Table S1. Eligibility criteria and study design and profile papers of each included cohort.

Cohort name (country)	Inclusion criteria	Exclusion criteria	Study design and profile papers
ABCD (The Netherlands)	All pregnant women living in Amsterdam	-	van Eijsden M, Vrijkotte TG, Gemke RJ, van der Wal MF. Cohort profile: the Amsterdam Born Children and their Development (ABCD) study. *Int J Epidemiol* 2011;40:1176-86.
ALSPAC (United Kingdom)	All women resident in a defined geographical area in the South West of England with an expected date of delivery between 1 April 1991 and 31 December 1992	-	Fraser A, Macdonald-Wallis C, Tilling K, Boyd A, Golding J, Davey Smith G, et al. Cohort Profile: the Avon Longitudinal Study of Parents and Children: ALSPAC mothers cohort. *Int J Epidemiol* 2013;42:97-110.
AOB/F (Canada)	Women at less than 24 weeks and 6 days gestation age at the time of recruitment, at least 18 years of age, receiving prenatal care in Calgary, and able to complete the questionnaires in English	-	McDonald SW, Lyon AW, Benzies KM, McNeil DA, Lye SJ, Dolan SM, et al. The All Our Babies pregnancy cohort: design, methods, and participant characteristics. *BMC Pregnancy Childbirth* 2013;13 Suppl 1:S2.
BAMSE (Sweden)	Between February 1994 and November 1996, parents of all newborn children, living in certain areas of northern and central Stockholm	-	Wickman M, Kull I, Pershagen G, Nordvall SL. The BAMSE project: presentation of a prospective longitudinal birth cohort study. *Pediatr Allergy Immunol* 2002;13 Suppl 15:11-3.
BIB (United Kingdom)	All babies born to women who agreed to participate in the cohort study	-	Wright J, Small N, Raynor P, Tuffnell D, Bhopal R, Cameron N, et al. Cohort Profile: the Born in Bradford multi-ethnic family cohort study. *Int J Epidemiol* 2013;42:978-91.
CHOP (Multiple)	Apparently healthy, singleton, term infants who were born between 1 October 2002 and 31 July 2004	Children of mothers with a hormonal or metabolic disease or illicit drug addiction during pregnancy	Koletzko B, von Kries R, Closa R, Escribano J, Scaglioni S, Giovannini M, et al. Lower protein in infant formula is associated with lower weight up to age 2 y: a randomized clinical trial. *Am J Clin Nutr* 2009;89:1836-45.
Co.N.ER (Italy)	Infants born to Italian women aged 18 or older, residents in the catchment area of the Province of Bologna	-	Porta D, Fantini MP, on behalf of the GASPII and Co.N.ER Study Groups. Prospective cohort studies of newborns in Italy to evaluate the role of environmental and genetic characteristics on common childhood disorders. *Ital J Pediatr* 2006;32:350–57.
DNBC (Denmark)	All pregnant women in Denmark who, at their first visit to the general practitioner, want to sample carry their pregnancy to term and who speak Danish well enough to take part in the telephone interviews	-	Olsen J, Melbye M, Olsen SF, Sørensen TIA, Aaby P, Nybo Andersen AM, et al. The Danish National Birth Cohort--its background, structure and aim. *Scand J Public Health* 2001;29:300-7.
EDEN (France)	-	Twin pregnancies, known diabetes before pregnancy, not being able to speak and read French, and planned moving away from the region	Drouillet P, Forhan A, De Lauzon-Guillain B, Thiébaugeorges O, Goua V, Magnin G, et al. Maternal fatty acid intake and fetal growth: evidence for an association in overweight women. The 'EDEN mother-child' cohort (study of pre- and early postnatal determinants of the child's development and health). *Br J Nutr* 2009;101:583-91.
FCOU (Ukraine)	Singleton births, children born at term (≥37 weeks gestational age), and children with weight and height measurements conducted within one and a half months of their third birthday	-	Friedman LS, Lukyanova EM, Serdiuk A, Shkiryak-Nizhnyk ZA, Chislovska NV, Zvinchuk AV, et al. Social-environmental factors associated with elevated body mass index in a Ukrainian cohort of children. *Int J Pediatr Obes* 2009;4:81-90.
GASPII (Italy)	Children of women older than 18 years, Italian citizens and residents in the Local Health Unit RME	-	Porta D, Forastiere F, Di Lallo D, Perucci CA. [Enrolment and follow-up of a birth cohort in Rome]. *Epidemiol Prev* 2007;31:303-8.
GECKO Drenthe (The Netherlands)	All children born from April 2006 to April 2007 and living in Drenthe at the time of birth	-	L'Abee C, Sauer PJ, Damen M, Rake JP, Cats H, Stolk RP. Cohort Profile: the GECKO Drenthe study, overweight programming during early childhood. *Int J Epidemiol* 2008;37:486-9.
Generation R (The Netherlands)	Women who were resident in the study area at their delivery date and had a delivery date from April 2002 until January 2006	-	Kooijman MN, Kruithof CJ, van Duijn CM, Duijts L, Franco OH, van IMH, et al. The Generation R Study: design and cohort update 2017. *Eur J Epidemiol* 2016;31:1243-64.

Generation XXI (Portugal)	Mothers resident in the catchment area who delivered a live-born child, with a gestational age≥24 weeks, in one of the public maternity units covering the metropolitan area of Porto, between April 2005 and August 2006	-	Alves E, Correia S, Barros H, Azevedo A. Prevalence of self-reported cardiovascular risk factors in Portuguese women: a survey after delivery. *Int J Public Health* 2012;57:837-47.
GENESIS (Greece)	A representative number of randomly selected public and private nurseries as well as day-care centers within municipalities in five counties (namely Attica, Aitoloakarnania, Thessalonica, Halkidiki and Helia) were invited to participate in the study	-	Manios Y. Design and descriptive results of the "Growth, Exercise and Nutrition Epidemiological Study In preSchoolers": the GENESIS study. *BMC Public Health* 2006;6:32.
Gen3G (Canada)	Pregnant women without pre-existing diabetes at 1st trimester routine visit, between January 2010 and July 2013 at the Centre Hospitalier Universitaire de Sherbrooke (CHUS)	-	Guillemette L, Allard C, Lacroix M, Patenaude J, Battista MC, Doyon M, et al. Genetics of Glucose regulation in Gestation and Growth (Gen3G): a prospective prebirth cohort of mother–child pairs in Sherbrooke, Canada. *BMJ Open* 2016;6:e010031.
GINIplus (Germany)	Healthy, full-term neonates born between 1995 and 1998 in Munich and Wesel	-	Rzehak P, Sausenthaler S, Koletzko S, Bauer CP, Schaaf B, von Berg A, et al. Period-specific growth, overweight and modification by breastfeeding in the GINI and LISA birth cohorts up to age 6 years. *Eur J Epidemiol* 2009;24:449-67.
HUMIS (Norway)	Mothers who were fluent in Norwegian, and who were resident in the geographical area under the responsibility of the recruiting Health Visitors	-	Eggesbo M, Stigum H, Longnecker MP, Polder A, Aldrin M, Basso O, et al. Levels of hexachlorobenzene (HCB) in breast milk in relation to birth weight in a Norwegian cohort. *Environ Res* 2009;109:559-66.
INMA (Spain)	Mothers who are resident in one of the study areas, at least 16 years old, have a singleton pregnancy, have not followed any programme of assisted reproduction, wish to deliver in the reference hospital and have no communication problems	-	Guxens M, Ballester F, Espada M, Fernández MF, Grimalt JO, Ibarluzea J, et al. Cohort Profile: the INMA--INfancia y Medio Ambiente--(Environment and Childhood) Project. *Int J Epidemiol* 2012;41:930-40.
KOALA (The Netherlands)	´Conventional participants´: pregnant women recruited from an ongoing prospective cohort study on pregnancy-related pelvic girdle pain (PPGP study). ´Alternative participants´: pregnant women with alternative lifestyles recruited through several 'alternative' recruitment channels, i.e., posters in organic shops, anthroposophic doctors and midwives, anthroposophic under-five clinics, Steiner schools, and magazines for special interest groups	-	Kummeling I, Thijs C, Penders J, Snijders BEP, Stelma F, Reimerink J, et al. Etiology of atopy in infancy: the KOALA Birth Cohort Study. *Pediatr Allergy Immunol* 2005;16:679-84.
Krakow Cohort (Poland)	Nonsmoking women between the ages of 18 and 35 years, permanent residents of Krakow, women who have resided for the past year within a 0.5-km radius of the ambient air monitoring stations with either the highest (the Srodmiescie district) or lowest (the Krowodrza district) PAH levels, singleton pregnancies, women free from chronic diseases (diabetes and hypertension) and without a history of using illicit drugs or at risk of occupational exposures to PAH or other developmental toxicants (coke oven, chemical or rubber workers)	-	Jedrychowski W, Whyatt RM, Camann DE, Bawle UV, Peki K, Spengler JD, et al. Effect of prenatal PAH exposure on birth outcomes and neurocognitive development in a cohort of newborns in Poland. Study design and preliminary ambient data. *Int J Occup Med Environ Health* 2003;16:21-9.

LISAplus (Germany)	Healthy, full-term neonates born between 1997 and 1999 in Munich, Wesel, Bad Honnef and Leipzig	-	Rzehak P, Sausenthaler S, Koletzko S, Bauer CP, Schaaf B, von Berg A, et al. Period-specific growth, overweight and modification by breastfeeding in the GINI and LISA birth cohorts up to age 6 years. *Eur J Epidemiol* 2009;24:449-67.
LUKAS (Finland)	Maternal age of ≥18 years, singleton pregnancy, mother tongue Finnish, and no plans to move from the study area	Delivery before 36 weeks of gestation, congenital abnormalities in the infants, and a failure to obtain cord blood samples	Karvonen AM, Hyvärinen A, Roponen M, Hoffmann M, Korppi M, Remes S, et al. Confirmed moisture damage at home, respiratory symptoms and atopy in early life: a birth-cohort study. *Pediatrics* 2009;124:e329-38.
MoBa (Norway)	All women who give birth in Norway	-	Magnus P, Irgens LM, Haug K, Nystad W, Skjaerven R, Stoltenberg C. Cohort profile: the Norwegian Mother and Child Cohort Study (MoBa). *Int J Epidemiol* 2006;35:1146-50.
NINFEA (Italy)	All babies born to pregnant women who have enough knowledge of the Italian language and the use of the Internet to complete the online questionnaires	-	Richiardi L, Baussano I, Vizzini L, Douwes J, Pearce N, Merletti F. Feasibility of recruiting a birth cohort through the Internet: the experience of the NINFEA cohort. *Eur J Epidemiol* 2007;22:831-7.
PÉLAGIE (France)	Women in two districts (Ille et Vilaine and Finistere) of Brittany (France) were enrolled from April 2002 to February 2005 during the first trimester of their pregnancy, when they saw participating gynecologists or ultrasonographers for prenatal care	-	Guldner L, Monfort C, Rouget F, Garlantezec R, Cordier S. Maternal fish and shellfish intake and pregnancy outcomes: a prospective cohort study in Brittany, France. *Environ Health* 2007;6:33.
PIAMA (The Netherlands)	The planned sample size of the intervention arm of the cohort was 800 'high risk' children (children of allergic mothers, defined as mothers with at least one of the following: asthma ever, pet allergy, house dust mite allergy or nasal allergy such as hayfever). Of these 800 high risk children, 400 were to be allocated to the intervention group and 400 to the placebo group. The Natural History arm of the cohort was planned to consist of 400 high risk children, who received neither an active nor a placebo intervention, and of 2500 low risk children (children of non-allergic mothers)	-	Wijga AH, Kerkhof M, Gehring U, de Jongste JC, Postma DS, Aalberse RC, et al. Cohort profile: the prevention and incidence of asthma and mite allergy (PIAMA) birth cohort. *Int J Epidemiol* 2014;43:527-35.
Piccolipiù (Italy)	All singleton pregnant women giving birth in one of the selected maternity units are eligible for recruitment if they are at least eighteen years old; are resident in the catchment area of the maternity centers; have enough knowledge of the Italian language to adequately understand the informed consent and to complete the questionnaires; have at least a telephone number they can be reached at	-	Farchi S, Forastiere F, Vecchi Brumatti L, Alviti S, Arnofi A, Bernardini T, et al. Piccolipiu, a multicenter birth cohort in Italy: protocol of the study. *BMC Pediatr* 2014;14:36.
PRIDE Study (The Netherlands)	Dutch pregnant women	Maternal age <18 years, and >16 weeks pregnant at intake	van Gelder MMHJ, Bretveld RW, Roukema J, Steenhoek M, van Drongelen J, Spaanderman MEA, et al. Rationale and design of the pregnancy and infant development (PRIDE) Study. *Paediatr Perinat Epidemiol* 2013;27:34-43.
Project Viva (United States)	-	Multiple gestation, inability to answer questions in English, gestational age ≥22 weeks at recruitment and plans to move away from the study area before delivery	Oken E, Baccarelli AA, Gold DR, Kleinman KP, Litonjua AA, De Meo D, et al. Cohort profile: project viva. *Int J Epidemiol* 2015;44:37-48.
Raine Study (Australia)	18 weeks pregnant with the intention of giving birth in maternity hospital in Perth Western Australia	-	McKnight CM, Newnham JP, Stanley FJ, Mountain JA, Landau LI, Beilin LJ, et al. Birth of a cohort – the first 20 years of the Raine study. *Med J Aust* 2012;197:608-10.

REPRO_PL (Poland)	Women between 8–12 weeks of single pregnancy, not assisted with reproductive technology, and not expected to be finished as spontaneous abortion	All women with the serious chronic diseases specified in study protocol such as diabetes, hypertension, nephropathy, epilepsy and cancer Suspicion of serious child malformations	Polanska K, Hanke W, Gromadzinska J, Ligocka D, Gulczyńska E, Sobala W, et al. Polish mother and child cohort study--defining the problem, the aim of the study and methodological assumption. *Int J Occup Med Environ Health* 2009;22:383-91.
RHEA (Greece)	Pregnant women (Greek and immigrants) residents that became pregnant during 1 year starting in February 2007	-	Chatzi L, Plana E, Daraki V, Karakosta P, Alegkakis D, Tsatsanis C, et al. Metabolic syndrome in early pregnancy and risk of preterm birth. *Am J Epidemiol* 2009;170:829-36.
ROLO (Ireland)	All secundigravid women who had previously delivered a macrosomic infant weighing greater than 4 kg	Women with any underlying medical disorders, including a previous history of gestational diabetes, those on any drugs, those unable to give full informed consent, aged less than 18 years, gestation greater than 18 weeks, and multiple pregnancy	Walsh JM, McGowan CA, Mahony R, Foley ME, McAuliffe FM. Low glycaemic index diet in pregnancy to prevent macrosomia (ROLO study): randomised control trial. *BMJ (Clinical research ed)* 2012;345:e5605.
SCOPE BASELINE (Ireland)	All liveborn infants whose mothers were recruited to the SCOPE Ireland study at 15 weeks gestation (singleton pregnancies, no previous history or risk of pre-eclampsia)	Stillbirths, or mothers who do not consent to paediatric follow up	O'Donovan SM, Murray DM, Hourihane JO, Kenny LC, Irvine AD, Kiely M. Cohort profile: The Cork BASELINE Birth Cohort Study: Babies after SCOPE: Evaluating the Longitudinal Impact on Neurological and Nutritional Endpoints. *Int J Epidemiol* 2015;44:764-75.
SEATON (United Kingdom)	-	High risk pregnancy	Devereux G, Barker RN, Seaton A. Antenatal determinants of neonatal immune responses to allergens. *Clin Exp Allergy* 2002;32:43-50.
Slovak PCB study (Slovakia)	-	Mothers with more than four previous births, < 18 years of age, who had resided < 5 years in their district, with a major illness during pregnancy, and whose infants had severe birth defects	Jusko TA, Sisto R, Iosif AM, Moleti A, Wimmerová S, Lancz K, et al. Prenatal and postnatal serum PCB concentrations and cochlear function in children at 45 months of age. *Environ Health Perspect* 2014;122:1246-52.
STEPS (Finland)	All children born in the Hospital District of Southwest Finland between January 2008 and April 2010 and their mothers (Finnish- or Swedish-speaking)	-	Lagstrom H, Rautava P, Kaljonen A, Räihä H, Pihlaja P, Korpilahti P, et al. Cohort profile: Steps to the healthy development and well-being of children (the STEPS Study). *Int J Epidemiol* 2013;42:1273-84.
SWS (United Kingdom)	Between 1998 and 2002 all general practitioners in Southampton were asked to help us recruit their female patients aged 20–34 years to the study	-	Inskip HM, Godfrey KM, Robinson SM, Law CM, Barker DJ, Cooper C. Cohort profile: The Southampton Women's Survey. *Int J Epidemiol* 2006;35:42-8.

Table S2. Cohort-specific methods of data collection for maternal anthropometrics and pregnancy complications[a].

[a]NA, not available or not applicable.

Cohort name (country)	Maternal height	Maternal pre/early-pregnancy weight	Maternal latest weight before delivery or gestational weight gain	Gestational hypertension, pre-eclampsia, gestational diabetes	Gestational age at birth	Birth weight
ABCD (The Netherlands)	Self-reported	Self-reported	NA	Self-reported or clinical records	Clinical records	Clinical records
ALSPAC (United Kingdom)	Self-reported	Self-reported	Clinical records	Clinical records	Clinical records	Measured
AOB/F (Canada)	Self-reported	Self-reported	NA	Clinical records	Parental report or clinical records	Parental report or clinical records
BAMSE (Sweden)	Medical Birth Registry	Medical Birth Registry	Medical Birth Registry	NA	Medical Birth Registry	Medical Birth Registry
BIB (United Kingdom)	Measured	Measured	Clinical records	Oral glucose tolerance test (gestational diabetes), clinical records	Clinical records	Clinical records
CHOP (Multiple)	Measured	Self-reported	NA	NA	NA	Parental report
Co.N.ER (Italy)	Self-reported	Self-reported	Self-reported	Self-reported	Parental report	Clinical records
DNBC (Denmark)	Self-reported	Self-reported	Self-reported	Self-reported, clinical records	Parental report or National Medical Birth Registry	National Medical Birth Registry
EDEN (France)	Measured	Self-reported	Clinical records	Oral glucose tolerance test (gestational diabetes), clinical examination at 24 weeks of gestation (gestational hypertension) or clinical records	Clinical records	Clinical records
FCOU (Ukraine)	Clinical records	Clinical records	Clinical records	Clinical records	NA	Clinical records
GASPII (Italy)	Self-reported	Self-reported	Self-reported	Self-reported	Clinical records	Clinical records
GECKO Drenthe (The Netherlands)	Self-reported	Self-reported	Self-reported	Self-reported	Clinical records	Clinical records
Generation R (The Netherlands)	Measured	Self-reported	Self-reported	Self-reported or clinical records	Clinical records	Clinical records
Generation XXI (Portugal)	Measured or copied from the national identity card	Self-reported	Self-reported	Clinical records	Clinical records	Clinical records
GENESIS (Greece)	Self-reported	Self-reported	Self-reported	Self-reported	Clinical records	Clinical records
Gen3G (Canada)	Measured	Self-reported	Clinical records	Oral glucose tolerance test (gestational diabetes) and clinical records	Clinical records	Clinical records
GINIplus (Germany)	Self-reported	Self-reported	Self-reported	Self-reported	NA	NA
HUMIS (Norway)	Self-reported	Self-reported	Self-reported	Medical birth registry	Clinical records	Clinical records

INMA (Spain)	Measured or self-reported	Self-reported	Clinical records	Clinical records	Clinical records	Clinical records
KOALA (The Netherlands)	Self-reported	Self-reported	Self-reported	Self-reported or clinical records	Clinical records	Clinical records
Krakow Cohort (Poland)	Self-reported	Self-reported	Self-reported	Self-reported	Clinical records	Clinical records
LISAplus (Germany)	Self-reported	Self-reported	Self-reported	Self-reported	NA	NA
LUKAS (Finland)	Self-reported	Self-reported	Self-reported or clinical records	NA	NA	Clinical records
MoBa (Norway)	Self-reported	Self-reported	Self-reported	Clinical records	Clinical records	Clinical records
NINFEA (Italy)	Self-reported	Self-reported	Self-reported	Self-reported	Parental report	Parental report
PÉLAGIE (France)	Self-reported	Self-reported	NA	Clinical records	Clinical records	Clinical records
PIAMA (The Netherlands)	Self-reported	Self-reported	Self-reported	Self-reported	Parental report	Parental report
Piccolipiù (Italy)	Self-reported	Self-reported	Self-reported	Self-reported	Clinical records	Clinical records
PRIDE Study (The Netherlands)	Self-reported	Self-reported	Self-reported	Self-reported or clinical records	Parental report or clinical records	Parental report or clinical records
Project Viva (United States)	Self-reported	Self-reported	Clinical records	Clinical records	Parental report	Clinical records
Raine Study (Australia)	Measured	Self-reported	NA	Clinical records	Clinical records	Clinical records
REPRO_PL (Poland)	Measured	Self-reported	Measured	Clinical records	Clinical records	Clinical records
RHEA (Greece)	Measured	Self-reported	Measured	Measured or self-reported	Parental report or clinical records	Clinical records
ROLO (Ireland)	Measured	Measured	Measured	Clinical records	Clinical records	Clinical records
SCOPE BASELINE (Ireland)	Measured	Measured	Measured	Measured	Measured	Measured
SEATON (United Kingdom)	Measured	Measured	NA	Clinical records	Clinical records	Clinical records
Slovak PCB study (Slovakia)	Self-reported	Self-reported	Self-reported	Self-reported	Clinical records	Clinical records
STEPS (Finland)	Self-reported	Self-reported	Self-reported	Clinical records	National Longitudinal Census Files	National Longitudinal Census Files
SWS (United Kingdom)	Measured	Measured	Measured	Clinical records	Measured	Clinical records

Table S3. Cohort-specific description of covariates[a].

[a]Values are expressed as medians (95% range) or numbers of participants (%). NA, not available. [b]Subset of participants with follow-up completed at 4 years of child's age by the time of data transfer (March 2015).

Cohort name, number of participants	Child's sex		Maternal age (years)	Maternal educational level				Maternal parity		Maternal prenatal smoking	
	Male	Missings		Low	Medium	High	Missings	Nulliparous	Missings	Yes	Missings
ABCD, n=7,826	3,938 (50.3)	3 (0)	31.0 (20.0, 40.0)	1,787 (22.8)	2,948 (37.7)	3,017 (38.6)	74 (0.9)	4,312 (55.1)	-	814 (10.4)	461 (5.9)
ALSPAC, n=11,898	6,107 (51.3)	1 (0)	28.0 (19.0, 38.0)	7,162 (60.2)	2,603 (21.9)	1,491 (12.5)	642 (5.4)	5,142 (43.2)	468 (3.9)	2,839 (23.9)	269 (2.3)
AOB/F, n=2,620	1,380 (52.7)	-	31.0 (22.0, 40.0)	253 (9.7)	1,949 (74.4)	413 (15.8)	5 (0.2)	1,284 (49.0)	-	269 (10.3)	222 (8.5)
BAMSE, n=3,529	1,785 (50.6)	-	30.0 (22.0, 40.0)	1,214 (34.4)	884 (25.0)	1,407 (39.9)	24 (0.7)	1,947 (55.2)	-	462 (13.1)	-
BIB, n=1,509	739 (49.0)	-	27.0 (17.0, 39.0)	368 (24.4)	567 (37.6)	568 (37.6)	6 (0.4)	586 (38.8)	22 (1.5)	261 (17.3)	2 (0.1)
CHOP, n=941	447 (47.5)	-	30.7 (20.3, 39.9)	205 (21.8)	480 (51.0)	254 (27.0)	2 (0.2)	466 (49.5)	2 (0.2)	217 (23.1)	2 (0.2)
Co.N.ER, n=637	324 (50.9)	-	33.7 (24.5, 41.9)	115 (18.1)	281 (44.1)	240 (37.7)	1 (0.2)	282 (44.3)	1 (0.2)	91 (14.3)	-
DNBC, n=79,375	40,638 (51.2)	1 (0)	30.1 (22.2, 39.2)	7,508 (9.5)	30,045 (37.9)	41,524 (52.3)	298 (0.4)	39,787 (50.1)	51 (0.1)	21,396 (27.0)	27 (0)
EDEN, n=1,857	972 (52.3)	3 (0.2)	29.4 (20.4, 39.6)	525 (28.3)	333 (17.9)	991 (53.4)	8 (0.4)	1,029 (55.4)	2 (0.1)	498 (26.8)	6 (0.3)
FCOU, n=3,861	2,011 (52.1)	72 (1.9)	23.0 (17.0, 36.0)	221 (5.7)	2,581 (66.8)	975 (25.3)	84 (2.2)	2,611 (67.6)	135 (3.5)	332 (8.6)	254 (6.6)
GASPII, n=675	346 (51.3)	-	33.0 (22.0, 41.0)	94 (13.9)	338 (50.1)	243 (36.0)	-	397 (58.8)	-	80 (11.9)	-
GECKO Drenthe, n=2,499	1,261 (50.5)	-	31.0 (22.0, 39.0)	1,563 (62.5)	916 (36.7)	0 (0)	20 (0.8)	906 (36.3)	220 (8.8)	366 (14.6)	1 (0)
GENERATION R, n=8,495	4,242 (49.9)	103 (1.2)	30.3 (19.3, 39.2)	885 (10.4)	3,648 (42.9)	3,355 (39.5)	607 (7.1)	4,710 (55.4)	64 (0.8)	2,060 (24.2)	375 (4.4)
GENERATION XXI, n=7,619	3,880 (50.9)	-	29.0 (18.0, 40.0)	2,492 (32.7)	3,320 (43.6)	1,770 (23.2)	37 (0.5)	4,257 (55.9)	109 (1.4)	1,785 (23.4)	81 (1.1)
GENESIS, n=2,218	1,133 (51.1)	-	30.4 (21.2, 39.2)	97 (4.4)	1,117 (50.4)	935 (42.2)	69 (3.1)	1,094 (49.3)	-	410 (18.5)	1 (0)

Gen3G, n=855	448 (52.4)	-	28.0 (20.0, 37.0)	NA	NA	NA	-	NA	-	83 (9.7)	6 (0.7)
GINIplus, n=2,310	1,134 (49.1)	-	31.0 (24.0, 40.0)	272 (11.8)	979 (42.4)	1,053 (45.6)	6 (0.3)	NA	-	255 (11.0)	29 (1.3)
HUMIS, n=1,068	543 (50.8)	2 (0.2)	30.0 (22.0, 39.0)	111 (10.4)	182 (17.0)	627 (58.7)	148 (13.9)	477 (44.7)	1 (0.1)	117 (11.0)	41 (3.8)
INMA, n=2,492	1,265 (50.8)	37 (1.5)	30.0 (21.0, 39.0)	782 (31.4)	954 (38.3)	736 (29.5)	20 (0.8)	1,351 (54.2)	2 (0.1)	465 (18.7)	52 (2.1)
KOALA, n=2,812	1,443 (51.3)	7 (0.2)	32.0 (25.0, 40.0)	285 (10.1)	1,050 (37.3)	1,337 (47.5)	140 (5.0)	1,208 (43.0)	90 (3.2)	219 (7.8)	7 (0.2)
Krakow Cohort, n=503	256 (50.9)	-	28.0 (20.0, 34.0)	48 (9.5)	190 (37.8)	265 (52.7)	-	316 (62.8)	-	NA	-
LISAplus, n=1,582	829 (52.4)	-	32.0 (23.0, 40.0)	98 (6.2)	564 (35.7)	907 (57.3)	13 (0.8)	686 (43.4)	5 (0.3)	202 (12.8)	7 (0.4)
LUKAS, n=415	209 (50.4)	-	30.9 (21.2, 42.1)	18 (4.3)	313 (75.4)	84 (20.2)	-	141 (34.0)	-	66 (15.9)	-
MoBa, n=88,543	45,366 (51.2)	2 (0)	30.0 (21.0, 39.0)	27,451 (31.0)	36,867 (41.6)	22,420 (25.3)	1,805 (2.0)	39,832 (45.0)	-	7,700 (8.7)	8,472 (9.6)
NINFEA, n=2,240[b]	1,157 (51.7)	2 (0.1)	33.0 (25.0, 41.0)	87 (3.9)	772 (34.5)	1,377 (61.5)	4 (0.2)	1,508 (67.3)	1 (0)	184 (8.2)	16 (0.7)
PÉLAGIE, n=1,491	769 (51.6)	-	30.1 (22.9, 39.5)	218 (14.6)	274 (18.4)	995 (66.7)	4 (0.3)	587 (39.4)	145 (9.7)	374 (25.1)	4 (0.3)
PIAMA, n=3,447	1,775 (51.5)	-	30.0 (23.0, 38.0)	771 (22.4)	1,423 (41.3)	1,249 (36.2)	4 (0.1)	1,712 (49.7)	-	586 (17.0)	26 (0.8)
Piccolipiù, n=3,289	1,691 (51.4)	-	34.0 (23.0, 42.0)	389 (11.8)	1,420 (43.2)	1,470 (44.7)	10 (0.3)	1,919 (58.3)	7 (0.2)	727 (22.1)	9 (0.3)
PRIDE Study, n=1,597	802 (50.2)	17 (1.1)	30.0 (24.0, 38.0)	29 (1.8)	327 (20.5)	1,189 (74.5)	52 (3.3)	969 (60.7)	4 (0.3)	103 (6.4)	16 (1.0)
Project Viva, n=2,107	1,082 (51.4)	-	32.2 (19.0, 40.9)	736 (34.9)	742 (35.2)	614 (29.1)	15 (0.7)	1,011 (48.0)	-	254 (12.1)	80 (3.8)
Raine Study, n=2,797	1,422 (50.8)	-	28.1 (17.4, 39.9)	576 (20.6)	965 (34.5)	395 (14.1)	861 (30.8)	1,341 (47.9)	-	921 (32.9)	255 (9.1)
REPRO_PL, n=1,418	706 (49.8)	5 (0.4)	28.0 (20.0, 37.0)	172 (12.1)	428 (30.2)	817 (57.6)	1 (0.1)	800 (56.4)	2 (0.1)	227 (16.0)	-
RHEA, n=816	434 (53.2)	-	30.0 (20.0, 40.0)	130 (15.9)	422 (51.7)	262 (32.1)	2 (0.2)	NA	-	276 (33.8)	1 (0.1)
ROLO, n=744	373 (50.1)	3 (0.4)	32.7 (23.6, 39.8)	0 (0)	137 (18.4)	483 (64.9)	124 (16.7)	0 (0)	-	29 (3.9)	-
SCOPE BASELINE, n=1,433	728 (50.8)	-	31.0 (20.0, 39.0)	0 (0)	206 (14.4)	1,218 (85.0)	9 (0.6)	1,433 (100)	-	357 (24.9)	-
SEATON, n=1,878	847 (45.1)	161 (8.6)	29.7 (17.6, 39.6)	460 (24.5)	469 (25.0)	583 (31.0)	366 (19.5)	717 (38.2)	1 (0.1)	805 (42.9)	52 (2.8)

Slovak PCB study, n=1,054	542 (51.4)	-	25.0 (18.0, 37.0)	467 (44.3)	493 (46.8)	88 (8.3)	6 (0.6)	449 (42.6)	3 (0.3)	154 (14.6)	23 (2.2)
STEPS, n=1,695	887 (52.3)	-	30.8 (21.8, 40.2)	169 (10.0)	488 (28.8)	994 (58.6)	44 (2.6)	945 (55.8)	-	46 (2.7)	590 (34.8)
SWS, n=3,125	1,616 (51.7)	3 (0.1)	30.2 (22.6, 36.4)	390 (12.5)	1,844 (59.0)	883 (28.3)	8 (0.3)	1,600 (51.2)	2 (0.1)	434 (13.9)	354 (11.3)
Total group	135,527 (51.1)	422 (0.2)	30.0 (20.1, 39.1)	58,148 (21.9)	103,519 (39.0)	97,229 (36.7)	6,374 (2.4)	127,812 (48.2)	5,318 (2.0)	46,464 (17.5)	12,244 (4.6)

Table S4. Characteristics of the participating pregnancy and birth cohorts[a].

[a]Values are expressed as medians (95% range) or numbers of participants (valid %). NA, not available (not collected or not provided) or not applicable (gestational age at birth (CHOP, FCOU, GINIplus, LISAplus, LUKAS) and birth weight (GINIplus, LISAplus) due to selected samples). [b]Information available only on maternal body mass index assessed in early pregnancy. [c]Subset of participants with follow-up completed at 4 years of child's age by the time of data transfer (March 2015).

Cohort name, number of participants, birth years (country)	Maternal pre/early-pregnancy body mass index (kg/m^2)	Maternal total gestational weight gain (kg)	Gestational hypertension	Pre-eclampsia	Gestational diabetes	Gestational age at birth (weeks)	Birth weight (g)
ABCD, n=7,826, 2003-2004 (The Netherlands)	22.3 (17.9, 33.9)	NA	1340 (17.1)	295 (3.8)	165 (2.1)	40.0 (35.0, 42.0)	3460 (2263, 4500)
ALSPAC, n=11,898, 1991-1992 (United Kingdom)	22.2 (17.9, 33.8)	12.5 (3.9, 22.3)	1657 (14.3)	242 (2.0)	90 (0.8)	40.0 (35.0, 42.0)	3440 (2280, 4420)
AOB/F, n=2,620, 2008-2010 (Canada)	23.1 (18.0, 37.7)	NA	187 (7.1)	173 (6.6)	123 (4.7)	39.0 (35.0, 41.0)	3356 (2230, 4310)
BAMSE, n=3,529, 1994-1996 (Sweden)	22.4 (18.2, 31.6)[b]	13.0 (6.0, 24.8)	NA	NA	NA	40.0 (35.0, 42.0)	3545 (2330, 4550)
BIB, n=1,509, 2007-2010 (United Kingdom)	24.7 (17.8, 39.8)[b]	10.0 (0.6, 21.0)	93 (6.2)	22 (1.5)	136 (9.0)	39.7 (35.3, 41.9)	3210 (2140, 4300)
CHOP, n=941, 2002-2004 (Multiple)	22.4 (17.6, 33.7)	NA	NA	NA	NA	NA	3300 (2630, 3955)
Co.N.ER, n=637, 2004-2005 (Italy)	21.1 (17.6, 30.5)	13.0 (6.7, 23.0)	23 (3.6)	16 (2.5)	16 (2.5)	39.0 (36.0, 41.0)	3345 (2420, 4234)
DNBC, n=79,375, 1996-2002 (Denmark)	22.6 (18.0, 34.4)	15.0 (4.0, 28.0)	3693 (5.0)	2903 (3.7)	526 (0.7)	40.1 (35.6, 42.4)	3600 (2390, 4630)
EDEN, n=1,857, 2003-2005 (France)	22.1 (17.4, 34.6)	13.0 (3.0, 24.0)	92 (5.0)	39 (2.1)	119 (6.4)	39.0 (35.0, 41.0)	3300 (2144, 4194)
FCOU, n=3,861, 1993-1996 (Ukraine)	21.8 (17.3, 31.5)	12.0 (3.0, 21.5)	560 (14.5)	227 (5.9)	10 (0.3)	NA	3400 (2100, 4300)
GASPII, n=675, 2003-2004 (Italy)	21.3 (17.6, 31.2)	13.0 (6.0, 24.0)	34 (5.0)	8 (1.2)	29 (4.3)	40.0 (36.0, 42.0)	3350 (2400, 4323)
GECKO Drenthe, n=2,499, 2006-2007 (The Netherlands)	23.7 (18.6, 36.5)	13.0 (4.0, 25.0)	222 (10.4)	50 (2.3)	92 (3.7)	40.0 (36.3, 42.0)	3570 (2480, 4655)
Generation R, n=8,495, 2002-2006 (The Netherlands)	22.9 (18.0, 35.4)	12.0 (1.0, 25.0)	312 (3.8)	188 (2.4)	88 (1.1)	40.1 (35.1, 42.3)	3420 (2140, 4480)
Generation XXI, n=7,619, 2005-2006 (Portugal)	22.9 (18.1, 34.6)	13.0 (2.0, 26.0)	171 (2.3)	120 (1.6)	505 (6.7)	39.0 (35.0, 41.0)	3200 (2130, 4093)
GENESIS, n=2,218, 2003-2004 (Greece)	21.9 (17.6, 31.1)	13.0 (3.0, 29.0)	NA	NA	36 (1.6)	40.0 (34.0, 40.0)	3250 (2100, 4200)

Gen3G, n=855, 2010-2013 (Canada)	23.3 (17.9, 40.1)	13.7 (3.2, 24.1)	46 (5.4)	9 (1.1)	72 (8.6)	39.4 (35.8, 41.2)	3405 (2416, 4293)
GINIplus, n=2,310, 1995-1998 (Germany)	22.0 (18.0, 31.5)	13.0 (5.0, 25.0)	NA	NA	61 (2.6)	NA	NA
HUMIS, n=1,068, 2003-2008 (Norway)	23.5 (18.4, 35.1)	14.0 (4.2, 27.9)	40 (3.7)	85 (8.0)	6 (0.6)	40.1 (33.2, 42.9)	3580 (1822, 4683)
INMA, n=2,492, 1997-2008 (Spain)	22.5 (18.0, 34.7)	13.5 (4.0, 24.6)	74 (3.0)	4 (0.9)	225 (10.4)	39.9 (35.8, 42.0)	3250 (2300, 4200)
KOALA, n=2,812, 2000-2002 (The Netherlands)	22.7 (18.4, 33.8)	14.0 (4.0, 25.0)	104 (3.7)	33 (1.2)	25 (0.9)	40.0 (36.0, 42.0)	3500 (2479, 4502)
Krakow Cohort, n=503, 2000-2003 (Poland)	21.0 (17.3, 27.7)	15.0 (7.0, 28.0)	22 (4.4)	1 (0.2)	21 (4.2)	40.0 (36.0, 42.0)	3400 (2430, 4392)
LISAplus, n=1,582, 1997-1999 (Germany)	21.7 (17.9, 32.3)	14.0 (5.5, 24.2)	NA	NA	58 (3.7)	NA	NA
LUKAS, n=415, 2002-2005 (Finland)	24.1 (18.5, 36.4)	13.8 (4.0, 25.9)	NA	NA	NA	NA	3630 (2794, 4678)
MoBa, n=88,543, 1999-2009 (Norway)	23.1 (18.4, 34.9)	15.0 (3.1, 27.0)	4953 (5.6)	3207 (3.6)	747 (0.8)	40.1 (36.1, 42.4)	3620 (2530, 4640)
NINFEA, n=2,240, 2005-2010 (Italy)[c]	21.4 (17.4, 32.2)	12.0 (3.0, 22.0)	164 (7.9)	49 (2.3)	153 (7.3)	39.7 (35.9, 41.9)	3240 (2267, 4164)
PÉLAGIE, n=1,491, 2002-2005 (France)	21.6 (17.7, 32.4)	NA	59 (4.0)	19 (1.3)	46 (3.1)	40.0 (36.0, 41.0)	3400 (2460, 4357)
PIAMA, n=3,447, 1996-1997 (The Netherlands)	22.2 (18.3, 31.2)	13.0 (5.0, 25.0)	204 (9.6)	54 (2.5)	18 (0.8)	40.0 (35.7, 42.1)	3500 (2358, 4550)
Piccolipiù, n=3,289, 2011-2015 (Italy)	21.7 (17.6, 33.0)	13.0 (5.0, 22.0)	124 (3.8)	36 (1.1)	292 (8.9)	39.0 (36.0, 41.0)	3340 (2470, 4230)
PRIDE Study, n=1,597, 2011-2015 (The Netherlands)	22.7 (18.4, 33.5)	14.0 (4.0, 25.0)	170 (11.5)	46 (3.0)	27 (1.8)	40.0 (36.0, 41.0)	3480 (2273, 4496)
Project Viva, n=2,107, 1999-2002 (United States)	23.5 (18.1, 39.2)	15.5 (4.1, 27.3)	136 (6.6)	72 (3.5)	117 (5.7)	39.7 (34.8, 41.9)	3487 (2154, 4536)
Raine Study, n=2,797, 1989-1992 (Australia)	21.3 (16.9, 34.3)	NA	NA	NA	55 (2.0)	39.0 (33.0, 42.0)	3360 (1841, 4346)
REPRO_PL, n=1,418, 2007-2011(Poland)	21.5 (17.3, 31.2)	12.0 (4.0, 22.9)	56 (3.9)	2 (0.1)	55 (3.9)	39.0 (36.0, 41.0)	3350 (2364, 4290)
RHEA, n=816, 2007-2008 (Greece)	23.3 (18.0, 36.4)	13.0 (4.0, 26.0)	38 (5.2)	5 (0.6)	65 (8.9)	38.0 (35.0, 40.0)	3190 (2292, 4100)
ROLO, n=744, 2007-2011 (Ireland)	25.7 (20.2, 39.0)[b]	11.8 (2.8, 22.0)	NA	NA	29 (4.1)	40.0 (37.0, 42.0)	4005 (3094, 4970)
SCOPE BASELINE, n=1,433, 2008-2011 (Ireland)	24.0 (19.2, 34.7)[b]	14.3 (7.2, 23.3)	173 (12.1)	53 (3.7)	NA	40.3 (35.4, 41.7)	3460 (2349, 4460)
SEATON, n=1,878, 1998-1999 (United Kingdom)	24.2 (18.6, 38.4)[b]	NA	224 (12.6)	45 (2.8)	NA	40.0 (36.0, 42.0)	3460 (2087, 4443)
Slovak PCB study, n=1,054, 2002-2004 (Slovakia)	21.2 (16.9, 32.4)	13.0 (4.6, 24.0)	81 (10.6)	NA	10 (0.9)	40.0 (36.0, 42.0)	3350 (2350, 4314)

STEPS, n=1,695, 2008-2010 (Finland)	23.1 (18.4, 36.8)	13.9 (2.3, 25.7)	NA	NA	64 (5.9)	40.0 (36.1, 42.1)	3550 (2560, 4491)
SWS, n=3,125, 1998-2007 (United Kingdom)	24.1 (18.8, 37.5)	11.9 (0.1, 25.3)	192 (6.1)	88 (2.8)	37 (1.2)	40.0 (34.5, 42.1)	3440 (2185, 4440)
Total group	22.7 (18.1, 34.7)	14.0 (3.9, 27.0)	15,244 (6.3)	8,091 (3.3)	4,118 (1.7)	40.0 (35.7, 42.3)	3530 (2380, 4580)

Table S5. Maternal pre-pregnancy body mass index and gestational weight gain clinical categories and the risks of pregnancy complications[a].

	Pregnancy complications (OR (95% CI))						
	Any pregnancy complication	**Gestational hypertension**	**Pre-eclampsia**	**Gestational diabetes**	**Preterm birth**	**Small size for gestational age**	**Large size for gestational age**
Pre-pregnancy body mass index							
Underweight (<18.5 kg/m^2)	1.09 (1.04, 1.15)**	0.63 (0.55, 0.73)**	0.67 (0.57, 0.78)**	0.62 (0.49, 0.77)**	1.24 (1.14, 1.35)**	1.73 (1.64, 1.82)**	0.43 (0.39, 0.48)**
	$n_{cases/total}$=3079/9586	$n_{cases/total}$=216/9416	$n_{cases/total}$=168/9368	$n_{cases/total}$=85/10449	$n_{cases/total}$=599/10455	$n_{cases/total}$=1900/10382	$n_{cases/total}$=383/8865
Normal weight (18.5-24.9 kg/m^2)	Reference	Reference	Reference	Reference	Reference	Reference	Reference
	$n_{cases/total}$=46774/159983	$n_{cases/total}$=5066/155612	$n_{cases/total}$=4100/154646	$n_{cases/total}$=1857/168117	$n_{cases/total}$=7852/172123	$n_{cases/total}$=18185/159778	$n_{cases/total}$=14674/156267
Overweight (25.0-29.9 kg/m^2)	1.35 (1.32, 1.38)**	1.98 (1.88, 2.08)**	1.88 (1.79, 1.99)**	2.33 (2.16, 2.51)**	1.06 (1.01, 1.11)*	0.80 (0.78, 0.83)**	1.64 (1.59, 1.69)**
	$n_{cases/total}$=16817/47825	$n_{cases/total}$=2531/45509	$n_{cases/total}$=2202/45180	$n_{cases/total}$=1156/49203	$n_{cases/total}$=2433/50852	$n_{cases/total}$=4074/44476	$n_{cases/total}$=6837/47239
Obesity (≥30.0 kg/m^2)	2.03 (1.97, 2.09)**	3.51 (3.31, 3.73)**	3.51 (3.31, 3.73)**	4.88 (4.49, 5.29)**	1.35 (1.27, 1.43)**	0.82 (0.78, 0.86)**	2.31 (2.22, 2.40)**
	$n_{cases/total}$=9330/20834	$n_{cases/total}$=1687/18863	$n_{cases/total}$=1621/18797	$n_{cases/total}$=1020/21148	$n_{cases/total}$=1322/21992	$n_{cases/total}$=1694/18134	$n_{cases/total}$=3929/20369
Obesity grade 1 (30.0-34.9 kg/m^2)	1.88 (1.81, 1.94)**	3.16 (2.95, 3.39)**	3.05 (2.84, 3.27)**	4.20 (3.82, 4.62)**	1.31 (1.22, 1.41)**	0.81 (0.76, 0.86)**	2.17 (2.08, 2.27)**
	$n_{cases/total}$=6505/15181	$n_{cases/total}$=1136/13900	$n_{cases/total}$=1047/13811	$n_{cases/total}$=636/15405	$n_{cases/total}$=936/16006	$n_{cases/total}$=1235/13363	$n_{cases/total}$=2725/14853
Obesity grade 2 (35.0-39.9 kg/m^2)	2.37 (2.23, 2.52)**	4.38 (3.92, 4.89)**	4.50 (4.04, 5.01)**	6.23 (5.43, 7.15)**	1.41 (1.25, 1.59)**	0.83 (0.74, 0.92)*	2.59 (2.40, 2.80)**
	$n_{cases/total}$=2091/4308	$n_{cases/total}$=412/3812	$n_{cases/total}$=410/3810	$n_{cases/total}$=271/4386	$n_{cases/total}$=287/4557	$n_{cases/total}$=345/3662	$n_{cases/total}$=888/4205
Obesity grade 3 (≥40.0 kg/m^2)	3.03 (2.71, 3.38)**	5.07 (4.20, 6.11)**	6.09 (5.14, 7.21)**	8.28 (6.71, 10.21)**	1.55 (1.26, 1.90)**	0.90 (0.74, 1.09)	3.07 (2.71, 3.49)**
	$n_{cases/total}$=734/1345	$n_{cases/total}$=139/1151	$n_{cases/total}$=164/1176	$n_{cases/total}$=113/1357	$n_{cases/total}$=99/1429	$n_{cases/total}$=114/1109	$n_{cases/total}$=316/1311
Gestational weight gain							
Inadequate weight gain						1.55 (1.49, 1.60)**	0.66 (0.63, 0.70)**
						$n_{cases/total}$=6512/40322	$n_{cases/total}$=2150/35960
Adequate weight gain						Reference	Reference
						$n_{cases/total}$=7406/66330	$n_{cases/total}$=5592/64516
Excessive weight gain						0.68 (0.66, 0.71)**	1.96 (1.90, 2.03)**
						$n_{cases/total}$=5632/70709	$n_{cases/total}$=11994/77071

[a]$n_{cases/total}$ represent the number of cases for each pregnancy complication in each clinical category/the population in each clinical category. Values are odds ratios (95% confidence intervals) from multilevel binary logistic regression models that reflect the risk of pregnancy complications per pre-pregnancy body mass index and gestational weight gain clinical category compared with the reference group (normal weight and adequate weight gain). Mothers diagnosed with pre-eclampsia were excluded from the models for gestational hypertension. The reference group for the analyses on pre-eclampsia comprises the mothers without

both pre-eclampsia and gestational hypertension. The reference group for the analyses on small and large size for gestational age at birth is appropriate size for gestational age at birth. Models are unadjusted. *P-value<0.05; **P-value<0.001.

Table S6. Maternal pre-pregnancy body mass index and gestational weight gain categories and the risks of pregnancy complications[a].

[a] $n_{cases/total}$ represent the number of cases for each pregnancy complication in each group/the population in each group. Values are odds ratios (95% confidence intervals) from multilevel binary logistic regression models that reflect the risk of pregnancy complications per combined pre-pregnancy body mass index and gestational weight gain categories compared with the reference group (normal weight and medium weight gain). For any pregnancy complication, gestational hypertension, pre-eclampsia and gestational diabetes, weight gain z-scores until 20 weeks of gestation were used and for preterm birth, and small and large size for gestational age at birth, total gestational weight gain z-scores were used. Mothers diagnosed with pre-eclampsia were excluded from the models for gestational hypertension. The reference group for the analyses on pre-eclampsia comprises the mothers without both pre-eclampsia and gestational hypertension. The reference group for the analyses on small and large size for gestational age at birth is appropriate size for gestational age at birth. Models are unadjusted. *P-value<0.05; **P-value<0.001. Significant interaction terms were present (p-values<0.05) for preterm birth, and small and large size for gestational age at birt

	Pregnancy complications Odds Ratio (95% Confidence Interval)						
	Any pregnancy complication	**Gestational hypertension**	**Pre-eclampsia**	**Gestational diabetes**	**Preterm birth**	**Small size for gestational age**	**Large size for gestational age**
Underweight							
Low weight gain (≤-1.1 SD)	1.08 (0.94, 1.25) $n_{cases/total}$=310/960	0.57 (0.40, 0.81)* $n_{cases/total}$=33/1002	0.47 (0.27, 0.82)* $n_{cases/total}$=13/982	1.24 (0.69, 2.22) $n_{cases/total}$=12/1077	1.88 (1.52, 2.34)** $n_{cases/total}$=92/1304	3.13 (2.76, 3.54)** $n_{cases/total}$=360/1332	0.22 (0.15, 0.35)** $n_{cases/total}$=21/993
Medium weight gain (-1.0 to 0.9 SD)	1.04 (0.97, 1.12) $n_{cases/total}$=1139/4022	0.64 (0.51, 0.80)** $n_{cases/total}$=81/3999	0.68 (0.53, 0.87)* $n_{cases/total}$=68/3986	0.52 (0.32, 0.85)* $n_{cases/total}$=17/4302	1.26 (1.10, 1.45)* $n_{cases/total}$=231/4890	1.84 (1.70, 1.98)** $n_{cases/total}$=889/4916	0.43 (0.37, 0.51)** $n_{cases/total}$=164/4191
High weight gain (≥1.0 SD)	1.17 (1.02, 1.35)* $n_{cases/total}$=330/1021	1.03 (0.73, 1.44) $n_{cases/total}$=37/974	1.16 (0.79, 1.71) $n_{cases/total}$=27/964	0.53 (0.22, 1.29) $n_{cases/total}$=5/1152	1.35 (1.07, 1.72)* $n_{cases/total}$=72/1396	1.01 (0.85, 1.21) $n_{cases/total}$=145/1324	0.81 (0.65, 1.00) $n_{cases/total}$=88/1267
Normal weight							
Low weight gain (≤-1.1 SD)	1.04 (1.01, 1.08)* $n_{cases/total}$=5702/19877	1.01 (0.92, 1.10) $n_{cases/total}$=853/19649	1.08 (0.97, 1.19) $n_{cases/total}$=539/19335	0.86 (0.71, 1.05) $n_{cases/total}$=136/20792	1.17 (1.09, 1.26)** $n_{cases/total}$=946/21290	1.76 (1.68, 1.83)** $n_{cases/total}$=3647/20991	0.54 (0.50, 0.58)** $n_{cases/total}$=885/18229
Medium weight gain (-1.0 to 0.9 SD)	*Reference* $n_{cases/total}$=17957/68457	*Reference* $n_{cases/total}$=1918/66938	*Reference* $n_{cases/total}$=1606/66626	*Reference* $n_{cases/total}$=497/70805	*Reference* $n_{cases/total}$=3196/84958	*Reference* $n_{cases/total}$=8584/79555	*Reference* $n_{cases/total}$=6592/77563
High weight gain (≥1.0 SD)	1.12 (1.08, 1.16)** $n_{cases/total}$=5910/20051	1.35 (1.24, 1.47)** $n_{cases/total}$=817/19247	1.20 (1.08, 1.32)** $n_{cases/total}$=530/18960	1.41 (1.20, 1.66)** $n_{cases/total}$=218/20991	1.41 (1.32, 1.50)** $n_{cases/total}$=1321/25135	0.66 (0.63, 0.70)** $n_{cases/total}$=1607/21532	2.02 (1.93, 2.11)** $n_{cases/total}$=3674/23599
Overweight							
Low weight gain (≤-1.1 SD)	1.22 (1.15, 1.30)** $n_{cases/total}$=1541/5219	1.41 (1.20, 1.65)** $n_{cases/total}$=185/5024	1.84 (1.59, 2.13)** $n_{cases/total}$=217/5056	1.87 (1.43, 2.45)** $n_{cases/total}$=62/5333	1.13 (1.00, 1.28) $n_{cases/total}$=278/6510	1.18 (1.09, 1.27)** $n_{cases/total}$=759/6117	0.99 (0.90, 1.09) $n_{cases/total}$=496/5854
Medium weight gain (-1.0 to 0.9 SD)	1.38 (1.33, 1.42)** $n_{cases/total}$=7096/21817	2.01 (1.86, 2.17)** $n_{cases/total}$=1118/20804	2.00 (1.85, 2.17)** $n_{cases/total}$=986/20672	2.48 (2.16, 2.85)** $n_{cases/total}$=368/22326	1.07 (1.00, 1.15) $n_{cases/total}$=1025/25596	0.78 (0.74, 0.82)** $n_{cases/total}$=1930/22445	1.80 (1.72, 1.88)** $n_{cases/total}$=3390/23905
High weight gain (≥1.0 SD)	1.67 (1.57, 1.77)** $n_{cases/total}$=2089/5613	2.57 (2.27, 2.89)** $n_{cases/total}$=361/5237	2.44 (2.14, 2.78)** $n_{cases/total}$=282/5158	3.76 (3.11, 4.53)** $n_{cases/total}$=153/5767	1.57 (1.41, 1.75)** $n_{cases/total}$=395/6911	0.59 (0.53, 0.66)** $n_{cases/total}$=368/5460	3.08 (2.89, 3.28)** $n_{cases/total}$=1423/6515
Obesity							
Low weight gain (≤-1.1 SD)	1.70 (1.56, 1.85)** $n_{cases/total}$=916/2534	2.91 (2.44, 3.47)** $n_{cases/total}$=148/2344	3.45 (2.94, 4.05)** $n_{cases/total}$=182/2378	4.41 (3.40, 5.73)** $n_{cases/total}$=68/2577	1.36 (1.14, 1.61)** $n_{cases/total}$=148/2957	0.98 (0.86, 1.11) $n_{cases/total}$=279/2639	1.55 (1.38, 1.74)** $n_{cases/total}$=337/2697
Medium weight gain (-1.0 to 0.9 SD)	2.06 (1.97, 2.16)** $n_{cases/total}$=3818/9080	3.58 (3.27, 3.93)** $n_{cases/total}$=724/8208	3.75 (3.42, 4.12)** $n_{cases/total}$=695/8179	5.31 (4.60, 6.13)** $n_{cases/total}$=344/9220	1.34 (1.22, 1.48)** $n_{cases/total}$=534/10807	0.82 (0.76, 0.89)** $n_{cases/total}$=810/8924	2.59 (2.45, 2.73)** $n_{cases/total}$=1928/10042
High weight gain (≥1.0 SD)	2.58 (2.37, 2.80)** $n_{cases/total}$=1098/2323	4.24 (3.62, 4.97)** $n_{cases/total}$=202/2074	4.43 (3.79, 5.18)** $n_{cases/total}$=194/2066	8.26 (6.74, 10.12)** $n_{cases/total}$=134/2374	2.29 (1.99, 2.64)** $n_{cases/total}$=230/2820	0.70 (0.60, 0.83)** $n_{cases/total}$=165/2085	4.20 (3.84, 4.59)** $n_{cases/total}$=732/2652