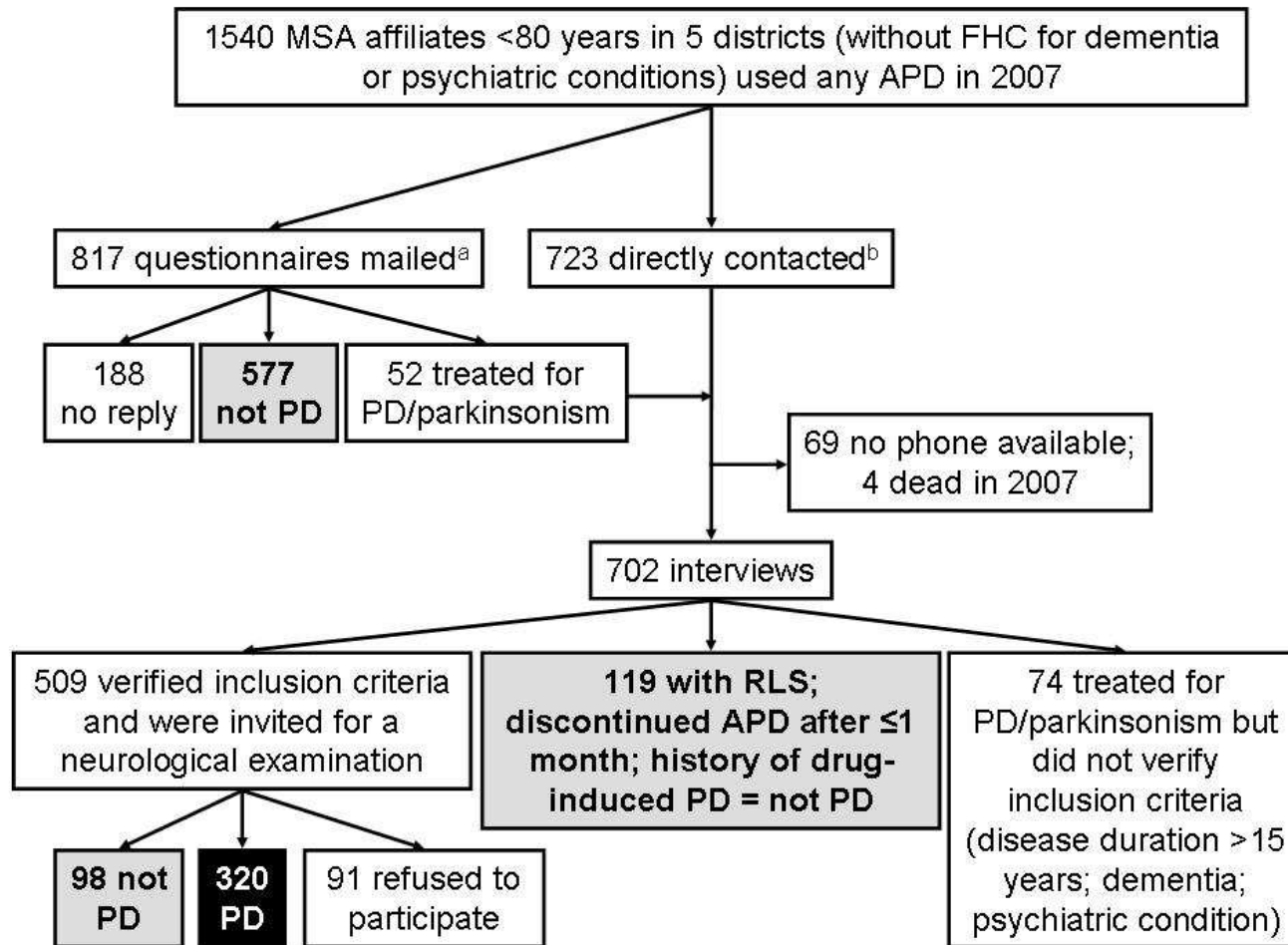


**SUPPLEMENTAL FIGURE 1.** Flow-chart for the validation study



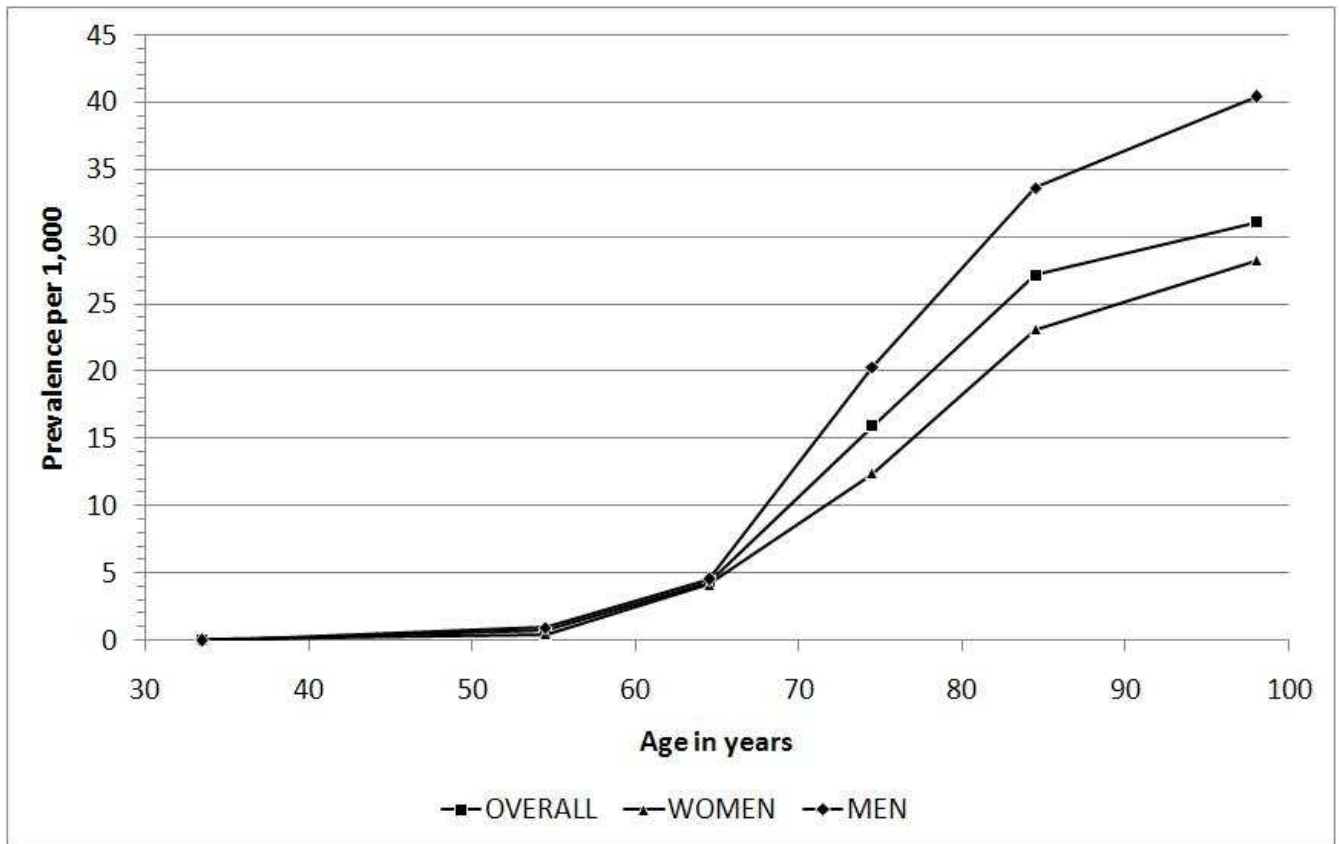
The shaded boxes correspond to 794 (577+119+98) subjects who were considered not to have PD. The dark box includes 320 subjects who were considered to have PD after examination by the study neurologists. Therefore, our validation study included 794 subjects without PD and 320 subjects with PD.

APD, antiparkinsonian drug; RLS, restless legs syndrome.

<sup>a</sup> Includes subjects with at least one prescription of piribedil, amantadine, or anticholinergics in 2007 but who did not use other antiparkinsonian drugs.

<sup>b</sup> Includes 374 subjects with FHC for PD ( $\leq 15$  years of disease duration) who used any antiparkinsonian drug and 349 subjects with at least one delivery of levodopa, entacapone, tolcapone, ropinirole, pramipexole, apomorphine, bromocriptine, or selegiline in 2007.

**SUPPLEMENTAL FIGURE 2.** *Prevalence of Parkinson's disease by age and gender*



**SUPPLEMENTAL TABLE 1.** Age and sex distribution of MSA affiliates in five French districts compared to the French general population (2007)

Characteristics	Charente-		Haute-			<i>P</i> <sup>a</sup>	French general		<i>P</i> <sup>b</sup>
	Maritime	Côte-d'Or	Gironde	Vienne	Mayenne		Five districts	population ≥18 years	
	No.=57 703	No.=27 560	No.=89 452	No.=26 037	No.=38 824		No.=239 576	No.=49 350 296	
Male sex (%)	49.7	55.9	50.7	51.9	52.3	<0.001 <sup>c</sup>	51.5	47.6	<0.001 <sup>c</sup>
18 to 49 years (%)	43.7	43.0	52.4	35.7	34.9		44.6	55.4	
50 to 59 years (%)	14.5	14.7	14.5	13.7	14.1		14.4	17.3	
60 to 69 years (%)	11.6	11.8	9.9	11.8	14.1		11.4	11.5	
70 to 79 years (%)	16.6	17.0	12.6	20.0	21.5		16.3	9.7	
80 to 89 years (%)	11.7	11.6	9.0	16.1	13.1		11.4	5.2	
≥ 90 years (%)	1.9	1.9	1.6	2.7	2.3	<0.001 <sup>c</sup>	1.9	0.9	<0.001 <sup>c</sup>
Median age (IQ range)	54.4 (37.0)	54.8 (35.8)	48.5 (33.9)	60.3 (35.2)	60.6 (32.9)	<0.001 <sup>d</sup>	53.8 (36.2)	46.0 (28.0)	<0.001 <sup>e</sup>

<sup>a</sup> P-value for the comparison across the five districts.

<sup>b</sup> P-value for the comparison between the MSA population in the five districts and the French general population.

<sup>c</sup> Chi-square test.

<sup>d</sup> Kruskal-Wallis test.

<sup>e</sup> Wilcoxon rank-sum test.

IQ, interquartile.

**SUPPLEMENTAL TABLE 2.** *Densities of the different farming types in 208 cantons from five French districts in 2007*

Farming types	No. of farms	% of cantons <sup>b</sup>	Median density <sup>a</sup> (IQ range) in cantons with the farming type						P <sup>c</sup>
			Overall	Charente-Maritime	Côte-d'Or	Gironde	Haute-Vienne	Mayenne	
Cattle-dairying rearing and fattening combined	2 063	68.8	3 (9)	1 (4)	2 (4)	1 (2)	4 (5)	25 (17)	<0.001
Field crops-grazing livestock combined	4 088	88.9	8 (14)	14 (23)	11 (16)	2 (6)	5 (4)	13 (16)	<0.001
General field cropping	5 261	83.7	9 (26)	33 (32)	14 (24)	3 (5)	1 (1)	6 (12)	<0.001
Mixed cropping	6 319	90.4	6 (24)	37 (65)	2 (5)	17 (23)	2 (2)	2 (3)	<0.001
Mixed livestock mainly granivores	751	54.3	1 (4)	1 (0)	1 (0)	1 (1)	1 (1)	10 (8)	<0.001
Mixed livestock mainly grazing livestock	3 112	89.9	8 (11)	7 (7)	2 (5)	5 (10)	17 (9)	15 (7)	<0.001
Sheep goats and other grazing livestock	8 346	94.2	13 (32)	8 (8)	4 (6)	10 (10)	72 (38)	44 (21)	<0.001
Specialist cattle-rearing and fattening	8 192	88.9	8 (43)	4 (3)	2 (18)	5 (6)	66 (39)	46 (33)	<0.001
Specialist cereals oilseed and protein crops	2 790	88.5	6 (10)	12 (11)	9 (8)	5 (7)	1 (2)	5 (8)	<0.001
Specialist dairying	9 068	86.5	5 (15)	4 (6)	2 (2)	4 (5)	9 (12)	127 (67)	<0.001
Specialist fruits and permanent crops	695	70.7	2 (3)	3 (4)	2 (3)	2 (6)	1 (1)	1 (1)	<0.001
Specialist granivores	506	64.4	1 (2)	2 (2)	1 (0)	1 (1)	1 (1)	4 (4)	<0.001
Specialist horticulture	455	73.1	1 (3)	2 (5)	1 (2)	2 (3)	1 (1)	1 (1)	<0.001
Specialist market garden vegetables	965	65.4	3 (6)	4 (8)	3 (13)	3 (5)	1 (6)	1 (1)	<0.001
Specialist vineyards	15 080	50.5	48 (138)	27 (44)	97 (148)	121 (285)	2 (0)	-- <sup>d</sup>	<0.001
Various crops and livestock combined	2 555	97.6	6 (10)	13 (8)	2 (3)	9 (13)	3 (4)	4 (2)	<0.001

<sup>a</sup> Number of farms per 100 km<sup>2</sup>.

<sup>b</sup> Proportion of the 208 cantons in which the corresponding farming type was present. The number of cantons per *département* was: *Charente-Maritime*, n=47; *Côte-d'Or*, n=41; *Gironde*, n=55; *Haute-Vienne*, n=33; *Mayenne*, n=32.

<sup>c</sup> Kruskal-Wallis test.

<sup>d</sup> Farming type not present.

IQ, interquartile.