

# MALIGNANT MELANOMA



NUMBER OF CASES PER YEAR (2012-2016) <sup>1</sup>			NUMBER OF DEATHS PER YEAR (2012-2016)		
Male	Female	Both sexes	Male	Female	Both sexes
174	203	377	26	22	48
FIVE-YEAR SURVIVAL (2006-2010)			24-YEAR PREVALENCE (2016)		
Male	Female	Both sexes	Male	Female	Both sexes
89.6%	92.0%	91.3%	1,682	2,572	4,254

<sup>1</sup> 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

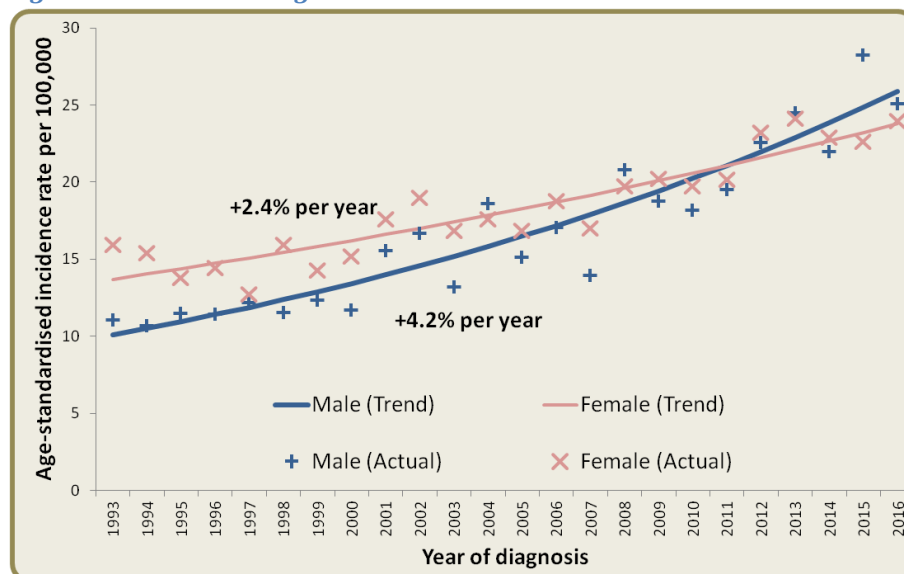
Between 2012 and 2016 there were an average of 174 males and 203 females diagnosed with malignant melanoma cancer each year in Northern Ireland. The probability that a male will develop malignant melanoma before the age of 75 is approximately 1 in 77 whilst the probability that a female will develop malignant melanoma before the age of 75 is 1 in 68. Over a ten-year period the number of malignant melanoma cases has increased in males and females from 233 in 2007 to 396 in 2016 (Table 1).

### Incidence trends

Table 1: Incidence of malignant melanoma by gender and year of diagnosis: 2007-2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Males	95	137	122	116	129	151	171	156	209	184
Females	138	162	165	166	172	197	208	200	198	212
Both	233	299	287	282	301	348	379	356	407	396

Figure 1: Trends in malignant melanoma incidence rates: 1993-2016



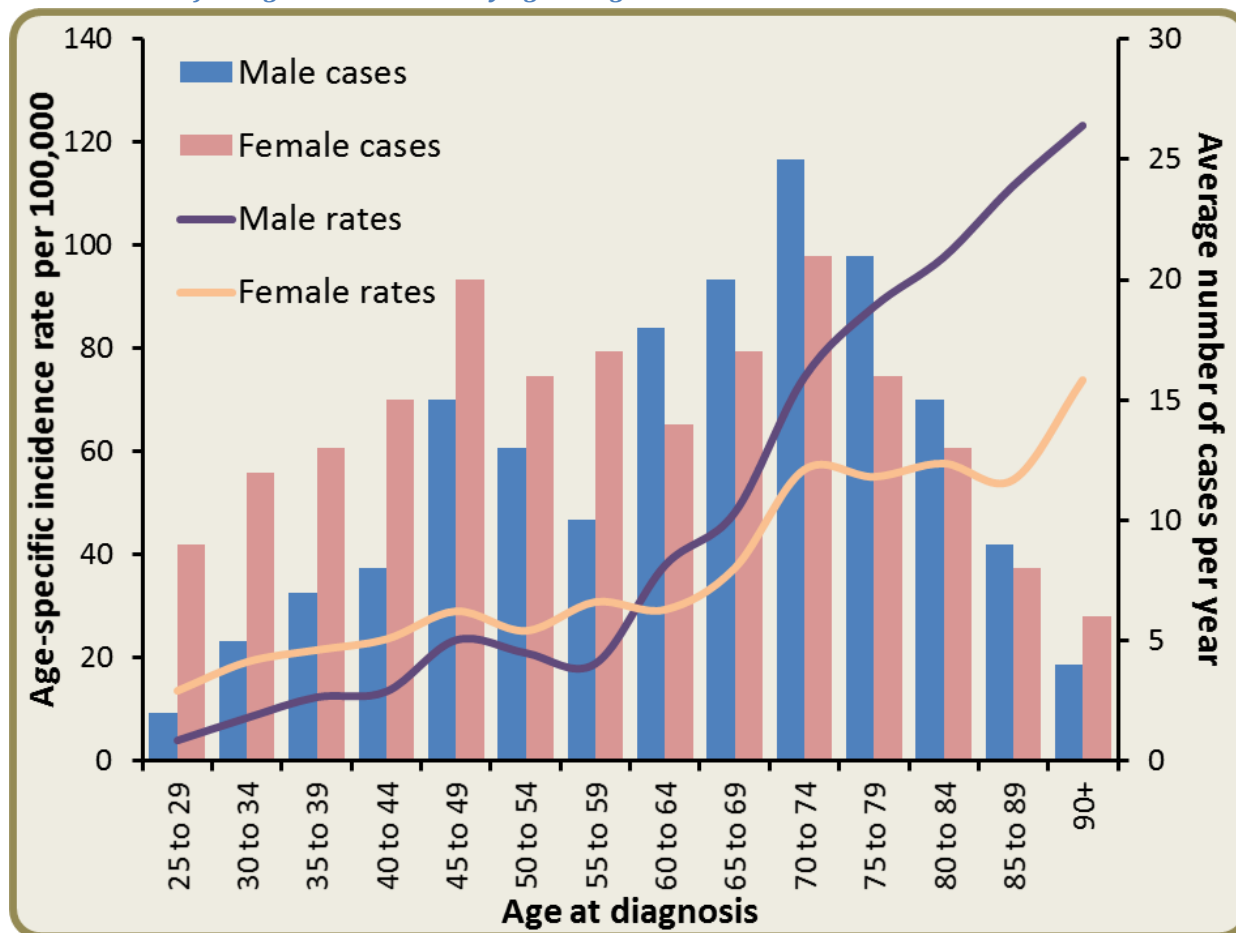
After accounting for the ageing population, there has been a 4.2% increase in yearly incidence of malignant melanoma in males and a 2.4% yearly increase in incidence of malignant melanoma in females.

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. Over 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: 2012-2016



## Incidence by Trust area

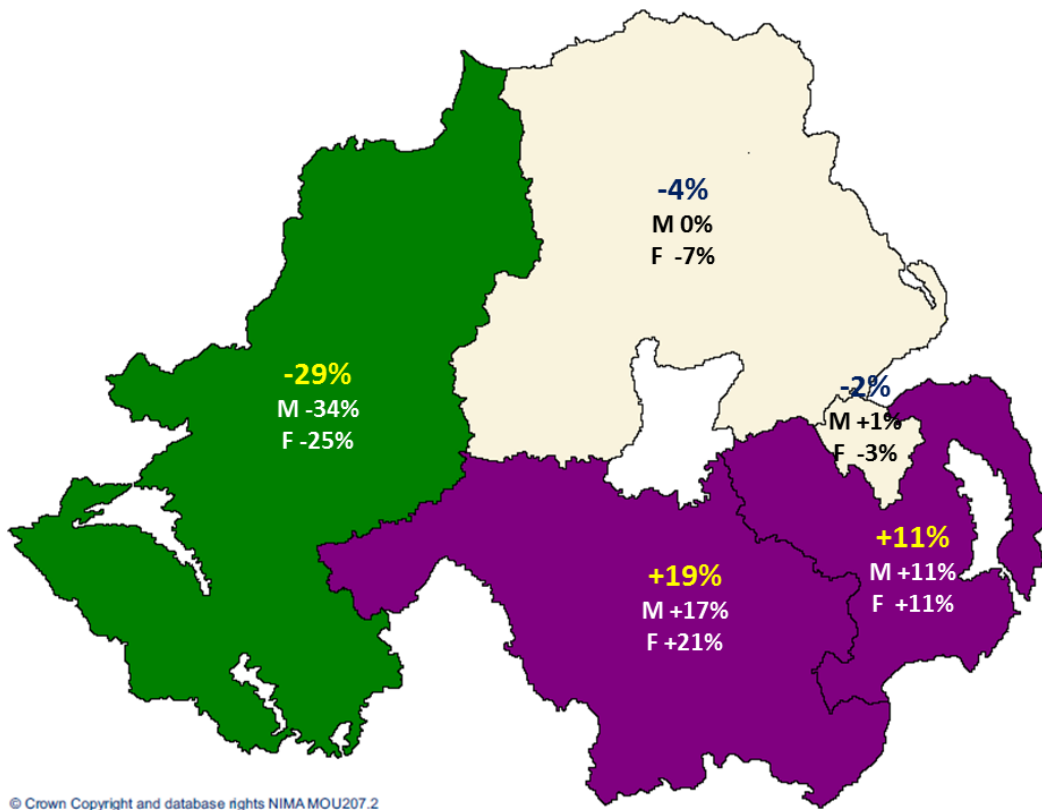
Malignant melanoma incidence rates in 2012-2016 were 19% above the NI average in people living in the Southern and 11% above for people living in the South Eastern health and social care trusts (HSCT) with females accounting for the majority of this increased incidence (female melanoma incidence 21% and 11 % respectively above the NI average in these trusts).

Malignant melanoma incidence rates in 2012-2016 were 29% 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 34% 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: 2012-2016 comparison

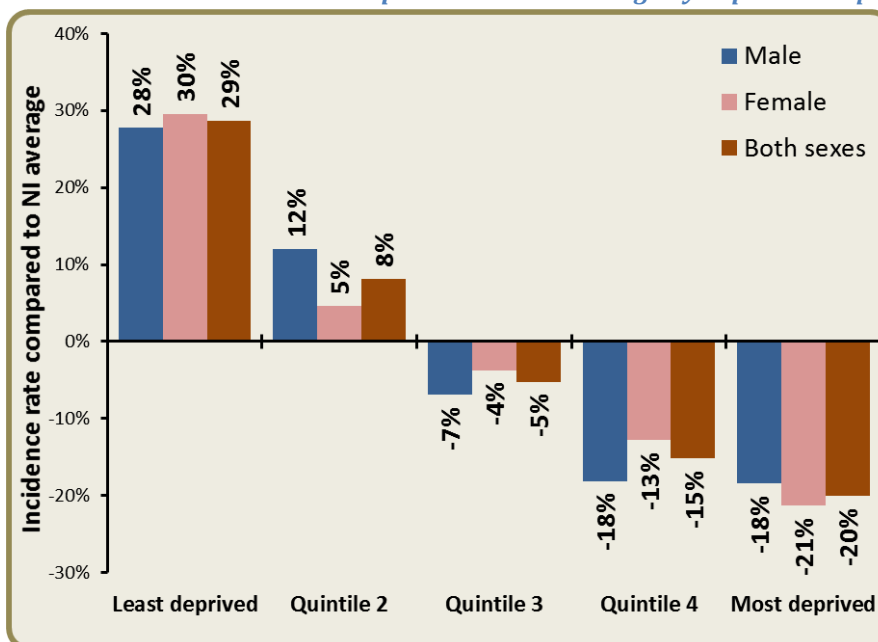


Significantly higher than average
  Significantly lower than average

### Incidence by deprivation

Cancer incidence rates are consistently lower than the NI average among males and females within the most deprived communities (-20%) and higher amongst the least deprived communities (+29%) suggesting a relationship between socioeconomic status and risk factor (UV) exposure.

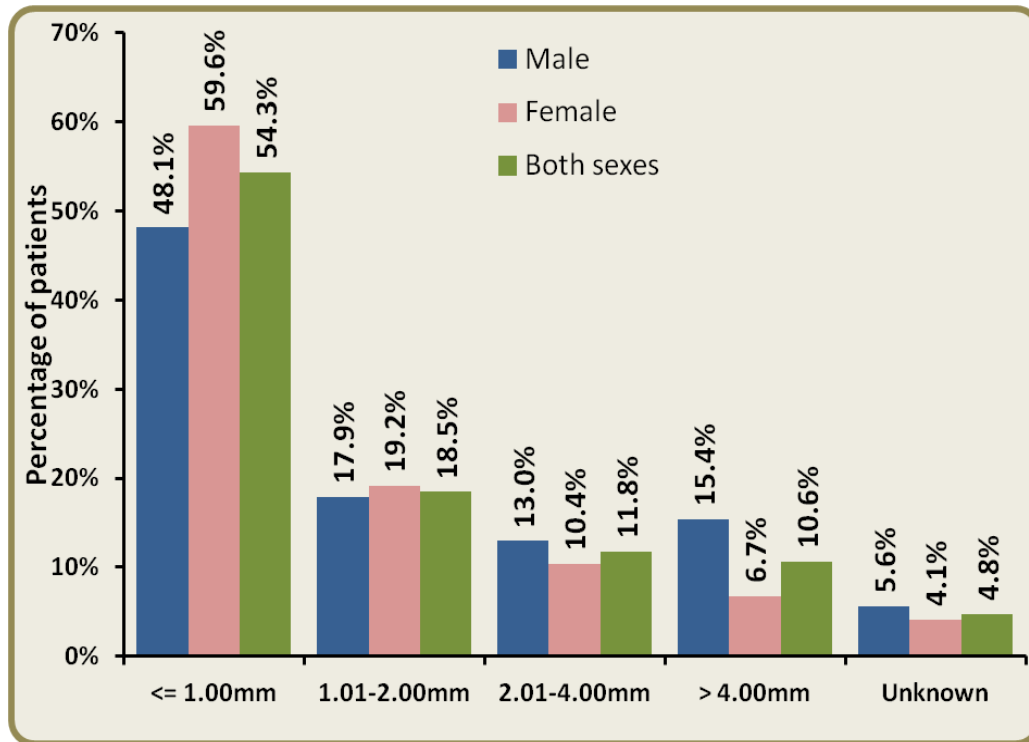
Figure 4: Malignant melanoma incidence rates compared to the NI average by deprivation quintile: 2012-2016



### 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 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: 2012-2016



The majority of patients diagnosed with malignant melanoma were diagnosed with a Breslow depth of less than or equal to 1mm (54%). 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 2006-2010 was 89.6% 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 2006-2010		
	Male	Female	Both sexes
6 months	99.5%	99.7%	99.8%
1 year	96.6%	99.2%	98.1%
5 years	89.6%	92.0%	91.3%

### Survival Trends

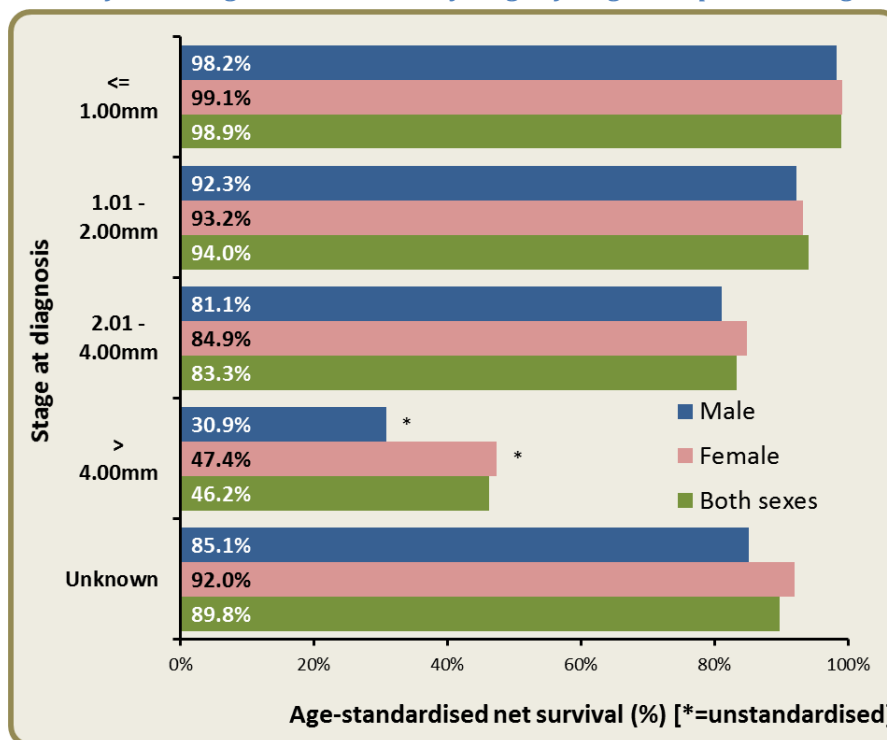
Five-year survival for malignant melanoma in Northern Ireland has increased from the 1993-2000 diagnosis period to the 2006-2010 diagnosis period in both males and females. Five-year survival in men between 1993-2000 was 85.5% and 89.6% between 2006-2010. Five-year survival in women between 1993-2000 was 90.8% and 92.0% between 2006-2010. 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
1993-2000	85.5%	90.8%	89.1%
2001-2005	81.9%	92.9%	88.2%
2006-2010	89.6%	92.0%	91.3%

## Survival and stage

*Figure 6: Five-year survival from malignant melanoma by stage of diagnosis: patients diagnosed 2004-2011*



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 98.9% for early (Breslow depth less than or equal to 1mm) disease to 46.2% for late (Breslow depth more than 4mm) disease, thus highlighting the importance of an early diagnosis.

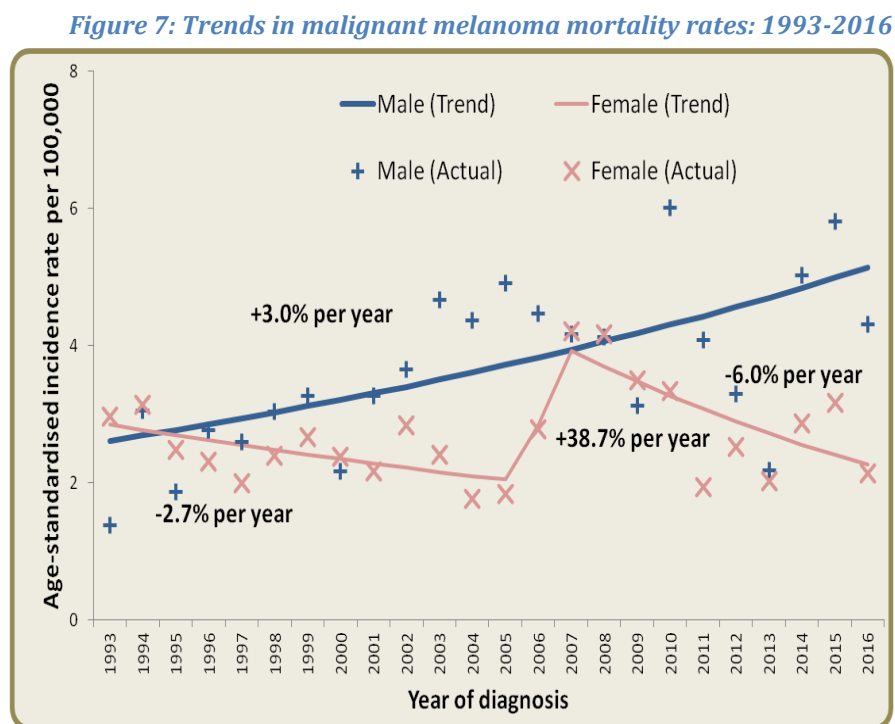
Females in Northern Ireland are more likely to survive for at least five years after diagnosis of a malignant melanoma with Breslow depth exceeding 4mm than males with 47.4% of females alive for at least five years after this diagnosis and only 30.9% of males able to achieve the same.

## MORTALITY

In 2012-2016 there were an average of 48 deaths from malignant melanoma each year.

### Mortality trends

When adjusted for age and population change, melanoma mortality rates in males had a +3.0% increase per year. Female mortality decreased by -2.7% each year until 2005 before rising by +38.7% each year until 2007, however this rise is not statistically significant. Female mortality then significantly decreased by -6.0% until 2016.



## PREVALENCE

At the end of 2016 there were a total of 4,254 people living in Northern Ireland with a diagnosis of malignant melanoma between 1993 and 2016 of which over 60% were female, close to 10% had been diagnosed in the previous year, and 37% were over 70 and 25% were under the age of 50.

*Table 4: Number of people living with malignant melanoma at the end of 2016 who were diagnosed from 1993-2016 by time since diagnosis and gender*

Sex	Age	Time since diagnosis				24-year Prevalence
		0-1 year	1-5 years	5-10 years	10-24 years	
Male	0-69	87	330	229	326	972
	70+	84	236	166	224	710
	All ages	171	566	395	550	1,682
Female	0-69	132	492	432	653	1,709
	70+	73	240	192	358	863
	All ages	205	732	624	1,011	2,572
Both	0-69	219	822	661	979	2,681
	70+	157	476	358	582	1,573
	All ages	376	1,298	1,019	1,561	4,254

## 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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