

NUMBER OF CASES PER YEAR (2011-2015)			NUMBER OF DEATHS PER YEAR (2011-2015)		
Male	Female	Both sexes	Male	Female	Both sexes
667	543	1,210 ¹	546	412	957 ¹

FIVE-YEAR SURVIVAL (2005-2009)			23-YEAR PREVALENCE (2015)		
Male	Female	Both sexes	Male	Female	Both sexes
9.8%	11.1%	10.3%	1,057	1,002	2,059

INCIDENCE

In 2011-2015 there were 667 male and 543 female patients diagnosed with lung cancer each year. The lifetime risk of developing a lung cancer was 1 in 21 for men and 1 in 28 for women.

Incidence trends

Table 1: Incidence of lung cancer by sex and year of diagnosis: 2006-2015

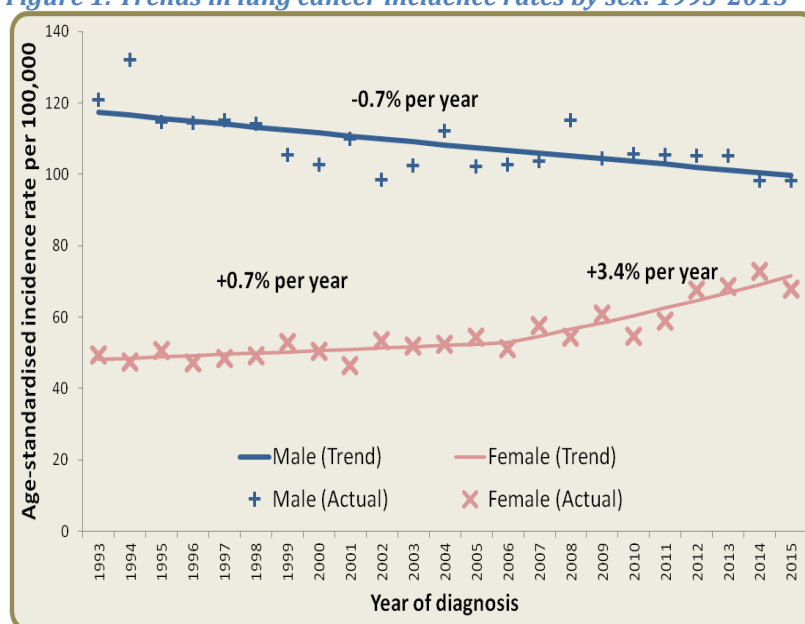
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Male	574	602	656	620	639	658	660	687	661	671
Female	369	424	408	462	422	463	535	555	593	569
Both sexes	943	1,026	1,064	1,082	1,061	1,121	1,195	1,242	1,254	1,240

Over the ten year period 2006-2015, the number of lung cancer cases increased by 17% in men from 574 to 671 and 54% among women from 369 in to 569.

After accounting for the increasing number of older people in the NI population, lung cancer incidence rates decreased among males during 1993-2015 by an average of 0.7% per year. However for the same period, female incidence rates increased by an average of 0.7% per year between 1993 and 2006 and 3.4% per year between 2006 and 2015. 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: 1993-2015



¹ Mean yearly incidence data for period 2011-2015 has been rounded to nearest integer, and thus some numbers in tables will not add to give the exact total.

Incidence and age

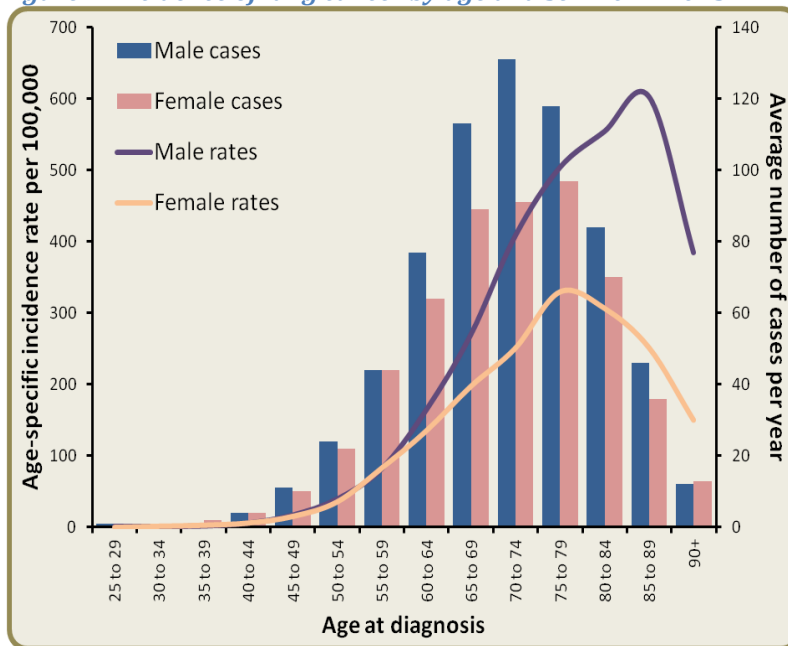
Lung cancer risk is strongly related to age with 74% of patients diagnosed over the age of 65 years. Incidence rates are highest among men aged 85-89 and among women aged 75-79.

Table 2: Average number of lung cancers diagnosed per year by sex and age: 2011-2015

Age	Male	Female	Total
0 to 49	19	17	36
50 to 64	145	130	276
65 to 74	244	180	423
75 and over	260	216	474
All ages	667	543	1,210

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

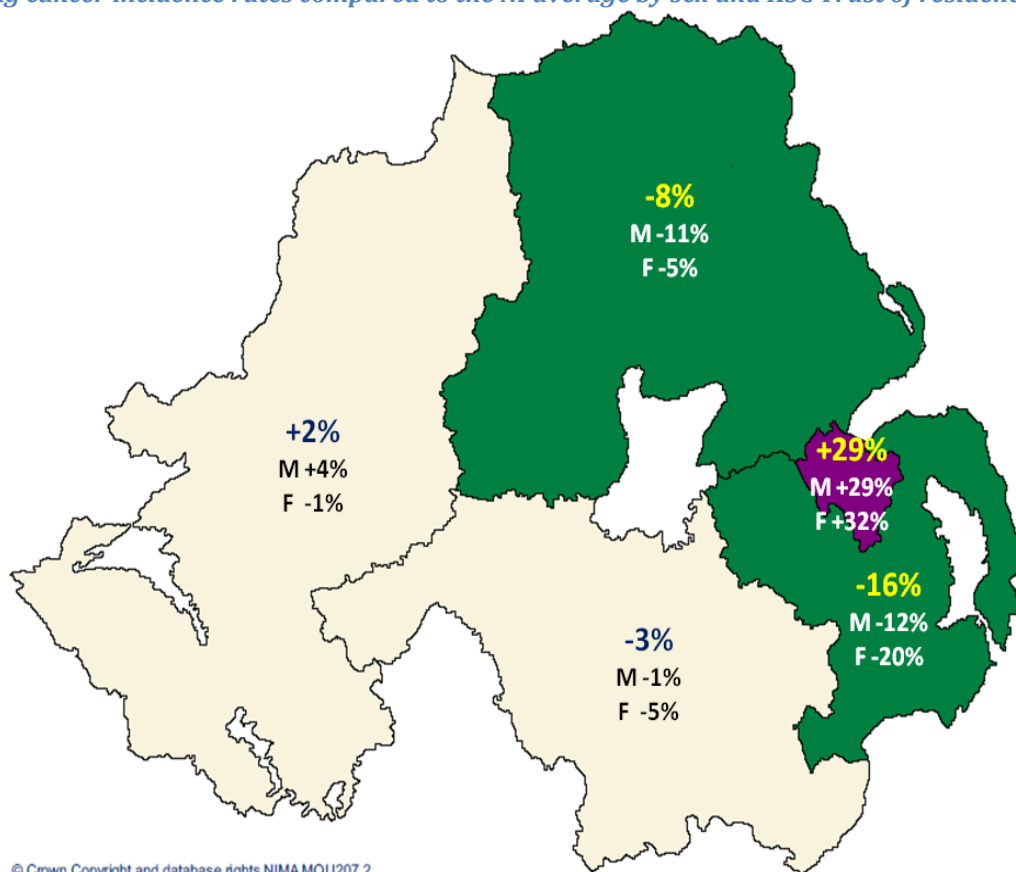
Figure 2: Incidence of lung cancer by age and sex: 2011-2015



Incidence by Trust area

Lung cancer incidence rates in 2011-2015 were 29% higher than the NI average among people living within the Belfast HSCT area. Incidence rates were lower than the NI average in the Northern and South-Eastern Trust areas.

Figure 3: Lung cancer incidence rates compared to the NI average by sex and HSC Trust of residence: 2011-2015



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Significantly higher than average

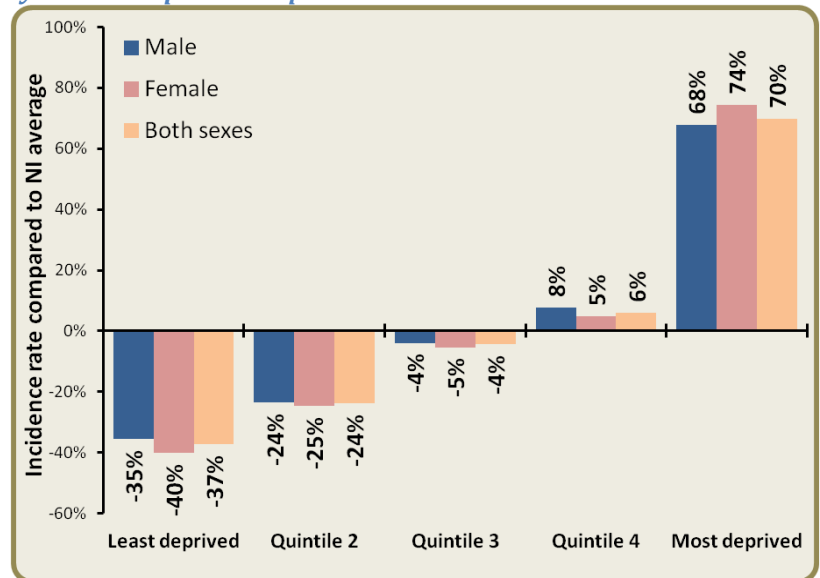


Significantly lower than average

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.

Figure 4: Lung cancer incidence rates compared to the NI average by sex and deprivation quintile: 2011-2015



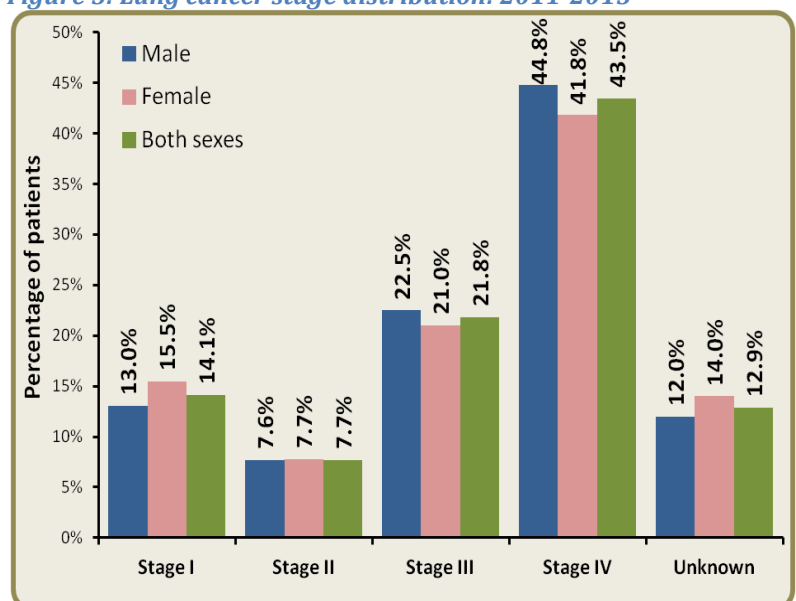
Incidence by stage

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 2011-2015 over four fifths (87.1%) 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 43.5% (50.0% of staged disease) diagnosed at stage IV compared to 14.1% (16.2% of staged disease) at stage I.

Figure 5: Lung cancer stage distribution: 2011-2015



SURVIVAL

The net survival was 31.1% at one year, and 10.3% 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	45.8%	51.4%	48.1%
1 year	29.7%	33.3%	31.1%
5 years	9.8%	11.1%	10.3%

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 7.5% to 9.8% and for women from 9.1% to 11.1%.

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

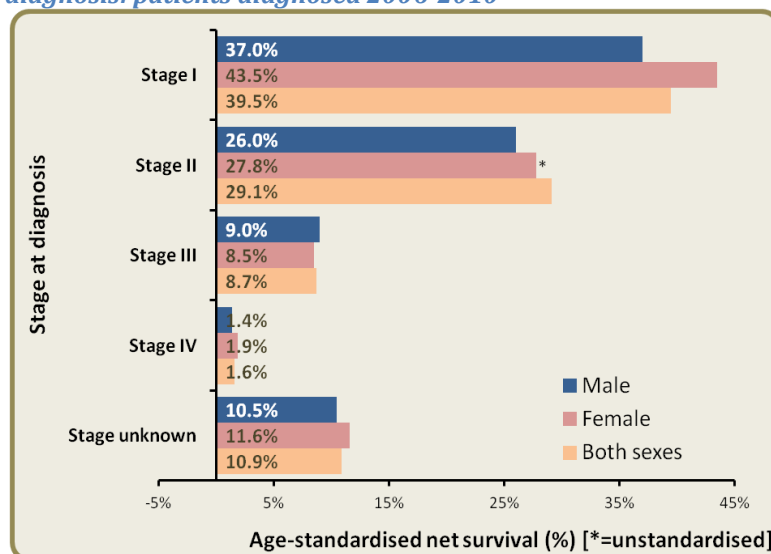
Period of diagnosis	Male	Female	Both sexes
1993-1999	7.5%	9.1%	8.1%
2000-2004	8.3%	9.2%	8.6%
2005-2009	9.8%	11.1%	10.3%

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 39.5% for early (stage I) disease to 1.6% 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 37.0% of males surviving five years compared to 43.5% of females.

Figure 6: Five year survival from lung cancer by stage of diagnosis: patients diagnosed 2006-2010



MORTALITY

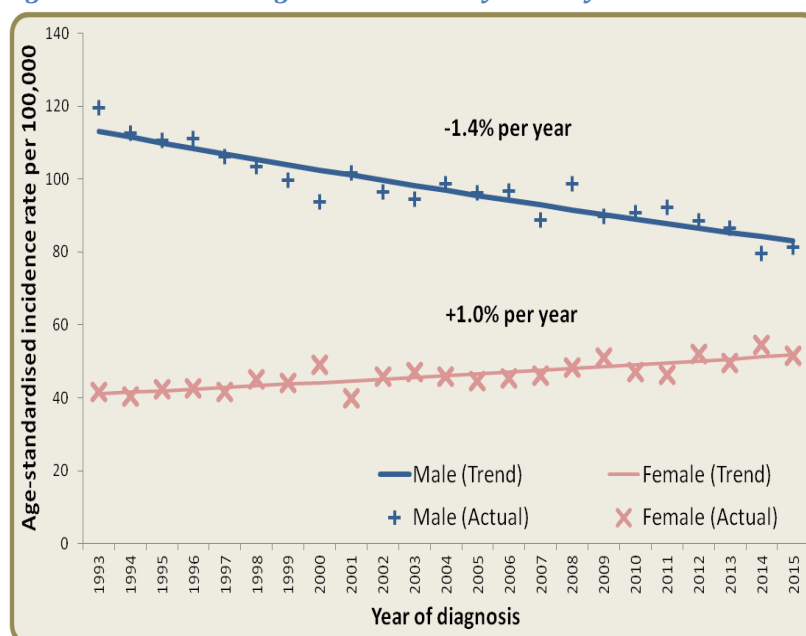
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2011-2015 there were 546 male and 412 female deaths from lung cancer each year.

Mortality trends

Over the last ten years 2006-2015, the number of lung cancer deaths has increased by 3% among men from 526 to 541 and 30% among women from 333 to 432.

When adjusted for age and population change, lung cancer mortality rates decreased for males by -1.4% per year during 1993-2015, but increased by 1.0% per year for females.

Figure 7: Trends in lung cancer mortality rates by sex: 1993-2015



PREVALENCE

At the end of 2015 there were 2,059 people living in NI who had been diagnosed with lung cancer from 1993-2015 (Table 5). Of these, 51.3% were male, 57.3% were aged 70 and over and 33.0% had been diagnosed in the previous year.

Table 5: Number of people living with lung cancer at the end of 2015 who were diagnosed from 1993-2015 by time since diagnosis

Sex	Age	Time since diagnosis				23-year Prevalence
		0-1 year	1-5 years	5-10 years	10-23 years	
Male	0-69	168	160	79	50	457
	70+	192	213	91	104	600
	All ages	360	373	170	154	1,057
Female	0-69	145	183	50	45	423
	70+	174	225	89	91	579
	All ages	319	408	139	136	1,002
Both sexes	0-69	313	343	129	95	880
	70+	366	438	180	195	1,179
	All ages	679	781	309	290	2,059

FURTHER INFORMATION

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

NI Cancer Registry

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