
Impact of Covid-19 on incidence, survival and mortality of cervical cancer in Northern Ireland

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

Further information

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The incidence, prevalence and survival statistics in this publication are designated as official statistics signifying that they comply with the Code of Practice for Official Statistics.



INCIDENCE

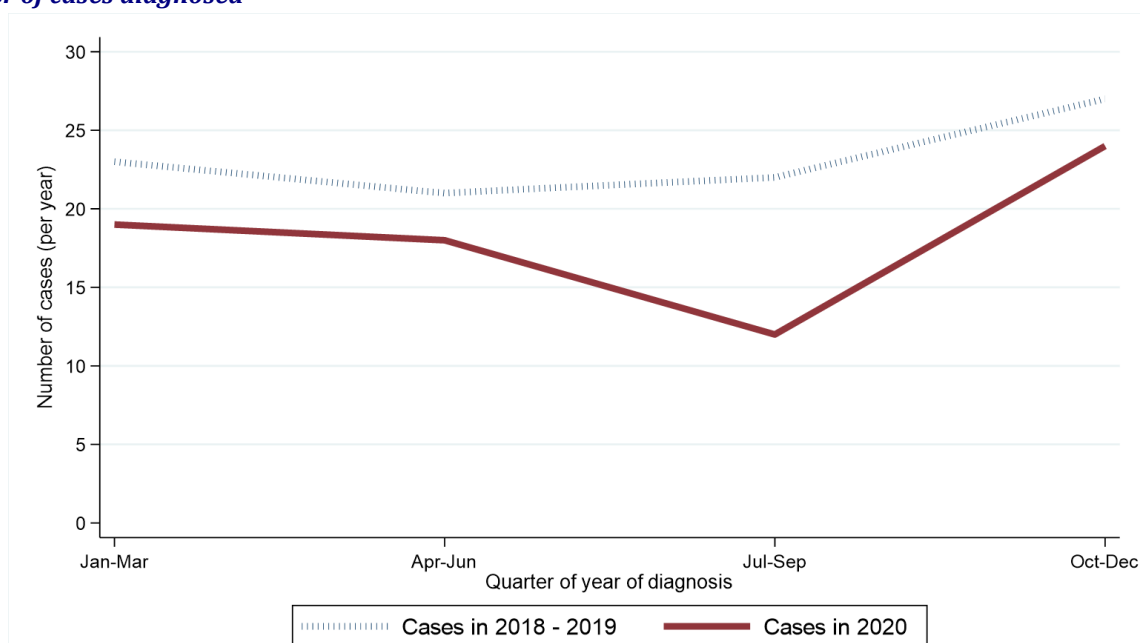
During the April-December period when Covid-19 was present the number of cases of cervical cancer diagnosed among females decreased by 22.9% (16 patients) from 70 per year in 2018 - 2019 to 54 in 2020.

Table 1: Number of cervical cancer cases diagnosed in 2018-2020 by quarter and year of diagnosis

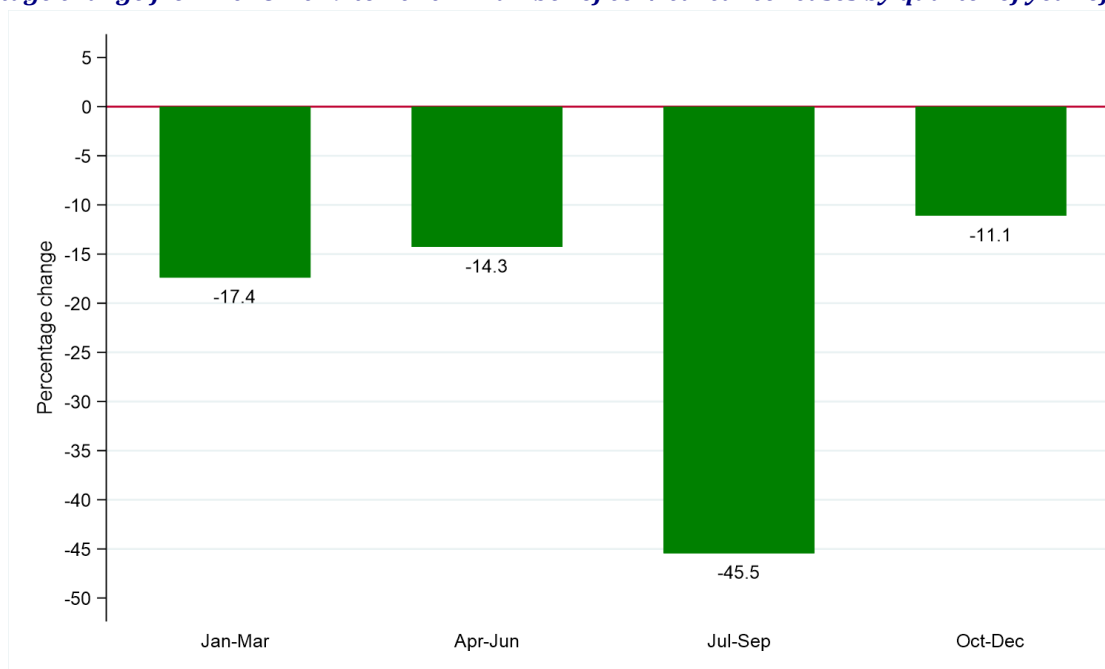
Period of diagnosis	Annual total	Quarter of year diagnosed			
		Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec
2018-2019*	92	23	21	22	27
2020	73	19	18	12	24

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

Figure 1: Number of cervical cancer cases diagnosed in 2018-2020 by quarter and year of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer cases by quarter of year of diagnosis



AGE

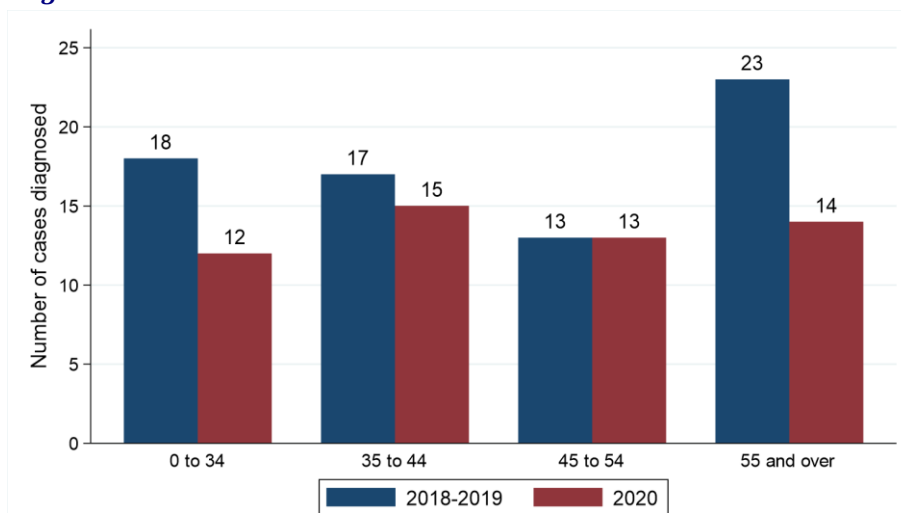
Excluding the first quarter of each year among people aged 55 and over the number of cases of cervical cancer diagnosed decreased by 39.1% from 23 per year in 2018 - 2019 to 14 in 2020. Among people aged 45 to 54 there was no change in the number of cases per year between 2018 - 2019 and 2020, with an average of 13 cases each year. The change in case distribution by age between 2018 - 2019 and 2020 was not statistically significant.

Table 2: Number and proportion of cervical cancer cases diagnosed in April-December of 2018-2020 by age and period of diagnosis

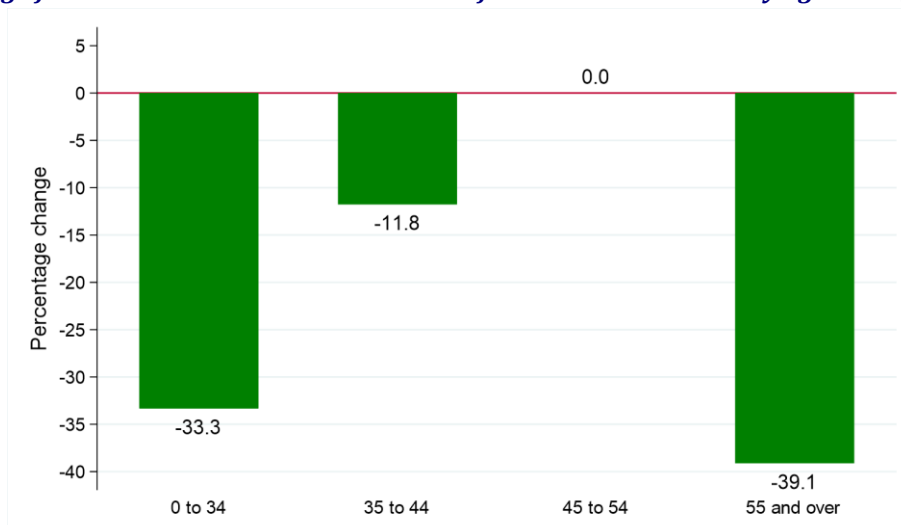
Age group	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
0 to 34	18 (25.7%)	12 (22.2%)	-33.3% (6 patients)
35 to 44	17 (24.3%)	15 (27.8%)	-11.8% (2 patients)
45 to 54	13 (18.6%)	13 (24.1%)	0.0% (0 patients)
55 and over	23 (32.9%)	14 (25.9%)	-39.1% (9 patients)
All ages	70	54	-22.9% (16 patients)

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

Figure 2: Cervical cancer cases diagnosed in April-December of 2018-2020 by age and period of diagnosis
(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer cases by age at diagnosis



HEALTH AND SOCIAL CARE TRUST

Excluding the first quarter of each year among residents of Southern HSCT the number of cases of cervical cancer diagnosed decreased by 36.4% from 11 per year in 2018 - 2019 to 7 in 2020. Among residents of Western HSCT there was no change in the number of cases per year between 2018 - 2019 and 2020, with an average of 9 cases each year. The change in case distribution by HSCT between 2018 - 2019 and 2020 was not statistically significant.

Table 3: Number and proportion of cervical cancer cases diagnosed in April-December of 2018-2020 by Health and Social Care Trust and period of diagnosis

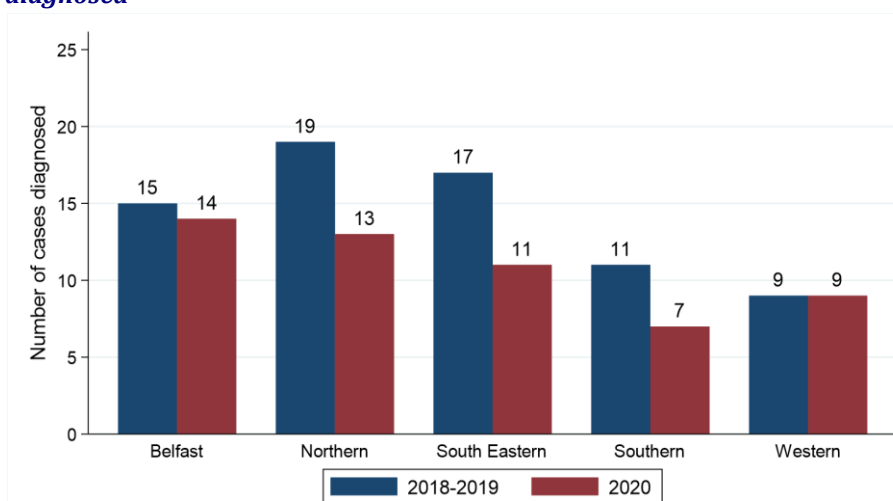
Health and Social Care Trust	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Belfast HSCT	15 (21.4%)	14 (25.9%)	-6.7% (1 patients)
Northern HSCT	19 (27.1%)	13 (24.1%)	-31.6% (6 patients)
South Eastern HSCT	17 (24.3%)	11 (20.4%)	-35.3% (6 patients)
Southern HSCT	11 (15.7%)	7 (13.0%)	-36.4% (4 patients)
Western HSCT	9 (12.9%)	9 (16.7%)	0.0% (0 patients)
Northern Ireland	70	54	-22.9% (16 patients)

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

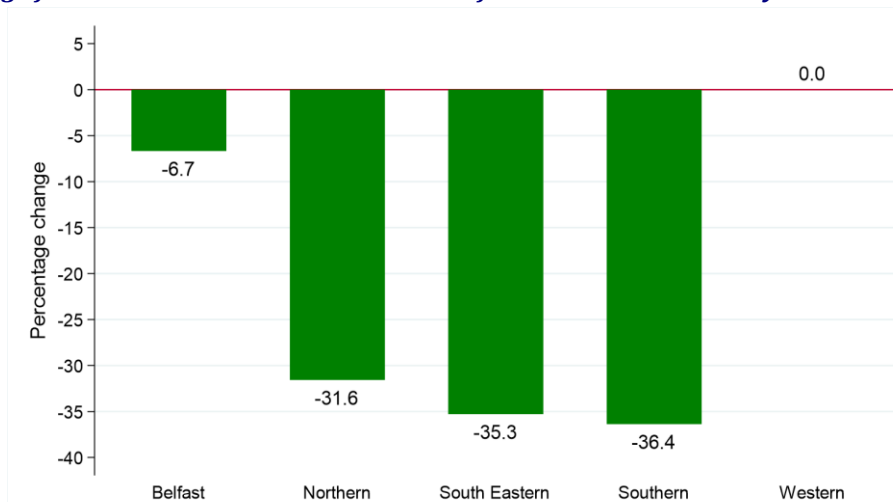
Note: Cases with unknown Health and Social Care Trust are included in totals

Figure 3: Cervical cancer cases diagnosed in April-December of 2018-2020 by Health and Social Care Trust and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer cases by Health and Social Care Trust



DEPRIVATION

Excluding the first quarter of each year among residents of the most deprived areas the number of cases of cervical cancer diagnosed decreased by 11.1% from 18 per year in 2018 - 2019 to 16 in 2020. Between the same two time periods the number of cases among residents of the least deprived areas decreased by 30.0% from 10 per year to 7. The change in case distribution by deprivation quintile between 2018 - 2019 and 2020 was not statistically significant.

Table 4: Number and proportion of cervical cancer cases diagnosed in April-December of 2018-2020 by deprivation quintile and period of diagnosis

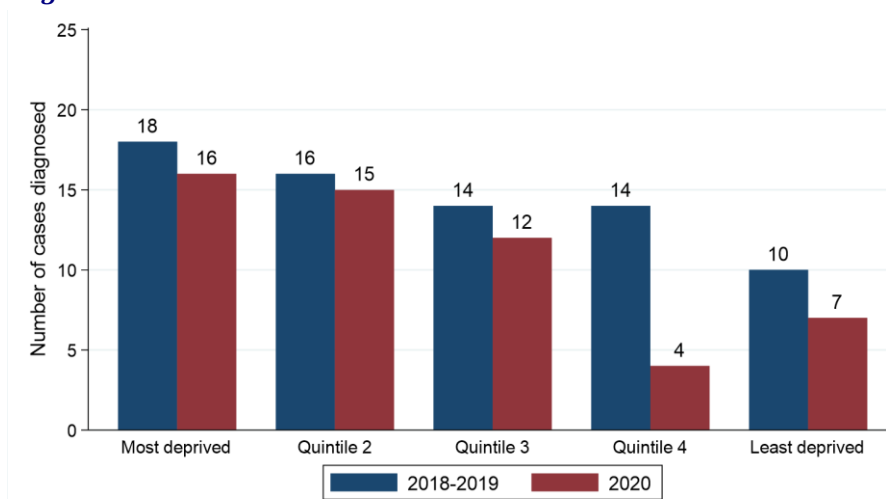
Deprivation quintile	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Most deprived	18 (25.7%)	16 (29.6%)	-11.1% (2 patients)
Quintile 2	16 (22.9%)	15 (27.8%)	-6.3% (1 patients)
Quintile 3	14 (20.0%)	12 (22.2%)	-14.3% (2 patients)
Quintile 4	14 (20.0%)	4 (7.4%)	-71.4% (10 patients)
Least deprived	10 (14.3%)	7 (13.0%)	-30.0% (3 patients)
Northern Ireland	70	54	-22.9% (16 patients)

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

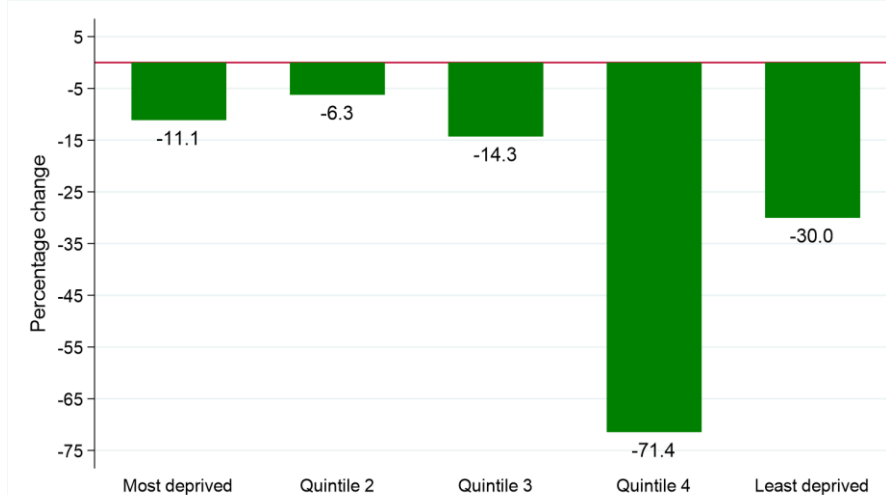
Note: Cases with unknown deprivation quintile are included in totals

Figure 4: Cervical cancer cases diagnosed in April-December of 2018-2020 by deprivation quintile and period of diagnosis

(a) Number of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer cases by deprivation quintile



STAGE

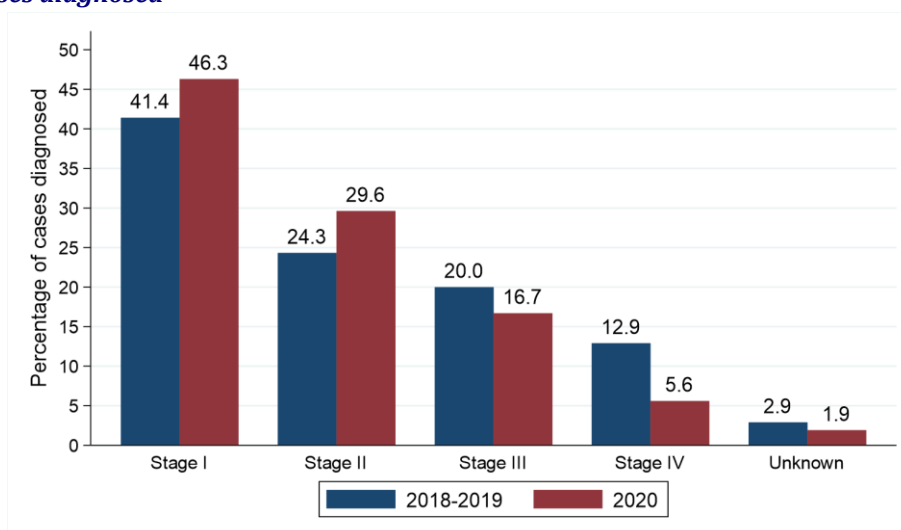
Excluding the first quarter of each year the number of cervical cancer cases diagnosed at Stage I decreased by 13.8% from 29 per year in 2018 - 2019 to 25 in 2020. Between the same two time periods the number of cases diagnosed at Stage IV decreased by 66.7% from 9 per year to 3. The change in case distribution by stage at diagnosis between 2018 - 2019 and 2020 was not statistically significant.

Table 5: Number and proportion of cervical cancer cases diagnosed in April-December of 2018-2020 by stage at diagnosis and period of diagnosis

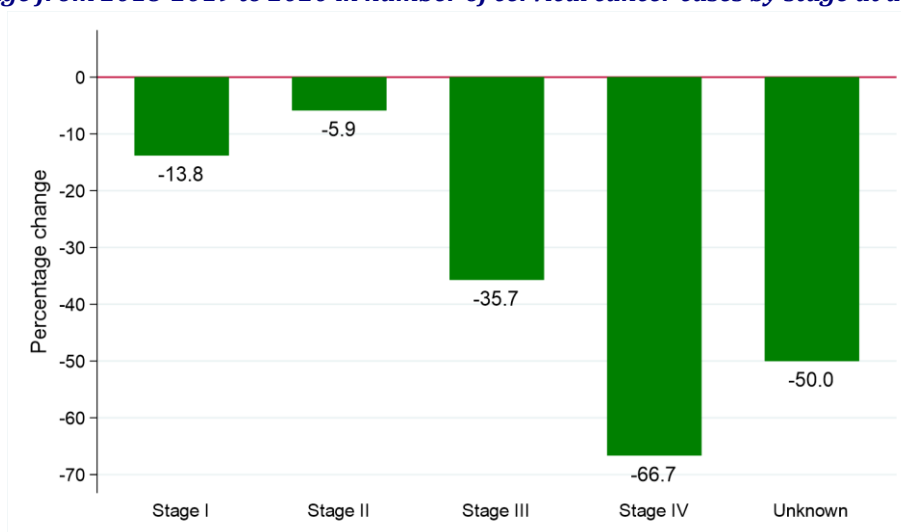
Stage at diagnosis	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Stage I	29 (41.4%)	25 (46.3%)	-13.8% (4 patients)
Stage II	17 (24.3%)	16 (29.6%)	-5.9% (1 patients)
Stage III	14 (20.0%)	9 (16.7%)	-35.7% (5 patients)
Stage IV	9 (12.9%)	3 (5.6%)	-66.7% (6 patients)
Unknown	2 (2.9%)	1 (1.9%)	-50.0% (1 patients)
All stages	70	54	-22.9% (16 patients)

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

Figure 5: Cervical cancer cases diagnosed in April-December of 2018-2020 by stage and period of diagnosis
(a) Proportion of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer cases by stage at diagnosis



METHOD OF HOSPITAL ADMISSION

Excluding the first quarter of each year there was no change between 2018 - 2019 and 2020 in the number of cases where the patient had an emergency admission recorded as the most recent hospital admission type up to 30 days prior to diagnosis, with an average of 3 cases each year. The change in case distribution by hospital admission type between 2018 - 2019 and 2020 was not statistically significant.

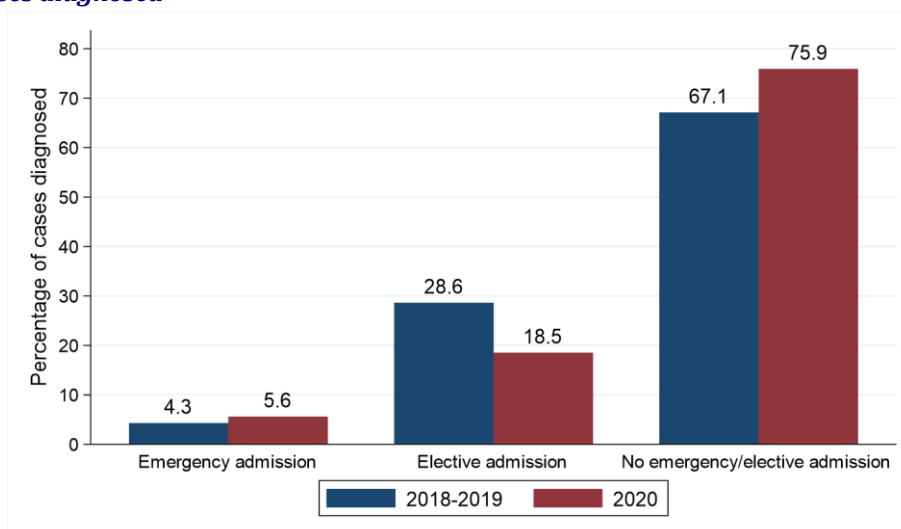
Table 6: Number and proportion of cervical cancer cases diagnosed in April-December of 2018-2020 by method of admission to hospital and period of diagnosis

Method of admission to hospital	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019*	2020	
Emergency admission	3 (4.3%)	3 (5.6%)	0.0% (0 patients)
Elective admission	20 (28.6%)	10 (18.5%)	-50.0% (10 patients)
No emergency/elective admission recorded	47 (67.1%)	41 (75.9%)	-12.8% (6 patients)
All persons	70	54	-22.9% (16 patients)

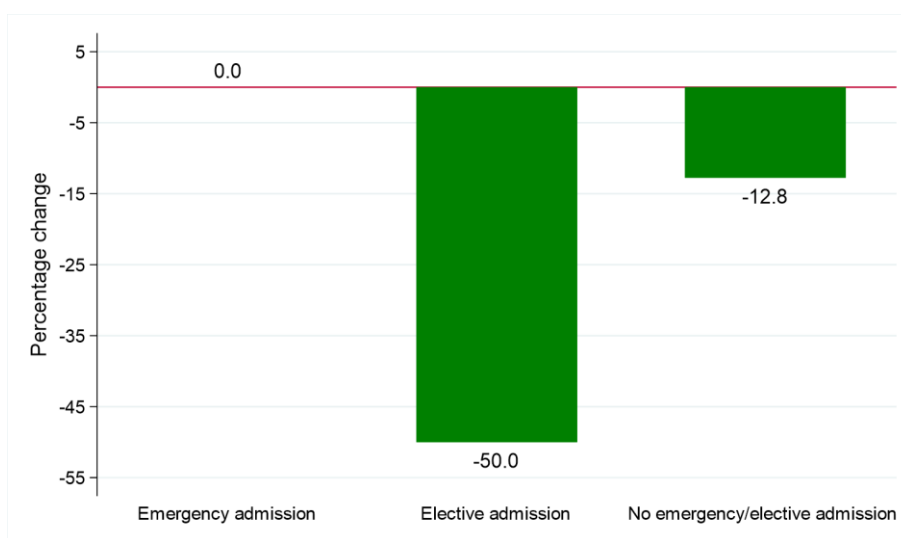
* Average cases per year rounded to the nearest integer. Column sums may thus differ slightly from the total.

Figure 6: Cervical cancer cases diagnosed in April-December of 2018-2020 by method of admission to hospital and period of diagnosis

(a) Proportion of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer cases by method of admission to hospital



TREATMENT

Excluding the first quarter of each year the number of cervical cancer cases where the patient was treated with surgery (within six months of diagnosis) decreased by 29.6% from 27 per year for those diagnosed in 2018 - 2019 to 19 for those diagnosed in 2020. The resulting change in the proportion receiving surgery from 38.6% in 2018 - 2019 to 35.2% in 2020 was not statistically significant.

Between the same two time periods the number of cases where the patient was treated with chemotherapy (within six months) decreased by 39.5% from 38 per year to 23. The resulting change in the proportion receiving chemotherapy from 54.3% in 2018 - 2019 to 42.6% in 2020 was not statistically significant.

The number of cervical cancer cases where the patient was treated with radiotherapy (within six months of diagnosis) decreased by 26.2% from 42 per year for those diagnosed in April-December of 2018 - 2019 to 31 for those diagnosed in April-December of 2020. The resulting change in the proportion receiving radiotherapy from 60.0% in 2018 - 2019 to 57.4% in 2020 was not statistically significant.

The proportion of patients receiving none of surgery, chemotherapy or radiotherapy (within six months of diagnosis) who were diagnosed in April-December 2020 was 14.8%. This compared to 11.4% of those diagnosed in 2018 - 2019. This change was not statistically significant.

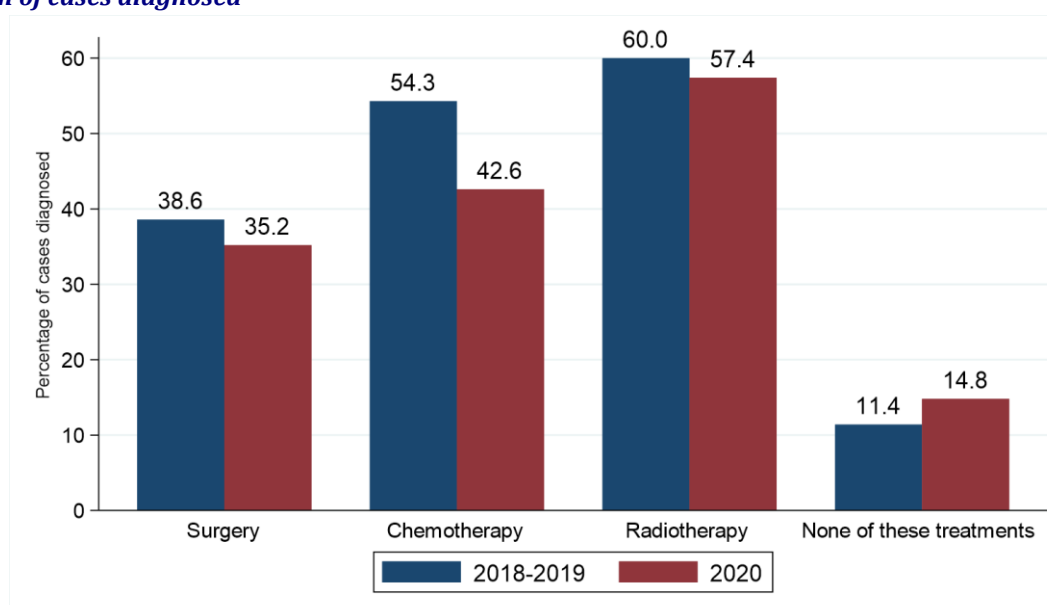
Table 7: Number and proportion of cervical cancer cases diagnosed in April-December of 2018-2020 by treatment type and period of diagnosis

Treatment type	Period of diagnosis (Apr-Dec)		Percentage change
	2018-2019 average	2020	
Surgery	27 (38.6%)	19 (35.2%)	-29.6% (8 patients)
Chemotherapy	38 (54.3%)	23 (42.6%)	-39.5% (15 patients)
Radiotherapy	42 (60.0%)	31 (57.4%)	-26.2% (11 patients)
None of these treatments	8 (11.4%)	8 (14.8%)	0.0% (0 patients)

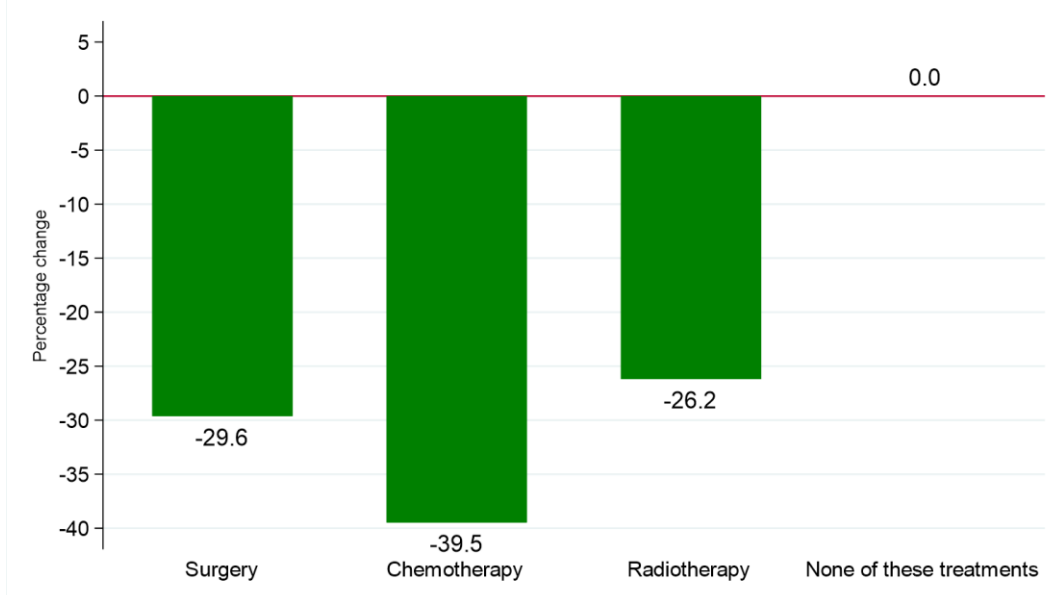
No statistically significant changes

Figure 7: Cervical cancer cases diagnosed in April-December of 2018-2020 by treatment received and period of diagnosis

(a) Proportion of cases diagnosed



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer cases by treatment received



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

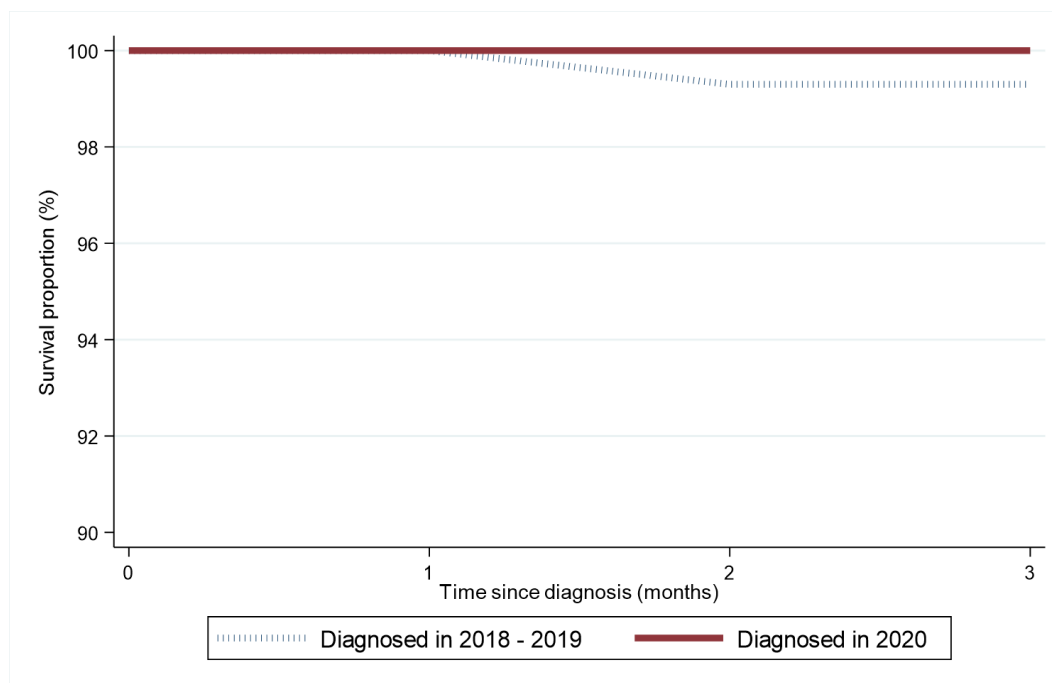
There was no change in one-month survival between April-December of 2018 - 2019 and April-December of 2020, which was 100.0% in both periods. Between the same two diagnosis periods, three-month survival increased from 99.3% to 100.0%. This change was statistically significant.

Table 8: Observed survival for patients with cervical cancer diagnosed in April-December of 2018-2020 by period of diagnosis

Survival time	Period of diagnosis (Apr-Dec)	
	2018-2019	2020
1 month	100%	100%
2 months	99.3% (95.0% - 99.9%)	100%
3 months	99.3% (95.0% - 99.9%)	100%

No statistically significant reductions

Figure 8: Observed survival for patients with cervical cancer diagnosed in April-December of 2018-2020 by period of diagnosis



DEATHS FROM COVID-19

During 2020 there were a total of 6 deaths from Covid-19 among cervical cancer patients diagnosed at any point since 1993. Among the patients who died of Covid-19, 0 were diagnosed with cervical cancer in 2020, while 2 were diagnosed in 2019.

NET SURVIVAL

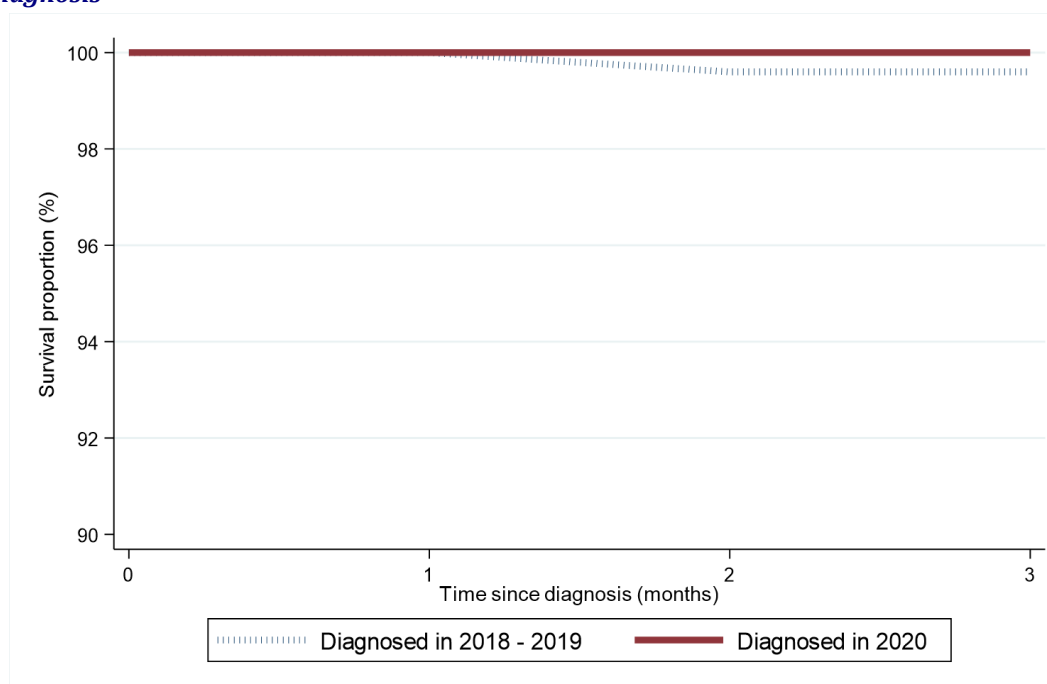
There was no change in one-month age-standardised net survival between April-December of 2018 - 2019 and April-December of 2020, which was 100.0% in both periods. Between the same two time periods, three-month age-standardised net survival increased from 99.6% to 100.0%. This change was not statistically significant.

Table 9: Age-standardised net survival for patients with cervical cancer diagnosed in April-December of 2018-2020 by period of diagnosis

Survival time	Period of diagnosis (Apr-Dec)	
	2018-2019	2020
1 month	100%	100%
2 months	99.6% (98.8% - 100.0%)	100%
3 months	99.6% (98.8% - 100.0%)	100%

No statistically significant reductions

Figure 9: Age-standardised net survival for patients with cervical cancer diagnosed in April-December of 2018-2020 by period of diagnosis



CANCER MORTALITY

During the April-December period when Covid-19 was present the number of deaths from cervical cancer among females decreased by 31.3% from 16 per year in 2018 - 2019 to 11 in 2020.

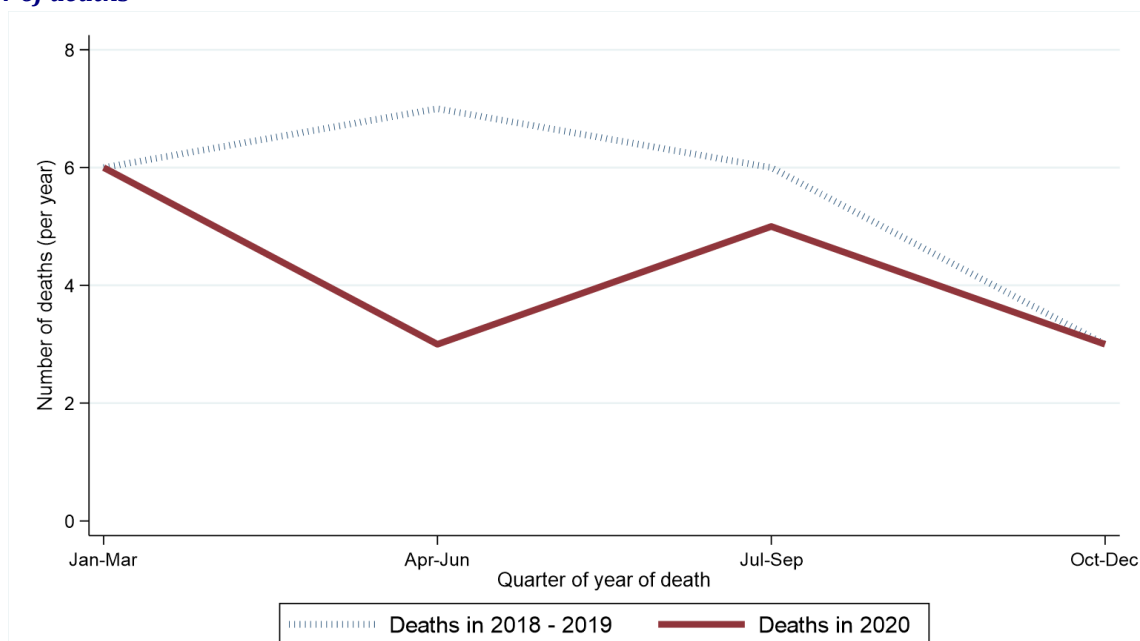
Table 10: Number of cervical cancer deaths in 2018-2020 by quarter and year of death

Period of death	Annual total	Quarter of year death occurred			
		Jan-Mar	Apr-Jun	Jul-Sept	Oct-Dec
2018-2019*	22	6	7	6	3
2020	17	6	3	5	3

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

Figure 10: Number of cervical cancer deaths in 2018-2020 by quarter and year of death

(a) Number of deaths



(b) Percentage change from 2018-2019 to 2020 in number of cervical cancer deaths by quarter of year of death

