

## SUPPLEMENTARY FILE 6 – DETAILED CUMULATIVE INCIDENCE CALCULATIONS

Note: all numbers are rounded to nearest 10, and all percentages to one decimal place, in compliance with statistical disclosure rules. This may result in rounding error.

Table S6.1. Cumulative incidence of referral, assessment, CiN status and CPP to age 5 in cohort 1 (born 2012/13).

Within age	Number of new events	ONS Mid-year estimate	Population at risk	Age-specific hazard	Integrated hazard	Cumulative incidence
<i>Referrals</i>						
Pre-birth	23120	696440	696440	3.3%	3.3%	3.3%
0	37420	696440	673330	5.6%	8.9%	8.5%
1	22620	701280	640750	3.5%	12.4%	11.7%
2	18390	707020	623870	2.9%	15.4%	14.2%
3	17650	712590	611050	2.9%	18.2%	16.7%
4	16960	717900	598700	2.8%	21.1%	19.0%
5	10480	721710	585560	1.8%	22.9%	20.4%
<i>Assessments</i>						
Pre-birth	21900	696440	696440	3.1%	3.1%	3.1%
0	33690	696440	674550	5.0%	8.1%	7.8%
1	20670	701280	645690	3.2%	11.3%	10.7%
2	17370	707020	630770	2.8%	14.1%	13.1%
3	16790	712590	618960	2.7%	16.8%	15.5%
4	16100	717900	607490	2.6%	19.5%	17.7%
5	10290	721710	595200	1.7%	21.2%	19.1%
<i>CiN</i>						
Pre-birth	18290	696440	696440	2.6%	2.6%	2.6%
0	25580	696440	678150	3.8%	6.4%	6.2%
1	14830	701280	657410	2.3%	8.7%	8.3%
2	12070	707020	648320	1.9%	10.5%	10.0%
3	11580	712590	641820	1.8%	12.3%	11.6%
4	10910	717900	635550	1.7%	14.0%	13.1%
5	7830	721710	628450	1.2%	15.3%	14.2%
<i>CPP</i>						
Pre-birth	7470	696440	696440	1.1%	1.1%	1.1%
0	5980	696440	688980	0.9%	1.9%	1.9%
1	3830	701280	687840	0.6%	2.5%	2.5%
2	3400	707020	689750	0.5%	3.0%	2.9%
3	3130	712590	691910	0.5%	3.4%	3.4%
4	3000	717900	694090	0.4%	3.9%	3.8%
5	2130	721710	694900	0.3%	4.2%	4.1%

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Table S6.2. Cumulative incidence of **referrals** in cohorts 2 (born 2005/6, followed from age 6 in 2011/12 to age 12) and 3 (born 2000/1, followed from age 13 in 2013/14 to age 15).

Within age	Observed number of referrals	Discount for recurrent referrals	Corrected n referrals	ONS mid-year estimate	Population at risk	Age-specific hazard	Integrated hazard	Cumulative incidence
<i>Cohort 2</i>								
6	19810	6200	13610	638420	507930	2.7%	2.7%	2.6%
7	16660	3710	12950	641070	627450	2.1%	4.7%	4.6%
8	14200	2310	11890	644280	617720	1.9%	6.7%	6.5%
9	11710	1450	10260	647550	609100	1.7%	8.4%	8.0%
10	10730	880	9850	651140	602440	1.6%	10.0%	9.5%
11	9830	540	9290	654370	595810	1.6%	11.5%	10.9%
12	9490	330	9160	658110	590260	1.6%	13.1%	12.3%
<i>Cohort 3</i>								
13	13860	4000	9860	620280	417340	2.4%	2.4%	2.3%
14	12550	2370	10190	623250	613390	1.7%	4.0%	3.9%
15	11060	1470	9600	627180	607140	1.6%	5.6%	5.4%
16	8100	930	7180	631640	602000	1.2%	6.8%	6.6%
17	5700	570	5130	638470	601660	0.9%	7.6%	7.4%

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Table S6.3. Cumulative incidence of **assessments** in cohorts 2 (born 2005/6, followed from age 6 in 2011/12 to age 12) and 3 (born 2000/1, followed from age 13 in 2013/14 to age 15).

Within age	Observed number of assessments	Discount for recurrent assessments	Corrected n assessments	ONS mid-year estimate	Population at risk	Age-specific hazard	Integrated hazard	Cumulative incidence
<i>Cohort 2</i>								
6	18440	6100	12340	638420	632970	1.9%	1.9%	1.9%
7	15720	3780	11940	641070	628730	1.9%	3.8%	3.8%
8	13400	2420	10980	644280	620000	1.8%	5.6%	5.5%
9	11440	1550	9890	647550	612290	1.6%	7.2%	7.0%
10	10610	960	9650	651140	605990	1.6%	8.8%	8.4%
11	9740	600	9140	654370	599560	1.5%	10.4%	9.8%
12	9340	380	8960	658110	594170	1.5%	11.9%	11.2%
<i>Cohort 3</i>								
13	12940	4010	8930	620280	545620	1.6%	1.6%	1.6%
14	12190	2460	9730	623250	614320	1.6%	3.2%	3.2%
15	10940	1570	9380	627180	608520	1.5%	4.8%	4.6%
16	8010	1010	7000	631640	603600	1.2%	5.9%	5.7%
17	5560	630	4930	638470	603440	0.8%	6.7%	6.5%

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Table S6.4. Cumulative incidence of **CiN status** in cohorts 2 (born 2005/6, followed from age 6 in 2011/12 to age 12) and 3 (born 2000/1, followed from age 13 in 2013/14 to age 15).

Within age	Observed number of need episodes	Discount for recurrent need episodes	Corrected n need episodes	ONS mid-year estimate	Population at risk	Age-specific hazard	Integrated hazard	Cumulative incidence
<i>Cohort 2</i>								
6	13730	3900	9830	638420	633200	1.6%	1.6%	1.5%
7	12520	2570	9950	641070	631240	1.6%	3.1%	3.1%
8	10100	1760	8340	644280	624500	1.3%	4.5%	4.4%
9	8500	1220	7280	647550	619430	1.2%	5.6%	5.5%
10	7510	830	6680	651140	615740	1.1%	6.7%	6.5%
11	7100	550	6540	654370	612290	1.1%	7.8%	7.5%
12	7290	370	6920	658110	609490	1.1%	8.9%	8.5%
<i>Cohort 3</i>								
13	9740	2680	7060	620280	562230	1.3%	1.3%	1.2%
14	9260	1740	7520	623250	616190	1.2%	2.5%	2.4%
15	8100	1190	6900	627180	612600	1.1%	3.6%	3.5%
16	5920	830	5090	631640	610160	0.8%	4.4%	4.3%
17	4380	560	3810	638470	611900	0.6%	5.1%	4.9%

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Table S6.5. Cumulative incidence of **child protection plans** in cohorts 2 (born 2005/6, followed from age 6 in 2011/12 to age 12) and 3 (born 2000/1, followed from age 13 in 2013/14 to age 15).

Within age	Observed number of CPP	Discount for recurrent CPP	Corrected n need CPP	ONS mid-year estimate	Population at risk	Age-specific hazard	Integrated hazard	Cumulative incidence
<i>Cohort 2</i>								
6	2340	630	1710	638420	634440	0.3%	0.3%	0.3%
7	2490	430	2060	641070	639360	0.3%	0.6%	0.6%
8	2490	310	2180	644280	640510	0.3%	0.9%	0.9%
9	2340	230	2110	647550	641600	0.3%	1.3%	1.3%
10	2170	160	2010	651140	643080	0.3%	1.6%	1.6%
11	2110	110	2000	654370	644290	0.3%	1.9%	1.9%
12	1840	80	1760	658110	646040	0.3%	2.2%	2.1%
<i>Cohort 3</i>								
13	1980	430	1560	620280	603190	0.3%	0.3%	0.3%
14	1860	280	1570	623250	621690	0.3%	0.5%	0.5%
15	1390	210	1180	627180	624050	0.2%	0.7%	0.7%
16	750	150	600	631640	627320	0.1%	0.8%	0.8%
17	200	110	90	638470	633560	k	0.8%	0.8%

k suppressed percentage <0.05%