# Cancer Statistics by Local Government District:

Patients diagnosed in Northern Ireland during 2008-2012

December 2014











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### 1: Introduction

The Northern Ireland Cancer Registry (NICR) regularly produces cancer incidence data by Local Government District as part of its annual official statistics release<sup>1</sup>. This information provides valuable insight into geographic variations in cancer incidence allowing public health officials the opportunity to target public health messages regarding cancer risk towards those communities most in need of it and to potentially learn best practice from those areas with lower than average rates. In addition the data provides useful information to health service providers, which assists them in planning of resources.

At the beginning of 2014 there were 26 Local Government Districts (LGD) in Northern Ireland, however in May 2014 a new set of LGD boundaries were introduced, reducing the number of LGDs to 11. These new district councils will shadow the 26 LGDs until April 2015, from which point the old LGDs will cease to exist and the new 11 LGDs will be the primary Local Government boundaries.

### Figure 1.1: New Local Government Districts in Northern Ireland



This report provides for the first time cancer incidence statistics for the new 11 LGDs. NICR will however continue to produce information on the old 26 LGDs for as long as user demand dictates. Data on the new LGDs will become part of NICRs annual official statistics release from early 2015 and will thus be updated on an annual basis.

<sup>&</sup>lt;sup>1</sup> Northern Ireland Cancer Registry. Online Statistics. http://www.qub.ac.uk/nicr

### 2: Cancer Incidence by Local Government District

On average there were 11,861 cases of cancer (including non-melanoma skin cancer) diagnosed in Northern Ireland each year between 2008 and 2012. Of these cases 51.9% (6,160 cases per year) were among males, with 5,701 cases per year among females.

Excluding the rarely fatal non-melanoma skin cancer there were 8,615 cases of cancer diagnosed each year, with 4,353 cases (50.5%) per year among males and 4,261 cases per year among females. Among males the most common cancers were prostate (23.7%), colorectal (15.2%) and lung (14.7%), while among females the most common cancers were breast (29.1%), colorectal (12.4%) and lung (10.6%). (Fig 2.1)

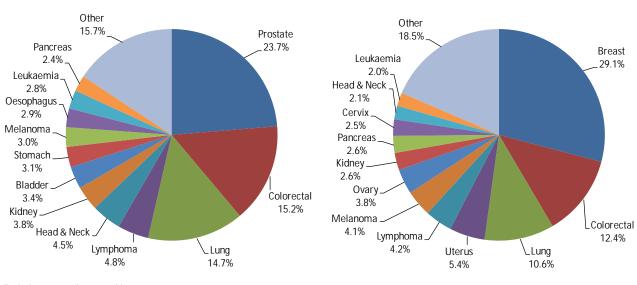


Figure 2.1: Most common cancers diagnosed in NI during 2008-2012 by sex Males Females

Excludes non-melanoma skin cancer

### 2.1: Local Government Districts

The average number of cases of cancer (including NMSC) per year ranged from 713 in Fermanagh & Omagh LGD to 2,271 in Belfast LGD. Excluding NMSC the number of cases ranged from 513 in Fermanagh & Omagh LGD to 1,688 in Belfast LGD (Tab. 2.1). Similar data for each cancer type is presented in table 2.2.

Table 2.1: Average number of cases of cancer diagnosed per year during 2008-2012 by sex and Local
Government District

Local Government District	I	ncluding NMS	SC	Excluding NMSC		
	Male	Female	Both sexes	Male	Female	Both sexes
Antrim & Newtownabbey	468	427	895	334	329	664
Armagh, Banbridge & Craigavon	661	609	1,270	475	457	932
Belfast	1,138	1,133	2,271	830	858	1,688
Causeway Coast & Glens	491	450	941	341	330	671
Derry & Strabane	453	429	882	316	326	642
Fermanagh & Omagh	383	330	713	265	247	513
Lisburn & Castlereagh	456	431	887	319	314	633
Mid & East Antrim	512	457	969	359	336	694
Mid Ulster	424	351	775	301	269	570
Newry, Mourne & Down	574	513	1,086	392	375	767
North Down & Ards	601	571	1,172	423	420	842
Northern Ireland	6,160	5,701	11,861	4,353	4,261	8,615

NMSC: Non-melanoma skin cancer

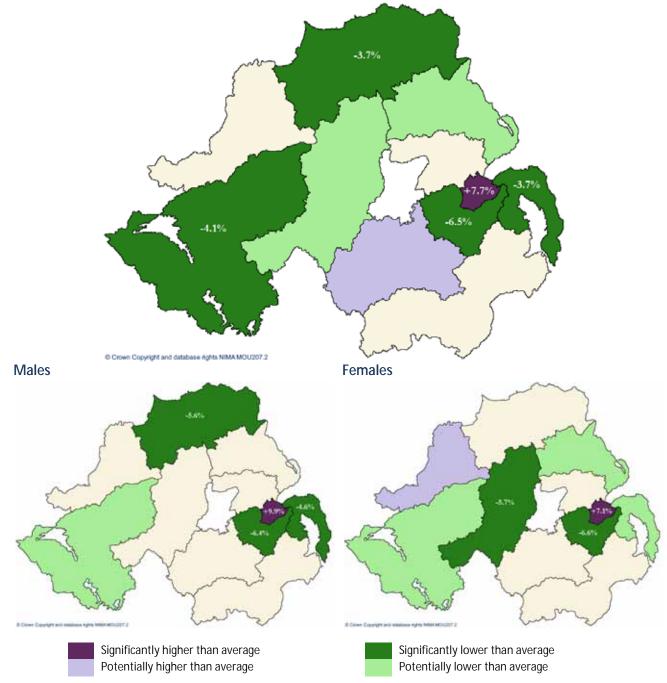
		Local Government District											
Cancer type	Sex	Antrim & Newtownabbey	Armagh, Banbridge & Craigavon	Belfast	Causeway Coast & Glens	Derry & Strabane	Fermanagh & Omagh	Lisburn & Castlereagh	Mid & East Antrim	Mid Ulster	Newry, Mourne & Down	North Down & Ards	Northern Ireland
Bladder	Both sexes	18	23	39	16	13	9	18	20	13	19	21	210
Brain and other CNS	Both sexes	10	14	23	11	10	9	10	10	10	11	12	130
Breast	Female	95	130	228	103	97	71	105	97	78	110	125	1,240
Cancer of unknown primary	Both sexes	18	23	58	19	19	14	14	20	15	22	27	249
Cervix	Female	9	10	27	7	8	5	8	7	7	8	11	107
Colorectal	Both sexes	88	127	221	95	90	77	85	98	81	116	111	1,190
	Male	51	68	119	54	53	42	44	54	49	66	59	660
	Female	37	59	102	41	37	36	41	43	32	50	52	530
Head & Neck	Both sexes	18	29	72	20	25	19	14	21	14	27	28	287
Kidney	Both sexes	26	31	57	21	19	16	20	22	17	21	27	276
Leukaemia	Both sexes	16	20	36	14	17	13	21	20	14	19	21	210
Liver	Both sexes	7	8	22	6	6	5	7	8	7	9	9	93
Lung	Both sexes	89	107	290	71	87	56	67	79	65	89	94	1,094
	Male	53	66	162	44	48	34	44	45	38	50	57	641
	Female	36	41	128	27	39	22	23	34	27	39	37	453
Lymphoma	Both sexes	30	40	70	32	27	23	33	30	25	37	36	384
Melanoma	Both sexes	24	42	44	22	20	18	22	25	22	29	36	303
Multiple myeloma	Both sexes	8	12	18	12	8	7	11	10	10	10	12	118
Non-melanoma skin	Both sexes	232	338	583	270	240	201	254	275	205	319	330	3,247
	Male	134	186	307	150	137	119	137	154	123	182	179	1,807
	Female	98	152	275	119	103	82	118	121	82	137	151	1,440
Oesophagus	Both sexes	15	22	34	14	14	10	15	16	12	17	19	189
Ovary	Female	12	17	28	13	10	8	12	14	15	14	18	163
Pancreas	Both sexes	17	23	44	22	16	14	15	16	16	15	20	217
Prostate	Male	78	118	163	87	63	73	72	96	81	87	113	1,032
Stomach	Both sexes	17	24	50	16	22	12	15	15	13	21	15	220
Testicular	Males	4	8	9	5	6	4	5	5	7	7	5	66
Uterus	Female	18	30	41	20	18	13	17	16	15	20	23	231
CNS: Control poryous system													

# Table 2.2: Average number of cases of cancer diagnosed per year during 2008-2012 by cancer type and Local Government District

CNS: Central nervous system

The variation in the number of cases by Local Government District is reflective of the size and age-structure of the different areas. Adjusting for these factors using age-standardised rates illustrates that cancer incidence rates excluding non-melanoma skin cancer were 7.7% higher than the NI average in Belfast LGD and were significantly lower than the NI average in Causeway Coast & Glens LGD by 3.7%, Fermanagh & Omagh LGD by 4.1%, Lisburn & Castlereagh LGD by 6.5% and North Down & Ards LGD by 3.7%. (Fig. 2.2)





Among males incidence rates were significantly higher than the NI average in Belfast LGD and were significantly lower than the NI average in Causeway Coast & Glens LGD, Lisburn & Castlereagh LGD and North Down & Ards LGD. Among females incidence rates were significantly higher than the NI average in Belfast LGD and were significantly lower than the NI average in Lisburn & Castlereagh LGD and Mid Ulster LGD. (Fig. 2.2)

This geographic variation will be strongly related to lifestyle factors (see section 4) and the socio-economic status of people resident in these areas; however other factors such as higher use of PSA testing (for prostate cancer) and genetic factors will have an impact. Consequently the variation illustrated for all cancers combined is not necessarily the same for each type of cancer. Table 2.3 illustrates which cancers are significantly higher or lower in each LGD.

Local Government District	Cancers with significantly higher incidence rates	Cancers with significantly lower incidence rates
Antrim & Newtownabbey	Kidney cancer	Head & Neck cancer, Non-melanoma skin cancer
Armagh, Banbridge & Craigavon	Melanoma, Uterine cancer	
Belfast	Lung cancer, Stomach cancer, Cervical cancer, Head & Neck cancer, Kidney cancer, Liver cancer, Cancer of unknown primary	Prostate cancer, Melanoma, Multiple Myeloma, Testicular cancer
Causeway Coast & Glens	Pancreatic cancer	Lung cancer
Derry & Strabane	Lung cancer, Stomach cancer	Prostate cancer
Fermanagh & Omagh		Lung cancer, Bladder cancer
Lisburn & Castlereagh	Leukaemia	Colorectal cancer, Lung cancer, Prostate cancer, Head & Neck cancer, Cancer of unknown primary,
Mid & East Antrim	Prostate cancer	Lung cancer, Uterine cancer
Mid Ulster	Prostate cancer, Ovarian cancer	Lung cancer, Head & Neck cancer, Non-melanoma skin cancer
Newry, Mourne & Down	Colorectal cancer, Non-melanoma skin cancer	Kidney cancer, Pancreatic cancer
North Down & Ards	Melanoma	Colorectal cancer, Lung cancer, Stomach cancer

# Table 2.3: Local Government Districts with significantly higher and lower incidence rates of each type of cancer

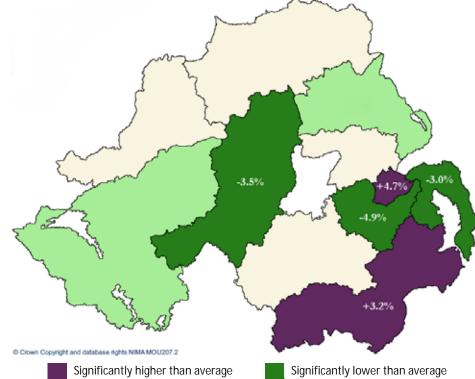
All LGDs except Fermanagh & Omagh LGD had higher than average incidence rates of at least one type of cancer. Similarly all LGDs except Armagh, Banbridge & Craigavon LGD had lower than average incidence rates of at least one type of cancer. There was no LGD variation for brain cancer, female breast cancer, lymphoma or oesophageal cancer.

### 2.2: Detailed incidence data by cancer site

Detailed statistics on cancer incidence by Local Government District are provided in the following tables for the major cancer sites. Where the number of cases was large enough to support robust analysis we have also provided a breakdown by sex. Descriptions of the measures used can be found in the methodology section and/or glossary.

### ALL CANCERS (Including NMSC) BOTH SEXES (diagnosed 2008-2012)

- On average there were 11,861 cases of cancer (including NMSC) diagnosed in NI each year.
- The average number of cases per year ranged from 713 in Fermanagh & Omagh LGD to 2,271 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and Newry, Mourne & Down LGD and were significantly lower than the NI average in Lisburn & Castlereagh LGD, Mid Ulster LGD and North Down & Ards LGD.



Potentially higher than average

Potentially lower than average

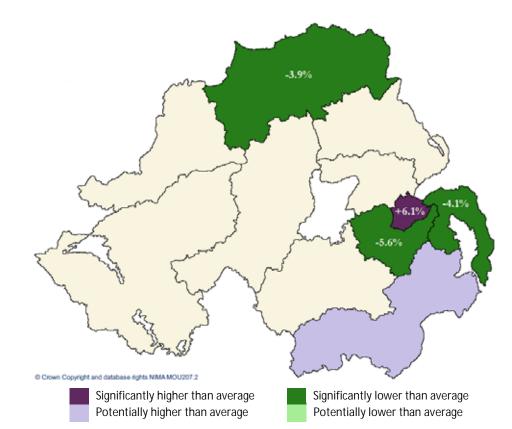
# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	895	649.2	-1.3% (-4.2%,1.5%)
Armagh, Banbridge & Craigavon	1,270	640.7	1.7% (-0.8%,4.2%)
Belfast	2,271	682.7	4.7% (2.8%,6.6%)
Causeway Coast & Glens	941	671.1	-1.9% (-4.7%,0.9%)
Derry & Strabane	882	595.3	2.2% (-0.8%,5.2%)
Fermanagh & Omagh	713	632.2	-3.0% (-6.2%,0.2%)
Lisburn & Castlereagh	887	663.6	-4.9% (-7.7%,-2.1%)
Mid & East Antrim	969	717.7	-1.4% (-4.2%,1.4%)
Mid Ulster	775	565.2	-3.5% (-6.5%,-0.5%)
Newry, Mourne & Down	1,086	635.4	3.2% (0.5%,6.0%)
North Down & Ards	1,172	749.1	-3.0% (-5.4%,-0.5%)
Northern Ireland †Compared to NI average	11,861	657.8	-

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)		
Antrim & Newtownabbey	820.3 (796.2,844.3)	542.9 (526.8,559.1)	375.3 (363.6,387.0)		
Armagh, Banbridge & Craigavon	843.9 (823.2,864.7)	559.6 (545.7,573.5)	386.0 (375.9,396.0)		
Belfast	874.5 (858.5,890.5)	578.4 (567.4,589.5)	398.4 (390.4,406.4)		
Causeway Coast & Glens	819.0 (795.6,842.3)	537.5 (522.0,553.1)	369.1 (357.8,380.4)		
Derry & Strabane	849.5 (824.1,875.0)	562.4 (545.8,579.0)	389.1 (377.2,401.1)		
Fermanagh & Omagh	811.0 (784.4,837.6)	531.5 (513.8,549.2)	365.7 (352.9,378.5)		
Lisburn & Castlereagh	790.0 (766.8,813.2)	524.6 (508.8,540.4)	364.4 (352.8,376.0)		
Mid & East Antrim	823.3 (800.3,846.4)	540.5 (525.0,556.1)	372.8 (361.4,384.2)		
Mid Ulster	807.2 (781.7,832.7)	532.6 (515.7,549.5)	367.0 (354.8,379.1)		
Newry, Mourne & Down	860.2 (837.3,883.1)	566.5 (551.3,581.7)	391.2 (380.2,402.2)		
North Down & Ards	808.6 (788.0,829.2)	537.4 (523.3,551.6)	372.5 (362.0,382.9)		
Northern Ireland	833.1 (826.4,839.7)	550.2 (545.7,554.7)	379.7 (376.4,383.0)		
ASIR – Age-standardised incidence rate per 100,000 persons CI – Confidence interval NMSC – Non-melanoma skin cancer					

### ALL CANCERS (Including NMSC) MALES (diagnosed 2008-2012)

- On average there were 6,160 cases of cancer (including NMSC) diagnosed among males in NI each year.
- The average number of cases per year ranged from 383 in Fermanagh & Omagh LGD to 1,138 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and were significantly lower than the NI average in Causeway Coast & Glens LGD, Lisburn & Castlereagh LGD and North Down & Ards LGD.



### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

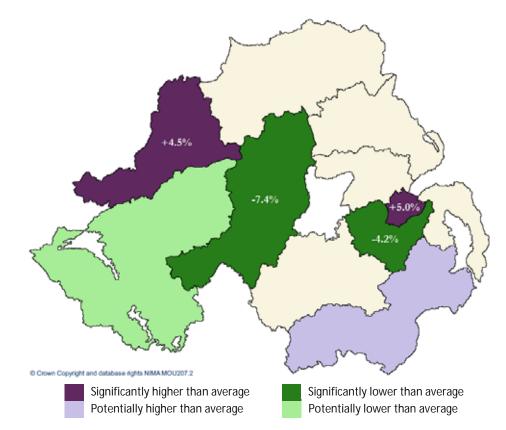
Local Government District	Average cases per year	Crude rate per 100,000 males	Standardised incidence ratio <sup>†</sup> (95% Cl)
Antrim & Newtownabbey	468	697.5	-0.5% (-4.5%,3.5%)
Armagh, Banbridge & Craigavon	661	675.0	1.6% (-1.9%,5.0%)
Belfast	1,138	712.4	6.1% (3.3%,8.9%)
Causeway Coast & Glens	491	708.0	-3.9% (-7.7%,-0.1%)
Derry & Strabane	453	622.8	-0.6% (-4.7%,3.5%)
Fermanagh & Omagh	383	679.5	-2.9% (-7.2%,1.5%)
Lisburn & Castlereagh	456	698.2	-5.6% (-9.4%,-1.7%)
Mid & East Antrim	512	777.6	-0.4% (-4.2%,3.5%)
Mid Ulster	424	617.6	-0.6% (-4.8%,3.6%)
Newry, Mourne & Down	574	675.7	3.2% (-0.6%,7.0%)
North Down & Ards	601	793.4	-4.1% (-7.5%,-0.7%)
Northern Ireland †Compared to NI average	6,160	697.2	-

# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	994.1 (952.8,1035.4)	626.3 (601.0,651.6)	420.8 (403.1,438.5)
Armagh, Banbridge & Craigavon	1015.4 (979.9,1051.0)	640.3 (618.6,662.0)	429.8 (414.7,444.9)
Belfast	1063.0 (1035.2,1090.8)	670.5 (653.0,688.0)	449.7 (437.5,462.0)
Causeway Coast & Glens	966.1 (927.0,1005.2)	603.7 (579.9,627.5)	404.3 (387.8,420.9)
Derry & Strabane	991.0 (947.5,1034.4)	625.7 (600.1,651.4)	423.7 (405.9,441.5)
Fermanagh & Omagh	977.9 (933.2,1022.7)	613.0 (585.8,640.3)	413.5 (394.4,432.7)
Lisburn & Castlereagh	950.5 (910.5,990.6)	596.8 (572.3,621.3)	404.3 (386.8,421.7)
Mid & East Antrim	1002.9 (963.2,1042.5)	629.8 (605.5,654.2)	424.0 (406.8,441.2)
Mid Ulster	993.7 (950.5,1037.0)	628.3 (601.8,654.9)	423.7 (405.2,442.2)
Newry, Mourne & Down	1034.8 (995.9,1073.8)	649.7 (626.1,673.3)	438.0 (421.6,454.5)
North Down & Ards	967.2 (932.1,1002.2)	603.7 (582.1,625.3)	403.9 (388.7,419.2)
Northern Ireland	1002.9 (991.4,1014.3)	630.5 (623.5,637.5)	424.0 (419.1,428.9)

### ALL CANCERS (Including NMSC) FEMALES (diagnosed 2008-2012)

- On average there were 5,701 cases of cancer (including NMSC) diagnosed among females in NI each year.
- The average number of cases per year ranged from 330 in Fermanagh & Omagh LGD to 1,133 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and Derry & Strabane LGD and were significantly lower than the NI average in Lisburn & Castlereagh LGD and Mid Ulster LGD.



### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

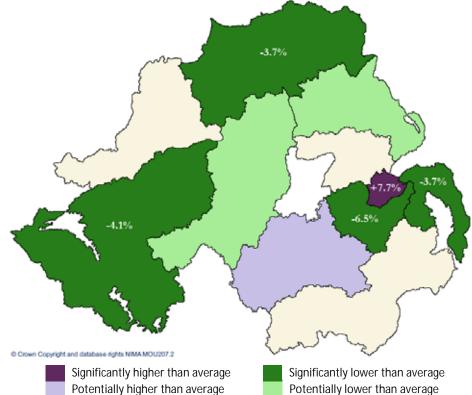
Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	427	603.5	-2.3% (-6.4%,1.9%)
Armagh, Banbridge & Craigavon	609	607.2	1.8% (-1.8%,5.4%)
Belfast	1,133	655.4	5.0% (2.2%,7.7%)
Causeway Coast & Glens	450	634.8	-0.3% (-4.5%,3.8%)
Derry & Strabane	429	568.9	4.5% (0.1%,8.9%)
Fermanagh & Omagh	330	585.0	-4.2% (-8.9%,0.4%)
Lisburn & Castlereagh	431	630.5	-4.2% (-8.2%,-0.1%)
Mid & East Antrim	457	660.6	-2.7% (-6.7%,1.3%)
Mid Ulster	351	512.8	-7.4% (-11.7%,-3.1%)
Newry, Mourne & Down	513	595.6	2.6% (-1.4%,6.6%)
North Down & Ards	571	707.5	-1.7% (-5.4%,1.9%)
Northern Ireland †Compared to NI average	5,701	620.0	-

# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	698.7 (669.1,728.3)	483.7 (462.5,504.9)	342.6 (326.7,358.4)
Armagh, Banbridge & Craigavon	727.3 (701.5,753.1)	503.8 (485.3,522.3)	355.3 (341.6,369.0)
Belfast	755.9 (736.2,775.7)	518.6 (504.2,533.0)	364.5 (353.7,375.2)
Causeway Coast & Glens	716.2 (686.8,745.7)	490.2 (469.2,511.2)	343.8 (328.2,359.4)
Derry & Strabane	749.2 (717.3,781.1)	514.8 (492.8,536.9)	362.5 (346.3,378.7)
Fermanagh & Omagh	687.9 (654.7,721.0)	467.3 (443.9,490.7)	326.9 (309.5,344.2)
Lisburn & Castlereagh	686.2 (657.4,715.1)	476.6 (455.7,497.6)	337.3 (321.5,353.0)
Mid & East Antrim	698.1 (669.6,726.5)	476.6 (456.1,497.1)	335.1 (319.8,350.5)
Mid Ulster	666.6 (635.4,697.8)	458.4 (436.4,480.5)	321.9 (305.7,338.1)
Newry, Mourne & Down	734.3 (705.8,762.7)	502.8 (482.8,522.9)	354.7 (339.7,369.7)
North Down & Ards	707.3 (681.3,733.2)	495.3 (476.1,514.4)	353.0 (338.4,367.6)
Northern Ireland	717.1 (708.8,725.4)	493.7 (487.7,499.7)	348.0 (343.5,352.4)

### ALL CANCERS (Excluding NMSC) BOTH SEXES (diagnosed 2008-2012)

- On average there were 8,615 cases of cancer (excluding NMSC) diagnosed in NI each year.
- The average number of cases per year ranged from 513 in Fermanagh & • Omagh LGD to 1,688 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast • LGD and were significantly lower than the NI average in Causeway Coast & Glens LGD, Fermanagh & Omagh LGD, Lisburn & Castlereagh LGD and North Down & Ards LGD.



Potentially lower than average

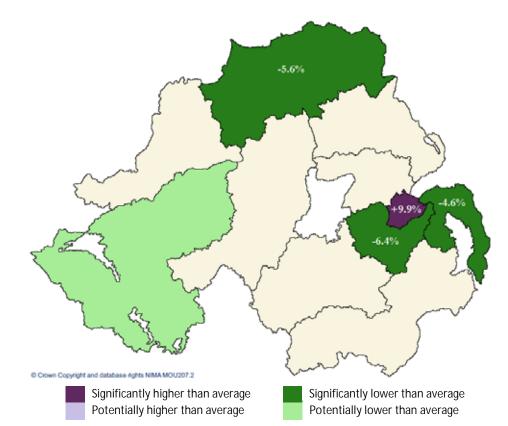
#### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	664	481.3	0.6% (-2.9%,4.0%)
Armagh, Banbridge & Craigavon	932	470.3	2.5% (-0.4%,5.5%)
Belfast	1,688	507.4	7.7% (5.4%,10.0%)
Causeway Coast & Glens	671	478.6	-3.7% (-6.9%,-0.4%)
Derry & Strabane	642	433.3	1.7% (-1.9%,5.2%)
Fermanagh & Omagh	513	454.2	-4.1% (-7.8%,-0.4%)
Lisburn & Castlereagh	633	473.3	-6.5% (-9.8%,-3.3%)
Mid & East Antrim	694	514.0	-2.6% (-5.8%,0.6%)
Mid Ulster	570	415.6	-2.6% (-6.2%,0.9%)
Newry, Mourne & Down	767	448.8	0.1% (-3.1%,3.3%)
North Down & Ards	842	538.3	-3.7% (-6.6%,-0.8%)
Northern Ireland tCompared to NI average	8,615	477.8	-

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)	
Antrim & Newtownabbey	603.4 (582.7,624.0)	407.9 (393.8,422.0)	285.5 (275.1,295.8)	
Armagh, Banbridge & Craigavon	613.3 (595.6,631.0)	416.3 (404.2,428.4)	290.9 (282.0,299.7)	
Belfast	649.0 (635.2,662.9)	438.4 (428.7,448.1)	305.1 (298.0,312.2)	
Causeway Coast & Glens	578.2 (558.6,597.8)	390.0 (376.6,403.4)	271.8 (262.0,281.6)	
Derry & Strabane	605.8 (584.5,627.1)	413.7 (399.4,428.1)	290.6 (280.2,301.1)	
Fermanagh & Omagh	577.4 (555.0,599.9)	387.4 (372.2,402.7)	270.5 (259.4,281.7)	
Lisburn & Castlereagh	560.4 (540.8,579.9)	378.6 (365.1,392.1)	265.9 (255.8,276.0)	
Mid & East Antrim	585.2 (565.8,604.6)	394.8 (381.4,408.3)	276.2 (266.2,286.2)	
Mid Ulster	585.8 (564.2,607.5)	396.5 (381.8,411.2)	277.3 (266.6,288.0)	
Newry, Mourne & Down	598.6 (579.5,617.7)	406.1 (393.1,419.1)	285.4 (275.9,295.0)	
North Down & Ards	578.9 (561.4,596.4)	392.9 (380.7,405.1)	276.0 (266.8,285.2)	
Northern Ireland	600.1 (594.4,605.8)	405.9 (402.0,409.8)	283.8 (280.9,286.7)	
ASIR – Age-standardised incidence rate per 100,000 persons CI – Confidence interval NMSC – Non-melanoma skin cancer				

### ALL CANCERS (Excluding NMSC) MALES (diagnosed 2008-2012)

- On average there were 4,353 cases of cancer (excluding NMSC) diagnosed among males in NI each year.
- The average number of cases per year ranged from 265 in Fermanagh & Omagh LGD to 830 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and were significantly lower than the NI average in Causeway Coast & Glens LGD, Lisburn & Castlereagh LGD and North Down & Ards LGD.



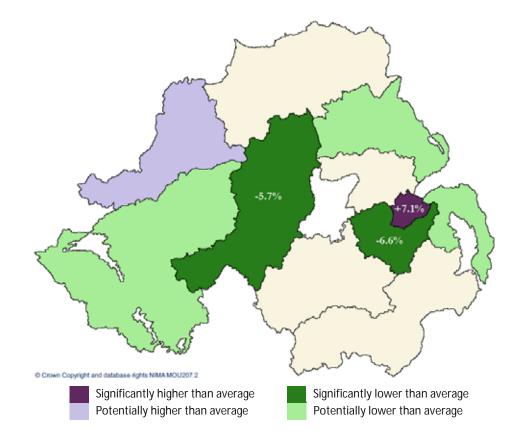
# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 males	Standardised incidence ratio <sup>†</sup> (95% Cl)
Antrim & Newtownabbey	334	498.2	0.5% (-4.3%,5.4%)
Armagh, Banbridge & Craigavon	475	485.1	3.2% (-1.0%,7.3%)
Belfast	830	519.6	9.9% (6.5%,13.2%)
Causeway Coast & Glens	341	491.3	-5.6% (-10.1%,-1.2%)
Derry & Strabane	316	434.6	-2.3% (-7.1%,2.5%)
Fermanagh & Omagh	265	469.6	-5.0% (-10.1%,0.1%)
Lisburn & Castlereagh	319	488.5	-6.4% (-11.0%,-1.8%)
Mid & East Antrim	359	544.2	-1.2% (-5.8%,3.3%)
Mid Ulster	301	438.8	-0.2% (-5.2%,4.8%)
Newry, Mourne & Down	392	461.6	-0.4% (-4.8%,4.0%)
North Down & Ards	423	557.6	-4.6% (-8.7%,-0.5%)
Northern Ireland †Compared to NI average	4,353	492.7	-

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	701.6 (667.0,736.2)	448.6 (427.1,470.1)	304.7 (289.5,319.9)
Armagh, Banbridge & Craigavon	720.9 (691.0,750.8)	462.1 (443.5,480.6)	312.8 (299.8,325.7)
Belfast	768.9 (745.2,792.5)	492.2 (477.1,507.3)	333.0 (322.3,343.6)
Causeway Coast & Glens	660.7 (628.5,693.0)	421.2 (401.2,441.2)	285.3 (271.2,299.4)
Derry & Strabane	670.7 (635.5,705.9)	437.0 (415.5,458.6)	301.3 (286.1,316.5)
Fermanagh & Omagh	666.9 (630.0,703.9)	425.9 (403.0,448.8)	291.2 (274.9,307.5)
Lisburn & Castlereagh	658.8 (625.5,692.1)	419.4 (398.7,440.0)	286.4 (271.5,301.3)
Mid & East Antrim	686.9 (654.4,719.4)	443.7 (423.1,464.3)	303.6 (288.7,318.4)
Mid Ulster	694.4 (658.3,730.6)	448.8 (426.2,471.4)	307.1 (291.2,323.1)
Newry, Mourne & Down	696.2 (664.3,728.0)	445.7 (426.0,465.3)	304.1 (290.3,318.0)
North Down & Ards	674.2 (644.9,703.5)	426.2 (408.0,444.5)	288.3 (275.2,301.4)
Northern Ireland	699.4 (689.9,709.0)	447.8 (441.8,453.7)	304.5 (300.3,308.7)

### ALL CANCERS (Excluding NMSC) FEMALES (diagnosed 2008-2012)

- On average there were 4,261 cases of cancer (excluding NMSC) diagnosed among females in NI each year.
- The average number of cases per year ranged from 247 in Fermanagh & Omagh LGD to 858 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and were significantly lower than the NI average in Lisburn & Castlereagh LGD and Mid Ulster LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

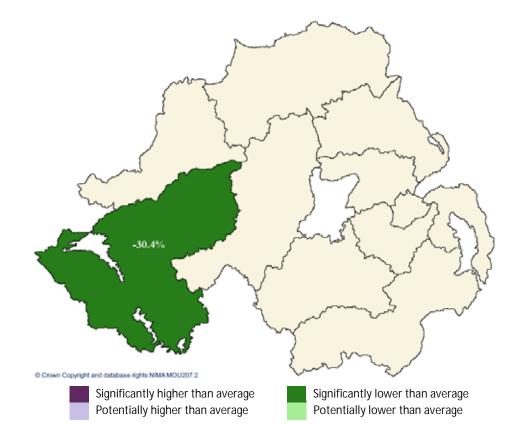
Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	329	465.2	0.5% (-4.3%,5.4%)
Armagh, Banbridge & Craigavon	457	455.9	1.9% (-2.3%,6.1%)
Belfast	858	496.0	7.1% (3.9%,10.3%)
Causeway Coast & Glens	330	466.2	-2.2% (-6.9%,2.6%)
Derry & Strabane	326	432.1	5.0% (-0.1%,10.1%)
Fermanagh & Omagh	247	438.8	-4.0% (-9.4%,1.3%)
Lisburn & Castlereagh	314	458.9	-6.6% (-11.3%,-2.0%)
Mid & East Antrim	336	485.2	-4.1% (-8.7%,0.5%)
Mid Ulster	269	392.4	-5.7% (-10.7%,-0.6%)
Newry, Mourne & Down	375	436.2	0.2% (-4.4%,4.7%)
North Down & Ards	420	520.2	-2.9% (-7.1%,1.2%)
Northern Ireland	4,261	463.4	-
†Compared to NI average			

# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	537.4 (511.4,563.3)	382.0 (362.9,401.0)	273.9 (259.5,288.2)
Armagh, Banbridge & Craigavon	542.7 (520.5,565.0)	387.4 (371.1,403.8)	277.9 (265.6,290.2)
Belfast	576.5 (559.1,593.9)	406.2 (393.2,419.1)	288.6 (278.9,298.3)
Causeway Coast & Glens	523.6 (498.3,548.8)	370.7 (352.2,389.2)	264.7 (250.8,278.7)
Derry & Strabane	561.3 (533.9,588.8)	397.6 (378.0,417.2)	283.5 (268.9,298.0)
Fermanagh & Omagh	514.4 (485.7,543.2)	359.1 (338.4,379.8)	255.2 (239.6,270.7)
Lisburn & Castlereagh	499.1 (474.4,523.8)	354.0 (335.8,372.2)	253.7 (239.8,267.5)
Mid & East Antrim	512.8 (488.3,537.3)	360.6 (342.6,378.7)	256.7 (243.0,270.4)
Mid Ulster	507.0 (479.7,534.2)	358.2 (338.5,377.9)	255.0 (240.4,269.6)
Newry, Mourne & Down	532.3 (508.1,556.5)	379.9 (362.2,397.5)	273.8 (260.4,287.2)
North Down & Ards	521.0 (498.7,543.3)	374.9 (358.0,391.7)	271.1 (258.1,284.1)
Northern Ireland	534.9 (527.7,542.1)	379.0 (373.8,384.3)	271.0 (267.0,274.9)

### BLADDER CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 210 cases of bladder cancer diagnosed in NI each year, making up 1.8% of all cancers (2.4% ex. NMSC).
- The average number of cases per year ranged from 9 in Fermanagh & Omagh LGD to 39 in Belfast LGD.
- Incidence rates were significantly lower than the NI average in Fermanagh & Omagh LGD. No LGD demonstrated significantly higher incidence rates.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	18	13.0	11.8% (-11.3%,35.0%)
Armagh, Banbridge & Craigavon	23	11.6	5.2% (-14.0%,24.4%)
Belfast	39	11.8	0.2% (-13.8%,14.2%)
Causeway Coast & Glens	16	11.6	-4.5% (-25.3%,16.3%)
Derry & Strabane	13	8.9	-10.7% (-32.2%,10.9%)
Fermanagh & Omagh	9	8.0	-30.4% (-50.7%,-10.1%)
Lisburn & Castlereagh	18	13.5	8.7% (-13.8%,31.1%)
Mid & East Antrim	20	15.0	15.5% (-7.0%,37.9%)
Mid Ulster	13	9.2	-9.8% (-32.1%,12.5%)
Newry, Mourne & Down	19	11.1	3.4% (-17.4%,24.2%)
North Down & Ards	21	13.7	-1.1% (-19.8%,17.6%)
Northern Ireland	210	11.6	-
†Compared to NI average			

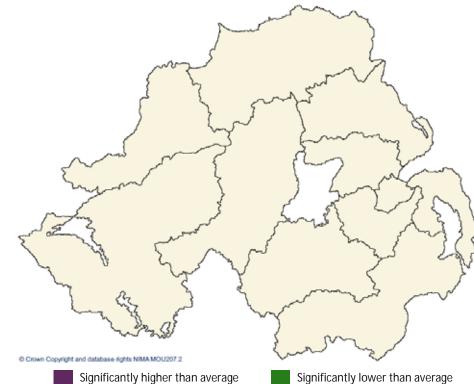
# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	17.1 (13.6,20.7)	9.9 (7.8,12.0)	6.3 (4.9,7.7)
Armagh, Banbridge & Craigavon	15.7 (12.8,18.6)	9.9 (8.0,11.7)	6.5 (5.2,7.7)
Belfast	15.2 (13.1,17.4)	9.0 (7.7,10.4)	5.8 (4.9,6.8)
Causeway Coast & Glens	14.6 (11.4,17.8)	8.2 (6.4,10.1)	5.2 (4.0,6.4)
Derry & Strabane	13.8 (10.4,17.3)	8.2 (6.2,10.2)	5.3 (4.0,6.7)
Fermanagh & Omagh	10.7 (7.6,13.9)	6.3 (4.4,8.2)	4.0 (2.8,5.3)
Lisburn & Castlereagh	16.5 (13.1,19.9)	10.1 (8.0,12.3)	6.7 (5.1,8.2)
Mid & East Antrim	17.4 (14.0,20.8)	10.8 (8.6,13.0)	7.3 (5.7,8.8)
Mid Ulster	13.8 (10.4,17.3)	8.2 (6.1,10.2)	5.2 (3.8,6.6)
Newry, Mourne & Down	15.6 (12.4,18.8)	9.8 (7.8,11.8)	6.3 (5.0,7.6)
North Down & Ards	15.6 (12.6,18.6)	9.1 (7.3,10.9)	5.7 (4.5,6.9)
Northern Ireland	15.3 (14.3,16.2)	9.1 (8.6,9.7)	5.9 (5.5,6.3)

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### BRAIN CANCER (Including central nervous system) BOTH SEXES (diagnosed 2008-2012)

- On average there were 130 cases of brain cancer diagnosed in NI each year, making up 1.1% of all cancers (1.5% ex. NMSC).
- The average number of cases per year ranged from 9 in Fermanagh & Omagh LGD to 23 in Belfast LGD.
- There was no significant variation in incidence rates of brain cancer by Local Government District.



Potentially higher than average Potentially lower than average

# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	10	6.9	-4.7% (-31.8%,22.4%)
Armagh, Banbridge & Craigavon	14	6.8	-2.8% (-25.9%,20.4%)
Belfast	23	6.9	-1.9% (-19.8%,16.1%)
Causeway Coast & Glens	11	7.6	2.3% (-25.2%,29.8%)
Derry & Strabane	10	6.5	-2.8% (-30.2%,24.5%)
Fermanagh & Omagh	9	8.2	13.9% (-19.0%,46.8%)
Lisburn & Castlereagh	10	7.5	0.4% (-27.4%,28.1%)
Mid & East Antrim	10	7.7	-0.7% (-27.7%,26.4%)
Mid Ulster	10	7.3	9.2% (-21.0%,39.5%)
Newry, Mourne & Down	11	6.7	-3.4% (-28.4%,21.7%)
North Down & Ards	12	7.9	-1.7% (-26.2%,22.8%)
Northern Ireland	130	7.2	-

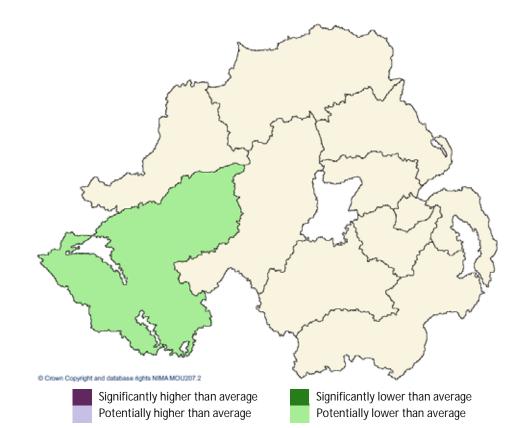
†Compared to NI average

## AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	8.0 (5.7,10.3)	6.5 (4.6,8.3)	5.3 (3.7,6.9)
Armagh, Banbridge & Craigavon	7.9 (6.0,9.8)	6.6 (5.0,8.2)	5.5 (4.1,6.9)
Belfast	8.3 (6.8,9.9)	6.3 (5.1,7.5)	4.9 (3.9,5.9)
Causeway Coast & Glens	8.5 (6.2,10.8)	7.0 (5.1,8.9)	5.8 (4.0,7.5)
Derry & Strabane	8.0 (5.7,10.3)	6.4 (4.6,8.2)	5.1 (3.6,6.7)
Fermanagh & Omagh	9.6 (6.8,12.4)	7.5 (5.3,9.7)	6.2 (4.2,8.2)
Lisburn & Castlereagh	8.4 (6.1,10.7)	6.7 (4.8,8.6)	5.7 (3.9,7.5)
Mid & East Antrim	8.4 (6.1,10.7)	6.6 (4.7,8.4)	5.2 (3.6,6.8)
Mid Ulster	9.4 (6.7,12.1)	7.2 (5.2,9.2)	5.7 (4.0,7.4)
Newry, Mourne & Down	8.3 (6.1,10.5)	6.4 (4.7,8.1)	5.3 (3.8,6.7)
North Down & Ards	8.2 (6.2,10.3)	6.8 (5.0,8.5)	5.6 (4.0,7.1)
Northern Ireland	8.4 (7.7,9.0)	6.6 (6.1,7.2)	5.4 (4.9,5.8)

### BREAST CANCER FEMALES (diagnosed 2008-2012)

- On average there were 1,240 cases of female breast cancer diagnosed in NI each year, making up 21.8% of all female cancers (29.1% ex. NMSC).
- The average number of cases per year ranged from 71 in Fermanagh & Omagh LGD to 228 in Belfast LGD.
- There was no significant variation in incidence rates of female breast cancer by Local Government District.



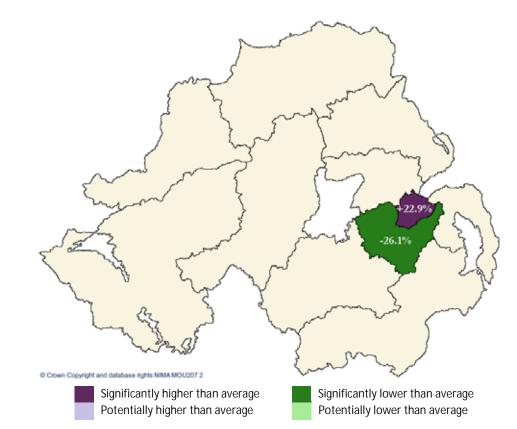
# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	95	133.7	-1.3% (-10.2%,7.6%)
Armagh, Banbridge & Craigavon	130	130.1	-0.7% (-8.3%,6.9%)
Belfast	228	132.0	0.6% (-5.3%,6.4%)
Causeway Coast & Glens	103	145.8	5.0% (-4.1%,14.0%)
Derry & Strabane	97	128.4	4.0% (-5.3%,13.3%)
Fermanagh & Omagh	71	125.6	-6.3% (-16.0%,3.5%)
Lisburn & Castlereagh	105	154.2	7.4% (-1.8%,16.5%)
Mid & East Antrim	97	139.7	-4.8% (-13.2%,3.7%)
Mid Ulster	78	114.5	-6.2% (-15.5%,3.0%)
Newry, Mourne & Down	110	127.7	-0.4% (-8.8%,7.9%)
North Down & Ards	125	155.6	0.3% (-7.6%,8.1%)
Northern Ireland fCompared to NI average	1,240	134.9	-

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	151.7 (138.0,165.5)	117.9 (107.0,128.8)	86.7 (78.5,94.9)
Armagh, Banbridge & Craigavon	153.2 (141.4,165.0)	118.0 (108.7,127.2)	85.9 (78.9,92.8)
Belfast	155.4 (146.3,164.5)	118.8 (111.6,126.0)	85.9 (80.5,91.3)
Causeway Coast & Glens	161.8 (147.8,175.8)	123.8 (112.9,134.8)	90.7 (82.4,99.0)
Derry & Strabane	162.1 (147.4,176.7)	122.8 (111.8,133.9)	88.8 (80.6,97.0)
Fermanagh & Omagh	145.9 (130.6,161.2)	111.2 (99.3,123.0)	80.7 (71.9,89.6)
Lisburn & Castlereagh	165.5 (151.3,179.7)	129.9 (118.5,141.3)	95.0 (86.4,103.5)
Mid & East Antrim	146.2 (133.2,159.3)	111.6 (101.3,121.9)	81.3 (73.6,89.1)
Mid Ulster	145.8 (131.2,160.3)	110.0 (98.9,121.2)	79.3 (71.0,87.6)
Newry, Mourne & Down	152.8 (139.9,165.6)	119.3 (109.1,129.4)	87.3 (79.6,94.9)
North Down & Ards	155.5 (143.3,167.7)	121.5 (111.6,131.3)	89.1 (81.6,96.5)
Northern Ireland	154.4 (150.5,158.3)	118.8 (115.8,121.8)	86.5 (84.2,88.8)

### CANCER OF UNKNOWN PRIMARY BOTH SEXES (diagnosed 2008-2012)

- On average there were 249 cases of cancer of unknown primary diagnosed in NI each year, making up 2.1% of all cancers (2.9% ex. NMSC).
- The average number of cases per year ranged from 14 in Fermanagh & Omagh LGD and Lisburn & Castlereagh LGD to 58 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and were significantly lower than the NI average in Lisburn & Castlereagh LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	18	12.8	-6.0% (-25.6%,13.6%)
Armagh, Banbridge & Craigavon	23	11.6	-10.5% (-26.8%,5.9%)
Belfast	58	17.4	22.9% (8.7%,37.0%)
Causeway Coast & Glens	19	13.8	-3.6% (-22.8%,15.7%)
Derry & Strabane	19	13.0	12.0% (-10.4%,34.4%)
Fermanagh & Omagh	14	12.6	-8.0% (-29.4%,13.5%)
Lisburn & Castlereagh	14	10.8	-26.1% (-43.1%,-9.0%)
Mid & East Antrim	20	14.4	-6.1% (-24.7%,12.6%)
Mid Ulster	15	10.9	-9.7% (-30.2%,10.8%)
Newry, Mourne & Down	22	12.7	0.1% (-18.7%,19.0%)
North Down & Ards	27	17.1	3.3% (-14.2%,20.8%)
Northern Ireland tCompared to NI average	249	13.8	-

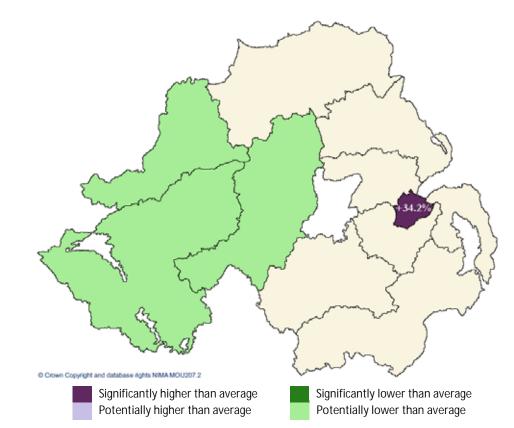
## AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
16.6 (13.1,20.1)	10.3 (8.1,12.5)	6.8 (5.3,8.4)
16.1 (13.1,19.1)	9.3 (7.5,11.0)	6.0 (4.8,7.2)
22.6 (19.9,25.2)	13.3 (11.7,14.9)	8.7 (7.5,9.8)
17.7 (14.2,21.3)	10.1 (8.0,12.1)	6.3 (4.9,7.6)
20.0 (15.9,24.2)	11.8 (9.4,14.2)	7.5 (5.9,9.1)
16.9 (12.9,20.9)	9.5 (7.3,11.8)	6.1 (4.5,7.6)
13.7 (10.5,16.8)	7.6 (5.8,9.5)	4.8 (3.6,6.0)
17.2 (13.7,20.6)	9.8 (7.8,11.8)	6.2 (4.9,7.5)
17.4 (13.4,21.4)	9.2 (7.1,11.3)	5.7 (4.3,7.1)
18.7 (15.2,22.3)	10.3 (8.3,12.3)	6.3 (5.0,7.6)
18.8 (15.6,22.0)	10.7 (8.8,12.6)	6.8 (5.5,8.1)
18.3 (17.3,19.3)	10.5 (9.9,11.1)	6.7 (6.3,7.1)
	ASIR (95% CI) 16.6 (13.1,20.1) 16.1 (13.1,19.1) 22.6 (19.9,25.2) 17.7 (14.2,21.3) 20.0 (15.9,24.2) 16.9 (12.9,20.9) 13.7 (10.5,16.8) 17.2 (13.7,20.6) 17.4 (13.4,21.4) 18.7 (15.2,22.3) 18.8 (15.6,22.0)	ASIR (95% CI)         ASIR (95% CI)           16.6 (13.1,20.1)         10.3 (8.1,12.5)           16.1 (13.1,19.1)         9.3 (7.5,11.0)           22.6 (19.9,25.2)         13.3 (11.7,14.9)           17.7 (14.2,21.3)         10.1 (8.0,12.1)           20.0 (15.9,24.2)         11.8 (9.4,14.2)           16.9 (12.9,20.9)         9.5 (7.3,11.8)           13.7 (10.5,16.8)         7.6 (5.8,9.5)           17.2 (13.7,20.6)         9.8 (7.8,11.8)           17.4 (13.4,21.4)         9.2 (7.1,11.3)           18.7 (15.2,22.3)         10.3 (8.3,12.3)           18.8 (15.6,22.0)         10.7 (8.8,12.6)

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### CERVICAL CANCER FEMALES (diagnosed 2008-2012)

- On average there were 107 cases of cervical cancer diagnosed among females in NI each year, making up 1.9% of all female cancers (2.5% ex. NMSC).
- The average number of cases per year ranged from 5 in Fermanagh & Omagh LGD to 27 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD. No LGD demonstrated significantly lower incidence rates.



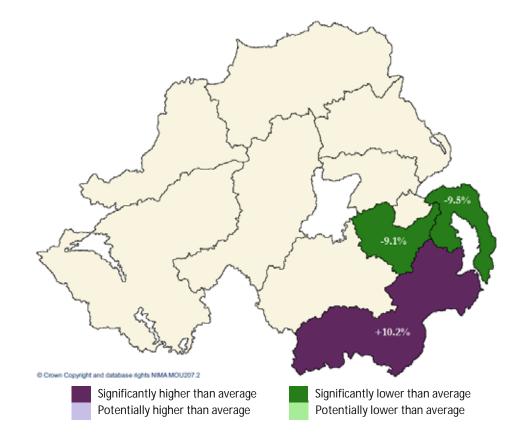
# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	9	12.1	3.1% (-27.7%,34.0%)
Armagh, Banbridge & Craigavon	10	10.4	-11.0% (-35.2%,13.2%)
Belfast	27	15.8	34.2% (11.7%,56.7%)
Causeway Coast & Glens	7	10.2	-11.3% (-40.3%,17.7%)
Derry & Strabane	8	10.1	-12.4% (-40.2%,15.5%)
Fermanagh & Omagh	5	8.9	-23.0% (-53.2%,7.2%)
Lisburn & Castlereagh	8	11.4	-3.3% (-33.6%,27.1%)
Mid & East Antrim	7	9.5	-18.2% (-46.1%,9.8%)
Mid Ulster	7	9.6	-16.6% (-45.0%,11.9%)
Newry, Mourne & Down	8	9.8	-14.3% (-40.2%,11.7%)
North Down & Ards	11	14.1	20.7% (-10.6%,52.1%)
Northern Ireland	107	11.6	-
†Compared to NI average			

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	12.1 (8.5,15.7)	11.7 (8.2,15.2)	10.3 (7.1,13.5)
Armagh, Banbridge & Craigavon	10.1 (7.4,12.9)	10.2 (7.4,13.0)	9.2 (6.7,11.8)
Belfast	16.2 (13.5,19.0)	15.8 (13.2,18.5)	13.5 (11.2,15.9)
Causeway Coast & Glens	10.7 (7.2,14.2)	9.7 (6.4,12.9)	8.4 (5.5,11.3)
Derry & Strabane	10.6 (7.2,14.0)	9.7 (6.6,12.9)	8.2 (5.5,10.9)
Fermanagh & Omagh	9.2 (5.5,12.8)	8.2 (4.9,11.6)	6.9 (4.0,9.9)
Lisburn & Castlereagh	11.9 (8.1,15.6)	10.9 (7.4,14.3)	9.2 (6.1,12.3)
Mid & East Antrim	9.7 (6.4,13.0)	9.0 (5.8,12.1)	7.8 (4.9,10.6)
Mid Ulster	10.3 (6.7,13.9)	9.1 (6.0,12.3)	7.7 (4.9,10.4)
Newry, Mourne & Down	10.4 (7.2,13.5)	9.8 (6.8,12.7)	8.3 (5.7,10.9)
North Down & Ards	14.4 (10.6,18.1)	14.4 (10.6,18.2)	12.7 (9.3,16.2)
Northern Ireland	11.9 (10.9,12.9)	11.3 (10.3,12.3)	9.8 (8.9,10.6)
ASIR – Age-standardised incidence rate per 100,000 females CI – Confidence interval NMSC – Non-melanoma skin cancer			

### COLORECTAL CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 1,190 cases of colorectal cancer diagnosed in NI each year, making up 10.0% of all cancers (13.8% ex. NMSC).
- The average number of cases per year ranged from 77 in Fermanagh & Omagh LGD to 221 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Newry, Mourne & Down LGD and were significantly lower than the NI average in Lisburn & Castlereagh LGD and North Down & Ards LGD.



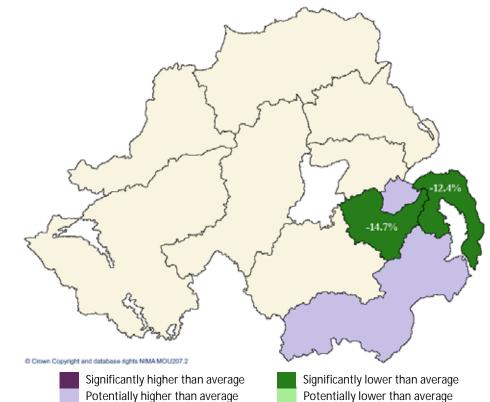
# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	88	63.9	-3.2% (-12.3%,5.8%)
Armagh, Banbridge & Craigavon	127	64.3	2.0% (-5.9%,9.9%)
Belfast	221	66.4	1.6% (-4.4%,7.6%)
Causeway Coast & Glens	95	68.0	-1.3% (-10.1%,7.6%)
Derry & Strabane	90	60.8	5.0% (-4.7%,14.7%)
Fermanagh & Omagh	77	68.7	5.2% (-5.3%,15.7%)
Lisburn & Castlereagh	85	63.8	-9.1% (-17.7%,-0.5%)
Mid & East Antrim	98	72.4	-1.5% (-10.3%,7.2%)
Mid Ulster	81	59.0	1.3% (-8.5%,11.2%)
Newry, Mourne & Down	116	67.7	10.2% (1.2%,19.1%)
North Down & Ards	111	70.8	-9.5% (-17.0%,-1.9%)
Northern Ireland †Compared to NI average	1,190	66.0	-

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	82.5 (74.7,90.3)	52.2 (47.2,57.2)	34.9 (31.4,38.4)
Armagh, Banbridge & Craigavon	86.7 (79.9,93.5)	55.1 (50.7,59.5)	36.7 (33.7,39.7)
Belfast	86.2 (81.1,91.4)	56.1 (52.6,59.5)	37.9 (35.4,40.3)
Causeway Coast & Glens	83.5 (76.0,91.1)	54.9 (49.8,59.9)	37.0 (33.5,40.5)
Derry & Strabane	87.8 (79.5,96.1)	57.8 (52.5,63.2)	39.5 (35.7,43.3)
Fermanagh & Omagh	89.6 (80.6,98.6)	56.5 (50.8,62.3)	38.0 (34.0,42.1)
Lisburn & Castlereagh	77.6 (70.2,85.0)	48.4 (43.7,53.2)	32.2 (28.9,35.5)
Mid & East Antrim	83.1 (75.7,90.5)	53.4 (48.5,58.2)	35.9 (32.5,39.3)
Mid Ulster	86.0 (77.5,94.5)	54.6 (49.2,60.0)	36.8 (32.9,40.6)
Newry, Mourne & Down	94.1 (86.3,101.8)	59.0 (54.1,63.8)	39.4 (36.0,42.8)
North Down & Ards	76.9 (70.5,83.3)	49.5 (45.2,53.7)	33.6 (30.6,36.6)
Northern Ireland	84.8 (82.6,87.0)	54.3 (52.9,55.8)	36.6 (35.6,37.5)
ASIR – Age-standardised incidence rate per 100,000 persons CI – Confidence interval NMSC – Non-melanoma skin cancer			

### COLORECTAL CANCER MALES (diagnosed 2008-2012)

- On average there were 660 cases of colorectal cancer diagnosed among males in NI each year, making up 10.7% of all male cancers (15.2% ex. NMSC).
- The average number of cases per year ranged from 42 in Fermanagh & Omagh LGD to 119 in Belfast LGD.
- Incidence rates were significantly lower than the NI average in Lisburn & Castlereagh LGD and North Down & Ards LGD. No LGD demonstrated significantly higher incidence rates.



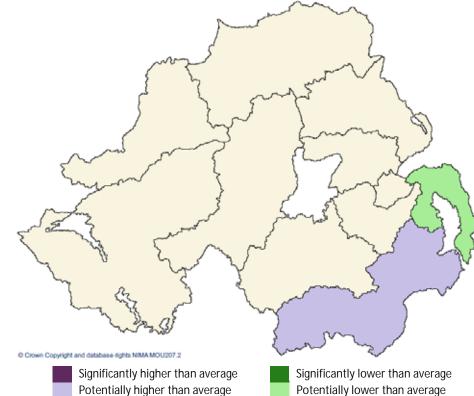
## NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 males	Standardised incidence ratio <sup>†</sup> (95% Cl)
Antrim & Newtownabbey	51	76.2	1.4% (-11.0%,13.9%)
Armagh, Banbridge & Craigavon	68	69.8	-1.8% (-12.2%,8.6%)
Belfast	119	74.8	4.6% (-3.8%,13.0%)
Causeway Coast & Glens	54	78.1	-1.3% (-13.0%,10.5%)
Derry & Strabane	53	72.3	7.7% (-5.3%,20.7%)
Fermanagh & Omagh	42	74.3	-0.9% (-14.3%,12.5%)
Lisburn & Castlereagh	44	67.6	-14.7% (-26.0%,-3.5%)
Mid & East Antrim	54	82.5	-1.6% (-13.3%,10.1%)
Mid Ulster	49	71.3	7.6% (-5.9%,21.1%)
Newry, Mourne & Down	66	77.3	10.2% (-1.7%,22.2%)
North Down & Ards	59	78.1	-12.4% (-22.4%,-2.5%)
Northern Ireland †Compared to NI average	660	74.7	-

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	109.6 (95.6,123.5)	69.0 (60.5,77.5)	45.8 (40.0,51.6)
Armagh, Banbridge & Craigavon	105.6 (94.0,117.1)	65.9 (58.8,72.9)	43.3 (38.5,48.0)
Belfast	110.7 (101.7,119.8)	71.4 (65.6,77.2)	48.2 (44.1,52.2)
Causeway Coast & Glens	106.6 (93.3,119.9)	66.9 (58.9,74.9)	44.4 (38.9,49.9)
Derry & Strabane	114.4 (99.7,129.1)	72.7 (63.8,81.5)	48.8 (42.7,54.8)
Fermanagh & Omagh	106.1 (91.1,121.0)	67.3 (58.1,76.4)	45.4 (39.1,51.8)
Lisburn & Castlereagh	91.2 (78.8,103.6)	57.9 (50.2,65.6)	38.6 (33.3,43.9)
Mid & East Antrim	104.9 (92.0,117.8)	66.7 (58.7,74.7)	44.4 (39.0,49.9)
Mid Ulster	115.9 (100.8,130.9)	73.0 (63.8,82.2)	48.7 (42.4,55.0)
Newry, Mourne & Down	121.6 (107.9,135.3)	73.8 (65.8,81.8)	48.7 (43.3,54.1)
North Down & Ards	93.5 (82.5,104.5)	58.5 (51.8,65.2)	39.2 (34.6,43.9)
Northern Ireland	107.2 (103.4,110.9)	67.6 (65.3,69.9)	45.1 (43.5,46.7)

### **COLORECTAL CANCER** FEMALES (diagnosed 2008-2012)

- On average there were 530 cases of colorectal cancer diagnosed among • females in NI each year, making up 9.3% of all female cancers (12.4% ex. NMSC).
- The average number of cases per year ranged from 32 in Mid Ulster LGD ٠ to 102 in Belfast LGD.
- There was no significant variation in incidence rates of female colorectal • cancer by Local Government District.



Potentially lower than average

#### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	37	52.2	-8.9% (-22.0%,4.2%)
Armagh, Banbridge & Craigavon	59	58.8	6.7% (-5.4%,18.9%)
Belfast	102	58.7	0.2% (-8.5%,8.9%)
Causeway Coast & Glens	41	58.0	-2.3% (-15.6%,11.1%)
Derry & Strabane	37	49.7	0.5% (-13.9%,14.9%)
Fermanagh & Omagh	36	63.0	11.5% (-4.9%,27.8%)
Lisburn & Castlereagh	41	60.2	-1.9% (-15.3%,11.5%)
Mid & East Antrim	43	62.7	-1.5% (-14.6%,11.6%)
Mid Ulster	32	46.7	-8.0% (-22.3%,6.2%)
Newry, Mourne & Down	50	58.3	9.1% (-4.4%,22.6%)
North Down & Ards	52	63.9	-5.7% (-17.2%,5.8%)
Northern Ireland	530	57.6	-

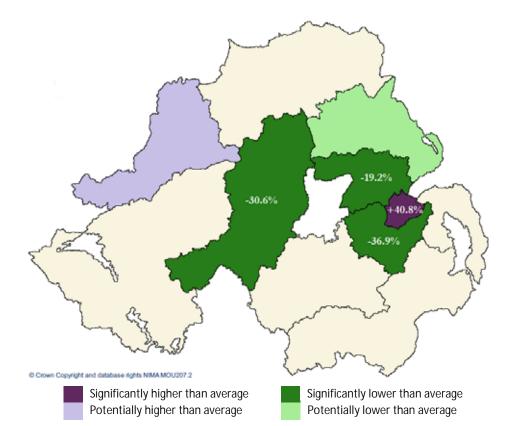
#### tCompared to NI average

#### AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	61.9 (52.9,70.8)	38.8 (32.9,44.6)	25.9 (21.8,30.1)
Armagh, Banbridge & Craigavon	72.3 (64.1,80.6)	46.5 (41.0,52.0)	31.3 (27.4,35.2)
Belfast	68.3 (62.3,74.3)	44.1 (40.0,48.3)	29.6 (26.6,32.5)
Causeway Coast & Glens	66.7 (57.6,75.9)	45.1 (38.7,51.5)	30.7 (26.2,35.3)
Derry & Strabane	67.0 (57.3,76.7)	45.6 (39.0,52.3)	31.6 (26.8,36.3)
Fermanagh & Omagh	75.8 (64.6,87.1)	46.9 (39.7,54.1)	31.2 (26.1,36.3)
Lisburn & Castlereagh	66.7 (57.6,75.9)	40.6 (34.8,46.4)	26.7 (22.6,30.8)
Mid & East Antrim	66.3 (57.4,75.1)	42.4 (36.5,48.4)	28.7 (24.4,32.9)
Mid Ulster	61.6 (52.0,71.2)	39.1 (32.8,45.5)	26.4 (21.9,30.9)
Newry, Mourne & Down	73.0 (63.9,82.1)	46.8 (40.7,52.8)	31.5 (27.2,35.8)
North Down & Ards	64.7 (56.7,72.6)	42.3 (36.8,47.7)	29.0 (25.0,33.0)
Northern Ireland	67.8 (65.2,70.4)	43.6 (41.9,45.3)	29.4 (28.1,30.6)

### HEAD & NECK CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 287 cases of head & neck cancer diagnosed in NI each year, making up 2.4% of all cancers (3.3% ex. NMSC).
- The average number of cases per year ranged from 14 in Mid Ulster LGD and Lisburn & Castlereagh LGD to 72 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and were significantly lower than the NI average in Antrim & Newtownabbey LGD, Lisburn & Castlereagh LGD and Mid Ulster LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	18	12.9	-19.2% (-36.0%,-2.4%)
Armagh, Banbridge & Craigavon	29	14.9	-3.3% (-19.0%,12.3%)
Belfast	72	21.5	40.8% (26.2%,55.4%)
Causeway Coast & Glens	20	14.4	-13.2% (-30.1%,3.8%)
Derry & Strabane	25	17.2	18.3% (-2.3%,38.8%)
Fermanagh & Omagh	19	16.7	4.8% (-16.4%,25.9%)
Lisburn & Castlereagh	14	10.6	-36.9% (-51.5%,-22.2%)
Mid & East Antrim	21	15.4	-12.1% (-29.0%,4.8%)
Mid Ulster	14	9.9	-30.6% (-47.1%,-14.1%)
Newry, Mourne & Down	27	15.6	3.3% (-14.2%,20.9%)
North Down & Ards	28	18.1	-3.2% (-19.1%,12.8%)
Northern Ireland	287	15.9	-
†Compared to NI average			

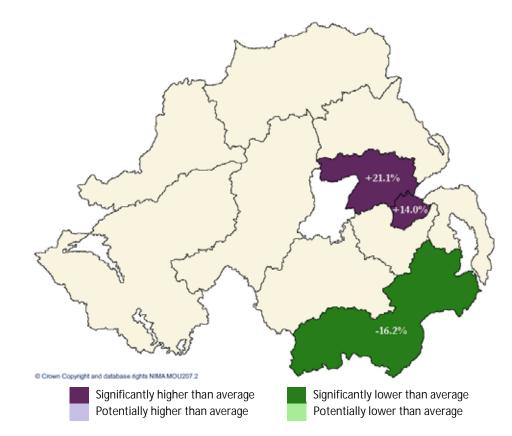
## AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	15.8 (12.5,19.2)	11.2 (8.8,13.6)	8.1 (6.3,9.9)
Armagh, Banbridge & Craigavon	18.6 (15.6,21.6)	13.9 (11.6,16.1)	10.0 (8.3,11.7)
Belfast	27.5 (24.6,30.4)	20.9 (18.7,23.2)	15.1 (13.4,16.7)
Causeway Coast & Glens	16.9 (13.6,20.3)	12.2 (9.8,14.7)	8.7 (6.9,10.5)
Derry & Strabane	23.2 (19.1,27.3)	16.8 (13.8,19.7)	11.9 (9.7,14.0)
Fermanagh & Omagh	20.8 (16.6,25.1)	14.7 (11.7,17.7)	10.6 (8.4,12.9)
Lisburn & Castlereagh	12.2 (9.4,15.1)	8.8 (6.7,10.9)	6.6 (4.9,8.3)
Mid & East Antrim	17.3 (14.0,20.7)	12.5 (10.0,14.9)	9.1 (7.2,10.9)
Mid Ulster	13.8 (10.5,17.2)	9.8 (7.4,12.1)	7.0 (5.2,8.7)
Newry, Mourne & Down	20.5 (16.9,24.0)	14.5 (12.0,17.0)	10.2 (8.4,12.0)
North Down & Ards	19.0 (15.8,22.1)	14.4 (11.9,16.8)	10.3 (8.5,12.1)
Northern Ireland	19.5 (18.5,20.5)	14.3 (13.5,15.0)	10.3 (9.7,10.8)

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### KIDNEY CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 276 cases of kidney cancer diagnosed in NI each year, making up 2.3% of all cancers (3.2% ex. NMSC).
- The average number of cases per year ranged from 16 in Fermanagh & Omagh LGD to 57 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Antrim & Newtownabbey LGD and Belfast LGD and were significantly lower than the NI average in Newry, Mourne & Down LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

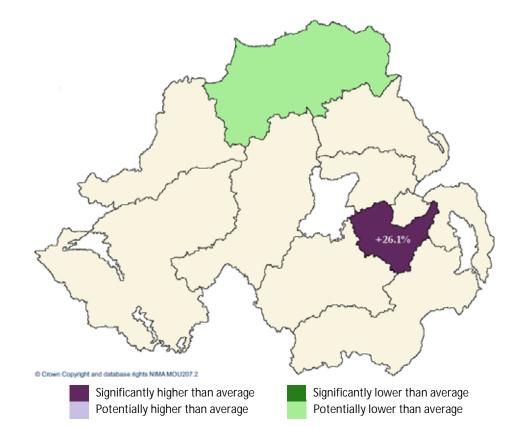
Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	26	18.6	21.1% (0.1%,42.0%)
Armagh, Banbridge & Craigavon	31	15.8	7.5% (-9.3%,24.3%)
Belfast	57	17.1	14.0% (0.7%,27.2%)
Causeway Coast & Glens	21	15.1	-5.9% (-23.8%,12.1%)
Derry & Strabane	19	13.0	-5.0% (-24.0%,14.0%)
Fermanagh & Omagh	16	14.1	-7.2% (-27.6%,13.2%)
Lisburn & Castlereagh	20	14.8	-9.3% (-27.2%,8.5%)
Mid & East Antrim	22	16.2	-4.9% (-22.7%,12.9%)
Mid Ulster	17	12.4	-8.7% (-28.0%,10.7%)
Newry, Mourne & Down	21	12.0	-16.2% (-32.4%,-0.0%)
North Down & Ards	27	17.2	-4.7% (-20.8%,11.4%)
Northern Ireland †Compared to NI average	276	15.3	-

## AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	23.4 (19.3,27.5)	16.1 (13.3,19.0)	11.2 (9.1,13.2)
Armagh, Banbridge & Craigavon	21.0 (17.7,24.4)	13.7 (11.5,15.8)	9.2 (7.7,10.7)
Belfast	22.1 (19.6,24.7)	14.6 (12.9,16.4)	10.0 (8.8,11.3)
Causeway Coast & Glens	18.2 (14.7,21.7)	12.4 (10.0,14.9)	8.8 (7.0,10.6)
Derry & Strabane	18.5 (14.7,22.3)	12.4 (9.9,14.9)	8.6 (6.8,10.4)
Fermanagh & Omagh	17.9 (13.9,21.9)	12.1 (9.4,14.8)	8.5 (6.5,10.6)
Lisburn & Castlereagh	17.8 (14.3,21.3)	11.5 (9.2,13.9)	7.8 (6.2,9.5)
Mid & East Antrim	18.5 (15.0,22.0)	12.6 (10.2,15.1)	8.9 (7.1,10.7)
Mid Ulster	17.7 (13.9,21.5)	11.8 (9.3,14.4)	8.1 (6.3,10.0)
Newry, Mourne & Down	15.7 (12.6,18.8)	11.1 (8.9,13.2)	7.9 (6.3,9.5)
North Down & Ards	18.5 (15.3,21.6)	12.7 (10.5,14.9)	8.7 (7.1,10.3)
Northern Ireland	19.4 (18.3,20.4)	13.0 (12.3,13.7)	9.0 (8.5,9.5)

### LEUKAEMIA BOTH SEXES (diagnosed 2008-2012)

- On average there were 210 cases of leukaemia diagnosed in NI each year, making up 1.8% of all cancers (2.4% ex. NMSC).
- The average number of cases per year ranged from 13 in Fermanagh & Omagh LGD to 36 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Lisburn & Castlereagh LGD. No LGD demonstrated significantly lower incidence rates.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% Cl)
Antrim & Newtownabbey	16	11.7	1.0% (-21.0%,23.0%)
Armagh, Banbridge & Craigavon	20	10.1	-10.1% (-27.7%,7.5%)
Belfast	36	10.9	-7.0% (-20.6%,6.5%)
Causeway Coast & Glens	14	9.7	-19.1% (-38.3%,0.1%)
Derry & Strabane	17	11.6	11.7% (-11.9%,35.3%)
Fermanagh & Omagh	13	11.4	-1.1% (-25.2%,23.1%)
Lisburn & Castlereagh	21	15.4	26.1% (1.8%,50.4%)
Mid & East Antrim	20	14.6	15.2% (-7.6%,37.9%)
Mid Ulster	14	10.0	-5.4% (-27.8%,17.0%)
Newry, Mourne & Down	19	11.3	2.4% (-18.0%,22.9%)
North Down & Ards	21	13.2	-0.9% (-20.0%,18.2%)
Northern Ireland †Compared to NI average	210	11.6	-

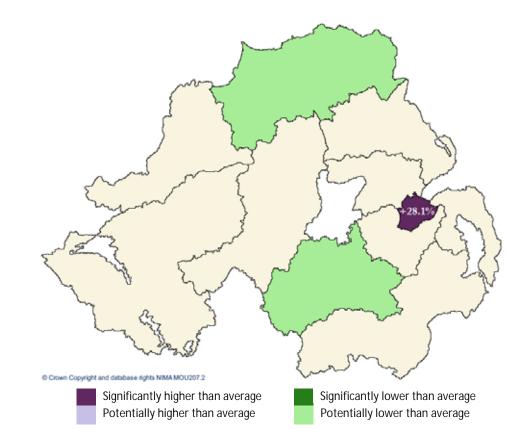
# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	14.7 (11.4,17.9)	9.6 (7.5,11.8)	7.1 (5.4,8.9)
Armagh, Banbridge & Craigavon	12.6 (10.1,15.1)	8.9 (7.1,10.6)	6.8 (5.3,8.3)
Belfast	13.5 (11.5,15.6)	9.3 (7.8,10.7)	6.9 (5.7,8.0)
Causeway Coast & Glens	11.4 (8.7,14.2)	8.1 (6.1,10.1)	6.4 (4.6,8.3)
Derry & Strabane	16.0 (12.5,19.5)	11.0 (8.7,13.4)	8.5 (6.6,10.5)
Fermanagh & Omagh	14.3 (10.8,17.9)	9.6 (7.2,12.0)	7.3 (5.3,9.3)
Lisburn & Castlereagh	18.4 (14.8,22.0)	12.5 (10.0,15.0)	9.7 (7.5,12.0)
Mid & East Antrim	16.4 (13.2,19.7)	11.2 (8.9,13.5)	8.6 (6.6,10.6)
Mid Ulster	14.1 (10.6,17.5)	8.8 (6.7,10.9)	6.4 (4.7,8.1)
Newry, Mourne & Down	14.4 (11.5,17.4)	10.2 (8.1,12.3)	8.1 (6.3,9.9)
North Down & Ards	14.4 (11.6,17.2)	10.0 (7.9,12.0)	7.7 (5.9,9.6)
Northern Ireland	14.4 (13.5,15.3)	9.8 (9.2,10.4)	7.5 (7.0,8.0)

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### LIVER CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 93 cases of liver cancer diagnosed in NI each year, making up 0.8% of all cancers (1.1% ex. NMSC).
- The average number of cases per year ranged from 5 in Fermanagh & Omagh LGD to 22 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD. No LGD demonstrated significantly lower incidence rates.



### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	7	5.1	-1.0% (-33.8%,31.7%)
Armagh, Banbridge & Craigavon	8	3.8	-22.1% (-46.8%,2.7%)
Belfast	22	6.5	28.1% (4.0%,52.3%)
Causeway Coast & Glens	6	4.1	-24.2% (-52.1%,3.7%)
Derry & Strabane	6	4.1	-9.0% (-41.3%,23.3%)
Fermanagh & Omagh	5	4.7	-8.0% (-43.1%,27.2%)
Lisburn & Castlereagh	7	5.0	-9.3% (-40.2%,21.5%)
Mid & East Antrim	8	5.7	-1.0% (-32.4%,30.4%)
Mid Ulster	7	5.0	9.0% (-27.6%,45.7%)
Newry, Mourne & Down	9	5.5	13.8% (-18.8%,46.5%)
North Down & Ards	9	5.7	-6.4% (-34.0%,21.2%)
Northern Ireland	93	5.1	-

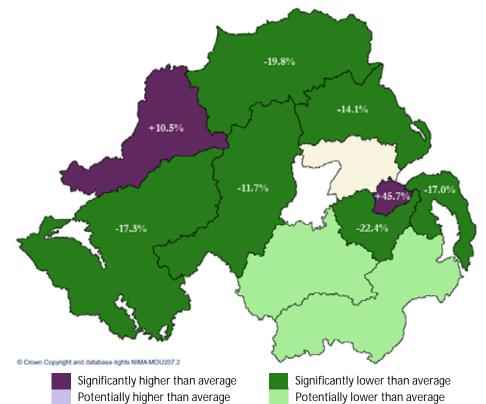
#### †Compared to NI average

# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	6.5 (4.3,8.7)	4.3 (2.8,5.7)	3.0 (1.9,4.1)
Armagh, Banbridge & Craigavon	5.2 (3.5,6.8)	3.2 (2.2,4.3)	2.2 (1.4,3.0)
Belfast	8.5 (6.9,10.1)	5.9 (4.8,7.1)	4.2 (3.4,5.1)
Causeway Coast & Glens	4.9 (3.1,6.8)	3.1 (1.9,4.3)	2.1 (1.3,2.9)
Derry & Strabane	6.0 (3.8,8.2)	3.9 (2.5,5.2)	2.8 (1.7,3.8)
Fermanagh & Omagh	6.1 (3.8,8.5)	3.6 (2.2,5.1)	2.3 (1.4,3.3)
Lisburn & Castlereagh	5.8 (3.8,7.7)	4.0 (2.6,5.5)	3.0 (1.8,4.1)
Mid & East Antrim	6.6 (4.5,8.8)	4.1 (2.7,5.4)	2.8 (1.8,3.8)
Mid Ulster	7.5 (4.9,10.0)	4.5 (2.9,6.0)	2.8 (1.8,3.8)
Newry, Mourne & Down	7.8 (5.5,10.0)	4.8 (3.4,6.2)	3.3 (2.3,4.3)
North Down & Ards	6.2 (4.4,8.1)	3.8 (2.6,5.0)	2.6 (1.7,3.5)
Northern Ireland	6.6 (6.0,7.2)	4.2 (3.8,4.6)	2.9 (2.6,3.2)

### LUNG CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 1,094 cases of lung cancer diagnosed in NI each year, making up 9.2% of all cancers (12.7% ex. NMSC).
- The average number of cases per year ranged from 56 in Fermanagh & Omagh LGD to 290 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and Derry & Strabane LGD. They were significantly lower in the remaining LGDs except for Antrim & Newtownabbey LGD, Armagh, Banbridge & Craigavon LGD and Newry, Mourne & Down LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

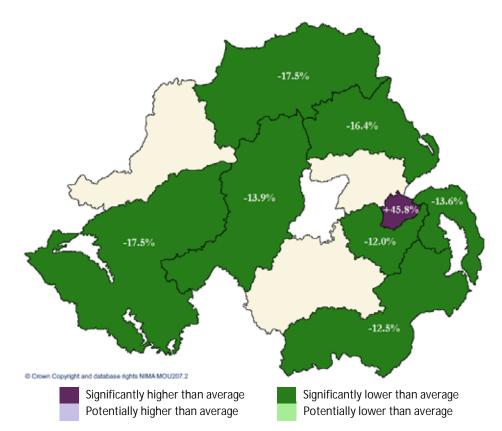
Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	89	64.6	6.1% (-3.7%,16.0%)
Armagh, Banbridge & Craigavon	107	54.1	-6.6% (-14.5%,1.3%)
Belfast	290	87.2	45.7% (38.2%,53.2%)
Causeway Coast & Glens	71	50.9	-19.8% (-28.1%,-11.5%)
Derry & Strabane	87	58.8	10.5% (0.1%,20.8%)
Fermanagh & Omagh	56	49.5	-17.3% (-27.0%,-7.6%)
Lisburn & Castlereagh	67	50.3	-22.4% (-30.7%,-14.1%)
Mid & East Antrim	79	58.3	-14.1% (-22.6%,-5.7%)
Mid Ulster	65	47.0	-11.7% (-21.3%,-2.0%)
Newry, Mourne & Down	89	52.1	-7.7% (-16.2%,0.9%)
North Down & Ards	94	60.0	-17.0% (-24.5%,-9.4%)
Northern Ireland †Compared to NI average	1,094	60.7	-

## AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	83.3 (75.5,91.1)	53.6 (48.6,58.7)	36.1 (32.6,39.6)
Armagh, Banbridge & Craigavon	73.7 (67.4,79.9)	46.7 (42.7,50.8)	31.0 (28.2,33.7)
Belfast	114.9 (109.0,120.9)	73.5 (69.6,77.5)	49.2 (46.5,52.0)
Causeway Coast & Glens	63.1 (56.5,69.7)	39.7 (35.5,43.9)	26.2 (23.3,29.1)
Derry & Strabane	86.4 (78.2,94.7)	55.2 (50.0,60.5)	36.9 (33.3,40.5)
Fermanagh & Omagh	65.3 (57.6,73.0)	40.2 (35.4,45.0)	26.7 (23.3,30.0)
Lisburn & Castlereagh	61.4 (54.8,67.9)	38.0 (33.8,42.2)	25.0 (22.1,27.8)
Mid & East Antrim	67.7 (61.0,74.5)	42.5 (38.2,46.8)	27.8 (24.8,30.7)
Mid Ulster	68.7 (61.1,76.2)	44.3 (39.4,49.3)	29.7 (26.3,33.1)
Newry, Mourne & Down	72.1 (65.3,78.9)	45.8 (41.5,50.1)	30.6 (27.6,33.6)
North Down & Ards	65.8 (59.8,71.8)	41.8 (37.9,45.6)	27.7 (25.0,30.4)
		· · · ·	· · ·
Northern Ireland	78.6 (76.6,80.7)	49.8 (48.5,51.2)	33.1 (32.2,34.1)

### LUNG CANCER MALES (diagnosed 2008-2012)

- On average there were 641 cases of lung cancer diagnosed among males in NI each year, making up 10.4% of all male cancers (14.7% ex. NMSC).
- The average number of cases per year ranged from 34 in Fermanagh & Omagh LGD to 162 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD. They were significantly lower in all but three of the remaining LGDs.



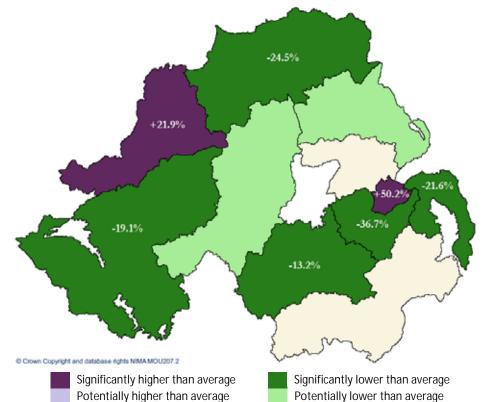
# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 males	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	53	78.3	7.2% (-5.8%,20.2%)
Armagh, Banbridge & Craigavon	66	67.4	-2.1% (-12.7%,8.4%)
Belfast	162	101.4	45.8% (35.7%,55.8%)
Causeway Coast & Glens	44	63.6	-17.5% (-28.4%,-6.6%)
Derry & Strabane	48	65.7	1.5% (-11.4%,14.4%)
Fermanagh & Omagh	34	59.9	-17.5% (-29.9%,-5.0%)
Lisburn & Castlereagh	44	68.0	-12.0% (-23.6%,-0.4%)
Mid & East Antrim	45	68.5	-16.4% (-27.3%,-5.5%)
Mid Ulster	38	55.1	-13.9% (-26.2%,-1.6%)
Newry, Mourne & Down	50	59.3	-12.5% (-23.3%,-1.7%)
North Down & Ards	57	75.3	-13.6% (-23.6%,-3.6%)
Northern Ireland †Compared to NI average	641	72.5	-

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	112.5 (98.6,126.4)	69.3 (60.8,77.7)	45.7 (40.0,51.5)
Armagh, Banbridge & Craigavon	108.0 (95.7,120.2)	63.4 (56.5,70.3)	40.6 (36.1,45.1)
Belfast	153.4 (142.7,164.1)	94.5 (87.9,101.1)	62.0 (57.5,66.5)
Causeway Coast & Glens	87.2 (75.4,99.1)	53.6 (46.5,60.8)	35.1 (30.3,39.9)
Derry & Strabane	104.0 (90.3,117.7)	65.5 (57.1,73.8)	43.1 (37.5,48.7)
Fermanagh & Omagh	91.8 (77.3,106.3)	52.9 (44.9,61.0)	34.3 (29.0,39.7)
Lisburn & Castlereagh	94.2 (81.4,106.9)	56.3 (48.8,63.8)	36.3 (31.3,41.2)
Mid & East Antrim	87.0 (75.5,98.6)	53.8 (46.7,60.9)	34.7 (30.0,39.4)
Mid Ulster	90.9 (77.6,104.3)	55.5 (47.6,63.5)	36.2 (30.9,41.6)
Newry, Mourne & Down	91.5 (79.9,103.2)	56.5 (49.5,63.6)	37.2 (32.5,42.0)
North Down & Ards	91.6 (80.7,102.6)	56.1 (49.5,62.6)	36.6 (32.2,41.1)
Northern Ireland	106.1 (102.4,109.9)	64.6 (62.4,66.9)	42.1 (40.6,43.6)

### LUNG CANCER FEMALES (diagnosed 2008-2012)

- On average there were 453 cases of lung cancer diagnosed among females in NI each year, making up 7.9% of all female cancers (10.6% ex. NMSC).
- The average number of cases per year ranged from 22 in Fermanagh & Omagh LGD to 128 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and Derry & Strabane LGD. They were significantly lower in all but four of the remaining LGDs.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

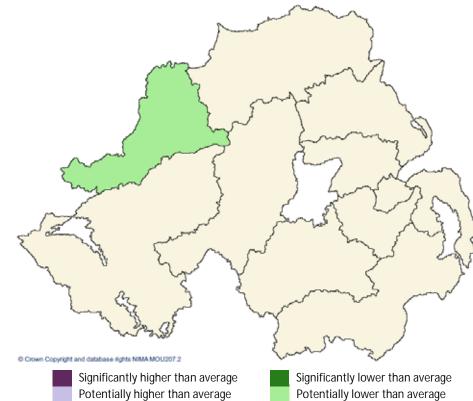
Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	36	51.5	4.7% (-10.5%,19.9%)
Armagh, Banbridge & Craigavon	41	41.1	-13.2% (-25.0%,-1.3%)
Belfast	128	74.1	50.2% (38.5%,61.8%)
Causeway Coast & Glens	27	38.6	-24.5% (-37.2%,-11.9%)
Derry & Strabane	39	52.1	21.9% (4.9%,39.0%)
Fermanagh & Omagh	22	39.1	-19.1% (-34.2%,-4.0%)
Lisburn & Castlereagh	23	33.3	-36.7% (-48.3%,-25.0%)
Mid & East Antrim	34	48.6	-11.1% (-24.5%,2.4%)
Mid Ulster	27	39.0	-10.0% (-25.3%,5.2%)
Newry, Mourne & Down	39	45.0	-1.8% (-15.6%,12.0%)
North Down & Ards	37	45.6	-21.6% (-32.9%,-10.3%)
Northern Ireland	453	49.3	-

†Compared to NI average

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	61.4 (52.5,70.3)	41.5 (35.3,47.7)	28.4 (24.0,32.8)
Armagh, Banbridge & Craigavon	51.1 (44.1,58.1)	34.7 (29.8,39.6)	23.7 (20.2,27.2)
Belfast	89.3 (82.3,96.3)	58.8 (53.9,63.6)	40.0 (36.5,43.5)
Causeway Coast & Glens	44.3 (36.9,51.8)	28.2 (23.3,33.1)	18.7 (15.3,22.1)
Derry & Strabane	71.6 (61.6,81.7)	46.4 (39.8,53.0)	31.3 (26.7,36.0)
Fermanagh & Omagh	47.9 (38.9,56.9)	30.6 (24.7,36.5)	20.6 (16.4,24.7)
Lisburn & Castlereagh	37.5 (30.6,44.4)	24.1 (19.5,28.7)	16.1 (12.8,19.3)
Mid & East Antrim	52.7 (44.7,60.7)	33.4 (28.1,38.7)	22.0 (18.4,25.7)
Mid Ulster	53.3 (44.2,62.4)	36.4 (30.1,42.7)	24.8 (20.4,29.3)
Newry, Mourne & Down	56.7 (48.7,64.8)	37.0 (31.5,42.4)	25.0 (21.2,28.9)
North Down & Ards	47.0 (40.2,53.9)	30.4 (25.8,35.0)	20.3 (17.1,23.5)
Northern Ireland	58.9 (56.4,61.3)	38.5 (36.9,40.2)	26.0 (24.8,27.2)
ASIR – Age-standardised incidence rate per 10		nce interval NMSC – Non-me	

### LYMPHOMA BOTH SEXES (diagnosed 2008-2012)

- On average there were 384 cases of lymphoma diagnosed in NI each year, making up 3.2% of all cancers (4.5% ex. NMSC).
- The average number of cases per year ranged from 23 in Fermanagh & • Omagh LGD to 70 in Belfast LGD.
- There was no significant variation in incidence rates of lymphoma by Local • Government District.



Potentially higher than average

NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	30	21.8	2.0% (-14.3%,18.3%)
Armagh, Banbridge & Craigavon	40	20.0	-2.5% (-16.0%,11.1%)
Belfast	70	21.1	0.3% (-10.2%,10.7%)
Causeway Coast & Glens	32	22.8	3.3% (-12.7%,19.3%)
Derry & Strabane	27	18.0	-6.9% (-22.7%,8.8%)
Fermanagh & Omagh	23	20.8	-1.5% (-19.3%,16.4%)
Lisburn & Castlereagh	33	24.4	8.5% (-8.1%,25.2%)
Mid & East Antrim	30	22.5	-3.3% (-18.7%,12.1%)
Mid Ulster	25	18.6	-3.5% (-20.2%,13.3%)
Newry, Mourne & Down	37	21.9	8.8% (-6.8%,24.4%)
North Down & Ards	36	23.1	-5.5% (-19.3%,8.3%)
Northern Ireland	384	21.3	-

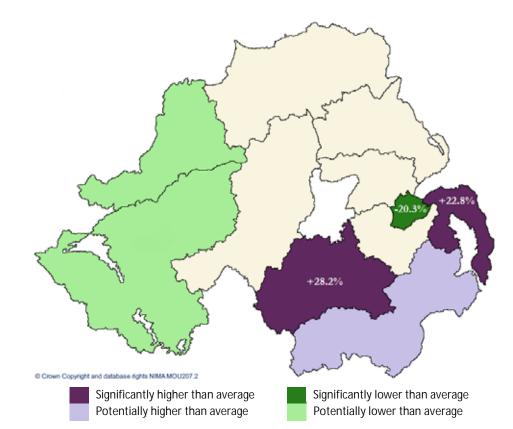
tCompared to NI average

#### AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	27.0 (22.7,31.4)	18.5 (15.4,21.5)	13.2 (10.9,15.5)
Armagh, Banbridge & Craigavon	25.4 (21.8,29.0)	18.0 (15.4,20.5)	13.2 (11.3,15.2)
Belfast	26.1 (23.4,28.9)	18.5 (16.5,20.5)	13.6 (12.0,15.2)
Causeway Coast & Glens	27.2 (22.9,31.4)	19.3 (16.3,22.4)	14.0 (11.6,16.3)
Derry & Strabane	24.4 (20.1,28.7)	17.3 (14.3,20.2)	12.5 (10.3,14.8)
Fermanagh & Omagh	26.5 (21.6,31.3)	18.0 (14.6,21.3)	12.7 (10.2,15.1)
Lisburn & Castlereagh	28.4 (24.0,32.8)	20.0 (16.9,23.2)	14.4 (12.0,16.8)
Mid & East Antrim	25.0 (21.0,29.0)	18.5 (15.5,21.5)	14.1 (11.6,16.6)
Mid Ulster	24.9 (20.5,29.3)	18.1 (14.9,21.2)	13.5 (11.0,16.0)
Newry, Mourne & Down	28.7 (24.6,32.9)	20.2 (17.3,23.1)	14.3 (12.1,16.5)
North Down & Ards	24.2 (20.7,27.8)	17.3 (14.7,20.0)	12.9 (10.8,15.1)
			,
Northern Ireland	26.2 (25.0,27.4)	18.5 (17.7,19.4)	13.5 (12.9,14.2)

### MALIGNANT MELANOMA BOTH SEXES (diagnosed 2008-2012)

- On average there were 303 cases of malignant melanoma diagnosed in NI each year, making up 2.6% of all cancers (3.5% ex. NMSC).
- The average number of cases per year ranged from 18 in Fermanagh & Omagh LGD to 44 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Armagh, Banbridge & Craigavon LGD and North Down & Ards LGD and were significantly lower than the NI average in Belfast LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	24	17.5	3.5% (-15.0%,22.0%)
Armagh, Banbridge & Craigavon	42	21.0	28.2% (10.7%,45.6%)
Belfast	44	13.3	-20.3% (-30.8%,-9.8%)
Causeway Coast & Glens	22	15.6	-9.5% (-26.4%,7.5%)
Derry & Strabane	20	13.4	-13.4% (-30.4%,3.6%)
Fermanagh & Omagh	18	15.5	-6.9% (-26.4%,12.6%)
Lisburn & Castlereagh	22	16.5	-6.2% (-23.6%,11.3%)
Mid & East Antrim	25	18.2	0.6% (-17.2%,18.4%)
Mid Ulster	22	16.0	2.8% (-16.4%,22.1%)
Newry, Mourne & Down	29	17.2	7.3% (-10.1%,24.6%)
North Down & Ards	36	23.1	22.8% (4.9%,40.7%)
Northern Ireland	303	16.8	-

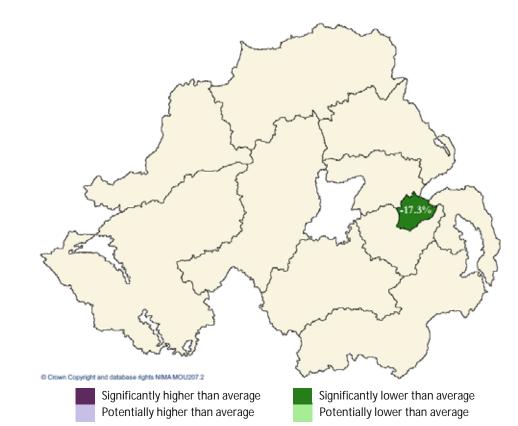
†Compared to NI average

## AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	20.4 (16.7,24.1)	15.7 (12.9,18.6)	12.0 (9.7,14.2)
Armagh, Banbridge & Craigavon	25.5 (22.0,29.0)	19.2 (16.6,21.9)	14.3 (12.3,16.4)
Belfast	15.5 (13.4,17.6)	12.0 (10.4,13.7)	9.2 (7.9,10.5)
Causeway Coast & Glens	18.1 (14.7,21.5)	12.9 (10.5,15.4)	9.5 (7.6,11.4)
Derry & Strabane	16.6 (13.2,20.0)	13.0 (10.4,15.6)	10.0 (8.0,12.0)
Fermanagh & Omagh	19.4 (15.3,23.5)	13.6 (10.7,16.5)	9.9 (7.7,12.2)
Lisburn & Castlereagh	18.4 (14.9,21.9)	14.1 (11.4,16.7)	10.7 (8.5,12.8)
Mid & East Antrim	20.2 (16.6,23.9)	15.1 (12.3,17.8)	11.0 (8.9,13.1)
Mid Ulster	20.1 (16.3,24.0)	16.0 (13.0,19.0)	12.1 (9.8,14.5)
Newry, Mourne & Down	21.4 (17.8,24.9)	15.7 (13.1,18.3)	12.0 (9.9,14.1)
North Down & Ards	24.2 (20.6,27.7)	18.5 (15.7,21.3)	14.0 (11.7,16.2)
Northern Ireland	19.8 (18.8,20.9)	15.0 (14.3,15.8)	11.3 (10.7,11.9)

### MULTIPLE MYELOMA BOTH SEXES (diagnosed 2008-2012)

- On average there were 118 cases of multiple myeloma diagnosed in NI each year, making up 1.0% of all cancers (1.4% ex. NMSC).
- The average number of cases per year ranged from 7 in Fermanagh & Omagh LGD to 18 in Belfast LGD.
- Incidence rates were significantly lower than the NI average in Belfast LGD. No LGD demonstrated significantly higher incidence rates.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	8	6.1	-6.8% (-35.0%,21.4%)
Armagh, Banbridge & Craigavon	12	6.1	-2.8% (-27.3%,21.8%)
Belfast	18	5.4	-17.3% (-34.4%,-0.3%)
Causeway Coast & Glens	12	8.4	23.3% (-8.1%,54.8%)
Derry & Strabane	8	5.5	-2.5% (-32.4%,27.3%)
Fermanagh & Omagh	7	5.9	-9.3% (-40.2%,21.6%)
Lisburn & Castlereagh	11	7.9	13.5% (-17.0%,44.1%)
Mid & East Antrim	10	7.3	-0.7% (-28.5%,27.0%)
Mid Ulster	10	7.3	27.1% (-8.1%,62.3%)
Newry, Mourne & Down	10	6.1	0.4% (-26.9%,27.6%)
North Down & Ards	12	7.8	0.2% (-24.9%,25.4%)
Northern Ireland	118	6.6	-

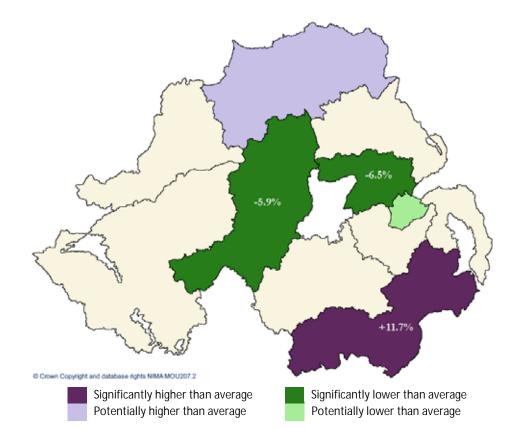
#### †Compared to NI average

### AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	8.0 (5.6,10.5)	4.9 (3.4,6.4)	3.2 (2.1,4.2)
Armagh, Banbridge & Craigavon	7.9 (5.9,10.0)	5.1 (3.7,6.4)	3.4 (2.5,4.3)
Belfast	7.2 (5.7,8.7)	4.4 (3.5,5.4)	2.9 (2.2,3.6)
Causeway Coast & Glens	10.5 (7.8,13.2)	6.5 (4.8,8.2)	4.1 (3.0,5.3)
Derry & Strabane	8.3 (5.7,10.9)	5.2 (3.6,6.8)	3.4 (2.3,4.5)
Fermanagh & Omagh	7.5 (4.9,10.1)	4.8 (3.1,6.5)	3.1 (2.0,4.3)
Lisburn & Castlereagh	9.9 (7.2,12.5)	5.7 (4.1,7.3)	3.5 (2.5,4.6)
Mid & East Antrim	8.5 (6.1,10.9)	5.2 (3.7,6.6)	3.5 (2.4,4.5)
Mid Ulster	11.1 (8.0,14.2)	6.6 (4.7,8.4)	4.3 (3.0,5.5)
Newry, Mourne & Down	8.3 (6.0,10.6)	5.4 (3.9,6.9)	3.7 (2.6,4.7)
North Down & Ards	8.3 (6.2,10.3)	5.1 (3.8,6.4)	3.4 (2.4,4.3)
Northern Ireland	8.5 (7.8,9.2)	5.2 (4.8,5.7)	3.4 (3.1,3.7)

### NON-MELANOMA SKIN CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 3,247 cases of non-melanoma skin cancer diagnosed in NI each year, making up 27.4% of all cancers.
- The average number of cases per year ranged from 201 in Fermanagh & Omagh LGD to 583 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Newry, Mourne & Down LGD and were significantly lower than the NI average in Antrim & Newtownabbey LGD and Mid Ulster LGD.



### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	232	167.9	-6.5% (-11.9%,-1.1%)
Armagh, Banbridge & Craigavon	338	170.4	-0.6% (-5.4%,4.1%)
Belfast	583	175.2	-3.2% (-6.7%,0.3%)
Causeway Coast & Glens	270	192.4	2.9% (-2.6%,8.4%)
Derry & Strabane	240	162.3	4.0% (-1.9%,9.8%)
Fermanagh & Omagh	201	178.1	0.1% (-6.1%,6.3%)
Lisburn & Castlereagh	254	190.3	-0.6% (-6.1%,4.9%)
Mid & East Antrim	275	203.8	1.8% (-3.6%,7.2%)
Mid Ulster	205	149.5	-5.9% (-11.7%,-0.2%)
Newry, Mourne & Down	319	186.8	11.7% (6.2%,17.2%)
North Down & Ards	330	210.7	-1.0% (-5.8%,3.8%)
Northern Ireland tCompared to NI average	3,247	180.1	-

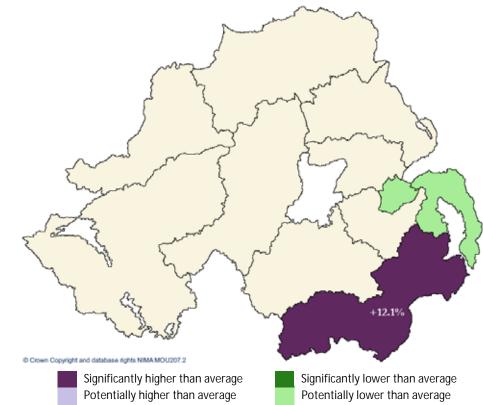
# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	216.8 (204.2,229.5)	135.0 (127.0,143.0)	89.9 (84.3,95.4)
Armagh, Banbridge & Craigavon	230.6 (219.5,241.7)	143.2 (136.3,150.2)	95.0 (90.2,99.9)
Belfast	225.2 (217.0,233.4)	139.8 (134.5,145.1)	93.2 (89.4,97.0)
Causeway Coast & Glens	240.7 (227.8,253.7)	147.5 (139.5,155.6)	97.2 (91.7,102.8)
Derry & Strabane	244.1 (229.9,258.3)	148.9 (140.5,157.4)	98.7 (92.8,104.6)
Fermanagh & Omagh	233.7 (219.2,248.3)	144.2 (135.1,153.3)	95.2 (88.9,101.5)
Lisburn & Castlereagh	229.8 (217.1,242.4)	146.1 (137.9,154.4)	98.6 (92.7,104.5)
Mid & East Antrim	238.2 (225.6,250.8)	145.8 (137.8,153.7)	96.7 (91.1,102.2)
Mid Ulster	221.2 (207.5,234.9)	135.9 (127.4,144.4)	89.5 (83.7,95.3)
Newry, Mourne & Down	261.9 (248.9,274.8)	160.6 (152.6,168.6)	105.9 (100.4,111.5)
North Down & Ards	229.7 (218.5,240.8)	144.5 (137.3,151.8)	96.5 (91.4,101.5)
Northern Ireland	232.9 (229.3,236.5)	144.4 (142.1,146.6)	95.9 (94.3,97.5)

ASIR – Age-standardised incidence rate per 100,000 persons CI – Confidence interval

### NON-MELANOMA SKIN CANCER MALES (diagnosed 2008-2012)

- On average there were 1,807 cases of non-melanoma skin cancer diagnosed among males in NI each year, making up 29.3% of all male cancers.
- The average number of cases per year ranged from 119 in Fermanagh & Omagh LGD to 307 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Newry, Mourne & Down LGD. No LGD demonstrated significantly lower incidence rates.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 males	Standardised incidence ratio <sup>†</sup> (95% Cl)
Antrim & Newtownabbey	134	199.3	-3.0% (-10.3%,4.4%)
Armagh, Banbridge & Craigavon	186	189.8	-2.3% (-8.6%,4.0%)
Belfast	307	192.5	-3.0% (-7.9%,1.8%)
Causeway Coast & Glens	150	216.7	0.3% (-6.9%,7.5%)
Derry & Strabane	137	188.7	3.8% (-4.0%,11.6%)
Fermanagh & Omagh	119	210.0	2.4% (-5.9%,10.6%)
Lisburn & Castlereagh	137	209.7	-3.5% (-10.7%,3.7%)
Mid & East Antrim	154	233.6	1.8% (-5.4%,9.0%)
Mid Ulster	123	178.6	-1.7% (-9.5%,6.1%)
Newry, Mourne & Down	182	214.4	12.1% (4.8%,19.3%)
North Down & Ards	179	235.6	-3.0% (-9.3%,3.4%)
Northern Ireland †Compared to NI average	1,807	204.5	-

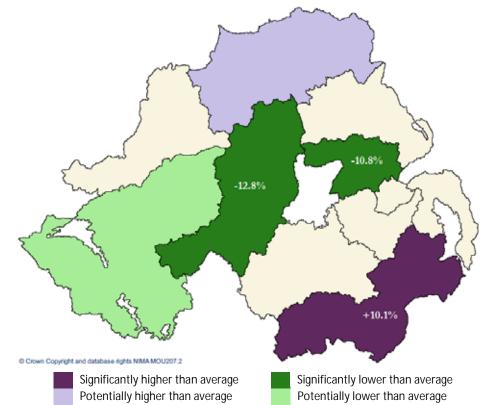
# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	292.6 (269.4,315.7)	177.9 (164.3,191.4)	116.3 (107.1,125.5)
Armagh, Banbridge & Craigavon	294.4 (274.7,314.2)	178.1 (166.6,189.6)	117.0 (109.2,124.7)
Belfast	293.7 (278.7,308.7)	177.9 (168.9,186.9)	116.5 (110.3,122.7)
Causeway Coast & Glens	305.3 (282.6,328.1)	182.5 (169.4,195.6)	119.0 (110.1,127.9)
Derry & Strabane	321.2 (294.9,347.5)	189.2 (175.0,203.5)	122.8 (113.4,132.3)
Fermanagh & Omagh	311.3 (285.4,337.2)	187.3 (172.2,202.5)	122.4 (112.2,132.7)
Lisburn & Castlereagh	291.6 (268.7,314.4)	177.5 (164.1,190.9)	118.0 (108.7,127.2)
Mid & East Antrim	316.2 (292.9,339.6)	186.2 (173.0,199.5)	120.5 (111.6,129.4)
Mid Ulster	299.0 (274.6,323.4)	179.3 (165.0,193.5)	116.4 (106.9,125.9)
Newry, Mourne & Down	339.0 (316.0,362.0)	204.3 (191.0,217.6)	134.1 (125.1,143.1)
North Down & Ards	292.8 (273.1,312.6)	177.4 (165.6,189.1)	115.6 (107.6,123.5)
Northern Ireland	303.5 (297.0,309.9)	182.7 (178.9,186.5)	119.5 (116.9,122.1)

ASIR – Age-standardised incidence rate per 100,000 males CI – Confidence interval

### NON-MELANOMA SKIN CANCER FEMALES (diagnosed 2008-2012)

- On average there were 1,440 cases of non-melanoma skin cancer diagnosed among females in NI each year, making up 25.3% of all female cancers.
- The average number of cases per year ranged from 82 in Fermanagh & Omagh LGD and Mid Ulster LGD to 275 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Newry, Mourne & Down LGD and were significantly lower than the NI average in Antrim & Newtownabbey LGD and Mid Ulster LGD.



### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% Cl)
Antrim & Newtownabbey	98	138.1	-10.8% (-18.7%,-2.9%)
Armagh, Banbridge & Craigavon	152	151.3	1.3% (-5.9%,8.5%)
Belfast	275	159.2	-1.1% (-6.4%,4.1%)
Causeway Coast & Glens	119	168.6	5.0% (-3.4%,13.4%)
Derry & Strabane	103	136.9	3.0% (-5.9%,11.8%)
Fermanagh & Omagh	82	146.2	-4.8% (-14.0%,4.3%)
Lisburn & Castlereagh	118	171.8	3.3% (-5.1%,11.6%)
Mid & East Antrim	121	175.4	1.6% (-6.5%,9.6%)
Mid Ulster	82	120.4	-12.8% (-21.2%,-4.4%)
Newry, Mourne & Down	137	159.6	10.1% (1.9%,18.4%)
North Down & Ards	151	187.3	1.7% (-5.6%,9.0%)
Northern Ireland	1,440	156.6	-
†Compared to NI average			

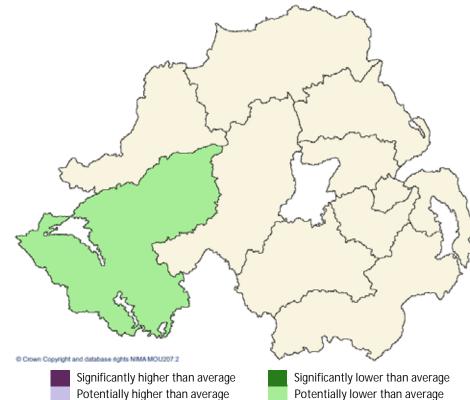
# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	161.1 (146.8,175.5)	101.6 (92.1,111.0)	68.6 (61.8,75.4)
Armagh, Banbridge & Craigavon	184.6 (171.4,197.8)	116.3 (107.7,125.0)	77.4 (71.3,83.5)
Belfast	179.3 (169.7,188.9)	112.3 (105.8,118.8)	75.8 (71.1,80.5)
Causeway Coast & Glens	192.6 (177.1,208.1)	119.5 (109.4,129.5)	79.1 (72.0,86.1)
Derry & Strabane	187.9 (171.5,204.4)	117.3 (106.9,127.6)	79.1 (71.7,86.4)
Fermanagh & Omagh	173.5 (156.7,190.3)	108.3 (97.3,119.3)	71.7 (64.0,79.4)
Lisburn & Castlereagh	187.4 (172.2,202.5)	122.8 (112.3,133.3)	83.7 (76.1,91.3)
Mid & East Antrim	185.2 (170.5,200.0)	115.9 (106.2,125.7)	78.4 (71.3,85.6)
Mid Ulster	159.5 (144.0,175.0)	100.2 (90.1,110.2)	66.8 (59.7,73.9)
Newry, Mourne & Down	202.2 (187.0,217.4)	123.1 (113.5,132.7)	81.0 (74.3,87.8)
North Down & Ards	186.3 (173.0,199.7)	120.5 (111.4,129.6)	81.9 (75.4,88.5)
Northern Ireland	182.2 (178.0,186.4)	114.7 (111.9,117.5)	77.0 (75.0,79.0)

ASIR – Age-standardised incidence rate per 100,000 females CI – Confidence interval

## **OESOPHAGEAL CANCER** BOTH SEXES (diagnosed 2008-2012)

- On average there were 189 cases of oesophageal cancer diagnosed in NI each year, making up 1.6% of all cancers (2.2% ex. NMSC).
- The average number of cases per year ranged from 10 in Fermanagh & • Omagh LGD to 34 in Belfast LGD.
- There was no significant variation in incidence rates of oesophageal • cancer by Local Government District.



Potentially lower than average

#### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	15	10.6	1.1% (-22.1%,24.3%)
Armagh, Banbridge & Craigavon	22	11.3	13.1% (-7.8%,34.1%)
Belfast	34	10.1	-2.1% (-16.9%,12.7%)
Causeway Coast & Glens	14	10.1	-7.4% (-28.9%,14.2%)
Derry & Strabane	14	9.7	5.8% (-18.6%,30.3%)
Fermanagh & Omagh	10	9.0	-13.0% (-36.9%,10.9%)
Lisburn & Castlereagh	15	11.5	3.6% (-19.6%,26.7%)
Mid & East Antrim	16	11.8	1.4% (-20.8%,23.6%)
Mid Ulster	12	8.5	-8.3% (-31.9%,15.2%)
Newry, Mourne & Down	17	9.9	1.9% (-19.8%,23.5%)
North Down & Ards	19	12.4	-0.9% (-20.7%,18.8%)
Northern Ireland tCompared to NI average	189	10.5	-

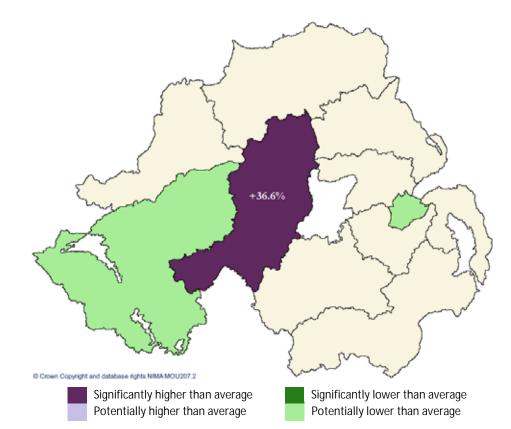
#### AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	13.8 (10.6,17.0)	8.7 (6.7,10.8)	5.8 (4.4,7.3)
Armagh, Banbridge & Craigavon	15.0 (12.2,17.8)	10.1 (8.2,12.0)	6.8 (5.5,8.2)
Belfast	13.3 (11.2,15.3)	8.4 (7.0,9.7)	5.5 (4.6,6.5)
Causeway Coast & Glens	12.5 (9.6,15.5)	8.0 (6.1,9.9)	5.4 (4.0,6.7)
Derry & Strabane	14.0 (10.8,17.3)	9.2 (7.1,11.3)	6.3 (4.8,7.8)
Fermanagh & Omagh	11.6 (8.3,14.8)	7.9 (5.7,10.0)	5.4 (3.9,7.0)
Lisburn & Castlereagh	13.9 (10.8,17.0)	8.7 (6.7,10.8)	5.8 (4.4,7.2)
Mid & East Antrim	13.7 (10.7,16.7)	8.6 (6.6,10.5)	5.6 (4.3,7.0)
Mid Ulster	11.9 (8.8,14.9)	8.6 (6.3,10.8)	6.1 (4.5,7.8)
Newry, Mourne & Down	13.8 (10.8,16.8)	9.0 (7.1,11.0)	6.2 (4.8,7.5)
North Down & Ards	13.6 (10.8,16.3)	8.3 (6.6,10.0)	5.5 (4.3,6.7)
Northern Ireland	13.5 (12.6,14.3)	8.7 (8.1,9.3)	5.9 (5.5,6.2)

ASIR – Age-standardised incidence rate per 100,000 persons CI – Confidence interval NMSC – Non-melanoma skin cancer

## OVARIAN CANCER FEMALES (diagnosed 2008-2012)

- On average there were 163 cases of ovarian cancer diagnosed among females in NI each year, making up 2.9% of all female cancers (3.8% ex. NMSC).
- The average number of cases per year ranged from 8 in Fermanagh & Omagh LGD to 28 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Mid Ulster LGD. No LGD demonstrated significantly lower incidence rates.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	12	16.7	-5.3% (-29.4%,18.9%)
Armagh, Banbridge & Craigavon	17	17.1	0.2% (-21.1%,21.4%)
Belfast	28	16.3	-7.6% (-22.8%,7.7%)
Causeway Coast & Glens	13	18.7	2.9% (-21.9%,27.7%)
Derry & Strabane	10	13.1	-17.1% (-40.3%,6.1%)
Fermanagh & Omagh	8	15.0	-14.2% (-40.0%,11.7%)
Lisburn & Castlereagh	12	18.0	-3.9% (-27.9%,20.1%)
Mid & East Antrim	14	20.5	6.4% (-18.3%,31.1%)
Mid Ulster	15	21.7	36.6% (5.5%,67.6%)
Newry, Mourne & Down	14	16.8	0.9% (-22.3%,24.2%)
North Down & Ards	18	22.4	9.2% (-13.3%,31.7%)
Northern Ireland fCompared to NI average	163	17.7	-

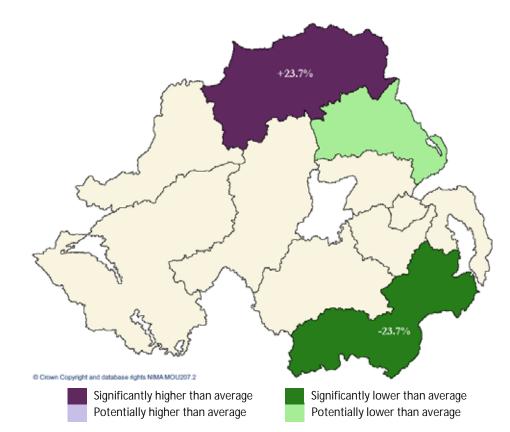
# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	19.0 (14.1,23.8)	14.4 (10.6,18.2)	10.7 (7.8,13.6)
Armagh, Banbridge & Craigavon	20.8 (16.4,25.2)	14.6 (11.4,17.8)	10.3 (8.0,12.7)
Belfast	19.1 (15.9,22.3)	13.7 (11.3,16.1)	9.6 (7.9,11.4)
Causeway Coast & Glens	21.1 (16.0,26.2)	14.4 (10.8,18.0)	10.0 (7.4,12.7)
Derry & Strabane	17.3 (12.4,22.1)	11.8 (8.4,15.2)	8.1 (5.7,10.6)
Fermanagh & Omagh	16.8 (11.7,21.9)	12.3 (8.4,16.1)	8.6 (5.8,11.5)
Lisburn & Castlereagh	19.6 (14.7,24.5)	13.9 (10.3,17.5)	10.1 (7.3,12.9)
Mid & East Antrim	21.7 (16.6,26.7)	15.1 (11.4,18.9)	10.4 (7.7,13.2)
Mid Ulster	27.7 (21.3,34.0)	20.1 (15.4,24.9)	14.3 (10.8,17.7)
Newry, Mourne & Down	20.3 (15.6,25.0)	14.9 (11.4,18.5)	10.6 (8.0,13.3)
North Down & Ards	22.2 (17.6,26.9)	16.7 (13.0,20.3)	11.9 (9.2,14.7)
Northern Ireland	20.4 (19.0,21.8)	14.6 (13.6,15.7)	10.4 (9.6,11.2)

ASIR – Age-standardised incidence rate per 100,000 females CI – Confidence interval NMSC – Non-melanoma skin cancer

## PANCREATIC CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 217 cases of pancreatic cancer diagnosed in NI each year, making up 1.8% of all cancers (2.5% ex. NMSC).
- The average number of cases per year ranged from 14 in Fermanagh & Omagh LGD to 44 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Causeway Coast & Glens LGD and were significantly lower than the NI average in Newry, Mourne & Down LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	17	12.4	3.6% (-18.3%,25.5%)
Armagh, Banbridge & Craigavon	23	11.7	2.5% (-16.2%,21.1%)
Belfast	44	13.1	7.6% (-6.7%,21.9%)
Causeway Coast & Glens	22	15.5	23.7% (0.4%,46.9%)
Derry & Strabane	16	10.6	2.8% (-19.9%,25.5%)
Fermanagh & Omagh	14	12.8	7.2% (-17.6%,32.0%)
Lisburn & Castlereagh	15	11.3	-11.8% (-31.7%,8.0%)
Mid & East Antrim	16	11.7	-12.9% (-32.1%,6.2%)
Mid Ulster	16	11.5	8.8% (-15.3%,32.8%)
Newry, Mourne & Down	15	8.5	-23.7% (-41.3%,-6.2%)
North Down & Ards	20	13.0	-9.6% (-27.2%,8.0%)
Northern Ireland †Compared to NI average	217	12.1	-

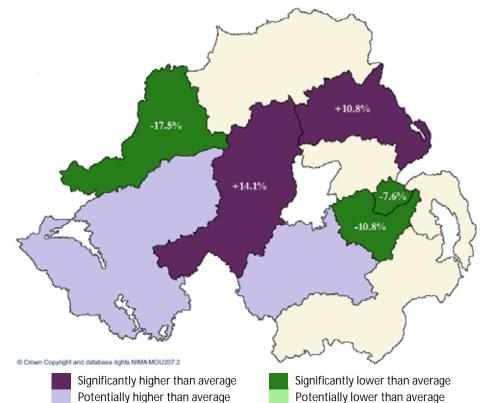
# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	16.3 (12.8,19.9)	9.8 (7.7,11.9)	6.5 (5.0,8.0)
Armagh, Banbridge & Craigavon	16.1 (13.2,19.1)	9.7 (7.9,11.5)	6.4 (5.1,7.6)
Belfast	17.0 (14.7,19.3)	10.3 (8.9,11.7)	6.7 (5.7,7.7)
Causeway Coast & Glens	19.4 (15.7,23.1)	11.8 (9.5,14.1)	7.7 (6.1,9.2)
Derry & Strabane	16.1 (12.5,19.7)	9.5 (7.4,11.7)	6.1 (4.7,7.5)
Fermanagh & Omagh	16.7 (12.8,20.6)	10.5 (8.0,13.0)	6.9 (5.2,8.6)
Lisburn & Castlereagh	14.0 (10.8,17.2)	8.5 (6.5,10.5)	5.6 (4.2,7.0)
Mid & East Antrim	13.7 (10.6,16.7)	8.5 (6.6,10.5)	5.6 (4.2,6.9)
Mid Ulster	17.4 (13.5,21.3)	10.1 (7.8,12.4)	6.5 (4.9,8.0)
Newry, Mourne & Down	12.3 (9.5,15.2)	7.1 (5.5,8.8)	4.6 (3.4,5.7)
North Down & Ards	14.4 (11.5,17.2)	8.3 (6.7,10.0)	5.3 (4.2,6.4)
Northern Ireland	15.8 (14.8,16.7)	9.5 (8.9,10.1)	6.2 (5.8,6.6)

ASIR – Age-standardised incidence rate per 100,000 persons CI – Confidence interval NMSC – Non-melanoma skin cancer

### PROSTATE CANCER MALES (diagnosed 2008-2012)

- On average there were 1,032 cases of prostate cancer diagnosed among males in NI each year, making up 16.8% of all male cancers (23.7% ex. NMSC).
- The average number of cases per year ranged from 72 in Lisburn & Castlereagh LGD to 163 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Mid & East Antrim and Mid Ulster LGDs and were significantly lower than the NI average in Belfast, Derry & Strabane and Lisburn & Castlereagh LGDs.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

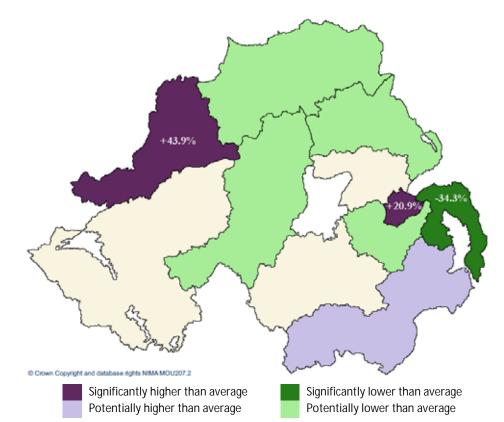
Local Government District	Average cases per year	Crude rate per 100,000 males	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	78	116.6	-0.8% (-10.6%,9.0%)
Armagh, Banbridge & Craigavon	118	120.4	8.5% (-0.2%,17.3%)
Belfast	163	102.4	-7.6% (-13.9%,-1.2%)
Causeway Coast & Glens	87	125.8	1.3% (-8.2%,10.8%)
Derry & Strabane	63	86.6	-17.5% (-26.6%,-8.4%)
Fermanagh & Omagh	73	128.9	9.9% (-1.4%,21.2%)
Lisburn & Castlereagh	72	110.6	-10.8% (-20.0%,-1.6%)
Mid & East Antrim	96	146.1	10.8% (0.9%,20.7%)
Mid Ulster	81	117.5	14.1% (3.0%,25.2%)
Newry, Mourne & Down	87	103.0	-5.9% (-14.7%,2.9%)
North Down & Ards	113	148.5	5.0% (-3.7%,13.6%)
Northern Ireland	1,032	116.8	-
†Compared to NI average			

# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)	
Antrim & Newtownabbey	168.8 (151.5,186.2)	104.4 (94.0,114.8)	68.7 (61.6,75.7)	
Armagh, Banbridge & Craigavon	181.9 (166.8,197.1)	115.0 (105.7,124.3)	76.1 (69.8,82.4)	
Belfast	157.0 (146.0,167.9)	96.6 (89.9,103.4)	63.5 (58.9,68.1)	
Causeway Coast & Glens	170.7 (154.1,187.2)	107.2 (97.1,117.4)	71.5 (64.6,78.4)	
Derry & Strabane	135.9 (119.5,152.2)	88.0 (78.2,97.7)	59.9 (53.2,66.6)	
Fermanagh & Omagh	182.1 (162.8,201.3)	117.2 (105.1,129.3)	79.0 (70.7,87.4)	
Lisburn & Castlereagh	151.7 (135.4,167.9)	94.9 (85.0,104.7)	62.6 (55.9,69.3)	
Mid & East Antrim	183.0 (166.3,199.6)	117.4 (106.8,127.9)	78.4 (71.2,85.6)	
Mid Ulster	188.6 (169.7,207.6)	122.2 (110.2,134.1)	82.2 (74.0,90.4)	
Newry, Mourne & Down	155.8 (140.8,170.7)	99.3 (89.9,108.6)	66.2 (59.8,72.6)	
North Down & Ards	180.3 (165.0,195.6)	110.2 (101.0,119.3)	71.8 (65.7,77.9)	
Northern Ireland	168.2 (163.5,173.0)	105.9 (103.0,108.8)	70.3 (68.4,72.3)	
ASIR – Age-standardised incidence rate per 1	ASIR – Age-standardised incidence rate per 100,000 males CI – Confidence interval NMSC – Non-melanoma skin cancer			

## STOMACH CANCER BOTH SEXES (diagnosed 2008-2012)

- On average there were 220 cases of stomach cancer diagnosed in NI each year, making up 1.9% of all cancers (2.6% ex. NMSC).
- The average number of cases per year ranged from 12 in Fermanagh & Omagh LGD to 50 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Belfast LGD and Derry & Strabane LGD and were significantly lower than the NI average in North Down & Ards LGD.



# NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 persons	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	17	12.6	3.6% (-18.1%,25.4%)
Armagh, Banbridge & Craigavon	24	11.9	2.9% (-15.7%,21.4%)
Belfast	50	14.9	20.9% (5.9%,36.0%)
Causeway Coast & Glens	16	11.4	-9.9% (-29.7%,9.8%)
Derry & Strabane	22	15.1	43.9% (17.2%,70.5%)
Fermanagh & Omagh	12	11.0	-8.4% (-31.2%,14.4%)
Lisburn & Castlereagh	15	10.9	-16.0% (-35.3%,3.3%)
Mid & East Antrim	15	11.4	-16.1% (-34.9%,2.6%)
Mid Ulster	13	9.2	-14.0% (-35.2%,7.2%)
Newry, Mourne & Down	21	12.3	9.0% (-11.9%,29.8%)
North Down & Ards	15	9.5	-34.3% (-49.2%,-19.3%)
Northern Ireland	220	12.2	-

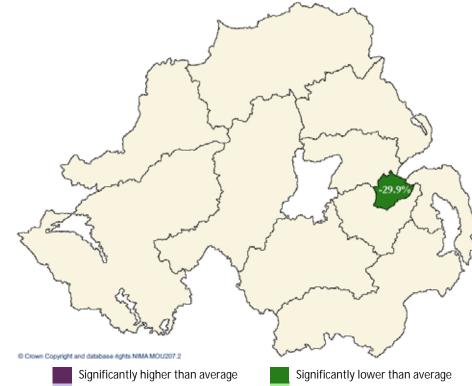
†Compared to NI average

# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	16.1 (12.7,19.5)	10.0 (7.8,12.1)	6.5 (5.0,8.0)
Armagh, Banbridge & Craigavon	16.6 (13.6,19.6)	9.8 (8.0,11.6)	6.2 (5.0,7.4)
Belfast	19.0 (16.6,21.3)	11.5 (10.0,13.0)	7.5 (6.4,8.5)
Causeway Coast & Glens	14.1 (11.0,17.2)	8.8 (6.8,10.8)	5.8 (4.4,7.1)
Derry & Strabane	21.7 (17.6,25.8)	13.7 (11.1,16.3)	9.3 (7.5,11.1)
Fermanagh & Omagh	14.1 (10.5,17.6)	8.9 (6.6,11.2)	6.0 (4.4,7.6)
Lisburn & Castlereagh	13.4 (10.3,16.5)	7.8 (6.0,9.6)	4.9 (3.7,6.2)
Mid & East Antrim	13.6 (10.5,16.6)	7.8 (6.0,9.6)	4.9 (3.7,6.1)
Mid Ulster	13.3 (10.0,16.6)	8.6 (6.4,10.7)	5.7 (4.2,7.2)
Newry, Mourne & Down	17.7 (14.3,21.2)	10.0 (8.1,12.0)	6.4 (5.1,7.8)
North Down & Ards	10.4 (8.0,12.8)	6.0 (4.6,7.5)	3.9 (2.9,4.8)
Northern Ireland	15.8 (14.9,16.7)	9.5 (9.0,10.1)	6.2 (5.8,6.6)

## **TESTICULAR CANCER** MALES (diagnosed 2008-2012)

- On average there were 66 cases of testicular cancer diagnosed among • males in NI each year, making up 1.1% of all male cancers (1.5% ex. NMSC).
- The average number of cases per year ranged from 4 in Antrim & ٠ Newtownabbey LGD and Fermanagh & Omagh LGD to 9 in Belfast LGD.
- Incidence rates were significantly lower than the NI average in Belfast • LGD. No LGD demonstrated significantly higher incidence rates.



Potentially higher than average

Potentially lower than average

#### NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 males	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	4	6.6	-11.0% (-48.1%,26.1%)
Armagh, Banbridge & Craigavon	8	8.0	6.4% (-27.0%,39.7%)
Belfast	9	5.5	-29.9% (-50.6%,-9.2%)
Causeway Coast & Glens	5	6.9	-5.3% (-43.2%,32.6%)
Derry & Strabane	6	8.0	6.8% (-32.0%,45.7%)
Fermanagh & Omagh	4	7.8	6.9% (-37.6%,51.5%)
Lisburn & Castlereagh	5	7.7	4.7% (-36.2%,45.7%)
Mid & East Antrim	5	7.3	1.8% (-38.9%,42.4%)
Mid Ulster	7	10.5	36.0% (-8.4%,80.3%)
Newry, Mourne & Down	7	8.7	18.2% (-19.9%,56.2%)
North Down & Ards	5	7.2	1.6% (-36.6%,39.8%)
Northern Ireland	66	7.5	-
†Compared to NI average			

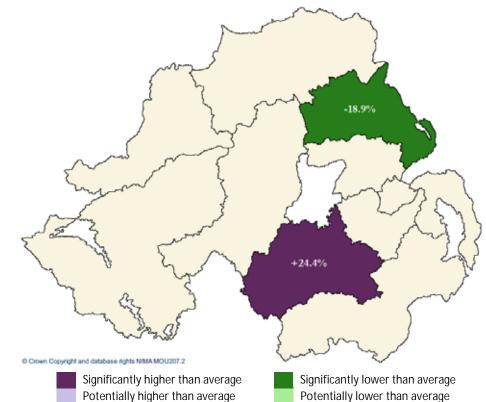
#### AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	6.2 (3.6,8.9)	6.7 (3.9,9.5)	6.3 (3.6,9.0)
Armagh, Banbridge & Craigavon	7.6 (5.2,10.0)	8.0 (5.5,10.5)	7.4 (5.0,9.8)
Belfast	5.2 (3.6,6.8)	5.4 (3.8,7.0)	4.8 (3.4,6.2)
Causeway Coast & Glens	7.0 (4.2,9.7)	7.1 (4.2,9.9)	6.3 (3.7,8.9)
Derry & Strabane	7.5 (4.7,10.2)	8.1 (5.2,11.1)	7.9 (5.0,10.8)
Fermanagh & Omagh	7.6 (4.4,10.7)	7.9 (4.6,11.2)	7.7 (4.4,11.0)
Lisburn & Castlereagh	7.3 (4.4,10.2)	7.9 (4.8,11.1)	8.0 (4.8,11.2)
Mid & East Antrim	7.2 (4.3,10.1)	7.7 (4.6,10.7)	7.2 (4.2,10.1)
Mid Ulster	9.3 (6.3,12.4)	10.2 (6.9,13.5)	10.1 (6.8,13.5)
Newry, Mourne & Down	8.7 (5.9,11.5)	9.0 (6.1,11.9)	8.0 (5.4,10.6)
North Down & Ards	7.4 (4.6,10.2)	8.0 (5.0,11.0)	7.8 (4.8,10.8)
Northern Ireland	7.1 (6.3,7.9)	7.5 (6.7,8.4)	7.1 (6.3,7.9)

ASIR – Age-standardised incidence rate per 100,000 males CI – Confidence interval NMSC – Non-melanoma skin cancer

## UTERINE CANCER FEMALES (diagnosed 2008-2012)

- On average there were 231 cases of uterine cancer diagnosed among females in NI each year, making up 4.1% of all female cancers (5.4% ex. NMSC).
- The average number of cases per year ranged from 13 in Fermanagh & Omagh LGD to 41 in Belfast LGD.
- Incidence rates were significantly higher than the NI average in Armagh, Banbridge & Craigavon LGD and were significantly lower than the NI average in Mid & East Antrim LGD.



## NUMBER OF CASES PER YEAR AND STANDARDISED INCIDENCE RATIO COMPARED TO NORTHERN IRELAND AVERAGE

Local Government District	Average cases per year	Crude rate per 100,000 females	Standardised incidence ratio <sup>†</sup> (95% CI)
Antrim & Newtownabbey	18	26.1	3.3% (-17.8%,24.4%)
Armagh, Banbridge & Craigavon	30	30.3	24.4% (4.6%,44.2%)
Belfast	41	23.5	-3.0% (-16.4%,10.3%)
Causeway Coast & Glens	20	27.8	6.3% (-14.7%,27.3%)
Derry & Strabane	18	24.0	5.8% (-16.0%,27.6%)
Fermanagh & Omagh	13	23.2	-6.4% (-29.1%,16.2%)
Lisburn & Castlereagh	17	25.5	-4.6% (-24.6%,15.5%)
Mid & East Antrim	16	22.4	-18.9% (-36.9%,-0.8%)
Mid Ulster	15	21.4	-4.6% (-26.4%,17.2%)
Newry, Mourne & Down	20	22.7	-4.0% (-23.0%,15.1%)
North Down & Ards	23	28.6	-2.4% (-20.2%,15.4%)
Northern Ireland †Compared to NI average	231	25.1	-

# AGE-STANDARDISED INCIDENCE RATES (PER 100,000) FOR USE IN INTERNATIONAL COMPARISONS

Local Government District	2013 European ASIR (95% CI)	1976 European ASIR (95% CI)	World ASIR (95% CI)
Antrim & Newtownabbey	30.7 (24.4,37.0)	22.0 (17.4,26.7)	15.6 (12.2,18.9)
Armagh, Banbridge & Craigavon	36.5 (30.7,42.3)	27.4 (23.0,31.9)	19.5 (16.3,22.8)
Belfast	29.2 (25.2,33.2)	21.1 (18.1,24.1)	14.9 (12.7,17.1)
Causeway Coast & Glens	31.8 (25.5,38.1)	22.2 (17.7,26.8)	15.5 (12.2,18.8)
Derry & Strabane	31.4 (24.9,38.0)	22.9 (18.1,27.7)	16.3 (12.8,19.7)
Fermanagh & Omagh	27.3 (20.6,34.0)	21.2 (16.0,26.4)	15.2 (11.3,19.0)
Lisburn & Castlereagh	28.8 (22.8,34.9)	21.0 (16.5,25.5)	14.8 (11.5,18.1)
Mid & East Antrim	24.4 (18.9,29.8)	18.3 (14.1,22.5)	13.0 (10.0,16.1)
Mid Ulster	28.4 (21.8,34.9)	21.4 (16.4,26.3)	15.4 (11.8,19.1)
Newry, Mourne & Down	28.2 (22.6,33.8)	21.9 (17.5,26.3)	16.1 (12.8,19.4)
North Down & Ards	28.5 (23.3,33.8)	20.4 (16.5,24.2)	14.7 (11.8,17.5)
Northern Ireland	29.7 (28.0,31.5)	21.9 (20.6,23.2)	15.6 (14.6,16.5)

SIR – Age-standardised incidence rate per 100,000 females CI – Confidence interval NMSC – Non-melanoma skin canc

## 3: Other measures of cancer burden

There are various other measures of cancer burden in addition to cancer incidence, the two most common being:

- **Cancer mortality** the number of deaths each year where the primary cause recorded on the death certificate is cancer.
- **Cancer prevalence** the number of people diagnosed during a fixed period that were still alive at the end of that period.

We present data using these measures below at Local Government District level.

### 3.1: Cancer mortality

On average there were 3,992 (2,090 male and 1,902 female) cancer deaths in Northern Ireland each year between 2008 and 2012. Among males the most common cancer deaths were lung (25.8%), prostate (11.3%) and colorectal (11.1%), while among females the most common cancer deaths were lung (19.8%), breast (15.8%) and colorectal (10.1%).

The average number of deaths from cancer per year ranged from 227 in Fermanagh & Omagh LGD to 877 in Belfast LGD (Tab. 3.1). Similar data for each cancer type is presented in table 3.2.

### 3.2: Cancer prevalence

At the end of 2012 there were 51,296 people living in Northern Ireland who had had a diagnosis of cancer (excluding non-melanoma skin cancer) within the last 20 years (1993-2012). Of these 28,864 (56.3%) were female. The most common type of cancer among female survivors was breast cancer (12,752 women) while among males it was prostate cancer (7,754 men).

Cancer prevalence ranged from 3,156 survivors in Fermanagh & Omagh LGD to 9,100 survivors in Belfast LGD (Tab. 3.1). Similar data for each cancer type is presented in table 3.3.

		cer deaths pe	5	Prevalence (ex. NMSC)				
Local Government District	(2008-	2012 annual a	iverage)	(	(At end of 2012)			
	Male	Female	Both sexes	Male	Female	Both sexes		
Antrim & Newtownabbey	163	140	304	1,674	2,227	3,901		
Armagh, Banbridge & Craigavon	213	198	411	2,514	3,107	5,621		
Belfast	452	425	877	3,774	5,326	9,100		
Causeway Coast & Glens	159	142	302	1,852	2,311	4,163		
Derry & Strabane	153	142	294	1,663	2,118	3,781		
Fermanagh & Omagh	122	105	227	1,500	1,655	3,156		
Lisburn & Castlereagh	151	127	278	1,730	2,334	4,064		
Mid & East Antrim	163	153	316	1,837	2,320	4,157		
Mid Ulster	134	116	250	1,593	1,896	3,489		
Newry, Mourne & Down	178	168	347	2,126	2,636	4,762		
North Down & Ards	201	184	386	2,169	2,935	5,104		
Northern Ireland	2,090	1,902	3,992	22,432	28,864	51,296		

### Table 3.1: Other measures of cancer burden by sex and Local Government District

NMSC: Non-melanoma skin cancer

		Local Gover	mment District										
Cancer type	Sex	Antrim & Newtownabbey	Armagh, Banbridge & Craigavon	Belfast	Causeway Coast & Glens	Derry & Strabane	Fermanagh & Omagh	Lisburn & Castlereagh	Mid & East Antrim	Mid Ulster	Newry, Mourne & Down	North Down & Ards	Northern Ireland
Bladder	Both sexes	8	8	26	6	7	5	9	10	8	9	14	110
Brain and other CNS	Both sexes	7	11	21	8	9	6	7	8	8	11	10	107
Breast	Female	22	34	60	21	22	16	20	25	20	29	32	301
Cancer of unknown primary	Both sexes	18	25	53	19	19	13	16	21	17	26	25	251
Cervix	Female	1	2	7	2	3	1	1	1	2	1	1	23
Colorectal	Both sexes	30	44	88	35	29	27	32	33	24	38	46	425
	Male	18	27	47	19	18	14	13	19	14	21	23	233
	Female	12	17	41	16	11	13	19	14	10	17	23	193
Head & Neck	Both sexes	6	9	20	7	8	6	4	7	6	8	10	91
Kidney	Both sexes	10	10	21	9	7	7	6	8	5	9	9	101
Leukaemia	Both sexes	9	12	23	4	11	7	9	8	6	7	11	107
Liver	Both sexes	6	9	23	8	8	5	7	9	5	10	8	98
Lung	Both sexes	72	90	248	62	76	47	57	67	52	72	74	917
	Male	43	57	143	38	41	29	37	39	32	39	43	540
	Female	29	33	106	24	35	18	20	28	20	33	31	376
Lymphoma	Both sexes	12	14	22	9	7	6	10	12	9	10	13	124
Melanoma	Both sexes	3	6	9	4	3	3	4	3	4	5	6	50
Multiple myeloma	Both sexes	8	8	13	5	3	3	5	5	5	5	6	66
Oesophagus	Both sexes	12	19	33	11	10	8	13	15	11	18	16	164
Ovary	Female	9	11	21	10	8	8	8	10	7	11	12	117
Pancreas	Both sexes	18	22	43	22	15	15	12	17	15	16	19	213
Prostate	Male	16	22	44	21	15	17	23	16	16	18	28	236
Stomach	Both sexes	9	16	35	10	13	7	9	7	9	12	10	138
Uterus	Female	2	7	9	5	2	3	3	3	2	2	4	43

# Table 3.2: Average number of deaths from cancer per year during 2008-2012 by cancer type and Local Government District

### Table 3.3: Cancer prevalence (excluding NMSC) in 2012 by cancer type and Local Government District

Local Government District

Cancer type	Sex	Antrim & Newtownabbey	Armagh, Banbridge & Craigavon	Belfast	Causeway Coast & Glens	Derry & Strabane	Fermanagh & Omagh	Lisburn & Castlereagh	Mid & East Antrim	Mid Ulster	Newry, Mourne & Down	North Down & Ards	Northern Ireland
Bladder	Both sexes	117	151	283	105	86	62	95	122	86	118	121	1,344
Brain and other CNS	Both sexes	42	61	81	58	39	42	33	43	26	43	52	521
Breast	Female	986	1,356	2,240	1,044	935	743	1,076	1,028	827	1,166	1,351	12,752
Cancer of unknown primary	Both sexes	35	39	87	29	34	33	33	29	31	49	51	451
Cervix	Female	106	117	288	68	69	47	94	104	68	92	127	1,181
Colorectal	Both sexes	588	751	1,326	625	596	467	571	592	511	734	725	7,486
	Male	327	393	680	343	310	243	304	315	283	400	383	3,980
	Female	261	358	646	282	286	224	267	277	228	334	342	3,506
Head & Neck	Both sexes	129	192	439	146	161	135	105	129	125	195	181	1,935
Kidney	Both sexes	134	183	298	142	117	86	143	128	118	120	155	1,627
Leukaemia	Both sexes	78	126	197	91	92	80	117	94	80	117	119	1,189
Liver	Both sexes	12	11	42	10	7	14	8	7	12	12	13	150
Lung	Both sexes	136	152	425	126	130	106	116	105	104	165	151	1,715
	Male	76	81	215	69	67	59	71	53	55	97	92	936
	Female	60	71	210	57	64	46	45	51	48	68	58	779
Lymphoma	Both sexes	214	342	528	240	203	167	258	256	203	271	276	2,959
Melanoma	Both sexes	244	444	533	242	180	172	283	265	217	316	403	3,301
Multiple myeloma	Both sexes	40	56	103	53	44	34	66	51	39	47	67	602
Oesophagus	Both sexes	44	51	95	40	39	34	36	43	26	42	45	498
Ovary	Female	86	121	198	99	75	53	90	109	96	104	129	1,158
Pancreas	Both sexes	13	17	34	12	14	10	24	14	15	9	13	177
Prostate	Male	548	923	1,107	682	572	583	565	695	595	715	770	7,754
Stomach	Both sexes	46	52	141	41	65	48	49	40	41	59	25	605
Testicular	Male	81	126	159	84	76	64	103	77	88	103	83	1,042
Uterus	Female	161	257	365	187	164	117	179	156	147	182	192	2,109

NMSC: Non-melanoma skin cancer

## 4: Risks and causes of cancer

Cancer can develop as a result of factors related to environment, lifestyle, and heredity. While our current understanding of the causes of cancer is incomplete, many risk factors that increase the possibility of getting cancer have been identified. These include:

- Age;
- History of cancer in the family;
- Tobacco use;
- Excessive alcohol consumption;
- Lack of balanced diet, in particular insufficient consumption of fruit and vegetables;
- Obesity and/or lack of physical activity;
- Ultraviolet radiation from sunshine or sunbeds;
- Exposure to certain chemicals such as asbestos, benzene or radon gas;
- Exposure to ionising radiation;
- Infections such as human papillomavirus, Hepatitis B, Helicobacter Pylori;
- Treatments such as exposure to oestrogen through Hormone Replacement Therapy;
- Late or lack of reproduction in women;
- Lack of breast feeding in women.

Many of these risk factors can be avoided however others, such as age and inherited risk factors, are unavoidable. Of the avoidable factors some, such as tobacco use, can increase the risk of getting particular cancers by a significant amount while others increase the risk only by a slight margin.

Further details on risks and protective factors for each of the main cancers can be found on the Cancer Research UK web site<sup>2</sup>.

### 4.1: Risk factors in Northern Ireland

Information on the risk factors associated with cancer is not yet available for the new Local Government Districts. Where possible we have thus provided information at Health and Social Care Trust (HSCT) level, although it is important to note that there is no longer a direct relationship between LGD and Trust. While prevalence of these risk factors in 2012 can have no direct bearing on cancer risk in 2008-2012, due to the lag time for development of cancer, these geographical patterns are likely to reflect long-term differences between geographic areas.

Smoking is one of the biggest causes of many cancers. The highest smoking prevalence in NI in 2012 was in the Western HSCT (28%) with an average prevalence throughout Northern Ireland of 24%. Alcohol has been established as a causative factor in breast, colorectal, head & neck, pancreatic and oesophageal cancers. In Northern Ireland, the percentage of drinkers who consumed alcohol more than just occasionally was 70% in 2012. It was highest in Belfast HSCT (75%) and lowest in the Southern HSCT (66%). Obesity has been shown to be a risk factor for breast, colorectal, pancreas, kidney, oesophagus, and uterine cancers, and may be a risk factor for others. In 2012 levels of obesity (based upon body mass index (BMI)) were slightly higher in the South-Eastern and Western HSCT (27%), although the South-Eastern HSCT also had the highest

<sup>&</sup>lt;sup>2</sup> Cancer Research UK. Healthy living. Available at www.cancerresearchuk.org/cancer-info/healthyliving

proportion of people (56%) taking the recommended minimum amount of physical activity (150min) each week. (Tab. 4.1)

Risk Factor	Northern Ireland	Belfast HSCT	Northern HSCT	South Eastern HSCT	Southern HSCT	Western HSCT
Smoking (aged 16+)						
Current smoker	24%	26%	22%	22%	22%	28%
Used to smoke	27%	28%	25%	29%	26%	27%
Never smoked	49%	46%	53%	48%	52%	44%
Alcohol (aged 18+)						
Drinks alcohol	70%	75%	68%	69%	66%	71%
Drinks alcohol occasionally	9%	8%	8%	11%	10%	9%
Used to drink alcohol	6%	6%	7%	6%	6%	6%
Never drank alcohol	15%	10%	17%	13%	18%	14%
BMI (aged 16+)						
Underweight	5%	6%	6%	5%	6%	3%
Normal	32%	32%	33%	29%	33%	36%
Overweight	37%	38%	36%	40%	37%	33%
Obese	23%	22%	22%	24%	22%	25%
Morbidly Obese	2%	2%	3%	3%	2%	2%
Physical activity (aged 19+)						
Less than 30 min/week	28%	30%	25%	25%	31%	31%
30-59 min/week	5%	4%	4%	4%	4%	6%
60-149 min/week	14%	14%	16%	15%	14%	12%
At least 150 min/week	53%	51%	54%	56%	51%	51%

Table 4.1: Risk factors in Northern Ireland b	y Health and Social Care Trust (HSCT) 2012
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Source: Health Survey, Northern Ireland 2012/13<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Public Health Information & Research Branch, DHSSPS. Health Survey Northern Ireland – 2012/13. Extracted from the NI Neighbourhood Information Service – www.ninis2.nisra.gov.uk

## Appendix: Methodology

The Northern Ireland Cancer Registry (NICR) was established in 1994 and uses an automated computer system with multiple information sources to collate information on new diagnoses of cancer, with information collected for incidence from 1993 onwards. The three main sources for registration are the Patient Administration System (PAS) used by all the Hospital Trusts, histopathology reports from Trusts and death notifications, which are supplied by the General Registrar Office (GRO). From PAS the registry obtains demographic information such as age on individual patients along with basic site and behaviour information for each tumour. This information is supplemented by electronic downloads from histopathology and cytopathology laboratories. A major focus of the registry's operation work is on the verification of the information from a single hospital admission, a single histopathology report or a single death certificate. Trained Tumour Verification Officers (TVOs) examine general practitioners' (GPs) notes for patients who have died from cancer, hospital records for cases identified without histopathology or cytology confirmation and histopathology reports where there is conflicting information or other possible errors. In the event that no further information on death-initiated cases is obtainable the record is included in the registry but flagged as a death certificate only (DCO) case. Only 0.4% of records in 2008-2012 (excluding non-melanoma skin cancer) were death certificate only cases.

### Classification and coding

Cancer type	ICD10 code	Cancer type	ICD10 code
Bladder	C67	Non-melanoma skin	C44
Brain and other CNS	C70-C72,C75.1-C75.3	Oesophagus	C15
Breast	C50	Ovary	C56
Cervix	C53	Pancreas	C25
Colorectal	C18-C21	Prostate	C61
Head & Neck	C00-C14,C30-C32	Stomach	C16
Kidney	C64-C66,C68	Testis	C62
Leukaemia	C91-C95	Uterus	C54-C55
Liver	C22		
Lung	C33,C34	Unknown primary	C76-C80
Lymphoma	C81-C86		
Malignant melanoma	C43	All cancers (ex NMSC)	C00-C97 ex. C44
Multiple myeloma	C90	All cancers	C00-C97

Cancer is coded to the tenth revision of the International Classification of Diseases (ICD10)<sup>4</sup>. The ICD10 codes used to classify each type of cancer used in this report are listed below.

CNS: Central Nervous System, NMSC: Non-melanoma skin cancer

### Local Government Districts

NICR routinely collects address information allowing geographic areas, such as Local Government Districts (LGDs), to be assigned to records of cancer incidence. LGDs (and other geographic areas) are assigned to each cancer incidence record through an electronic process that uses the postcode that accompanies the majority of Northern Ireland addresses along with a postcode to higher geographic area lookup file known as the Central Postcode Directory (CPD)<sup>5</sup>, which is maintained by the Northern Ireland Statistics and Research Agency (NISRA) and updated annually. Addresses with an unknown, incomplete or invalid

<sup>&</sup>lt;sup>4</sup> World Health Organisation. International Classification of Diseases (ICD10). http://www.who.int/classifications/icd/en/

<sup>&</sup>lt;sup>5</sup> Northern Ireland Statistics and Research Agency. Central Postcode Directory. http://www.nisra.gov.uk/geography/postcode.htm

postcode cannot be assigned a LGD. Only a small proportion (0.8%) of records for cancers diagnosed in 2008-2012 could not be assigned a Local Government District.

### **Unknown** values

In order to avoid an undercount in the number of cases due to the small proportion of missing LGD data, the cases with an unknown LGD are redistributed among the LGDs according to the distribution of cases by known LGD. In this way the sum of the cases in each LGD adds to the NI total (with the exception of some differences caused by rounding), however this approach is based upon the assumption that missing values are not clustered in a particular geographic area.

### Population data

Throughout this report the population data used are the mid-year population estimates produced by the Northern Ireland Statistics and Research Agency (NISRA)<sup>6</sup>. These population estimates are derived from census figures along with births, deaths and migration data to provide up to date estimates of the population of Northern Ireland.

### Statistical methods

The most common and useful measure of cancer levels in a population is the absolute number of cases (incidence) in a given year. It is these very basic figures that allow planning by the health service for each year and are the fundamental building blocks of any other analysis. However the number of diagnoses of cancer within a year compared to the size of the population of Northern Ireland is relatively small. This can result in the number of events being studied fluctuating each year as a result of random factors, particularly when data are broken down by smaller geographic areas such as LGDs. This requires the population to be observed over a number of years in order to present a stable value for the number of cases diagnosed. Throughout this report a five-year annual average for the number of cases diagnosed has thus been used to represent the situation at a given point in time rather than using data for a particular year.

While the absolute number of cases or deaths is useful for planning purposes these measures do not allow accurate comparison of populations of different size. A crude incidence rate is thus presented to provide the ratio of cases diagnosed to members of the population. However since there is a very strong relationship between cancer and age a younger population is more likely to have a lower number of cancers than an older population of the same size.

A summary measure that allows for the changing or differing population age structure is an agestandardised rate. There are two methods of age-standardisation, indirect and direct, both used in this report. The indirect method, referred to as the standardised incidence ratio, provides a comparison of the incidence rate in an LGD relative to the overall Northern Ireland incidence rate. The direct method uses a standard population and presents a theoretical rate representing the number of cases diagnosed per 100,000 persons if the population in Northern Ireland had the same age-structure as this standard population. (See glossary for more details on the process of age-standardisation).

<sup>6</sup> Northern Ireland Statistics and Research Agency. Mid-Year Population Estimates. http://www.nisra.gov.uk/demography/default.asp17.htm

### Standard populations

Until recently there were two standard populations frequently used in cancer epidemiology – the European standard and the World standard. However EuroStat<sup>7</sup> recently introduced a newer version of the European standard population, which reflects an older population and thus substantially increases cancer incidence rates standardised using this population. Due to the sizable change, in order to ease the transition to this new rate, we have presented age-standardised rates using all three standards. In line with guidance from the Office of National Statistics<sup>8</sup>, we have referred to the old European Standard as the 1976 European Standard Population, while the new standard is referred to as the 2013 European Standard Population. All three standards are presented below.

Age group	1976 European Standard Population	World Standard Population	Age group	2013 European Standard Population
0 to 4	8,000	12,000	0 to 4	5,000
5 to 9	7,000	10,000	5 to 9	5,500
10 to 14	7,000	9,000	10 to 14	5,500
15 to 19	7,000	9,000	15 to 19	5,500
20 to 24	7,000	8,000	20 to 24	6,000
25 to 29	7,000	8,000	25 to 29	6,000
30 to 34	7,000	6,000	30 to 34	6,500
35 to 39	7,000	6,000	35 to 39	7,000
40 to 44	7,000	6,000	40 to 44	7,000
45 to 49	7,000	6,000	45 to 49	7,000
50 to 54	7,000	5,000	50 to 54	7,000
55 to 59	6,000	4,000	55 to 59	6,500
60 to 64	5,000	4,000	60 to 64	6,000
65 to 69	4,000	3,000	65 to 69	5,500
70 to 74	3,000	2,000	70 to 74	5,000
75 to 79	2,000	1,000	75 to 79	4,000
80 to 84	1,000	500	80 to 84	2,500
85 and over	1,000	500	85 to 89	1,500
			90 and over	1,000

### Confidence intervals and statistical significance

As with all other statistical measures age-standardised rates are only estimates of the true value, as uncertainty exists due to random fluctuations in the number of events between different populations. In order to quantify this uncertainty any rates in this report are accompanied by 95% confidence intervals to indicate the range within which there is a 95% probability that the true value is likely to fall. The size of the confidence intervals depends upon the number of events and the size of the population within which they occur, with rates made up of a small number of observations within a large population being less stable and having large confidence intervals.

Rates for two different time periods or population groups are considered to differ only if the 95% confidence intervals for the two age-standardised rates do not overlap. Alternatively, in the case of standardised incidence ratios, the rates for a population differ from those of the reference population only if the confidence interval does not include 0. This is known as statistical significance and for significant

<sup>&</sup>lt;sup>7</sup> EuroStat. Revision of the European Standard Population.

http://epp.eurostat.ec.europa.eu/portal/page/portal/product\_details/publication?p\_product\_code=KS-RA-13-028

<sup>&</sup>lt;sup>8</sup> Office of National Statistics. Revised European Standard Population 2013. http://www.ons.gov.uk/ons/guide-method/user-guidance/health-andlife-events/revised-european-standard-population-2013--2013-esp-/index.html

differences the level of certainty about any difference can be quantified by calculating the p-value. This measure provides the probability that any difference observed between two rates is due to chance. Thus a p-value of 0.001 indicates a 99.9% probability that differences are genuine and not a result of random factors.

### Maps

The maps presented in this report illustrate the geographic variation in cancer incidence rates by Local Government District based upon the standardised incidence ratio (SIR). The LGDs with a significantly higher or lower rate are highlighted along with their SIR. However since SIRs fluctuate from year to year, we have also highlighted those LGDs which either differed significantly from the NI average in the 10 year period 2003-2012 or were significantly different from the NI average using a less rigorous 90% significance level. These are labelled as being potentially higher or lower than the NI average. These warrant future monitoring but are not discussed in the text, or highlighted in tables as having higher or lower incidence rates.

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## **Glossary of terms**

Age-specific rate: The rate that events occur per 100,000 persons of a particular age class. It is calculated using the formula:

 $a_i = \frac{r_i}{n_i} \times 100,000$ 

where a<sub>i</sub> is the age-specific rate for age class i, n<sub>i</sub> is the number of events in age class i and n<sub>i</sub> is the number of person years of observation in age class i.

Age-standardised rate (ASR): The rate per 100,000 persons that has been adjusted to take account of different age structures between geographic areas or time periods by adopting a reference population. It is calculated by the direct method using the following formula:

$$ASR = \frac{\sum_{i=1}^{A} a_i w_i}{\sum_{i=1}^{A} w_i}$$

where ASR is the age-standardised rate, a<sub>i</sub> is the age-specific rate for age class i, w<sub>i</sub> is the standard population of age class i and A is the number of age intervals.

Confidence interval: The range of values calculated to have a specified (usually 95%) probability of containing the true value of an observation. Thus the 95% confidence interval for a rate is the range of values within which there is a 95% probability of finding the true value for the rate.

Crude rate: The rate per 100,000 persons that an event occurs among a given population. It is calculated by using the formula:

$$C = \frac{R}{N} \times 100,000$$

where C is the crude rate, R is the number of events and N is the population within which the events occur.

ICD10: The tenth edition of the International Classification of Diseases and Related Health Problems, which is published by the World Health Organisation (WHO). It provides a detailed description of known diseases and injuries and is used in the production of morbidity and mortality statistics.

Incidence: The number of new cases of a cancer diagnosed in a particular period for a particular population.

Mid-year population estimate: An estimate of the population in a region. Population estimates are based upon the number of births, deaths and migration flows for regions that have occurred since the last population census.

P-value: The probability of an event occurring given a null hypothesis is true. In any statistical tests in this report the null hypothesis is taken to be that there is no difference between two mean values or rates. A small p-value (typically less than 0.05) suggests that the two means or rates tested are significantly different. In this case the result is called statistically significant.

Standardised incidence ratio (SIR): The ratio of the number of newly diagnosed cancers observed in a given population to the number of cases expected in a reference population of the same size. The expected number of incidence is calculated by applying a standard set of age-specific rates to the given population. The formula for the standardised incidence ratio (SIR) is:

$$SIR = \frac{\sum_{i=1}^{A} r_i}{\sum_{i=1}^{A} \frac{a_i n_i}{100000}}$$

where  $a_i$  is the age-specific rate in the reference population,  $n_i$  is the observed population in age class i and  $r_i$  is the observed number of cases in age class i.

Statistical significance: See p-value.

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