

Supplement 2: The CHERuB study definition of survival without neurosensory impairment		
Data source	Domains/ conditions	Definition
NNRD	Developmental delay	<input type="checkbox"/> Mild developmental delay (3-6 months) <input type="checkbox"/> Moderate developmental delay (6-12 months) <input type="checkbox"/> Severe developmental delay (>12 months)
	Communication	<input type="checkbox"/> Any difficulty with communication <input type="checkbox"/> Difficulty with speech (<10 words or signs) <input type="checkbox"/> Difficulty understanding outside of familiar context <input type="checkbox"/> Has <5 meaningful words, vocalisations, or signs <input type="checkbox"/> Unable to understand words or signs
	Motor	<input type="checkbox"/> Any difficulty walking <input type="checkbox"/> Unable to walk without assistance <input type="checkbox"/> Non-fluent or abnormal gait reducing mobility <input type="checkbox"/> Difficulty with the use of both hands <input type="checkbox"/> Difficulty with the use of one hand <input type="checkbox"/> Unable or needs support sitting <input type="checkbox"/> Unable to sit <input type="checkbox"/> Unable to use hands e.g. to feed
	Vision	<input type="checkbox"/> Any vision problems including squint <input type="checkbox"/> A not fully correctable visual defect <input type="checkbox"/> Complete blindness or able to see light only
	Auditory	<input type="checkbox"/> A hearing impairment <input type="checkbox"/> Hearing impairment correctable with aids <input type="checkbox"/> Hearing impairment not correctable with aids
HES and ONS Mortality Records	Survival	<input type="checkbox"/> The absence of a death record in a linked HES record
	Cognitive impairment	F70-79 Intellectual impairment F81.0 Specific reading disorder F81.1 Specific spelling disorder F81.2 Specific disorder of arithmetical skills F81.3 Mixed disorder of scholastic skills F81.8 Other developmental disorders of scholastic skills F81.9 Developmental disorder of scholastic skills, unspecified R48.0 Dyslexia and alexia R 48.1 Agnosia R48.2 Apraxia R48.8 Other and unspecified symbolic dysfunctions
	Developmental disorders of speech and language	F80.0 Specific speech articulation disorder F80.1 Expressive language disorder F80.2 Receptive language disorder F80.3 Acquired aphasia with epilepsy [Landau-Kleffner]

		<p>F80.9 Developmental disorder of speech and language, unspecified R47.0 Dysphasia and aphasia R47.1 Dysarthria and anarthria R47.8 Other and unspecified speech disturbances</p>
	<p>Specific developmental disorder of motor function/ dystonia/ cerebral palsy</p>	<p>F82 Specific developmental disorder of motor function G24.9 Dystonia, unspecified G80 Cerebral palsy G81 Hemiplegia G82 Paraplegia and tetraplegia G83.0 Diplegia of upper limbs G83.1 Monoplegia of lower limb G83.2 Monoplegia of upper limb G83.4 Cauda equina syndrome G83.5 Locked in syndrome G83.6 Upper motor neuron facial paralysis R26.0 Ataxic gait R26.1 Paralytic gait R27.0 Ataxia unspecified R27.8 Other and unspecified lack of coordination G25.9 Extrapyrmidal and movement disorder, unspecified</p>
	<p>Vision</p>	<p>H47.6 Disorders of visual cortex H51.0 Palsy of conjugate gaze H51.1 Convergence insufficiency and excess H51.2 Internuclear ophthalmoplegia H51.8 Other specified disorders of binocular movement H51.9 Disorder of binocular movement, unspecified H52.0 Hypermetropia H52.1 Myopia H52.2 Astigmatism H52.3 Anisometropia and aniseikonia H52.4 Presbyopia H52.5 Disorders of accommodation H52.6 Other disorders of refraction H52.7 Disorder of refraction, unspecified H 53.0 Amblyopia ex anopsia H53.4 Visual field defects H55 Nystagmus and other irregular eye movements</p> <p>H54.0 Blindness, binocular H54.1 Severe visual impairment, binocular H54.2 Moderate visual impairment, binocular H54.4 Blindness, monocular H54.5 Severe visual impairment, monocular H54.6 Moderate visual impairment, monocular H54.9 Unspecified visual impairment (binocular)</p>

	Hearing	<p>H90.3 Sensorineural hearing loss, bilateral H90.4 Sensorineural hearing loss, unilateral with unrestricted hearing on the contralateral side H90.5 Sensorineural hearing loss, unspecified H90.6 Mixed conductive and sensorineural hearing loss, bilateral H90.7 Mixed conductive and sensorineural hearing loss, unilateral with unrestricted hearing on the contralateral side H90.8 Mixed conductive and sensorineural hearing loss, unspecified</p> <p>D24 Operations on cochlea D24.1 Implantation of intracochlear prosthesis D24.2 Implantation of extracochlear prosthesis D24.3 Attention to cochlear prosthesis D24.4 Neurectomy of cochlea D24.6 Removal of cochlear prosthesis D24.8 Other specified operations on cochlea D24.9 Unspecified operations on cochlea D13 Attachment of Bone Anchored Hearing Prosthesis D16 Reconstruction of Ossicular Chain D05 Attachment of auricular prosthesis Z453 Adjustment and management of implanted hearing device Z461 Fitting and adjustment of hearing aid Z962 Presence of otological and audiological implants Z974 Presence of external hearing-aid</p>
National Pupil Database	Academic attainment	<p>Did not achieve expected level or the presence of a SEN that precluded assessment at: Early Years Foundation Stage Key Stage 1 national assessment Key Stage 2 national assessment</p>
	Special educational needs	<p>Indication of type of need for SEN provision (primary or secondary) irrespective of level of SEN provision (SEN support or EHCP)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Specific Learning Difficulty <input type="checkbox"/> Moderate Learning Difficulty <input type="checkbox"/> Severe Learning Difficulty <input type="checkbox"/> Profound & Multiple Learning Difficulty <input type="checkbox"/> Speech, Language and Communication Needs <input type="checkbox"/> Hearing Impairment <input type="checkbox"/> Visual Impairment <input type="checkbox"/> Multi-Sensory Impairment <input type="checkbox"/> Physical Disability