
Recent trends in incidence and mortality of cancer in Northern Ireland

(A comparison between April-December of 2021, 2020 and 2018-2019)

Further information

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Acknowledgements

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INCIDENCE

During the April-December period the number of cases of cancer diagnosed decreased between 2018-2019 and 2021 by 1.6% from 10,881 cases per year to 10,706 cases.

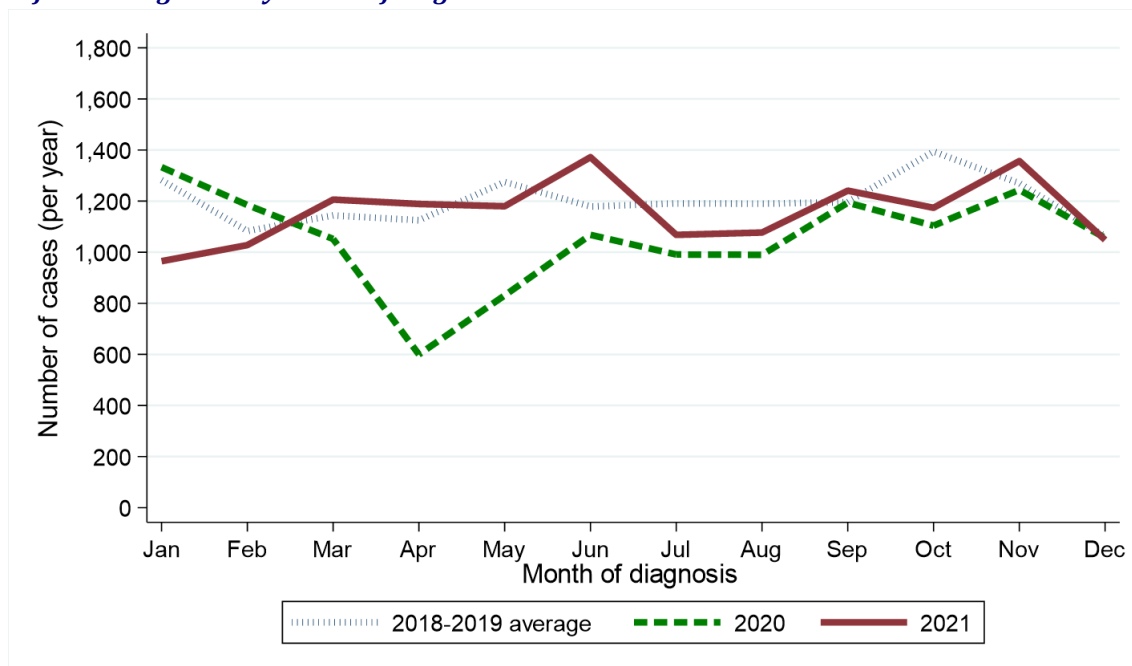
Table 1: Number of cancer cases diagnosed in 2018-2021 by month and year of diagnosis

Period of diagnosis	Annual total	Month diagnosed											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	14,389	1,282	1,083	1,144	1,125	1,275	1,179	1,191	1,190	1,196	1,394	1,270	1,062
2020	12,648	1,333	1,185	1,052	600	831	1,068	991	990	1,194	1,104	1,244	1,056
2021	13,905	965	1,028	1,206	1,189	1,180	1,372	1,068	1,077	1,241	1,174	1,357	1,048

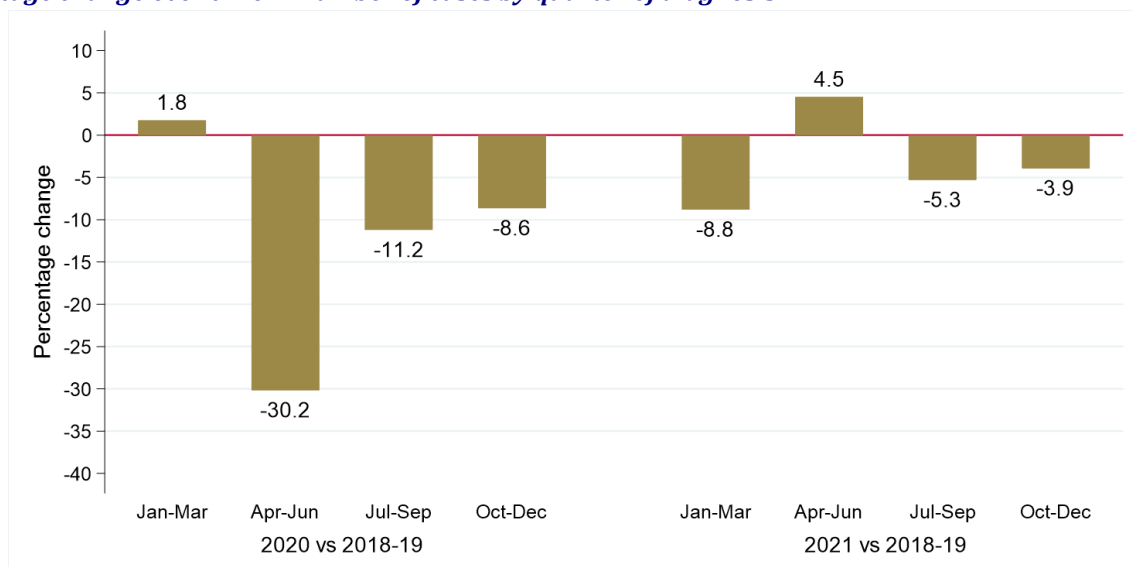
* Average cases per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

Figure 1: Number of cancer cases diagnosed in 2018-2021 by month/quarter and year of diagnosis

(a) Number of cases diagnosed by month of diagnosis



(b) Percentage change over time in number of cases by quarter of diagnosis



GENDER

Excluding the first quarter of each year the number of male cancer cases diagnosed decreased by 1.4% from 5,726 per year in 2018-2019 to 5,645 in 2021. Between the same two time periods the number of female cancer cases diagnosed decreased by 1.8% from 5,155 per year in 2018-2019 to 5,061 in 2021. The change in case distribution by gender between 2018-2019 and 2021 was not statistically significant.

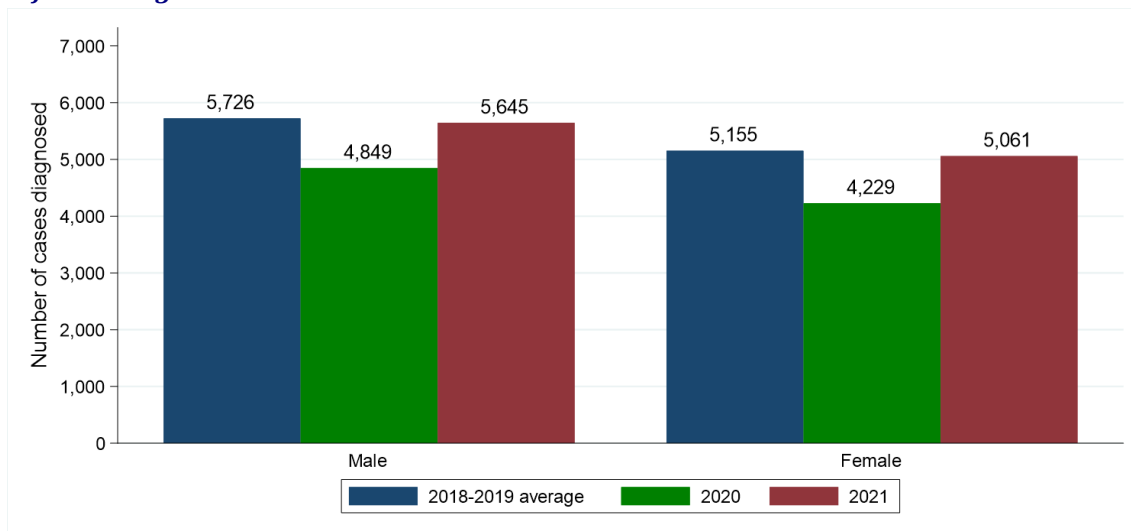
Table 2: Number and proportion of cancer cases diagnosed in April-December of 2018-2021 by gender and period of diagnosis

Gender	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
All persons	10,881	9,078	10,706	-16.6%	-1.6%
Male	5,726 (52.6%)	4,849 (53.4%)	5,645 (52.7%)	-15.3%	-1.4%
Female	5,155 (47.4%)	4,229 (46.6%)	5,061 (47.3%)	-18.0%	-1.8%

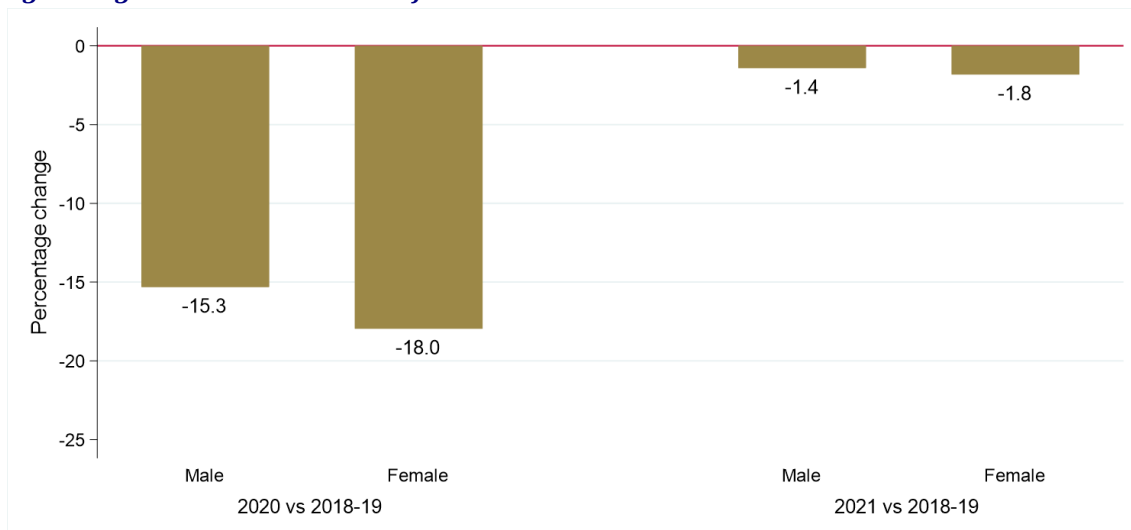
* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 2: Number of cancer cases diagnosed in April-December of 2018-2021 by gender and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change over time in number of cases



AGE

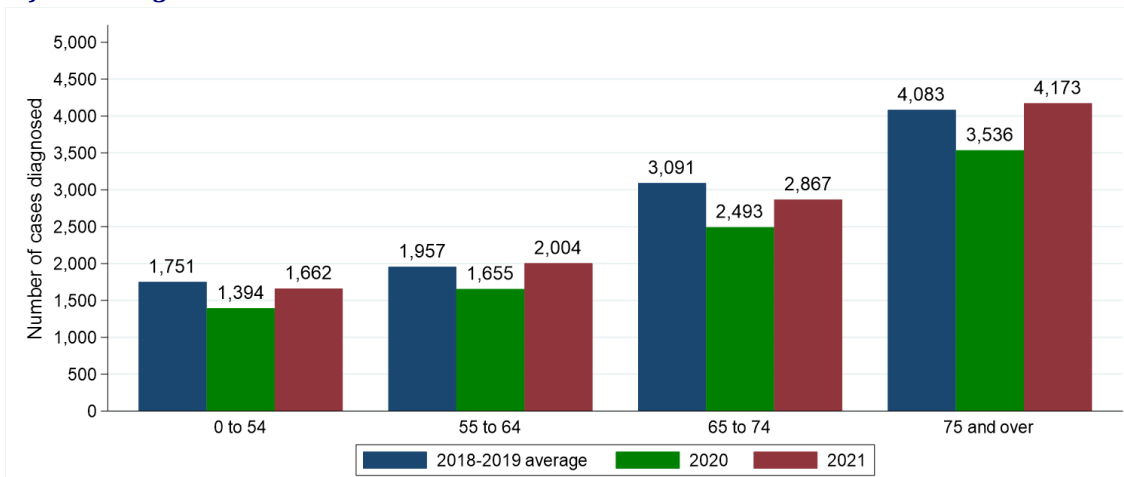
Excluding the first quarter of each year the number of cases of cancer diagnosed among those aged 65 to 74 decreased by 7.2% from 3,091 per year in 2018-2019 to 2,867 in 2021. Between the same two time periods the number of cases of cancer diagnosed among those aged 55 to 64 increased by 2.4% from 1,957 per year in 2018-2019 to 2,004 in 2021. The change in case distribution by age between 2018-2019 and 2021 was statistically significant ($p = 0.002$).

Table 3: Number and proportion of cancer cases diagnosed in April-December of 2018-2021 by age and period of diagnosis

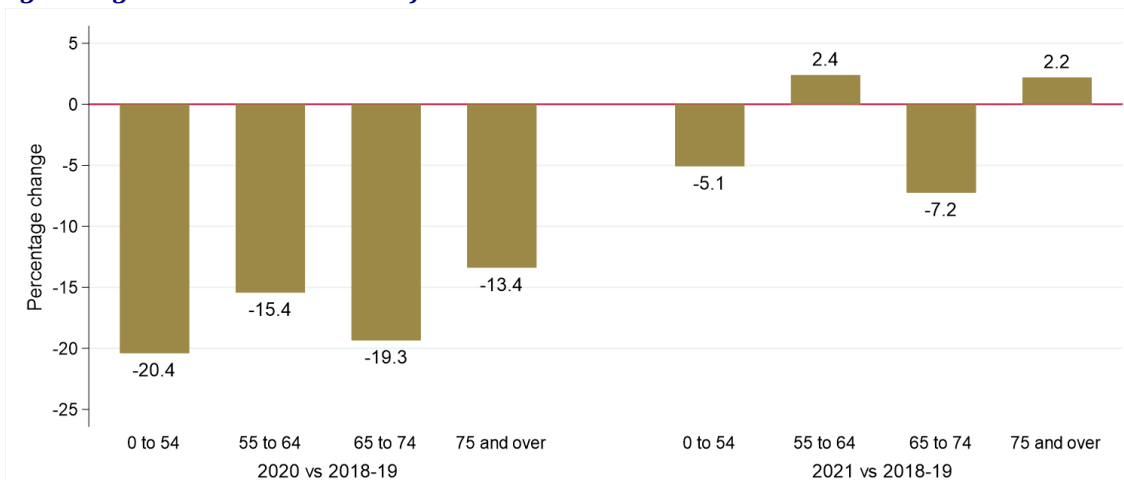
Age	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
All ages	10,881	9,078	10,706	-16.6%	-1.6%
0 to 54	1,751 (16.1%)	1,394 (15.4%)	1,662 (15.5%)	-20.4%	-5.1%
55 to 64	1,957 (18.0%)	1,655 (18.2%)	2,004 (18.7%)	-15.4%	+2.4%
65 to 74	3,091 (28.4%)	2,493 (27.5%)	2,867 (26.8%)	-19.3%	-7.2%
75 and over	4,083 (37.5%)	3,536 (39.0%)	4,173 (39.0%)	-13.4%	+2.2%

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 3: Number of cancer cases diagnosed in April-December of 2018-2021 by age and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change over time in number of cases



CANCER TYPE

Excluding the first quarter of each year the number of bladder cancer cases diagnosed increased by 20.4% between 2018-2019 and 2021, while oesophageal cancer increased by 17.0% and colorectal cancer by 16.7%. Between the same two time periods the number of cases of non-melanoma skin cancer diagnosed decreased by 15.4%, while leukaemia decreased by 13.5% and head and neck cancer decreased by 13.1%.

Between 2018-2019 and 2021 (excluding the first quarter of each year) the number of cases of:

- Non-melanoma skin cancer diagnosed decreased by 15.4% from 3,134 cases per year to 2,651 cases.
- Breast cancer (Female and male) diagnosed increased by 8.8% from 1,124 cases per year to 1,223 cases.
- Lung cancer (including trachea) diagnosed decreased by 1.6% from 1,036 cases per year to 1,019 cases.
- Prostate cancer diagnosed increased by 6.1% from 1,040 cases per year to 1,103 cases.
- Colorectal cancer diagnosed increased by 16.7% from 911 cases per year to 1,063 cases.

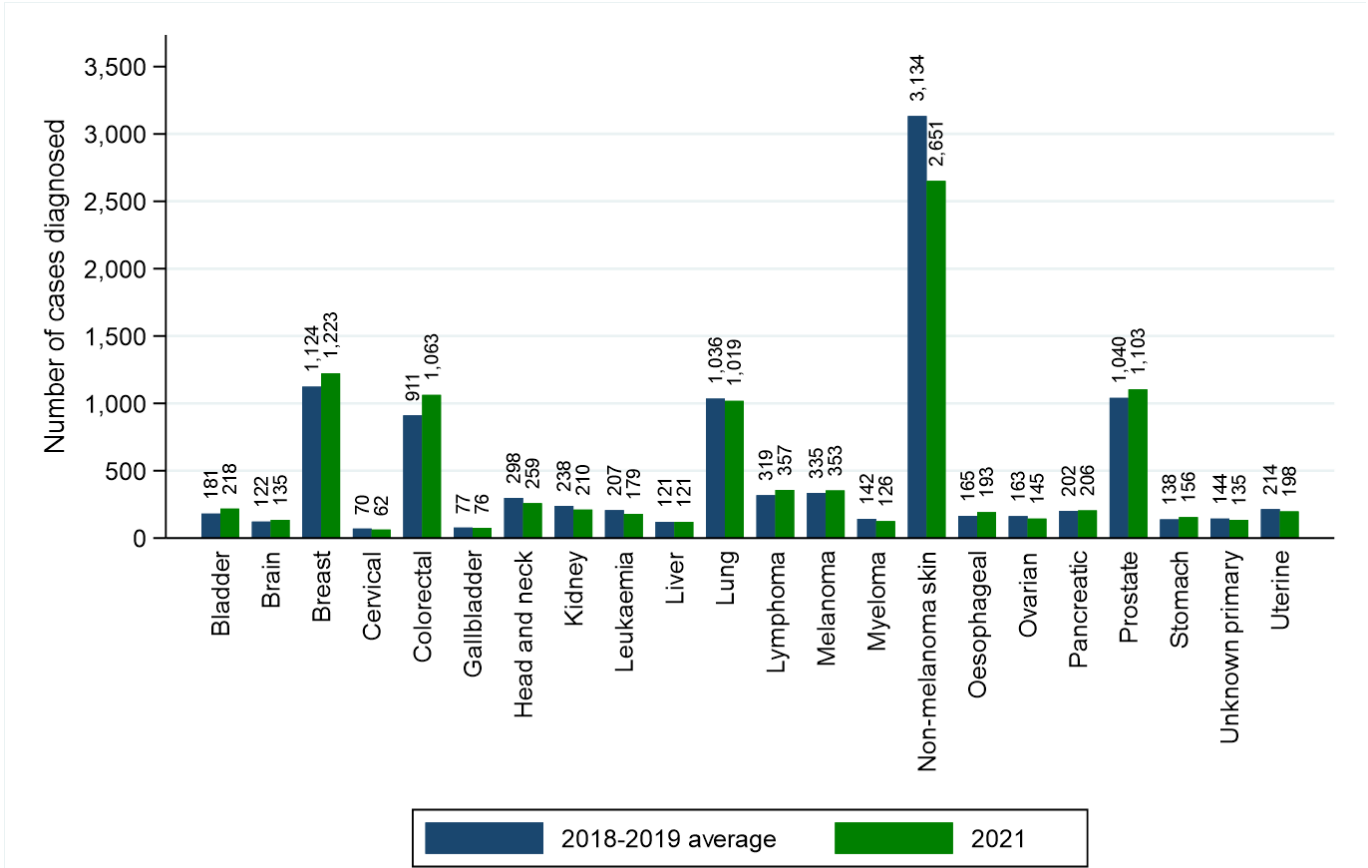
The change in case distribution by cancer type between 2018-2019 and 2021 was statistically significant ($p < 0.001$).

Table 4: Number and proportion of cancer cases diagnosed in April-December of 2018-2021 by cancer type and period of diagnosis

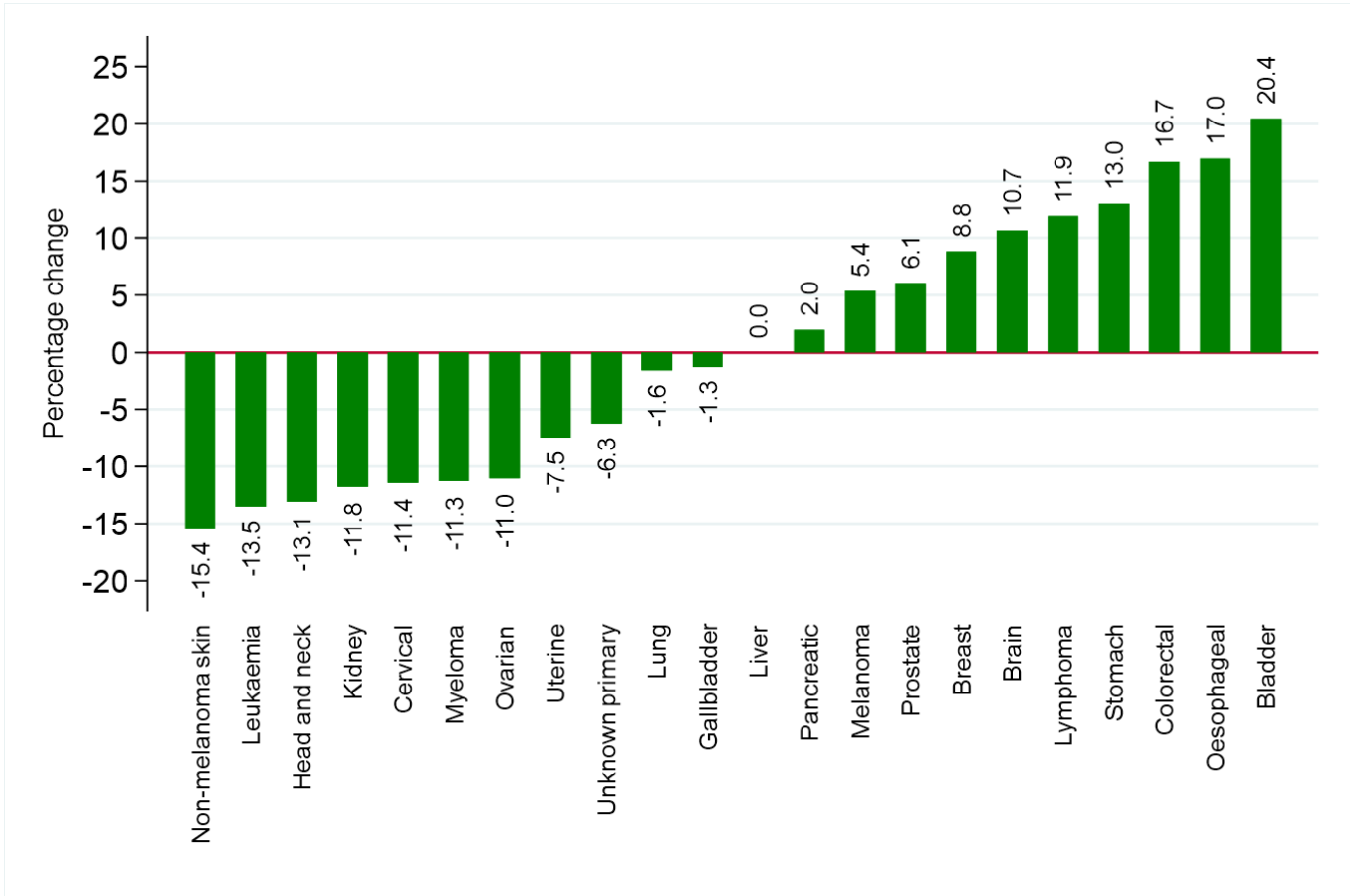
Cancer type	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
All cancers	10,881	9,078	10,706	-16.6%	-1.6%
Bladder	181 (1.7%)	176 (1.9%)	218 (2.0%)	-2.8%	+20.4%
Bone	11 (0.1%)	11 (0.1%)	14 (0.1%)	0.0%	+27.3%
Brain	122 (1.1%)	120 (1.3%)	135 (1.3%)	-1.6%	+10.7%
Breast (Female & Male)	1,124 (10.3%)	1,007 (11.1%)	1,223 (11.4%)	-10.4%	+8.8%
Cervical	70 (0.6%)	55 (0.6%)	62 (0.6%)	-21.4%	-11.4%
Colorectal	911 (8.4%)	804 (8.9%)	1,063 (9.9%)	-11.7%	+16.7%
Gallbladder	77 (0.7%)	94 (1.0%)	76 (0.7%)	+22.1%	-1.3%
Head and neck	298 (2.7%)	238 (2.6%)	259 (2.4%)	-20.1%	-13.1%
Kidney	238 (2.2%)	190 (2.1%)	210 (2.0%)	-20.2%	-11.8%
Leukaemia	207 (1.9%)	194 (2.1%)	179 (1.7%)	-6.3%	-13.5%
Liver	121 (1.1%)	105 (1.2%)	121 (1.1%)	-13.2%	0.0%
Lung	1,036 (9.5%)	989 (10.9%)	1,019 (9.5%)	-4.5%	-1.6%
Lymphoma	319 (2.9%)	294 (3.2%)	357 (3.3%)	-7.8%	+11.9%
Melanoma	335 (3.1%)	205 (2.3%)	353 (3.3%)	-38.8%	+5.4%
Mesothelioma	40 (0.4%)	35 (0.4%)	37 (0.3%)	-12.5%	-7.5%
Myeloma	142 (1.3%)	122 (1.3%)	126 (1.2%)	-14.1%	-11.3%
Non-melanoma skin	3,134 (28.8%)	2,129 (23.5%)	2,651 (24.8%)	-32.1%	-15.4%
Oesophageal	165 (1.5%)	130 (1.4%)	193 (1.8%)	-21.2%	+17.0%
Ovarian	163 (1.5%)	132 (1.5%)	145 (1.4%)	-19.0%	-11.0%
Pancreatic	202 (1.9%)	243 (2.7%)	206 (1.9%)	+20.3%	+2.0%
Prostate	1,040 (9.6%)	916 (10.1%)	1,103 (10.3%)	-11.9%	+6.1%
Stomach	138 (1.3%)	135 (1.5%)	156 (1.5%)	-2.2%	+13.0%
Testicular	51 (0.5%)	46 (0.5%)	42 (0.4%)	-9.8%	-17.6%
Thyroid	114 (1.0%)	110 (1.2%)	115 (1.1%)	-3.5%	+0.9%
Unknown primary	144 (1.3%)	129 (1.4%)	135 (1.3%)	-10.4%	-6.3%
Uterine	214 (2.0%)	178 (2.0%)	198 (1.8%)	-16.8%	-7.5%
Other	290 (2.7%)	291 (3.2%)	310 (2.9%)	+0.3%	+6.9%

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 4: Number of cancer cases diagnosed in April-December of 2018-2021 by cancer type and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change between 2018-19 and 2021 in number of cases per year



HEALTH AND SOCIAL CARE TRUST

Excluding the first quarter of each year the number of cases of cancer diagnosed among those resident in Northern HSCT decreased by 8.5% from 2,926 per year in 2018-2019 to 2,678 in 2021. Between the same two time periods the number of cases of cancer diagnosed among those resident in Western HSCT increased by 5.7% from 1,661 per year in 2018-2019 to 1,755 in 2021. The change in case distribution by Health and Social Care Trust between 2018-2019 and 2021 was statistically significant ($p = 0.001$).

Table 5: Number and proportion of cancer cases diagnosed in April-December of 2018-2021 by Health and Social Care Trust and period of diagnosis

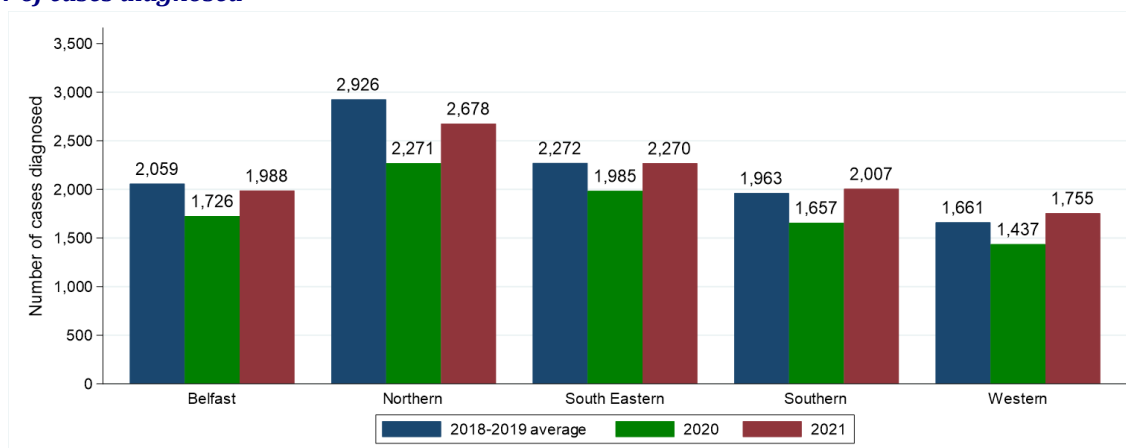
Health and Social Care Trust	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
Northern Ireland	10,881	9,078	10,706	-16.6%	-1.6%
Belfast	2,059 (18.9%)	1,726 (19.0%)	1,988 (18.6%)	-16.2%	-3.4%
Northern	2,926 (26.9%)	2,271 (25.0%)	2,678 (25.0%)	-22.4%	-8.5%
South Eastern	2,272 (20.9%)	1,985 (21.9%)	2,270 (21.2%)	-12.6%	-0.1%
Southern	1,963 (18.0%)	1,657 (18.3%)	2,007 (18.7%)	-15.6%	+2.2%
Western	1,661 (15.3%)	1,437 (15.8%)	1,755 (16.4%)	-13.5%	+5.7%

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

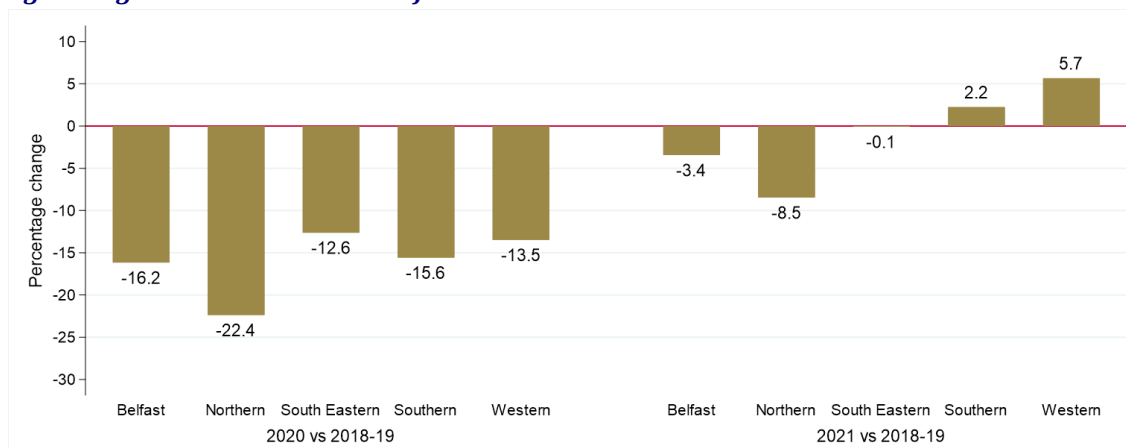
Note: Cases with unknown Health and Social Care Trust are included in totals.

Figure 5: Number of cancer cases diagnosed in April-December of 2018-2021 by Health and Social Care Trust and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change over time in number of cases



SOCIO-ECONOMIC DEPRIVATION

Excluding the first quarter of each year the number of cases of cancer diagnosed among those resident in the least deprived quintile decreased by 3.2% from 2,410 per year in 2018-2019 to 2,334 in 2021. Between the same two time periods the number of cases of cancer diagnosed among those resident in the most deprived quintile decreased by 1.0% from 1,844 per year in 2018-2019 to 1,825 in 2021. The change in case distribution by deprivation quintile between 2018-2019 and 2021 was not statistically significant.

Table 6: Number and proportion of cancer cases diagnosed in April-December of 2018-2021 by deprivation quintile and period of diagnosis

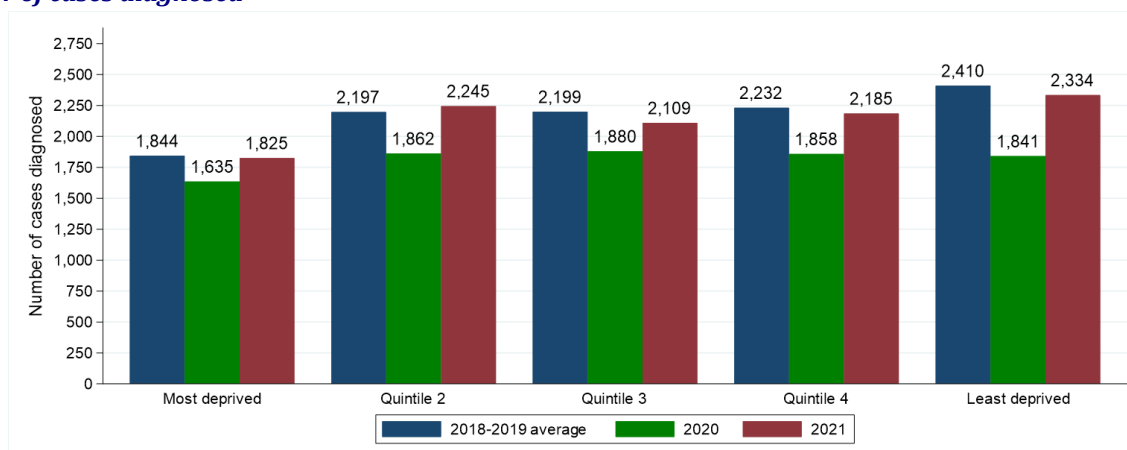
Deprivation quintile	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
Northern Ireland	10,881	9,078	10,706	-16.6%	-1.6%
Most deprived	1,844 (16.9%)	1,635 (18.0%)	1,825 (17.0%)	-11.3%	-1.0%
Quintile 2	2,197 (20.2%)	1,862 (20.5%)	2,245 (21.0%)	-15.2%	+2.2%
Quintile 3	2,199 (20.2%)	1,880 (20.7%)	2,109 (19.7%)	-14.5%	-4.1%
Quintile 4	2,232 (20.5%)	1,858 (20.5%)	2,185 (20.4%)	-16.8%	-2.1%
Least deprived	2,410 (22.1%)	1,841 (20.3%)	2,334 (21.8%)	-23.6%	-3.2%

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

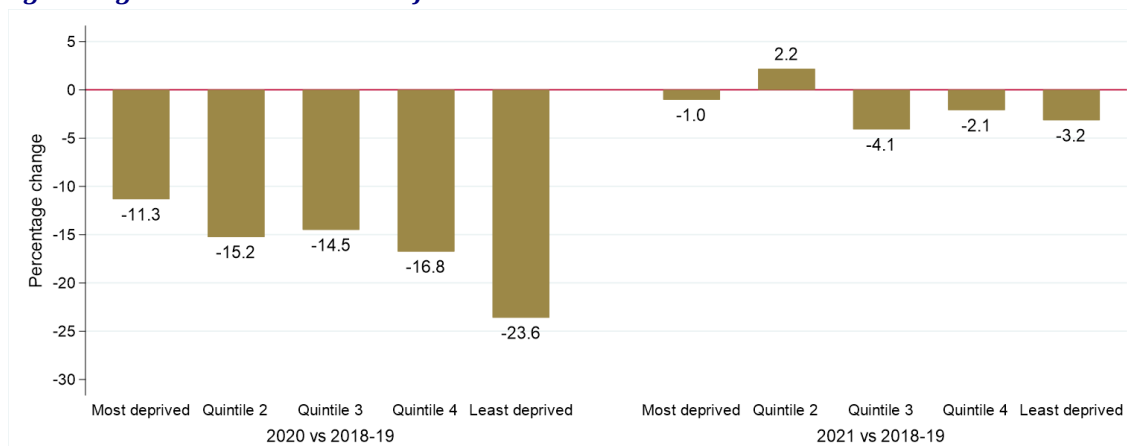
Note: Cases with unknown deprivation quintile are included in totals.

Figure 6: Number of cancer cases diagnosed in April-December of 2018-2021 by deprivation quintile and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change over time in number of cases



BASIS OF DIAGNOSIS

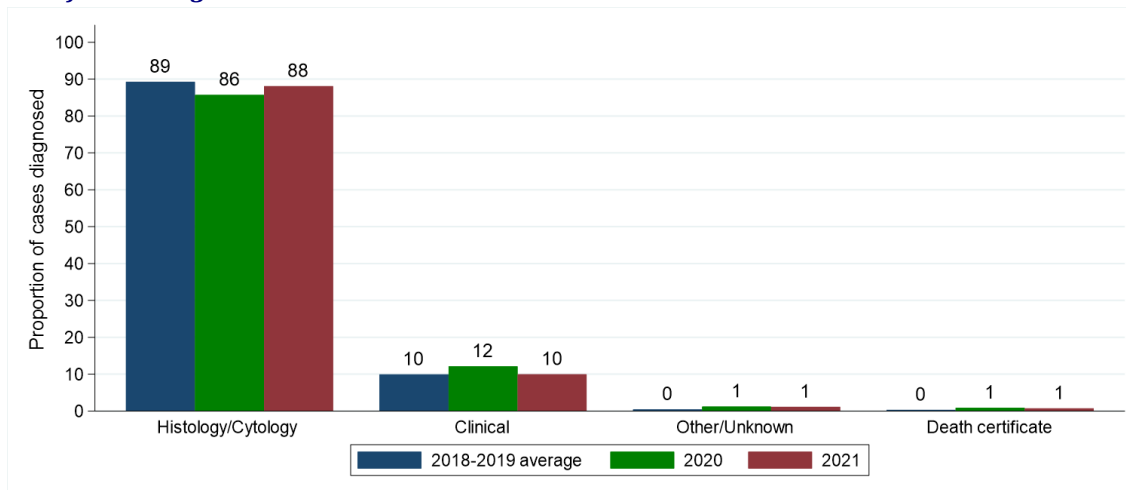
Excluding the first quarter of each year the number of cases of cancer diagnosed via histology/cytology decreased by 2.9% from 9,714 per year in 2018-2019 to 9,434 in 2021. As a proportion of all cases, histology/cytology diagnosis decreased from 89.3% in 2018-2019 to 88.1% in 2021. The change in case distribution by basis of diagnosis between 2018-2019 and 2021 was statistically significant ($p < 0.001$).

Table 7: Number and proportion of cancer cases diagnosed in April-December of 2018-2021 by basis and period of diagnosis

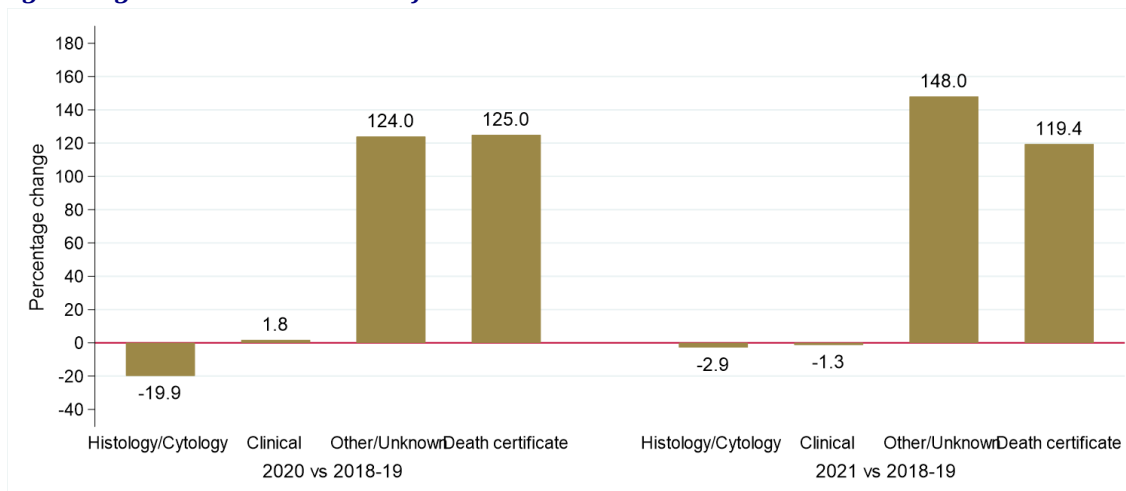
Basis of diagnosis	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
All types	10,881	9,078	10,706	-16.6%	-1.6%
Histology/Cytology	9,714 (89.3%)	7,783 (85.7%)	9,434 (88.1%)	-19.9%	-2.9%
Clinical	1,083 (10.0%)	1,102 (12.1%)	1,069 (10.0%)	+1.8%	-1.3%
Other/Unknown	50 (0.5%)	112 (1.2%)	124 (1.2%)	+124.0%	+148.0%
Death certificate	36 (0.3%)	81 (0.9%)	79 (0.7%)	+125.0%	+119.4%

* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 7: Proportion of cancer cases diagnosed in April-December of 2018-2021 by basis and period of diagnosis
(a) Proportion of cases diagnosed



(b) Percentage change over time in number of cases



MORTALITY

During the April-December period the number of deaths from cancer increased between 2018-2019 and 2021 by 6.6% from 3,317 deaths per year to 3,536 deaths.

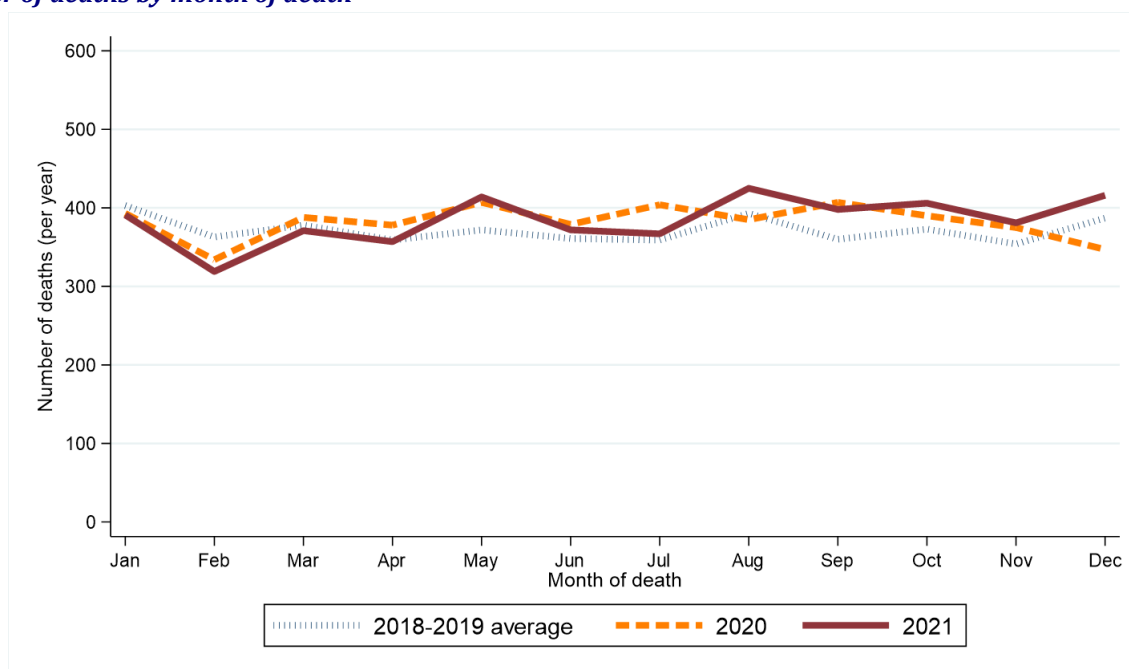
Table 8: Number of cancer deaths in 2018-2021 by month and year of death

Period of death	Annual total	Month death occurred											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	4,460	403	363	378	359	372	361	359	393	360	373	354	387
2020	4,587	393	334	388	378	407	379	404	385	407	390	375	347
2021	4,617	391	319	371	357	414	372	367	425	398	406	381	416

* Average deaths per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

Figure 8: Number of cancer deaths in 2018-2021 by month/quarter and year of death

(a) Number of deaths by month of death



(b) Percentage change over time in number of deaths by quarter of death

