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# Recent trends in incidence and mortality of brain tumours in Northern Ireland

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

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## Further information

Further information is available at: [www.qub.ac.uk/research-centres/nicr](http://www.qub.ac.uk/research-centres/nicr)

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## Acknowledgements

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# INCIDENCE

During the April-December period the number of cases of brain tumours diagnosed decreased between 2018-2019 and 2021 by 8.7% from 312 cases per year to 285 cases.

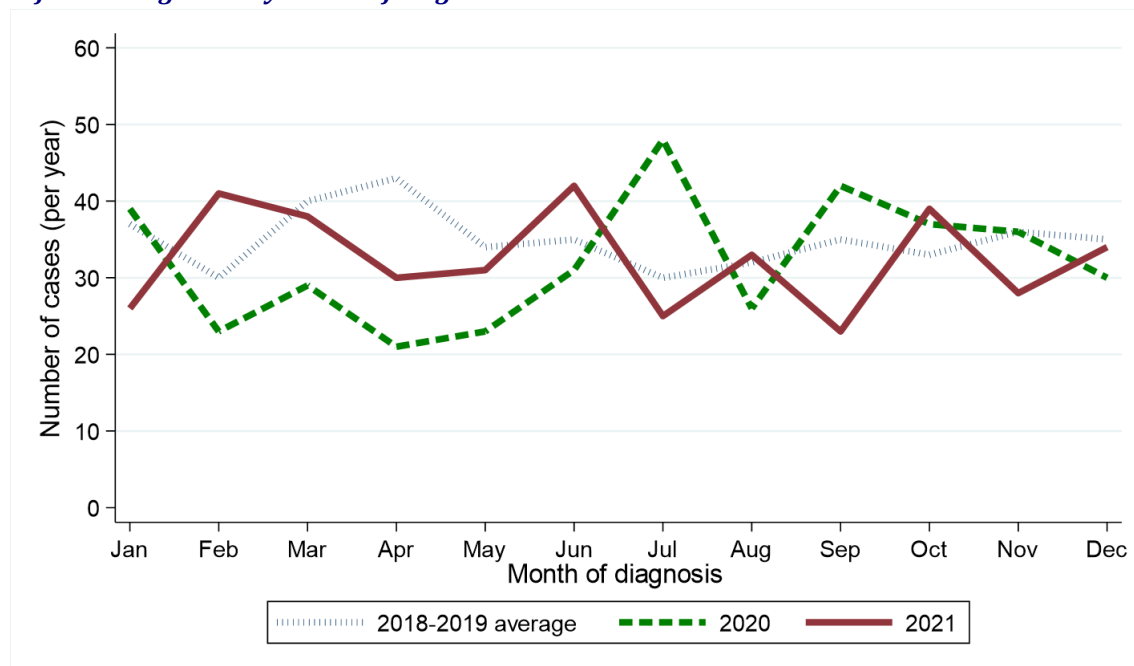
**Table 1: Number of brain tumour cases diagnosed in 2018-2021 by month and year of diagnosis**

Period of diagnosis	Annual total	Month diagnosed											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	417	37	30	40	43	34	35	30	32	35	33	36	35
2020	385	39	23	29	21	23	31	48	26	42	37	36	30
2021	390	26	41	38	30	31	42	25	33	23	39	28	34

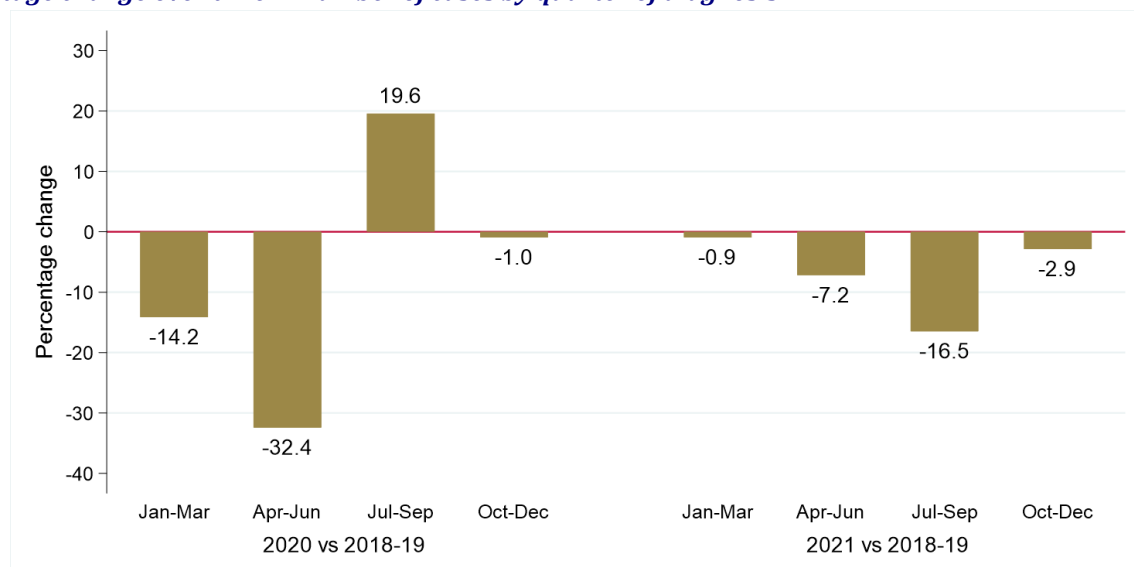
\* Average cases per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

**Figure 1: Number of brain tumour 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 brain tumour cases diagnosed decreased by 13.1% from 153 per year in 2018-2019 to 133 in 2021. Between the same two time periods the number of female brain tumour cases diagnosed decreased by 4.4% from 159 per year in 2018-2019 to 152 in 2021. The change in case distribution by gender between 2018-2019 and 2021 was not statistically significant.

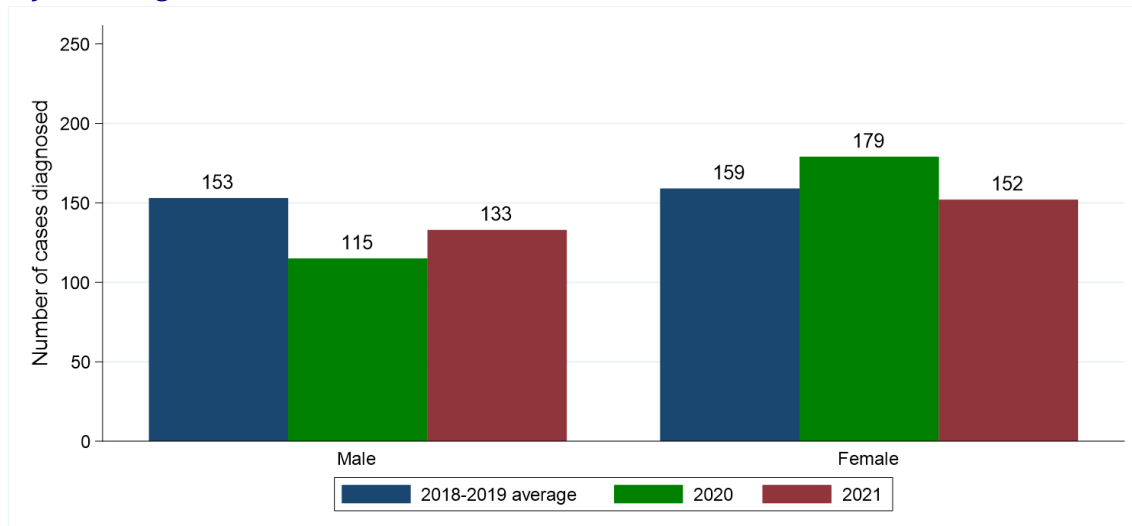
**Table 2: Number and proportion of brain tumour cases diagnosed in April-December of 2018-2021 by gender and period of diagnosis**

Gender	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
<b>All persons</b>	312	294	285	-5.8%	-8.7%
<b>Male</b>	153 (49.0%)	115 (39.1%)	133 (46.7%)	-24.8%	-13.1%
<b>Female</b>	159 (51.0%)	179 (60.9%)	152 (53.3%)	+12.6%	-4.4%

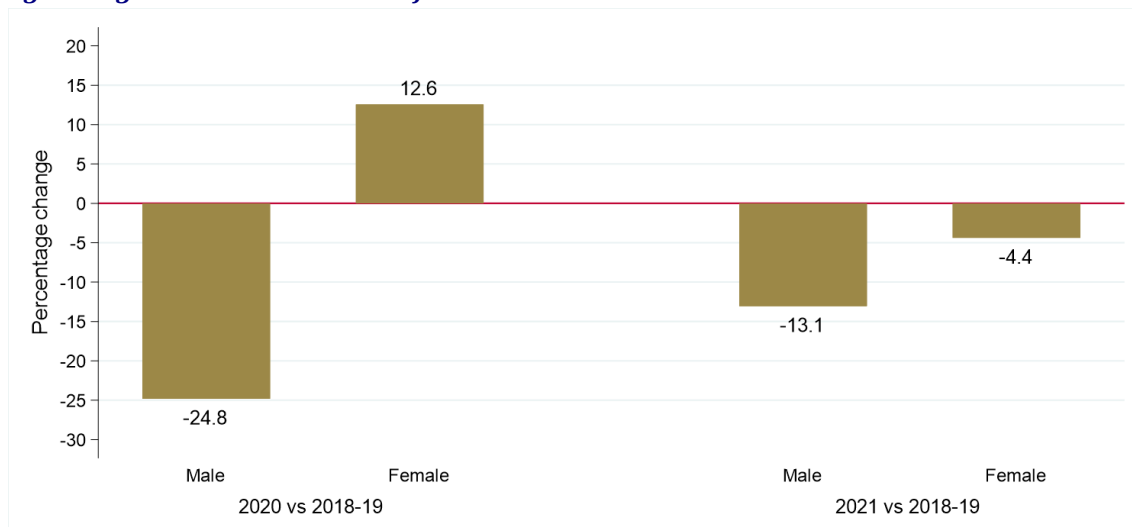
\* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

**Figure 2: Number of brain tumour 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

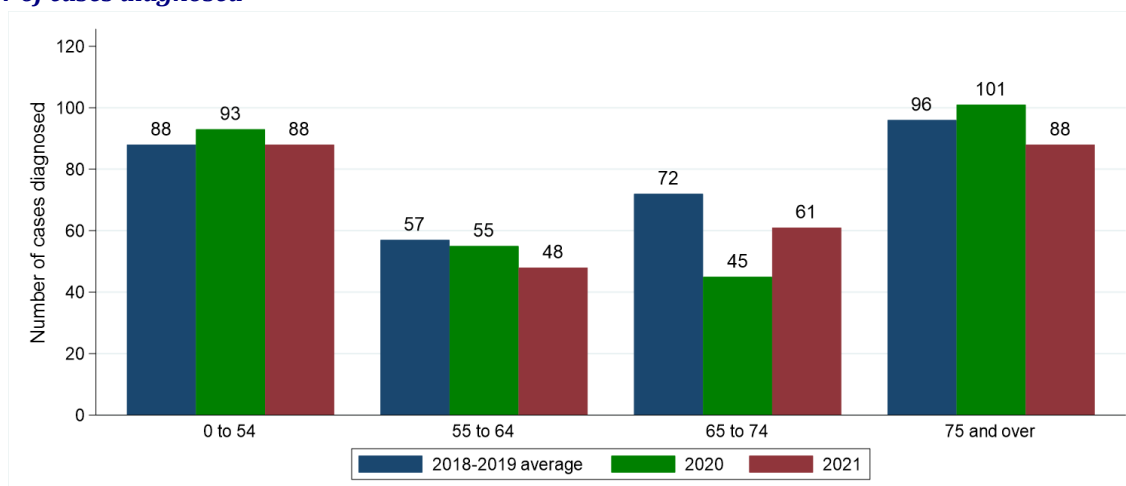
Excluding the first quarter of each year the number of cases of brain tumours diagnosed among those aged 55 to 64 decreased by 15.8% from 57 per year in 2018-2019 to 48 in 2021. Between the same two time periods the number of cases of brain tumours diagnosed among those aged 0 to 54 did not change between 2018-2019 and 2021 with an average of 88 diagnosed each year. The change in case distribution by age between 2018-2019 and 2021 was not statistically significant.

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

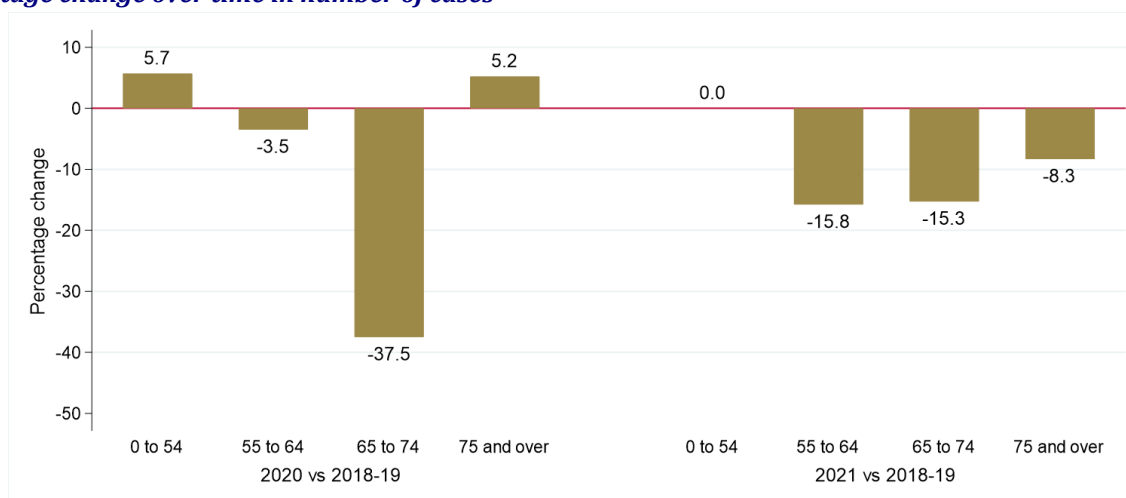
Age	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
<b>All ages</b>	312	294	285	-5.8%	-8.7%
<b>0 to 54</b>	88 (28.2%)	93 (31.6%)	88 (30.9%)	+5.7%	0.0%
<b>55 to 64</b>	57 (18.3%)	55 (18.7%)	48 (16.8%)	-3.5%	-15.8%
<b>65 to 74</b>	72 (23.1%)	45 (15.3%)	61 (21.4%)	-37.5%	-15.3%
<b>75 and over</b>	96 (30.8%)	101 (34.4%)	88 (30.9%)	+5.2%	-8.3%

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

**Figure 3: Number of brain tumour 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



## HEALTH AND SOCIAL CARE TRUST

Excluding the first quarter of each year the number of cases of brain tumours diagnosed among those resident in Belfast HSCT decreased by 12.3% from 65 per year in 2018-2019 to 57 in 2021. Between the same two time periods the number of cases of brain tumours diagnosed among those resident in South Eastern HSCT decreased by 1.5% from 67 per year in 2018-2019 to 66 in 2021. The change in case distribution by Health and Social Care Trust between 2018-2019 and 2021 was not statistically significant.

**Table 4: Number and proportion of brain tumour cases diagnosed in April-December of 2018-2021 by Health and Social Care Trust and period of diagnosis**

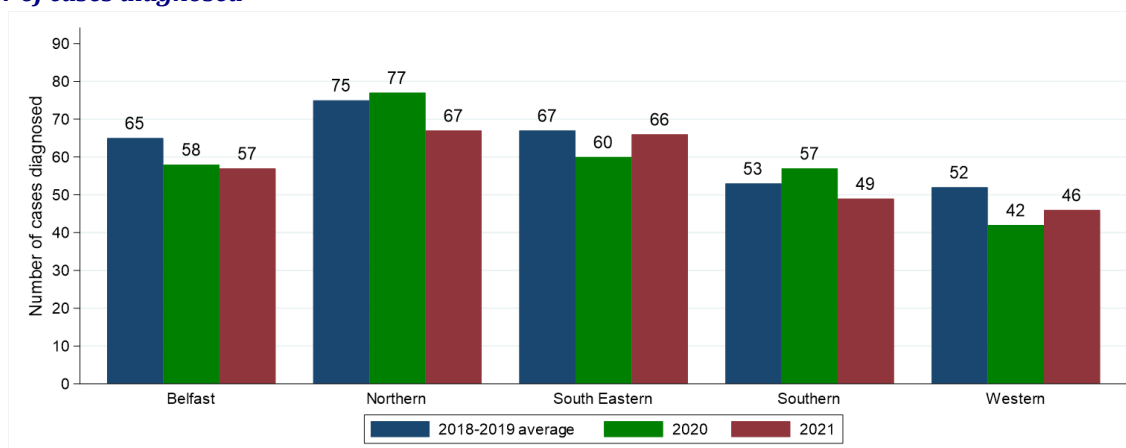
Health and Social Care Trust	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
<b>Northern Ireland</b>	312	294	285	-5.8%	-8.7%
<b>Belfast</b>	65 (20.8%)	58 (19.7%)	57 (20.0%)	-10.8%	-12.3%
<b>Northern</b>	75 (24.0%)	77 (26.2%)	67 (23.5%)	+2.7%	-10.7%
<b>South Eastern</b>	67 (21.5%)	60 (20.4%)	66 (23.2%)	-10.4%	-1.5%
<b>Southern</b>	53 (17.0%)	57 (19.4%)	49 (17.2%)	+7.5%	-7.5%
<b>Western</b>	52 (16.7%)	42 (14.3%)	46 (16.1%)	-19.2%	-11.5%

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

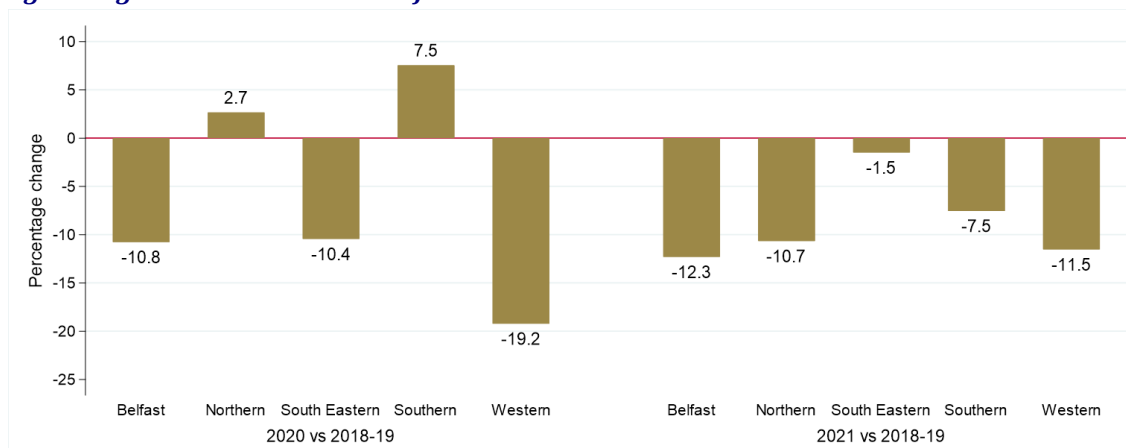
Note: Cases with unknown Health and Social Care Trust are included in totals.

**Figure 4: Number of brain tumour 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 brain tumours diagnosed among those resident in the most deprived quintile decreased by 1.8% from 55 per year in 2018-2019 to 54 in 2021. Between the same two time periods the number of cases of brain tumours diagnosed among those resident in the least deprived quintile increased by 1.8% from 57 per year in 2018-2019 to 58 in 2021. The change in case distribution by deprivation quintile between 2018-2019 and 2021 was not statistically significant.

**Table 5: Number and proportion of brain tumour cases diagnosed in April-December of 2018-2021 by deprivation quintile and period of diagnosis**

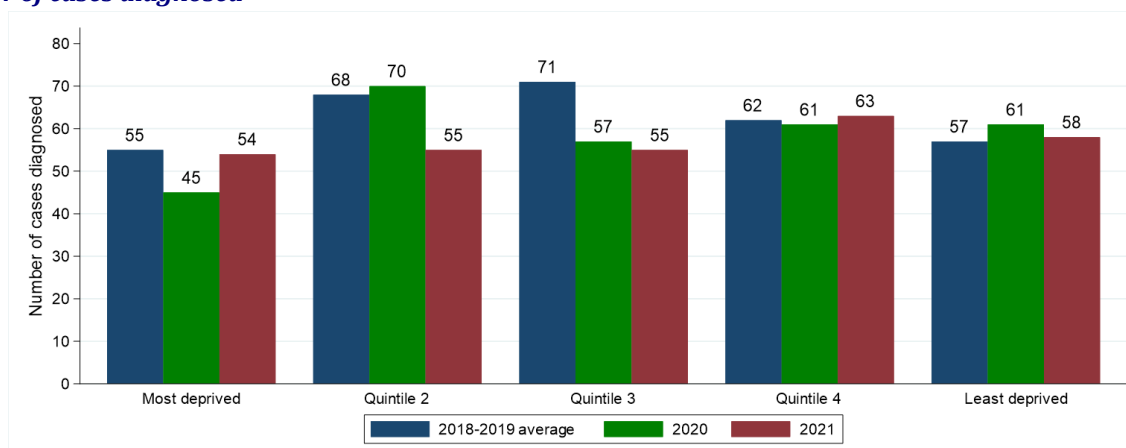
Deprivation quintile	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
<b>Northern Ireland</b>	312	294	285	-5.8%	-8.7%
<b>Most deprived</b>	55 (17.6%)	45 (15.3%)	54 (18.9%)	-18.2%	-1.8%
<b>Quintile 2</b>	68 (21.8%)	70 (23.8%)	55 (19.3%)	+2.9%	-19.1%
<b>Quintile 3</b>	71 (22.8%)	57 (19.4%)	55 (19.3%)	-19.7%	-22.5%
<b>Quintile 4</b>	62 (19.9%)	61 (20.7%)	63 (22.1%)	-1.6%	+1.6%
<b>Least deprived</b>	57 (18.3%)	61 (20.7%)	58 (20.4%)	+7.0%	+1.8%

\* 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 5: Number of brain tumour 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**



# MORTALITY

During the April-December period the number of deaths from brain tumours increased between 2018-2019 and 2021 by 12.5% from 112 deaths per year to 126 deaths.

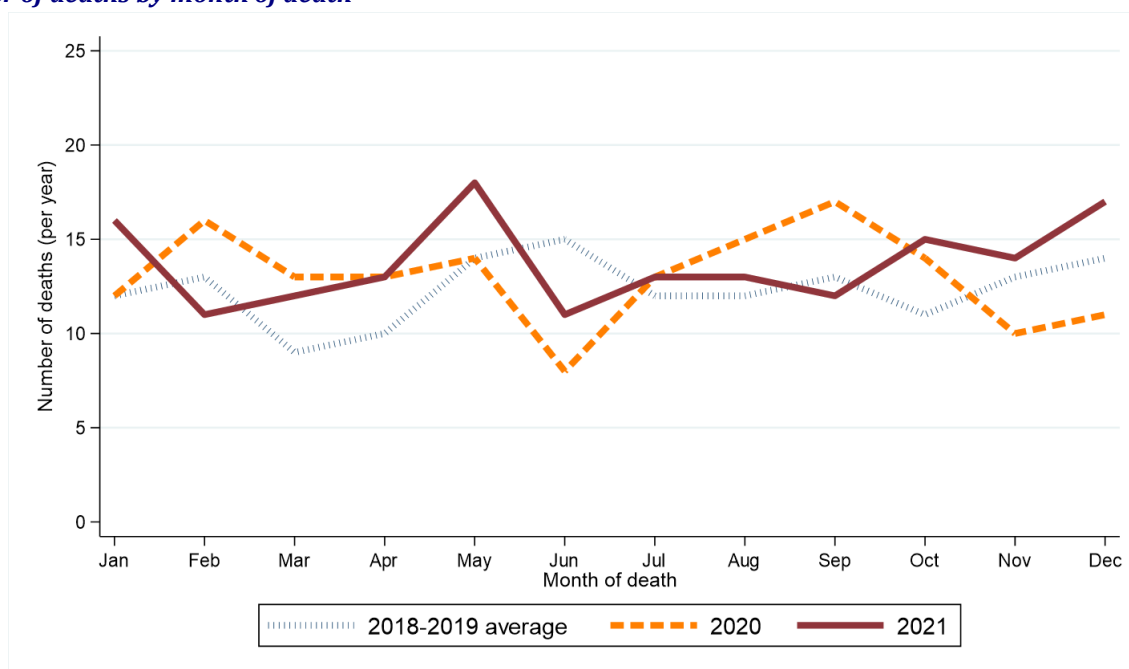
**Table 6: Number of brain tumour deaths in 2018-2021 by month and year of death**

Period of death	Annual total	Month death occurred											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	145	12	13	9	10	14	15	12	12	13	11	13	14
2020	156	12	16	13	13	14	8	13	15	17	14	10	11
2021	165	16	11	12	13	18	11	13	13	12	15	14	17

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

**Figure 6: Number of brain tumour 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**

