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Cancer prevalence in the UK, 2008

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Method for estimating UK prevalence

1. Limited duration prevalence at the end of 2004 was calculated using the cancer registry dataset for England covering the period 1971-2004.
2. Complete prevalence (i.e. including cancer survivors diagnosed before 1971) was estimated via an age-cohort model, and added around 5% to the limited duration prevalence estimate.
3. Trends in limited duration prevalence over time were analysed using the England dataset, and used to project the figures for 2004 forward to 2008.
4. A factor of 1.2 was applied to the England figure to scale it up to an estimate for the UK population.

Note: see end of presentation for detailed calculations.



Cancer in the UK in 2008

300,000 new cases of cancer in the UK in 2008¹

150,000 cancer deaths in the UK in 2008¹

2 million cancer survivors in the UK at the end of 2008

10% of people in the UK aged 65+ are cancer survivors

The number of cancer survivors is increasing by 3.2% each year

¹ Based on National Cancer Information Service data for England in 2005.

Unless otherwise stated, all figures refer to all malignant neoplasms excluding non-melanoma skin cancer (ICD-10 C00-C97 excl. C44).



Who are the 2 million cancer survivors?

Sex	Cancer survivors	%
Male	800,000	40
Female	1,200,000	60

Age	Cancer survivors	%
0-17	16,000	1
18-64	774,000	39
65+	1,210,000	60

Note: Figures based on percentages obtained from observed limited duration prevalence in England at the end of 2004.



Who are the 2 million cancer survivors?

Cancer Site	Cancer survivors	%
Colorectal	250,000	12
Lung	65,000	3
Breast	550,000	28
Prostate	215,000	11
Other	920,000	46

Note: Figures based on percentages obtained from observed limited duration prevalence in England at the end of 2004.



Burden of disease from four major cancers

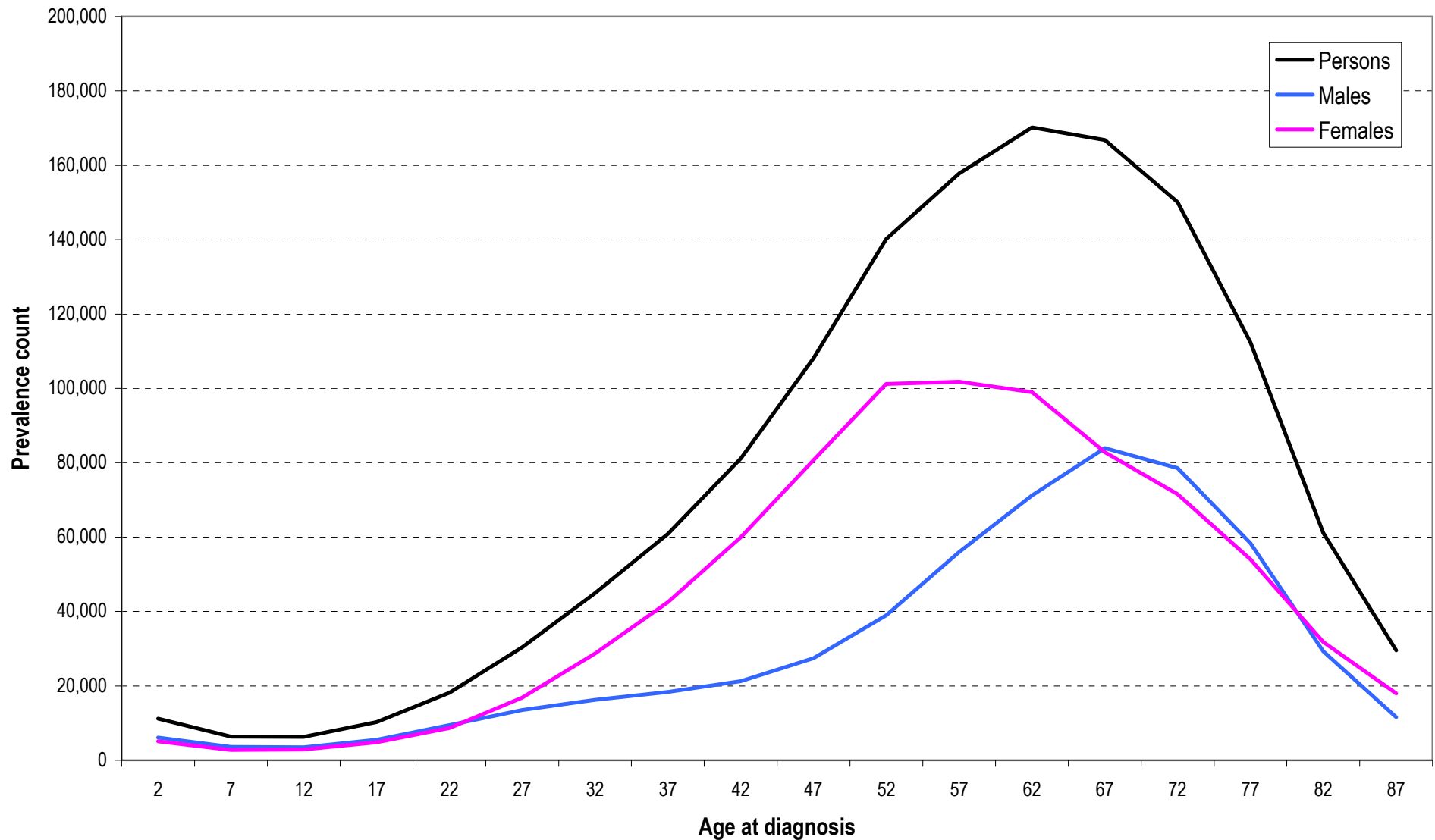
Proportion of total incidence, mortality and prevalence contributed by each of the four major cancers in England, 2004



Note: Incidence and mortality figures obtained from the National Cancer Information Service.

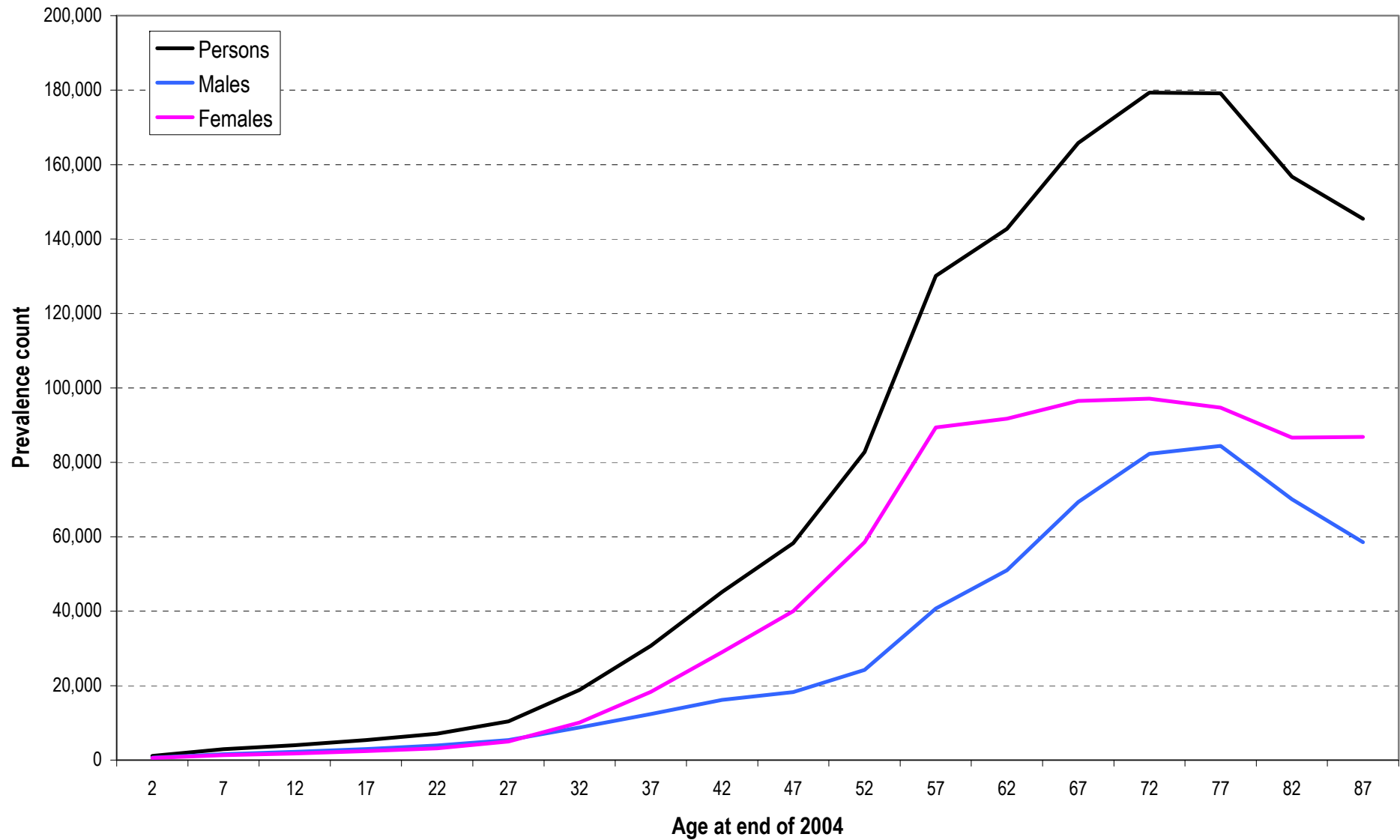
How old were the cancer survivors at diagnosis?

Observed 34-year prevalence, England, 2004



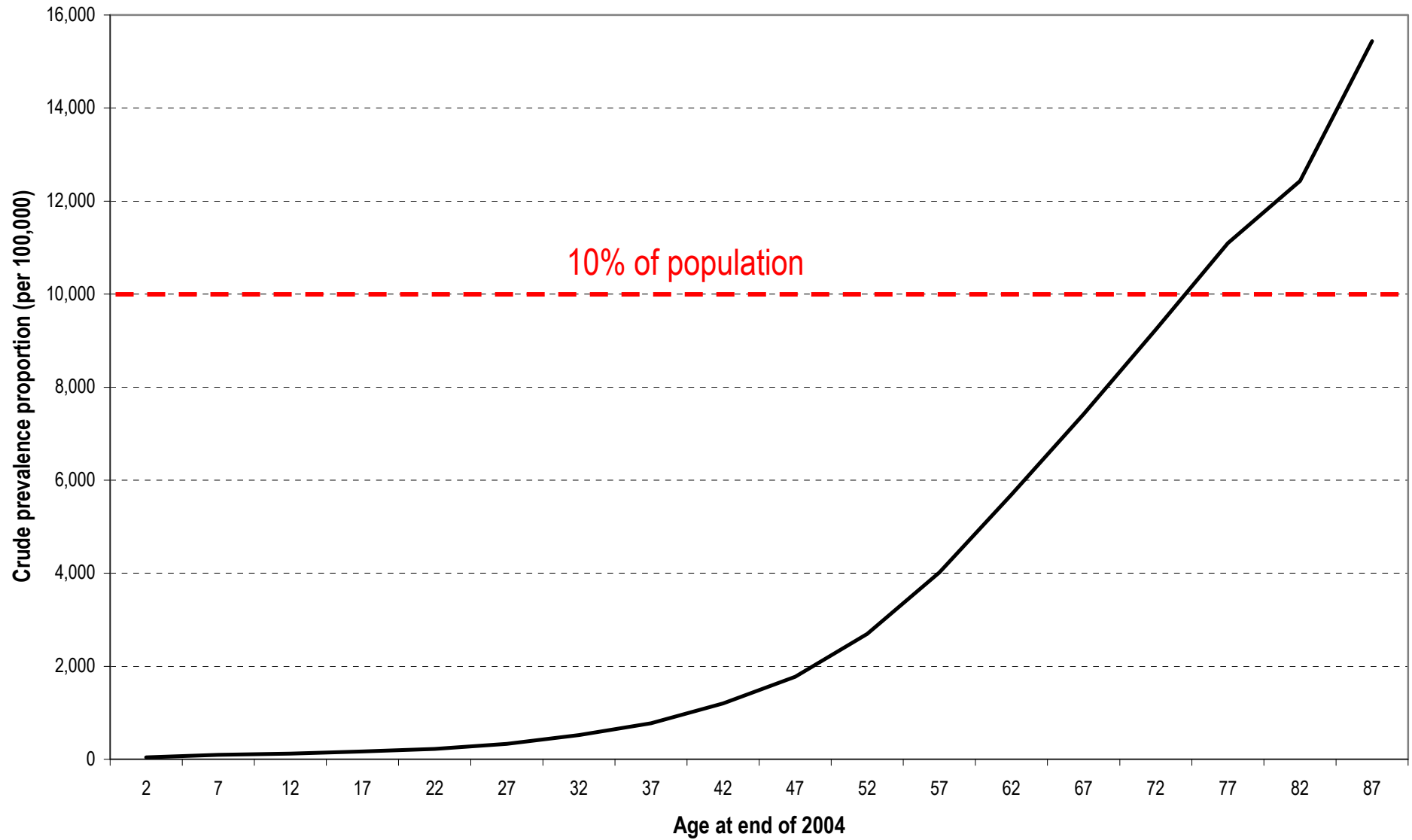
How old are the cancer survivors now?

Observed 34-year prevalence, England, 2004



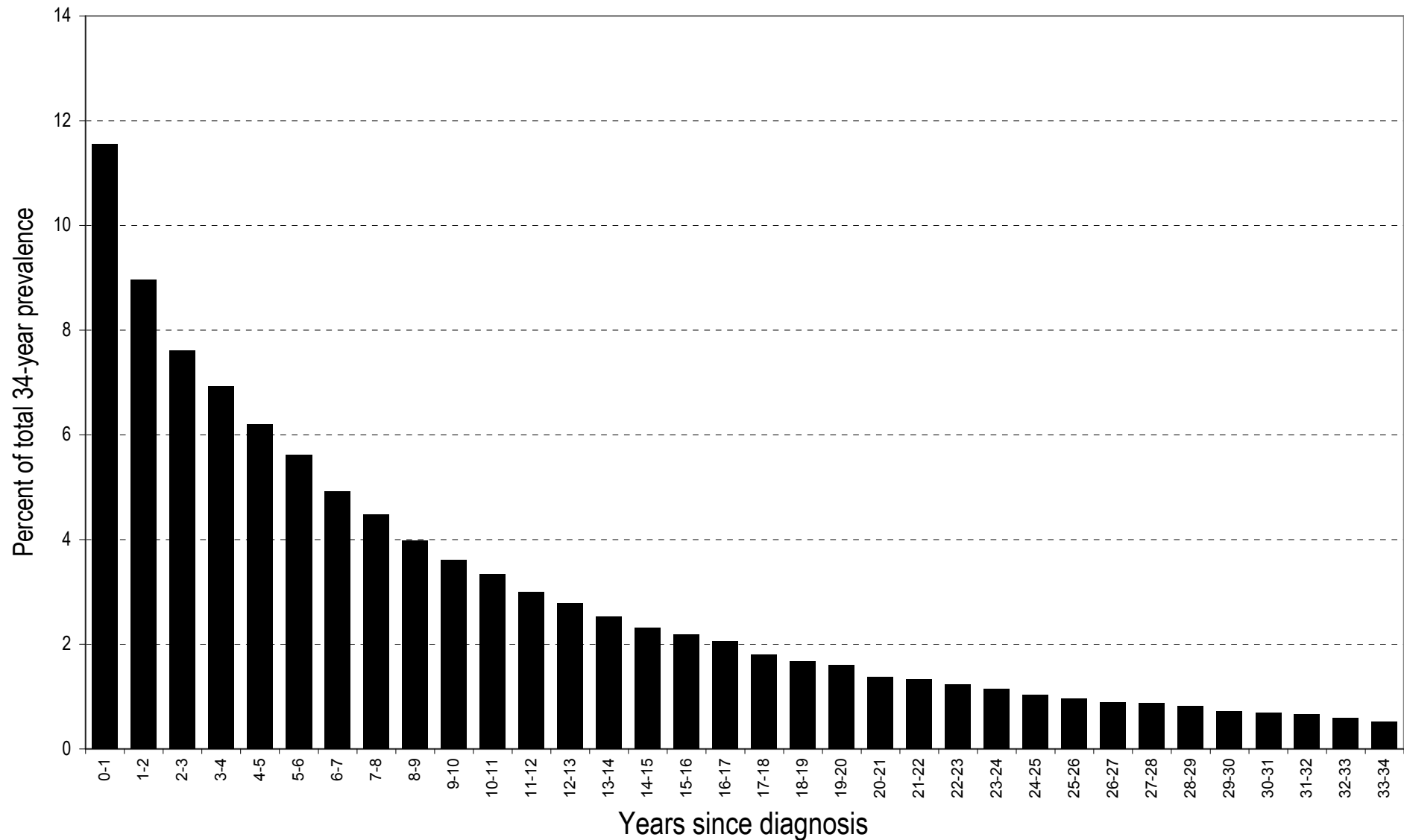
How old are the cancer survivors now?

Observed 34-year prevalence, England, 2004



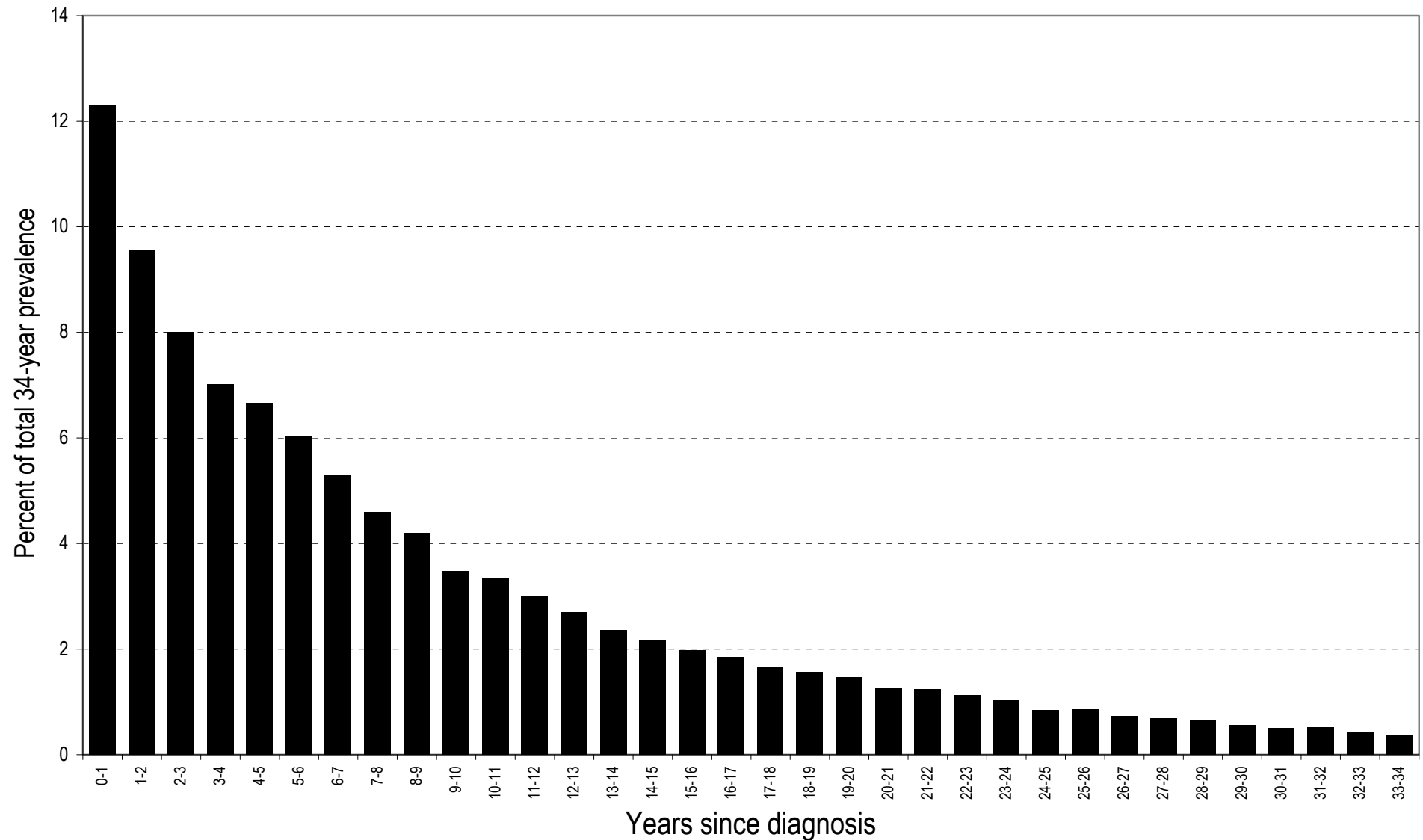
How long ago were the cancer survivors diagnosed?

Observed prevalence of all cancers (excl. non-melanoma skin cancer), England, 2004



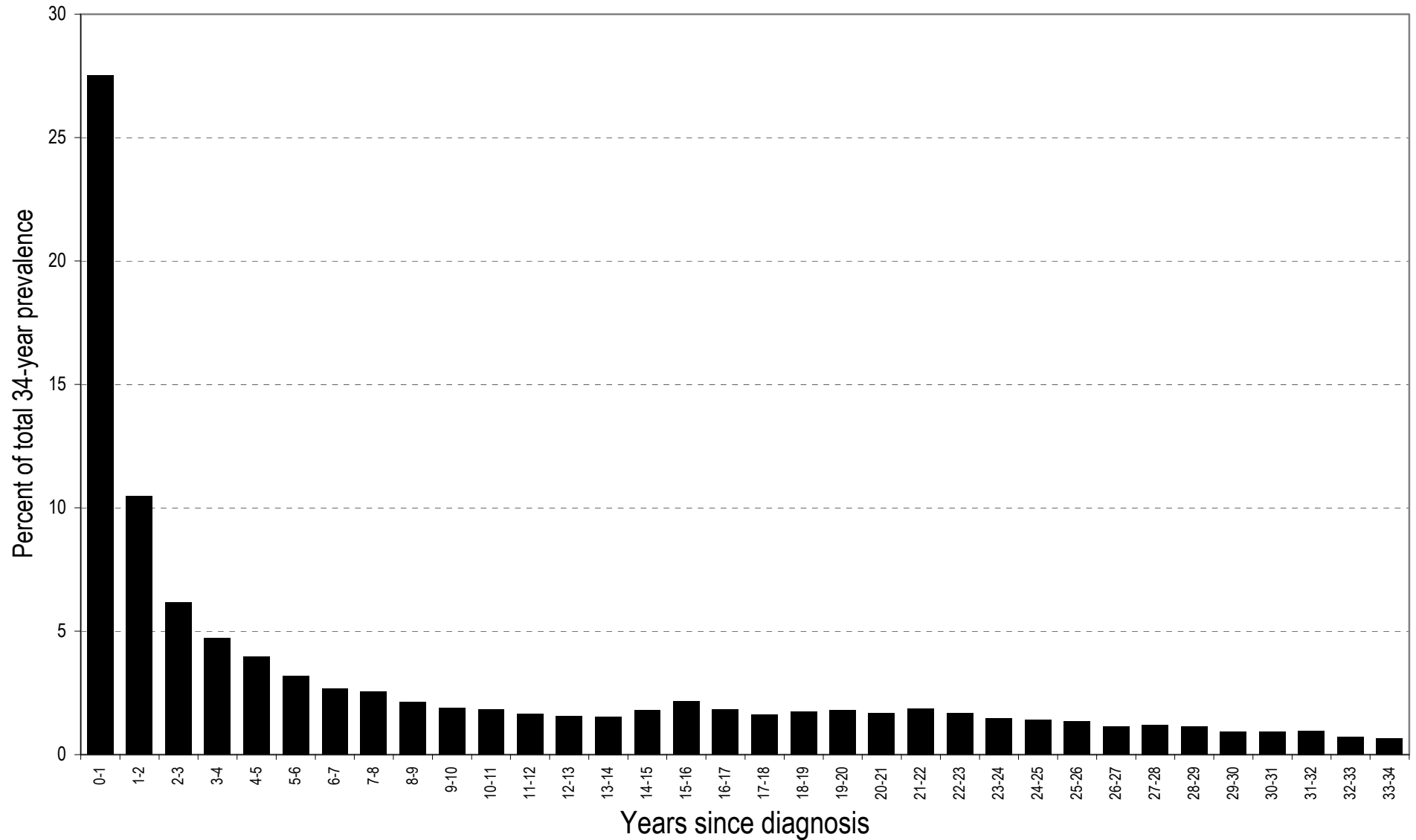
How long ago were the cancer survivors diagnosed?

Observed prevalence of colorectal cancers (ICD-10 C18-C21), England, 2004, by sex



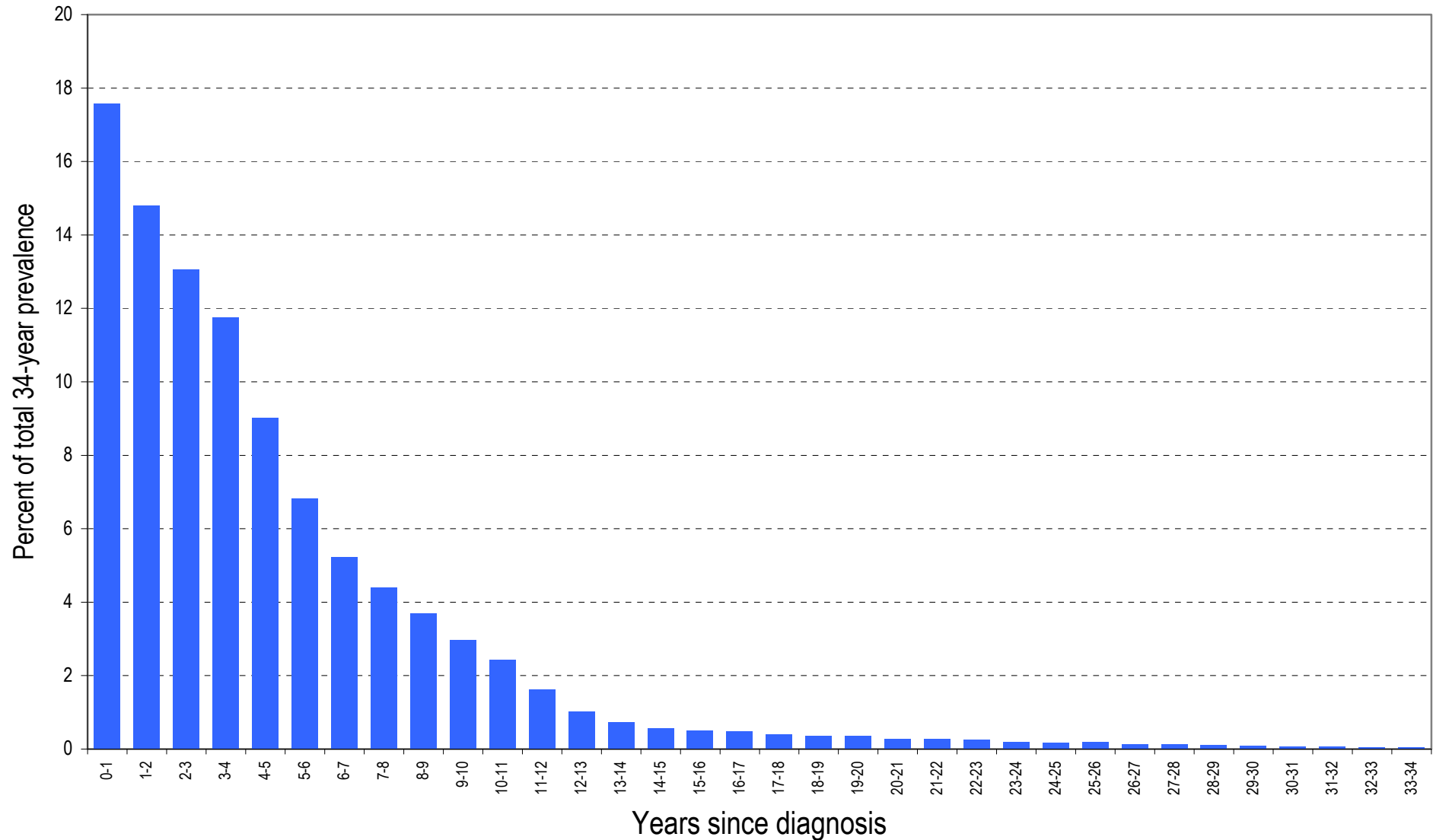
How long ago were the cancer survivors diagnosed?

Observed prevalence of lung cancer (ICD-10 C33-C34), England, 2004



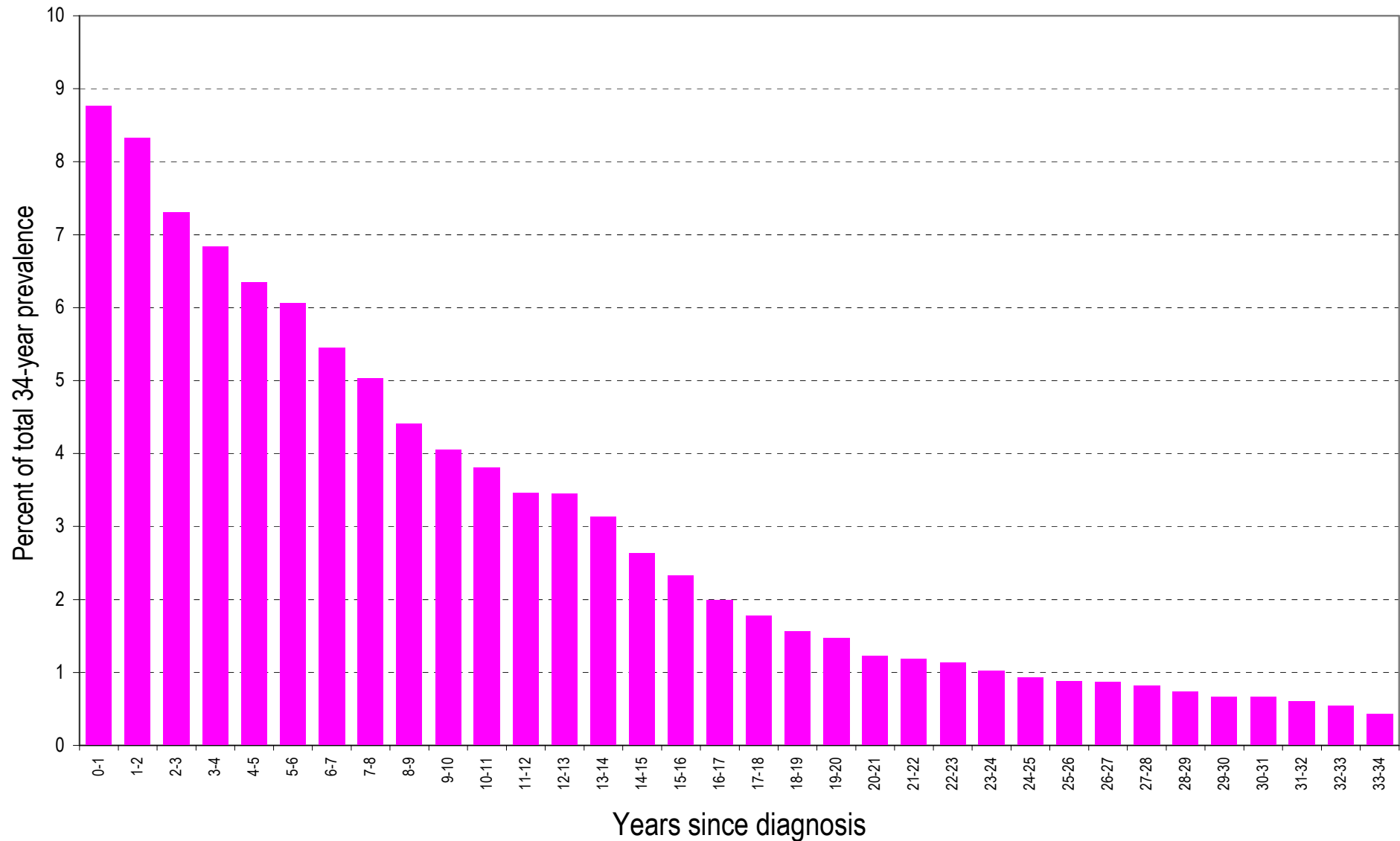
How long ago were the cancer survivors diagnosed?

Observed prevalence of prostate cancer, England, 2004



How long ago were the cancer survivors diagnosed?

Observed prevalence of female breast cancer, England, 2004



Prevalence counts and crude proportions

Observed prevalence of all malignant neoplasms in England, 2004, males

Cancer Site	1-YEAR PREVALENCE		5-YEAR PREVALENCE		20-YEAR PREVALENCE		34-YEAR PREVALENCE	
	Count	Crude prevalence ³	Count	Crude prevalence ³	Count	Crude prevalence ³	Count	Crude prevalence ³
Childhood cancers prevalent in children ¹	1,000	13.2	2,000	51.1	4,000	94.8	4,000	94.8
Childhood cancers prevalent not in children ²	<50	0.1	<500	2.0	5,000	24.5	9,000	44.0
All childhood cancers	1,000	2.6	3,000	11.3	9,000	37.9	13,000	53.6
Colorectal (ICD-10 C18-C21)	12,000	47.3	41,000	165.4	79,000	322.2	87,000	354.9
Lung (incl. trachea & bronchus) (ICD-10 C33-C34)	7,000	28.8	13,000	54.3	22,000	88.5	27,000	111.2
Breast (ICD-10 C50)	<500	0.9	1,000	3.7	2,000	7.5	2,000	8.5
Prostate (ICD-10 C61)	26,000	105.8	98,000	398.7	145,000	589.3	148,000	602.0
Other	33,000	134.7	110,000	449.2	247,000	1,003.9	289,000	1,174.6
All malignant neoplasms (ICD-10 C00-C97 excl. C44)	78,000	317.5	263,000	1,071.3	494,000	2,011.3	553,000	2,251.3

¹Patients aged 0-14 years old on 31 December 2004.

²Patients aged 15+ years old on 31 December 2004 and who have been diagnosed with a childhood cancer at some point in the past.

³Crude prevalence proportion (per 100,000 population).

Counts rounded to the nearest thousand.



Prevalence counts and crude proportions

Observed prevalence of all malignant neoplasms in England, 2004, females

Cancer Site	1-YEAR PREVALENCE		5-YEAR PREVALENCE		20-YEAR PREVALENCE		34-YEAR PREVALENCE	
	Count	Crude prevalence ³	Count	Crude prevalence ³	Count	Crude prevalence ³	Count	Crude prevalence ³
Childhood cancers prevalent in children ¹	<500	10.3	2,000	42.4	4,000	82.1	4,000	82.1
Childhood cancers prevalent not in children ²	<50	0.1	<500	1.7	4,000	18.5	7,000	33.4
All childhood cancers	<500	1.9	2,000	8.7	8,000	29.5	11,000	41.9
Colorectal (ICD-10 C18-C21)	9,000	36.3	33,000	130.7	72,000	283.3	83,000	323.9
Lung (incl. trachea & bronchus) (ICD-10 C33-C34)	5,000	19.9	10,000	39.2	15,000	58.3	17,000	66.1
Breast (ICD-10 C50)	33,000	128.1	140,000	549.4	329,000	1,289.7	373,000	1,461.6
Other	33,000	128.3	117,000	456.7	280,000	1,094.4	340,000	1,331.0
All malignant neoplasms (ICD-10 C00-C97 excl. C44)	80,000	312.5	300,000	1,175.9	696,000	2,725.6	813,000	3,182.5

¹Patients aged 0-14 years old on 31 December 2004.

²Patients aged 15+ years old on 31 December 2004 and who have been diagnosed with a childhood cancer at some point in the past.

³Crude prevalence proportion (per 100,000 population).

Counts rounded to the nearest thousand.

Prevalence counts and crude proportions

Observed prevalence of all malignant neoplasms in England, 2004, both sexes combined

Cancer Site	1-YEAR PREVALENCE		5-YEAR PREVALENCE		20-YEAR PREVALENCE		34-YEAR PREVALENCE	
	Count	Crude prevalence ³	Count	Crude prevalence ³	Count	Crude prevalence ³	Count	Crude prevalence ³
Childhood cancers prevalent in children ¹	1,000	11.8	4,000	46.9	8,000	88.6	8,000	88.6
Childhood cancers prevalent not in children ²	<50	0.1	1,000	1.8	9,000	21.4	16,000	38.5
All childhood cancers	1,000	2.2	5,000	10.0	17,000	33.6	24,000	47.6
Colorectal (ICD-10 C18-C21)	21,000	41.7	74,000	147.7	152,000	302.3	170,000	339.1
Lung (incl. trachea & bronchus) (ICD-10 C33-C34)	12,000	24.3	23,000	46.6	37,000	73.1	44,000	88.2
Breast (ICD-10 C50)	33,000	65.7	141,000	281.9	331,000	661.2	376,000	749.4
Prostate (ICD-10 C61)	26,000	51.9	98,000	195.4	145,000	288.9	148,000	295.1
Other	66,000	131.4	227,000	453.0	526,000	1,050.0	629,000	1,254.3
All malignant neoplasms (ICD-10 C00-C97 excl. C44)	158,000	315.0	564,000	1,124.6	1,190,000	2,375.4	1,366,000	2,726.0

¹Patients aged 0-14 years old on 31 December 2004.

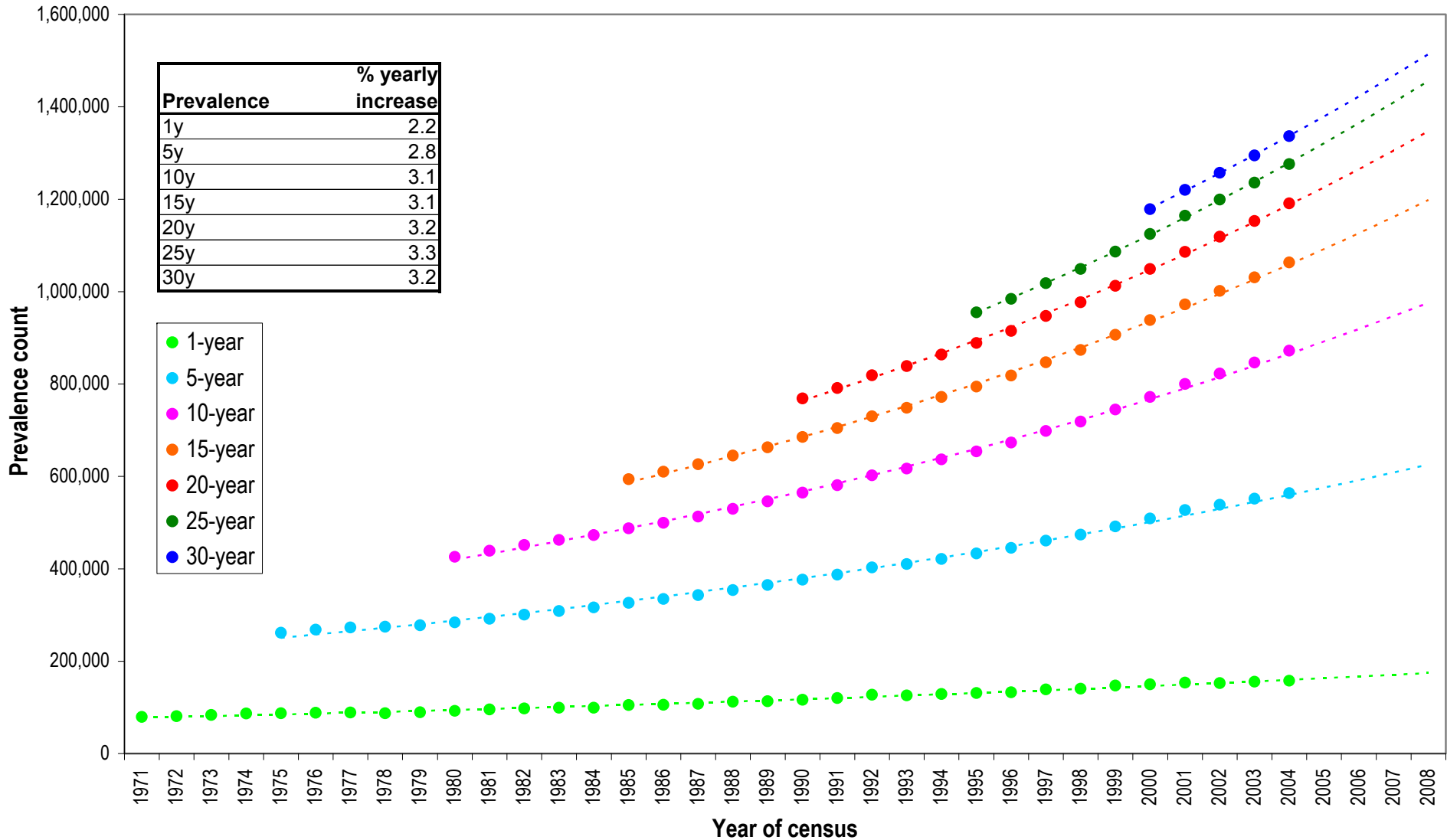
²Patients aged 15+ years old on 31 December 2004 and who have been diagnosed with a childhood cancer at some point in the past.

³Crude prevalence proportion (per 100,000 population).

Counts rounded to the nearest thousand.

How is prevalence changing over time?

Observed prevalence, England, 1971-2004, with predictions to 2008



The calculations in more detail

[1]: Observed 34-year prevalence of all malignant neoplasms (excl. non-melanoma skin cancer) in England at the end of 2004 = 1,366,032 persons (552,975 males / 813,057 females)

[2]: Estimated completeness of **[1]** = 95%

[3]: Estimated complete prevalence of all malignant neoplasms (excl. non-melanoma skin cancer) in England at the end of 2004 = **[1]** / **[2]** = 1,366,032 / 0.95 = 1,437,928

[4]: Yearly increases in 15-, 20-, 25- and 30-year limited duration prevalence of all malignant neoplasms (excl. non-melanoma skin cancer) in England:

Prevalence	% yearly increase
15y	3.1
20y	3.2
25y	3.3
30y	3.2

[5]: Estimated complete prevalence of all malignant neoplasms (excl. non-melanoma skin cancer) in England at the end of 2008 = **[3]** * **[4]**⁴ = 1,437,928 * 1.032⁴ = 1,631,007

[6]: Estimated complete prevalence of all malignant neoplasms (excl. non-melanoma skin cancer) in the UK at the end of 2008 = **[5]** * 1.2 = 1,957,208 ~ 2 million



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