

**Supplementary table 1.** Sensitivity analysis 1: Incidence of coeliac disease excluding all patients whose first diagnosis or a gluten-free prescription was recorded within six months from their initial general practice registration (potentially prevalent cases) unless they were diagnosed at younger than 2 years of age ( $N=2,063,191$ )

	Number of coeliac disease cases	Person-years	Rate per 100,000 person-years (95% confidence interval)	Unadjusted Incidence Rate Ratios (95% confidence interval)
<b>Overall</b>	1,017	10,507,687	9.7 (9.1-10.3)	
<b>Sex</b>				
Male	414	5,448,317	7.6 (6.9-8.3)	1
Female	603	5,059,370	11.9 (11-12.9)	1.56 (1.38-1.77)
<b>Age (years)</b>				
<1	24	599,685	4.0 (2.7-6.0)	
1	125	668,932	18.7 (15.7-22.2)	
2	85	662,566	12.8 (10.3-15.8)	
3	72	653,516	11.0 (8.7-13.9)	
4	72	643,040	11.2 (8.9-14.1)	
5	51	629,699	8.1 (6.1-10.6)	
6	62	618,185	10.0 (7.8-12.8)	
7	64	608,161	10.5 (8.2-13.4)	
8	51	597,726	8.5 (6.5-11.2)	
9	55	587,107	9.4 (7.2-12.2)	
10	48	576,614	8.3 (6.3-11.0)	
11	45	566,394	7.9 (5.9-10.7)	
12	45	554,263	8.1 (6.0-10.9)	
13	43	539,019	7.9 (5.9-10.7)	
14	50	521,469	9.6 (7.2-12.6)	
15	39	507,861	7.7 (5.6-10.5)	
16	33	495,520	6.6 (4.7-9.3)	
17	53	477,930	11.0 (8.5-14.5)	
<b>Country</b>				
England	816	8,194,416	9.9 (9.3-10.6)	1
Scotland	120	1,286,845	9.3 (7.8-11.1)	0.93 (0.77-1.13)
Wales	51	649,343	7.8 (5.9-10.3)	0.78 (0.59-1.04)
Northern Ireland	30	377,083	7.9 (5.5-11.4)	0.79 (0.55-1.15)
<b>Calendar period</b>				
1993-1997	36	603,166	5.9 (4.3-8.3)	1
1998-2002	177	2,405,184	7.3 (6.3-8.5)	1.23 (0.86-1.76)
2003-2007	322	3,572,601	9.0 (8.1-10.0)	1.51 (1.07-2.13)
2008-2012	482	3,926,736	12.3 (11.2-13.4)	2.05 (1.46-2.88)
<b>Socioeconomic deprivation (Quintile of Townsend Index)</b>				
1 (least deprived)	286	2,479,455	11.5 (10.3-12.9)	1.66 (1.32-2.09)
2	239	2,032,624	11.7 (10.3-13.3)	1.70 (1.34-2.15)
3	180	2,043,890	8.8 (7.6-10.2)	1.27 (0.99-1.63)
4	152	1,901,254	7.9 (6.8-9.4)	1.15 (0.89-1.49)
5 (most deprived)	97	1,402,690	6.9 (5.7-8.4)	1
Missing	63	648,773	9.7 (7.6-12.4)	1.40 (1.02-1.92)

**Supplementary table 2.** Sensitivity analysis 2: Incidence of coeliac disease using a restricted definition of children with at least one prescription for a gluten-free product associated with their coeliac disease diagnosis ( $N=2,063,421$ )

	Number of coeliac disease cases	Person-years	Rate per 100,000 person-years (95% confidence interval)	Unadjusted Incidence Rate Ratios (95% confidence interval)
<b>Overall</b>	1,007	10,508,374	9.6 (9.0-10.2)	
<b>Sex</b>				
Male	412	5,448,627	7.5 (6.8-8.3)	1
Female	595	5,059,747	11.7 (10.8-12.7)	1.55 (1.37-1.76)
<b>Age (years)</b>				
<1	14	599,729	2.3 (1.4-3.9)	
1	112	668,994	16.7 (13.9-20.1)	
2	96	662,631	14.5 (11.8-17.7)	
3	72	653,576	11.0 (8.7-13.8)	
4	71	643,093	11.0 (8.7-13.9)	
5	51	629,754	8.1 (6.1-10.6)	
6	70	618,239	11.3 (8.9-14.3)	
7	61	608,210	10.0 (7.8-12.9)	
8	56	597,771	9.3 (7.2-12.2)	
9	52	587,151	8.8 (6.7-11.6)	
10	53	576,655	9.1 (7.0-12.0)	
11	45	566,426	7.9 (5.9-10.6)	
12	49	554,290	8.8 (6.7-11.7)	
13	49	539,042	9.1 (6.9-12.0)	
14	45	521,483	8.6 (6.4-11.5)	
15	33	507,872	6.5 (4.6-9.1)	
16	32	495,528	6.4 (4.5-9.1)	
17	46	477,930	9.6 (7.2-12.8)	
<b>Country</b>				
England	796	8,194,945	9.7 (9.0-10.4)	1
Scotland	125	1,286,924	9.7 (8.1-11.6)	0.99 (0.83-1.20)
Wales	55	649,399	8.5 (6.5-11.0)	0.87 (0.66-1.14)
Northern Ireland	31	377,106	8.2 (5.8-11.7)	0.84 (0.59-1.21)
<b>Calendar period</b>				
1993-1997	39	603,213	6.5 (4.7-8.8)	1
1998-2002	171	2,405,398	7.1 (6.1-8.2)	1.09 (0.77-1.55)
2003-2007	326	3,572,886	9.1 (8.1-10.1)	1.41 (1.01-1.97)
2008-2012	471	3,926,877	12.0 (10.9-13.1)	1.85 (1.34-2.57)
<b>Socioeconomic deprivation (Quintile of Townsend Index)</b>				
1 (least deprived)	287	2,479,655	11.6 (10.3-13.0)	1.76 (1.39-2.23)
2	241	2,032,782	11.8 (10.4-13.4)	1.81 (1.42-2.30)
3	174	2,043,017	8.5 (7.3-9.9)	1.29 (1.0-1.67)
4	157	1,901,385	8.2 (7.1-9.6)	1.25 (0.97-1.62)
5 (most deprived)	92	1,402,742	6.5 (5.3-8.0)	1
Missing	56	648,793	8.6 (6.6-11.2)	1.31 (0.94-1.83)