

Prevalence estimates for the UK

			Complete prevalence							5-year
			2019	2020	2021	2022	2023	2024	2025	2025
UK	All cancers combined	Female	1,600,000	1,600,000	1,700,000	1,700,000	1,800,000	1,800,000	1,900,000	640,000
		Male	1,300,000	1,300,000	1,300,000	1,400,000	1,400,000	1,500,000	1,500,000	620,000
		Persons	2,800,000	2,900,000	3,000,000	3,100,000	3,200,000	3,300,000	3,400,000	1,300,000
	Breast	Female	730,000	740,000	770,000	790,000	820,000	860,000	890,000	260,000
	Prostate	Male	500,000	500,000	520,000	540,000	570,000	590,000	610,000	240,000
	Colorectal	Female	150,000	150,000	160,000	160,000	160,000	170,000	170,000	66,000
		Male	180,000	180,000	190,000	190,000	200,000	210,000	220,000	88,000
		Persons	330,000	330,000	340,000	350,000	360,000	380,000	390,000	150,000
	Lung	Female	55,000	56,000	59,000	62,000	65,000	68,000	71,000	46,000
		Male	48,000	48,000	49,000	50,000	50,000	50,000	50,000	33,000
		Persons	100,000	100,000	110,000	110,000	110,000	120,000	120,000	80,000

'All cancers combined' includes all types of malignant cancer except non-melanoma skin cancer.

Prevalence estimates for England

			Complete prevalence							5-year
			2019	2020	2021	2022	2023	2024	2025	2025
England	All cancers combined	Female	1,300,000	1,300,000	1,400,000	1,400,000	1,500,000	1,500,000	1,500,000	540,000
		Male	1,100,000	1,100,000	1,100,000	1,200,000	1,200,000	1,200,000	1,300,000	530,000
		Persons	2,400,000	2,400,000	2,500,000	2,600,000	2,600,000	2,700,000	2,800,000	1,100,000
	Breast	Female	610,000	620,000	640,000	660,000	690,000	710,000	740,000	220,000
	Prostate	Male	430,000	430,000	450,000	470,000	490,000	510,000	530,000	210,000
	Colorectal	Female	120,000	120,000	130,000	130,000	140,000	140,000	140,000	55,000
		Male	150,000	150,000	150,000	160,000	170,000	170,000	180,000	74,000
		Persons	270,000	270,000	280,000	290,000	300,000	310,000	320,000	130,000
	Lung	Female	45,000	47,000	49,000	52,000	54,000	57,000	59,000	39,000
		Male	40,000	40,000	42,000	42,000	42,000	42,000	42,000	28,000
		Persons	86,000	87,000	91,000	93,000	96,000	99,000	100,000	67,000

'All cancers combined' includes all types of malignant cancer except non-melanoma skin cancer. Estimates for 2019 to 2021 are based on observed prevalence reported by National Disease Registration Service and Health Data Insight CiC with uplifts applied to convert them to complete prevalence. Estimates for 2022 onwards are 2021-based projections.

Prevalence estimates for Scotland

			Complete prevalence							5-year
			2019	2020	2021	2022	2023	2024	2025	2025
Scotland	All cancers combined	Female	140,000	140,000	150,000	150,000	160,000	160,000	170,000	50,000
		Male	100,000	100,000	110,000	110,000	110,000	120,000	120,000	46,000
		Persons	240,000	250,000	250,000	260,000	270,000	280,000	290,000	96,000
	Breast	Female	60,000	62,000	64,000	66,000	69,000	71,000	74,000	21,000
	Prostate	Male	32,000	33,000	34,000	36,000	37,000	39,000	40,000	16,000
	Colorectal	Female	13,000	13,000	14,000	14,000	14,000	15,000	15,000	5,100
		Male	15,000	15,000	16,000	16,000	17,000	17,000	18,000	6,500
		Persons	28,000	29,000	29,000	30,000	31,000	32,000	33,000	12,000
	Lung	Female	5,200	5,200	5,300	5,500	5,800	6,100	6,300	3,900
		Male	4,300	4,000	4,100	4,100	4,100	4,100	4,100	2,600
		Persons	9,500	9,200	9,400	9,600	9,900	10,000	10,000	6,500

'All cancers combined' includes all types of malignant cancer except non-melanoma skin cancer. Estimates for 2019 to 2021 are based on observed prevalence reported by Public Health Scotland with uplifts applied to convert them to complete prevalence. Estimates for 2022 onwards are 2021-based projections.

Prevalence estimates for Wales

			Complete prevalence							5-year
			2019	2020	2021	2022	2023	2024	2025	2025
Wales	All cancers combined	Female	90,000	91,000	94,000	97,000	100,000	100,000	110,000	32,000
		Male	71,000	71,000	73,000	75,000	78,000	81,000	83,000	31,000
		Persons	160,000	160,000	170,000	170,000	180,000	180,000	190,000	63,000
	Breast	Female	41,000	41,000	43,000	44,000	46,000	48,000	49,000	14,000
	Prostate	Male	27,000	27,000	27,000	28,000	30,000	31,000	32,000	12,000
	Colorectal	Female	7,900	8,000	8,300	8,500	8,800	9,000	9,300	3,600
		Male	11,000	11,000	11,000	12,000	12,000	13,000	13,000	5,400
		Persons	18,000	19,000	19,000	20,000	21,000	22,000	22,000	9,000
	Lung	Female	2,700	2,800	2,800	3,000	3,100	3,300	3,400	2,100
		Male	2,300	2,300	2,300	2,300	2,300	2,300	2,300	1,500
		Persons	5,000	5,000	5,100	5,300	5,400	5,500	5,700	3,600

'All cancers combined' includes all types of malignant cancer except non-melanoma skin cancer. Estimates are 2015-based projections, with uplifts to convert observed prevalence published by the Welsh Cancer Intelligence and Surveillance Unit of Public Health Wales to complete prevalence. Modifying factors are applied to growth rates for 2020 and 2021, calculated by comparing observed 20-year prevalence for England in 2020 and 2021 with the expected values based on the trend of 20-year prevalence between 2015-2019.

Prevalence estimates for Northern Ireland

			Complete prevalence							5-year
			2019	2020	2021	2022	2023	2024	2025	2025
Northern Ireland	All cancers combined	Female	46,000	47,000	48,000	50,000	52,000	53,000	55,000	17,000
		Male	35,000	36,000	38,000	39,000	40,000	42,000	43,000	16,000
		Persons	82,000	83,000	86,000	89,000	92,000	95,000	98,000	34,000
	Breast	Female	19,000	20,000	20,000	21,000	22,000	23,000	23,000	7,000
	Prostate	Male	12,000	12,000	13,000	13,000	14,000	14,000	15,000	6,100
	Colorectal	Female	4,500	4,500	4,700	4,800	5,000	5,100	5,300	1,900
		Male	5,200	5,300	5,600	5,800	6,000	6,200	6,400	2,500
		Persons	9,700	9,800	10,000	11,000	11,000	11,000	12,000	4,400
	Lung	Female	1,500	1,500	1,600	1,700	1,700	1,800	1,900	1,200
		Male	1,300	1,300	1,300	1,400	1,400	1,400	1,400	900
		Persons	2,800	2,800	2,900	3,000	3,100	3,200	3,300	2,100

'All cancers combined' includes all types of malignant cancer except non-melanoma skin cancer. Estimates for 2019 to 2021 (all cancers combined and prostate) are based on observed prevalence reported by the Northern Ireland Cancer Registry with uplifts applied to convert them to complete prevalence. For these cancer types, estimates for 2022 onwards are 2021-based projections. Since observed prevalence has been published for breast, colorectal and lung for 2022, estimates for these cancer types for 2023 onwards are 2022-based projections.

Methodology for 2025 Update

There are two types of prevalence statistics:

- **Observed prevalence**, or limited duration prevalence refers to the number of people diagnosed with cancer during a specific time period who are still alive at the end of that period, known as the index date. 5-year prevalence would refer to the number of people living with cancer who had been diagnosed up to 5 years before the index date. The extent of this duration is limited by how long a cancer registry has been collecting population level data on cancer registrations. For instance, counts of observed prevalence in England only include diagnoses made from 1995 onwards. Observed prevalence data is an accurate representation of a population living with cancer over a specific period of time since it is based on high quality patient-level data collected and analysed by a cancer registry. Observed prevalence can be reported for local areas and rare cancer types. Observed prevalence statistics are typically published around 2 years after the index date they relate to.
- **Complete prevalence** represents the total number of people ever diagnosed with cancer who are still alive at a specific time point, known as the index date. Because cancer registries don't have population-level data for the years prior to their establishment, estimating complete cancer prevalence involves statistical modelling applied to observed prevalence to make up for past missing cancer registrations. For instance, estimating complete prevalence for England requires modelling how many people are living with cancer at the index date and were diagnosed before 1995. Complete cancer prevalence is rarely calculated for local areas or for rare cancers, because modelling these smaller population groups introduces a higher level of uncertainty.

The updated estimates of complete cancer prevalence contained in this file are based on the following published measures of observed cancer prevalence for each nation in the UK:

England: England Cancer Prevalence Statistics, 2021 [Cancer Prevalence](#). This analysis was conducted in partnership between the National Disease Registration Service (NCRAS) and Health Data Insight CiC. The data are collated, maintained and quality assured by the National Disease Registration Service, which is part of NHS England. Additional lung cancer prevalence data (2015-2021 for all patients with C33 and/or C34 tumours) was provided by the National Disease Registration Service to Macmillan in October 2024.

Northern Ireland: [2021 Cancer prevalence data](#). 25-year prevalence (1997-2021), by Northern Ireland Cancer Registry (NICR), Queen's University Belfast. 2022 Cancer prevalence data is also available for breast, colorectal and lung cancers from the same source.

Scotland: [Prevalence of Cancer in Scotland](#), 20-year prevalence (2002-2021), by Scottish Cancer Registry, Public Health Scotland. In addition, 2020 and 2021 25 year prevalence data was provided to Macmillan by Public Health Scotland in December 2024.

Wales: 21-year prevalence (1995-2015), provided by Welsh Cancer Intelligence and Surveillance Unit (WCISU) and previously published by Macmillan Cancer Support.

To convert observed prevalence into complete prevalence, the figures for the oldest time since diagnosis prevalence groups were extracted from each dataset: 20 to 27 years for England, 10 to 25 for Northern Ireland, 20 to 25 for Scotland and 10 to 21 for Wales. Using data from the *UK Complete Cancer Prevalence for 2013*¹, ratios between counts in these oldest prevalence group and those diagnosed prior to the oldest prevalence groups (21 to 66, 25 to 66 and 27 to 66 years since diagnosis) were calculated for each cancer type, sex and nation. These ratios were then applied to the published observed prevalence figures to produce estimates of complete cancer prevalence for the index dates of these publications.

This process was carried out for all cancers combined (excluding non-melanoma skin cancer), female breast, prostate, colorectal and lung cancer. For England, Scotland and Northern Ireland (all cancers combined and prostate) this resulted in estimates of complete prevalence for 2021. For Northern Ireland (breast, colorectal and lung cancers) this resulted in estimates of complete prevalence for 2022. For Wales this resulted in estimates of complete prevalence for 2015.

For each of these estimates of complete cancer prevalence, projections were then produced up to the year 2025. These are based on prevalence growth rates predicted for the UK in 2012². The published 10-year growth rates were converted into year-on-year rates using an exponential curve. These growth rates were applied to individual cancer types and sexes for 0 to 5 and all years of time since diagnosis. The projections for Wales are based on observed prevalence in 2015 and therefore require an additional adjustment to compensate for the impact of the COVID-19 pandemic. We apply a modifying factors to the Wales growth rates for 2020 and 2021, calculated by comparing observed 20-year prevalence for England in 2020 and 2021 with the expected values based on the trend of 20-year prevalence between 2015-2019. For all nations we assume that no further impact to growth rates occurs from 2022 onwards.

¹ [Excel file](#) describing people alive in 2013 diagnosed any time before this (complete prevalence). Based on a new methodology described in [UK Complete Cancer Prevalence for 2013 Technical Report](#) and a June 2016 conference poster from the IARC & PHE Cancer Data and Outcomes Conference 2016: [UK Complete Cancer Prevalence: How many people are living with cancer in 2013?](#)

² Maddams J, Utley M, Møller H. Projections of cancer prevalence in the United Kingdom, 2010-2040. *Br J Cancer*. 2012 Sep 25;107(7):1195-202. doi: 10.1038/bjc.2012.366. Epub 2012 Aug 14. PMID: 22892390; PMCID: PMC3461160. Scenario 1 prevalence projections were used.

Strengths and limitations

The strength of this analysis is that it builds on recently published high quality observed prevalence data from each nation of the UK and includes additional data provided directly by NCRAS in NHS England and Public Health Scotland. This means it incorporates recent trends on observed prevalence. It is a transparent method that can be replicated. In addition, it is the only estimate of complete prevalence in the UK now so it is useful to those wanting to describe the full population of people living with a cancer diagnosis. However there are factors causing uncertainty in these numbers:

- The use of [Maddams et al. \(2012\)](#) as since this paper was written there have been various changes to population projections, cancer diagnosis rates, treatments and impacts to background mortality such as COVID 19.
- The scaling up from observed prevalence to complete prevalence is based on 2013 data and is sensitive to population age structures at the time which could have changed in more recent years.
- The estimates in Wales use observed prevalence data from 2015.
- Predicting 5-year prevalence may be more uncertain than complete prevalence since it is more sensitive to any population behaviour and system-wide changes that have occurred in the wake of the COVID 19 pandemic, the extent of which are not yet fully understood.