

THE INCIDENCE AND PREVALENCE OF PARKINSON'S IN THE UK

Results from the Clinical Practice Research Datalink
Summary report (published December 2017)

Introduction

Understanding both prevalence and incidence is important in terms of supporting people living with Parkinson's. 'Prevalence' indicates the number of people with Parkinson's at a point in time and shows how widespread Parkinson's is in the population. 'Incidence' is the number of new diagnoses that arise in a specific period. As Parkinson's is more common in older people and as the UK population is increasingly ageing (as life expectancy increases), it is important to see how prevalence and incidence of Parkinson's may increase over time.

This report provides estimates of prevalence and incidence of Parkinson's in the UK for 2018 and beyond. These estimates were derived from an analysis of records of over 2.5 million patients over the age of 20 from the Clinical Practice Research Datalink (CPRD) database. Following advice from clinical experts, we estimated the number of patients with a definite diagnosis of Parkinson's in their records and adjusted these in terms of age and gender to ensure they were representative of the UK population. Using projected population figures from the Office of National Statistics, we then estimated prevalence and incidence for 2018 and potential growth up to 2025 and beyond.

This report briefly outlines key findings from this analysis. A detailed report on our website provides a description of methods and a breakdown of estimates by geographical area.

Estimated prevalence for 2018

As Table 1 shows, estimated prevalence for 2018 for people aged over 20 for the UK as a whole is 145,519. For England it is 121,927, for Scotland 12,184, for Wales 7,692 and for Northern Ireland 3,716. The prevalence of Parkinson's increases with age. As shown in our more detailed report, the prevalence of Parkinson's is higher for men than for women. For men aged 50-89, prevalence is 1.5 times higher than for women in the same age-group.

Table 1: Projected prevalence of Parkinson's in 2018, by age and country

	Estimated numbers in UK in 2018				
	England	Northern Ireland	Scotland	Wales	UK
Population	55,997,686	1,879,567	5,449,080	3,139,308	66,465,641
<i>Prevalence:</i>					
All 20+	121,927	3,716	12,184	7,692	145,519
20-29	129	4	13	7	153
30-39	337	11	32	17	396
40-49	1,022	35	98	53	1,208
50-54	2,678	90	276	151	3,195
55-59	4,552	155	491	269	5,466
60-64	7,689	260	847	476	9,272
65-69	13,593	431	1,443	887	16,354
70-74	23,515	694	2,330	1,515	28,054
75-79	24,012	763	2,439	1,577	28,791
80-84	24,010	707	2,375	1,508	28,599
85-89	14,258	402	1,324	867	16,851
90+	6,133	164	516	366	7,180

Estimated incidence for 2018

As Table 2 shows, the estimated incidence of Parkinson's for people aged 45 or over 2018 is 18,461. (Due to small numbers, it was not possible to properly estimate incidence for people under 45.) As shown in our more detailed report, for the UK in 2015, the lifetime risk of being diagnosed with Parkinson's was 2.7%. This is equivalent to 1 in every 37 people being diagnosed with Parkinson's at some point in their life.

Table 2: Projected incidence of Parkinson's in 2018, by age and country

	Estimated numbers in UK in 2018				
	England	Northern Ireland	Scotland	Wales	UK
Population	55,997,686	1,879,567	5,449,080	3,139,308	66,465,641
<i>Incidence:</i>					
All 45+	15,465	472	1,547	977	18,461
45-49	154	5	15	8	182
50-54	370	13	38	21	442
55-59	640	22	69	38	768
60-64	991	34	109	61	1,195
65-69	1,694	54	180	111	2,038
70-74	3,103	91	307	200	3,702
75-79	3,348	106	340	220	4,015
80-84	2,853	84	281	179	3,397
85-89	1,666	47	154	101	1,968
90+	644	17	53	38	753

Potential growth in prevalence and incidence to 2065

Because of population growth and an increasingly ageing population, the estimated prevalence and incidence of Parkinson's in the UK is expected to grow. As Table 3 shows, prevalence is expected to rise by around 18% between 2018 and 2025 to over 168,000. As Table 4 shows, by 2025 the estimated yearly incidence is expected to rise to over 21,000. By 2065, the prevalence and incidence numbers are predicted to have almost doubled.

Table 3: Projected prevalence numbers of Parkinson's in UK to 2065

Age	Estimated prevalence numbers of Parkinson's in UK in year				
	2025	2035	2045	2055	2065
<i>Prevalence:</i>					
All 20+	168,582	202,117	229,674	243,877	256,609
20-29	142	157	155	152	157
30-39	407	371	410	404	398
40-49	1,207	1,288	1,174	1,299	1,282
50-54	2,929	2,991	3,104	2,762	3,204
55-59	5,789	5,120	5,694	5,386	5,692
60-64	11,111	10,468	10,747	11,196	10,009
65-69	17,895	20,736	18,521	20,722	19,753
70-74	27,222	34,690	33,081	34,325	35,984
75-79	38,919	41,128	48,596	44,207	50,112
80-84	34,176	41,414	54,603	53,453	56,983
85-89	20,195	30,818	34,725	43,019	41,110
90+	8,591	12,935	18,864	26,951	31,927
<i>Population:</i>					
All	68,929,547	71,590,766	73,748,141	75,507,483	76,898,078
Aged 20+	52,675,868	55,622,944	57,646,765	58,935,177	60,227,373
Prevalence as % of all aged 20+	0.320%	0.363%	0.398%	0.414%	0.426%

Table 4: Projected incidence numbers (per year) of Parkinson's in UK to 2065

Age	Estimated incidence numbers (per year) of Parkinson's in UK in year				
	2025	2035	2045	2055	2065
<i>Incidence:</i>					
All 45+	21,451	25,608	29,021	30,628	32,303
45-49	187	165	183	172	181
50-54	438	405	414	428	380
55-59	728	813	720	800	758
60-64	1,150	1,432	1,349	1,386	1,444
65-69	2,181	2,230	2,585	2,308	2,582
70-74	3,243	3,591	4,577	4,365	4,530
75-79	3,854	5,428	5,737	6,779	6,167
80-84	3,237	4,069	4,937	6,513	6,380
85-89	1,882	2,378	3,649	4,121	5,110
90+	728	938	1,458	2,150	3,096
<i>Population:</i>					
All	68,929,547	71,590,766	73,748,141	75,507,483	76,898,078
Aged 45+	31,124,564	33,885,980	35,683,759	36,609,021	37,916,280
Incidence as % of all aged 45+	0.0689%	0.0756%	0.0813%	0.0837%	0.0852%

Potential underestimates

While our analysis estimates the number of people with a definite diagnosis of Parkinson's, the number of people living with Parkinson's may be a bit higher. Although our report indicates around 1,750 people with a definite diagnosis of Parkinson's are aged under 50, the number of people with Parkinson's in this age group may be higher. Because professionals are less likely to suspect Parkinson's in a younger person, diagnosis may take longer. Also, due to small numbers, it was not possible to calculate incidence for people under 45 in this analysis. Research also suggests that Parkinson's is underdiagnosed in older age-groups perhaps because of symptoms being attributed to ageing or because of multiple health conditions that make it more difficult to diagnose Parkinson's.

More information

A detailed report describes our methodological approach and provides a breakdown of estimated incidence and prevalence by geographical region.

<https://www.parkinsons.org.uk/professionals/resources>

If you would like further information about a statistic and how it was developed, contact Cathal Doyle at cdoyle@parkinsons.org.uk.

Every hour, two people in the UK are told they have Parkinson's – a brain condition that turns lives upside down, leaving a future full of uncertainty.

Parkinson's UK is here to make sure people have whatever they need to take back control – from information to inspiration.

We want everyone to get the best health and social care. So we bring professionals together to drive improvements that enable people to live life to the full.

Ultimately, we want to end Parkinson's. That's why we inspire and support the international research community to develop life-changing treatments, faster. And we won't stop until we find a cure.

**Together we can bring forward the day
when no one fears Parkinson's.**

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Free confidential helpline **0808 800 0303**
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