

## Search strategy and results from the databases

Supplementary Tables 1-6 showing results from each database: MEDLINE (Table 1), EMBASE (Table 2), CINAHL (Table 3), PsycInfo (Table 4), Scopus (Table 5) and, Web of Science Table 6).

<b>Table 1: Searches in Medline database</b>		
#	Query	Results
S71	S19 AND S49 AND S69 AND S70	3,847
S70	S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58	6,014,642
S69	S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62 OR S63 OR S64 OR S65 OR S66 OR S67 OR S68	6,441,506
S68	TI "body mass index" OR AB "body mass index"	212,706
S67	TI "neck circumference" OR AB "neck circumference"	1,582
S66	TI "waist circumference" OR AB "waist circumference"	31,149
S65	(MH "Body Mass Index") OR (MH "Overweight+")	333,781
S64	TI BMI OR AB BMI	171,212
S63	TI overweight OR AB overweight	79,388
S62	TI adiposity OR AB adiposity	27,626
S61	TI "body weight" OR AB "body weight"	221,166
S60	(MH "Obesity+") OR (MH "Pediatric Obesity")	242,859
S59	TI Obesity OR AB Obesity	275,070
S58	(MH "Epidemiology+")	28,059
S57	TI epidemiolog* OR AB epidemiolog*	416,895
S56	TI occur* OR AB occur*	2,321,486
S55	TI "odds ratio" OR AB "odds ratio"	266,873
S54	(MH "Incidence")	291,746
S53	TI incidence OR AB incidence	857,530
S52	(MH "Prevalence") OR (MH "Cross-Sectional Studies")	688,221
S51	TI prevalence OR AB prevalence	723,389
S50	TI risk OR AB risk	2,591,611

S49	S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48	4,085,319
S48	TI "musculoskeletal problems" OR AB "musculoskeletal problems"	1,395
S47	(MH "Dyslipidemias+")	84,673
S46	TI dyslipidaemia OR AB dyslipidaemia	6,248
S45	TI "respiratory problem" OR AB "respiratory problem"	200
S44	TI asthma OR AB asthma	157,905
S43	TI anxiety OR AB anxiety	230,285
S42	TI "psychological problem" OR AB "psychological problem"	386
S41	TI NAFLD OR AB NAFLD	19,045
S40	TI "non-alcoholic fatty liver disease" OR AB "non-alcoholic fatty liver disease"	12,110
S39	TI "metabolic syndrome" OR AB "metabolic syndrome"	56,690
S38	TI comorbid* OR AB comorbid*	196,285
S37	TI "COMORBID*N5CHILDHOOD OBESITY" OR AB "COMORBID*N5CHILDHOOD OBESITY"	0
S36	TI "Sleep disorders" OR AB "Sleep disorders"	12,973
S35	TI "Sleep apnea" OR AB "Sleep apnea"	34,927
S34	(MM "Depression") OR (MM "Depressive Disorder+")	168,421
S33	TI Depression OR AB Depression	381,663
S32	TI "self esteem" OR AB "self esteem"	22,928
S31	TI "cardiac diseas*" OR AB "cardiac diseas*"	21,256
S30	TI "heart disease*" OR AB "heart disease*"	178,901
S29	TI CVD OR AB CVD	44,892
S28	(MH "Cardiovascular Diseases+")	2,609,334
S27	TI "cardiovascular disease" OR AB "cardiovascular disease"	145,501
S26	TI "high blood pressure" OR AB "high blood pressure"	16,270
S25	(MH "Hypertension+")	306,040
S24	TI hypertension OR AB hypertension	417,175

S23	TI ( "typ* 2 diabetes mellitus" or "typ* II diabetes mellitus" ) OR AB ( "typ* 2 diabetes mellitus" or "typ* II diabetes mellitus" )	54,032
S22	TI "non insulin* depend* diabetes mellitus" OR AB "non insulin* depend* diabetes mellitus"	6,887
S21	(MH "Diabetes Mellitus+") OR (MH "Diabetes Mellitus, Type 2+")	476,881
S20	TI ( MODY or NIDDM or T2DM or T2D ) OR AB ( MODY or NIDDM or T2DM or T2D )	48,350
S19	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18	4,222,888
S18	TI teen OR AB teen	11,136
S17	TI preteen OR AB preteen	311
S16	TI juvenile OR AB juvenile	88,368
S15	TI "school age*" OR AB "school age*"	25,638
S14	TI girls OR AB girls	160,626
S13	TI boy* OR AB boy*	165,930
S12	TI youth OR AB youth	84,499
S11	(MH "Pupil")	10,098
S10	TI "school pupil*" OR AB "school pupil*"	1,186
S9	(MH "Students+")	153,376
S8	TI students OR students	406,604
S7	TI paediatric OR AB paediatric	68,830
S6	(MH "Pediatrics+")	62,293
S5	TI pediatric OR AB pediatric	323,631
S4	(MH "Adolescent")	2,170,837
S3	TI adolescen* OR AB adolescen*	316,011
S2	(MH "Child+")	2,070,387
S1	TI child* OR AB child*	

**Table 2: Searches in CINAHL database**

#	Query	Results
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S71	S19 AND S49 AND S69 AND S70	1,065
S70	S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58	1,770,671
S69	S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62 OR S63 OR S64 OR S65 OR S66 OR S67 OR S68	1,907,154
S68	TI "body mass index" OR AB "body mass index"	75,109
S67	TI "neck circumference" OR AB "neck circumference"	505
S66	TI "waist circumference" OR AB "waist circumference"	11,981
S65	(MH "Body Mass Index") OR (MH "Overweight+")	91,505
S64	TI BMI OR AB BMI	61,729
S63	TI overweight OR AB overweight	36,290
S62	TI adiposity OR AB adiposity	9,276
S61	TI "body weight" OR AB "body weight"	33,536
S60	(MH "Obesity+") OR (MH "Pediatric Obesity")	111,008
S59	TI Obesity OR AB Obesity	93,430
S58	(MH "Epidemiology+")	786,283
S57	TI epidemiolog* OR AB epidemiolog*	90,765
S56	TI occur* OR AB occur*	329,676
S55	TI "odds ratio" OR AB "odds ratio"	96,337
S54	(MH "Incidence")	78,841
S53	TI incidence OR AB incidence	193,274
S52	(MH "Prevalence") OR (MH "Cross-Sectional Studies")	104,689
S51	TI prevalence OR AB prevalence	215,288
S50	TI risk OR AB risk	847,336
S49	S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48	1,152,870
S48	TI "musculoskeletal problems" OR AB "musculoskeletal problems"	769
S47	(MH "Dyslipidemias+")	0

S46	TI dyslipidaemia OR AB dyslipidaemia	1,562
S45	TI "respiratory problem" OR AB "respiratory problem"	52
S44	TI asthma OR AB asthma	39,978
S43	TI anxiety OR AB anxiety	95,902
S42	TI "psychological problem" OR AB "psychological problem"	180
S41	TI NAFLD OR AB NAFLD	3,821
S40	TI "non-alcoholic fatty liver disease" OR AB "non-alcoholic fatty liver disease"	2,107
S39	TI "metabolic syndrome" OR AB "metabolic syndrome"	16,855
S38	TI comorbid* OR AB comorbid*	72,048
S37	TI "COMORBID*N5CHILDHOOD OBESITY" OR AB "COMORBID*N5CHILDHOOD OBESITY"	0
S36	TI "Sleep disorders" OR AB "Sleep disorders"	4,272
S35	TI "Sleep apnea" OR AB "Sleep apnea"	12,516
S34	(MM "Depression") OR (MM "Depressive Disorder+")	72,746
S33	TI Depression OR AB Depression	141,871
S32	TI "self esteem" OR AB "self esteem"	13,914
S31	TI "cardiac diseas*" OR AB "cardiac diseas*"	4,598
S30	TI "heart disease*" OR AB "heart disease*"	47,503
S29	TI CVD OR AB CVD	14,948
S28	(MH "Cardiovascular Diseases+")	656,720
S27	TI "cardiovascular disease" OR AB "cardiovascular disease"	49,301
S26	TI "high blood pressure" OR AB "high blood pressure"	5,654
S25	(MH "Hypertension+")	89,092
S24	TI hypertension OR AB hypertension	98,430
S23	TI ( "typ* 2 diabetes mellitus" or "typ* II diabetes mellitus" ) OR AB ( "typ* 2 diabetes mellitus" or "typ* II diabetes mellitus" )	16,533
S22	TI "non insulin* depend* diabetes mellitus" OR AB "non insulin* depend* diabetes mellitus"	916
S21	(MH "Diabetes Mellitus+") OR (MH "Diabetes Mellitus, Type 2+")	184,018

S20	TI ( MODY or NIDDM or T2DM or T2D ) OR AB ( MODY or NIDDM or T2DM or T2D )	13,615
S19	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18	1,296,760
S18	TI teen OR AB teen	10,026
S17	TI preteen OR AB preteen	222
S16	TI juvenile OR AB juvenile	11,490
S15	TI "school age*" OR AB "school age*"	12,324
S14	TI girls OR AB girls	48,902
S13	TI boy* OR AB boy*	47,998
S12	TI youth OR AB youth	57,833
S11	(MH "Pupil")	1,132
S10	TI "school pupil*" OR AB "school pupil*"	439
S9	(MH "Students+")	152,969
S8	TI students OR students	264,459
S7	TI paediatric OR AB paediatric	154,344
S6	(MH "Pediatrics+")	22,940
S5	TI pediatric OR AB pediatric	154,344
S4	(MH "Adolescent")	0
S3	TI adolescen* OR AB adolescen*	155,786
S2	(MH "Child+")	733,676
S1	TI child* OR AB child*	557,797

**Table 3: Searches in Embase database**

#	Query	Results
1	child/ or juvenile/ or boy/ or girl/ or school child/	1666492
2	exp adolescent/	1331618
3	Pediatric*.mp.	584553
4	Paediatric.mp. or exp pediatrics/	198524
5	exp student/	270289

6	student/ or exp controlled study/ or School pupils.mp. or exp school/	8733161
7	Youth.mp. or juvenile/	113110
8	Boys.mp. or boy/	122142
9	Girls.mp. or girl/	134388
10	Preteen.mp.	219
11	Teen.mp.	7208
12	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11	10570321
13	Obesity.mp. or obesity/	592346
14	body weight.mp. or body weight/	512252
15	adiposity.mp. or obesity/	462778
16	body mass/ or body weight/ or over weight.mp.	770604
17	BMI.mp.	360243
18	body mass index.mp. or body mass/	576219
19	waist circumference.mp. or waist circumference/	70311
20	Neck circumference.mp. or neck circumference/	4192
21	13 or 14 or 15 or 16 or 17 or 18 or 19 or 20	1391889
22	Diabetes Mellitus.mp. or diabetes mellitus/	958620
23	(TMODY or NIDDM or T2DM or T2D).mp.	76297
24	(non insulin* depend*or noninsulin* depend* or non insulindepend* or noninsulindepend*).mp.	71
25	adolescent depression/ or Depression.mp. or depression/	671230
26	Self esteem.mp. or self esteem/	33542
27	Sleep apnea.mp. or sleep disordered breathing/	90388
28	Sleep disorders.mp. or sleep disorder/	80158
29	hypertension.mp. or hypertension/	847577
30	high blood pressure.mp. or hypertension/	573026
31	Cardiovascular Diseases.mp. or cardiovascular disease/	338213
32	CVD.mp.	68314
33	heart disease.mp. or heart disease/	353094

34	cardiac disease.mp. or heart disease/	115398
35	comorbidity/ or Comorbid*.mp.	491271
36	psychological problem.mp.	507
37	anxiety/ or anxiety.mp.	396144
38	exp asthma/ or asthma.mp.	265979
39	respiratory tract disease/ or respiratory problem.mp.	59094
40	dyslipidaemia.mp. or dyslipidemia/	89074
41	musculoskeletal disease/ or musculoskeletal problems.mp.	31740
42	22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41	3482359
43	prevalence/ or Prevalence.mp.	1164303
44	incidence/ or incidence.mp.	1208070
45	odds ratio.mp. or odds ratio/ or risk/	770430
46	risk ratio.mp.	29795
47	occurrence.mp.	444269
48	epidemiology/ or epidemiology.mp.	1221041
49	43 or 44 or 45 or 46 or 47 or 48	3802476
50	12 and 21 and 42 and 49	1207

**Table 4: Searches in PsycInfo database**

#	Query	Results
S61	S17 AND S28 AND S53 AND S60	351
S60	S54 OR S55 OR S56 OR S57 OR S58 OR S59	261,550
S59	TI epidemiology OR AB epidemiology	16,841
S58	TI occurrence OR AB occurrence	52,005
S57	TI risk ratio OR AB risk ratio	6,584
S56	TI odds ratio OR AB odds ratio	33,534
S55	TI incidence OR AB incidence	54,925
S54	TI Prevalence OR AB Prevalence	128,349
S53	S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR	574,649



	S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52	
S52	TI musculoskeletal problems OR AB musculoskeletal problems	389
S51	TI dyslipidaemia OR AB dyslipidaemia	215
S50	TI respiratory problem OR AB respiratory problem	467
S49	DE "Asthma"	5,643
S48	TI asthma OR AB asthma	7,758
S47	TI sleep apnoea OR AB sleep apnoea	519
S46	DE "Self-Esteem" OR DE "Self-Confidence"	30,982
S45	DE "Anxiety" OR DE "Anxiety Disorders"	115,286
S44	TI self-esteem OR AB self-esteem	46,484
S43	TI anxiety OR AB anxiety	217,475
S42	DE "Behavior Problems"	31,222
S41	TI psychological problem OR AB psychological problem	15,447
S40	DE "Depression (Emotion)"	26,562
S39	TI depression OR AB depression	267,913
S38	TI NAFLD OR AB NAFLD	126
S37	TI non-alcoholic fatty liver disease OR AB non-alcoholic fatty liver disease	81
S36	TI metabolic syndrome OR AB metabolic syndrome	3,850
S35	TI CVD OR AB CVD	3,297
S34	TI cardiovascular disease OR AB cardiovascular disease	13,300
S33	TI high blood pressure OR AB high blood pressure	17,760
S32	TI hypertension OR AB hypertension	17,760
S31	TI Type 2 Diabetes Mellitus OR AB Type 2 Diabetes Mellitus	2,314
S30	DE "Comorbidity" OR DE "Sequelae"	60,083
S29	TI Comorbidity OR AB Comordidity	6,509
S28	S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27	80,444
S27	TI BMI OR AB BMI	20,049
S26	TI neck circumference OR AB neck circumference	114

S25	TI waist circumference OR AB waist circumference	3,135
S24	DE "Body Mass Index"	17,962
S23	TI body mass index OR AB body mass index	22,249
S22	DE "Body Fat" OR DE "Adipocytes"	2,474
S21	TI adiposity OR AB adiposity	2,377
S20	TI body weight OR AB body weight	21,115
S19	DE "Obesity" OR DE "Body Mass Index"	42,762
S18	TI obesity OR AB obesity	35,659
S17	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16	1,772,269
S16	TI (preteens or youth or adolescents or teen or teenagers) OR AB (preteens or youth or adolescents or teen or teenagers)	310,451
S15	TI juvenile OR AB juvenile	26,731
S14	TI school age OR AB school age	24,229
S13	DE "Human Females"	94,610
S12	TI girls OR AB girls	77,239
S11	DE "Human Males"	28,255
S10	TI boys OR AB boys	76,287
S9	TI youth OR AB youth	109,629
S8	TI "school pupils" OR AB "school pupils"	2,236
S7	TI youth OR AB youth	109,629
S6	TI youth OR AB youth	109,629
S5	DE "Students" OR DE "Primary School Students" OR DE "Junior High School Students"	68,448
S4	TI students OR students	716,207
S3	TI paediatric OR paediatric	105,188
S2	TI child* OR AB child*	742,326
S1	TX adolescents OR AB adolescents	505,004
<b>Table 5: Searches in Scopus database</b>		
#	Query	Results

1	<p>((children OR adolescents OR paediatric OR students OR school pupils OR youth OR boys OR girls OR school age OR juvenile OR preteens OR teens)  AND (obesity OR body AND weight OR adiposity OR “body mass index” OR “waist circumference” OR “neck circumference”)  AND (comorbidity OR “type 2 diabetes mellitus” OR hypertension OR “high blood pressure” OR “cardiovascular disease” OR cvd OR “metabolic syndrome” OR “non-alcoholic fatty liver disease” OR NAFLD OR depression OR psychological problem” OR anxiety OR self-esteem OR “sleep apnoea” OR asthma OR respiratory problem” OR dyslipidaemia OR “musculoskeletal problems”)  AND (prevalence OR incidence OR “odds ratio” OR “risk ratio” OR occurrence OR epidemiology))</p>	205
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**Table 6: Searches in Web of Science database**

#	Query	Results
1	<p>(children or adolescents or paediatric or students or school pupils or youth or boys or girls or school age or juvenile or preteens or teens) AND (obesity or body weight or adiposity or body mass index or waist circumference or neck circumference) AND (Comorbidity or Type 2 Diabetes Mellitus or hypertension or high blood pressure or cardiovascular disease or CVD or metabolic syndrome or non-alcoholic fatty liver disease or NAFLD or depression or psychological problem or anxiety or self-esteem or sleep apnoea or asthma or respiratory problem or dyslipidaemia or musculoskeletal problems) AND (Prevalence or incidence or odds ratio or risk ratio or occurrence or epidemiology)</p>	117