

Number of cases per year (2014-2018) ¹			Number of deaths per year (2014-2018) ¹		
Male	Female	Both sexes	Male	Female	Both sexes
90	48	138	86	62	148
Five-year net survival (2009-2013)			25-year prevalence (2018)		
Male	Female	Both sexes	Male	Female	Both sexes
12.2%	15.7%	12.8%	179	71	250

Incidence

During 2014-2018:

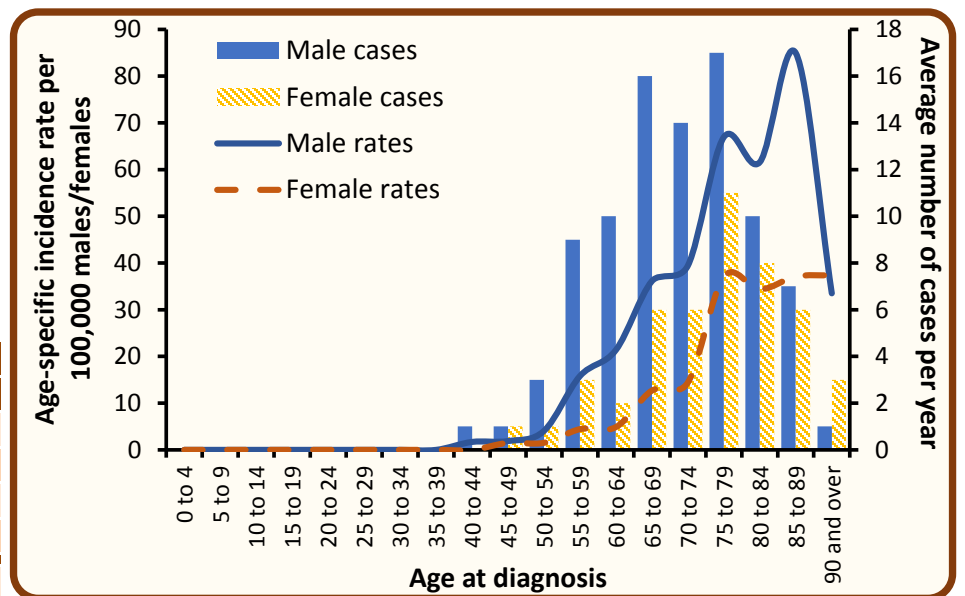
- There were 90 male and 48 female cases of liver cancer diagnosed each year.
- There were 9.9 male and 5.0 female cases of liver cancer per 100,000 males/females diagnosed each year.
- Liver cancer made up 1.9% of all male cancers (ex NMSC), and 1.0% of all female cancers (ex NMSC).
- The risk of developing liver cancer before the age of 75 was 1 in 165 for men and 1 in 495 for women.

Incidence by sex and age at diagnosis: Liver cancer 2014-2018¹

During 2014-2018:

- The median age at diagnosis was 71 for men and 77 for women.
- Liver cancer risk increased with age, with 72.2% of men and 83.3% of women aged 65 years or more at diagnosis.
- 4.3% of cases were diagnosed among those aged under 50.

Age at diagnosis	Average cases per year		
	Male	Female	Both sexes
0 - 49	2	1	6
50 - 64	22	6	28
65 - 74	30	12	41
75 +	35	28	64
All ages	90	48	138



Incidence by sex and year of diagnosis: Liver cancer 2009-2018

- Among males the number of cases of liver cancer increased by 23.3% from an annual average of 73 cases in 2009-2013 to 90 cases in 2014-2018.
- Among females the number of cases of liver cancer increased by 50.0% from an annual average of 32 cases in 2009-2013 to 48 cases in 2014-2018.

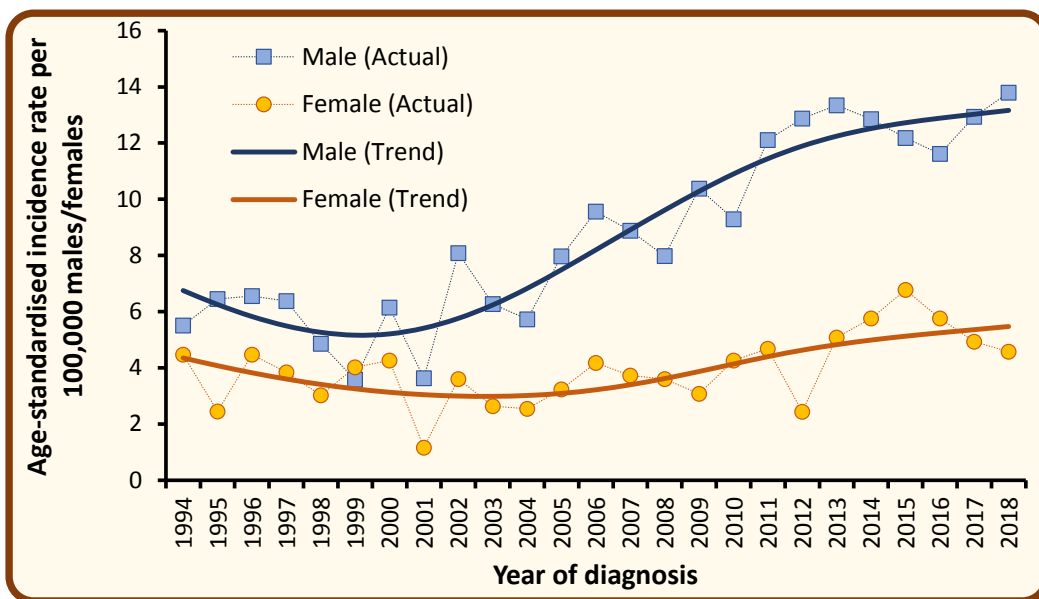
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Male	61	59	74	87	82	86	85	84	95	101
Female	24	34	38	21	42	48	57	49	43	41
Both sexes	85	93	112	108	124	134	142	133	138	142

1. Annual averages based upon several years have been rounded to the nearest integer. Sums of numbers in table rows or columns may thus differ slightly from the given total.

NMSC: Non-melanoma skin cancer

Trends in age-standardised incidence rates by sex: Liver cancer 1994-2018

- Among males age-standardised incidence rates of liver cancer increased by 8.8% from 11.7 per 100,000 person years in 2009-2013 to 12.7 cases per 100,000 persons years in 2014-2018. This difference was not statistically significant.
- Among females age-standardised incidence rates of liver cancer increased by 41.2% from 3.9 per 100,000 person years in 2009-2013 to 5.5 cases per 100,000 persons years in 2014-2018. This difference was statistically significant.



Age-standardised incidence rates illustrate the change in the number of cases within a population of a fixed size and age structure (2013 European Standard).
They thus represent changes other than those caused by population growth and/or ageing.

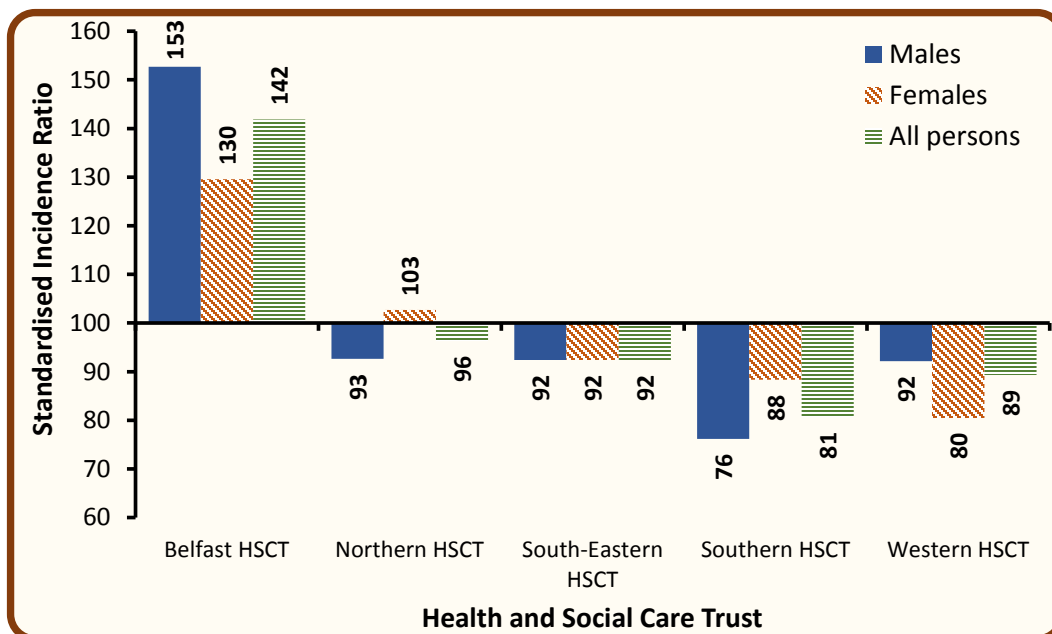
Incidence (cases and rates) by sex and Health and Social Care Trust (HSCT): Liver cancer 2014-2018¹

The annual number of liver cancer cases during 2014-2018 varied in each HSCT due to variations in population size and age (see table).

After accounting for these factors, incidence rates (see figure):

- in Belfast HSCT were significantly higher than the NI average.
- in Northern HSCT did not vary significantly from the NI average.
- in South-Eastern HSCT did not vary significantly from the NI average.
- in Southern HSCT were significantly lower than the NI average.
- in Western HSCT did not vary significantly from the NI average.

Health and Social Care Trust	Average cases per year		
	Male	Female	Both sexes
Belfast HSCT	24	12	36
Northern HSCT	22	13	35
South-Eastern HSCT	18	9	27
Southern HSCT	13	8	20
Western HSCT	13	6	19
Northern Ireland	90	48	138



Standardised incidence ratios compare incidence rates in each HSC Trust with the Northern Ireland incidence rate.
A value above 100 means that incidence rates in that HSC Trust are greater than the Northern Ireland average.
This measure takes account of population size and age structure. Differences are thus not a result of these factors.

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HSCT: Health and Social Care Trust

Incidence (cases and rates) by sex and deprivation quintile: Liver cancer 2014-2018¹

The annual number of liver cancer cases during 2014-2018 varied in each deprivation quintile due to variations in population size and age (see table).

After accounting for these factors, incidence rates (see figure):

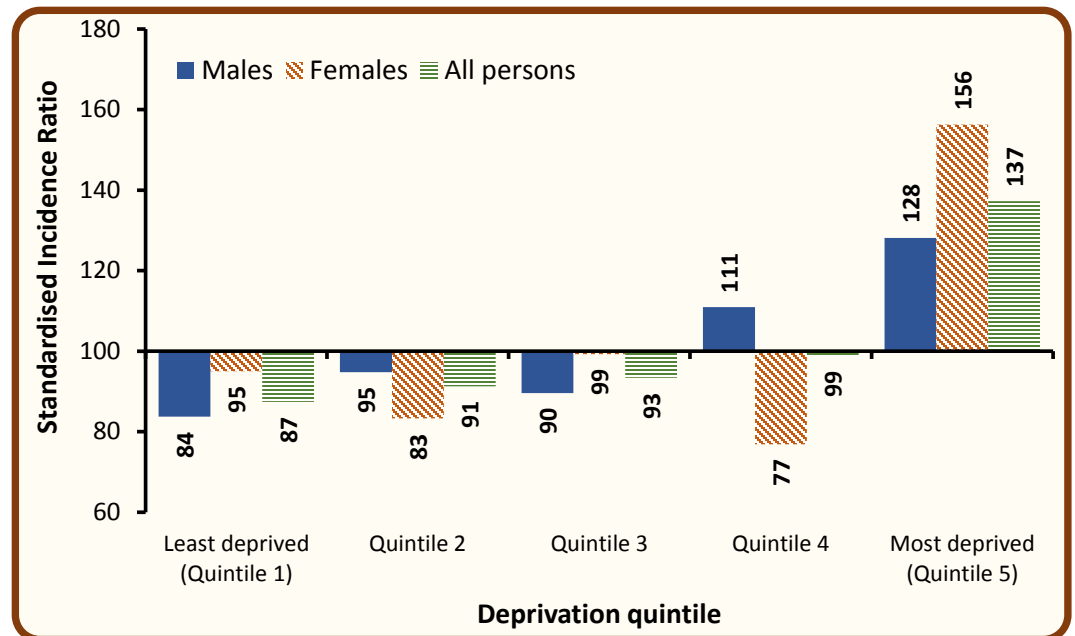
- in the most socio-economically deprived areas were 37.2% higher than the NI average.
- in the least socio-economically deprived areas did not vary significantly from the NI average.

Deprivation quintile	Average cases per year		
	Male	Female	Both sexes
Least deprived (Quintile 1)	16	10	26
Quintile 2	18	8	26
Quintile 3	17	10	27
Quintile 4	20	7	27
Most deprived (Quintile 5)	19	12	31
Northern Ireland	90	48	138

Standardised incidence ratios compare incidence rates in each deprivation quintile with the Northern Ireland incidence rate.

A value above 100 means that incidence rates in that deprivation quintile are greater than the Northern Ireland average.

This measure takes account of population size and age structure. Differences are thus not a result of these factors.



Survival

- 34.0% of patients were alive one year and 10.0% were alive five years from a liver cancer diagnosis in 2009-2013. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 38.2% one year and 12.8% five years from a liver cancer diagnosis in 2009-2013.
- Five-year survival (ASNS) for patients diagnosed in 2009-2013 was 12.2% among men and 15.7% among women.
- Estimates for survival (ASNS) of patients diagnosed during 2012-2016 are 39.6% one year, and 13.1% five years from diagnosis.

Period of diagnosis ²	Gender	Observed survival		Age-standardised net survival	
		One-year	Five-years	One-year	Five-years
2009-2013	Male	35.1%	9.5%	38.2%	12.2%
	Female	31.3%	11.3%	39.5%	15.7%
	Both sexes	34.0%	10.0%	38.2%	12.8%
2012-2016 estimates	Male	38.7%	11.2%	41.2%	14.2%
	Female	28.6%	7.3%	38.0%	11.6%
	Both sexes	35.3%	9.9%	39.6%	13.1%

Observed survival is the proportion of patients still alive one/five years after diagnosis. However, in this measure patients may have died from causes unrelated to their cancer.

Age-standardised net survival is the proportion of patients who would survive if the patient could not die from causes unrelated to their cancer. This measure is more typically used in studies of cancer survival.

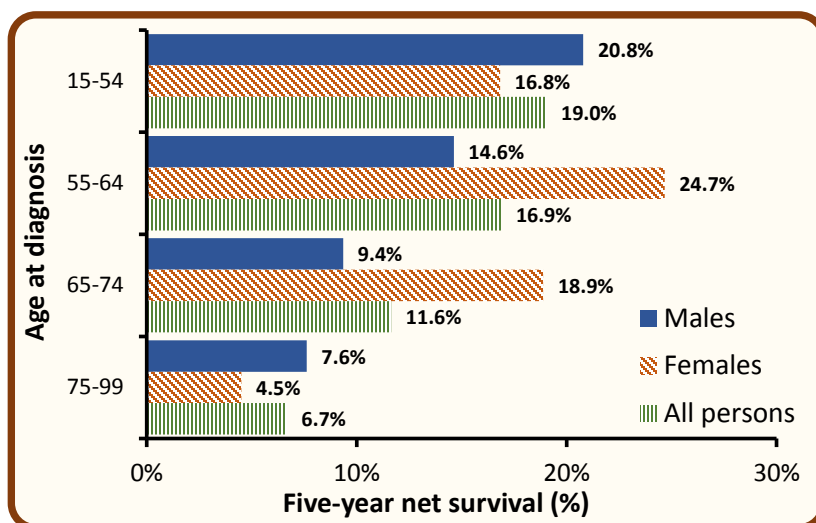
1. Annual averages based upon several years have been rounded to the nearest integer. Sums of numbers in table rows or columns may thus differ slightly from the given total.

2. Five-year survival for 2012-2016 are estimates as not all patients have five years worth of follow up.

ASNS: Age-standardised net survival

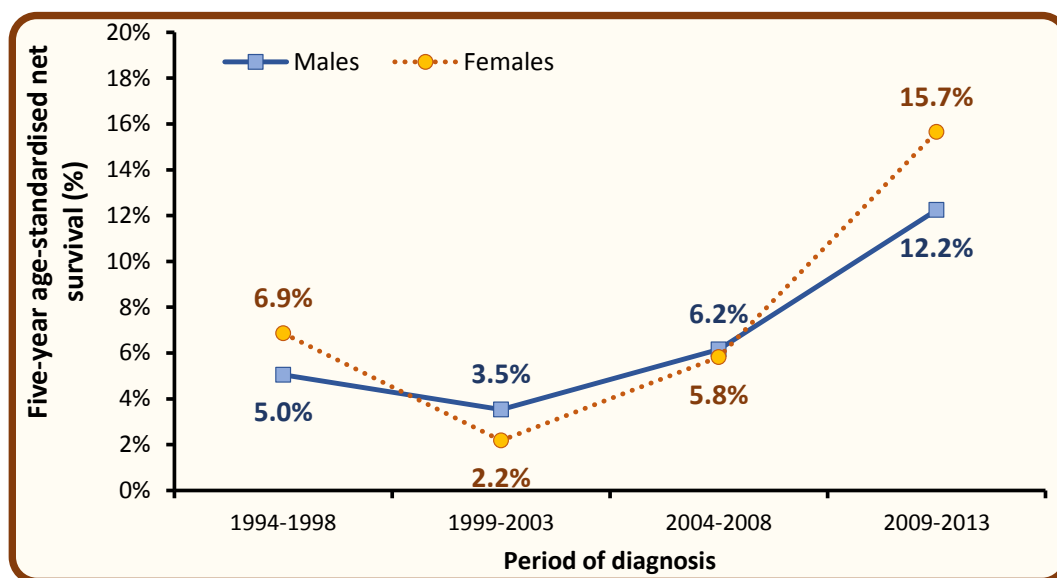
Survival by sex and age at diagnosis: Liver cancer 2009-2013

- Survival from liver cancer is strongly related to age at diagnosis with five-year survival decreasing as age increases.
- Five-year net survival ranged from 19.0% among patients aged 15-54 at diagnosis to 6.7% among those aged 75 and over.
- Five-year net survival among liver cancer patients aged 75 and over was 7.6% for men and 4.5% for women.



Trends in age-standardised net survival by sex: Liver cancer 1994-2013

- Among men five-year survival (ASNS) from liver cancer increased from 5.0% for those diagnosed in 1994-1998 to 12.2% for those diagnosed in 2009-2013. This difference was not statistically significant.
- Among women five-year survival (ASNS) from liver cancer increased from 6.9% for those diagnosed in 1994-1998 to 15.7% for those diagnosed in 2009-2013. This difference was not statistically significant.



Prevalence

- At the end of 2018, there were 250 people (Males: 179; Females: 71) living with liver cancer who had been diagnosed with the disease during 1994-2018.
- Of these, 71.6% were male, 54.0% were aged 70 and over, and 29.6% had been diagnosed in the previous year.

25-year prevalence refers to the number of cancer survivors who were alive at the end of 2018, and had been diagnosed with their cancer in the previous 25 years (i.e. 1994-2018).

Time since diagnosis	25-year prevalence								
	Aged 0-69			Aged 70+			All ages		
	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes
0-1 year	n/a	n/a	26	n/a	n/a	48	59	15	74
1-5 years	n/a	n/a	47	n/a	n/a	60	80	27	107
5-10 years	n/a	n/a	27	n/a	n/a	19	26	20	46
10-25 years	n/a	n/a	15	n/a	n/a	8	14	9	23
0-25 years	90	25	115	89	46	135	179	71	250

ASNS: Age-standardised net survival

n/a - Prevalence figure suppressed due to small number of patients.

Mortality

During 2014-2018:

- There were 86 male and 62 female deaths from liver cancer each year.
- Death from liver cancer made up 3.7% of all male cancer deaths (ex NMSC), and 2.9% of all female cancer deaths (ex NMSC).

Deaths by sex and age at death: Liver cancer 2014-2018¹

During 2014-2018:

- The median age at death was 74 for men and 78 for women.
- Risk of death from liver cancer was strongly related to age, with 77.9% of men and 83.9% of women aged 65 years or more at time of death.
- 4.1% of liver cancer deaths occurred among those aged under 50.

Age at death	Average deaths per year		
	Male	Female	Both sexes
0 - 49	3	2	6
50 - 64	15	8	23
65 - 74	26	13	38
75 +	41	39	80
All ages	86	62	148

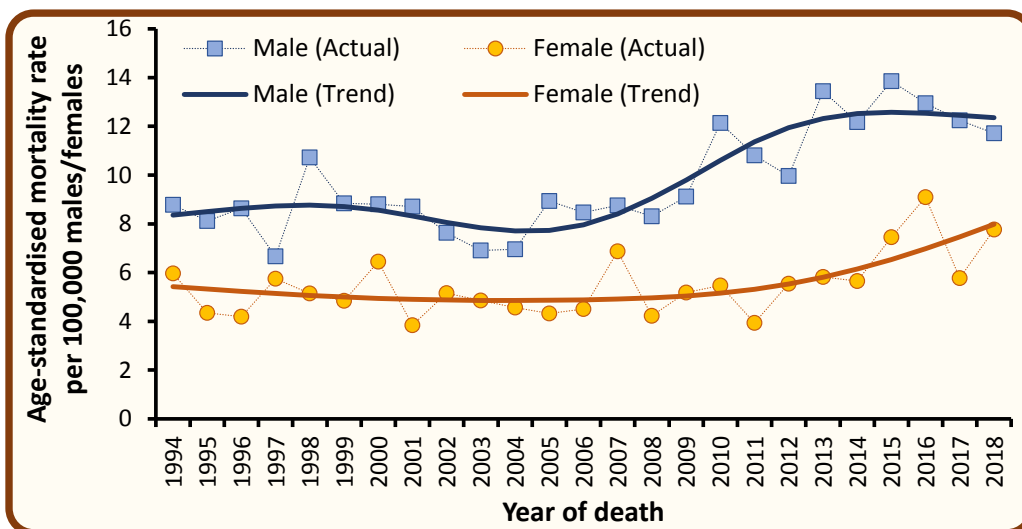
Deaths by sex and year of death: Liver cancer 2009-2018

- Among males the number of deaths from liver cancer increased by 28.4% from an annual average of 67 deaths in 2009-2013 to 86 deaths in 2014-2018.
- Among females the number of deaths from liver cancer increased by 47.6% from an annual average of 42 deaths in 2009-2013 to 62 deaths in 2014-2018.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Male	55	65	66	65	83	79	93	87	85	85
Female	40	43	32	45	49	47	63	79	50	70
Both sexes	95	108	98	110	132	126	156	166	135	155

Trends in age-standardised mortality rates by sex: Liver cancer 1994-2018

- Among males age-standardised mortality rates from liver cancer increased by 12.8% from 11.1 per 100,000 person years in 2009-2013 to 12.6 deaths per 100,000 persons years in 2014-2018. This difference was not statistically significant.
- Among females age-standardised mortality rates from liver cancer increased by 37.5% from 5.2 per 100,000 person years in 2009-2013 to 7.2 deaths per 100,000 persons years in 2014-2018. This difference was statistically significant.



Mortality data are provided by the Northern Ireland General Registrar Office via the Department of Health.

Counts of the number of deaths are based upon the year that death occurred, and upon the primary cause of death only.

Age-standardised mortality rates remove changes over time caused by population growth and/or ageing.

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NMSC: Non-melanoma skin cancer

Further Information

Further data is available from the NI Cancer Registry web site: www.qub.ac.uk/nicr
Phone: +44 (0)28 9097 6028
e-mail: nicr@qub.ac.uk



Acknowledgements

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