

NUMBER OF CASES PER YEAR (2012-2016) ¹			NUMBER OF DEATHS PER YEAR (2012-2016)		
Male	Female	Both sexes	Male	Female	Both sexes
669	594	1,263 ¹	548	441	990 ¹
FIVE-YEAR SURVIVAL (2006-2010)			24-YEAR PREVALENCE (2016)		
Male	Female	Both sexes	Male	Female	Both sexes
10.1%	11.0%	10.4%	1,072	1,103	2,175

¹ Mean yearly incidence data for period 2012-2016 has been rounded to nearest integer, and thus some numbers in tables will not add to give the exact total.

INCIDENCE

In 2012-2016 there were 669 male and 594 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 26 for women.

Incidence trends

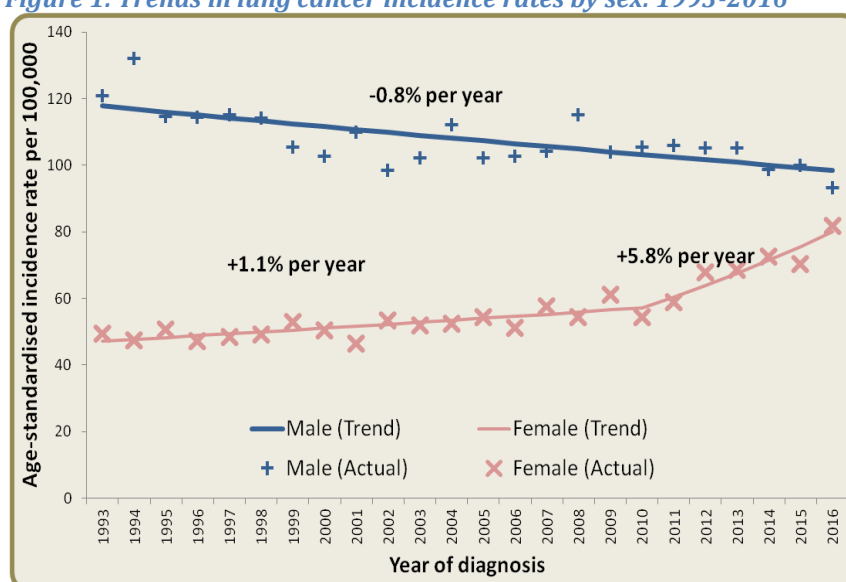
Table 1: Incidence of lung cancer by sex and year of diagnosis: 2007-2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Male	604	656	615	639	661	660	687	664	682	653
Female	424	408	464	420	464	537	555	592	589	698
Both sexes	1,028	1,064	1,079	1,059	1,125	1,197	1,242	1,256	1,271	1,351

Over the ten year period 2007-2016, the number of lung cancer cases increased by 8% in men from 604 to 653 and 65% among women from 424 to 698.

After accounting for the increasing number of older people in the NI population, lung cancer incidence rates decreased among males during 1993-2016 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 2010 and +5.8% per year between 2010 and 2016. 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: 1993-2016



Incidence and age

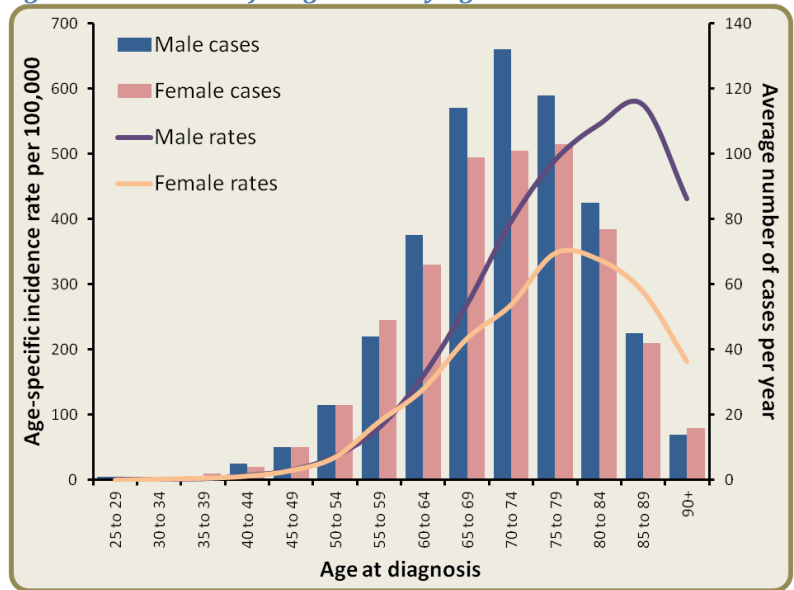
Lung cancer risk is strongly related to age with 75% of patients diagnosed over the age of 65 years. Incidence rates are highest among men aged 85-89 and among women aged 75-79.

Table 2: Average number of lung cancers diagnosed per year by sex and age: 2011-2016

Age	Male	Female	Total
0 to 49	19	17	35
50 to 64	142	138	281
65 to 74	246	200	446
75 and over	262	238	501
All ages	669	594	1,263

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

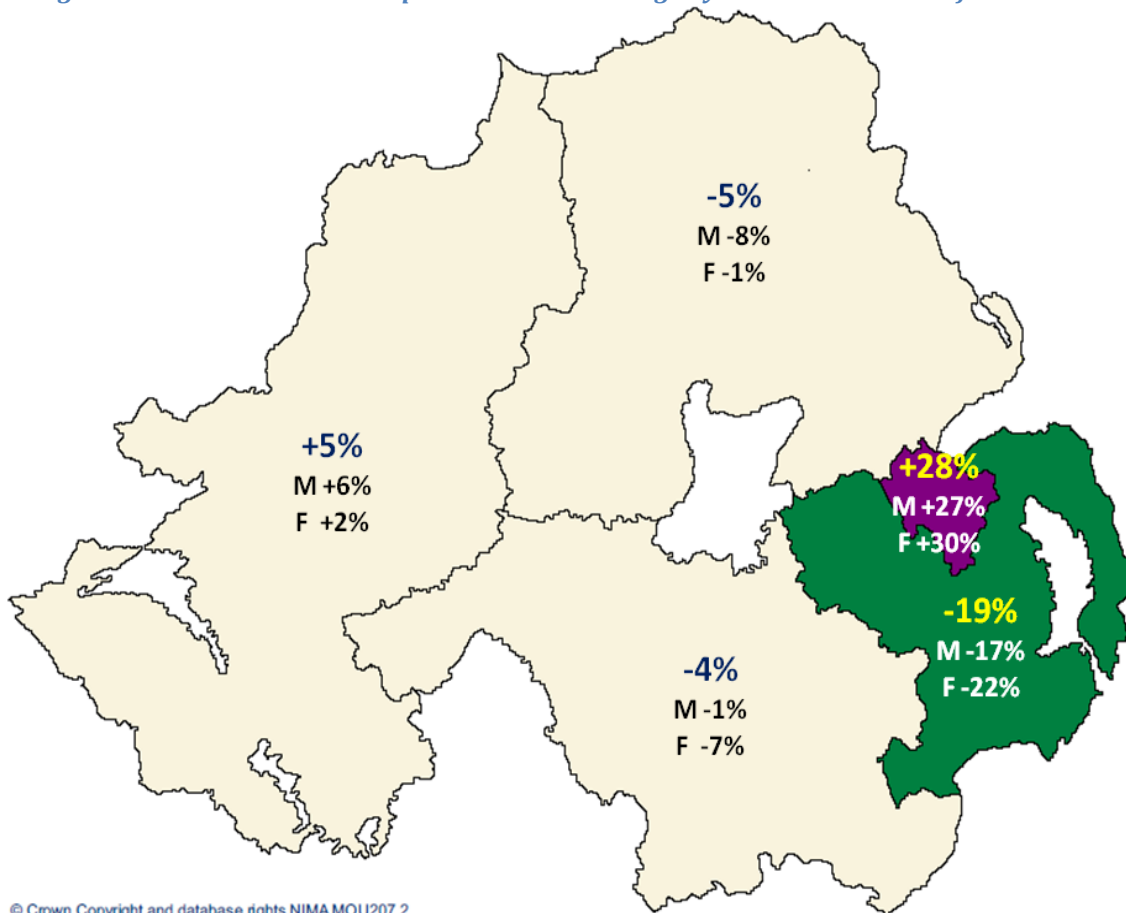
Figure 2: Incidence of lung cancer by age and sex: 2012-2016



Incidence by Trust area

Lung cancer incidence rates in 2012-2016 were 28% higher than the NI average among people living within the Belfast HSC Trust area. Incidence rates were lower than the NI average in the South-Eastern Trust areas.

Figure 3: Lung cancer incidence rates compared to the NI average by sex and HSC Trust of residence: 2012-2016



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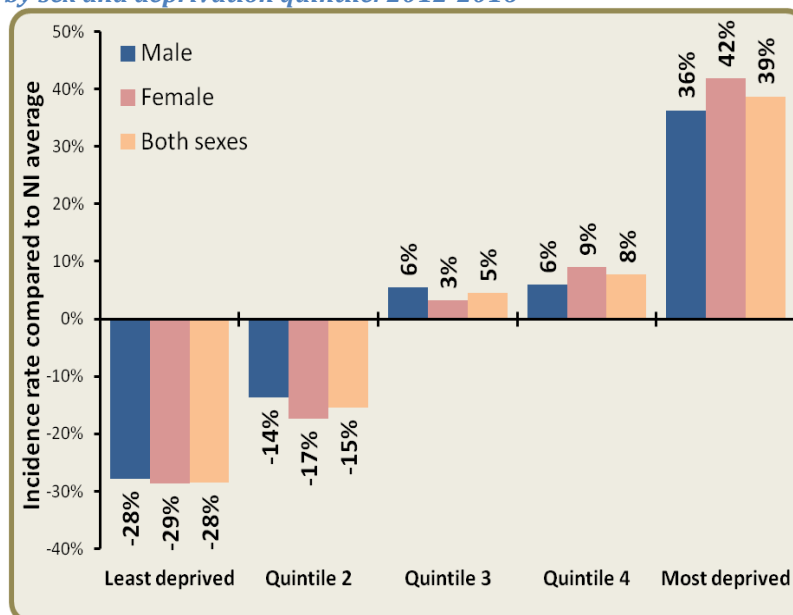
Significantly higher than average

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: 2012-2016



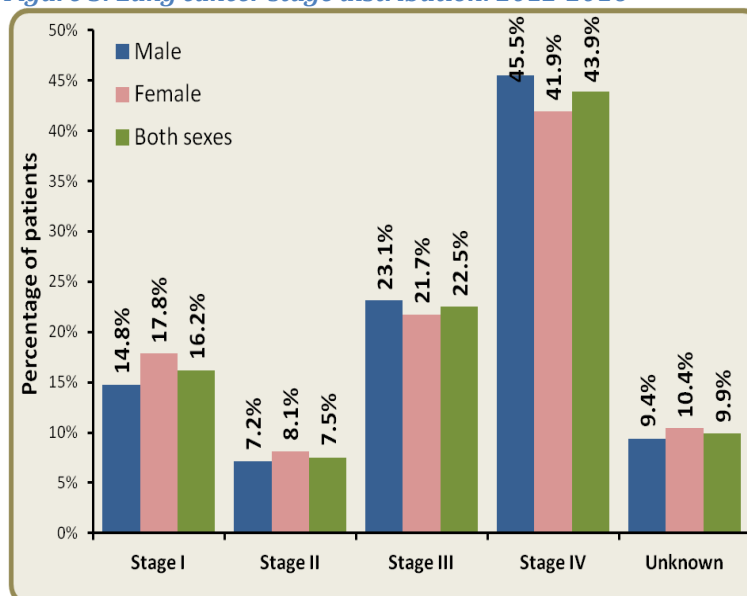
Incidence by stage

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 2012-2016 nine out of ten (90.1%) 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 43.9% (48.7% of staged disease) diagnosed at stage IV compared to 16.2% (19.9% of staged disease) at stage I.

Figure 5: Lung cancer stage distribution: 2012-2016



SURVIVAL

The net survival was 32.0% at one year, and 10.4% at five years for lung cancer patients diagnosed in 2006 to 2010.

Table 3: Five-year lung cancer survival by survival time and sex: patients diagnosed 2006-2010

Time since diagnosis	Diagnosed 2006-2010		
	Male	Female	Both sexes
6 months	46.4%	51.5%	48.5%
1 year	30.9%	33.8%	32.0%
5 years	10.1%	11.0%	10.4%

Survival Trends

Five-year survival for lung cancer has improved from the 1993-2000 diagnosis period to the 2006-2010 diagnosis period; increasing for men from 8.0% to 10.1% and for women from 9.4% to 11.0%.

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

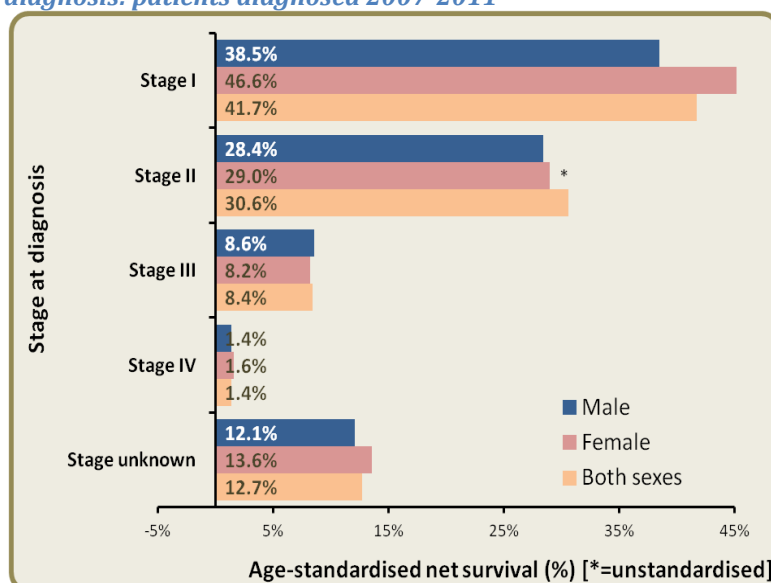
Period of diagnosis	Male	Female	Both sexes
1993-2000	8.0%	9.4%	8.5%
2001-2005	8.6%	10.8%	9.5%
2006-2010	10.1%	11.0%	10.4%

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 41.7% for early (stage I) disease to 1.4% 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 38.5% of males surviving five years compared to 46.6% of females.

Figure 6: Five year survival from lung cancer by stage of diagnosis: patients diagnosed 2007-2011



MORTALITY

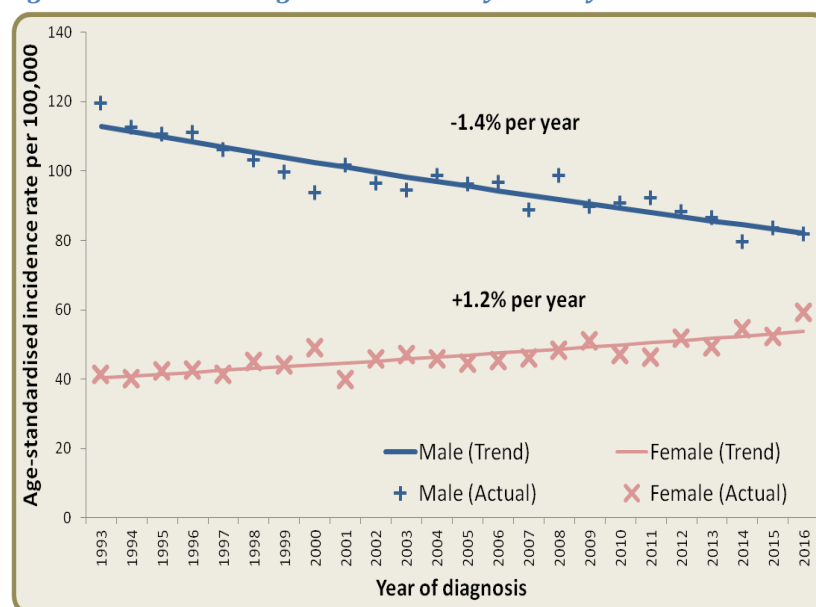
Mortality statistics are provided by the Northern Ireland General Registrar's Office. In 2012-2016 there were 548 male and 441 female deaths from lung cancer each year.

Mortality trends

Over the last ten years 2007-2016, the number of lung cancer deaths has increased by 11% among men from 501 to 557 and 48% among women from 341 to 505.

When adjusted for age and population change, lung cancer mortality rates decreased for males by -1.4% per year during 1993-2016, but increased by 1.2% per year for females.

Figure 7: Trends in lung cancer mortality rates by sex: 1993-2016



PREVALENCE

At the end of 2016 there were 2,175 people living in NI who had been diagnosed with lung cancer from 1993-2016 (Table 5). Of these, 49.3% were male, 56.6% were aged 70 and over and 32.2% had been diagnosed in the previous year.

Table 5: Number of people living with lung cancer at the end of 2016 who were diagnosed from 1993-2016 by time since diagnosis

Sex	Age	Time since diagnosis				24-year Prevalence
		0-1 year	1-5 years	5-10 years	10-24 years	
Male	0-69	146	182	76	55	459
	70+	186	217	106	104	613
	All ages	332	399	182	159	1,072
Female	0-69	182	191	66	46	485
	70+	187	254	76	101	618
	All ages	369	445	142	147	1,103
Both sexes	0-69	328	373	142	101	944
	70+	373	471	182	205	1,231
	All ages	701	844	324	306	2,175

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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ACKNOWLEDGEMENTS

NICR is funded by the Public Health Agency and is hosted by Queen's University, Belfast. This work uses data provided by patients and collected by the NHS as part of their care and support.



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