
Recent trends in incidence, survival and mortality of uterine cancer in Northern Ireland

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

Further information

Further information is available at: www.qub.ac.uk/research-centres/nicr

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INCIDENCE

During the April-December period the number of cases of uterine cancer diagnosed decreased between 2018-2019 and 2021 by 7.5% from 214 cases per year to 198 cases.

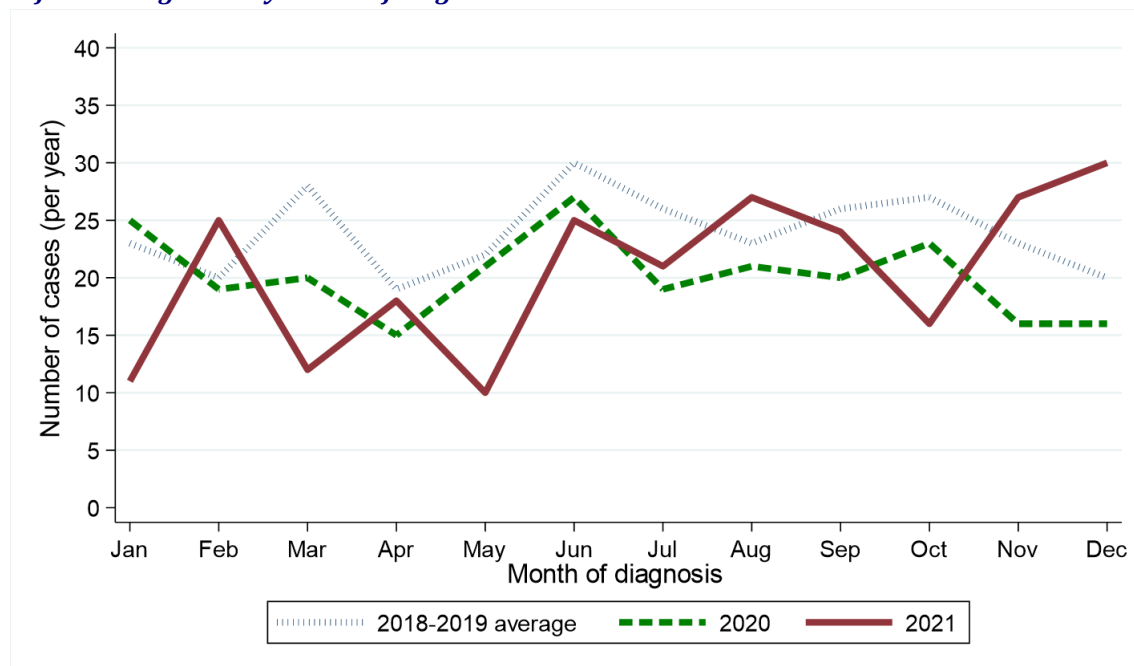
Table 1: Number of uterine cancer cases diagnosed in 2018-2021 by month and year of diagnosis

Period of diagnosis	Annual total	Month diagnosed											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2018-2019*	284	23	20	28	19	22	30	26	23	26	27	23	20
2020	242	25	19	20	15	21	27	19	21	20	23	16	16
2021	246	11	25	12	18	10	25	21	27	24	16	27	30

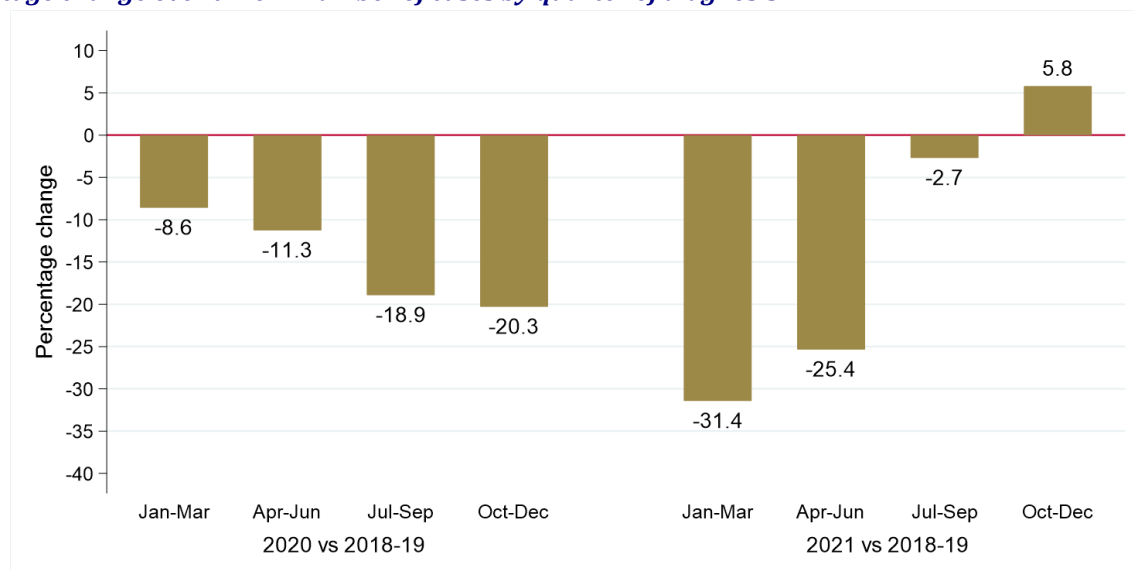
* Average cases per year rounded to the nearest integer. Row sums may thus differ slightly from the total.

Figure 1: Number of uterine 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



AGE

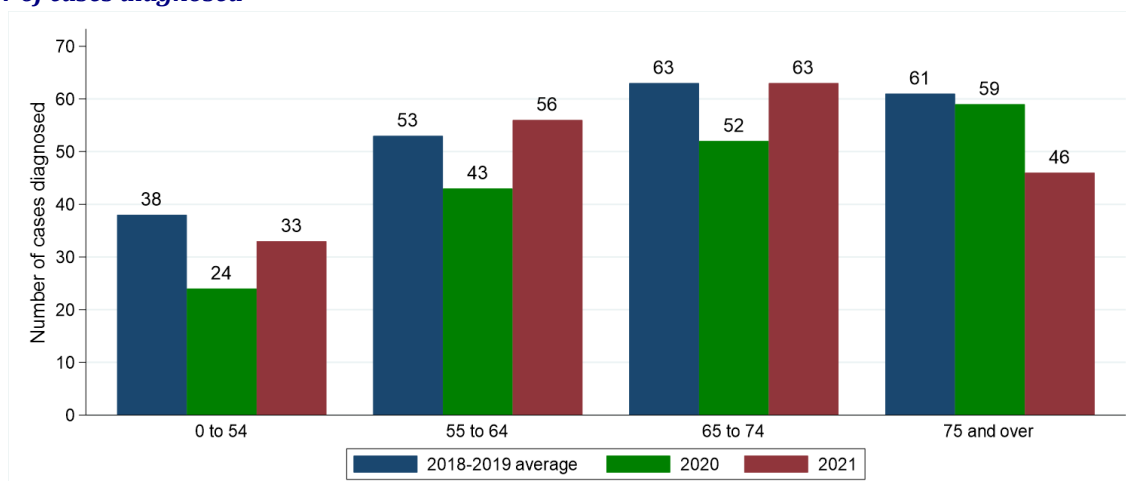
Excluding the first quarter of each year the number of cases of uterine cancer diagnosed among those aged 75 and over decreased by 24.6% from 61 per year in 2018-2019 to 46 in 2021. Between the same two time periods the number of cases of uterine cancer diagnosed among those aged 55 to 64 increased by 5.7% from 53 per year in 2018-2019 to 56 in 2021. The change in case distribution by age between 2018-2019 and 2021 was not statistically significant.

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

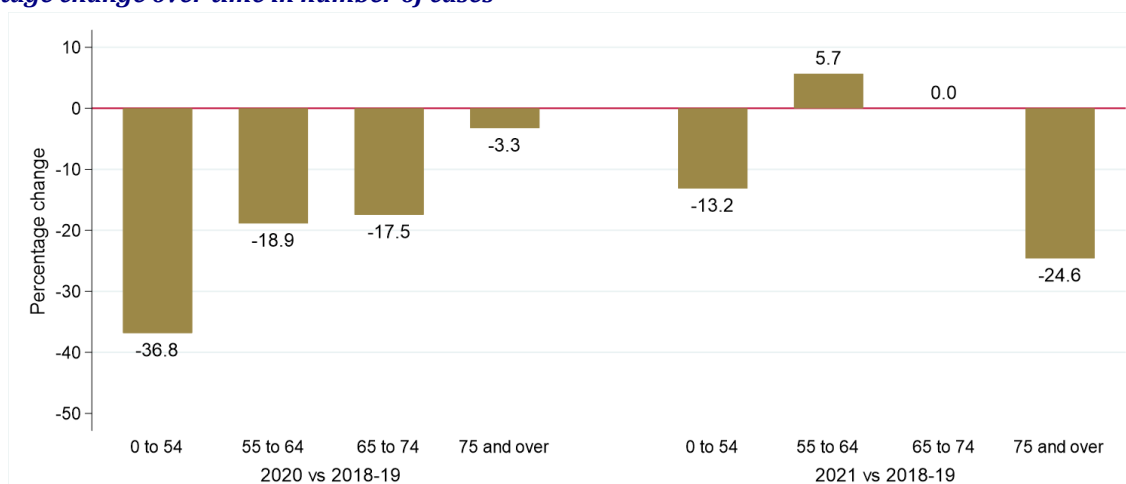
Age	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
All ages	214	178	198	-16.8%	-7.5%
0 to 54	38 (17.8%)	24 (13.5%)	33 (16.7%)	-36.8%	-13.2%
55 to 64	53 (24.8%)	43 (24.2%)	56 (28.3%)	-18.9%	+5.7%
65 to 74	63 (29.4%)	52 (29.2%)	63 (31.8%)	-17.5%	0.0%
75 and over	61 (28.5%)	59 (33.1%)	46 (23.2%)	-3.3%	-24.6%

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

Figure 2: Number of uterine 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



HEALTH AND SOCIAL CARE TRUST

Excluding the first quarter of each year the number of cases of uterine cancer diagnosed among those resident in South Eastern HSCT decreased by 33.3% from 42 per year in 2018-2019 to 28 in 2021. Between the same two time periods the number of cases of uterine cancer diagnosed among those resident in Northern HSCT increased by 5.7% from 53 per year in 2018-2019 to 56 in 2021. The change in case distribution by Health and Social Care Trust between 2018-2019 and 2021 was not statistically significant.

Table 3: Number and proportion of uterine cancer cases diagnosed in April-December of 2018-2021 by Health and Social Care Trust and period of diagnosis

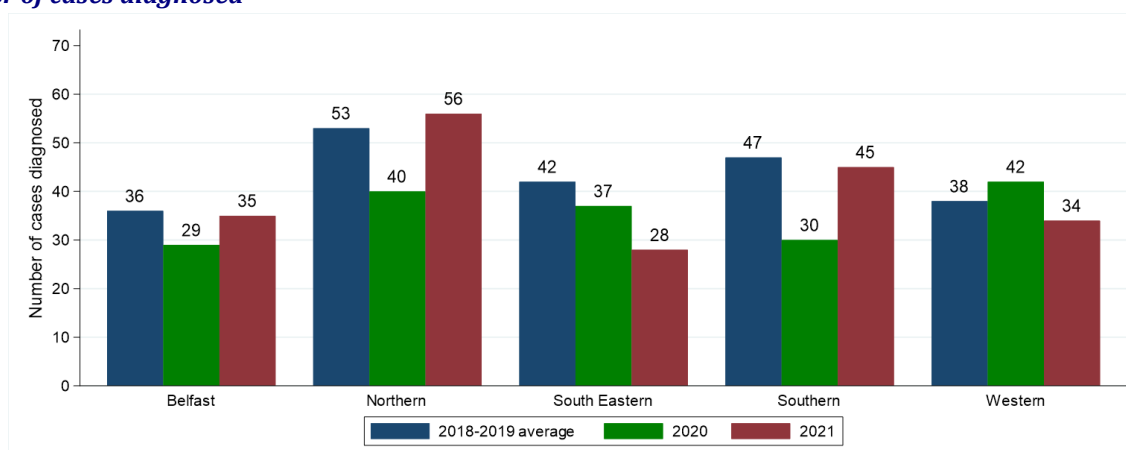
Health and Social Care Trust	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
Northern Ireland	214	178	198	-16.8%	-7.5%
Belfast	36 (16.8%)	29 (16.3%)	35 (17.7%)	-19.4%	-2.8%
Northern	53 (24.8%)	40 (22.5%)	56 (28.3%)	-24.5%	+5.7%
South Eastern	42 (19.6%)	37 (20.8%)	28 (14.1%)	-11.9%	-33.3%
Southern	47 (22.0%)	30 (16.9%)	45 (22.7%)	-36.2%	-4.3%
Western	38 (17.8%)	42 (23.6%)	34 (17.2%)	+10.5%	-10.5%

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

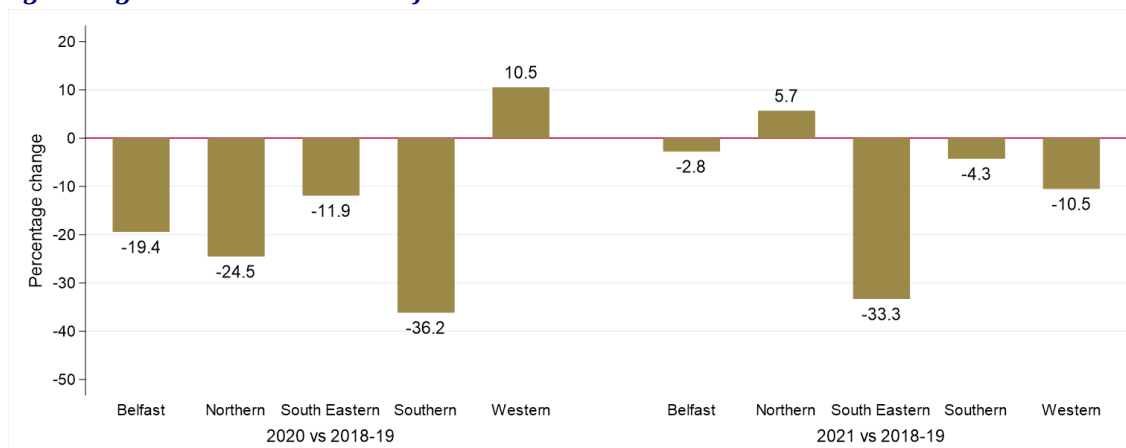
Note: Cases with unknown Health and Social Care Trust are included in totals.

Figure 3: Number of uterine 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 uterine cancer diagnosed among those resident in the least deprived quintile decreased by 37.3% from 51 per year in 2018-2019 to 32 in 2021. Between the same two time periods the number of cases of uterine cancer diagnosed among those resident in the most deprived quintile did not change between 2018-2019 and 2021 with an average of 33 diagnosed each year. The change in case distribution by deprivation quintile between 2018-2019 and 2021 was not statistically significant.

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

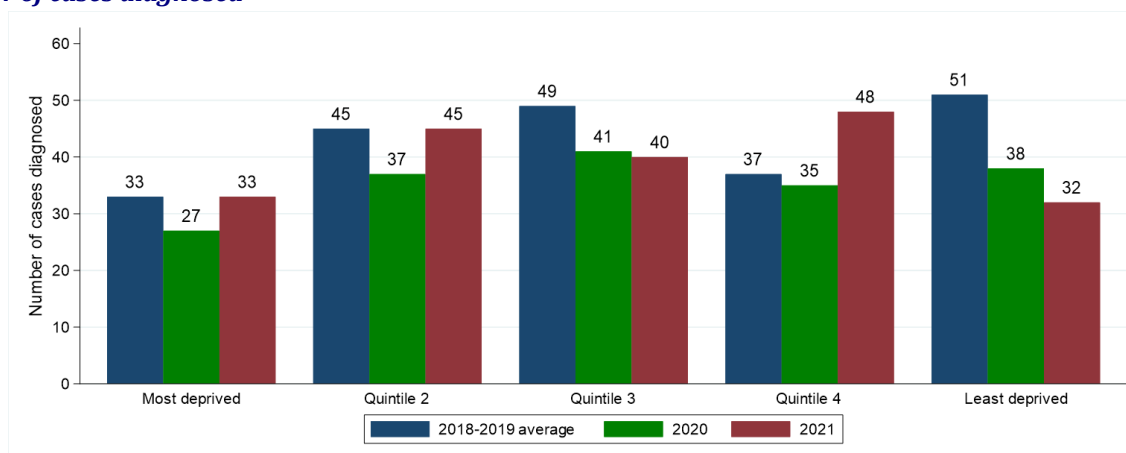
Deprivation quintile	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
Northern Ireland	214	178	198	-16.8%	-7.5%
Most deprived	33 (15.4%)	27 (15.2%)	33 (16.7%)	-18.2%	0.0%
Quintile 2	45 (21.0%)	37 (20.8%)	45 (22.7%)	-17.8%	0.0%
Quintile 3	49 (22.9%)	41 (23.0%)	40 (20.2%)	-16.3%	-18.4%
Quintile 4	37 (17.3%)	35 (19.7%)	48 (24.2%)	-5.4%	+29.7%
Least deprived	51 (23.8%)	38 (21.3%)	32 (16.2%)	-25.5%	-37.3%

* 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 4: Number of uterine 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



STAGE AT DIAGNOSIS

The number of uterine cancer cases diagnosed at stage I in April to December of each year decreased by 7.6% from 144 per year in 2018-2019 to 133 in 2021. In addition the number of uterine cancer cases diagnosed at stage IV decreased by 30.4% from 23 per year in 2018-2019 to 16 in 2021. As a proportion of all cases, stage IV diagnosis decreased from 10.7% in 2018-2019 to 8.1% in 2021. The change in stage distribution between 2018-2019 and 2021 was not statistically significant.

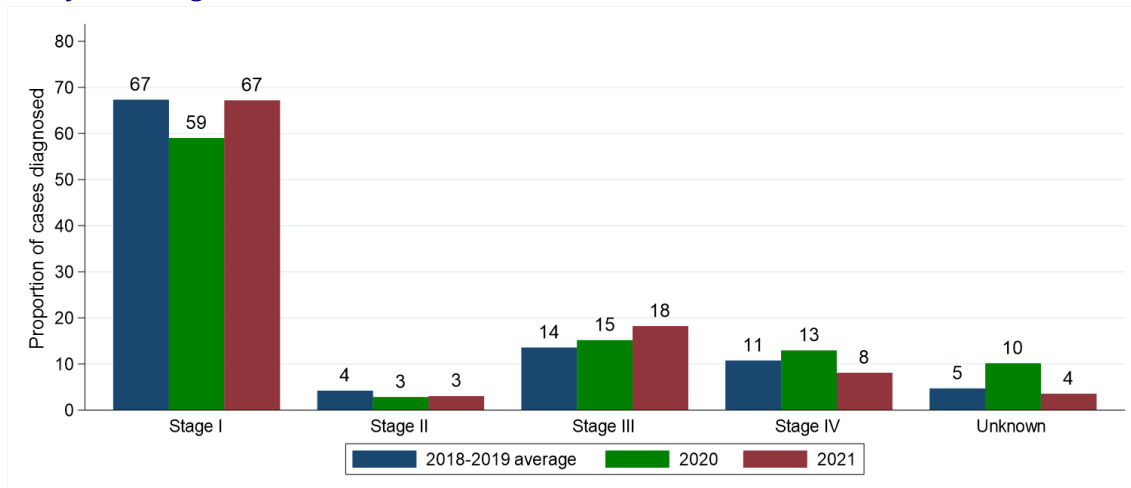
Table 5: Number and proportion of uterine cancer cases diagnosed in April-December of 2018-2021 by stage and period of diagnosis

Stage at diagnosis	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
All stages	214	178	198	-16.8%	-7.5%
Stage I	144 (67.3%)	105 (59.0%)	133 (67.2%)	-27.1%	-7.6%
Stage II	9 (4.2%)	5 (2.8%)	6 (3.0%)	-44.4%	-33.3%
Stage III	29 (13.6%)	27 (15.2%)	36 (18.2%)	-6.9%	+24.1%
Stage IV	23 (10.7%)	23 (12.9%)	16 (8.1%)	0.0%	-30.4%
Unknown	10 (4.7%)	18 (10.1%)	7 (3.5%)	+80.0%	-30.0%

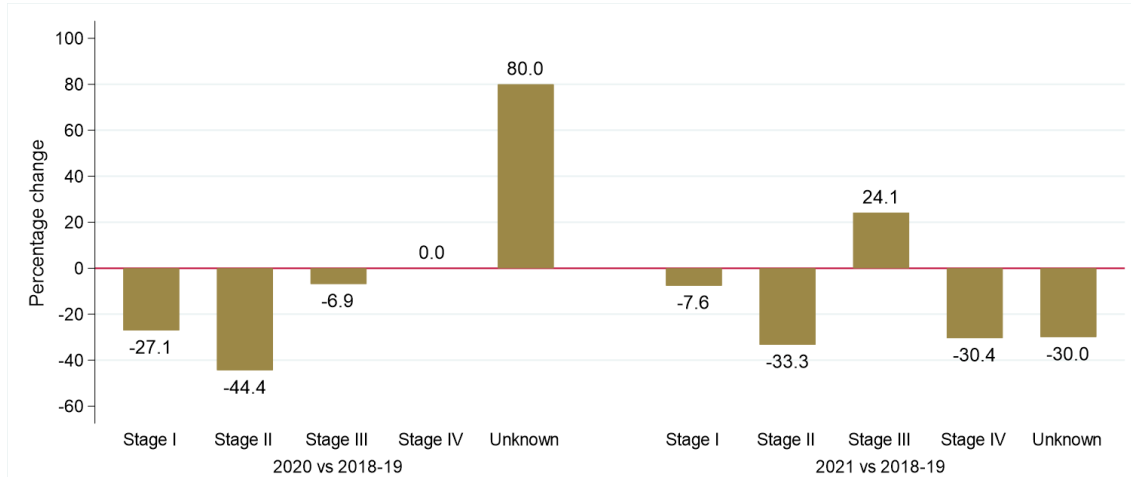
* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 5: Proportion of uterine cancer cases diagnosed in April-December of 2018-2021 by stage and period of diagnosis

(a) Proportion of cases diagnosed



(b) Percentage change over time in number of cases



TREATMENT

Excluding the first quarter of each year the number of uterine cancer cases resulting in treatment by surgery within six months decreased by 4.1% from 170 per year in 2018-2019 to 163 in 2021. The resulting increase in the proportion receiving surgery from 79.4% in 2018-2019 to 82.3% in 2021 was not statistically significant.

Between the same two time periods the number of uterine cancer cases resulting in treatment by systemic therapy increased by 34.2% from 38 per year in 2018-2019 to 51 in 2021. The resulting increase in the proportion receiving systemic therapy from 17.8% in 2018-2019 to 25.8% in 2021 was statistically significant ($p = 0.018$).

The number of uterine cancer cases treated with radiotherapy increased by 25.0% from 48 per year in 2018-2019 to 60 in 2021. The resulting increase in the proportion receiving radiotherapy from 22.4% in 2018-2019 to 30.3% in 2021 was statistically significant ($p = 0.030$).

The number of uterine cancer cases resulting in treatment by hormone therapy decreased by 16.7% from 18 per year in 2018-2019 to 15 in 2021. The resulting decrease in the proportion receiving hormone therapy from 8.4% in 2018-2019 to 7.6% in 2021 was not statistically significant.

Excluding the first quarter of each year the number of uterine cancer cases receiving none of these treatments within six months of diagnosis decreased by 27.3% from 22 per year in 2018-2019 to 16 in 2021. The resulting decrease in the proportion receiving none of these treatments from 10.3% in 2018-2019 to 8.1% in 2021 was not statistically significant.

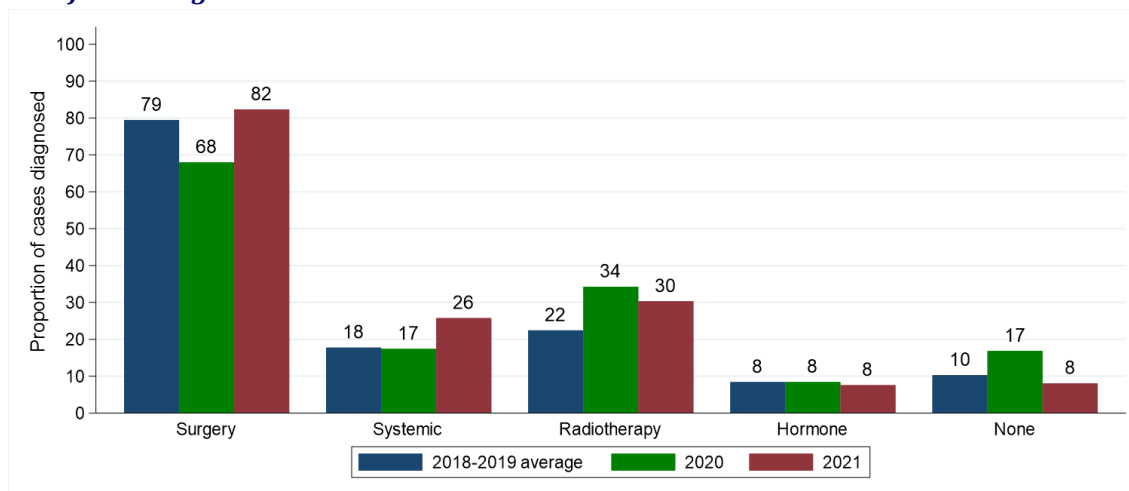
Table 6: Number and proportion of uterine cancer cases diagnosed in April-December of 2018-2021 by treatment type (within six months of diagnosis) and period of diagnosis

Treatment type	Period of diagnosis (Apr-Dec)			Percentage change	
	2018-2019*	2020	2021	2020 vs 2018-2019	2021 vs 2018-2019
Surgery	170 (79.4%)	121 (68.0%)*	163 (82.3%)	-28.8%	-4.1%
Systemic therapy	38 (17.8%)	31 (17.4%)	51 (25.8%)*	-18.4%	+34.2%
Radiotherapy	48 (22.4%)	61 (34.3%)*	60 (30.3%)*	+27.1%	+25.0%
Hormone therapy	18 (8.4%)	15 (8.4%)	15 (7.6%)	-16.7%	-16.7%
None of these treatments	22 (10.3%)	30 (16.9%)*	16 (8.1%)	+36.4%	-27.3%

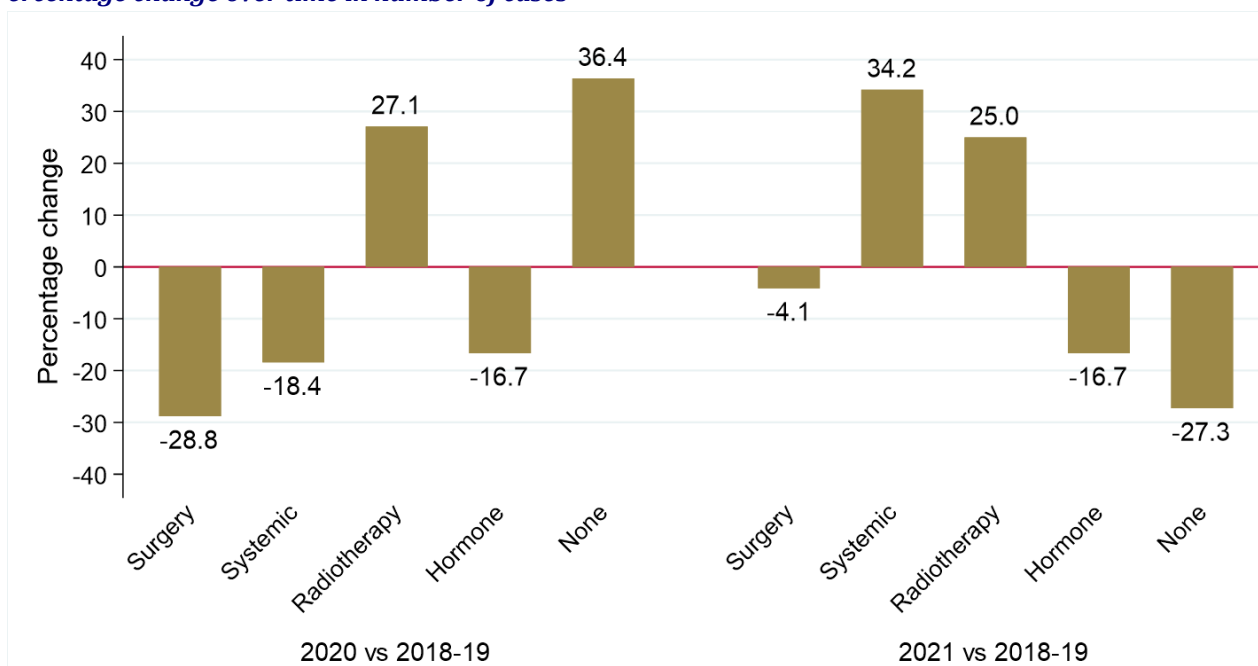
* Statistically significant change compared to 2018-2019

Figure 6: Proportion of uterine cancer cases diagnosed in April-December of 2018-2021 by treatment type (within six months of diagnosis) and period of diagnosis

(a) Proportion of cases diagnosed



(b) Percentage change over time in number of cases



SURVIVAL

Changes in survival are evaluated using two measures. Observed survival examines the time between diagnosis and death from any cause. It thus represents what cancer patients experience, however, due to the inclusion of non-cancer deaths (e.g. heart disease), it may not reflect how changes in cancer care impact survival from cancer. Thus changes in age-standardised net survival are also examined. This measure provides an estimate of patient survival which has been adjusted to take account of deaths unrelated to cancer. It also assumes a standard age distribution thereby removing the impact of changes in the age distribution of cancer patients on changes in survival over time. While this measure is hypothetical, as it assumes patients can only die from cancer related factors, it is a better indicator of the impact of changes in cancer care on patient survival.

OBSERVED SURVIVAL

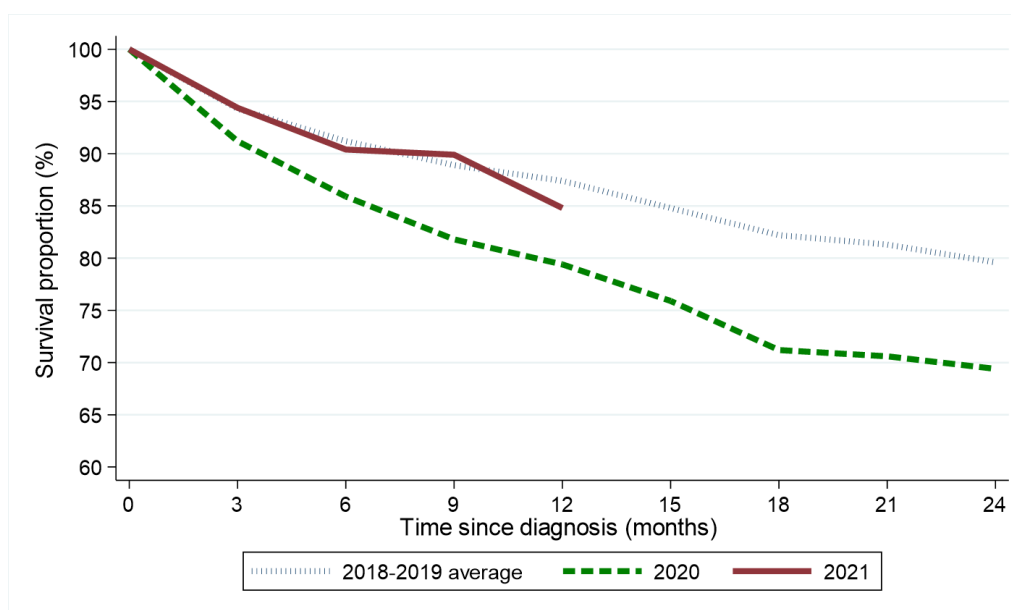
Survival among uterine cancer patients six months after diagnosis decreased from 91.2% among those diagnosed in April-December of 2018-2019 to 90.4% among those diagnosed in April-December of 2021. This change was not statistically significant. Between the same two diagnosis periods, one-year survival decreased from 87.4% to 84.8%. This change was not statistically significant. The log-rank test of equality indicates no statistically significant difference between the survival functions for 2018-2019 and 2021 ($p=0.758$).

Table 7: Observed survival for patients with uterine cancer diagnosed in April-December of 2018-2021 by period of diagnosis

Survival time	Period of diagnosis (Apr-Dec)		
	2018-2019	2020	2021
Three months	94.3% (91.6% - 96.2%)	91.2% (85.8% - 94.6%)	94.4% (90.2% - 96.9%)
Six months	91.2% (88.1% - 93.6%)	85.9% (79.7% - 90.3%)	90.4% (85.4% - 93.8%)
One year	87.4% (83.9% - 90.3%)	79.4% (72.5% - 84.8%)	84.8% (79.1% - 89.2%)
Two years	79.6% (75.4% - 83.1%)	69.4% (61.9% - 75.7%)	-

No statistically significant reductions compared to 2018-2019

Figure 7: Observed survival for patients with uterine cancer diagnosed in April-December of 2018-2021 by period of diagnosis



DEATHS FROM COVID-19

During 2021 there were a total of 11 deaths from Covid-19 among uterine cancer patients diagnosed at any point since 1993.

NET SURVIVAL

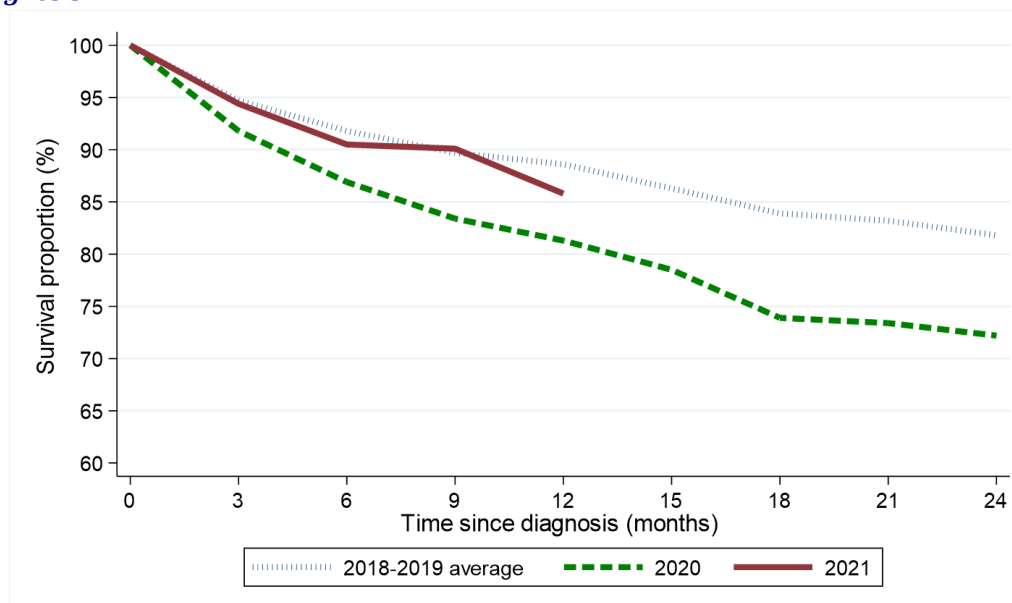
Net survival among uterine cancer patients six months after diagnosis decreased from 91.8% among those diagnosed in April-December of 2018-2019 to 90.5% among those diagnosed in April-December of 2021. This change was not statistically significant. Between the same two diagnosis periods, one-year net survival decreased from 88.6% to 85.8%. This change was not statistically significant.

Table 8: Age-standardised net survival for patients with uterine cancer diagnosed in April-December of 2018-2021 by period of diagnosis

Survival time	Period of diagnosis (Apr-Dec)		
	2018-2019	2020	2021
Three months	94.7% (92.5% - 97.0%)	91.8% (87.8% - 96.0%)	94.4% (90.9% - 98.0%)
Six months	91.8% (89.0% - 94.7%)	86.9% (81.8% - 92.3%)	90.5% (86.2% - 95.0%)
One year	88.6% (85.4% - 92.0%)	81.3% (75.5% - 87.6%)	85.8% (80.6% - 91.4%)
Two years	81.8% (77.6% - 86.2%)	72.2% (65.5% - 79.6%)	-

No statistically significant reductions compared to 2018-2019

Figure 8: Age-standardised net survival for patients with uterine cancer diagnosed in April-December of 2018-2021 by period of diagnosis



Note: All patients are followed up to the end of 2022. This enables calculation of two-year survival for patients diagnosed in 2018-2020, however only survival up to one year from diagnosis can be calculated for patients diagnosed in 2021.

MORTALITY

During the April-December period the number of deaths from uterine cancer decreased between 2018-2019 and 2021 by 1.7% from 59 deaths per year to 58 deaths.

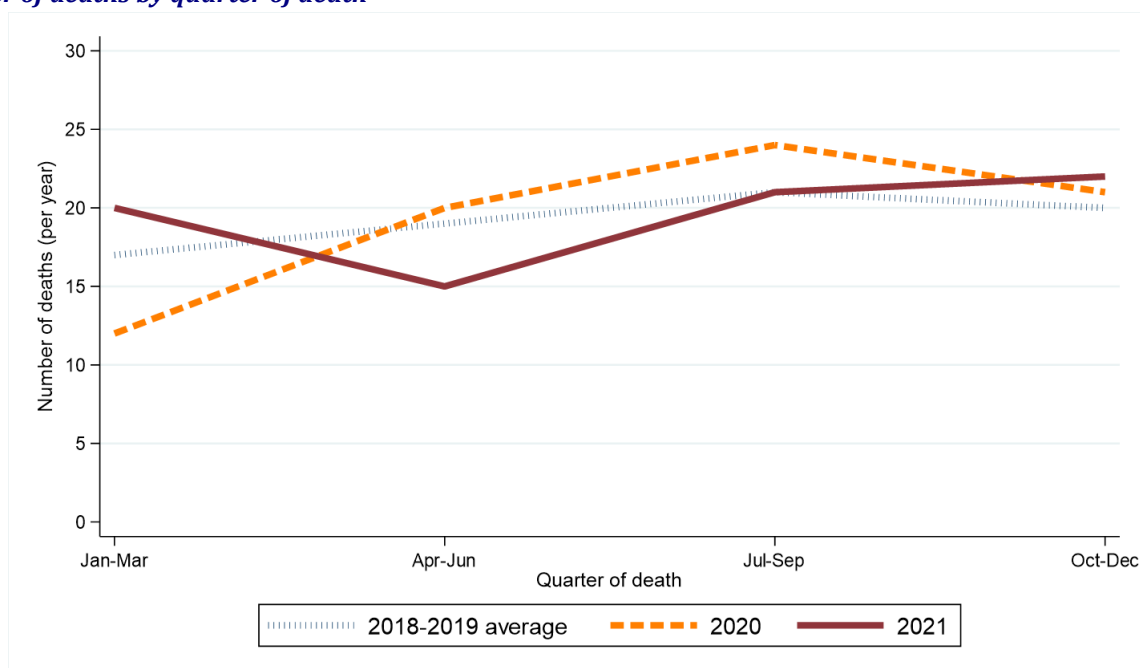
Table 9: Number of uterine cancer deaths in 2018-2021 by quarter and year of death

Period of death	Annual total	Quarter of death			
		Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec
2018-2019*	75	17	19	21	20
2020	77	12	20	24	21
2021	78	20	15	21	22

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

Figure 9: Number of uterine cancer deaths in 2018-2021 by quarter and year of death

(a) Number of deaths by quarter of death



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

