

eTable5: Adjusted risk ratios for reaching expected levels of attainment in English, comparing children with and without congenital anomalies (CAs), by key stage and CA subgroup. For each comparison, number of children without CAs=2,177,654

subgroup	Cases, N	EYFSP		KS1		KS2	
		RR (95%CI) Sex adj.	RR (95%CI) Full adj.	RR (95%CI) Sex adj.	RR (95%CI) Full adj.	RR (95%CI) Sex adj.	RR (95%CI) Full adj.
Any CA	74,357	0.85 (0.84,0.86)	0.86 (0.85,0.86)	0.85 (0.84,0.85)	0.85 (0.85,0.86)	0.87 (0.86,0.87)	0.87 (0.87,0.88)
Neural Tube Defects	248	0.73 (0.65,0.83)	0.77 (0.68,0.86)	0.80 (0.71,0.90)	0.83 (0.74,0.94)	0.81 (0.73,0.89)	0.83 (0.75,0.92)
Hydrocephalus	362	0.47 (0.41,0.55)	0.49 (0.42,0.57)	0.46 (0.40,0.54)	0.48 (0.41,0.56)	0.51 (0.44,0.58)	0.52 (0.45,0.59)
Congenital Cataract	362	0.85 (0.78,0.93)	0.86 (0.79,0.93)	0.86 (0.78,0.93)	0.86 (0.79,0.94)	0.87 (0.81,0.94)	0.88 (0.81,0.94)
Congenital Heart Defects (CHD)	10,216	0.81 (0.79,0.82)	0.82 (0.80,0.83)	0.80 (0.78,0.81)	0.81 (0.79,0.82)	0.83 (0.82,0.84)	0.84 (0.83,0.85)
Ventricular Septal Defect	2,498	0.88 (0.85,0.91)	0.89 (0.86,0.92)	0.86 (0.83,0.89)	0.87 (0.84,0.90)	0.91 (0.88,0.93)	0.91 (0.89,0.94)
Pulmonary Valve Stenosis	397	0.78 (0.71,0.85)	0.78 (0.71,0.85)	0.81 (0.74,0.89)	0.82 (0.75,0.89)	0.85 (0.79,0.92)	0.86 (0.79,0.92)
PDA as only CHD in term infants	1,610	0.74 (0.71,0.78)	0.76 (0.72,0.79)	0.74 (0.71,0.78)	0.76 (0.72,0.80)	0.82 (0.79,0.85)	0.83 (0.80,0.86)
Severe CHD	2,763	0.81 (0.79,0.84)	0.82 (0.79,0.85)	0.79 (0.77,0.82)	0.80 (0.77,0.83)	0.80 (0.77,0.82)	0.80 (0.78,0.83)
Atrioventricular Septal Defect	320	0.81 (0.73,0.89)	0.82 (0.75,0.90)	0.77 (0.70,0.86)	0.79 (0.71,0.87)	0.74 (0.67,0.82)	0.75 (0.68,0.83)
Tetralogy of Fallot	506	0.82 (0.76,0.89)	0.83 (0.77,0.90)	0.79 (0.73,0.86)	0.79 (0.73,0.86)	0.81 (0.75,0.87)	0.81 (0.75,0.87)
Hypoplastic Left Heart	194	0.62 (0.53,0.73)	0.65 (0.55,0.76)	0.62 (0.52,0.73)	0.64 (0.54,0.76)	0.66 (0.57,0.76)	0.67 (0.58,0.78)
Respiratory	665	0.78 (0.72,0.83)	0.79 (0.73,0.84)	0.79 (0.73,0.85)	0.80 (0.74,0.86)	0.82 (0.77,0.87)	0.82 (0.77,0.87)
Cleft Lip	825	0.92 (0.87,0.97)	0.93 (0.88,0.98)	0.95 (0.90,1.00)	0.96 (0.91,1.01)	0.93 (0.89,0.98)	0.94 (0.90,0.99)
Cleft Palate	989	0.79 (0.75,0.84)	0.80 (0.76,0.84)	0.79 (0.75,0.84)	0.80 (0.76,0.85)	0.87 (0.83,0.91)	0.87 (0.83,0.91)
Cleft Lip and Palate	1,044	0.81 (0.77,0.86)	0.83 (0.78,0.87)	0.81 (0.77,0.86)	0.83 (0.78,0.88)	0.86 (0.82,0.91)	0.87 (0.83,0.92)
Digestive System	2,748	0.88 (0.85,0.91)	0.89 (0.86,0.91)	0.90 (0.88,0.93)	0.91 (0.88,0.94)	0.92 (0.90,0.95)	0.93 (0.90,0.95)
Anorectal Malformations	172	0.85 (0.75,0.97)	0.86 (0.76,0.97)	0.94 (0.83,1.05)	0.94 (0.84,1.06)	0.95 (0.86,1.05)	0.95 (0.86,1.05)
Hirschsprung's Disease	411	0.93 (0.86,1.00)	0.94 (0.87,1.01)	0.92 (0.85,1.00)	0.93 (0.86,1.01)	0.94 (0.87,1.00)	0.94 (0.88,1.01)
Gastroschisis	705	0.83 (0.78,0.88)	0.92 (0.87,0.98)	0.81 (0.76,0.87)	0.92 (0.86,0.99)	0.87 (0.82,0.92)	0.94 (0.89,0.99)
Unilateral Renal Agenesis	304	0.93 (0.85,1.02)	0.94 (0.86,1.02)	1.03 (0.95,1.11)	1.04 (0.96,1.12)	0.89 (0.82,0.97)	0.90 (0.82,0.97)
Congenital Hydronephrosis	3,405	0.98 (0.96,1.01)	0.97 (0.95,1.00)	0.97 (0.94,0.99)	0.96 (0.93,0.98)	1.00 (0.98,1.02)	0.99 (0.97,1.01)
Hypospadias	3,170	0.94 (0.91,0.97)	0.94 (0.92,0.97)	0.94 (0.91,0.97)	0.94 (0.91,0.97)	0.97 (0.94,0.99)	0.97 (0.95,0.99)
Club Foot - Talipes Equinovarus	2,145	0.94 (0.91,0.97)	0.94 (0.91,0.97)	0.93 (0.90,0.96)	0.93 (0.90,0.97)	0.94 (0.91,0.97)	0.94 (0.91,0.97)
Polydactyly	3,352	0.93 (0.91,0.95)	0.96 (0.94,0.99)	0.96 (0.93,0.98)	0.97 (0.95,1.00)	0.96 (0.94,0.98)	0.97 (0.95,0.99)
Syndactyly	1,504	0.97 (0.93,1.00)	0.95 (0.91,0.98)	0.97 (0.93,1.01)	0.96 (0.92,0.99)	0.96 (0.93,1.00)	0.96 (0.93,0.99)
Craniosynostosis	502	0.90 (0.84,0.97)	0.89 (0.83,0.95)	0.87 (0.81,0.94)	0.86 (0.80,0.93)	0.91 (0.86,0.97)	0.90 (0.85,0.96)
Down Syndrome	1,992	0.04 (0.03,0.05)	0.04 (0.03,0.05)	0.01 (0.01,0.02)	0.01 (0.01,0.02)	0.02 (0.01,0.03)	0.02 (0.01,0.03)

Turner Syndrome	125	0.52 (0.42,0.65)	0.52 (0.42,0.64)	0.55 (0.44,0.68)	0.55 (0.44,0.68)	0.63 (0.53,0.76)	0.63 (0.53,0.76)
Klinefelter Syndrome	69	0.66 (0.49,0.87)	0.63 (0.47,0.83)	0.42 (0.28,0.63)	0.40 (0.27,0.61)	0.37 (0.25,0.56)	0.36 (0.24,0.54)
Di George Syndrome	126	0.15 (0.09,0.25)	0.15 (0.09,0.26)	0.10 (0.05,0.19)	0.10 (0.05,0.19)	0.12 (0.07,0.21)	0.12 (0.07,0.21)
Karyotype XXX	36	0.81 (0.62,1.05)	0.74 (0.57,0.96)	0.38 (0.22,0.64)	0.35 (0.21,0.59)	0.47 (0.30,0.72)	0.44 (0.29,0.69)

CA=congenital anomaly; CI=confidence interval; EYFSP=Early Years Foundation Stage Profile; KS1=Key Stage 1; KS2=Key Stage 2; PDA=patent ductus arteriosus; RR=risk ratio; Sex adj.= adjusted for sex at birth; Full adj.=adjusted for sex, maternal age at birth, ethnicity, income deprivation affecting children index (IDACI) quintile, free school meals eligibility (FSME)