young people with behaviours reported as challenging referred for assessment in the paediatric disability clinic.
Method This was a retrospective observational study. The hospital's electronic clinic calendar was systematically searched to identify all young people referred because of challenging behaviours

- by the local Youth Offending Team and
- by Education, where medical advice was required for Education, Health and Care planning, September 2015–August 2017.

Data were extracted from individual electronic medical records (table 1).
Result 21 males and 2 females aged between 13 and 18 years were referred by the Youth Offending Team. 16 males and 5 females aged between 4 and 15 years were referred by Education. All underwent Single Nucleotide Polymorphism (SNP) array testing along with blood and other investigations tailored to the individual.

Abstract G420(P) Table 1

Condition identified	Youth Offending Team Referrals (n=23)	Education Referrals (n=21)
Learning Disability (LD) confirmed	1	5
Red flags for LD awaiting outcome of further assessment	5	5
Autism spectrum disorder (ASD) confirmed	0	1
Red flags for ASD awaiting outcome of further assessment	7	2
Red flags for Attention Deficit Hyperactivity Disorder awaiting outcome of further assessment	0	5
Chromosomal condition confirmed	3	0
Awaiting SNP microarray result	1	2
New-onset Epilepsy confirmed	1	0
Acquired Brain Injury confirmed	1	0
New safeguarding referral	2	0
Additional diagnosis confirmed, already known neurodevelopmental diagnosis	4 (1 in 5)	3 (1 in 7)
Total number of new needs identified	**24**	**21**

Conclusion This small study suggests that young people who present with behaviours that challenge may benefit from paediatric assessment that includes screening for red flags of neurodevelopmental, chromosomal and other conditions and for safeguarding concerns. Behaviours that challenge should prompt paediatric assessment undertaken with the same diligence as for physical symptoms and signs, even in those with already identified neurodevelopmental conditions.

G421(P) AUDIT ON COW'S MILK PROTEIN INTOLERANCE IN CHILDREN WITH DOWN SYNDROME

N Nallapeta, K Clarke, S Puri. *Child Development Centre, Wortleybeck Health Centre, Leeds Community Healthcare NHS Trust, Leeds, UK*

10.1136/archdischild-2018-rcpch.410

Aims Cow's milk protein intolerance (CMPI) is common in infancy, with a prevalence rate of approximately 2%–3% in the UK. The average of age diagnosis of CMPI is 3.5 months in typically developing infants. The clinical symptoms suggestive of CMPI are gastroesphageal reflux, change in bowel pattern, faltering growth, irritability, eczema and respiratory symptoms. These clinical symptoms are commonly present in infants with Down syndrome. In this study we wanted to determine the prevalence of CMPI in children with Down syndrome and if there was delay in diagnosis due to diagnostic overshadowing.
Methods One hundred and forty-eight children (0–19 years) were identified with Down syndrome, thirty-six children were under the five years. All 36 case notes of children under the age of five years were audited using the NICE (2015) guidance for CMPI.
Results 30/36 children (83.3%) had one or more symptoms (respiratory, gastrointestinal, skin, feeding difficulties and faltering growth) that could have been related to CMPI (table 1). 8/36 children (22.2%) were treated for CMPI. Mean age at diagnosis was 4.6 months and average symptoms per child was 2.8 with gastrointestinal symptoms present in 100% and feeding difficulties in 87.5% of children with CMPI. No children were identified as having IgE mediated CMPI. All eight children were initiated on a cow's milk protein free diet, with an improvement of symptoms.
Conclusion In our study shows that in children with Down syndrome there is an increased prevalence of non-IgE mediated CMPI and there is a potential delay in diagnosis. We recommend that CMPI should be considered all infants with Down syndrome who have difficult to manage gastroesphageal reflux and more than one system involvement and consider using CoMiSS scoring, to prevent diagnostic overshadowing and prompt management according to current CMPI guidance.

Abstract G421(P) Table 1

Number of children	Gastrointestinal	Feeding difficulties	Faltering growth	Respiratory	Skin
Total n=36	28 (77.7%)	20 (55.5%)	9 (25%)	9 (25%)	7 (19.4%)
CMPI positive n=8	8 (100%)	7 (87.5%)	3 (37.5%)	2 (25%)	3 (37.5%)

G422 WHY WE NEED TO INVEST MORE IN YOUNG PEOPLE'S HEALTH

R Shah, A Hagell. *Research Department, The Association For Young People's Health, London, UK*

10.1136/archdischild-2018-rcpch.411

Background Emphasis on securing the 'best start in life' is often thought to mean younger children but prevention and early intervention are also critical for young people aged 10–24. This is when life-long health behaviours are established, which have a huge impact on young people's future health.
Aim To provide evidence to support further investment into young people's physical health.
Method We use publically available datasets that draw on significant sample sizes, provide generalisable data on young people, use reliable survey instruments and adhere to standards of ethical research methods.
Results The teenage years are a 'peak age' for health risks, with lifelong implications