

# MALIGNANT MELANOMA



NUMBER OF CASES PER YEAR (2011-2015)			NUMBER OF DEATHS PER YEAR (2011-2015)		
Male	Female	Both sexes	Male	Female	Both sexes
163	194	357	26	21	47
FIVE-YEAR SURVIVAL (2005-2009)			23-YEAR PREVALENCE (2015)		
Male	Female	Both sexes	Male	Female	Both sexes
88.4%	92.0%	90.8%	1,581	2,427	4,008

## INCIDENCE

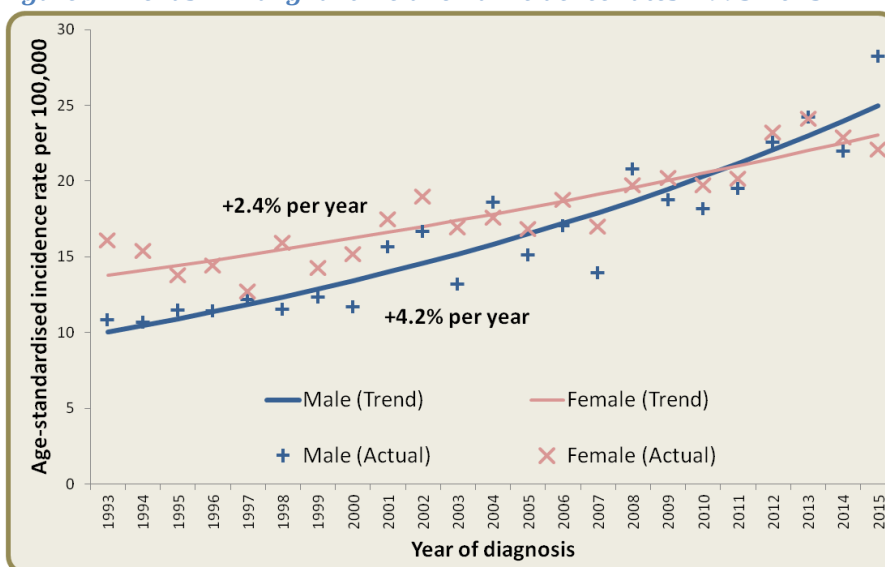
Between 2011 and 2015 there were an average of 163 males and 194 females diagnosed with malignant melanoma cancer each year in Northern Ireland. The probability that a male will develop malignant melanoma before the age of 75 is approximately 1 in 80 whilst the probability that a female will develop malignant melanoma before the age of 75 is 1 in 70. Over a ten-year period the number of malignant melanoma cases has increased in males and females from 260 in 2006 to 402 in 2015 (Table 1).

### Incidence trends

Table 1: Incidence of malignant melanoma by gender and year of diagnosis: 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Males	110	95	137	122	116	129	151	169	156	209
Females	150	138	162	165	166	172	197	208	200	193
Both	260	233	299	287	282	301	348	377	356	402

Figure 1: Trends in malignant melanoma incidence rates: 1993-2015



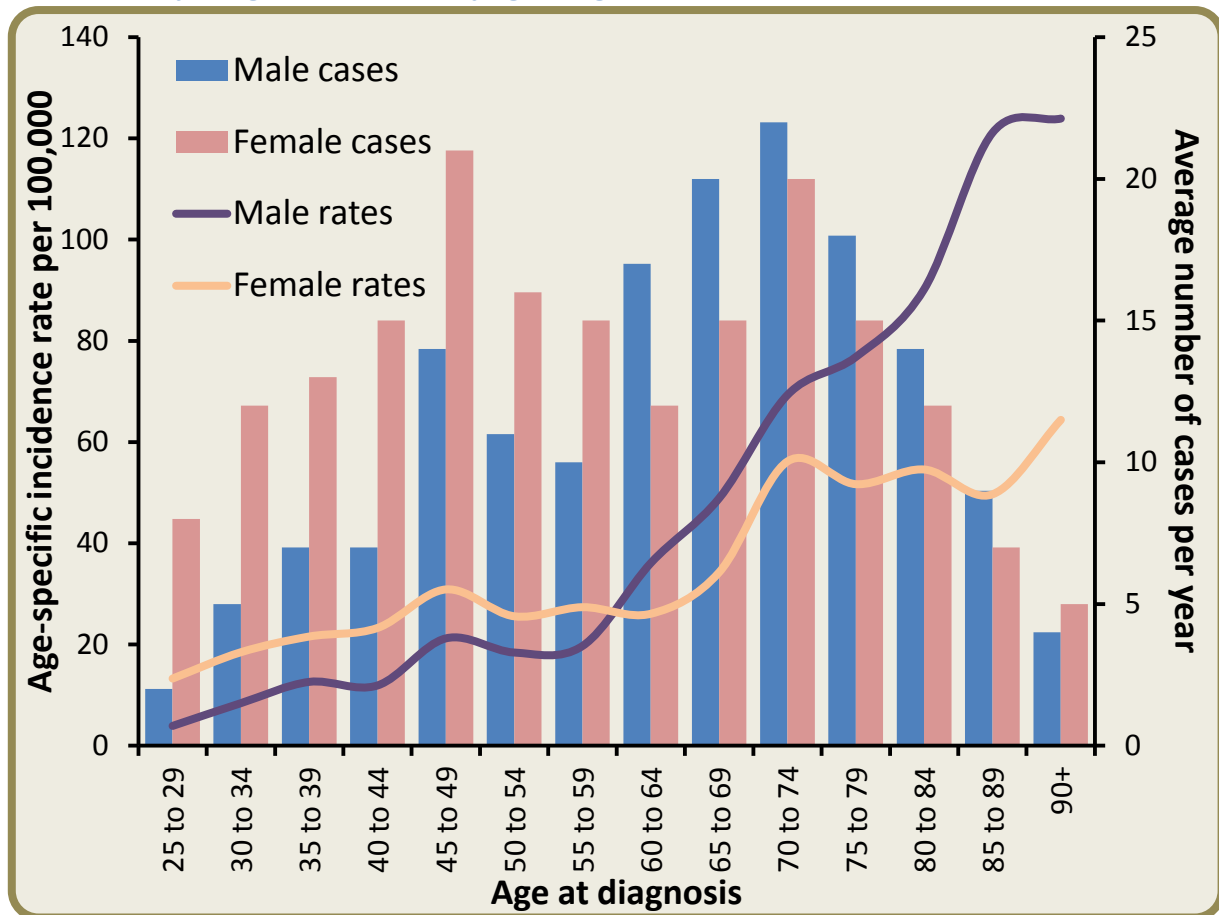
After accounting for the ageing population, there has been a 4.2% increase in yearly incidence of malignant melanoma in males and a 2.4% yearly increase in incidence of malignant melanoma in females.

Reasons for increasing incidence in both genders is potentially associated with higher levels of UV exposure.

## Incidence and age

Malignant melanoma incidence is associated with increasing age. Almost 70% of patients diagnosed were over the age of 50. Incidence rates are highest among males and females aged 90 and over. There is an increase in the incidence of malignant melanoma in men after the age of 60 whereas women experience an increase in incidence of malignant melanoma as they grow older.

Figure 2: Incidence of malignant melanoma by age and gender: 2011-2015



## Incidence by Trust area

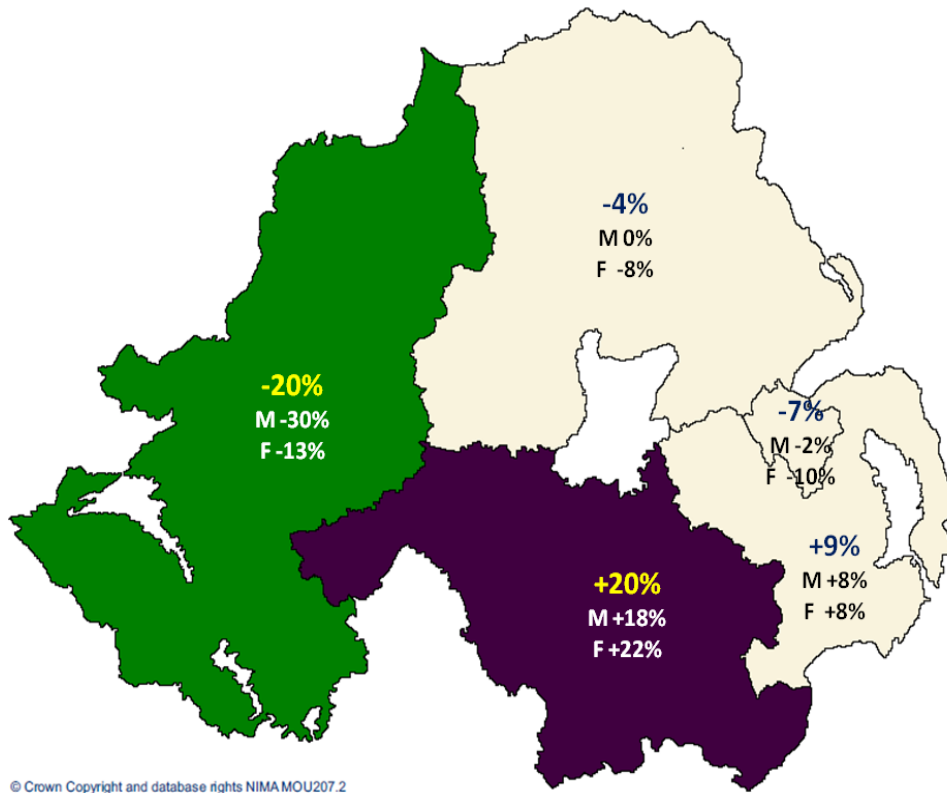
Malignant melanoma incidence rates in 2011-2015 were 20% above the NI average in people living in the Southern health and social care trust (HSCT) with females accounting for the majority of this increased incidence (female melanoma incidence 22% above the NI average in this trust).

Malignant melanoma incidence rates in 2011-2015 were 20% below the NI average in people living in the Western health and social care trust (HSCT) with males accounting for the majority of this decreased incidence (male melanoma incidence 30% below the NI average in this trust).

There was no statistically significant difference in the incidence of malignant melanoma in any of the other health and social care trusts when compared to the NI average.

Please refer to figure 3.

Figure 3: Malignant melanoma incidence rates compared to the NI average by HSC Trust of residence: 2011-2015 comparison

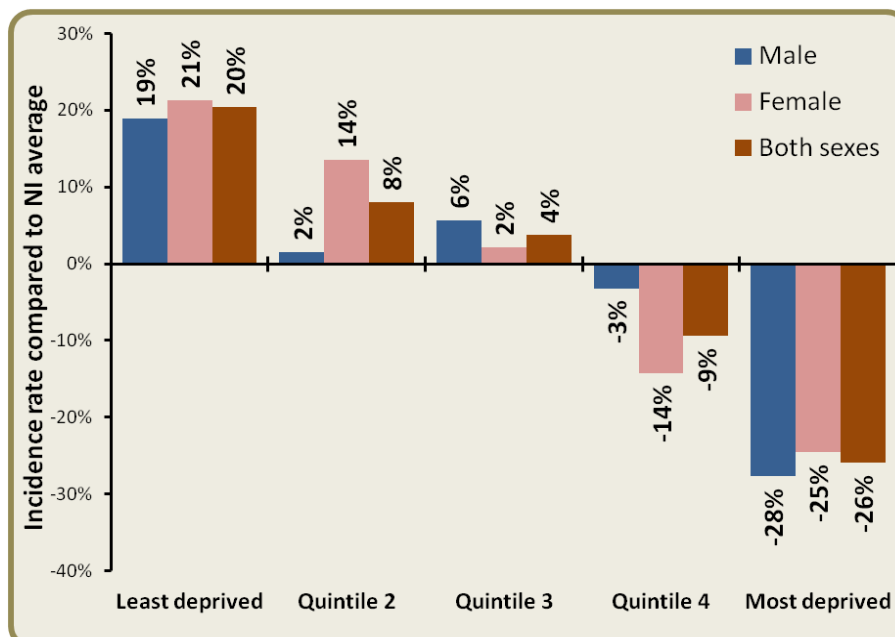


Significantly higher than average
  Significantly lower than average

### Incidence by deprivation

Cancer incidence rates are consistently lower than the NI average among males and females within the most deprived communities (-26%) and higher amongst the least deprived communities (+20%) suggesting a relationship between socioeconomic status and risk factor (UV) exposure.

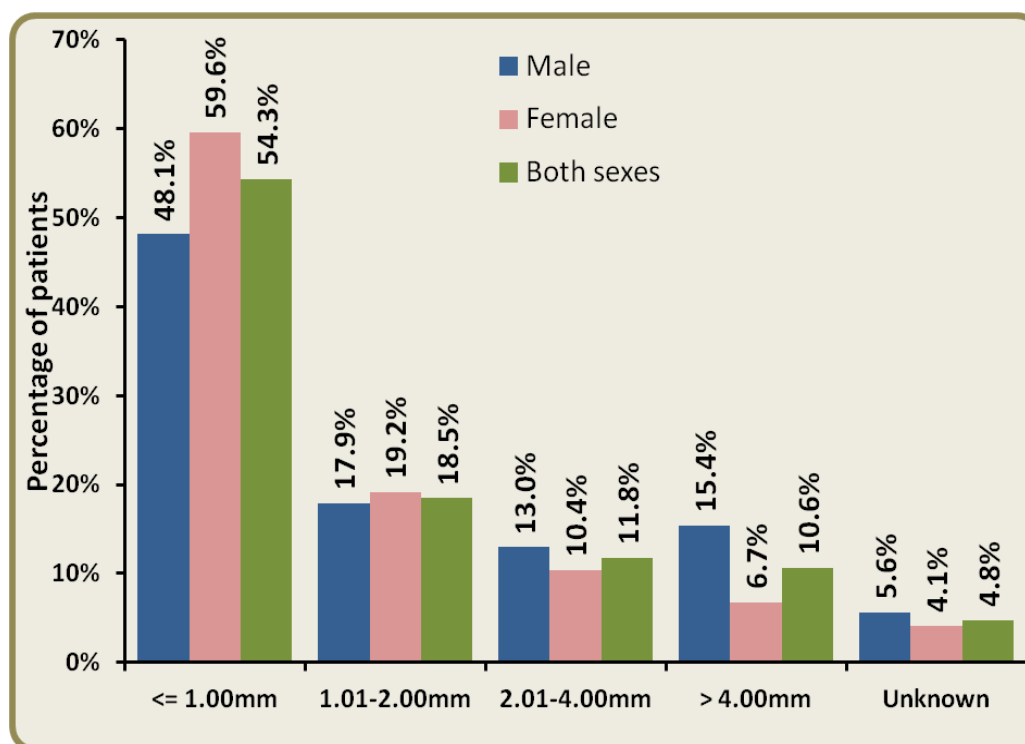
Figure 4: Malignant melanoma incidence rates compared to the NI average by deprivation quintile: 2011-2015



## 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 survival. Malignant melanoma is staged according to depth of tumour at diagnosis (Breslow depth) measured in millimetres (mm) up to a maximum of 4mm. More than 95% of patients diagnosed with malignant melanoma were assigned a stage at diagnosis.

Figure 5: Malignant melanoma stage distribution: 2011-2015



The majority of patients diagnosed with malignant melanoma were diagnosed with a Breslow depth of less than or equal to 1mm (55%). The next most common stage to be diagnosed at was a Breslow depth of 1.01-2.00mm (19%).

## SURVIVAL

The age-standardised survival for men diagnosed with malignant melanoma between 2005-2009 was 88.4% at five years. The age-standardised survival for women during the same time period was 92.0%. Survival is consistently higher in females compared to males.

Table 2: Five-year malignant melanoma survival by survival time and gender

Time since diagnosis	Diagnosed 2005-2009		
	Male	Female	Both sexes
6 months	99.3%	99.7%	99.6%
1 year	97.4%	99.1%	98.5%
5 years	88.4%	92.0%	90.8%

## Survival Trends

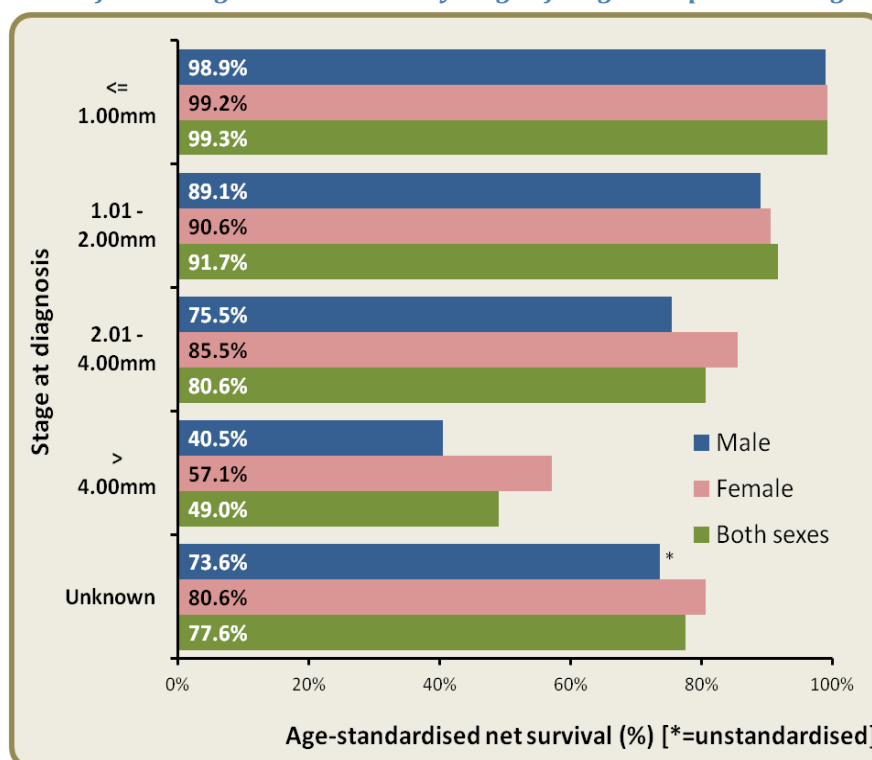
Five-year survival for malignant melanoma in Northern Ireland has increased from the 1993-1999 diagnosis period to the 2005-2009 diagnosis period in both males and females. Five-year survival in men between 1993-1999 was 84.2% and 88.4% between 2005-2009. Five-year survival in women between 1993-1999 was 90.6% and 92.0% between 2005-2009. This makes malignant melanoma one of the most survivable cancers alongside non-melanoma skin cancers such as basal cell and squamous cell cancer.

*Table 3: Five-year malignant melanoma survival by period of diagnosis and gender*

Period of diagnosis	Male	Female	Both sexes
1993-1999	84.2%	90.6%	88.4%
2000-2004	83.0%	92.5%	88.6%
2005-2009	88.4%	92.0%	90.8%

## Survival and stage

*Figure 6: Five-year survival from malignant melanoma by stage of diagnosis: patients diagnosed 2003-2010*



Stage at diagnosis is one of the most important factors in malignant melanoma survival with five-year survival decreasing as stage at diagnosis increases. Five-year survival ranged from 99.3% for early (Breslow depth less than or equal to 1mm) disease to 49.0% for late (Breslow depth more than 4mm) disease, thus highlighting the importance of an early diagnosis.

Females in Northern Ireland are more likely to survive for at least five years after diagnosis of a malignant melanoma with Breslow depth exceeding 4mm than males with 57.1% of females alive for at least five years after this diagnosis and only 40.5% of males able to achieve the same.

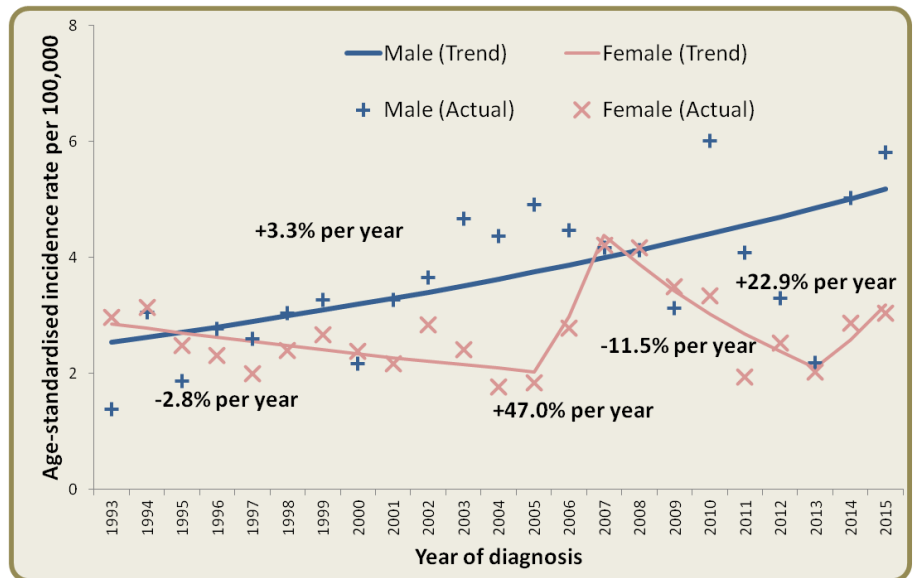
## MORTALITY

In 2011-2015 there were an average of 47 deaths from malignant melanoma each year.

### Mortality trends

When adjusted for age and population change, melanoma mortality rates in males had a 3.3% increase per year. Female mortality decreased by 2.8% each year until 2005 before rising by 47.0% each year until 2007, however this rise is not statistically significant. Female mortality then significantly decreased by 11.5% until 2013 before finally increasing insignificantly by 22.9% until 2015.

Figure 7: Trends in malignant melanoma mortality rates: 1993-2015



## PREVALENCE

At the end of 2015 there were a total of 4,008 people living in Northern Ireland with a diagnosis of malignant melanoma between 1993 and 2015 of which over 60% were female, close to 10% had been diagnosed in the previous year, and 36% were over 70 and 26% were under the age of 50.

Table 4: Number of people living with malignant melanoma at the end of 2015 who were diagnosed from 1993-2015 by time since diagnosis and gender

Sex	Age	Time since diagnosis				23-year Prevalence
		0-1 year	1-5 years	5-10 years	10-23 years	
Male	0-69	123	287	231	299	940
	70+	76	210	157	198	641
	All ages	199	497	388	497	1,581
Female	0-69	125	487	420	605	1,637
	70+	62	226	165	337	790
	All ages	187	713	585	942	2,427
Both	0-69	248	774	651	904	2,577
	70+	138	436	322	535	1,431
	All ages	386	1,210	973	1,439	4,008

## FURTHER INFORMATION

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

### NI Cancer Registry

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