex and age: 2010-2014

Age	Male	Female	Total
0 to 49	19	15	35
50 to 64	147	125	272
65 to 74	238	165	403
75 and over	251	201	452
All ages	656	509	1,165

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

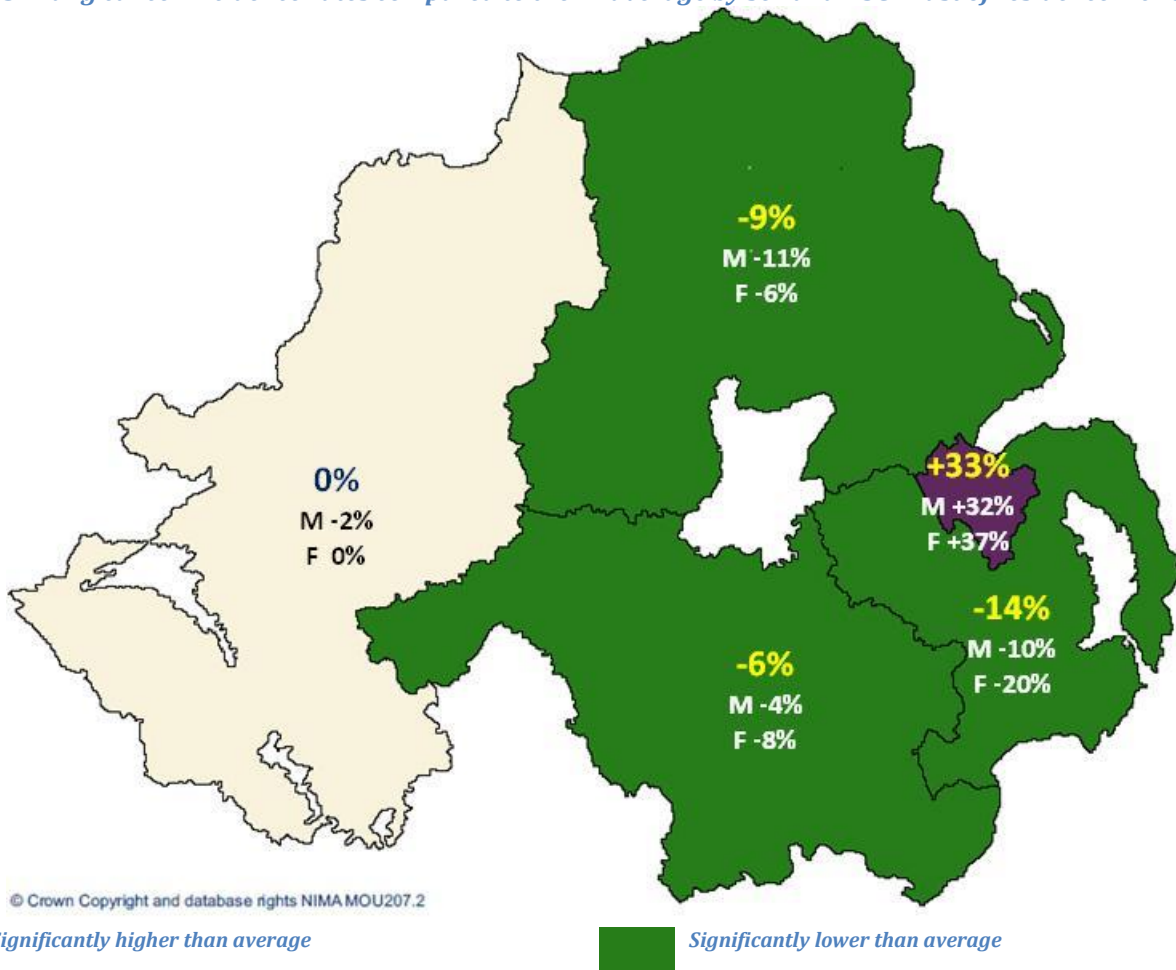
Figure 2: Incidence of lung cancer by age and sex: 2010-2014



Incidence by Trust area

Lung cancer incidence rates in 2010-2014 were 33% 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: 2010-2014

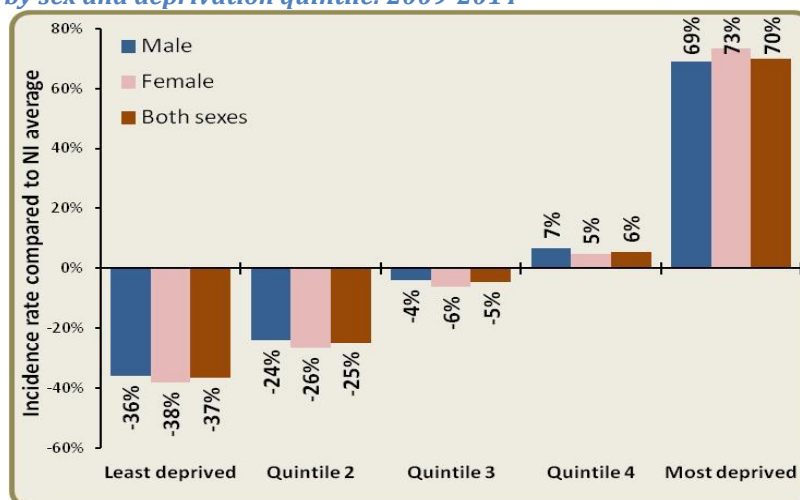


Incidence by deprivation

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 230 fewer men and 190 fewer women would be diagnosed each year in Northern Ireland if the lung cancer incidence rates (in years 2010-2014) 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: 2009-2014

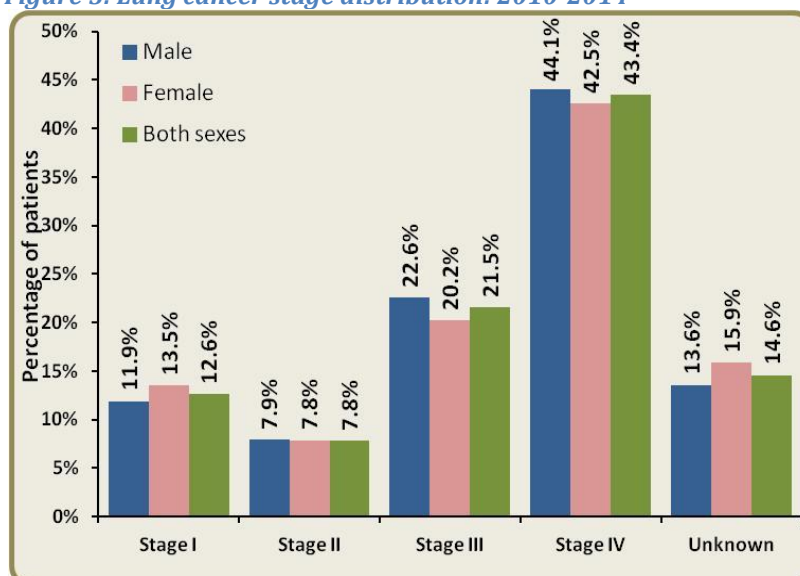


Incidence by stage

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 2010-2014 over four fifths (85.3%) of lung cancer patients in Northern Ireland were assigned a stage at diagnosis.

Figure 5: Lung cancer stage distribution: 2010-2014



The majority of lung cancer patients were diagnosed at a later stage with 43.4% (50.9% of staged disease)

diagnosed at stage IV compared to 12.6% (14.8% of staged disease) at stage I. There was no significant difference in the distribution of stage at diagnosis between men and women.

SURVIVAL

The net survival was 31.5% at one year, and 10.5% at five years for lung cancer patients diagnosed in 2005 to 2009.

Table 3: Five-year lung cancer survival by survival time and sex: patients diagnosed 2005-2009

Time since diagnosis	Diagnosed 2005-2009		
	Male	Female	Both sexes
6 months	46.2%	51.8%	48.5%
1 year	30.1%	33.7%	31.5%
5 years	10.0%	11.4%	10.5%

Survival Trends

Five-year survival for lung cancer has improved from the 1993-1999 diagnosis period to the 2005-2009 diagnosis period; increasing for men from 8.0% to 10.0% and for women from 9.8% to 11.4%.

Table 4: Five-year lung cancer survival by period of diagnosis and sex

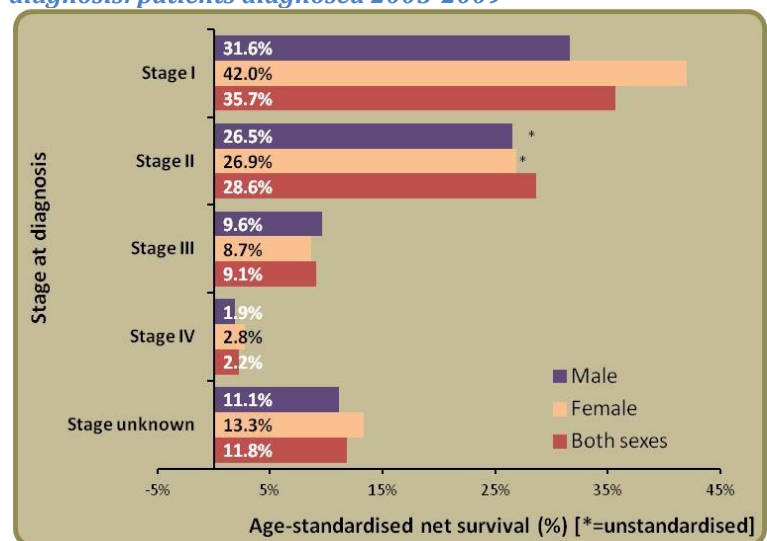
Period of diagnosis	Male	Female	Both sexes
1993-1999	8.0%	9.8%	8.6%
2000-2004	8.7%	9.9%	9.2%
2005-2009	10.0%	11.4%	10.5%

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 35.7% for early (stage I) disease to 2.2% 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 31.6% of males surviving five years compared to 42.0% of females.

Figure 6: Five year survival from lung cancer by stage of diagnosis: patients diagnosed 2005-2009



MORTALITY

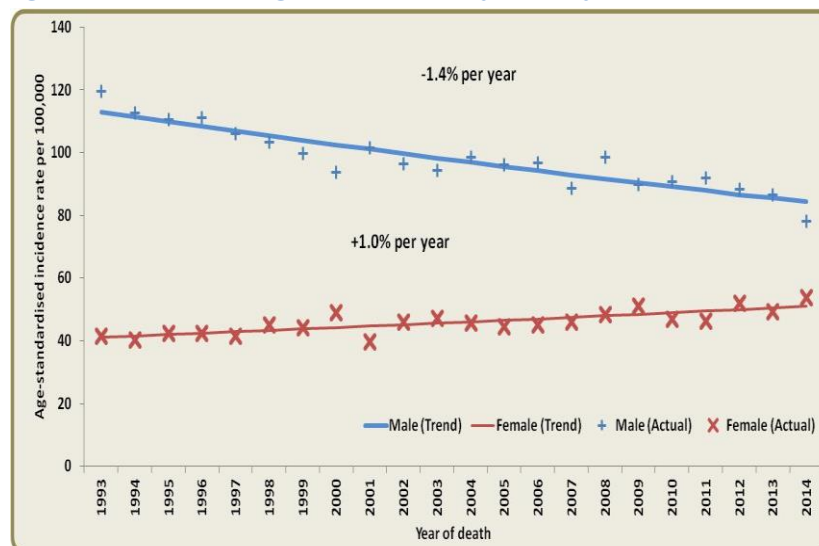
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2010-2014 there were 544 male and 397 female deaths from lung cancer each year.

Mortality trends

Over the last ten years the number of lung cancer deaths has increased from 511 among men and 319 among women in 2005 to 518 among men and 442 among women in 2014.

When adjusted for age and population change, lung cancer mortality rates decreased for males by -1.4% per year during 1993-2014, but increased by 1.0% per year for females.

Figure 7: Trends in lung cancer mortality rates by sex: 1993-2014



PREVALENCE

At the end of 2014 there were 1,927 people living in NI who had been diagnosed with lung cancer from 1993-2014 (Table 5). Of these, 52.0% were male, 56.7% were aged 70 and over and 33.8% had been diagnosed in the previous year.

Table 5: Number of people living with lung cancer at the end of 2014 who were diagnosed from 1993-2014 by time since diagnosis

Sex	Age	Time since diagnosis				22-year Prevalence
		0-1 year	1-5 years	5-10 years	10-22 years	
Male	0-69	152	151	75	45	423
	70+	190	203	89	98	580
	All ages	342	354	164	143	1003
Female	0-69	141	173	53	45	412
	70+	169	174	86	83	512
	All ages	310	347	139	128	924
Both sexes	0-69	293	324	128	90	835
	70+	359	377	175	181	1092
	All ages	652	701	303	271	1927

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.



