**Supplementary File 2 – search strategy**

Supplementary Table 2.1. Search strategy used to identify systematic reviews on chronic health conditions and academic attainment in Medline, Embase and PsycINFO (Ovid): 27 September 2021.

| Key word | Number of hits |
| --- | --- |
|  |  |
| *Health keywords* |  |
| 1. (chronic condition\* or chronic disease\* or congenital anomal\* or inborn error or chronic health condition\* or chronic or asthma or wheeze or cleft lip or cleft palate or cleft lip and palate or autism or ASD or autis\* spectrum disorder\* or neuro\* disorder or neuro\* disability or chronic pain or intractable pain or recurrent pain or cancer or malignan\* or diabetes or depression or anxiety or mental health dis\* or mental health condition\* or obes\* or chronic fatigue or myalgic encephalomyelitis or “CFS/ME” or cystic fibrosis or renal disease or kidney disease or heart disease or lung disease or liver disease or epilepsy or epileptic\* or seizure\* or sickle cell).tw | 10,397,234 |
|  |  |
| *Education keywords (adapted from Caird et al 2013)* |  |
| 2. (GCSE or GCSEs or SATs or Assessment tests or school diploma or educational development or school certificate\* or national tests or national testing or secondary education or primary education or national examinations or Key Stage or grade scores or ordinary level or O-level\* or academic test\* or academic examination or academic exam or academically attain\* or academic measure\* or academic assess\* or academic evaluat\* or academic standard\* or academic deficien\* or academically deficien\* or academically perform or academic performance\* or academic achievement\* or academic outcome\* or academic failure\* or academic level\* or school perform\* or school standard\* or school evaluat\* or school assess\* or school test\* or school outcomes or school examination or school exam or school measure\* or school performance\* or school achievement\* or school failure\* or school exams or test scores or testing scores or education test\* or educational attain\* or educational measure\* or education assess\* or education evaluat\* or education standard\* or educational standard\* or education deficien\* or educational deficien\* or educationally deficien\* or education perform or education performance\* or education achievement\* or educational achievement\* or education level\* or educational level\* or education failure\* or education outcome\* or education exams or educational failure\* or educational outcome\* or educational test\* or examination perform\* or examination standard\* or examination assess\* or examination outcomes or examination performance\* or examination achievement\* or examination failure\* or engagement or attainment\*).tw | 594,900 |
|  |  |
| *Systematic reviews* |  |
| 3. systematic review.ti | 337,793 |
|  |  |
| *Combine, limit and deduplicate* |  |
| 4. 1 and 2 and 3 | 1,308 |
| 5. Limit 4 to "all child (0 to 18 years)" [Limit not valid in Embase,APA PsycInfo; records were retained] | 1,034 |
| 6. Limit 5 to (childhood <birth to 12 years> or adolescence <13 to 17 years>) [Limit not valid in Embase,Ovid MEDLINE(R); records were retained] | 834 |
| 7. Limit 6 to child <unspecified age> [Limit not valid in Ovid MEDLINE(R),APA PsycInfo; records were retained] | 287 |
| 8. Deduplicate 7 | 205 |
|  |  |

.tw = title and abstract. .ti = title only.

Supplementary Table 2.2. Search strategy used to identify systematic reviews on chronic health conditions and academic attainment in the Education Resources Information Center and the Education Database (ProQuest): 14 October 2021

| Key word | Number of hits |
| --- | --- |
|  |  |
| *Health keywords* |  |
| (ti(chronic condition\* or chronic disease\* or congenital anomal\* or inborn error or chronic health condition\* or chronic or asthma or wheeze or cleft lip or cleft palate or cleft lip and palate or autism or ASD or autis\* spectrum disorder\* or neuro\* disorder or neuro\* disability or chronic pain or intractable pain or recurrent pain or cancer or malignan\* or diabetes or depression or anxiety or mental health dis\* or mental health condition\* or obes\* or chronic fatigue or myalgic encephalomyelitis or “CFS/ME” or cystic fibrosis or renal disease or kidney disease or heart disease or lung disease or liver disease or epilepsy or epileptic\* or seizure\* or sickle cell) OR ab(chronic condition\* or chronic disease\* or congenital anomal\* or inborn error or chronic health condition\* or chronic or asthma or wheeze or cleft lip or cleft palate or cleft lip and palate or autism or ASD or autis\* spectrum disorder\* or neuro\* disorder or neuro\* disability or chronic pain or intractable pain or recurrent pain or cancer or malignan\* or diabetes or depression or anxiety or mental health dis\* or mental health condition\* or obes\* or chronic fatigue or myalgic encephalomyelitis or “CFS/ME” or cystic fibrosis or renal disease or kidney disease or heart disease or lung disease or liver disease or epilepsy or epileptic\* or seizure\* or sickle cell)) | 171,786 |
|  |  |
| *Education keywords (adapted from Caird et al 2013)* |  |
| (ti(GCSE or GCSEs or SATs or Assessment tests or school diploma or educational development or school certificate\* or national tests or national testing or secondary education or primary education or national examinations or Key Stage or grade scores or ordinary level or O-level\* or academic test\* or academic examination or academic exam or academically attain\* or academic measure\* or academic assess\* or academic evaluat\* or academic standard\* or academic deficien\* or academically deficien\* or academically perform or academic performance\* or academic achievement\* or academic outcome\* or academic failure\* or academic level\* or school perform\* or school standard\* or school evaluat\* or school assess\* or school test\* or school outcomes or school examination or school exam or school measure\* or school performance\* or school achievement\* or school failure\* or school exams or test scores or testing scores or education test\* or educational attain\* or educational measure\* or education assess\* or education evaluat\* or education standard\* or educational standard\* or education deficien\* or educational deficien\* or educationally deficien\* or education perform or education performance\* or education achievement\* or educational achievement\* or education level\* or educational level\* or education failure\* or education outcome\* or education exams or educational failure\* or educational outcome\* or educational test\* or examination perform\* or examination standard\* or examination assess\* or examination outcomes or examination performance\* or examination achievement\* or examination failure\* or engagement or attainment\*) or ab(GCSE or GCSEs or SATs or Assessment tests or school diploma or educational development or school certificate\* or national tests or national testing or secondary education or primary education or national examinations or Key Stage or grade scores or ordinary level or O-level\* or academic test\* or academic examination or academic exam or academically attain\* or academic measure\* or academic assess\* or academic evaluat\* or academic standard\* or academic deficien\* or academically deficien\* or academically perform or academic performance\* or academic achievement\* or academic outcome\* or academic failure\* or academic level\* or school perform\* or school standard\* or school evaluat\* or school assess\* or school test\* or school outcomes or school examination or school exam or school measure\* or school performance\* or school achievement\* or school failure\* or school exams or test scores or testing scores or education test\* or educational attain\* or educational measure\* or education assess\* or education evaluat\* or education standard\* or educational standard\* or education deficien\* or educational deficien\* or educationally deficien\* or education perform or education performance\* or education achievement\* or educational achievement\* or education level\* or educational level\* or education failure\* or education outcome\* or education exams or educational failure\* or educational outcome\* or educational test\* or examination perform\* or examination standard\* or examination assess\* or examination outcomes or examination performance\* or examination achievement\* or examination failure\* or engagement or attainment\*)) | 981,443 |
|  |  |
| *Systematic reviews* |  |
| (ti(“systematic review”)) | 4,830 |
|  |  |
| *Combine, limit and deduplicate* |  |
| All three above terms joined by AND | 311 |
| Limit to children, adolescents, teenagers or children & youth | 107 |
| Deduplicate in Mendeley | 95 |
|  |  |

ti = sarch in title. ab = search in abstract.

Supplementary Table 2.3. Search strategy used to identify systematic reviews on gastro chronic conditions and academic attainment in Medline, Embase and PsycINFO (Ovid): 22 March 2022.

| Key word | Number of hits |
| --- | --- |
|  |  |
| *Health keywords* |  |
| 1. (gastro\* or IBD or "irritable bowel" or Chron’s or Colitis or digestive).tw | 1,307,053 |
|  |  |
| *Education keywords (adapted from Caird et al 2013)* |  |
| 2. (GCSE or GCSEs or SATs or Assessment tests or school diploma or educational development or school certificate\* or national tests or national testing or secondary education or primary education or national examinations or Key Stage or grade scores or ordinary level or O-level\* or academic test\* or academic examination or academic exam or academically attain\* or academic measure\* or academic assess\* or academic evaluat\* or academic standard\* or academic deficien\* or academically deficien\* or academically perform or academic performance\* or academic achievement\* or academic outcome\* or academic failure\* or academic level\* or school perform\* or school standard\* or school evaluat\* or school assess\* or school test\* or school outcomes or school examination or school exam or school measure\* or school performance\* or school achievement\* or school failure\* or school exams or test scores or testing scores or education test\* or educational attain\* or educational measure\* or education assess\* or education evaluat\* or education standard\* or educational standard\* or education deficien\* or educational deficien\* or educationally deficien\* or education perform or education performance\* or education achievement\* or educational achievement\* or education level\* or educational level\* or education failure\* or education outcome\* or education exams or educational failure\* or educational outcome\* or educational test\* or examination perform\* or examination standard\* or examination assess\* or examination outcomes or examination performance\* or examination achievement\* or examination failure\* or engagement or attainment\*).tw | 622,496 |
|  |  |
| *Systematic reviews* |  |
| 3. systematic review.ti | 373,946 |
|  |  |
| *Combine, limit and deduplicate* |  |
| 4. 1 and 2 and 3 | 31 |
| 5. Limit 4 to "all child (0 to 18 years)" [Limit not valid in Embase,APA PsycInfo; records were retained] | 28 |
| 6. Limit 5 to (childhood <birth to 12 years> or adolescence <13 to 17 years>) [Limit not valid in Embase,Ovid MEDLINE(R); records were retained] | 25 |
| 7. Limit 6 to child <unspecified age> [Limit not valid in Ovid MEDLINE(R),APA PsycInfo; records were retained] | 9 |
| 8. Deduplicate 7 | 9 (no duplicates) |
|  |  |

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Supplementary Table 2.4. Search strategy used to identify systematic reviews on gastro chronic conditions and academic attainment in the Education Resources Information Center and the Education Database (ProQuest): 22 March 2022

| Key word | Number of hits |
| --- | --- |
|  |  |
| *Health keywords* |  |
| (ti(gastro\* or IBD or "irritable bowel" or Chron\* or Colitis or digestive) OR ab(gastro\* or IBD or "irritable bowel" or Chron’s or Colitis or digestive)) | 2,028 |
|  |  |
| *Education keywords (adapted from Caird et al 2013)* |  |
| (ti(GCSE or GCSEs or SATs or Assessment tests or school diploma or educational development or school certificate\* or national tests or national testing or secondary education or primary education or national examinations or Key Stage or grade scores or ordinary level or O-level\* or academic test\* or academic examination or academic exam or academically attain\* or academic measure\* or academic assess\* or academic evaluat\* or academic standard\* or academic deficien\* or academically deficien\* or academically perform or academic performance\* or academic achievement\* or academic outcome\* or academic failure\* or academic level\* or school perform\* or school standard\* or school evaluat\* or school assess\* or school test\* or school outcomes or school examination or school exam or school measure\* or school performance\* or school achievement\* or school failure\* or school exams or test scores or testing scores or education test\* or educational attain\* or educational measure\* or education assess\* or education evaluat\* or education standard\* or educational standard\* or education deficien\* or educational deficien\* or educationally deficien\* or education perform or education performance\* or education achievement\* or educational achievement\* or education level\* or educational level\* or education failure\* or education outcome\* or education exams or educational failure\* or educational outcome\* or educational test\* or examination perform\* or examination standard\* or examination assess\* or examination outcomes or examination performance\* or examination achievement\* or examination failure\* or engagement or attainment\*) or ab(GCSE or GCSEs or SATs or Assessment tests or school diploma or educational development or school certificate\* or national tests or national testing or secondary education or primary education or national examinations or Key Stage or grade scores or ordinary level or O-level\* or academic test\* or academic examination or academic exam or academically attain\* or academic measure\* or academic assess\* or academic evaluat\* or academic standard\* or academic deficien\* or academically deficien\* or academically perform or academic performance\* or academic achievement\* or academic outcome\* or academic failure\* or academic level\* or school perform\* or school standard\* or school evaluat\* or school assess\* or school test\* or school outcomes or school examination or school exam or school measure\* or school performance\* or school achievement\* or school failure\* or school exams or test scores or testing scores or education test\* or educational attain\* or educational measure\* or education assess\* or education evaluat\* or education standard\* or educational standard\* or education deficien\* or educational deficien\* or educationally deficien\* or education perform or education performance\* or education achievement\* or educational achievement\* or education level\* or educational level\* or education failure\* or education outcome\* or education exams or educational failure\* or educational outcome\* or educational test\* or examination perform\* or examination standard\* or examination assess\* or examination outcomes or examination performance\* or examination achievement\* or examination failure\* or engagement or attainment\*)) | 1,001,347 |
|  |  |
| *Systematic reviews* |  |
| (ti(“systematic review”)) | 5,245 |
|  |  |
| *Combine, limit and deduplicate* |  |
| All three above terms joined by AND | 3 |
| Limit to children | 2 |
| Deduplicate in Mendeley | 2 (no duplicates) |
|  |  |

ti = sarch in title. ab = search in abstract.