# Recent trends in incidence of cancer among young adults 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
Phone: +44 (0)28 90976028 e-mail: nicr@qub.ac.uk

## Acknowledgements

The Northern Ireland Cancer Registry (NICR) uses data provided by patients and collected by the health service as part of their care and support.

NICR is funded by the Public Health Agency and is based in Queen's University, Belfast.

QUEEN'S UNIVERSITY
BELFAST

## INCIDENCE

During the April-December period the number of cases of cancer diagnosed among young adults aged 15 to 24 decreased between 2018-2019 and 2021 by $25.5 \%$ from 51 cases per year to 38 cases.

Table 1: Number of cancer cases diagnosed among young adults in 2018-2021 by quarter and year of diagnosis

| Period of diagnosis | Annual total | Quarter diagnosed |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Jan-Mar | Apr-Jun | Jul-Sept | Oct-Dec |
| 2018-2019* | 69 | 19 | 17 | 12 | 22 |
| 2020 | 60 | 17 | 13 | 14 | 16 |
| 2021 | 47 | 9 | 12 | 12 | 14 |

Figure 1: Number of cancer cases diagnosed among young adults in 2018-2021 by quarter and year of diagnosis (a) Number of cases diagnosed by quarter 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 cancer cases diagnosed among young adult males decreased by $8.7 \%$ from 23 per year in 2018-2019 to 21 in 2021. Between the same two time periods the number of cancer cases diagnosed among young adult females decreased by $39.3 \%$ from 28 per year in 20182019 to 17 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 among young adults in April-December of 2018-2021 by gender and period of diagnosis

| Gender | Period of diagnosis (Apr-Dec) |  | Percentage change |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 2018-2019* | $\mathbf{2 0 2 0}$ | $\mathbf{2 0} \mathbf{2 0 2 1}$ | $\mathbf{2 0 2 0} \mathbf{~ v s}$ |  |
|  | $\mathbf{2 0 1 8 - 2 0 1 9} \mathbf{2 0 2 1}$ |  |  |  |  |
| All persons | 51 | 43 | 38 | $-15.7 \%$ | $-25.5 \%$ |
| Male | $23(45.1 \%)$ | $21(48.8 \%)$ | $21(55.3 \%)$ | $-8.7 \%$ | $-8.7 \%$ |
| Female | $28(54.9 \%)$ | $22(51.2 \%)$ | $17(44.7 \%)$ | $-21.4 \%$ | $-39.3 \%$ |

*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 among young adults 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


## Health and Social Care Trust

Excluding the first quarter of each year the number of cases of cancer diagnosed among young adults resident in Western HSCT decreased by $57.1 \%$ from 7 per year in 2018-2019 to 3 in 2021. Between the same two time periods the number of cases of cancer diagnosed among young adults resident in Belfast HSCT decreased by $57.1 \%$ from 14 per year in 2018-2019 to 6 in 2021. The change in case distribution by Health and Social Care Trust between 2018-2019 and 2021 was statistically significant ( $p=0.015$ ).

Table 3: Number and proportion of cancer cases diagnosed among young adults 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 | $\begin{gathered} 2020 \text { vs } 2018- \\ 2019 \end{gathered}$ | $\begin{gathered} 2021 \text { vs } 2018- \\ 2019 \end{gathered}$ |
| Northern Ireland | 51 | 43 | 38 | -15.7\% | -25.5\% |
| Belfast | 14 (27.5\%) | 8 (18.6\%) | 6 (15.8\%) | -42.9\% | -57.1\% |
| Northern | 15 (29.4\%) | 8 (18.6\%) | 8 (21.1\%) | -46.7\% | -46.7\% |
| South Eastern | 9 (17.6\%) | 11 (25.6\%) | 7 (18.4\%) | +22.2\% | -22.2\% |
| Southern | 6 (11.8\%) | 7 (16.3\%) | 14 (36.8\%) | +16.7\% | +133.3\% |
| Western | 7 (13.7\%) | 9 (20.9\%) | 3 (7.9\%) | +28.6\% | -57.1\% |
| *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 cancer cases diagnosed among young adults 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 young adults resident in the most deprived quintile decreased by $63.6 \%$ from 11 per year in 2018-2019 to 4 in 2021. Between the same two time periods the number of cases of cancer diagnosed among young adults resident in the least deprived quintile decreased by $60.0 \%$ from 15 per year in 2018-2019 to 6 in 2021. The change in case distribution by deprivation quintile between 2018-2019 and 2021 was statistically significant ( $p=0.036$ ).

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

| Deprivation <br> quintile | Period of diagnosis (Apr-Dec) |  | Percentage change |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | 2018-2019* | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 0}$ vs 2018- <br> $\mathbf{2 0 1 9}$ | 2021 vs 2018- <br> 2019 |
| Northern Ireland | 51 | 43 | 38 | $-15.7 \%$ | $-25.5 \%$ |
| Most deprived | $11(21.6 \%)$ | $10(23.3 \%)$ | $4(10.5 \%)$ | $-9.1 \%$ | $-63.6 \%$ |
| Quintile 2 | $6(11.8 \%)$ | $10(23.3 \%)$ | $11(28.9 \%)$ | $+66.7 \%$ | $+83.3 \%$ |
| Quintile 3 | $9(17.6 \%)$ | $6(14.0 \%)$ | $11(28.9 \%)$ | $-33.3 \%$ | $+22.2 \%$ |
| Quintile 4 | $11(21.6 \%)$ | $7(16.3 \%)$ | $6(15.8 \%)$ | $-36.4 \%$ | $-45.5 \%$ |
| Least deprived | $15(29.4 \%)$ | $10(23.3 \%)$ | $6(15.8 \%)$ | $-33.3 \%$ | $-60.0 \%$ |

*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 cancer cases diagnosed among young adults 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


