# Ovarian cancer



Number of cases per year	Number of deaths per year
$(2014-2018)^{1}$	(2014-2018) <sup>1</sup>
Female	Female
211	128
Five-year net survival	25-year prevalence
(2009-2013)	(2018)
Female	Female
44.0%	1,685

# Incidence

#### During 2014-2018:

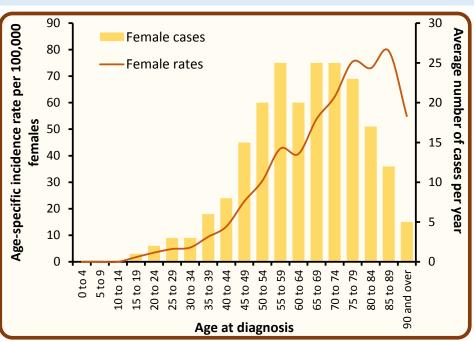
- There were 211 cases of ovarian cancer diagnosed each year.
- There were 22.3 cases of ovarian cancer per 100,000 females diagnosed each year.
- Ovarian cancer made up 4.4% of all female cancers (ex NMSC).
- The risk of a woman developing ovarian cancer before the age of 75 was 1 in 69.

## Incidence by age at diagnosis: Ovarian cancer 2014-2018<sup>1</sup>

#### During 2014-2018:

- The median age at diagnosis for ovarian cancer was 65.
- Ovarian cancer risk increased with age, with 50.7% of women aged 65 years or more at diagnosis.
- 18.0% of cases were diagnosed among those aged under 50.

Age at diagnosis	Average cases per year Female
0 - 49	38
50 - 64	65
65 - 74	50
75 +	57
All ages	211



# Incidence by year of diagnosis: Ovarian cancer 2009-2018

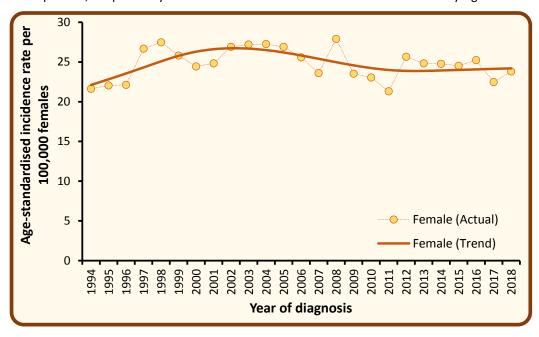
• Among females the number of cases of ovarian cancer increased by 8.8% from an annual average of 194 cases in 2009-2013 to 211 cases in 2014-2018.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Female	185	185	174	214	211	211	212	218	198	215

<sup>1.</sup> 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: Ovarian cancer 1994-2018

• Age-standardised incidence rates of ovarian cancer increased by 2.0% from 23.7 per 100,000 person years in 2009-2013 to 24.2 cases per 100,000 persons years in 2014-2018. This difference was not 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).

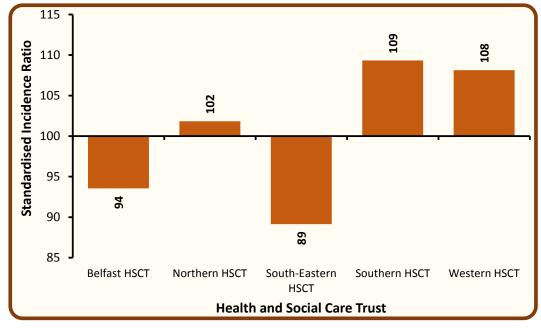
They thus represent changes other than those caused by population growth and/or ageing.

#### Incidence (cases and rates) by Health and Social Care Trust: Ovarian cancer 2014-2018<sup>1</sup>

The annual number of ovarian 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 did not vary significantly from 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 did not vary significantly from the NI average.
- in Western HSCT did not vary significantly from the NI average.

Health and Social Care Trust	Average cases per vear			
Treatment of the Care Tract	Female			
Belfast HSCT	38			
Northern HSCT	56			
South-Eastern HSCT	39			
Southern HSCT	43			
Western HSCT	35			
Northern Ireland	211			



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.

<sup>1.</sup> 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. HSCT: Health and Social Care Trust

# Incidence (cases and rates) by deprivation quintile: Ovarian cancer 2014-2018

The annual number of ovarian 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):

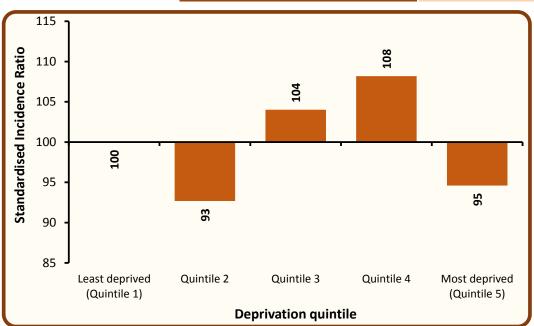
- in the most socio-economically deprived areas did not vary significantly from the NI average.
- in the least socio-economically deprived areas did not vary significantly from the NI average.

Deprivation quintile	Average cases per year
	Female
Least deprived (Quintile 1)	44
Quintile 2	41
Quintile 3	45
Quintile 4	46
Most deprived (Quintile 5)	34
Northern Ireland	211

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

- 69.3% of ovarian cancer patients were alive one year and 45.0% were alive five years from a diagnosis in 2009-2013. (observed survival)
- Age-standardised net survival (ASNS), which removes the effect of deaths from causes unrelated to cancer, was 67.6% one year and 44.0% five years from an ovarian cancer diagnosis in 2009-2013.
- Estimates for survival (ASNS) of patients diagnosed during 2012-2016 are 69.3% one year, and 46.1% five years from diagnosis.

Period of diagnosis <sup>2</sup>	Gender	Observed	d survival	Age-standardised net survival			
		One-year	One-year Five-years		Five-years		
2009-2013	Female	69.3%	45.0%	67.6%	44.0%		
<b>2012-2016</b> estimates	Female	70.7%	46.2%	69.3%	46.1%		

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.

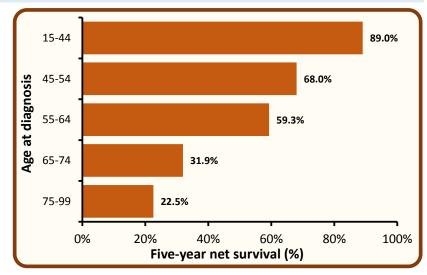
Age-standardised net survival is the proportion of patients who would survive if the patient could not die from causes unrelated to their cancer. This measure is more typically used in studies of cancer survival.

<sup>1.</sup> 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.

 $<sup>2.\</sup> Five-year\ survival\ for\ 2012-2016\ are\ estimates\ as\ not\ all\ patients\ have\ five\ years\ worth\ of\ follow\ up.$ 

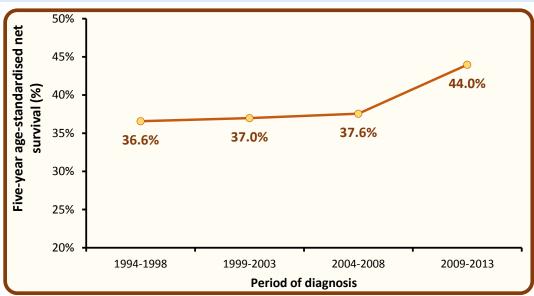
#### Survival by age at diagnosis: Ovarian cancer 2009-2013

- Survival from ovarian cancer is strongly related to age with five-year survival decreasing as age increases.
- Five-year net survival ranged from 89.0% among patients aged 15-44 at diagnosis to 22.5% among those aged 75 and over.



#### Trends in age-standardised net survival: Ovarian cancer 1994-2013

• Among women five-year survival (ASNS) from ovarian cancer increased from 36.6% for those diagnosed in 1994-1998 to 44.0% for those diagnosed in 2009-2013. This difference was not statistically significant.



# **Prevalence**

- At the end of 2018 there were 1,685 females living with ovarian cancer who had been diagnosed with the disease during 1994-2018.
- Of these, 34.0% were aged 70 and over, and 10.1% had been diagnosed in the previous year.

		25-year prevalence		
Time since diagnosis	Aged 0-69	Aged 70+	All ages	
	Female	Female	Female	
0-1 year	111	59	170	
1-5 years	317	132	449	
5-10 years	281	98	379	
10-25 years	403	284	687	
0-25 years	1,112	573	1,685	

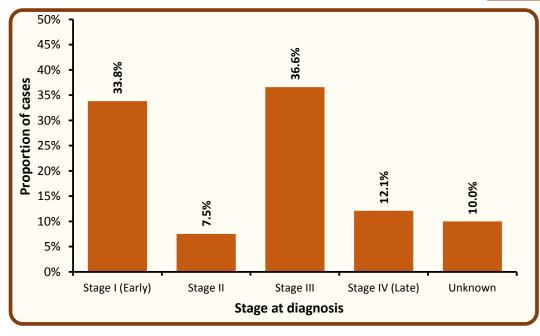
25-year prevalence refers to the number of cancer survivors who were alive at the end of 2018, and had been diagnosed with their cancer in the previous 25 years (i.e. 1994-2018).

# Incidence by stage at diagnosis: Ovarian cancer 2013-2017<sup>1</sup>

During 2013-2017:

- 90.0% of ovarian cancer cases had a stage assigned at diagnosis.
- 33.8% of cases were diagnosed at stage I. (37.6% of staged cases)
- 12.1% of cases were diagnosed at stage IV. (13.4% of staged cases)

Stage at diagnosis	Average cases per year Female
Stage I (Early)	71
Stage II	16
Stage III	77
Stage IV (Late)	25
Unknown	21
All stages	210



Cancer stage describes the size of a cancer and how far it has grown and spread.

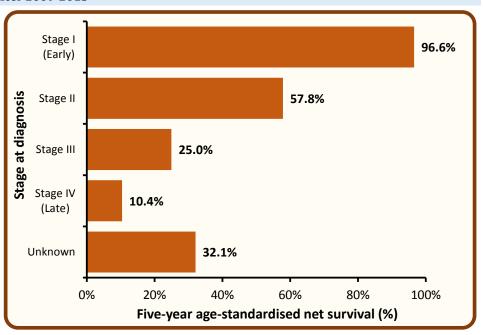
This information is used to help decide what treatments are needed.

The classification used here to stage cancer is the TNM (version 7) classification.

Data on cancer stage in 2018, classified using TNM (version 8), is available online at www.qub.ac.uk/nicr

## Survival by stage at diagnosis: Ovarian cancer 2009-2013

- Stage at diagnosis is one of the most important factors in ovarian cancer survival with five-year survival decreasing as stage increases.
- Five-year survival (ASNS) ranged from 96.6% for early stage (stage I) disease to 10.4% for late stage (stage IV) disease.
- Five-year survival (ASNS) for unstaged ovarian cancer was 32.1%.



<sup>1.</sup> 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.

ASNS: Age-standardised net survival

# **Mortality**

During 2014-2018:

- There were 128 deaths from ovarian cancer each year.
- Death from ovarian cancer made up 6.1% of all female cancer deaths (ex NMSC).

## Deaths by age at death: Ovarian cancer 2014-2018<sup>1</sup>

During 2014-2018:

- The median age at death from ovarian cancer among women was 73.
- Risk of death from ovarian cancer among women was strongly related to age, with 71.1% of women aged 65 years or more at time of death.
- 4.7% of ovarian cancer deaths occurred among those aged under 50 at time of death.

Age at death	Average deaths per year Female
0 - 49	6
50 - 64	30
65 - 74	35
75 +	56
All ages	128

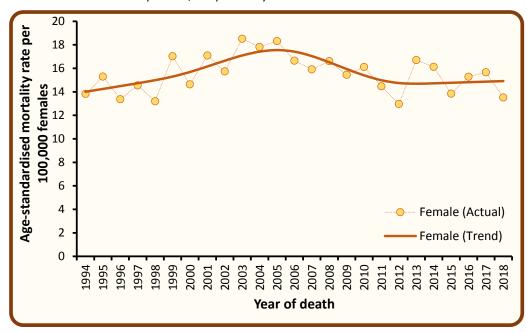
#### Deaths by year of death: Ovarian cancer 2009-2018

 Among females the number of deaths from ovarian cancer increased by 6.7% from an annual average of 120 deaths in 2009-2013 to 128 deaths in 2014-2018.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Female	119	125	112	105	138	135	116	129	138	121

#### Trends in age-standardised mortality rates: Ovarian cancer 1994-2018

 Among women age-standardised mortality rates from ovarian cancer decreased by 1.6% from 15.1 per 100,000 person years in 2009-2013 to 14.9 deaths per 100,000 persons years in 2014-2018. This difference was not 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.

#### **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

The Northern Ireland Cancer Registry (NICR) is funded by the Public Health Agency. NICR uses data provided by patients and collected by the health service as part of their care and support.





<sup>1.</sup> 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