

Supplemental Table 1. Studies included in this systematic review. The number of subjects reflects, to the best of our ability, the number of children included in this review and may be less than the total number of subjects in a given study. Thus, if a study of birthweight reported group sizes for each gestational age from 30 – 43 gestational weeks, we used information only for 37 – 41 weeks and reported only the number of subjects in the 37 – 41 week age groups here.

#	First Author, year	Country or group	n, Type*	What was measured?**	Subject ages	Inclusion criteria	Exclusion criteria	Bias risk
1	Agarwal, 1994	India	2, 635; M	Wt, Ht, OFC	Birth – 6 years	Affluent according to study criteria (income, education level, other factors), well-nourished	–	Low
2	Albertsson-Wikland, 2002	Sweden	4,448; L	Wt, Ht, OFC	Birth – 18 years	Final year of school, Gotheburg, willing to provide health records	Gestational prematurity or postmaturity, chronic disease or medical treatment	Low
3	Alshimmiri, 2003	Kuwait	23,428; B	Wt	Birth	Live births in two Kuwaiti hospitals; data sorted by ethnicity, gestational age known; size data for each week from 37–41 weeks stated in tables	Stillbirths, congenital malformations, statistically outlying measurements	Low
4	Anzo, 2002	Japan	16,621; CS	OFC	Birth – 6 years	Children measured in a national survey run by the Japanese Ministry of Health	–	Low
5	Atladdottir, 2000	Iceland	138; L	Wt, Ht	Birth – 1 year	Singletons born between 37 – 41 weeks gestation to Icelandic parents	Birth defects or inborn long-term disease, mother did not receive prenatal care	Low
6	Beeby, 1996	Australia	22,309; B	Wt, Ht, OFC	Birth	Singletons born between 35 – 43 weeks; size data for each week from 37–41 weeks stated in tables	Stillbirths, extreme outliers	Low-Medium
7	Bertino, 2010	Italy	45,462, B	Wt, Ht, OFC	Birth	Singletons with two parents of Italian origin; size data for each week from 37–41 weeks stated in tables	Hydrops, major congenital anomalies, stillbirths	Low
8	Bonellie, 2008	Scotland	100,133; B	Wt	Birth	Live singletons registered in Scottish maternity data collection system; data for each week from 37–41 weeks stated in tables	Lethal/major congenital anomalies, statistically outlying measurements	Low

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9	Bordom, 2008	Libya	1473; CS	Wt, Ht	Birth – 5 years	Healthy infants and children in two Tripoli and Al-Jabel Al-Gharbi; presence of a health establishment in the commune (quality of services assessed); methodology followed WHO methodology	Chronic disease	Low
10	Braegger, 2011	Switzerland	493; L	OFC	Birth – 19 years	Children of Swiss origin in the 1 st and 2 nd Zurich Longitudinal Study (urban populations)	–	Low-Medium
11	Cacciari, 2006	Italy	13,735; CS	Wt, Ht, BMI	2 years – 6 years	Children in infant schools (preschools) throughout Italy.	Parents not of Italian origin	Low-Medium
12	Cole, 2011	UK	9,443; B	Wt, Ht, OFC	Birth	Used existing UK90 data	–	Low
13	Copil, 2006	Spain	4,160; B	Wt, Ht, OFC	Birth	Healthy singletons born in a large hospital in Barcelona between 37 and 42 weeks gestation; size data for each week from 37–41 weeks stated in tables	Stillbirths, chronic or gestational maternal disease, maternal drug use, for non-Caucasian group, parents were non-Caucasian and were both of the appropriate ethnic group	Low
14	Cunha, 2007	Portugal	24,852, B	Wt	Birth	Singleton births at Hospital Fernando Fonseca, Amadora; size data for each week from 37–41 weeks stated in tables	Stillbirths, weight > 5 kg	Low-Medium
15	Davidson, 2008	Israel		Wt, Ht, OFC	Birth	Singletons; size data for each week from 37–41 weeks stated in tables	Stillbirths, statistically outlying measurements	Low-Medium
16	Dawodu, 2008	UAE	2,497, B	Wt, Ht, OFC	Birth	Singleton healthy UAE nationals born in at five hospitals in the UAE; size data for each week from 37–41 weeks stated in tables	Malformations, maternal diabetes, hypertension, heart failure or asthma	Low
17	El Mouzan, 2010	Saudi Arabia	35,279; CS	Wt, Ht, OFC	Birth – 19 years	Saudis living throughout the kingdom.	Birthweight <2500 g, chronic disorders including congenital malformations or syndromes known to affect growth	Low

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18	Fok, 2003	Hong Kong	8,557; B	Wt, Ht, OFC	Birth	Singletons of ethnic Chinese origin born between 24-43 weeks of gestation; size data for each week from 37–41 weeks stated in tables	Moribund condition at birth, major congenital malformations, chromosomal abnormalities, gestational age undetermined	Low-medium
19	Fredriks, 2000	Netherlands	14,500; CS	Wt, Ht, OFC	2 weeks – 21 years	Children of Dutch origin (at least one Dutch parent, other parent western European)	Diagnosed growth disorders, use of medications known to interfere with growth	Low
20	Fredriks, 2004	Netherlands	2,882; CS	Wt, Ht, OFC	3 weeks – 20 years	Children with both parents Moroccan (99.5%) or one Moroccan parent and other parent born in North Africa. Living in 4 large cities in the Netherlands.	Diagnosed growth disorders and children on medication known to interfere with growth	Low
21	Guihard-Costa, 1997	France	16,877; B	Wt, Ht, OFC	Birth	Singletons born in Hauts-de-Seine; size data for each week from 37–41 weeks stated in tables	One or more parents not born in France, mother had undergone several prenatal exams.	Low-Medium
22	Haschke, 2000	Europe (12 nations)	2,145; L	Wt, Ht, OFC	Birth – 36 months	Singletons born at term (37 – 44 weeks)	Intrauterine growth aberration, maternal diabetes or epilepsy, father unknown, birthweight <2500 g, congenital malformations or metabolic diseases	Low
23	Health and Human Services, Dep't of (CDC)	United States	Unknown; CS	Wt, Ht, OFC	Birth – 18 years	US children of different races and ethnicities	Very low birthweight infants (infant charts only), extreme statistical outliers	Low medium
24	Hoey, 1990	Ireland	3,138; CS	OFC	5 – 19 years	Rural and urban Irish schoolchildren of different SES classes (Ireland had a high HDI ranking in 1990)	Chronic illnesses, non-Irish parents, inadequate information obtained or available	Low
25	Hof, 2011	Netherlands	3871; L	Wt, Ht, OFC	Birth – 3 years	For Dutch children: mother born in the Netherlands	–	Low medium
26	Hsieh, 2006	Taiwan	1,298,389 B	Wt	Birth	Singletons with data in the Ministry of Interior birth registry, (data for each week from 37–41 weeks stated in tables)	Stillbirths, extreme outliers, registrations entered > 3 months after birth	Low medium
27	Júlíusson, 2009	Norway	7,291; CS	Wt, Ht, OFC	Birth – 5 years	Children whose parents were natives of Northern Europe	Chronic diseases, prematurity	Low

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28	Kandraju, 2011	India (south)	28,790 (OFC) – 31,391 (Wt); B	Wt, Ht, OFC	Birth	Singletons born in Level III hospital in South India; size data for each week from 37–41 weeks stated in tables	Major congenital anomalies, uncertain gestational age	Low-Medium
29	Kheng, 2011	Singapore	19,634; B	Wt	Birth	Singletons	Stillbirth, congenital anomalies, sex, parity, or gestational age unknown, extreme outliers, not Chinese, Malay, or Indian	Low-Medium
30	KiGGS, 2011	Germany	17,158; CS	Wt, Ht, OFC	Birth – 17 years	Nationwide study (all parts of Germany)	Prematurity (in children up to age 1), chronic renal or gastrointestinal diseases, primary or secondary short stature (e.g. Down syndrome, cystic fibrosis), tall stature due precocious puberty or disease, tuberculosis, microcephaly, macrocephaly, cancers, congenital heart disease, use of growth hormones, steroid use, ADHD-drug use, tuberculosis	Low
31	Korea Centers for Disease Control and Prevention, 2007	Republic of Korea	142,945; CS	Wt, Ht, OFC	Birth – 18 years	Children living throughout South Korea; 0-6 years: children were enrolled in university hospitals and childcare facilities	–	Low-Medium
32	Karvonen, 2012	Finland	19,715; L	OFC	Birth – 7 years	Children born or living in Espoo; data came from an anonymized database	Diseases or medications affecting growth; measurements made outside scheduled visits, measurements outside ± 5 SD	Low
33	Kramer, 2001	Canada	675,909; B	Wt	Birth	Singletons born in all provinces except Ontario (poor data quality) in a national file of information; size data for each week from 37–41 weeks stated in tables	Statistical outliers	Low-Medium
34	Kulaga, 2013	Poland	5,050	Wt, Ht	3 years – 6 years	Children throughout Poland in 81 different primary care practices	Diseases or medications affecting growth	Low
35	Kumar, 2013	India	19,501; B	Wt	Birth	Mother aged 20 – 39, early ultrasound to determine fetal age	Birthweight ± 3 SD from mean, maternal hypertension or diabetes, heart disease, and other diseases	Low-Medium

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36	Lavallée, 1988	Canada (Cree people)	764; CS	Wt, Ht, OFC	Birth – 5 years	Cree children living in St. James Bay, Quebec	One non-Cree parent or two non-Cree grandparents; children with proven growth problems, diabetes in the mother, congenital disorders, anemia, recent viral illness	Low-Medium
37	Lee, 2006	Republic of Korea	18,427; B	Wt, Ht, OFC	Birth	Births at 51 hospitals in South Korea	–	Low-Medium
38	Loke, 2008	Singapore	19,249	Wt, Ht, OFC	Birth – 6 years	Children attending Singapore polyclinics	–	Low-Medium
39	Marwaha, 2011	India	64,629 (3-18 years); 2,459 (3-5 years)	Wt, Ht	3 years – 18 years	Children attending private schools in 4 geographical zones of India (north, south, east, west)	–	Low
40	Mazurin, 2000	Russia	Unknown	Wt, Ht, OFC	Birth – 18 years	Russian infants, children, and adolescents	–	Low-Medium
41	McCowan, 2004	New Zealand	10,292; B	Wt	Birth	Singletons born in the National Women's Hospital, Auckland	Stillbirths, congenital abnormalities, preterm births	Low
42	Michaelsen, 1994	Denmark	156; L	Wt, Ht, OFC	Birth – 1 year	Singletons born in Hvidovre & Herlev Hospitals, Copenhagen; gestational age 37–41 weeks	Malformations or perinatal disease, parents not Danish, birthweight for gestational age between 10 th and 90 th percentiles	Low
43	Moon, 2000	Republic of Korea	142,945; CS	Wt, Ht, OFC	Birth – 18 years (used birth data only)	Children living throughout South Korea; 0-6 years: children were enrolled in university hospitals and childcare facilities	–	Low-Medium

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44	Nickavar, 2007	Iran	2,832; B	Wt, Ht, OFC	Birth	Neonates born in government hospitals in Tehran at 37 – 42 weeks' gestation whose mothers had appropriate prenatal care; suitable SES	Cigarette smoking, premature rupture of membranes, malnutrition, preeclampsia or eclampsia, chromosomal anomalies, other anomalies in the neonate, maternal hypertension, diabetes, heart failure, autoimmune problems, placental disease, infection	Low
45	Nielsen, 2010	Denmark	4,105; L	Wt, Ht	Birth – 5 years	Singletons	Preterm birth, conditions affecting growth	Low
46	Neyzi, 2008	Turkey	4,493 (Birth – 5 years); L	Wt, Ht, OFC	Birth – 18 years	Economically advantaged children in Istanbul	–	Low-Medium
47	Olafsdottir, 2005	Iceland	436; B	Wt	Birth	Singletons born at term (>37 weeks)	Pre-elampsia, hypertension, diabetes, stillbirths, preterm birth	Low
48	Olsen, 2010	United States	57,115 (37-41 weeks); B	Wt, Ht, OFC	Birth	Singletons born at 22-42 weeks in a large pediatric medical group; size data for each week from 37–41 weeks stated in tables	Stillbirths, mortality before discharge, congenital anomalies, physiologically improbable measurements, unknown sex, missing data	Low
49	Palczewska, 2001	Poland	6,366; CS	Wt, Ht, OFC	1 month – 18 years	Children in Warsaw selected randomly from registry at Institute of Mother and Child (ages 0–3) and from local schools (ages 4–18).	–	Low-Medium
50	Patwari, 1988	Nigeria	1,530	Wt, Ht, OFC	Birth	Singletons from privileged/well-to-do families born in the University of Maiduguri Teaching Hospital	Stillbirths, preterm births, congenital malformations, maternal pre-eclampsia or eclampsia, antepartum hemorrhage, anemia, sickle cell disease	Low

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51	Patsourou, 2012	Greece	206; L	Wt, Ht, OFC	Birth – 3 years	Breastfed infants in Thessaloniki and other parts of Greece, born between 38 and 42 weeks gestation with normal Apgar scores	Not exclusively breastfed up to 6 months, parents not married, parents not healthy, parents smokers, mother a vegan or vegetarian, birthweight < 2,500 g, health conditions that interfere with growth	Low
52	Remontet, 1999	France	7,423; L	Wt, Ht, OFC	Birth – 6 years	Schoolchildren living in Rhone and Isère for whom gestational age at birth and length, weight, and OFC had been recorded in their health booklets.	Preterm birth	Low- Medium
53	Rios, 2008	Mexico	79,706; B	Wt	Birth	Singletons born between 30-44 weeks gestational age in hospitals in the state of Chihuahua; size data for each week from 37–41 weeks stated in tables	Stillbirths, congenital malformations, statistical outliers (birthweights \pm 2.58 SD from expected values)	Low
54	Roberts, 1999	Australia	664024; B	Wt	Birth	Singletons born throughout Australia from 20-44 weeks; size data for each week from 37–41 weeks stated in tables	Stillbirths, mother born outside Australia, extreme statistical outliers	Low- Medium
55	Roelants, 2009	Belgium	15,989; CS	Wt, Ht, OFC	Birth – 21 years	Subjects living in Flanders aged 0 – 25 years of age	Preterm birth (<37 weeks) in the group aged 0–3 years, non-Belgian origin, growth disorders, severe chronic disease, use of a medication that may affect growth	Low
56	Rush, 2008	New Zealand	659; L	Wt, Ht	Birth – 4 years	Pacific Islanders living in South Auckland (at least one parent self-identified as being of Pacific Island descent), permanent New Zealand residents.	Low birthweight, baby not home within 6 weeks of birth, maternal diabetes. NOTE (not exclusion): Subgroup analysis of WHO compliant mothers (non-smoking, breastfeeding)	Low
57	Rush, 2010	New Zealand	722; L	Wt, Ht	Birth – 6 years	Pacific Islanders living in South Auckland (at least one parent self-identified as being of Pacific Island descent), permanent New Zealand residents.	Diabetes in the mother	Low- Medium

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58	Rush, 2013	New Zealand	1,398; L	Wt, Ht, OFC	Birth – 10 years	Pacific Islanders living in South Auckland (at least one parent self-identified as being of Pacific Island descent), permanent New Zealand residents.	Diabetes in the mother	Low-Medium
59	Saari, 2011	Finland	~73,000 CS-L	Ht, Wt	Birth – 20 years	Patients attending public primary care clinics in Espoo (94.4% of Finnish origin)	Diagnosis or medications affecting growth; prematurity	Low
60	Sankilampi, 2013	Finland	188922; B	Wt, Ht, OFC	Birth	Singletons or twins in the Finnish Birth Register (twin data not used in this systematic review); size data for each week from 37–41 weeks stated in tables	Stillbirths, congenital anomalies, statistical outliers, sex or gestational age unknown; triplets; maternal smoking or smoking status unknown; maternal hypertension or diabetes; in vitro fertilization	Low
61	Schienkiewitz, 2011	Germany	17,158; CS	OFC	3 months– 18 years	Part of the KiGGS study; nationwide study (all parts of Germany)	Prematurity (in children up to age 1), chronic renal or gastrointestinal diseases, primary or secondary short stature (e.g. Down syndrome, cystic fibrosis), tall stature due precocious puberty or disease, tuberculosis, microcephaly, macrocephaly, cancers, congenital heart disease, use of growth hormones, steroid use, ADHD-drug use, tuberculosis	Low
62	Segre, 2001	Brazil	7,925; B	Wt	Birth	Singletons whose mothers were from a high-income population and who had prenatal care; size data for each week from 37–41 weeks stated in tables	Infants with congenital malformations, stillbirths	Low
63	Skaerven, 2000	Norway	1,655,058; B	Wt	Birth	Singletons in the Medical Birth Registry of Norway; size data for each week from 37–41 weeks stated in tables	Stillbirths, congenital malformations, cesarean sections	Low

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64	Sobrillo, 2007	Spain	6,443: CS 600: L	Wt, Ht, OFC	Birth – 18 years	Used CS data here. Births in Hospital de Basurto; children attending public and private pediatric clinics; students from public and private schools	–	Low-Medium
65	Sreeramareddy, 2008	Nepal	400; B	Wt	Birth	Singletons born in Western Regional Hospital, Pokhara	Congenital anomalies/dysmorphic features, preterm birth (<37 weeks)	Low-Medium
66	Tanaka, 2013	Japan	647; L+CS	Wt, Ht, OFC	Birth – 2 years	Term birth (37 – 42 weeks), exclusive breastfeeding >4 months	Maternal smoking	Low-Medium
67	Tinnggaard, 2013	Denmark	1,792; L	Wt, Ht, OFC	Birth – 20 years	High SES Caucasian children living around Copenhagen; gestational age ≥ 37 and ≤ 42 weeks; subset of singleton breastfed children of nonsmoking mothers who were not small or large for gestational age	Chronic diseases, use of medicines affecting growth	Low
68	Uehara, 2011	Japan	144,980; B	Wt	Birth	Singletons in the Japan Society of Obstetrics and Gynecology Database; size data for each week from 37–41 weeks stated in tables	Stillbirths, Apgar score = 0 at 1 & 5 minutes, hydrops, malformations, sex or gestational age absent	Low
69	Urquia, 2011	Argentina	3,322,317 B	Wt	Birth	Singletons and twins (twins data not used here) born in Argentina at any gestational age; size data for each week from 37–41 weeks stated in tables	Stillbirths, records with missing information (sex, birthweight, gestational age, mother's place of residence,)	Low-Medium
70	Vignerová, 2006	Czech Republic	18,584 (0–6 years); CS	Wt, Ht, OFC	Birth – 19 years	Infants, children, and adolescents living throughout the Czech Republic	–	Low-Medium
71	Voigt, 2010	Germany	2,093,205; B	Wt, Ht, OFC	Birth	Singletons born throughout Germany between 20 and 43 weeks' gestation; size data for each week from 37–41 weeks stated in tables	Statistically outlying measurements	Low-Medium
72	Webster, 2013	Australia	159; L	Wt, Ht, OFC	Birth – 2 years	Aboriginal infants born and living in Sydney, New South Wales	Birthweight < 1,500 g	Low-Medium

73	WHO MGRS, 2006	MGRS	7,551; L & M	Wt, Ht	Birth – 5 years	High SES, non-smoking mother, breastfed infants	–	Low-Medium
74	WHO MGRS, 2007	MGRS	7,551; L & M	OFC	Birth – 5 years	High SES, non-smoking mother, breastfed infants	–	Low-Medium
75	Willows, 2011	Canada	1,057; B	Wt, Ht, OFC	Birth	Cree ethnicity, singletons, term birth (37–41 weeks)	–	Low-Medium
76	Wright, 2011	UK	15,910; L	OFC	Birth – 3 years	Children in the Southampton Women’s Survey and the Avon Longitudinal Study	Preterm birth (<37 weeks)	Low-Medium
77	Yunis, 2007	Lebanon	23,234; B	Wt, Ht, OFC	Birth	Singletons born in 9 tertiary care centers throughout Lebanon at 28-42 weeks gestation; size data for each week from 37–41 weeks stated in tables	Stillbirths, missing data	Low-Medium
78	Zaki, 2008	Egypt	27,826; CS	OFC	Birth – 18 years	Children living in greater Cairo	Low SES, major genetic or organic diseases known to affect growth	Low
79	Zong, 2013 Li, 2009 (Same data; different languages)	China (mainland)	69,760; CS	Wt, Ht, OFC	Birth – 7 years	Resident of one of seven provincial capital cities	Premature birth, Temporary residents, birthweight <2500 g, chronic illness, malnourishment, physical handicap	Low
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