

# APPENDIX Y&H ORTHODONTIC NEEDS ASSESSMENT

Table 1 Comparison of estimates of orthodontic treatment need using different methodologies

NHSE North regional offices	A	B	C	D	E	F	G
	12-year old population 2011 census	Estimated case starts per year using NDEP 2008 need & demand & appliance wearing	Estimated need using Holmes (36.3%)	Estimated case starts using Normative need (37%) CDH 2013	Estimated case starts per year using Stephen's formula  (A / 3 * 1.13)	Estimated case starts using third population	Estimated case starts using mean of methodologies (B&C&D&E&F/ 5)
<b>North Yorkshire And Humber</b>	19029	N/A	6908	7041	7168	<b>6343</b>	<u>N/A</u>
*North Yorkshire & York	8780	2125	3187	3249	3307	2927	<u>2959</u>
East Riding	3711	1106	1347	1373	1398	1237	<u>1292</u>
Hull	2797	719	1016	1035	1054	933	<u>948</u>
North East Lincolnshire	1842	334	669	682	694	614	<u>599</u>
North Lincolnshire	1899	414	690	703	716	633	<u>632</u>
<b>South Yorkshire And Bassetlaw</b>	16912	N/A	6139	6257	56370	<b>5639</b>	<u>N/A</u>

Doncaster	3489	963	1267	1291	1314	1163	<u>1199</u>
Bassetlaw	1464	425	531	541	551	488	<u>507</u>
Barnsley	2735	670	993	1012	1031	912	<u>924</u>
Rotherham	3184	898	1156	1178	1200	1062	<u>1099</u>
Sheffield	6040	1565	2193	2235	2275	2014	<u>2057</u>
<b>West Yorkshire</b>	27183	N/A	9868	10058	10239	<b>9061</b>	<u>N/A</u>
Bradford and Airedale	7402	2110	2687	2739	2788	2468	<u>2559</u>
Calderdale	2556	690	928	946	963	852	<u>876</u>
Kirklees	5331	1397	1936	1973	2008	1777	<u>1819</u>
Leeds	8137	1815	2954	3011	3065	2713	<u>2099</u>
Wakefield District	3757	1026	1364	1390	1415	1253	<u>1289</u>
<b>Yorkshire and Humber</b>	<b>61660</b>	<b>15415</b>	<b>22383</b>	<b>22815</b>	<b>23226</b>	<b>20554</b>	<u>20879</u>
<b>North of England</b>	<b>164256</b>	<b>42214</b>	<b>59625</b>	<b>60775</b>	<b>61870</b>	<b>54752</b>	<u>55847</u>

**Table 3 16/17 estimated hospital cases and actual activity**

<b>2016/17 Full Financial Year 12 months</b>							
<b>TRUST</b>	<b>First attendance</b>	<b>First attendance (cost)</b>	<b>Follow up</b>	<b>Follow up (cost)</b>	<b>Ratio 1<sup>st</sup>/follow-up</b>	<b>Total cost</b>	<b>Potential maximum no. cases based on estimated cost/case £1467</b>
RCF – Airedale	90	£13,950	356	£27,768	0.25	£41,719	28
RFF – Barnsley	271	£43,363	660	£53,933	0.41	£97,297	66
RAE - Bradford	1115	£178,648	2,228	£180,178	0.50	£358,826	245
RP5 - Doncaster	491	£79,105	1118	£93,217	0.44	£172,322	117
RCD - Harrogate	325	£52,358	587	£47,588	0.55	£99,946	68
RWA – Hull	149	£23,560	849	£67,279	0.18	£90,838	62
RR8 - Leeds	1118	£183,454	2762	£230,069	0.41	£413,524	282
RXF - Mid Yorks	589	£97,870	1419	£121,000	0.42	£218,870	149
RJL – NLAG	325	£51,641	1196	£95,635	0.27	£147,276	100
RHQ- Sheffield Teaching	155	£25,481	706	£58,269	0.21	£83,750	57
RTR - South Tees	204	£32,640	503	£39,680	0.41	£72,320	49
RFR - Rotherham	143	£23,729	305	£24,556	0.47	£48,286	33
RCB – York	1158	£187,751.69	1623	£133,693	0.71	£321,445	219
<b>Total</b>	<b>6133</b>	<b>£993,550</b>	<b>14,314</b>	<b>£1,172,867</b>		<b>£2,166,416</b>	<b>1475</b>

**Table 4b Matching need to capacity by CCG footprint**

<b>CCG</b>	<b>12 year old population Mid 2015</b>	<b>Estimated case start using 1/3 population</b>	<b>UOAs for normative need (Cx22)</b>	<b>Contracted UOAs 2017/18 PDS only</b>	<b>Estimated case starts available (by 22)</b>	<b>% case starts available relative to need</b>	<b>Current UOAs/Popn need</b>
Yorkshire and Humber	59526	19842	436524	335991	15272	77	17
NHS Airedale, Wharfedale and Craven CCG	1923	641	14102	15471	703	110	24
NHS Barnsley CCG	2496	832	18304	13076	594	71	16
NHS Bassetlaw CCG	1192	397	8741	0	0	0	0
NHS Bradford City CCG	1340	447	9827	13287	604	135	30
NHS Bradford Districts CCG	4701	1567	34474	3996	182	12	3
NHS Calderdale CCG	2317	772	16991	5608	255	33	7
NHS Doncaster CCG	3254	1085	23863	34304	1559	144	32
NHS East Riding of Yorkshire CCG	3152	1051	23115	19421	883	84	18
NHS Greater Huddersfield CCG	2701	900	19807	28448	1293	144	32
NHS Hambleton, Richmondshire and Whitby CCG	1588	529	11645	7500	341	64	14
NHS Harrogate and Rural District CCG	1824	608	13376	16192	736	121	27
NHS Hull CCG	2519	840	18473	13029	592	71	16

NHS Leeds North CCG	2197	732	16111	30926	1406	192	42
NHS Leeds South and East CCG	2701	900	19807	14226	647	72	16
NHS Leeds West CCG	2874	958	21076	4315	196	20	5
NHS North East Lincolnshire CCG	1708	569	12525	1328	60	11	2
NHS North Kirklees CCG	2452	817	17981	2261	103	13	3
NHS North Lincolnshire CCG	1822	607	13361	799	36	6	1
NHS Rotherham CCG	2980	993	21853	8352	380	38	8
NHS Scarborough and Ryedale CCG	1088	363	7979	13002	591	163	36
NHS Sheffield CCG	5785	1928	42423	38557	1753	91	20
NHS Vale of York CCG	3459	1153	25366	26389	1200	104	23
NHS Wakefield CCG	3453	1151	25322	25504	1159	101	22

**Updated Orthodontic Projected Needs Assessment – predicted population of 12 year olds in 2020 and 2030**

Table 5a	2011 12- year old census population	2020 12–year old prediction	2030 12–year old prediction
<b>North Yorkshire &amp; Humber</b>	<b>19029</b>	<b>19743</b>	<b>19801</b>
York	1990	2129	2209
Craven	719	617	617
Hambleton	981	975	975
Harrogate	1822	1930	1890
Richmondshire	599	557	557
Ryedale	612	577	597
Scarborough	1064	1075	1094
Selby	993	1055	1114
E Riding	3711	3831	3851
Hull	2797	3000	3020
NE Lincs	1842	1860	1821
N Lincs	1899	2137	2056
<b>South Yorkshire &amp; Bassetlaw</b>	<b>16912</b>	<b>17798</b>	<b>18573</b>
Doncaster & Bassetlaw	4953	4473	4843
Doncaster	3489	3151*	3412*
Bassetlaw	1464	1322*	1431*
Barnsley	2735	3676	3883
Rotherham	3184	3142	3161
Sheffield	6040	6507	6686
<b>West Yorkshire</b>	<b>27183</b>	<b>28762</b>	<b>30062</b>
Bradford and Airedale	7402	7772	7831
Calderdale	2556	2594	2711
Kirklees	5331	5544	5840
Leeds	8137	8945	9594
Wakefield District	3757	3907	4085
<b>Yorkshire &amp; Humber</b>	<b>63124</b>	<b>66303</b>	<b>68436</b>

\* The disaggregated figures for Doncaster and Bassetlaw were not available from the population projection figures. The proportions of the population of 12 year olds from these areas from the 2011 census population data were used to estimate the projected proportions for 2020 and 2030, using the combined total for 2020 and 2030 respectively as the denominator.

The figures in table 5b below represent the projected number of children needing orthodontic treatment in ideal conditions. Data from 2011 has been included as this data is from the 2011 Census and enables comparisons to be made. Table 5b

**Estimated orthodontic need for 2020 and 2030 and associated UOAs**

Table 5b <b>Estimated orthodontic need for 2020 and 2030 and associated UOAs</b>	2011 need (1/3 pop of 12 year olds as per Census)	2011 UOAs for normative need	2020 Estimated need (1/3 pop of 12 year olds)	2020 Estimated UOAs for normative need (1/3 population *22)	2030 Estimated need (1/3 pop of 12 year olds)	2030 Estimated UOAs for normative need (1/3 population*22)
<b>North Yorkshire &amp; Humber</b>	<b>6343</b>	<b>139568</b>	<b>6581</b>	<b>144782</b>	<b>6600</b>	<b>145207</b>
York	663	14586	710	15613	736	16199
Craven	240	5280	206	4525	206	4525
Hambleton	327	7194	325	7150	325	7150
Harrogate	607	13354	643	14153	630	13860
Richmondshire	200	4400	186	4085	186	4085
Ryedale	204	4488	192	4231	199	4378
Scarborough	355	7810	358	7883	365	8023
Selby	331	7282	352	7737	371	8169
E Riding	1237	27214	1277	28094	1284	28241
Hull	932	20526	1000	22000	1007	22147
NE Lincs	614	13508	620	13640	607	13354
N Lincs	633	13926	712	15671	685	15077
<b>South Yorkshire &amp; Bassetlaw</b>	<b>5637</b>	<b>124058</b>	<b>5933</b>	<b>130519</b>	<b>6191</b>	<b>136202</b>
Doncaster	1163	25586	1050	23107	1137	25021
Bassetlaw	488	10736	441	9695	477	10494

Barnsley	912	20064	1225	26957	1294	28475
Rotherham	1061	23364	1047	23041	1054	23181
Sheffield	2013	44308	2169	47718	2229	49031
<b>West Yorkshire</b>	<b>9061</b>	<b>199386</b>	<b>9587</b>	<b>210921</b>	<b>10021</b>	<b>220455</b>
Bradford and Airedale	2467	54296	2591	56995	2610	57427
Calderdale	852	18744	865	19023	904	19881
Kirklees	1777	39094	1848	40656	1947	42827
Leeds	2712	59686	2982	65597	3198	70356
Wakefield District	1252	27566	1302	28651	1362	29957
<b>Yorkshire &amp; Humber</b>	<b>21041</b>	<b>463012</b>	<b>22101</b>	<b>486222</b>	<b>22812</b>	<b>501864</b>

**Table 6 Total resident patients attending NHS dentist (24 months to March 2013)\*\* (Source NHSE)**

\*Numbers in total may vary slightly due to rounding differences

\*\* this year used as best child GDS access in last few years

	Number of patients aged 12 seen 24m ending Mar 2017	2011 popn	% 12 yr old popn accessing GDP	No of children needing ortho	No of children needing ortho based on % accessing NHS dentistry
<b>North Yorkshire And Humber</b>	<b>15539</b>	<b>19029</b>	<b>82</b>	<b>6344</b>	<b>5180 (113960 UOAs)</b>
York, Craven, Hambleton, Harrogate, Richmondshire, Ryedale, Scarborough, Selby	7144	8780	81	2927	2382 (52404 UOAs)
E Riding	2971	3711	80	1237	990 (21780 UOAs)
Hull	2455	2797	88	933	818 (17996 UOAs)
NE Lincs	1484	1842	81	614	495 (10890 UOAs)
N Lincs	1485	1899	78	633	495 (10890 UOAs)



<b>South Yorkshire And Bassetlaw</b>	<b>13789</b>	<b>16912</b>	<b>82</b>	<b>5639</b>	<b>4596 (101112 UOAs)</b>
Doncaster	2926	3489	84	1163	975 (21450 UOAs)
Bassetlaw	1032	1464	70	488	344 (7568 UOAs)
Barnsley	2156	2735	79	912	718 (15796 UOAs)
Rotherham	2636	3184	83	1062	879 (19338 UOAs)
Sheffield	5039	6040	83	2014	1680 (36960 UOAs)
<b>West Yorkshire</b>	<b>23436</b>	<b>27183</b>	<b>86</b>	<b>9061</b>	<b>7812 (171864 UOAs)</b>
Bradford	6340	7402	86	2468	2113 (46486 UOAs)
Calderdale	2210	2556	86	852	737 (16214 UOAs)
Kirklees	4851	5331	91	1777	1617 (35574 UOAs)
Leeds	6907	8137	85	2713	2302 (50644 UOAs)
Wakefield District	3128	3757	83	1253	1043 (22946 UOAs)
<b>Yorkshire &amp; Humber</b>	<b>52764</b>	<b>63124</b>	<b>84</b>	<b>21044</b>	<b>17588 (386936 UOAs)</b>

**Table 8 Percentage completed treatment with removable appliances only (Source NHSBSA 2014/15)**

<b>Area</b>	<b>% of courses of treatment with removable appliances only - completed treatment (rolling 12 month period to March 2015)</b>
<b>ENGLAND</b>	<b>1.7</b>
Craven	3.7
Scarborough	5.7

Hambleton	3.2
Richmondshire	2.2
Harrogate	1.5
Selby	4.5
Ryedale	2.3
York	1.7
E Riding	1.0
Hull	0.3
NE Lincs	2.3
N Lincs	0.9
<b>NY&amp;H</b>	<b>1.7</b>
Doncaster Bassetlaw	0.5 0.3
Barnsley	2.4
Rotherham	0.6
Sheffield	0.6
<b>South Yorkshire And Bassetlaw</b>	0.8
Bradford	1.29
Calderdale	0.83
Kirklees	0.94
Leeds	1.64
Wakefield	6.3
<b>West Yorkshire</b>	<b>2.0</b>

**Table 9: Flow In and Out Ortho Patients 2014/15 most common areas for NY&H**

<b>Flow In</b>	
<b>AT of Residency</b>	<b>% of Patients Treated in North Yorkshire &amp; Humber</b>
North Yorkshire and Humber	94.2
West Yorkshire	4.3
Leicestershire and Lincolnshire	0.7
South Yorkshire and Bassetlaw	0.4
Durham, Darlington and Tees	0.3

<b>Flow Out</b>	
<b>AT of Treatment</b>	<b>% of Patients Resident in North Yorkshire &amp; Humber</b>
North Yorkshire and Humber	90.9
South Yorkshire and Bassetlaw	4.5
Durham, Darlington and Tees	2.0
West Yorkshire	1.8
Leicestershire and Lincolnshire	0.4

**Table 10: Flow In and Out Ortho Patients 2014/15 most common areas for WY**

<b>Flow In</b>	
<b>AT of Residency</b>	<b>% of Patients Treated in West Yorkshire</b>
West Yorkshire	98.0
North Yorkshire and Humber	1.4
South Yorkshire and Bassetlaw	0.4
Greater Manchester	0.1
Lancashire	0.0

<b>Flow Out</b>	
<b>AT of Treatment</b>	<b>% of Patients Resident in West Yorkshire</b>
West Yorkshire	96.1
North Yorkshire and Humber	3.2
South Yorkshire and Bassetlaw	0.4
Greater Manchester	0.1
Lancashire	0.1

**Table 11: Flow In and Out Ortho Patients 2014/15 most common areas for SY&B**

<b>Flow In</b>	
<b>AT of Residency</b>	<b>% of Patients Treated in South Yorkshire and Bassetlaw</b>
South Yorkshire and Bassetlaw	90.9
North Yorkshire and Humber	4.8
Derbyshire and Nottinghamshire	3.4
West Yorkshire	0.6
Leicestershire and Lincolnshire	0.3

<b>Flow Out</b>	
<b>AT of Treatment</b>	<b>% of Patients Resident in South Yorkshire and Bassetlaw</b>
South Yorkshire and Bassetlaw	96.5
Derbyshire and Nottinghamshire	2.2
West Yorkshire	0.5
North Yorkshire and Humber	0.4
Leicestershire and Lincolnshire	0.3

**Table 12 Primary care orthodontic waiting times Nov 2017**

<b>PDS contracts</b>	<b>Av waiting time in months for assessment*</b>	<b>Av waiting time in months for treatment*</b>	<b>Range in months Assess w/l (short-long)*</b>	<b>Range of months Treat w/l (short-long)*</b>
WY	9	14	1-36	0-38
SY	5	9	1-18	8-26
NYH	4	3	1-12	0-20

\*To the nearest whole month