

PubMed, Scopus and Web of Science were searched for literature related to air pollution and children's health.

	Database Coverage	Dates Searched	Number Results
PubMed	1949-2012	7/28-29, 8/2/2012	10,933
Scopus	1960-2012	7/28-29, 8/2/2012	5949
Web of Science	1898-2012	7/28-29, 8/2/2012	11,943
Subtotal			28,825
Duplicates removed			10,774
Total			18,051

For all databases - Since the birth outcomes are inherently about children, those terms were solely combined with the air pollution terms. All the remaining health outcomes were combined with the air pollution categories and the pediatric terms.

PubMed – The search strategy used both MeSH terms as well as text words. Text words were limited to being searched in the title or abstract fields. The use of the 'adolescent' MeSH term inadvertently retrieves many adult studies. "Adolescent" is defined by MeSH as 13-18. Many epidemiologic studies define adult from 18 onwards. Therefore, those articles were often indexed with an Adolescent MeSH term.

Scopus – The Scopus database automatically searches the author and indexed keywords. The majority of the time those records are not relevant. To minimize irrelevant results, the terms were searched in the title and abstract fields only.

Web of Science – WOS uses the operator 'near' to search for terms in proximity of one another. This makes 'near' a stop word and WOS won't search for it as a regular word. Therefore, could not use it to search for (proximity OR near) AND (road* OR highway*...)

PubMed Search Strategy

Air Pollution

"air pollution"[mh:noexp] OR "air pollutants"[mh:noexp] OR (("air pollution"[tiab] OR "air pollutant"[tiab] OR "air pollutants"[tiab]) NOT (indoor*[tiab] OR household[tiab])) OR "particulate matter"[mh:noexp] OR smog[mh] OR soot[mh] OR "particulate matter"[tiab] OR PM2.5[tiab] OR "PM(2.5)"[tiab] OR PM10[tiab] OR "PM(10)"[tiab] OR smog[tiab] OR soot[tiab] OR "carbon black"[tiab] OR "black carbon"[tiab] OR "elemental carbon"[tiab] OR ((air[tiab] OR airborne[tiab] OR coarse[tiab] OR ultrafine[tiab] OR fine[tiab]) AND (particle*[tiab] OR particulate*[tiab])) OR "vehicle emissions"[mh] OR motor vehicles[mh] OR ((vehicle[tiab] OR vehicles[tiab] OR vehicular[tiab] OR auto[tiab] OR automobile[tiab] OR bus[tiab] OR buses[tiab] OR car[tiab] OR truck*[tiab] OR engine[tiab] OR transport*[tiab]) AND (emissions[tiab] OR exhaust[tiab] OR fume*[tiab])) OR (traffic[tiab] NOT (safety[tiab] OR accident*[tiab] OR injur*[tiab] OR collision*[tiab] OR crash*[tiab])) OR ((proximity OR near) AND (road*[tiab] OR highway*[tiab] OR freeway*[tiab] OR motorway*[tiab]))

Gases

(air[tiab] OR outdoor[tiab] OR ambient[tiab] OR pollut*[tiab] OR emissions[tiab] OR exhaust*[tiab]) AND ("sulfur dioxide"[mh] OR "sulfur dioxide"[tiab] OR SO2[tiab] OR ozone[mh] OR ozone[tiab] OR O3[tiab] OR "hydrogen sulfide"[mh] OR "hydrogen sulfide"[tiab] OR H2S[tiab] OR "carbon monoxide"[mh] OR "carbon monoxide"[tiab] OR "nitric oxide"[tiab] OR "nitrogen oxide"[tiab] OR "nitrogen oxides"[tiab] OR "nitrogen dioxide"[mh] OR "nitrogen dioxide"[tiab] OR NOx[tiab] OR "NO(x)"[tiab] OR NO2[tiab])

VOCs

"volatile organic compounds"[mh] OR "fossil fuels"[mh] OR "volatile organic compounds"[tiab] OR gasoline*[tiab] OR diesel[tiab] OR petrol*[tiab]

PAH

Polycyclic hydrocarbons, aromatic[mh:noexp] OR "benzo(a)pyrene"[mh] OR benzene[mh] OR "polycyclic aromatic hydrocarbons"[tiab] OR "benzopyrene"[tiab] OR "benzo a pyrene"[tiab] OR "3,4-benzopyrene"[tiab] OR benzene[tiab]

CAFO

"confined animal feeding"[tiab] OR "controlled animal feeding"[tiab] OR CAFO[tiab] OR ((Animal husbandry[mh] OR husbandry[tiab] OR "animal feed"[mh] OR "animal feed"[tiab] OR swine[mh] OR swine[tiab] OR pig[tiab] OR hog[tiab] OR poultry[mh] OR broiler*[tiab] OR chicken*[tiab] OR livestock[mh] OR livestock[tiab] OR cattle[tiab]) AND (methane[tiab] OR odors[mh] OR odor[tiab] OR odors[tiab] OR effluent*[tiab] OR emission*[tiab] OR waste[tiab] OR manure[mh] OR manure[tiab] OR ammonia[mh] OR ammonia[tiab] OR "organic dust"[tiab]))

Respiratory

asthma[mh] OR asthma*[tiab] OR "dermatitis, atopic"[mh] OR "rhinitis, allergic, perennial"[mh] OR "rhinitis, allergic, seasonal"[mh] OR "allergic rhinitis"[tiab] OR hypersensitivity[mh] OR hypersensitiv*[tiab] OR allergy[tiab] OR allergies[tiab] OR atopy[tiab] OR atopic[tiab] OR wheez*[tiab] OR sensitization[tiab] OR respiratory physiological phenomena[mh] OR "airway resistance"[mh] OR "pulmonary ventilation"[mh] OR "total lung capacity"[tiab] OR "vital capacity"[tiab] OR "tidal volume"[tiab] OR "inspiratory capacity"[tiab] OR "respiratory physiological processes"[mh] OR respiration[tiab] OR "expiratory flow"[tiab] OR "respiratory function tests"[mh] OR "pulmonary function"[tiab] OR "respiratory function"[tiab] OR bronchial diseases[mh] OR "bronchial hyperreactivity"[tiab] OR respiration disorders[mh] OR "respiratory insufficiency"[tiab] OR respiratory tract infections[mh] OR (respiratory[tiab] AND infection*[tiab]) OR bronchitis[tiab] OR "common cold"[tiab] OR pneumonia*[tiab] OR sinusitis[tiab] OR tuberculosis[tiab] OR "whooping cough"[tiab] OR influenza[tiab] OR flu[tiab] OR Lung[tiab] OR airway*[tiab] OR respiratory[tiab] OR pulmonary[tiab] OR bronchi*[tiab] OR bronchus[tiab] OR alveol*[tiab] OR "Lung/embryology"[mh] OR "lung/growth and development"[mh] OR "lung/abnormalities"[mh] OR "respiratory system/embryology"[mh] OR "respiratory system/growth and development"[mh] OR "respiratory system abnormalities"[mh] OR ("respiratory system"[mh] AND (growth[mh] OR morphogenesis[mh])) OR ((lung[tiab] OR pulmonary[tiab] OR respiratory[tiab]) AND (growth[tiab] OR develop*[tiab] OR congenital[tiab]))

Cancer

Neoplasms[mh] OR neoplasm*[tiab] OR cancer*[tiab] OR tumor[tiab] OR tumors[tiab] OR tumorigen*[tiab] OR tumour*[tiab] OR leukemia*[tiab] OR lymphoma*[tiab] OR sarcoma*[tiab] OR carcinoma*[tiab] OR adenoma*[tiab] OR melanoma*[tiab]

Nervous

"central nervous system/abnormalities"[mh] OR "central nervous system/congenital"[mh] OR "central nervous system/embryology"[mh] OR "central nervous system/growth and development"[mh] OR "central nervous system/physiology"[mh] OR ("central nervous system"[mh] AND (growth[mh] OR morphogenesis[mh])) OR "mental disorders diagnosed in childhood"[mh] OR "motor activity"[mh] OR "cognition disorders"[mh] OR neurodevelop*[tiab] OR neuropsycholog*[tiab] OR neurobehavior*[tiab] OR "motor skills"[tiab] OR cognitive[tiab] OR ((developmental[tiab] OR intellectual[tiab] OR learning[tiab] OR behavior[tiab] OR social[tiab]) AND (delay*[tiab] OR deficit*[tiab] OR disability[tiab] OR disorder*[tiab] OR impair*[tiab])) OR "attention deficit"[tiab] OR hyperactiv*[tiab] OR "nervous system"[tiab] OR brain[tiab] OR mental[tiab] OR autism[tiab] OR autistic[tiab] OR asperger*[tiab] OR dyslexia[tiab] OR tourette*[tiab]

Cardiovascular

Cardiovascular system[mh] OR cardiovascular[tiab] OR cardiac[tiab] OR heart[tiab] OR endocard*[tiab] OR myocard*[tiab] OR pericard*[tiab] OR atrial[tiab] OR atrium[tiab] OR ventric*[tiab] OR vascular[tiab] OR "blood vessel"[tiab] OR "blood vessels"[tiab] OR aort*[tiab] OR artery[tiab] OR arteries[tiab] OR arterial[tiab] OR vein*[tiab] OR venous[tiab] OR capillary*[tiab] OR cardiovascular diseases[mh] OR athero*[tiab] OR arrhythmia*[tiab] OR aneurysm*[tiab] OR bradycardia[tiab] OR cerebrovascular[tiab] OR hypertens*[tiab] OR hypotens*[tiab] OR tachycardia*[tiab] OR ischemia[tiab] OR cardiomegal*[tiab] OR cardiomyopath*[tiab] OR cardiovascular physiological phenomena[mh] OR hemodynamic*[tiab] OR "blood pressure"[tiab] OR pulse[tiab] OR circulation[tiab] OR vasodilat*[tiab] OR vasoconstrict*[tiab] OR diastole[tiab] OR systole[tiab]

Metabolic

"glucose metabolism disorders"[mh] OR diabetes[tiab] OR diabetic[tiab] OR prediabet*[tiab] OR pre-diabet*[tiab] OR glycosuria[tiab] OR glycemc[tiab] OR hyperglyc*[tiab] OR hypoglyc*[tiab] OR "glucose tolerance"[tiab] OR "glucose intolerance"[tiab] OR hyperinsulin*[tiab] OR "metabolic syndrome x"[mh] OR "metabolic syndrome"[tiab] OR "syndrome x"[tiab] OR "reaven's syndrome"[tiab] OR "insulin"[mh] OR insulin*[tiab] OR glucagon[mh] OR glucagon[tiab] OR "blood glucose"[mh] OR ((blood[tiab] OR plasma[tiab]) AND glucose[tiab]) OR "blood sugar"[tiab] OR pancreas[mh] OR pancreas*[tiab] OR "islets of langerhans"[mh] OR "islets of langerhans"[tiab] OR "islet cells" OR "beta cell"[tiab] OR "beta cells"[tiab] OR "beta islet"[tiab] OR "receptor, insulin"[mh] OR (glucose AND (metabolic[tiab] OR metabolism[tiab] OR metabolite*[tiab] OR homeosta*[tiab] OR uptake[tiab])) OR gluconeogenesis[mh] OR gluconeogenesis[tiab] OR "glycosylation end products, advanced"[mh] OR glycosylat*[tiab] OR glycat*[tiab] OR "Hemoglobin A, Glycosylated"[Mh] OR "Hemoglobin A"[Tiab] OR "haemoglobin A"[tiab] OR "Glycohemoglobin"[Tiab] OR "glycohaemoglobin"[tiab] OR hbA1c[tiab] OR A1c[Tiab] OR thyroid diseases[mh] OR thyroid gland[mh] OR thyroid*[tiab] OR goiter[tiab] OR hyperthyroid*[tiab] OR hypothyroid*[tiab]

"body weight"[mh] OR "waist circumference"[mh] OR "body mass index"[mh] OR "adipogenesis"[mh] OR "adipose tissue"[mh] OR adipocytes[mh] OR "adipokines"[mh] OR "leptin"[mh] OR resistin[mh] OR "body weight"[tiab] OR obes*[tiab] OR overweight[tiab] OR underweight[tiab] OR "body mass"[tiab] OR BMI[tiab] OR "weight gain"[tiab] OR "body fat"[tiab] OR (waist[tiab] AND (circumference[tiab] OR size[tiab])) OR adipocyte*[tiab] OR adipos*[tiab] OR "fat cells"[tiab] OR lipocyte*[tiab] OR adipogen*[tiab] OR adipokine*[tiab] OR adiponectin[tiab] OR leptin*[tiab] OR resistin[tiab]

Birth outcome

Pregnancy outcome[mh] OR "birth outcome"[tiab] OR "birth outcomes"[tiab] OR ((fetus[mh] OR fetus[tiab] OR fetal[tiab] OR "infant, newborn"[mh] OR "animals, newborn"[mh] OR newborn[tiab] OR baby[tiab] OR babies[tiab] OR birth[tiab] OR postnat*[tiab]) AND (Growth[mh:noexp] OR growth[tiab] OR "body size"[mh] OR weight[tiab] OR length[tiab])) OR "head circumference"[tiab] OR growth disorders[mh] OR "congenital abnormalities"[mh] OR congenital[sh] OR "embryonic and fetal development"[mh] OR ((birth[tiab] OR congenital[tiab] OR embryo[tiab] OR embryos[tiab] OR embryonic[tiab] OR fetal[tiab] OR fetus[tiab]) AND (defect*[tiab] OR deform*[tiab] OR anomal*[tiab] OR abnormal*[tiab])) OR Premature birth[mh] OR (premature*[tiab] AND (pregnan*[tiab] OR baby[tiab] OR babies[tiab] OR birth[tiab] OR born[tiab] OR infant*[tiab])) OR preterm*[tiab] OR perinatal mortality[mh] OR child mortality[mh] OR fetal mortality[mh] OR infant mortality[mh] OR mortality, premature[mh] OR stillbirth[tiab] OR stillborn[tiab] OR ((infant[tiab] OR fetal[tiab] OR newborn[tiab] OR child[tiab]) AND (death[tiab] OR mortality[tiab]))

Pediatric

Pediatric[tiab] OR Adolescent[mh] OR "adolescent, hospitalized"[mh] OR adolescen*[tiab] OR teen*[tiab] OR youth*[tiab] OR child[mh] OR "child, hospitalized"[mh] OR child[tiab] OR children[tiab] OR childhood[tiab] OR preschool*[tiab] OR schoolchildren[tiab] OR students[mh] OR student*[tiab] OR toddler*[tiab] OR infant[mh] OR "infant, newborn"[mh] OR infant*[tiab] OR newborn*[tiab] OR neonat*[tiab] OR postnat*[tiab] OR baby[tiab] OR babies[tiab] OR ((maternal exposure[mh] OR

"maternal exposure"[tiab] OR "in utero"[tiab] OR prenat*[tiab] OR perinat*[tiab]) AND (humans[mh] OR mother*[tiab]) OR "animals, newborn"[mh] OR ((mammals[mh] OR rodent*[tiab] OR rat[tiab] OR rats[tiab] OR mice[tiab] OR mouse[tiab] OR rabbit*[tiab] OR primate*[tiab] OR monkey*[tiab] OR marmoset*[tiab]) AND (offspring[tiab] OR progeny[tiab] OR litter[tiab] OR pup[tiab] OR pups[tiab]))

Scopus

Air Pollution

TITLE("air pollution" OR "air pollutant" OR "air pollutants" OR "particulate matter" OR smog OR soot OR PM2.5 OR "PM(2.5)" OR PM10 OR "PM(10)" OR "carbon black" OR "black carbon" OR "elemental carbon" OR ((air OR airborne OR coarse OR ultrafine OR fine) AND (particle* OR particulate*)) OR "vehicle emissions" OR motor vehicles OR ((vehicle OR vehicles OR vehicular OR auto OR automobile OR bus OR buses OR car OR truck* OR engine OR transport) AND (emissions OR exhaust OR fume*)) OR ((car OR vehicle OR vehicular OR traffic) AND NOT (safety OR accident* OR injur* OR collision* OR crash*)) OR ((proximity OR near) AND (road* OR highway* OR freeway* OR motorway*)) OR ABS("air pollution" OR "air pollutant" OR "air pollutants" OR "particulate matter" OR smog OR soot OR PM2.5 OR "PM(2.5)" OR PM10 OR "PM(10)" OR "carbon black" OR "black carbon" OR "elemental carbon" OR ((air OR airborne OR coarse OR ultrafine OR fine) AND (particle* OR particulate*)) OR "vehicle emissions" OR motor vehicles OR ((vehicle OR vehicles OR vehicular OR auto OR automobile OR bus OR buses OR car OR truck* OR engine OR transport) AND (emissions OR exhaust OR fume*)) OR ((car OR vehicle OR vehicular OR traffic) AND NOT (safety OR accident* OR injur* OR collision* OR crash*)) OR ((proximity OR near) AND (road* OR highway* OR freeway* OR motorway*))

Gases

TITLE((air OR outdoor OR ambient OR pollut* OR emissions OR exhaust*) AND ("sulfur dioxide" OR S02 OR ozone OR O3 OR "hydrogen sulfide" OR H2S OR "carbon monoxide" OR "nitric oxide" OR "nitrogen oxide" OR "nitrogen oxides" OR "nitrogen dioxide" OR NOx OR "NO(x)" OR NO2)) OR ABS((air OR outdoor OR ambient OR pollut* OR emissions OR exhaust*) AND ("sulfur dioxide" OR S02 OR ozone OR O3 OR "hydrogen sulfide" OR H2S OR "carbon monoxide" OR "nitric oxide" OR "nitrogen oxide" OR "nitrogen oxides" OR "nitrogen dioxide" OR NOx OR "NO(x)" OR NO2))

VOCs

TITLE("volatile organic compounds" OR "fossil fuels" OR gasoline* OR diesel OR petrol*) OR ABS("volatile organic compounds" OR "fossil fuels" OR gasoline* OR diesel OR petrol*)

PAH

TITLE("benzo(a)pyrene" OR benzene OR "polycyclic aromatic hydrocarbons" OR "benzopyrene" OR "benzo a pyrene" OR "3,4-benzopyrene" OR benzene) OR ABS("benzo(a)pyrene" OR benzene OR "polycyclic aromatic hydrocarbons" OR "benzopyrene" OR "benzo a pyrene" OR "3,4-benzopyrene" OR benzene)

CAFO

TITLE("confined animal feeding" OR "controlled animal feeding" OR CAFO OR ((Animal husbandry OR husbandry OR "animal feed" OR swine OR swine OR pig OR hog OR poultry OR broiler* OR chicken* OR livestock OR livestock OR cattle) AND (methane OR odors OR odor OR odors OR effluent* OR emission* OR waste OR manure OR manure OR ammonia OR "organic dust*")) OR ABS("confined animal feeding" OR "controlled animal feeding" OR CAFO OR ((Animal husbandry OR husbandry OR "animal feed" OR swine OR swine OR pig OR hog OR poultry OR broiler* OR chicken* OR livestock OR livestock OR cattle) AND (methane OR odors OR odor OR odors OR effluent* OR emission* OR waste OR manure OR manure OR ammonia OR "organic dust*"))

Respiratory

TITLE(asthma* OR rhinitis OR hypersensitiv* OR allergy OR allergies OR atopy OR atopic OR wheez* OR sensitization OR "airway resistance" OR "pulmonary ventilation" OR "total lung capacity" OR "vital capacity" OR "tidal volume" OR "inspiratory capacity" OR respiration OR "expiratory flow" OR hyperreactiv* OR bronchitis OR "common cold" OR pneumonia* OR sinusitis OR tuberculosis OR "whooping cough" OR influenza OR flu OR Lung OR airway* OR respiratory OR pulmonary OR bronchi* OR bronchus OR alveol*) OR ABS(asthma* OR rhinitis OR hypersensitiv* OR allergy OR allergies OR atopy OR atopic OR wheez* OR sensitization OR "airway resistance" OR "pulmonary ventilation" OR "total lung capacity" OR "vital capacity" OR "tidal volume" OR "inspiratory capacity" OR respiration OR "expiratory flow" OR hyperreactiv* OR bronchitis OR "common cold" OR pneumonia* OR sinusitis OR tuberculosis OR "whooping cough" OR influenza OR flu OR Lung OR airway* OR respiratory OR pulmonary OR bronchi* OR bronchus OR alveol*)

Cancer

TITLE(neoplasm* OR cancer* OR tumor OR tumors OR tumorigen* OR tumour* OR leukemia* OR lymphoma* OR sarcoma* OR carcinoma* OR adenoma* OR melanoma*) OR ABS(neoplasm* OR cancer* OR tumor OR tumors OR tumorigen* OR tumour* OR leukemia* OR lymphoma* OR sarcoma* OR carcinoma* OR adenoma* OR melanoma*)

Nervous

TITLE("nervous system" OR "central nervous" OR neural OR nerves OR "motor activity" OR cognition OR cognitive OR neurodevelop* OR neuropsycholog* OR neurobehavior* OR "motor skills" OR ((developmental OR intellectual OR learning OR behavior OR social) AND (delay* OR deficit* OR disability OR disorder* OR impair*)) OR "attention deficit" OR hyperactiv* OR brain OR mental OR autism OR autistic OR asperger* OR dyslexia OR tourette*) OR ABS("nervous system" OR "central nervous" OR neural OR nerves OR "motor activity" OR cognition OR cognitive OR neurodevelop* OR neuropsycholog* OR neurobehavior* OR "motor skills" OR ((developmental OR intellectual OR learning OR behavior OR social) AND (delay* OR deficit* OR disability OR disorder* OR impair*)) OR "attention deficit" OR hyperactiv* OR brain OR mental OR autism OR autistic OR asperger* OR dyslexia OR tourette*)

Cardiovascular

TITLE(cardiovascular OR cardiac OR heart OR endocard* OR myocard* OR pericard* OR atrial OR atrium OR ventric* OR vascular OR "blood vessel" OR "blood vessels" OR aort* OR artery OR arteries OR arterial OR vein* OR venous OR capillary* OR athero* OR arrhythmia* OR aneurysm* OR bradycardia OR cerebrovascular OR hypertens* OR hypotens* OR tachycardia* OR ischemia OR cardiomegal* OR cardiomyopath* OR hemodynamic* OR "blood pressure" OR pulse OR circulation OR vasodilat* OR vasoconstrict* OR diastole OR systole) OR ABS(cardiovascular OR cardiac OR heart OR endocard* OR myocard* OR pericard* OR atrial OR atrium OR ventric* OR vascular OR "blood vessel" OR "blood vessels" OR aort* OR artery OR arteries OR arterial OR vein* OR venous OR capillary* OR athero* OR arrhythmia* OR aneurysm* OR bradycardia OR cerebrovascular OR hypertens* OR hypotens* OR tachycardia* OR ischemia OR cardiomegal* OR cardiomyopath* OR hemodynamic* OR "blood pressure" OR pulse OR circulation OR vasodilat* OR vasoconstrict* OR diastole OR systole)

Metabolism

TITLE(diabetes OR diabetic OR prediabet* OR pre-diabet* OR glycosuria OR glycemic OR hyperglyc* OR hypoglyc* OR "glucose tolerance" OR "glucose intolerance" OR hyperinsulin* OR "metabolic syndrome" OR "syndrome x" OR "reaven's syndrome" OR insulin* OR glucagon OR ((blood OR plasma) AND glucose) OR "blood sugar" OR pancreas* OR "islets of langerhans" OR "islet cells" OR "beta cell" OR "beta cells" OR "beta islet" OR (glucose AND (metabolic OR metabolism OR metabolite* OR homeosta* OR uptake)) OR gluconeogenesis OR glycosylat* OR glycat* OR "Hemoglobin A" OR "haemoglobin A" OR "Glycohemoglobin" OR "glycohaemoglobin" OR hbA1c OR A1c OR thyroid* OR goiter OR hyperthyroid* OR hypothyroid* OR "body weight" OR obes* OR overweight OR underweight OR "body mass" OR BMI OR "weight gain" OR "body fat" OR (waist AND (circumference OR size)) OR

adipocyte* OR adipos* OR "fat cells" OR lipocyte* OR adipogen* OR adipokine* OR adiponectin OR leptin* OR resistin) OR ABS(diabetes OR diabetic OR prediabet* OR pre-diabet* OR glycosuria OR glycemic OR hyperglyc* OR hypoglyc* OR "glucose tolerance" OR "glucose intolerance" OR hyperinsulin* OR "metabolic syndrome" OR "syndrome x" OR "reaven's syndrome" OR insulin* OR glucagon OR ((blood OR plasma) AND glucose) OR "blood sugar" OR pancreas* OR "islets of langerhans" OR "islet cells" OR "beta cell" OR "beta cells" OR "beta islet" OR (glucose AND (metabolic OR metabolism OR metabolite* OR homeosta* OR uptake)) OR gluconeogenesis OR glycosylat* OR glycat* OR "Hemoglobin A" OR "haemoglobin A" OR "Glycohemoglobin" OR "glycohaemoglobin" OR hbA1c OR A1c OR thyroid* OR goiter OR hyperthyroid* OR hypothyroid* OR "body weight" OR obes* OR overweight OR underweight OR "body mass" OR BMI OR "weight gain" OR "body fat" OR (waist AND (circumference OR size)) OR adipocyte* OR adipos* OR "fat cells" OR lipocyte* OR adipogen* OR adipokine* OR adiponectin OR leptin* OR resistin)

Birth outcome

TITLE(((pregnancy OR birth) AND outcome*) OR ((fetus OR fetus OR fetal OR newborn OR baby OR babies OR birth OR postnat*) AND (growth OR "body size" OR weight OR length)) OR "head circumference" OR ((birth OR congenital OR embryo OR embryos OR embryonic OR fetal OR fetus) AND (defect* OR deform* OR anomal* OR abnormal*)) OR (prematu* AND (pregnan* OR baby OR babies OR birth OR born OR infant*)) OR preterm* OR stillbirth OR stillborn OR ((perinatal OR infant OR fetal OR newborn OR child) AND (death OR mortality))) OR ABS(((pregnancy OR birth) AND outcome*) OR ((fetus OR fetus OR fetal OR newborn OR baby OR babies OR birth OR postnat*) AND (growth OR "body size" OR weight OR length)) OR "head circumference" OR ((birth OR congenital OR embryo OR embryos OR embryonic OR fetal OR fetus) AND (defect* OR deform* OR anomal* OR abnormal*)) OR (prematu* AND (pregnan* OR baby OR babies OR birth OR born OR infant*)) OR preterm* OR stillbirth OR stillborn OR ((perinatal OR infant OR fetal OR newborn OR child) AND (death OR mortality)))

Pediatric

TITLE(Pediatric OR adolescen* OR teen* OR youth* OR child* OR preschool* OR schoolchildren OR student* OR toddler* OR infant OR infant* OR newborn* OR neonat* OR postnat* OR baby OR babies OR "maternal exposure" OR "in utero" OR prenatal* OR perinat* OR offspring OR progeny OR litter OR pup OR pups) OR ABS(Pediatric OR adolescen* OR teen* OR youth* OR child* OR preschool* OR schoolchildren OR student* OR toddler* OR infant OR infant* OR newborn* OR neonat* OR postnat* OR baby OR babies OR "maternal exposure" OR "in utero" OR prenatal* OR perinat* OR offspring OR progeny OR litter OR pup OR pups)

WOS Search Strategy

Air Pollution

"air pollution" OR "air pollutant" OR "air pollutants" OR "particulate matter" OR smog OR soot OR PM2.5 OR "PM(2.5)" OR PM10 OR "PM(10)" OR "carbon black" OR "black carbon" OR "elemental carbon" OR ((air OR airborne OR coarse OR ultrafine OR fine) AND (particle* OR particulate*)) OR "vehicle emissions" OR motor vehicles OR ((vehicle OR vehicles OR vehicular OR auto OR automobile OR bus OR buses OR car OR truck* OR engine OR transport) AND (emissions OR exhaust OR fume*)) OR ((car OR vehicle OR vehicular OR traffic) NOT (safety OR accident* OR injur* OR collision* OR crash*)) OR (proximity AND (road* OR highway* OR freeway* OR motorway*))

Note: had to remove "near" from last search subset since it WOS uses it as an operator for proximity

Gases

(air OR outdoor OR ambient OR pollut* OR emissions OR exhaust*) AND ("sulfur dioxide" OR SO2 OR ozone OR O3 OR "hydrogen sulfide" OR H2S OR "carbon monoxide" OR "nitric oxide" OR "nitrogen oxide" OR "nitrogen oxides" OR "nitrogen dioxide" OR NOx OR "NO(x)" OR NO2)

VOCs

"volatile organic compounds" OR "fossil fuels" OR gasoline* OR diesel OR petrol*

PAH

"benzo(a)pyrene" OR benzene OR "polycyclic aromatic hydrocarbons" OR "benzopyrene" OR "benzo a pyrene" OR "3,4-benzopyrene" OR benzene

CAFO

"confined animal feeding" OR "controlled animal feeding" OR CAFO OR ((Animal husbandry OR husbandry OR "animal feed" OR swine OR swine OR pig OR hog OR poultry OR broiler* OR chicken* OR livestock OR livestock OR cattle) AND (methane OR odors OR odor OR odors OR effluent* OR emission* OR waste OR manure OR manure OR ammonia OR "organic dust"))

Respiratory

asthma* OR rhinitis OR hypersensitiv* OR allergy OR allergies OR atopy OR atopic OR wheez* OR sensitization OR "airway resistance" OR "pulmonary ventilation" OR "total lung capacity" OR "vital capacity" OR "tidal volume" OR "inspiratory capacity" OR respiration OR "expiratory flow" OR hyperreactiv* OR bronchitis OR "common cold" OR pneumonia* OR sinusitis OR tuberculosis OR "whooping cough" OR influenza OR flu OR Lung OR airway* OR respiratory OR pulmonary OR bronchi* OR bronchus OR alveol*

Cancer

neoplasm* OR cancer* OR tumor OR tumors OR tumorigen* OR tumour* OR leukemia* OR lymphoma* OR sarcoma* OR carcinoma* OR adenoma* OR melanoma*

Nervous

"nervous system" OR "central nervous" OR neural OR nerves OR "motor activity" OR cognition OR cognitive OR neurodevelop* OR neuropsycholog* OR neurobehavior* OR "motor skills" OR ((developmental OR intellectual OR learning OR behavior OR social) AND (delay* OR deficit* OR disability OR disorder* OR impair*)) OR "attention deficit" OR hyperactiv* OR brain OR mental OR autism OR autistic OR asperger* OR dyslexia OR tourette*

Cardiovascular

cardiovascular OR cardiac OR heart OR endocard* OR myocard* OR pericard* OR atrial OR atrium OR ventric* OR vascular OR "blood vessel" OR "blood vessels" OR aort* OR artery OR arteries OR arterial OR vein* OR venous OR capillary* OR athero* OR arrhythmia* OR aneurysm* OR bradycardia OR cerebrovascular OR hypertens* OR hypotens* OR tachycardia* OR ischemia OR cardiomegal* OR cardiomyopath* OR hemodynamic* OR "blood pressure" OR pulse OR circulation OR vasodilat* OR vasoconstrict* OR diastole OR systole

Metabolism

diabetes OR diabetic OR prediabet* OR pre-diabet* OR glycosuria OR glycemic OR hyperglyc* OR hypoglyc* OR "glucose tolerance" OR "glucose intolerance" OR hyperinsulin* OR "metabolic syndrome" OR "syndrome x" OR "reaven's syndrome" OR insulin* OR glucagon OR ((blood OR plasma) AND glucose) OR "blood sugar" OR pancreas* OR "islets of langerhans" OR "islet cells" OR "beta cell" OR "beta cells" OR "beta islet" OR (glucose AND (metabolic OR metabolism OR metabolite* OR homeosta* OR uptake)) OR gluconeogenesis OR glycosylat* OR glycat* OR "Hemoglobin A" OR "haemoglobin A" OR "Glycohemoglobin" OR "glycohaemoglobin" OR hbA1c OR A1c OR thyroid* OR goiter OR hyperthyroid* OR hypothyroid* OR "body weight" OR obes* OR overweight OR underweight OR "body mass" OR BMI OR "weight gain" OR "body fat" OR (waist AND (circumference OR size)) OR adipocyte* OR adipos* OR "fat cells" OR lipocyte* OR adipogen* OR adipokine* OR adiponectin OR leptin* OR resistin

Birth outcome

((pregnancy OR birth) AND outcome*) OR ((fetus OR fetus OR fetal OR newborn OR baby OR babies OR birth OR postnat*) AND (growth OR "body size" OR weight OR length)) OR "head circumference" OR ((birth OR congenital OR embryo OR embryos OR embryonic OR fetal OR fetus) AND (defect* OR deform* OR anomal* OR abnormal*)) OR (prematu* AND (pregnan* OR baby OR babies OR birth OR born OR infant*)) OR preterm* OR stillbirth OR stillborn OR ((perinatal OR infant OR fetal OR newborn OR child) AND (death OR mortality))

Pediatric

Pediatric OR adolescen* OR teen* OR youth* OR child* OR preschool* OR schoolchildren OR student* OR toddler* OR infant OR infant* OR newborn* OR neonat* OR postnat* OR baby OR babies OR maternal exposure OR "maternal exposure" OR "in utero" OR prenatal* OR perinat* OR offspring OR progeny OR litter OR pup OR pups