

An evidence gap map of interventions for noncommunicable diseases and risk factors among children and adolescents

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Supplementary Table 1: Country wise distribution of primary studies

COUNTRY	Substance Abuse	Obesity	Type 1 Diabetes	Mental Health Conditions	Cardiovascular Diseases	Cancers	Chronic Respiratory Diseases
Argentina		1	1	2			1
Australia	10	50	12	79	7	6	6
Austria		5	2	1		1	
Bangladesh						1	1
Belarus		1					
Belgium		13	2	5		1	1
Bosnia Herzegovina				1			
Brazil		31		5	2	5	6
Cameroon			2				
Canada	4	23	7	28	10	8	12
Chile		9	1	2		2	
China	1	18	2	10	4	6	19
Columbia		2		1		1	
Congo				1			
Croatia				2			
Crete		1					
Cuba							2
Czech Republic		1					
Denmark	1	12	3	2	5	2	5
Ecuador		1					
Egypt			2			3	4
Finland	2	5	2		2		3
France		9	4	17	3	4	6
French Polynesia		1					
Georgia		2					
Germany	8	22	7	16	4	9	11
Ghana						1	
Greece		5	2		3	4	2
Hong Kong		1		4	1	2	
Hungary		1	2			2	
Iceland		2		2	3		
India	6	5	1	3		1	5
Indonesia		1	1			2	
Iran		13	3	16	4	5	4
Ireland	1			6		1	2
Israel		15	7	3		3	
Italy		18	8	2	1	7	20
Japan		1		3	2	5	4
Jerusalem		1					
Jordan							3
Korea		5	2	3			
Kuwait		1					
Lebanon		1					
Malaysia		5				1	
Malta			1				
Mexico	1	9		4	1	4	2

Nepal				1		1	
Netherlands	9	22	5	20	8	3	8
New Zealand		12	3	8	4		2
Nigeria				1			
Norway	2	9	3	12	2	1	
Peru				1			
Poland	1	2	2				10
Portugal		10			1		
Romania	1			2			1
Russia				1	1	1	
Saudi Arabia			2	1	1		1
Scotland		1		2			1
Serbia		2					
Singapore		1					
Slovenia			1				
South Africa	1	2	1		2		1
South Korea		1		1	1	1	1
Spain	2	21	5	10	2	1	4
Sri Lanka				1			
Sweden	4	18	6	10	1	3	2
Switzerland	4	5	2	3	2	2	1
Syria				1			
Taiwan		2				4	12
Thailand		4	3			1	3
Tonga		1					
Trinidad		1					
Tunisia		3		1	2		
Turkey		8	6	1		5	16
Uganda				2			
UK	9	23	10	44	7	8	15
USA	154	338	83	290	61	86	131
Vietnam						1	

Supplementary Table 2. Outcomes estimates for interventions on obesity

Intervention	Outcome	Estimate
Diet + Exercise for obesity prevention	BMI z-score	MD: -0.12 (-0.18 to -0.06)
	% body fat	MD: -0.95 (-1.28 to -0.61)
Diet + Exercise for obesity prevention	BMI	MD: -0.41 (-0.60 to -0.21)
Diet + Exercise for obesity prevention	Body weight	MD: -1.59 (-2.95 to -0.23)
Behavioral therapy for prevention	BMI z-score	MD: -0.07 (-0.14 to -0.00)
Exercise+behavioural therapy for prevention	BMI z-score	MD: -0.08 (-0.16 to -0.00)
	Skinfold thickness	MD: -1.33 (-1.89 to -0.76)
	Physical activity intensity	MD: 0.84 (0.09 to 1.59)
Diet+Exercise+behavioural therapy for prevention	BMI z-score	MD: -0.13 (-0.25 to -0.01)
Exercise for obesity management	BMI z-score	MD: -0.13 (-0.20 to -0.06)
	BMI	MD: -0.88 (-1.26 to -0.50)
	Body weight	MD: -3.01 (-5.56 to -0.47)
	% body fat	MD: -1.36 (-2.32 to -0.39)
Exercise + behavioral therapy for obesity management	BMI z-score	MD: -0.08 (-0.16 to -0.00)
Diet+behavioural therapy for obesity management	BMI z-score	MD: -0.16 (-0.26 to -0.07)
Diet+exercise+behavioural therapy for obesity management	BMI z-score	MD: -0.09 (-0.14 to -0.05)
	Waist circumference	MD: -1.54 (-2.56 to -0.52)
Behavioral therapy for obesity management	BMI	MD: -0.44 (-0.78 to -0.11)
	Total calorie consumption	MD: -131.58 (-188.16 to -75.01)
Diet+exercise for obesity management	Bodyweight	MD: -2.07 (-2.90 to -1.24)
	Waist circumference	MD: -2.03 (-3.50 to -0.56)
Pro/Synbiotic supplementation for obesity management	BMI z-score	MD: -0.09 (-0.23 to 0.05)
	Waist circumference	MD: -0.62 (-1.73 to 0.48)
	Weight	MD: 0.70 (-1.07 to 2.47)
	Body fat	MD: 0.41 (-1.70 to 2.51)
	Fasting blood sugar	MD: -0.03 (-2.20 to 2.14)
	Low density lipoprotein	MD: -3.37 (-8.51 to 1.78)
	High density lipoprotein	MD: -1.73 (-4.27 to 0.80)
	Total cholesterol	MD: -0.37 (-3.20 to 2.45)
Calcium supplementation	Triglycerides	MD: -6.49 (-15.59 to 2.62)
	Body weight	MD: -0.26 (-0.41 to -0.11)
Parent-only interventions versus parent-child interventions for childhood overweight or obesity management	BMI z-score	MD: -0.04 (-0.15 to 0.08)
Parent-only interventions versus waiting list control for childhood overweight or obesity management	BMI z-score	MD: -0.1 (-0.19 to -0.01)
	Parent-child relationship	
Parent-only interventions versus minimal contact control for childhood overweight or obesity management	BMI z-score	MD: -0.01 (-0.07 to 0.09)
	Parent-child relationship	
Dietary behavior change interventions with a caregiver component compared to interventions without a caregiver	% of intake from saturated fats	MD: -0.42% (-1.25 to 0.41)
	Children's sodium intake	MD: -0.12 g/d (-0.36 to 0.12)

component for improving children's dietary intake-prevention		
Physical activity interventions with a caregiver component compared to interventions without a caregiver component for improving children's physical activity behaviors-prevention	Total physical activity	MD: 0.2 min/h (-1.19 to 1.59)
	Children's moderate to vigorous physical activity (%time per day)	SMD: 0.04 (-0.41 to 0.49)
Combined dietary and physical activity interventions with a caregiver component compared to interventions without a caregiver component - prevention	% of intake from saturated fats	MD: 0.06% (-0.67 to 0.80)
	Sodium intake	MD: 35.94 (-322.60 to 394.47)
	Fruit and vegetable intake	0.38 servings/d more (0.51 fewer to 1.27 more)
	Sugar sweetened beverages	MD: -0.28 (-0.44 lower to -0.12)
	Physical activity	MD: 1.81 min/d more (-15.18 to 18.8 more)
	Moderate to vigorous physical activity	MD: -0.05 min/d (-18.57 to 18.47)
Technological interventions for obesity prevention	Weight	SMD: 0.00 (-0.08 to 0.09)
Technological interventions for obesity prevention	Weight	SMD: -0.13 (-0.20 to -0.07)
Active video game compared to minimal intervention	BMI	SMD: -0.32 (-0.62 to -0.05)
	Physical activity level	SMD: 0.06 (-0.19 to 0.31)
Childhood obesity interventions that included community health workers	BMI z-score	MD: -0.08 (-0.15 to -0.01)
Drug interventions for the treatment of obesity in children and adolescents	BMI	MD: -1.3 (-1.9 to -0.8)
	Body weight	MD: -3.9 kg (-5.9 to -1.9)
	Serious adverse events	RR: 1.43 (0.63 to 3.25)
	Discontinuation due to adverse events	RR: 1.45 (0.83 to 2.52)

Supplementary Table 3: Outcomes estimates for interventions on substance abuse

Intervention	Outcomes	Estimates
Behavioral interventions	Prevent smoking in non-smokers	RR: 0.82 (0.73 to 0.92)
	Smoking cessation in baseline smokers	RR: 0.97 (0.93 to 1.01)
Bupropion	Smoking cessation in baseline smokers	
Nicotine replacement therapy	Smoking cessation in baseline smokers	OR: 2.09 (0.20 to 22)
Targeted individual-level multiple risk behavior interventions compared to usual practice	Tobacco use	OR 1.28 (0.75 to 2.19)
	Alcohol use	OR 1.02 (0.80 to 1.31)
	Cannabis use	OR 1.10 (0.69 to 1.76)
	Illicit drug use	OR 0.94 (0.71 to 1.25)
	Antisocial behavior	OR 1.21 (0.92 to 1.60)
	Vehicle related risk behavior	OR 0.59 (0.14 to 2.48)
	Sexual risk behavior	OR 0.73 (0.49 to 1.08)

Universal individual-level multiple risk behavior interventions compared to usual practice	Tobacco use	OR 1.03 (0.32 to 3.27)
	Alcohol use	OR 0.80 (0.58 to 1.11)
	Cannabis use	OR 0.69 (0.46 to 1.04)
	Antisocial behavior	OR 1.02 (0.62 to 1.69)
	Sexual risk behavior	OR 0.42 (0.14 to 1.25)
	Physical activity	OR 1.11 (0.74 to 1.67)
Targeted family-level multiple risk behavior interventions compared to usual practice	Tobacco use	OR 0.78 (0.40 to 1.53)
	Alcohol use	OR 0.83 (0.47 to 1.46)
	Cannabis use	OR 1.02 (0.52 to 2.02)
	Illicit drug use	OR 0.74 (0.42 to 1.31)
	Antisocial behavior	OR 0.84 (0.57 to 1.24)
	Sexual risk behavior	OR 0.89 (0.55 to 1.44)
	Physical activity	OR 0.72 (0.29 to 1.79)
Targeted school-level multiple risk behavior interventions compared to usual practice	Illicit drug use	OR 0.75 (0.53 to 1.06)
	Antisocial behavior	OR 0.78 (0.59 to 1.05)
Universal school-level multiple risk behavior interventions compared to usual practice	Tobacco use	OR 0.77 (0.60 to 0.97)
	Alcohol use	OR 0.72 (0.56 to 0.92)
	Cannabis use	OR 0.79 (0.62 to 1.01)
	Illicit drug use	OR 0.73 (0.50 to 1.07)
	Antisocial behavior	OR 0.79 (0.64 to 0.97)
	Sexual risk behavior	OR 0.84 (0.63 to 1.13)
	Physical activity	OR 1.32 (1.16 to 1.50)
Parent interventions (positive parenting and communication and counselling sessions)	Alcohol use prevalence	SMD: 0.00 (-0.08 to 0.08)
	Alcohol use frequency	SMD: -0.31 (-0.83 to 0.21)
	Alcohol use volume	SMD: -0.14 (-0.27 to 0.00)
Interventions involving both family/parent components and adolescent components delivered together or separately	Alcohol use prevalence	SMD: -0.39 (-0.91 to 0.14)
	Alcohol use frequency	SMD: -0.16 (-0.42 to 0.09)
Digital interventions for cannabis use prevention	Cannabis use	0.33 (0.13 to 0.54)
Peer-led interventions to prevent tobacco, alcohol and/or drug use	Weekly or monthly smoking	OR: 0.78 (0.62 to 0.99)
	Alcohol use	OR: 0.80 (0.65 to 0.99)
	Cannabis use	OR: 0.70 (0.50 to 0.97)
Smokefree Class Competitions (SFC) for preventing smoking uptake	Smoking uptake a longest follow-up	RR 1.00 (0.84 to 1.19)

Supplementary Table 4: Outcomes estimates for interventions on diabetes

Intervention	Outcomes	Estimates
Metformin vs. placebo	HbA1c	MD: 0.05 (-0.19 to 0.29)
	BMI	MD: -1.46 (-2.54 to -0.38)
	BMI z-score	MD: -0.11 (-0.22 to -0.01)
	Total insulin daily dose	MD: -0.16 (-0.22 to -0.11)
	Hypoglycemia	RR: 4.21 (0.95 to 18.70)
	Diabetic ketoacidosis	RR: 2.07 (0.47 to 9)
	Triglycerides	MD: -6 (27.8 to 15.8)
	Total cholesterol	MD: 0.18 (-0.92 to 0.57)
	Low density lipoprotein	MD: 0 (-0.95 to 0.95)
	High density lipoprotein	MD: 0.67 (-2.51 to 3.85)
Internet and phone based interventions	HbA1c	MD: -0.13 (-0.33 to 0.06)
	Self-efficacy	SMD: 0.37 (0.07 to 0.67)
	Blood glucose monitoring	SMD: 1.31 (-0.48 to 3.11)
	Adherence	SMD: 0.24 (-0.10 to 0.57)
	Quality of life	SMD: -0.15 (-0.41 to 0.11)
Transition to adult care	HbA1c	SMD: -0.11 (-0.31 to 0.08)
Ketoacidosis prevention campaigns	DKA	% difference: 7.2 (1 to 13.4)

Psychological interventions	HbA1c	MD: -0.34 (-0.72 to 0.035)
Telecare	HbA1c	MD: -0.18 (-0.40 to 0.03)
Educational	HbA1c	MD: 0.046 (-0.80 to 0.272)
Summer Camps	HbA1c	MD: -0.59 (-0.95 to -0.23)
	Diabetes knowledge	SMD: 1.99 (1.28 to 2.70)
	Quality of life	SMD: 0.17 (-0.06 to 0.39)
	Anxiety	SMD: -0.32 (-0.70 to 0.06)
Rapid-acting insulin analogs (insulins lispro, aspart and glulisine, respectively)	Severe hypoglycemia	RD: -0.00 (-0.01 to 0.01)
	% time with hypoglycemia	MD: -17.4 (-19.2 to -15.5)
	% time with nocturnal hypoglycemia	MD: -26.3 (-35.5 to -16.7)
	% time with severe hypoglycemia	MD: -4.5 (-10.2 to 1.2)
	% time with hyperglycemia	MD: 11.6 (-25 to 49)
CSII v MDI	HbA1c	MD: -0.22 (-0.33 to -0.11)
	Severe hypoglycemia	RR: 0.87 (0.55 to 1.37)
	Diabetic ketoacidosis	RR: 1.29 (0.62 to 2.69)
	Health related quality of life	SMD: 0.42 (0.07 to 0.76)

Supplementary Table 5: Outcomes estimates for interventions on mental health conditions

Intervention	Outcomes	Estimates
Exercise for children with ADHD	Hyperactive/impulsive symptoms	MD: -0.01 (-0.32 to 0.29)
	Anxiety and depression	MD: -1.84 (-2.65 to -1.03)
	Inattention symptoms	MD: -0.22 (-0.51 to 0.08)
	Oppositional symptoms	MD: 0.17 (-0.09 to 0.43)
	Thought problems	MD: -3.49 (-5.51 to -1.47)
	Social problems	MD: -5.08 (-7.34 to -2.82)
	Aggressive behavior	MD: -3.90 (-7.10 to -0.70)
	Strength and agility	MD: 5.69 (1.13 to 10.25)
	Internalised problems	MD: -1.44 (-5.46 to 2.57)
	Externalised problems	MD: -2.66 (-6.71 to 1.40)
	Perseverative errors	MD: 2.19 (-1.28 to 5.67)
	Non-perseverative errors	MD: 1 (-1.77 to 3.78)
	Stroop color word response	MD: 6.67 (4.21 to 9.13)
Exercise for depression	Depression	SMD: -0.61 (-1.06 to -0.16)
Methylphenidate for ADHD	Math accuracy	RD: 0.03 (0.012 to 0.048)

	Math productivity	RD: 0.078 (0.043 to 0.112)
	Reading accuracy	RD: 0.062 (-0.009 to 0.134)
	Reading attempted	RD: 0.47 (0.302 to 0.637)
Valproate compared to placebo for acute mania	Response rate	OR: 1.11 (0.51 to 2.38)
	Any adverse events	OR 1.39 (0.71 to 2.71)
	Change in symptom severity	SMD: - 0.09 (- 0.41 to 0.24)
Valproate compared to lithium for acute mania	Response rate	OR 0.57 (0.31 to 1.07)
	Change in symptom severity	MD 1.40 (- 2.03 to 4.83)
Valproate compared to risperidone for acute mania	Response rate	OR 0.16 (0.08 to 0.29)
	Change in symptom severity	SMD 1.01 (0.74 to 1.29)
Vitamin D supplementation for ADHD	ADHD in total	SMD: 0.39 (0.12 to 0.65)
	Inattention	SMD: 0.67 (0.12 to 1.23)
	Hyperactivity	SMD: 0.6 (0.07 to 1.13)
	Oppositional	SMD: 9.76 (-0.62 to 20.13)
	Behavior	SMD: 0.54 (0.18 o 0.9)
Client feedback compared to no client feedback in psychological therapy for children and adolescents with mental health problems	Treatment acceptability	RR 1.08 (0.73 to 1.61)
Social skills training compared to no intervention or ADHD	Teacher rated social skills	SMD: 0.11 (-0.00 to 0.22)
	Parent rated social skills	SMD: 0.19 (0.06 to 0.32)
	Teacher rated emotional competence	SMD: -0.02 (-0.72 to 0.68)
	Teacher rated general behavior	SMD: -0.06 (-0.19 to 0.06)
	Parent rated general behavior	SMD: -0.38 (-0.61 to -0.14)
	Teacher rated ADHD symptoms	SMD: -0.26 (-0.47 to -0.05)
	Parent rated ADHD symptoms	SMD: -0.54 (-0.81 to -0.26)
COGNITIVE REMEDIATION THERAPY (CRG) +TREATMENT-AS-USUAL (TAU) compared toTAU (all short-term) for psychosis in adolescents	Global state	MD: -4.9 (-11.05 to 1.25)
	Mental state	MD: 8.30 (0.46 to 16.14)
	Cognitive functioning	RR 0.58 (0.37 to 0.8)
	Global functioning	MD: 5.90 (-3.03 to 14.83)
	Leaving the study early	RR 0.93 (0.32 to 2.71)
GROUP PSYCHOSOCIALTHERAPY (GPT) +TAU compared toTAU	Global state	MD: 5.1 (1.35 to 8.85)
	Mental state	MD: -4.1 (-8.28 to 0.08)
	Leaving the study early	RR 0.43 (0.15 to 1.28)
STRUCTURAL GROUP THERAPY + TREATMENT-AS-USUAL compared to HANDICRAFT GROUP + TREATMENT-AS-USUAL	Mental state	MD: -2.57 (-4.47 to- 0.67)
	Leaving the study	RR 0.71 (0.25 to 2.00)

COGNITIVE REMEDIATION PROGRAMME (CRP) + PSYCHOEDUCATIONAL TREATMENT PROGRAMME (PTP) compared to PTP	Global state	MD: 1.60 (-6.48 to 9.68)
	Mental state	MD: -5.40 (-16.42 to 5.62)
	Cognitive functioning	MD: 2.40 (-2.67 to 7.47)
COMPUTER-ASSISTED COGNITIVE REMEDIATION PROGRAMME (CACR) compared to COMPUTER GAMES	Global state	MD: 2.0 (-1.85 to 5.85)
	Mental state	MD: 3.7 (-10.68 to 18.08)
	Cognitive functioning	MD: -8.7 (-17.40 to 0.00)
	Global functioning	MD: -0.7 (-7.76 to 6.36)
	Leaving the study early	RR: 2.33 (0.27 to 20.09)
PSYCHOEDUCATIONAL (PE) + MULTIFAMILY TREATMENT (MFT) compared to NONSTRUCTURED GROUP THERAPY	Global state	MD: 3.38 (-4.87 to 11.63)
	Mental state	MD: -8.23 (-17.51 to 1.05)
	Service use	RR: 0.84 (0.36 to 1.96)
	Leaving the study early	RR: 0.52 (0.10 to 2.60)
Psychosocial interventions compared with control for the prevention of mental disorders in children living low- and middle- income countries affected by humanitarian crises	Dropouts	RR: 0.93 (0.78 to 1.10)
	Post-traumatic stress disorder symptoms	SMD: -0.16 (-0.50 to 0.18)
	Depression	SMD: -0.01 (-0.29 to 0.31)
	Anxiety	SMD: 0.11 (-0.09 to 0.31)
Parent-infant psychotherapy versus control for improving parental and infant mental health: parent mental health and infant attachment	Parent mental health meta-analysis: depression	RR: 0.74 (0.52 to 1.04)
	Parent mental health meta-analysis: depression	SMD: -0.22 (-0.46 to 0.02)
	Infant attachment categories meta-analysis: post-intervention - attachment category (SSP) secure	RR: 8.93 (1.25 to 63.7)
	Infant attachment categories meta-analysis: post-intervention - attachment category (SSP) disorganized	RR: 0.32 (0.17 to 0.58)
	Infant attachment categories meta-analysis: follow-up - attachment category (SSP) secure	RR: 3.3 (1.82 to 6)
	Infant attachment categories meta-analysis: follow-up - attachment category (SSP) disorganized	RR: 0.8 (0.29 to 2.19)
Parent-infant psychotherapy versus other (psychoeducational) parenting intervention: parent mental health and infant attachment	Parent mental health meta-analysis: depression continuous data - post-intervention	SMD: 0.23 (-0.49 to 0.95)
	Parent mental health meta-analysis: depression continuous data - follow-up	SMD: 0.13 (-0.23 to 0.50)
	Infant attachment categories meta-analysis: post-intervention - attachment category (SSP) secure	RR: 0.83 (0.32 to 2.13)

	Infant attachment categories meta-analysis: follow-up - attachment category (SSP) secure	RR: 1.61 (0.83 to 3.12)
	Infant attachment categories meta-analysis: post-intervention - attachment category (SSP) disorganised	RR: 0.79 (0.34 to 1.82)
	Infant attachment categories meta-analysis: follow-up - attachment category (SSP) disorganised	RR: 0.82 (0.30 to 2.22)
Group-based parent training programmes for improving emotional and behavioural adjustment in young children at postintervention	Emotional and behavioural problems	SMD: -0.81 (-1.37 to -0.25)
	Externalising problems	SMD: -0.23 (-0.46 to -0.01)
	Externalising problems - hyperactivity-inattention	SMD: -1.34 (-2.37 to -0.31)
	Internalising problems	SMD: 0.34 (-0.12 to 0.81)
	Social skills	SMD: 3.59 (2.42 to 4.76)
	Parent-child interaction - negative behaviour (observer report)	SMD: -0.22 (-0.39 to -0.06)
	Parent-child interaction - positive behaviour (observer report)	SMD: 0.48 (0.17 to 0.79)
Parent group intervention	Child externalizing problems	SMD: -0.38 (-0.56 to -0.19)
	Child internalizing problems	SMD: -0.18 (-0.36 to -0.01)
Evidence-based psychological interventions compared to any comparator for depression	Overall diagnosis of depression	RR: 0.84 (0.72 to 0.97)
	Targeted programs for depression	RR: 0.82 (0.68 to 0.99)
	Universal programs for depression	RR: 0.87 (0.66 to 1.14)
Evidence-based psychological interventions versus any comparator for self-reported depression scores	Overall - self-rated depression scores	SMD: -0.21 (-0.27 to -0.15)
	Targeted - self-rated depression scores (higher score is equivalent to a poorer outcome)	SMD: -0.32 (-0.42 to -0.23)
	Universal programmes- self rated depression scores (higher score is equivalent to a poorer outcome)	SMD: -0.11 (-0.17 to -0.05)
Risperidone compared to placebo for disruptive behaviours in children and youths	Aggression-Assessed with: Aberrant Behaviour Checklist – Irritability (ABC-I) subscale	MD: -6.49 (-8.79 to -4.19)
	Aggression-Assessed with: OAS-M and ABS Proactive subscales	MD: -1.12 (-2.30 to 0.06)
	Conduct	MD: -8.61 (-11.49 to -5.74)
	Weight gain (antipsychotic)	MD: 2.37 (0.26 to 4.49)
	Weight gain (antipsychotic + stimulant)	MD: 2.14 (1.04 to 3.23)

SSRI	Depressive disorder	MD: 0.04 (0.13 to 0.29)
	Anxiety disorders	MD: 0.13 (0.45 to 0.97)
	Obsessive compulsive disorder	MD: 0.08 (0.25 to 0.54)
	Post traumatic stress disorder	MD: 0.20 (-0.23 to 0.56)
	Treatment-emergent adverse events	RR: 1.07 (1.02-1.13)
	Discontinuation	RR: 1.84 (1.38-2.44)
	Severe adverse events	RR: 1.71 (1.22-2.40)
SNRI	Depressive disorders	MD: 0.08 (0.01 to 0.31)
	Anxiety disorders	MD: 0.07 (0.27 to 0.54)
	Treatment-emergent adverse events	RR: 1.07 (0.94-1.22)
	Discontinuation	RR: 1.56 (0.83-2.94)
	Severe adverse events	RR: 2.10 (1.19-3.69)
Cognitive Remediation Therapy in Young People with Anorexia Nervosa	Set shifting	SMD: -0.03 (-0.48 to 0.43)
	Central coherence	SMD: 0.41 (0.29 to 0.54)
	Behaviour rating inventory of executive function	SMD: -0.32 (-0.44 to -0.19)
Individual CBT-based psychotherapy compared to TAU or other comparator for self-harm in children and adolescent	Repetition of self harm	OR 0.93 (0.12 to 7.24)
Dialectical behaviour therapy (DBT-A) compared to TAU or another comparator for self-harm in children and adolescents	Repetition of self harm	OR 0.46 (0.26 to 0.82)
Mentalisation-based therapy for adolescents (MBT-A) compared to TAU or another comparator for self-harm in children and adolescents	Repetition of self harm	OR: 0.70 (0.06 to 8.46)
Family therapy compared to placebo for self-harm in children and adolescent	Repetition of self harm	OR: 1.00 (0.49 to 2.07)
CBT compared with waitlist for children and adolescents with anxiety disorders	Remission of primary anxiety	OR 5.45 (3.90 to 7.60)
	Acceptability	OR 1.09 (0.85 to 1.41)
	Remission of all anxiety	OR 4.43 (2.89 to 6.78)
	Reduction in anxiety symptoms	SMD: -0.67 (-0.88 to -0.47 lower)
	Reduction in depression symptoms	SMD: -0.34 (-0.51 to -0.17)
	Improvement in global functioning	SMD: 1.03 (0.68 to 1.38)
CBT compared with treatment as usual for anxiety disorders in children and adolescents	Remission of primary anxiety	OR 3.19 (0.90 to 11.29)
	Acceptability	OR 1.37 (0.73 to 2.56)
	Remission of all anxiety	OR 2.74 (1.16 to 6.46)
	Reduction in anxiety symptoms	SMD: -0.15 (-0.78 to 0.48)

	Reduction in depression symptoms	
CBT compared with attention control for anxiety disorders in children and adolescents	Remission of primary anxiety	OR 2.28 (1.33 to 3.89)
	Acceptability	OR 1.00 (0.68 to 1.49)
	Remission of all anxiety	OR 2.75 (1.22 to 6.17)
	Reduction in anxiety symptoms	SMD: -0.31 (-0.51 to -0.11)
	Reduction in depression symptoms	SMD: -0.18 (-0.45 to 0.09 higher)
CBT compared with alternative treatment for anxiety disorders in children and adolescent	Acceptability	OR 1.58 (0.61 to 4.13)
	Remission of all anxiety	OR 0.89 (0.35 to 2.23)
	Reduction in anxiety symptoms	SMD: -0.09 (-0.40 to 0.21)
Amphetamines compared with placebo for attention deficit hyperactivity disorder in children and adolescents	Total ADHD symptom score	SMD -0.57 (-0.86 to -0.27)
	Proportion of responders	RR 3.36 (2.48 to 4.55)
	Academic performance	SMD 0.56 (0.39 to 0.73)
	Retention	RR 1.03 (0.97 to 1.10)
	Atleast 1 adverse event	RR 1.30 (1.18 to 1.44)

Supplementary Table 6: Outcomes estimates for interventions on cardiovascular diseases

Intervention	Outcomes	Estimates
Vitamin D Supplementation	Systolic blood pressure	MD: -2.04 (-5.12 to 1.04)
	Diastolic blood pressure	MD: 0.01 (-1.09 to 1.12)
	Low density lipoprotein	MD: 0.11 (0.02 to 0.20)
	Total cholesterol	MD: 0.09 (-0.02 to 0.19)
Efficacy and safety of statin use	Mean change total cholesterol (TC)	MD: -79.36 (-93.98 to -64.75)
	Mean change in low-density lipoprotein cholesterol (LDL-C)	MD: -78.58 (-93.27 to -63.89)
Transition of care for adolescents from paediatric services to adult health services	Knowledge of disease and treatment	MD: 14 (2.67 to 25.33)
Exercise Training After Congenital Heart Disease Surgery	VO2 peak	MD: 3.68 (1.58 to 5.78)
	Change in FEV1	MD: 4 (-3.95 to 11.94)
	Change in FVC	MD: 3.51 (-4.12 to 11.14)
Resistance Training	BMI	MD: -0.43 (-0.82 to -0.03)
	Systolic blood pressure	MD: -1.09 (-3.24 to 1.07)
	Diastolic blood pressure	MD: -0.93 (-2.05 to 0.19)
School-based exercise programs	Waist Circumference	MD: -0.14 (-0.22 to -0.07)

	SBP	MD: -0.14 (-0.31 to 0.03)
	DBP	MD: -0.21 (-0.42 to -0.01)
	Fasting glucose	MD: -0.6 (-1.28 to 0.08)
	Insulin	MD: -0.12 (-0.20 to -0.04)
	HDL	MD: 0.09 (-0.05 to 0.23)
	LDL	MD: -0.23 (-0.52 to 0.07)
	TC	MD: -0.03 (-0.37 to 0.31)
	BMI	SMD: -0.07 (-0.11 to -0.04)
Thrombolysis for Stroke	ICH	RR: 3.48 (1.66 to 7.29)
	In-hospital mortality	RR: 1.44 (0.39 to 5.40)
Sodium-reduction interventions	SBP	MD: -0.6 (-0.5 to -0.8)
	DBP	MD: -1.2 (-0.4 to -1.9)

Supplementary Table 7: Outcome estimates for interventions on cancer

Interventions	Outcomes	Estimate
Distraction for procedural pain in pediatric oncology	Self-reported pain	SMD: -0.64 (-1.10 to 0.17)
	Pulse ratings	SMD: -0.87 (-1.28 to -0.47)
Urate oxidase compared with allopurinol for prevention of tumour lysis syndrome in children with haematological malignancy at risk of tumour lysis syndrome	Incidence of tumor lysis syndrome	RR 0.77 (0.44 to 1.33)
	Mortality due to tumor lysis syndrome	RR 0.05 (0 to 0.89)
	Renal failure requiring renal replacement therapy	RR 0.26 (0.08 to 0.89)
	Frequency of adverse events	RR 9.10 (1.29 to 64)
high-dose urate oxidase compared with low-dose urate oxidase	Normalisation of serum uric acid	RR 1.07 (0.89 to 1.28)
	% reduction in serum uric levels at 4 hours	8.1% higher (0.99% lower to 17.19% higher)
	Frequency of adverse events	RR 0.54 (0.12 to 2.48)
Nutritional interventions for survivors of childhood cancer-Group behaviour intervention vs standard care	Calcium intake	MD: 111.60 (-258.97 to 482.17)

Calcium and vitamin D supplementation and nutrition education with nutrition education alone	Bone mineral density	MD: -0.05 (-0.26 to 0.16)
Face-to face, multi-component health behaviour change intervention with two telephone follow-ups	Behavior change (nutrition as a health protective behaviour)	MD: -0.05 (-0.24 to 0.14)
	Self reported junk food intake	MD: -0.17 (-0.33 to -0.01)
Single, face-to-face, group-based health behaviour session focusing on bone health	Milk consumption	MD: 0.43 (0.07 to 0.79)
	Participants days on calcium supplementation	MD: 11.42 (7.11 to 15.73)
	Any calcium supplementation	RR: 3.35 (1.86 to 6.04)
Music interventions in pediatric oncology vs. standard treatment in children undergoing cancer treatment	Pain	SMD: -1.51 (-2.76 to -0.26)
	Anxiety	SMD: -1.12 (-1.78 to -0.46)
	Quality of life	SMD: -0.96 (-1.17 to -0.74)
	Lowering heart rate	SMD: -0.23 (-0.72 to 0.27)
Hyperfractionated radiotherapy compared with conventional radiotherapy for diffuse brainstem glioma	Overall survival	HR 1.07 (0.75 to 1.53)
	Event free survival	HR 1.26 (0.83 to 1.90)
	Radiological response	RR 0.94 (0.54 to 1.63)
Hypofractionated radiotherapy compared with conventional radiotherapy for diffuse brainstem glioma in children and young adults	Overall survival	HR 1.03 (0.53 to 2.01)
	Progression free survival	HR 1.19 (0.63 to 2.22)
Nutritional support in children and young people with cancer undergoing chemotherapy- Parenteral nutrition (PN) versus enteral nutrition (EN)	Body weight	MD: 4.12 (1.91 to 6.33)
	Skinfold thickness	MD: -0.74 (-3.15 to 1.67)
	Change in serum albumin	MD: 0.7 (0.14 to 1.26)
	Developed infection	MD: 2.47 (0.86 to 7.11)
	Calorie intake	MD: 22.0 (5.12 to 38.88)
	Mean protein intake	MD: 0.80 (0.45 to 1.15)
	Developed infection	RR: 2.47 (0.86 to 7.11)
	Nausea vomiting	RR: 1.09 (0.71 to 1.68)
	Diarrhea	RR: 1.64 (0.87 to 3.07)
	Deaths	RR: 1.19 (0.32 to 4.39)
	Maintained or improved performance status	MD: 1.09 (0.71 to 1.68)
Nasogastric enteral nutrition (EN) versus usual food intake enteral nutrition (EN)	MUAC	MD: 0.06 (-1.22 to 1.34)
	Recurrent vomiting	RR: 3.5 (0.17 to 70.94)

	Deaths	RR: 0.33 (0.02 to 6.65)
Alternative parenteral (PN) lipid formulation	Mean weight z-score	MD: -0.34 (-0.68 to -0.00)
	PN energy intake	MD: -1.90 (-5.24 to 1.44)
	PN protein intake	MD: 0.0 (-0.09 to 0.09)
Glutamine supplementation of feeds	MUAC	MD: -0.10 (-2.00 to 1.80)
	Nausea/vomiting	RR: 0.89 (0.60 to 1.31)
	Duration of vomiting	MD: -0.11 (-0.55 to 0.33)
	Diarrhea	RR: 1.11 (0.68 to 1.79)
Additional fructooligosaccharides in enteral feeds	Weight for height	MD: -0.12 (-0.57 to 0.33)
	Height-for-age z-score	SMD: -0.06 (-0.57 to 0.44)
	Weight-for-age z-score	SMD: 0.48 (-0.03 to 1.00)
	Diarrhea	RR: 3.0 (0.13 to 70.83)
	Nausea	RR: 0.92 (0.48 to 1.74)
	Abdominal pain	RR: 5.0 (0.25 to 99.95)
Energy dense vs. standard calorie enteral feeds	Weight z-score > 0	RR: 4.4 (1.20 to 16.17)
	MUAC	MD: 3.60 (-4.34 to 11.54)
	Tricep skinfold	MD: 1.0 (-146.39 to 148.39)
	Bicep skinfold	MD: -4.5 (-28.51 to 19.51)
	Muscle arm area	MD: 5.80 (-1.32 to 12.92)
	Mean energy intake	MD: 28.0 (17.03 to 38.97)
	Proportion of daily estimated feed requirement	MD: -9.0 (-18.40 to 0.40)
	Therapy related vomiting	MD: -0.20 (-0.89 to 0.49)
Parenteral nutrition (PN) versus fluid therapy (FT)	Developed infection	RR: 2.0 (0.76 to 5.24)
Parenteral nutrition (PN) and enteral nutrition (EN) versus parenteral nutrition (PN)	Body weight	MD: -0.05 (-0.64 to 0.54)
	Tricep skin fold	MD: 0.09 (-1.20 to 1.38)
	Subscapular skinfold	MD: -0.70 (-1.59 to 0.19)
	Serum albumin	MD: 0.47 (0.13 to 0.81)
	Developed infection	RR: 0.58 (0.07 to 4.95)
	Diarrhea	RR: 0.93 [0.45 to 1.95]
	Mean energy intake	MD: -15.0 (-26.81 to -3.19)
	Mean protein intake	MD: -0.10 (-0.27 to 0.07)
	Deaths	RR: 0.38 (0.02 to 7.93)
Early discharge versus non-early discharge for children with cancer and febrile neutropenia at low risk for invasive bacterial infection	Treatment failure/re-hospitalisation/change in antibiotics	RR 0.91 (0.24 to 3.5)
	Duration of antimicrobial treatment	MD: 0.3 days fewer (1.22 fewer to 0.62 more)

	Duration of IV antimicrobial treatment	MD 0.5 days fewer (1.36 fewer to 0.36 more)
	Duration of oral antimicrobial treatment	MD 0.2 days fewer (0.51 fewer to 0.91 more)
Very early discharge versus early discharge for children with cancer and febrile neutropenia at low risk for invasive bacterial infection	Treatment failure/re-hospitalisation/change in antibiotics	RR 0.54 (0.15 to 1.89)
Chemotherapy for children with medulloblastoma	Overall survival	RR: 1.06 [0.67, 1.67]
	Treatment related mortality	RR: 2.37 [0.43, 12.98]
	Adverse effects	
	Event / diseases free survival	
Effect of hypnosis interventions on procedural anxiety and pain	Anxiety	SMD: 2.03 (1.25 to 2.82)
	Pain	SMD: 1.85 (1.19 to 2.50)
Nonhypnosis interventions on anxiety and pain during cancer procedures at postintervention	Anxiety	SMD: -0.29 (-0.81 to 0.23)
	Pain	SMD: -0.02 (-0.54 to 0.49)
Antiemetic medication for prevention and treatment of chemotherapy-induced nausea and vomiting in childhood-Addition of corticosteroids to 5-HT3 antagonists	Control of immediate vomiting	RR: 2.03 (1.35, 3.04)
Granisetron 20 mcg/kg versus 40 mcg/k	Control of immediate vomiting	RR: 0.93 (0.80, 1.07)
Ondansetron vs Granisetron	Control of acute nausea	RR: 1.05 [0.94, 1.17]
	Control of acute vomiting	RR: 2.26 [2.04, 2.51]
	Control of delayed nausea	RR: 1.13 [0.93, 1.38]
	Control of delayed vomiting	RR: 1.13 [0.98, 1.29]
Myeloablative therapy versus control in children with high risk neuroblastoma	Event free survival	HR: 0.78 [0.67, 0.90]
	Overall survival	HR: 0.74 [0.57, 0.98]
	Treatment related death	RR: 2.53 [0.17, 37.12]
Amifostine compared to no otoprotective intervention for the prevention of platinum-induced hearing loss in children with cancer	Ototoxicity	RR 1.29 (0.94 to 1.77)
	Tumor response	RR 1.6 (0.97 to 2.63)
	Adverse events other than toxicity	
Sodium thiosulfate compared to no otoprotective intervention for the prevention of platinum-induced hearing loss in children with cancer	Ototoxicity	RR 0.52 (0.33 to 0.81)

	Overall survival	HR 0.43 (0.03 to 5.85)
	Event free survival	HR 0.85 (0.37 to 1.94)
	Tumor response	RR 1.06 (0.98 to 1.15)

Supplementary Table 8: Outcomes estimates for interventions on chronic respiratory diseases

Interventions	Outcomes	Estimate
Regular formoterol and ICS compared to same-dose ICS in children and adolescents with asthma	All cause mortality	RD: 0.0000 (95% CI –0.0034 to 0.0034)
	Non-fatal serious adverse events	OR 1.33 (0.71 to 2.49)
	Asthma related mortality	RD: 0.0000 (95% CI –0.0034 to 0.0034)
	Asthma related non-fatal adverse events	OR 1.18 (0.40 to 3.51)
LABA + ICS compared with same dose of ICS for children with chronic asthma	Exacerbations requiring systemic steroids	RR 0.95 (0.70 to 1.28)
	Exacerbations requiring hospitalisation	RR 1.74 (0.90 to 3.36)
	Serious adverse events	RR 1.17 (0.75 to 1.85)
	Withdrawals	RR 0.80 (0.67 to 0.94)
	Change in FEV	0.08 L higher (0.06 to 0.1 higher)
	Change in morning PEF	10.20 L/min higher (8.14 to 12.26 higher)
	Total adverse events	RR 1.04 (0.98 to 1.10)
LABA + ICS compared with increased dose of ICS for children with chronic asthma	Exacerbations requiring systemic steroids	RR 1.69 (0.85 to 3.32)
	Exacerbations requiring hospitalisation	RR 1.90 (0.65 to 5.54)

	Serious adverse events	RR 1.54 (0.81 to 2.94)
	Withdrawals	RR: 0.96 (0.67 to 1.37)
	Change in FEV	0.01 L higher (-0.03 to 0.05 higher)
	Change in morning PEF	8.73 L/min higher (5.15 to 12.31 higher)
	Total adverse events	RR 1.01 (0.92 to 1.10)
Effects of different inhaled corticosteroids on growth in children with persistent asthma: fluticasone versus beclomethasone	Linear growth velocity	MD 0.81 (0.46 to 1.16)
Effects of different inhaled corticosteroids on growth in children with persistent asthma: fluticasone versus budesonide	Linear growth velocity	MD 0.39 (-0.94 to 1.73)
	Change in height	MD 0.97 (0.62 to 1.32)
Effects of different delivery devices on growth in children with persistent asthma: hydrofluoroalkane-metered dose inhaler beclomethasone versus chlorofluorocarbon-metered dose inhaler beclomethasone	Linear growth velocity	MD -0.44 (-1.00 to 0.12)
Effects of different devices on growth in children with persistent asthma: Easyhaler-budesonide versus Turbuhaler-budesonide	Change in height	MD 0.37 (0.12 to 0.62)
Mould remediation versus information only in houses	Symptom days	
	ED visit	
Metered-dose inhalers versus nebulization for the delivery of albuterol for acute exacerbations of wheezing or asthma in children	Hospital admission	RR: 0.89 (0.55 to 1.46)
	Pulmonary index score	MD: -0.63 (-0.91 to -0.35)
	Saturation of oxygen	MD: 0.13 (-0.26 to 0.51)
	Respiratory rate	MD: -6.47 (-11.69 to -1.25)
	Heart rate	MD: -1.39 (-4.80 to 2.02)
	Adverse events: nausea	RR: 0.71 (0.41 to 1.22)
	Adverse events: palpitations	RR: 0.60 (0.22 to 1.64)
	Adverse events: tremor	RR: 0.45 (0.14 to 1.49)
Efficacy of Macrolides on Acute Asthma or Wheezing Exacerbations in Children with Recurrent Wheezing	Time to next exacerbation	HR 0.96 (95% CI 0.71–1.28)
Probiotics vs control	Episodes of asthma	RR: 1.30 (1.06 to 1.59)
	Childhood Asthma Control Test	MD: 2.59 (-1.13 to 6.31)
	Scores of asthmatic symptoms in the day	SMD: -0.89 (-2.14 to 0.37)

	Scores of asthmatic symptoms in the night	SMD: -0.86 (-2.81 to 1.09)
	The number of symptom-free days	MD: 8.47 (-4.80 to 21.75)
	FEV	MD: 9.35 (-2.41 to 21.11)
	PEF	MD: 1.61 (-27.36 to 30.58)
	Interleukin	SMD: -2.34 [-3.38, -1.29]
	Interferon	SMD: 2.50 [1.23, 3.76]
Macrolides compared with placebo for children with bronchiectasis	Exacerbation frequency	IRR 0.50 95% CI 0.35 to 0.71
	Hospitalization	OR 0.28 (0.07 to 1.11)
	Severe adverse events	OR 0.43 (0.17 to 1.05)
Intravenous Magnesium Sulfate for Treating Acute Asthma in Children	Respiratory function	SMD: 1.94 (0.80 to 3.08)
	Hospital admissions	RR: 0.70 (0.54 to 0.90)
	Mechanical ventilation support	RR: 0.16 (0.06 to 0.44)
Nebulized Magnesium Sulfate for Treating Acute Asthma in Children	Respiratory function	SMD: 0.19 (-0.01 to 0.40)
	Hospital admissions	RR: 1.11 (0.86 to 1.44)
Effects of physical therapy on lung function in children with asthma	FEV	1.77 higher (0.76 lower to 4.3 higher)
	FVC	4.56 higher (1.33 to 7.79 higher)
	PEF	0.87 higher (5.24 lower to 6.97 higher)
Sublingual immunotherapy for allergic rhinitis in pediatric patients	Nasal symptom score	SMD: -0.55 (-0.86 to -0.25)
	Nasal medication score	SMD: -0.67 (-0.96 to -0.38)
Omalizumab compared to usual care for autumn asthma exacerbations in children	Hospital admission/oral steroid requirement	OR 0.48 (0.25 to 0.92)
	Hospital admission/oral corticosteroid requirement	OR 0.37 (0.17 to 0.81)
	Adverse events	OR 0.99 (0.61 to 1.58)
A boost of inhaled corticosteroids compared to usual care for autumn asthma exacerbations in children	Hospital admission/oral corticosteroid requirement	OR 0.86 (0.32 to 2.30)
	Adverse events	OR 0.67 (0.34 to 1.33)
Leukotriene receptor antagonist compared to usual care for autumn asthma exacerbations in children	Unscheduled medical contacts	OR 0.50 (0.17 to 1.46)
	Adverse events	OR 0.91 (0.63 to 1.32)
Behavioral intervention compared to usual care for autumn asthma exacerbations in children	Unscheduled contact for respiratory diagnosis	OR 1.13 (0.95 to 1.33)

Effectiveness of swimming on lung function and asthma control in children with asthma	FEV	MD: 2.88 (-0.99 to 6.75)
	FVC	MD 7.18, 95% CI: -0.15 to 14.5
	PEF	MD 4.40, 95% CI: -4.04 to 12.84;
Nasal saline irrigation in the treatment of allergic rhinitis in children-saline irrigation vs no irrigation	Symptom score	SMD: -1.70 (-2.37 to -1.02)
Nasal saline irrigation in the treatment of allergic rhinitis in children-saline irrigation vs medication	Symptom score	SMD: 0.53 (-0.55 to 1.61)
Nasal saline irrigation in the treatment of allergic rhinitis in children-saline + medication irrigation vs medication	Symptom score	SMD: -0.41 (-1.40 to 0.58)
Dexamethasone Versus Prednisone or Prednisolone for Acute Pediatric Asthma Exacerbations in the Emergency Department	Vomiting	RR: 0.29 (0.18 to 0.48)
	Hospital admission	RR: 0.95 (0.69 to 1.29)
	Revisits to ED after discharge	RR: 0.94 (0.71 to 1.24)
	Hospital admission after relapse	RR: 1.13 (0.94 to 1.52)
Effects of school-based asthma interventions compared to usual care for asthma among children and adolescents	Exacerbations leading to hospitalization (hospitalizations)	0.19 standard deviations lower than in the control group (0.35 to 0.04 lower)
	Asthma symptoms leading to emergency hospital visits (ED visits)	OR 0.70 (0.53 to 0.92)
	Unplanned visit to hospital or GP due to asthma symptoms (unplanned medical visits)	OR 0.74 (0.60 to 0.90)
	Absence from school	0.399 school days missed annually lower (1.254 lower to 0.456 higher)
	Experience of daytime and night-time symptoms - daytime symptoms (daytime symptoms)	MD 0.377 days experienced in past 2 weeks lower (0.828 lower to 0.05 higher)
	Use of reliever therapies, e.g. beta2-agonists	OR 0.52 (0.15 to 1.81)
	Health related quality of life	MD 0.36 Paediatric Asthma Quality of Life Questionnaire points higher (0.06 higher to 0.64 higher)
Community-based interventions for childhood asthma using comprehensive approaches	ED visits	OR: 0.26 (0.20 to 0.35)
	Hospitalizations	OR: 0.24 (0.15 to 0.38)
	Asthma symptoms	MD: -2.58 (-3.00 to -2.17)
	Mean difference for nights with asthma symptoms	MD: -2.14 (-2.94 to -1.34)
	Short-acting asthma medication/bronchodilator (BD) uses	OR: 0.28 (0.16 to 0.51)
	Asthma action plan (AAP) uses	OR: 8.87 (3.85 to 20.45)

Lay-led and peer support interventions compared with usual care for adolescents with asthma	Asthma-related quality of life (PAQLQ)	0.40 better (0.02 worse to 0.81 better)
	Smoking	Mean score in intervention groups was 4.63 better (3.04 to 6.22 better)
Caseworker-assigned discharge plans compared with non-caseworker-assigned plans in preventing rehospitalisation for acute respiratory exacerbations in children with asthma	Hospitalization	OR 0.29 (0.16 to 0.50)
	ED visit	OR 0.37 (0.04 to 3.05)
	GP visit	OR 0.87 (0.22 to 3.44)
Culture-specific asthma education program compared to Generic asthma education (or usual care) for asthma in children	Severe exacerbation requiring hospitalization	OR 1.55 (0.6 to 3.66)
	Number of exacerbations	0.18 MD higher (0.25 lower to 0.62 higher)
Efficacy and safety of omalizumab in children with moderate-to-severe asthma	Asthma exacerbation	RR: 0.51 (0.44 to 0.58)
	Dose of inhaled corticosteroid	MD: -108 (-151.19 to -64.81)
Psychoeducation for Children with Chronic Conditions	Quality of life	SMD: 0.21 (0.11 to 0.30)

Supplementary Table 9: Definitions of risk factors and NCDs mapped

Risk Factors/NCDs	GBD Definitions	Gap Map Eligibility
Obesity	High BMI for children (ages 1–19) is defined as being overweight or obese based on International Obesity Task Force standards. (Level 2 risk).	For this gap map, we included reviews assessing the effectiveness of preventive and/or therapeutic interventions targeting obesity in children and adolescents.
Substance Abuse	This aggregate cause incorporates death and disability resulting from alcohol and drug use disorders (Level 2 cause), including opioid use disorder, amphetamine use disorder, cocaine use disorder, cannabis use disorder, and a residual category of other drug use disorders. (Level 3 cause).	For this gap map, we included reviews assessing the effectiveness of interventions to prevent and/or treat any substance abuse in children and adolescents.
Type 1 Diabetes Mellitus	Type 1 diabetes is a chronic, autoimmune condition more commonly starting in childhood, in which the pancreas produces little or no insulin. GBD defines type 1 diabetics as persons who are diagnosed by physicians and identified through a diabetic registry or hospital records. (Level 4 cause).	For this gap map, we included reviews assessing interventions to manage T1DM in children and adolescents.
Mental Health Conditions	The GBD defines mental health conditions as an aggregate cause incorporating disability from schizophrenia; anxiety, bipolar, depressive, autism spectrum, attention deficit hyperactivity, conduct, and other mental disorders; idiopathic developmental intellectual disability; and deaths and disability from eating disorders. (Level 2 cause).	For this gap map, we included reviews assessing interventions for prevention and/or management of broad mental health conditions among children and adolescents.
Cardiovascular Diseases	This aggregate cause incorporates death and disability resulting from 11 cardiovascular causes, led by ischemic heart disease, stroke, and hypertensive heart disease. (Level 2 cause). High systolic blood pressure (SBP) and high LDL cholesterol are the first	For this gap map, we included reviews assessing interventions for primary prevention of cardiovascular diseases (e.g., screening for hypertension and metabolic disorders), management of cardiovascular

	and third leading risk factors for cardiovascular disease.	risk factors (e.g., management of hypertension and metabolic disorders), and management of cardiovascular diseases among children and adolescents (e.g., rheumatic heart disease, stroke, congenital heart defects).
Cancers	This summary cause incorporates death and disability resulting from malignant neoplasms, including ICD-10 codes such as C00 through C96. This category includes non-melanoma skin cancers but excludes benign and in situ neoplasms. (Level 2 cause).	For this gap map, we included reviews assessing interventions to prevent and/or manage cancers in children and adolescents.
Chronic Respiratory Diseases	These include the following five categories: asthma, chronic obstructive pulmonary disease (COPD), interstitial lung disease (ILD) and pulmonary sarcoidosis, pneumoconiosis (including silicosis, asbestosis, coal-worker pneumoconiosis, and other pneumoconiosis), and other chronic respiratory diseases.	For this gap map, we included reviews assessing interventions to prevent and/or treat any chronic respiratory diseases in children and adolescents.

Supplementary Appendix: Search Strategies

Obesity

1. PubMed

((("Adolescent"[Mesh] OR Adolescent* OR Adolescence OR Teen* OR Teenager* OR Youth* OR Puberty OR juvenile OR child* OR pediater*) AND ("Obesity"[Mesh] OR "Pediatric Obesity"[Mesh] OR Obesity OR "Childhood Obesity" OR "Body Mass Index"[Mesh] OR "Overweight"[Mesh] OR "Adiposity"[Mesh] OR "Overnutrition"[Mesh]) AND ("Obesity Management"[Mesh] OR "Weight Loss"[Mesh] OR "Pediatric Obesity/prevention and control"[Mesh] OR "Pediatric Obesity/diet therapy"[Mesh] OR "Pediatric Obesity/drug therapy"[Mesh] OR ("Pediatric Obesity/rehabilitation"[Mesh] OR "Pediatric Obesity/surgery"[Mesh] OR "Pediatric Obesity/therapy"[Mesh] OR "Overweight/diet therapy"[Mesh] OR "Overweight/therapy"[Mesh] OR "Overweight/prevention and control"[Mesh] OR "Diet"[Mesh] OR "Diet, Healthy"[Mesh] OR "Diet, Reducing"[Mesh] OR "Life Style"[Mesh] OR "Exercise"[Mesh] OR "Resistance Training"[Mesh] OR Exercise OR Diet OR "Healthy Lifestyle"[Mesh] OR "Physical Activity" OR "Behavior Therapy"[Mesh] OR "Physical Exertion"[Mesh] OR "Feeding Behavior"[Mesh] OR "Health Behavior"[Mesh] OR "Weight Reduction Programs"[Mesh] OR "Cognitive Behavioral Therapy" [Mesh])))
Search Results: 1,674

2. COCHRANE

Date Run: 27/04/2021 08:57:39

ID Search Hits

#1	MeSH descriptor: [Adolescent] explode all trees	105120
#2	MeSH descriptor: [Child] explode all trees	56872
#3	("adolescent"):ti,ab,kw	130812
#4	("youth"):ti,ab,kw	7098
#5	MeSH descriptor: [Pediatric Obesity] explode all trees	1284
#6	(obesity):ti,ab,kw	38370
#7	(overweight):ti,ab,kw	17387
#8	(obese):ti,ab,kw	23070
#9	MeSH descriptor: [Exercise] explode all trees	25218
#10	MeSH descriptor: [Diet Therapy] explode all trees	5993
#11	MeSH descriptor: [Diet, Reducing] explode all trees	2066
#12	MeSH descriptor: [Bariatric Surgery] explode all trees	1014
#13	MeSH descriptor: [Diet, Healthy] explode all trees	496
#14	MeSH descriptor: [Health Education] explode all trees	20319
#15	MeSH descriptor: [Cognitive Behavioral Therapy] explode all trees	9251
#16	MeSH descriptor: [Diet] explode all trees	18720
#17	MeSH descriptor: [School Health Services] explode all trees	1616
#18	MeSH descriptor: [Parenting] explode all trees	1306
#19	("physical activity"):ti,ab,kw	32711
#20	(treatment):ti,ab,kw	780884
#21	(interventions):ti,ab,kw	98430
#22	("weight-control intervention"):ti,ab,kw	63
#23	(behavioral interventions):ti,ab,kw	13495
#24	(drug interventions):ti,ab,kw	24789
#25	(#1 OR #2 OR #3 OR #4) AND (#5 OR #6 OR #7 OR #8) AND (#9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24)	5000

Search Results: 32 Cochrane Review

3. CAMPBELL SYSTEMATIC REVIEWS

((Adolescent OR Adolescence OR Teen* OR Teenager OR Youth OR Puberty OR Juvenile OR Child* OR Pediatr*) AND ("Pediatric Obesity" OR Obesity OR "Childhood Obesity" OR "Body Mass Index" OR "Overweight" OR "Adiposity" OR "Overnutrition") AND ("Obesity Management" OR "Weight Loss" OR "Prevention and control" OR "Diet therapy" OR "Drug therapy" OR Rehabilitation OR Surgery OR Therapy OR Diet OR "Healthy diet" OR "Life Style" OR Exercise OR

"Resistance Training" OR "Healthy Lifestyle" OR "Physical Activity" OR "Behavior Therapy" OR "Physical Exertion" OR "Feeding Behavior" OR "Healthy Behavior" OR "Weight Reduction Programs" OR "Cognitive Behavioral Therapy"))

Search results: 40

4. EMBASE

Search Results: 818

Substance Abuse

1. PubMed

("Adolescent"[Mesh] OR Adolescent* OR Adolescence OR Teen* OR Teenager OR Youth* OR Puberty OR Juvenile OR Child* OR Pediatr*) AND ("Substance Abuse" OR "Substance-Related Disorders"[Mesh] OR "Alcohol-Related Disorders"[Mesh] OR "Alcoholism"[Mesh] OR Alcohol OR "Tobacco Smoking"[Mesh] OR Tobacco OR Smoking[Mesh] OR "Tobacco Use"[Mesh] OR Drugs OR "Drug Misuse"[Mesh]) AND ("Therapeutics"[Mesh] OR "Tobacco Use Cessation"[Mesh] OR "Treatment" OR "Cognitive Behavioral Therapy"[Mesh] OR "Behavior Therapy"[Mesh] OR "Adolescent Health"[Mesh] OR "Substance-Related Disorders/prevention and control"[Mesh] OR "Substance-Related Disorders/therapy"[Mesh] OR "Smoking Prevention"[Mesh] OR "Health Promotion"[Mesh]))

Search Results: 3,491

2. COCHRANE

118 Cochrane Reviews matching (Adolescent* OR Adolescence OR Teen* OR Teenager OR Young OR Youth OR Puberty OR Juvenile OR Child* OR Pediatr*) in Title Abstract Keyword AND (Substance Abuse OR Substance Misuse OR "Underage Alcohol Consumption" OR "Adolescent; Alcohol Drinking" OR "Adolescent; Alcohol Consumption" OR Alcohol OR "Underage Drinking" OR "Tobacco Smoking" OR Tobacco OR Smoking OR Tobacco Use OR Opiate OR "Drug Abuse" OR "Drug Misuse" OR "Illicit Drug") in Title Abstract Keyword AND (Therapeutics OR "Tobacco Use Cessation" OR "Smoking Cessation" OR Treatment OR "School-based" OR "Smoking Control Programs" OR "Cognitive Behavioral Therapy" OR Behavior Therapy OR "Adolescent Health" OR "Smoking Prevent*" OR Health Promotion) in Title Abstract Keyword

3. CAMPBELL SYSTEMATIC REVIEWS

((Adolescent OR Adolescence OR Teen* OR Teenager OR Youth OR Puberty OR Juvenile OR Child* OR Pediatr*) AND ("Substance Abuse" OR "Substance-Related Disorders" OR "Alcohol-Related Disorders" OR "Alcoholism" OR Alcohol OR "Tobacco Smoking" OR Tobacco OR Smoking OR "Tobacco Use" OR Drugs OR "Drug Misuse") AND ("Therapeutics" OR "Tobacco Use Cessation" OR "Treatment" OR "Behavior Therapy" OR "Adolescent Health" OR "Substance-Related Disorders" OR "Prevention and control" OR "Substance-Related Disorders therapy" OR "Smoking Prevention" OR "Health Promotion"))

Search Results: 279

4. EMBASE

Search Results: 2,264

Type 1 Diabetes Mellitus

1. PubMed

("Adolescent"[Mesh] OR Adolescent* OR Adolescence OR Teen* OR Teenager* OR Youth* OR Puberty OR juvenile OR Child* OR Pediatr*) AND ("Diabetes Mellitus"[Mesh] OR "Diabetes Mellitus, Type 1"[Mesh] OR "Diabetes" OR "Diabetes Mellitus, Type 2"[Mesh]) AND ("Diabetes Mellitus, Type 1/drug therapy"[Mesh] OR "Diabetes Mellitus, Type 2/drug therapy"[Mesh] OR "Glycosides/therapeutic use"[Mesh] OR "Hypoglycemic Agents"[Mesh] OR "Insulin"[Mesh] OR "Insulin/therapeutic use"[Mesh] OR "Insulin Lispro"[Mesh] OR "Insulin Infusion Systems"[Mesh] OR "Sodium-Glucose Transport Proteins/antagonists and inhibitors"[Mesh] OR "Exercise"[Mesh] OR "Drug Therapy, Combination"[Mesh] OR "Combined Modality Therapy"[Mesh] OR "Diabetic Angiopathies/prevention and control"[Mesh] OR "Diabetic Cardiomyopathies/prevention and control"[Mesh] OR "Benzhydryl Compounds"[Mesh] OR "Diuretics/therapeutic use"[Mesh] OR "Glucosides/therapeutic use"[Mesh] OR "Weight Loss"[Mesh] OR "Diet,

Diabetic"[Mesh] OR "Diabetes Mellitus, Type 1/diet therapy"[Mesh] OR "Exercise Therapy/methods"[Mesh] OR "Subcutaneous Insulin" OR "Hypoglycemia/prevention and control"[Mesh] OR "Hyperglycemia/prevention and control"[Mesh] OR "Blood Glucose Self-Monitoring/Instrumentation"[Mesh] OR "Health Behavior"[Mesh] OR "Risk Reduction Behavior"[Mesh] OR "Self-Management/methods"[Mesh] OR "Monitoring, Physiologic/methods"[Mesh] OR "Treatment Outcome"[Mesh] OR "Wearable Electronic Devices"[Mesh] OR "Mobile Applications"[Mesh] OR "Liraglutide/therapeutic use"[Mesh] OR "Monitoring, Ambulatory/instrumentation"[Mesh] OR diet* OR prevent* OR manage* OR "Quality of Life"[Mesh]))

Search Results: 1,391

2. COCHRANE

Search Name: Diabetes

Date Run: 02/07/2021 04:07:57

ID	Search	Hits
#1	MeSH descriptor: [Adolescent] explode all trees	105401
#2	MeSH descriptor: [Child] explode all trees	57029
#3	("adolescent"):ti,ab,kw	131092
#4	("youth"):ti,ab,kw	7120
#5	MeSH descriptor: [Diabetes Mellitus, Type 1] explode all trees	5633
#6	MeSH descriptor: [Diabetes Mellitus, Type 2] explode all trees	18189
#7	("diabetes"):ti,ab,kw	84776
#8	MeSH descriptor: [Insulins] explode all trees	14511
#9	MeSH descriptor: [Diet, Diabetic] explode all trees	460
#10	MeSH descriptor: [Exercise] explode all trees	25356
#11	MeSH descriptor: [Therapeutics] explode all trees	310037
#12	("treatment"):ti,ab,kw	782221
#13	(#1 OR #2 OR #3 OR #4) AND (#5 OR #6 OR #7) AND (#8 OR #9 OR #10 #11 OR #12)	

30 Cochrane Reviews

3. CAMPBELL SYSTEMATIC REVIEWS

Search results: 0

4. EMBASE

Search Results: 473

Mental health conditions

1. PubMed

("Adolescent"[Mesh] OR Adolescent* OR Adolescence OR Teen* OR Teenager* OR Youth* OR Puberty OR juvenile OR Child* OR Pediatr*) AND ("Mental Disorders"[Mesh] OR "Mental Disorder*" OR "Mental Health Disorder*" OR "Anxiety Disorders"[Mesh] OR "Anxiety Disorder*" OR "Anxiety"[Mesh] OR "Depression"[Mesh] OR "Depressive Disorder"[Mesh] OR "Depressive Disorder*" OR "Depressive Disorder, Major"[Mesh] OR "Major Depressive Disorder*" OR "Bipolar Disorder"[Mesh] OR "Bipolar Disorder" OR "Bipolar and Related Disorders"[Mesh] OR "Schizophrenia"[Mesh] OR "Schizophrenia Spectrum and Other Psychotic Disorders"[Mesh] OR "Schizophrenia, Catatonic"[Mesh] OR "Schizophrenia, Disorganized"[Mesh] OR "Schizophrenia, Paranoid"[Mesh] OR "Psychotic Disorders"[Mesh] OR "Psychotic Disorder*" OR "Psychoses, Substance-Induced"[Mesh] OR "Psychoses, Alcoholic"[Mesh] OR Psychosis) AND ("Depression/therapy"[Mesh] OR "Depression/drug therapy"[Mesh] OR "Depressive Disorder, Major/therapy"[Mesh] OR "Depressive Disorder, Major/drug therapy"[Mesh] OR "Depression/prevention and control"[Mesh] OR "Depressive Disorder/prevention and control"[Mesh] OR "Antidepressive Agents/therapeutic use"[Mesh] OR "Anxiety/prevention and control"[Mesh] OR "Anxiety Disorders/prevention and control"[Mesh] OR "Anxiety/rehabilitation"[Mesh] OR "Anxiety Disorders/rehabilitation"[Mesh] OR "Bipolar Disorder/drug therapy"[Mesh] OR "Attention Deficit Disorder with Hyperactivity/drug therapy"[Mesh] OR "Autistic Disorder/drug therapy"[Mesh] OR "Schizophrenia/therapy"[Mesh] OR "Psychotic Disorders/therapy"[Mesh] OR "Psychotic Disorders/drug therapy"[Mesh] OR "Psychotic Disorders/prevention and control"[Mesh] OR "Psychotherapy/methods"[Mesh] OR "Ketamine/administration and dosage"[Mesh] OR "Lithium compounds/therapeutic use"[Mesh] OR "Fatty Acids, Omega-3/therapeutic use"[Mesh])

OR "Antipsychotic agents/therapeutic use"[Mesh] OR "Antimanic Agents/therapeutic use"[Mesh] OR "Anticonvulsants/therapeutic use"[Mesh] OR "Health Education"[Mesh] OR "Health Behavior"[Mesh] OR "Exercise"[Mesh] OR "Adolescent Health Services"[Mesh] OR "Child Health Services"[Mesh] OR "Mental Health Services"[Mesh] OR "School Health Services"[Mesh] OR "Treatment Outcome"[Mesh] OR "Adolescent Behavior/drug effects"[Mesh] OR "Child Behavior/drug effects"[Mesh] OR "Cognitive Behavioral Therapy/methods"[Mesh] OR "Stress, Psychological/therapy"[Mesh] OR "Meditation/methods"[Mesh])

Search Results: 2,399

2. COCHRANE

293 Cochrane Reviews matching (Adolescent* OR Adolescence OR Teen* OR Teenager OR Youth OR Puberty OR Juvenile OR Child* OR Pediatr*) in Title Abstract Keyword AND ("Mental Disorder*" OR "Mental Health Disorder*" OR "Anxiety Disorder*" OR "Anxiety" OR "Depression" OR "Depressive Disorder*" OR "Major Depressive Disorder" OR "Bipolar Disorder" OR "Schizophrenia" OR "Schizophrenia Spectrum and Other Psychotic Disorders" OR "Psychotic Disorder*" OR Psychosis OR ADHD) in Title Abstract Keyword AND (Depression therapy OR Antidepressive Agents OR Antipsychotics OR Rehabilitation OR Psychotherapy OR Ketamine OR Lithium OR Amphetamine OR Tricyclic Antidepressants OR Antimanic Agents OR Anticonvulsants OR Health Education OR Health Behavior OR Exercise OR Mental Health Services OR School Health Services OR Treatment Outcome OR Adolescent Behavior OR Child Behavior OR Cognitive Behavioral Therapy OR Psychological therapy OR Meditation) in Title Abstract Keyword

3. CAMPBELL SYSTEMATIC REVIEWS

((Adolescent OR Adolescence OR Teen* OR Teenager OR Youth OR Puberty OR Juvenile OR Child* OR Pediatr*) AND ("Mental Disorder*" OR "Mental Health Disorder*" OR "Anxiety Disorder*" OR Anxiety OR Depression OR "Depressive Disorder*" OR "Major Depressive Disorder*" OR "Bipolar Disorder" OR Schizophrenia OR "Schizophrenia Spectrum" OR "Psychotic Disorder*" OR Psychosis) AND ("Depression therapy" OR "Depression drug therapy" OR "Major Depressive Disorder therapy" OR "Major Depressive Disorder drug therapy" OR "Depression prevention and control" OR "Depressive Disorder prevention and control" OR "Antidepressive Agent*" OR "Anxiety prevention and control" OR "Anxiety Disorders prevention and control" OR "Anxiety rehabilitation" OR "Anxiety Disorders rehabilitation" OR "Bipolar Disorder drug therapy" OR "Bipolar Disorder therapy" OR "Attention Deficit Disorder Hyperactive Disorder drug therapy" OR "ADHD therapy" OR "Autism spectrum Disorder drug therapy" OR "Autism Disorder therapy" OR "Schizophrenia therapy" OR "Psychotic Disorders therapy" OR "Psychotic Disorders drug therapy" OR "Psychotic Disorders prevention and control" OR Psychotherapy OR Ketamine OR Lithium OR "Fatty Acids" OR "Omega-3" OR "Antipsychotic agents" OR "Antimanic agents" OR "Anticonvulsants" OR "Health Education" OR "Healthy Behavior" OR Exercise OR "Adolescent Health Services" OR "Child Health Services" OR "Mental Health Services" OR "School Health Services" OR "Treatment Outcome" OR "Drug effects" OR "Cognitive Behavioral Therapy" OR "Stress therapy" OR "Psychological therapy"))

Search results: 151

4. EMBASE

Search Results: 684

Cardiovascular diseases

1. PubMed

("Adolescent"[Mesh] OR Adolescent* OR Adolescence OR Teen* OR Teenager* OR Youth* OR Puberty OR juvenile OR child* OR pediatr*) AND ("Heart Defects, Congenital"[Mesh] OR "Congenital Heart Defect" OR "Hypertension"[Mesh] OR Hypertensi* OR "blood pressure" OR "Hypercholesterolemia"[Mesh] OR "Dyslipidemias"[Mesh] OR Dyslipidemia OR "Lipid Metabolism Disorders"[Mesh] OR "Metabolic Diseases"[Mesh] OR "Rheumatic Heart Disease"[Mesh] OR "Stroke"[Mesh]) AND ("Heart Defects, Congenital/diet therapy"[Mesh] OR "Heart Defects, Congenital/drug therapy"[Mesh] OR "Heart Defects, Congenital/pharmacology"[Mesh] OR "Heart Defects, Congenital/prevention and control"[Mesh] OR "Heart Defects, Congenital/rehabilitation"[Mesh] OR "Heart Defects, Congenital/surgery"[Mesh] OR "Heart Defects,

Congenital/therapy"[Mesh] OR "Hypertension/diet therapy"[Mesh] OR "Hypertension/drug therapy"[Mesh] OR "Hypertension/pharmacology"[Mesh] OR "Hypertension/prevention and control"[Mesh] OR "Hypertension/rehabilitation"[Mesh] OR "Hypertension/surgery"[Mesh] OR "Hypertension/therapeutic use"[Mesh] OR "Hypertension/therapy"[Mesh] OR "Hypercholesterolemia/diet therapy"[Mesh] OR "Hypercholesterolemia/drug therapy"[Mesh] OR "Hypercholesterolemia/prevention and control"[Mesh] OR "Hypercholesterolemia/rehabilitation"[Mesh] OR "Hypercholesterolemia/surgery"[Mesh] OR "Hypercholesterolemia/therapy"[Mesh] OR "Dyslipidemias/diet therapy"[Mesh] OR "Dyslipidemias/drug therapy"[Mesh] OR "Dyslipidemias/prevention and control"[Mesh] OR "Dyslipidemias/rehabilitation"[Mesh] OR "Dyslipidemias/surgery"[Mesh] OR "Lipid Metabolism Disorders/diet therapy"[Mesh] OR "Lipid Metabolism Disorders/drug therapy"[Mesh] OR "Lipid Metabolism Disorders/prevention and control"[Mesh] OR "Lipid Metabolism Disorders/rehabilitation"[Mesh] OR "Lipid Metabolism Disorders/therapy"[Mesh] OR "Metabolic Diseases/diet therapy"[Mesh] OR "Metabolic Diseases/drug effects"[Mesh] OR "Metabolic Diseases/drug therapy"[Mesh] OR "Metabolic Diseases/pharmacology"[Mesh] OR "Metabolic Diseases/prevention and control"[Mesh] OR "Metabolic Diseases/rehabilitation"[Mesh] OR "Metabolic Diseases/therapeutic use"[Mesh] OR "Metabolic Diseases/therapy"[Mesh] OR "Metabolic Diseases/transplantation"[Mesh] OR "Rheumatic Heart Disease/diet therapy"[Mesh] OR "Rheumatic Heart Disease/drug therapy"[Mesh] OR "Rheumatic Heart Disease/prevention and control"[Mesh] OR "Rheumatic Heart Disease/rehabilitation"[Mesh] OR "Rheumatic Heart Disease/surgery"[Mesh] OR "Rheumatic Heart Disease/therapy"[Mesh] OR "Stroke/drug therapy"[Mesh] OR "Stroke/prevention and control"[Mesh] OR "Stroke/rehabilitation"[Mesh] OR "Stroke/surgery"[Mesh] OR "Stroke/therapy"[Mesh] OR "Quality of Life"[Mesh])

Search Results: 1,542

2. COCHRANE

Search Name: Cardiovascular Disease

Date Run: 17/05/2021 07:58:33 – 02/07/2021 Updated

ID	Search Hits
#1	MeSH descriptor: [Adolescent] explode all trees 105401
#2	MeSH descriptor: [Child] explode all trees 57029
#3	(adolescent):ti,ab,kw 131092
#4	(youth):ti,ab,kw 7120
#5	(children):ti,ab,kw 151122
#6	MeSH descriptor: [Cardiovascular Abnormalities] explode all trees 2592
#7	MeSH descriptor: [Heart Defects, Congenital] explode all trees 2260
#8	MeSH descriptor: [Stroke] explode all trees 10261
#9	(Hypertension):ti,ab,kw 61978
#10	("Congenital Heart Disease"):ti,ab,kw 1440
#11	MeSH descriptor: [Rheumatic Heart Disease] explode all trees 139
#12	MeSH descriptor: [Hypercholesterolemia] explode all trees 3491
#13	MeSH descriptor: [Dyslipidemias] explode all trees 7632
#14	("rheumatic heart disease"):ti,ab,kw 293
#15	MeSH descriptor: [Therapeutics] explode all trees 310037
#16	MeSH descriptor: [Antihypertensive Agents] explode all trees 8095
#17	MeSH descriptor: [Hypolipidemic Agents] explode all trees 6799
#18	MeSH descriptor: [Thoracic Surgery] explode all trees 164
#19	MeSH descriptor: [Stroke Rehabilitation] explode all trees 2570
#20	MeSH descriptor: [Cardiac Rehabilitation] explode all trees 250
#21	MeSH descriptor: [Exercise] explode all trees 25356
#22	MeSH descriptor: [Diet] explode all trees 18804
#23	MeSH descriptor: [Life Style] explode all trees 5620
#24	("cardiac surgery"):ti,ab,kw 8424
#25	(#1 OR #2 OR #3 OR #4 OR #5) AND (#6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14) AND (#15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24)

Search Results: 64 Cochrane Reviews

3. CAMPBELL SYSTEMATIC REVIEWS

Search results: 0

4. EMBASE

Search Results: 1,840

Cancers

1. PubMed

((("Adolescent"[Mesh] OR Adolescent* OR Adolescence OR Teen* OR Teenager* OR Youth* OR Puberty OR juvenile OR child* OR pediatri*) AND ("Neoplasms"[Mesh] OR Neoplasm OR Cancer* OR Malignan* OR Leukemia OR Tumor* OR Lymphoma OR Sarcoma OR Neuroblastoma) AND ("Neoplasms/diet therapy"[Mesh] OR "Neoplasms/drug therapy"[Mesh] OR "Neoplasms/pharmacology"[Mesh] OR "Neoplasms/prevention and control"[Mesh] OR "Neoplasms/radiotherapy"[Mesh] OR "Neoplasms/rehabilitation"[Mesh] OR "Neoplasms/surgery"[Mesh] OR "Neoplasms/therapeutic use"[Mesh] OR "Neoplasms/therapy"[Mesh] OR "Palliative Care"[Mesh] OR Palliative OR Palliation OR Chemotherapy OR Radiotherapy OR "Pain Management"[Mesh] OR Prevent* OR Manage* OR Care OR "Quality of Life"[Mesh] OR "Survivor care" OR care OR "Drug Therapy"[Mesh] OR "Radiotherapy"[Mesh] OR "Chemoradiotherapy, Adjuvant"[Mesh] OR "Radiotherapy, Adjuvant"[Mesh]))

Search Results: 4,056

2. COCHRANE

Search Name: CANCER

Date Run: 17/05/2021 08:19:50 - 02/07/2021 Updated

ID	Search Hits
#1	MeSH descriptor: [Adolescent] explode all trees 105401
#2	MeSH descriptor: [Child] explode all trees 57029
#3	(adolescent):ti,ab,kw 131092
#4	(youth):ti,ab,kw 7120
#5	(children):ti,ab,kw 151122
#6	MeSH descriptor: [Neoplasms] explode all trees 81536
#7	MeSH descriptor: [Therapeutics] explode all trees 310037
#8	MeSH descriptor: [Pain Management] explode all trees 3882
#9	MeSH descriptor: [Antineoplastic Agents] explode all trees 12454
#10	MeSH descriptor: [Drug Therapy] explode all trees 142628
#11	MeSH descriptor: [Radiotherapy] explode all trees 6222
#12	MeSH descriptor: [Hospice and Palliative Care Nursing] explode all trees 20
#13	MeSH descriptor: [Cancer Survivors] explode all trees 344
#14	MeSH descriptor: [Quality of Life] explode all trees 24975
#15	(management):ti,ab,kw 121325
#16	(#1 OR #2 OR #3 OR #4 OR #5) AND (#6) AND (#7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15)

Search Results: 87 Cochrane Reviews

3. CAMPBELL SYSTEMATIC REVIEWS

Search results: 0

4. EMBASE

Search Results: 1,928

Chronic respiratory diseases

1. PubMed

((("Adolescent"[Mesh] OR Adolescent* OR Adolescence OR Teen* OR Teenager* OR Youth* OR Puberty OR juvenile OR Child* OR Pediatr*) AND ("Asthma"[Mesh] OR "Pulmonary Disease, Chronic Obstructive"[Mesh] OR "Pediatric Asthma" OR "Rhinosinusitis" OR "COPD" OR "Allergic Respiratory Diseases" OR "Rhinitis, Allergic"[Mesh] OR "Noncommunicable Diseases"[Mesh] OR "Chronic Respiratory Disease" OR "Allerg*" OR "Lung Diseases"[Mesh]) AND ("Asthma/prevention and control"[Mesh] OR "Asthma/therapy"[Mesh] OR "Anti-Asthmatic Agents/therapeutic use"[Mesh] OR "Histamine Antagonists/therapeutic use"[Mesh] OR "Immunotherapy"[Mesh] OR "Antibodies, Monoclonal/therapeutic use"[Mesh] OR "Muscarinic Antagonists/therapeutic use"[Mesh] OR "Respiratory Tract Infections/drug therapy"[Mesh] OR "Quality of Life"[Mesh] OR "Nitric Oxide/analysis"[Mesh] OR "Rhinitis/therapy"[Mesh] OR "Sinusitis/therapy"[Mesh] OR "Rhinitis, Allergic, Seasonal/drug therapy"[Mesh] OR "Nasal Lavage/methods"[Mesh] OR "Nasal Sprays"[Mesh] OR "Sodium Chloride/administration and dosage"[Mesh] OR "Treatment Outcome"[Mesh] OR "Polymers/pharmacology"[Mesh] OR "Adrenal Cortex Hormones/therapeutic use"[Mesh] OR "Vitamin D/therapeutic use"[Mesh] OR "Vitamins/therapeutic use"[Mesh] OR "Antibodies, Monoclonal, Humanized/administration and dosage"[Mesh] OR "Injections, Intravenous"[Mesh] OR "Injections, Subcutaneous"[Mesh] OR "Exercise Therapy/methods"[Mesh] OR supplement* OR prevent* OR manage* OR "Quality of Life"[Mesh]))

Search Results: 2,755

2. COCHRANE

Search Name: RESPIRATORY

Date Run: 02/07/2021 15:09:06

ID Search Hits

#1	MeSH descriptor: [Adolescent] explode all trees 106203	#2	MeSH descriptor: [Child] explode all trees 57709
#3	(adolescent):ti,ab,kw 132490		
#4	(youth):ti,ab,kw 7313		
#5	(children):ti,ab,kw 153447		
#6	MeSH descriptor: [Asthma] explode all trees 11876		
#7	MeSH descriptor: [Lung Diseases, Obstructive] explode all trees 20042		
#8	MeSH descriptor: [Lung Diseases] explode all trees 42325		
#9	MeSH descriptor: [Respiratory Tract Diseases] explode all trees 63433		
#10	("rhinosinusitis"):ti,ab,kw 1476		
#11	MeSH descriptor: [Rhinitis, Allergic] explode all trees 3139		
#12	MeSH descriptor: [Therapeutics] explode all trees 312983		
#13	(prevention and control):ti,ab,kw 125500		
#14	MeSH descriptor: [Anti-Asthmatic Agents] explode all trees 5482		
#15	MeSH descriptor: [Antibodies, Monoclonal] explode all trees 14159		
#16	(immunotherapy):ti,ab,kw 10415		
#17	MeSH descriptor: [Adrenal Cortex Hormones] explode all trees 14702	#18	MeSH descriptor: [Nasal Decongestants] explode all trees 228
#19	MeSH descriptor: [Vitamins] explode all trees 4844		
#20	MeSH descriptor: [Exercise] explode all trees 25883		
#21	MeSH descriptor: [Drug Therapy, Combination] explode all trees 45575		
#22	(#1 OR #2 OR #3 OR #4 OR #5) AND (#6 OR #7 OR #8 OR #9 OR #10 OR #11) AND (#12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19 OR #20 OR #21)		

11556

Search Results: 368 Cochrane Reviews

3. CAMPBELL SYSTEMATIC REVIEWS

Search Results: 0

4. EMBASE

Search Results: 1,746