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Supplementary table 1: MEDLINE search strategy

No.	Query	Results
1	exp *Infant, Low Birth Weight/	15688
2	*Fetal Growth Retardation/	8355
3	exp *Obstetric Labor, Premature/	12648
4	exp *Infant, Premature/	22706
5	or/1-4	54320
6	pc.fs.	1095151
7	exp Primary Prevention/	118888
8	Secondary Prevention/	16059
9	exp Preventive Health Services/	467141
10	prevent*.tw.	1051161
11	reduc*.tw.	2451666
12	or/6-11	4143846
13	5 and 12	14178
14	Meta-Analysis.pt.	59959
15	(meta-analys* or metaanalys*).tw.	81719
16	(systematic* adj5 review*).tw.	79718
17	(systematic* adj5 overview*).tw.	1093
18	Review.pt.	2045783
19	(medline or embase or pubmed or cochrane or cinahl or british nursing index).tw.	108768
20	((hand adj2 search*) or (manual* adj2 search*)).tw.	8532
21	(electronic database* or bibliographic database* or computeri?ed database* or online database*).tw.	18077
22	(retraction of publication or retracted publication).pt.	8175

23	or/19-22	129480
24	18 and 23	79168
25	or/14-17,24	185095
26	13 and 25	700
27	exp animals/ not humans.sh.	4111231
28	26 not 27	698

Supplementary table 2: EMBASE search strategy

No.	Query	Results
#35	#34 NOT ([animals]/lim NOT [humans]/lim)	160
#34	#19 AND #33	160
#33	#23 OR #32	59844
#32	#26 AND #31	26188
#31	#27 OR #28 OR #29 OR #30	54847
#30	'retracted article'/de AND [embase]/lim NOT [medline]/lim	3988
#29	((electronic OR bibliographic OR computerised OR computerized OR online) NEAR/1 database*):ab,ti AND [embase]/lim NOT [medline]/lim	7968
#28	(hand NEAR/2 search*):ab,ti OR (manual* NEAR/2 search*):ab,ti AND [embase]/lim NOT [medline]/lim	2817
#27	medline:ab,ti OR pubmed:ab,ti OR embase:ab,ti OR cochrane:ab,ti OR cinahl:ab,ti OR 'british nursing index':ab,ti AND [embase]/lim NOT [medline]/lim	45056
#26	#24 OR #25	60326
#25	'systematic review'/de AND [embase]/lim NOT [medline]/lim	38039
#24	'meta analysis'/de AND [embase]/lim NOT [medline]/lim	37436
#23	#20 OR #21 OR #22	57740
#22	(systematic* NEAR/2 overview*):ab,ti AND [embase]/lim NOT [medline]/lim	284
#21	(systematic* NEAR/2 review*):ab,ti AND [embase]/lim NOT [medline]/lim	35324
#20	'meta analysis':ab,ti OR metaanal*:ab,ti OR metanal*:ab,ti AND [embase]/lim NOT [medline]/lim	34511
#19	#5 OR #18	4304
#18	#10 AND #17	3925
#17	#11 OR #12 OR #13 OR #14 OR #15 OR #16	1365485
#16	reduc*:ab,ti AND [embase]/lim NOT [medline]/lim	875816
#15	prevent*:ab,ti AND [embase]/lim NOT [medline]/lim	374958
#14	'prevention study'/de AND [embase]/lim NOT [medline]/lim	1977
#13	'preventive medicine'/de AND [embase]/lim NOT [medline]/lim	6163
#12	'prevention and control'/de AND [embase]/lim NOT [medline]/lim	1649
#11	'prevention'/exp AND [embase]/lim NOT [medline]/lim	383750
#10	#6 OR #7 OR #8 OR #9	15287
#9	'prematurity'/mj AND [embase]/lim NOT [medline]/lim	7763
#8	'premature labor'/mj AND [embase]/lim NOT [medline]/lim	3434
#7	'intrauterine growth retardation'/exp/mj AND [embase]/lim NOT [medline]/lim	2068
#6	'low birth weight'/exp/mj AND [embase]/lim NOT [medline]/lim	3576
#5	#1 OR #2 OR #3 OR #4	640

#4	'prematurity'/dm_pc AND [embase]/lim NOT [medline]/lim	145
#3	'premature labor'/dm_pc AND [embase]/lim NOT [medline]/lim	418
#2	'intrauterine growth retardation'/exp/dm_pc AND [embase]/lim NOT [medline]/lim	81
#1	'low birth weight'/exp/dm_pc AND [embase]/lim NOT [medline]/lim	65

Supplementary table 3: CINAHL search strategy (via EBSCO, excluding MEDLINE records)

No.	Query	Results
S1	MH "Fetal Growth Retardation Prevention and Control"	13
S2	MH "Childbirth, Premature Prevention and Control"	234
S3	MH "Labor, Premature Prevention and Control"	150
S4	S1 OR S2 OR S3	390
S5	MH "Infant, Low Birth Weight+"	1375
S6	MH "Fetal Growth Retardation"	200
S7	MH "Childbirth, Premature"	1003
S8	MH "Labor, Premature"	511
S9	MH "Infant, Premature"	3346
S10	S5 OR S6 OR S7 OR S8 OR S9	5644
S11	MH "Preventive Health Care"	3454
S12	MH "Preventive Trials"	29
S13	TI prevent* OR AB prevent*	40913
S14	TI reduc* OR AB reduc*	41301
S15	S11 OR S12 OR S13 OR S14	78521
S16	S10 AND S15	703
S17	S4 OR S16	951
S18	MH "Meta Analysis"	3259
S19	TI (meta-analys* OR metaanalys* OR metanalys*) OR AB (meta-analys* OR metaanalys* OR metanalys*)	1996
S20	MH "Systematic Review"	7108
S21	TI systematic* N5 review* OR AB systematic* N5 review*	4369
S22	TI systematic* N5 overview OR AB systematic* N5 overview	45
S23	S18 OR S19 OR S20 OR S21 OR S22	11572
S24	S17 AND S23	51

Supplementary table 4: AMSTAR checklist

	Questions
Q1	Was an 'a priori' design provided? (Yes: the research question and inclusion criteria were established before the conduct of the review.)
Q2	Was there duplicate study selection and data extraction? (Yes: at least two independent data extractors and a consensus

	procedure for disagreements were in place.)
Q3	Was a comprehensive literature search performed? (Yes: at least two electronic sources were searched, years and databases used were reported, key words and/or MESH terms were stated, all searches were supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found.)
Q4	Was the status of publication (i.e. grey literature) used as an inclusion criterion? (Yes: reports were searched regardless of their publication type.)
Q5	Was a list of studies (included and excluded) provided? (Yes: a list of included and excluded studies was provided.)
Q6	Were the characteristics of the included studies provided? (Yes: data on participants, interventions, and outcomes was provided.)
Q7	Was the scientific quality of the included studies assessed and documented? (Yes: 'a priori' method of assessment was provided.)
Q8	Was the scientific quality of the included studies used appropriately in formulating conclusions? (Yes: the results of the methodological rigor and scientific quality was considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.)
Q9	Were the methods used to combine the findings of studies appropriate? (Yes: a test was done to ensure the studies were combinable to assess their homogeneity.)
Q10	Was the likelihood of publication bias assessed? (Yes: publication bias was assessed using a combination of graphical aids and/or statistical tests.)
Q11	Was the conflict of interest included? (Yes: potential sources of support were clearly acknowledged in both the systematic review and the included studies.)

Supplementary table 5: Characteristics of included systematic reviews

Review title (first author and year of publication)	Date of search	Number of studies included (number of participants in included studies)	Review question/ objective	Study design	Type of participants	Interventions	Related outcomes	Summary of quality of included studies
Oral supplementation with vitamins alone or in combination with other micronutrients								
Vitamin A supplementation during pregnancy for maternal and newborn outcomes (McCauley 2015)	March 2015	19 studies (over 310,000 women)	To review the effects of supplementation of vitamin A, or one of its derivatives, during pregnancy, alone or in combination with other vitamins and micronutrients, on maternal and newborn clinical outcomes.	RCTs quasi-RCTs cluster-RCTs	Pregnant women receiving vitamin A supplementation either in areas with endemic vitamin A deficiency (inadequate intake) or in areas with adequate intake as defined by the WHO global database on vitamin A deficiency.	Vitamin A (or one of its derivatives) supplementation, alone or in combination with other supplements compared with a control group (placebo, no treatment, or another intervention).	LBW PTB	Random sequence generation was adequately reported in seven studies, and unclear in eight. The risk of bias for allocation concealment was judged to be low risk of bias in ten studies and unclear in six. Three studies did not report adequate methods for random sequence generation and allocation concealment and were therefore judged to be at high risk of selection bias. Seventeen trials reported adequate blinding of participants and personnel. In two trials, performance bias was assesses as high risk of bias. Adequate blinding of outcome assessors to the participants' treatment allocation was reported in five trials and unclear in 12. Three studies were high risk of attrition bias and the remaining 16 included trials adequately addressed the issue of incomplete outcome data and were at low risk of bias.
Vitamin C supplementation in pregnancy (Rumbold 2015)	March 2015	29 studies (24,300 women)	To evaluate the effects of vitamin C supplementation, alone or in combination with other separate	RCTs quasi-RCTs	All pregnant women receiving either vitamin C supplementation or control either	Vitamin C supplementation, alone or in combination with other separate supplements	PTB SGA IUGR	Random sequence generation and allocation concealment was adequate in 16 studies. In two studies, the method for random sequence generation and allocation concealment was inadequate and judged to be at high risk of selection bias. The remaining studies were at

			supplements on pregnancy outcomes, adverse events, side effects, and use of health resources.		in areas where there is inadequate dietary intake or where there is presumed adequate intake.	compared with placebo, no placebo, or other supplements.		unclear risk of selection bias due to insufficient methods reported. Blinding of personnel, participants, and outcome assessors was reported in 12 studies and therefore judged to be at low risk of performance and detection bias. In six studies, the risk of performance and detection bias was unclear and high in three studies as they reported inadequate methods of blinding. Performance bias was high risk in five studies because they did not use a placebo or a non-identical placebo control. Detection bias was at high risk in four studies and unclear in 12 studies. Attrition bias was at low risk in 21 studies, high risk in three, and unclear in five studies.
Vitamin E supplementation in pregnancy (Rumbold 2015a)	March 2015	21 studies, only 17 contributed data (22,129 women)	To assess the effects of vitamin E supplementation, alone or in combination with other separate supplements, on pregnancy outcomes, adverse events, side effects, and use of health services.	RCTs quasi-RCTs	Pregnant women receiving vitamin E supplementation or control, living in areas where there is either inadequate dietary intake of vitamin E or where there is presumed adequate intake.	Vitamin E supplementation, alone or in combination with other separate supplements compared with placebo, no placebo, or other supplements.	SGA IUGR	Twelve trials reported an adequate method for random sequence generation and 11 studies adequate allocation concealment. Two trials had inadequate methods of both sequence generation and allocation concealment, and were judged to be at high risk of selection bias. In ten trials, participants, personnel, and outcome assessors were blinded. Three trials were judged to be at high risk of performance bias, because no placebo control was used. One trial was at high risk of performance and detection bias, because of the use of a placebo which was not identical to the vitamin supplement. Attrition bias was low risk in 15 trials and high risk in one trial.
Effects and safety of periconceptional	August 2015	5 studies (7391 women)	To examine whether periconceptional folate	RCTs	All women who become pregnant or	Oral supplements of folate alone and with other vitamins	LBW PTB	Random sequence generation was adequate in three studies and unclear in two. Allocation concealment was judged to be at

oral folate supplementation for preventing birth defects (De-Regil 2015)			supplementation reduces the risk of neural tube and other congenital anomalies (including cleft palate) without causing adverse outcomes in mothers or babies.		were 12 or less weeks' pregnant at the time of the intervention, independent of their age and parity or history of neural tube defect-affected pregnancy.	and minerals given on a daily or intermittent (one, two, or three times a week on non-consecutive days) basis and compared with receiving a placebo, no supplementation, or other vitamins and minerals but no folate.		low risk of bias in two studies and unclear in three. Women were blinded in all trials and clinical staff in four. All trials were described as double-blinded; however, blinding of outcome assessors was unclear in all trials. Four trials reported loss to follow-up of less than 10% and only on study reported 20%.
Folic acid supplementation during pregnancy for maternal health and pregnancy outcomes (Lassi 2013)	December 2012	31 studies (17,771 women)	To assess the effectiveness of oral folic acid supplementation alone or with other micronutrients versus no folic acid (placebo or same micronutrients but no folic acid) during pregnancy on haematological and biochemical parameters during pregnancy and on pregnancy outcomes.	RCTs quasi-RCTs	Pregnant women of any age and parity.	1. Folic acid alone versus no treatment/placebo (no folic acid) 2. Folic acid + iron versus iron (no folic acid) 3. Folic acid + other vitamins and minerals versus other vitamins and minerals (but no folic acid).	LBW PTB	Most of the included studies did not or not clearly describe the method for random sequence generation and allocation concealment. Five studies adequately reported the methods of allocation concealment and were rated as low risk of bias. Blinding was only adequately reported in six studies. In ten studies, attrition bias was assessed as low risk. The remaining studies provided insufficient information regarding attrition rate and were judged as unclear or high risk.
Oral supplementation of minerals alone in combination with other micronutrients								
Calcium supplementation reducing the risk of hypertensive	NA	4 studies (14,524 women)	To assess the effectiveness of calcium supplementation	multicentre RCTs	Nulliparous women without diseases such as hypertension,	Intervention group: supplementation with calcium (at least > 1 g/day)	LBW PTB	All four included studies reported the randomisation allocation process, double-blinded all outcomes, concealed the allocation plan, checked and assessed the

disorders of pregnancy and related problems: A meta-analysis of multicentre randomized controlled trials (An 2015)			during pregnancy on reducing the risk of hypertensive disorders and related problems.		diabetes mellitus, or renal disease. Pregnant women with diastolic BP ≤ 90 mmHg and systolic BP ≤ 140 mmHg before interventions.	from 11~24 weeks of pregnancy to delivery. Control group: supplementation with the same doses of placebo during the same time.		compliance and stated the loss of samples and the reasons and were judged high quality (A) with low risk of bias.
Calcium supplementation (other than for preventing or treating hypertension) for improving pregnancy and infant outcomes (Buppasiri 2015)	September 2014	25 studies, only 23 contributed data (18,587 women)	To determine the effect of calcium supplementation on maternal, foetal, and neonatal outcomes (other than for preventing or treating hypertension), including the occurrence of side effects.	RCTs	Pregnant women who received any calcium supplementation compared with placebo or no treatment.	Calcium supplementation during pregnancy compared with placebo or no treatment.	LBW PTB IUGR	Eighteen trials were judges as low risk of bias for randomised sequence generation and adequate allocation concealment. The remaining trials did not describe randomisation sequence generation and allocation concealment. Double-blinding was reported in 20 trials and five studies were unable to blind due to the type of intervention. The rate of losses to follow-up varied from 0% to 68.1%.
Calcium supplementation during pregnancy for preventing hypertensive disorders and related problems (Hofmeyr 2014)	March 2013	24 studies (17,964 women), high-dose calcium supplementation 14 studies (15,730 women), low-dose calcium supplementation 10 studies (2234 women)	To determine the effect of calcium supplementation during pregnancy on the risk of high blood pressure and related maternal and foetal, or neonatal adverse outcomes.	RCTs quasi-RCTs	Pregnant women, regardless of the risk of hypertensive disorders of pregnancy.	Supplementation with calcium from at the latest 34 weeks of pregnancy compared with placebo treatment.	LBW PTB SGA	High-dose calcium supplementation: All included trials were double-blinded, placebo-controlled trials. There is a possibility of reporting bias due to inconsistency in reporting all outcomes. Low-dose calcium supplementation: Four studies were at low risk of bias and six high risk of bias because of either quasi-randomized or not clearly randomised design.

Daily oral iron supplementation during pregnancy (Peña-Rosas 2015)	January 2015	61 studies, only 44 contributed data (43,274 women)	To assess the effects of daily oral iron supplements for pregnant women, either alone or in conjunction with folic acid, or with other vitamins and minerals as a public health intervention in antenatal care.	RCTs cluster-RCTs quasi-RCTs	Pregnant women of any gestational age and parity.	A range of interventions providing daily oral supplementation (e.g. tablets, capsules) containing iron alone, iron + folic acid, or iron + other vitamins and minerals.	LBW VLBW PTB	Twenty-one trials were assessed as having adequate methods for generating the randomisation sequence and 18 did not or not clearly describe the method for randomisation used. Four trials were quasi-randomised using alternate sequence allocation and in three trials, clusters rather than individual women were randomised. Twenty trials had an adequate method of allocation concealment. In seven studies, the method of allocation concealment was inadequate and unclear in the remaining studies. Blinding of personnel and participants was reported in 20 trials. The remaining trials did not mention blinding, did not attempted blinding or it was unclear. Detection bias was at low risk in 34 trials. In nine studies, it was unclear if the lack of blinding of outcome assessors could have led to bias. In some trials, attrition was a problem and it was not always clear that loss was balanced across groups.
Iodine supplementation for women during the preconception, pregnancy and postpartum period (Harding 2017)	November 2017	14 studies, 11 contributed data (over 2700 women)	To assess the benefits and harms of supplementation with iodine, alone or in combination with other vitamins and minerals, for women in the preconceptional, pregnancy or postpartum period on their and their children's outcomes.	RCTs cluster-RCTs quasi-RCTs	Women who become pregnant, or pregnant or postpartum women of any chronological age and parity (number of births), regardless as to the iodine status of the study	Injected or oral iodine supplementation (such as tablets, capsules, drops) during preconception, pregnancy or the postpartum period irrespective of compound, dose, frequency or duration.	LBW PTB SGA	Five trials were at low risk of selection bias for random sequence generation. Random sequence generation was judged to be at high risk of bias in four quasi-RCTs. The remaining trials were unclear. Allocation concealment was adequate in three trials. Another three trials were at high risk because they used alternation to assign participants to groups. The remaining trials did not adequately report the methods used to conceal allocation and were judged to be at unclear risk. Performance bias was at low risk in four trials and another four trials were

					population or setting.			at unclear risk. Blinding of participants and staff was not adequate in six trials and therefore at high risk of bias. Detection bias was mostly unclear, with exception of two trials which were considered as low risk and two trials as high risk because they were described as "open study".
Magnesium supplementation in pregnancy (Makrides 2014)	March 2013	10 studies (9090 women)	To assess the effects of magnesium supplementation during pregnancy on maternal, neonatal/infant, and paediatric outcomes.	RCTs quasi-RCTs cluster-RCTs	Women with normal or high-risk pregnancies.	Oral magnesium supplementation at any time during the antenatal period, regardless of dose compared to no magnesium supplementation.	LBW VLBW PTB SGA	Four studies were low risk of bias for random sequence generation. In five trials, the method of random sequence generation was unclear. One study was judged as high risk of bias because allocation was based on the participants' date of birth. Allocation concealment was only adequate in two trials. The remaining trials were judged as unclear. Blinding of participants and personnel was rated low risk of bias in five trials, unclear in three, and high risk in two due to no blinding or no use of placebo. Seven trials were assessed as low risk of detection bias. One study was rated high risk because outcome assessors were not blinded to participants' treatment allocation. Three trials were judged to be at low risk of attrition bias and the remaining seven trials at unclear risk of attrition bias.
Zinc supplementation for improving pregnancy and infant outcome (Ota 2015)	October 2014	21 studies, 20 contributed data (over 17,000 women)	To assess the effects of zinc supplementation in pregnancy on maternal, foetal, neonatal, and infant outcomes.	RCTs	Normal pregnant women with no systemic illness.	Routine zinc supplementation versus no zinc supplementation, or placebo.	LBW PTB SGA	Allocation concealment was adequate in ten trials and unclear in 11 trials because the method was not described or not clearly described. Blinding of participants and investigators was reported in all trials and blinding of outcome assessors was not well described in most of the trials. Loss of follow-up ranged from 1% to 40% and was judged at high risk in three trials.

A systematic review of the effects of dietary interventions on neonatal outcomes in adolescent pregnancy (Soltani 2015)	February 2015	5 studies (1855 women)	To evaluate the effectiveness of dietary interventions on neonatal outcomes in adolescent pregnancy (19 and under).	RCTs	Adolescent pregnant women.	Nutritional interventions, including vitamin and mineral supplementations (individually or combined) and dietary supplementations, such as foods rich in nutrients.	LBW PTB	Only one study reported adequate random sequence generation and allocation concealment and the other studies did not or not clearly describe the method for randomisation and concealment. Four studies reported blinding of participants and personnel. In one study, blinding was not possible because of the type of intervention (calcium supplementation and orange juice or dairy products). Loss to follow-up ranged from low in three studies (<13%) to high in two studies (37%).
Multiple micronutrients supplementation								
Multiple micronutrient supplementation during pregnancy in low-income countries: a meta-analysis of effects on birth size and length of gestation (Fall 2009)	2005	12 studies (over 52,000 women)	To report the effects on newborn size and duration of gestation of multiple micronutrient supplementation mainly compared with iron plus folic acid during pregnancy.	RCTs cluster-RCTs	Pregnant women mainly HIV–negative.	Daily MMN supplementation during pregnancy compared to control (iron, iron plus folic acid, iron plus folic acid plus vitamin A, or placebo)	LBW PTB SGA	Quality of included studies not assessed.
Multiple micronutrient supplementation for women during pregnancy (Haider 2015)	March 2015	19 studies (138,538 women), only 17 contributed data (137,791 women)	To evaluate the benefits of oral multiple micronutrient supplementation during pregnancy on maternal, foetal and infant health outcomes.	RCTs cluster-RCTs	Pregnant women (HIV infected women and women at high risk of nutritional disorders excluded).	Studies comparing the outcomes of providing pregnant women with MMN supplements containing three or more micronutrients compared with placebo, no supplementation,	LBW PTB SGA	Fourteen trials adequately described the method of random sequence generation and were rated as low risk of bias. The remaining five studies were at unclear risk of bias because the method used for randomisation was not or not clearly described. Allocation concealment was at low risk of bias in nine trials, unclear in seven, and high risk in three trials. Two trials reported blinding of participants and outcome assessors. Another 15 trials showed blinding of the participants,

						or supplementation with two or less micronutrients.		caregivers, and the outcome assessors. In one trial, only participants were blinded to the treatment allocation and in another trial, only outcome assessors. Loss to follow-up was low in the majority of the included studies and more than 20% in six trials.
Effect of multiple micronutrient versus iron-folate supplementation during pregnancy on intrauterine growth (Ramakrishnan 2013)	October 2011	16 studies (61,972 women)	To study the effect of prenatal multiple micronutrient supplementation on intrauterine growth.	RCTs	Pregnant women (including non-symptomatic HIV-positive pregnant women).	MMN supplementation (≥ 5 micronutrients) compared with control (≤ 3 micronutrients including iron, folic acid and/or only on additional vitamin/mineral).	LBW PTB SGA	Quality of included studies not assessed.
Protein supplementation and nutritional education								
Antenatal dietary education and supplementation to increase energy and protein intake (Ota 2015a)	January 2015	17 studies (9030 women)	To assess the effects of education during pregnancy to increase energy and protein intake, or of actual energy and protein supplementation, on energy and protein intake, and the effect on maternal and infant health outcomes.	RCTs cluster-RCTs	All pregnant women with no systemic illness.	1. Specific nutritional education to increase dietary energy and protein intake versus no nutritional education or a different form of consultation. 2. Balanced energy and protein supplementation versus no 'balanced energy and protein' supplementation or placebo.	LBW PTB SGA	Seven trials adequately reported the method for random sequence generation and were therefore classified as low risk of bias. For ten trials, the risk of bias was unclear as no detailed information was provided for randomisation of participants to the intervention groups. Six trials adequately concealed allocation of participants to the treatment groups and eleven trials were unclear. Participants and personnel was blinded in one trial, 12 were of high risk due to lack of blinding, and the remaining four trials were at unclear risk of bias. Detection bias was at low risk in three trials, high in two, and unclear in 12 trials. Loss of follow-up ranged from 1.5% to 25.9%. Eleven trials were assessed as low risk of attrition bias, three high, and three unclear.

						3. High-protein supplements versus low- or no protein supplements. 4. Isocaloric protein supplements versus the protein replacing an equal quantity of non-protein energy.		
Marine oil and fatty acids supplementation								
Marine oil, and other prostaglandin precursor, supplementation for pregnancy uncomplicated by preeclampsia or intrauterine growth restriction (Makrides 2006)	December 2005	6 studies (2755 women)	To estimate the effects of marine oil, and other prostaglandin precursor, supplementation during pregnancy on the risk of preeclampsia, preterm birth, low birthweight, and small-for-gestational age, and on other substantive measures of maternal morbidity, and of morbidity and mortality for the child.	RCTs	All pregnant women, regardless of their risk for pre-eclampsia, preterm birth, or IUGR.	Marine oil (fish or algal oils), orally administered, compared with placebo or no marine oil treatment.	LBW PTB SGA	From the six included trials, three reported adequate allocation concealment. Five trials used a placebo or control treatment with identical appearance to the supplement, but participants may be aware of treatment allocation due to unpleasant taste of the fish oil. Loss to follow-up was less than 20% in most trials.
Evidence regarding an effect of marine	2010	3 studies (1187 women)	To review systematically the evidence from	RCTs	Singleton pregnant women.	Long-chain n-3 fatty acid supplementation	LBW PTB	Of the three included studies, two were judged adequate for random sequence generation and allocation concealment.

n-3 fatty acids on preterm birth: a systematic review and meta-analysis (Salvig 2011)			randomised controlled trials with respect to the hypothesis that increased consumption of marine n-3 fatty acids in pregnancy can prevent preterm birth.			compared with placebo or no supplementation.		Blinding was adequate in two studies and inadequate in one. Incomplete outcome data (attrition bias) was adequate in all included studies.
Reduced salt intake								
Reduced salt intake compared to normal dietary salt, or high intake, in pregnancy (Duley 1999)	1998	2 studies (603 women)	To assess the effects of dietary advice to alter salt intake compared to continuing a normal diet, on the risk of preeclampsia and its consequences.	RCTs	Normal pregnant women, regardless of their risk of preeclampsia, and women with preeclampsia.	Any study evaluating dietary advice to alter salt intake during pregnancy.	LBW PTB	In both trials, allocation was adequately concealed. Ten per cent of women in one study were excluded from the analyses (higher proportion in the low salt group). There was complete follow-up for all women in the other trial.
Soil-transmitted helminthiasis preventive chemotherapy								
Effect of administration of antihelminthics for soiltransmitted helminths during pregnancy (Salam 2015)	January 2015	4 studies (4265 women)	To determine the effects of administration of antihelminthics for soil-transmitted helminths during the second or third trimester of pregnancy on maternal anaemia and pregnancy outcomes.	RCTs cluster-RCTs	Pregnant women in the second or third trimester.	Antihelminthics versus placebo or no treatment.	LBW PTB	Random sequence generation was at low risk of bias in three studies and unclear in one. Allocation concealment was at low risk of bias in two studies and unclear in the other two studies. Participants, personnel, and outcome assessors were blinded in all studies. Attrition bias was at low risk of bias in three studies and high in one study (29.8%) because of inadequate reporting of reasons for attrition.
Preventive antimalarial drugs								
Drugs for preventing	June 2014	17 studies (14,481 women)	To assess the effects of malaria	RCTs quasi-RCTs	Pregnant women of any	Any antimalarial drug	LBW PTB	Six trials adequately described methods of sequence generation and allocation

malaria in pregnant women in endemic areas: any drug regimen versus placebo or no treatment (Radeva-Petrova 2014)			chemoprevention given to pregnant women living in malaria endemic areas on substantive maternal and infant health outcomes.		gravidity living in malaria-endemic areas, defined as regions where transmission occurs and malaria is a characteristic of the region.	chemoprevention regimen given to pregnant women compared with placebo or no intervention.		concealment. Four trials were at high risk of selection because they were quasi-RCTs. The remaining seven trials were at unclear risk. Eleven trials used placebo tablets and were assessed as having low risk of performance bias. Detection bias was at low risk in four trials and unclear in the remaining trials. Six trials had an attrition rate lower than 10% in both the intervention and control arm and the remaining 11 trials were at high or unclear risk of attrition bias.
Antimalarial drugs for preventing malaria during pregnancy and the risk of low birth weight: a systematic review and meta-analysis of randomized and quasi-randomized trials (Muanda 2015)	November 2014	25 studies (37,981 women)	To assess the efficacy of antimalarial drugs for malaria prevention during pregnancy in reducing the risk of LBW.	RCTs quasi-RCTs	Pregnant women with gestational exposure to antimalarial drugs used for the prevention of malaria during pregnancy.	Any type of antimalarial drug used for malaria prevention compared with control group (no use of antimalarial drug, placebo, or other type of antimalarial).	LBW	Overall risk of bias was low only in four studies, high in 17, and unclear in the remaining four studies. Random sequence generation and allocation concealment was adequately described in 11 studies. Random sequence generation was not reported in seven trials and unclear in the remaining seven. Allocation concealment was not described in ten studies and unclear in four. Blinding of participants and personnel was described in ten studies, not described in 12 studies, and unclear in three. Reporting of incomplete data was adequate in eight studies, while inadequate in 12, and unclear in five studies.

BMI: body mass index; IUGR: intrauterine growth restriction; LBW: low birthweight; MMN: multiple micronutrient; PTB: preterm birth; RCT: randomised controlled trial; SGA: small-for-gestational age; VLBW: very low birthweight.

Supplementary table 6: Results of oral supplementation with vitamins alone or in combination with other micronutrients

Review	Comparison	Outcome	Number of studies (number of women)	Result
McCauley 2015	Vitamin A alone versus placebo or no	LBW	4 studies (14599 women)	RR 1.02, 95% CI 0.89 to 1.16, no evidence of a significant difference.

	treatment	VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	5 studies (40137 women)	RR 0.98, 95% CI 0.94 to 1.01, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
	Vitamin A with other micronutrients versus micronutrient supplements without vitamin A	LBW	1 study (594 women)	RR 0.67, 95% CI 0.47 to 0.96 (p = 0.027), significant reduction in LBW for women receiving vitamin A with other micronutrients in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	1 study (136 women)	RR 0.39, 95% CI 0.08 to 1.93, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
Rumbold 2015	Vitamin C supplementation alone or in combination with other supplements versus placebo, no placebo, or other supplements	LBW		Outcome not reported.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	16 studies (22250 women)	RR 0.99, 95% CI 0.90 to 1.103, no evidence of a significant difference.
		SGA	9 studies (10320 women)	RR 0.98, 95% CI 0.90 to 1.063, no evidence of a significant difference.
		IUGR	12 studies (20361 women)	RR 0.98, 95% CI 0.91 to 1.063, no evidence of a significant difference.
Rumbold 2015a	Any vitamin E supplementation versus placebo, no placebo, or other supplements	LBW		Outcome not reported.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	11 studies (20565 women)	RR 0.98, 95% CI 0.88 to 1.09, no evidence of a significant difference.
		SGA	8 studies (10161 women)	RR 0.98, 95% CI 0.90 to 1.06, no evidence of a significant difference.
		IUGR	11 studies (20202 women)	RR 0.98, 95% CI 0.91 to 1.06, no evidence of a significant difference.
De-Regil 2015	Supplementation with any folate versus no intervention, placebo, or other micronutrients without folate	LBW	2 studies (5048 women)	RR 1.13, 95% CI 0.84 to 1.52, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	1 study (4862 women)	RR 1.14, 95% CI 0.93 to 1.41, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
Lassi 2013	Folic acid versus no folic acid	LBW	4 studies (3113 women)	RR 0.83, 95% CI 0.66 to 1.04, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	3 studies (2959 women)	RR 1.01, 95% CI 0.73 to 1.38, no evidence of a significant difference.

		SGA		Outcome not reported.
		IUGR		Outcome not reported.

Supplementary table 7: Results of oral supplementation of minerals alone in combination with other micronutrients

Review	Comparison	Outcome	Number of studies (number of women)	Result
An 2015	Calcium supplementation in pregnancy versus placebo	LBW	3 studies (13125 women)	RR 0.91, 95% CI 0.72 to 1.16, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	4 studies (14292 women)	RR 0.93, 95% CI 0.76 to 1.13, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
Buppasiri 2015	Calcium supplementation versus placebo or no treatment	LBW	6 studies (14162 women)	RR 0.93, 95% CI 0.81 to 1.07, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	13 studies (16139 women)	RR 0.86, 95% CI 0.70 to 1.05, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR	6 studies (1701 women)	RR 0.83, 95% CI 0.61 to 1.13, no evidence of a significant difference.
Hofmeyr 2014	Routine high-dose calcium supplementation (≥ 1 g/day) in pregnancy by baseline dietary calcium versus placebo	LBW	9 studies (14883 women)	RR 0.85, 95% CI 0.72 to 1.01, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	11 studies (15275 women)	RR 0.76, 95% CI 0.60 to 0.97 (p = 0.026), significant reduction in PTB for women receiving high-dose calcium supplementation in pregnancy.
		SGA	4 studies (13615 women)	RR 1.05, 95% CI 0.86 to 1.29, no evidence of a significant difference.
		IUGR		Outcome not reported.
	Low-dose calcium supplementation (< 1 g/day) with or without co-supplements versus placebo	LBW	2 studies (134 women)	RR 0.20, 95% CI 0.05 to 0.88 (p = 0.033), significant reduction in LBW for women receiving low-dose calcium supplementation in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	4 studies (1190 women)	RR 0.67, 95% CI 0.24 to 1.87, no evidence of a significant difference.
		SGA	4 studies (854 women)	RR 0·81, 95% CI 0.54 to 1.21, no evidence of a significant difference.
		IUGR		Outcome not reported.
Peña-Rosas 2015	Any supplements containing iron versus	LBW	11 studies (17613 women)	RR 0.84, 95% CI 0.69 to 1.03, no evidence of a significant difference.

	same supplements without iron or no treatment/placebo (no iron or placebo)	VLBW	5 studies (2687 women)	RR 0.73, 95% CI 0.31 to 1.74, no evidence of a significant difference.
		ELBW		Outcome not reported.
		PTB	13 studies (19286 women)	RR 0.93, 95% CI 0.84 to 1.03, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
	Any supplements containing iron and folic acid versus same supplements without iron nor folic acid (no iron nor folic acid or placebo)	LBW	2 studies (1311 women)	RR 1.07, 95% CI 0.31 to 3.74, no evidence of a significant difference.
		VLBW	1 study (48 women)	RR 5.00, 95% CI 0.25 to 98.96, no evidence of a significant difference.
		ELBW		Outcome not reported.
		PTB	3 studies (1497 women)	RR 1.55, 95% CI 0.40 to 6.00, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
	Supplementation with iron alone versus no treatment/placebo	LBW	6 studies (1136 women)	RR 0.63, 95% CI 0.30 to 1.32, no evidence of a significant difference.
		VLBW	3 studies (697 women)	RR 0.55, 95% CI 0.03 to 9.07, no evidence of a significant difference.
		ELBW		Outcome not reported.
		PTB	6 studies (1713 women)	RR 0.82, 95% CI 0.58 to 1.14, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
	Supplementation with iron + folic acid versus no treatment/placebo	LBW	2 studies (1311 women)	RR 1.07, 95% CI 0.31 to 3.74, no evidence of a significant difference.
		VLBW	1 study (48 women)	RR 5.00, 95% CI 0.25 to 98.96, no evidence of a significant difference.
		ELBW		Outcome not reported.
		PTB	3 studies (1497 women)	RR 1.55, 95% CI 0.40 to 6.00, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
	Supplementation with iron + folic acid versus folic acid alone (without iron) supplementation	LBW	4 studies (16143 women)	RR 0.88, 95% CI 0.78 to 1.00, no evidence of a significant difference.
		VLBW	2 studies (1990 women)	RR 0.76, 95% CI 0.28 to 2.01, no evidence of a significant difference.
		ELBW		Outcome not reported.
		PTB	4 studies (16146 women)	RR 0.97, 95% CI 0.87 to 1.08, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
	Supplementation with iron + other vitamins and minerals supplementation versus same other vitamins and minerals (without iron) supplementation	LBW	1 study (334 women)	RR 0.51, 95% CI 0.22 to 1.51, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	2 studies (1127 women)	RR 0.66, 95% CI 0.41 to 1.04, no evidence of a significant difference.

		SGA		Outcome not reported.
		IUGR		Outcome not reported.
Harding 2017	Any supplement containing iodine versus same supplement without iodine or no intervention/placebo	LBW	2 studies (377 women)	RR 0.56, 95% CI 0.26 to 1.23, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	2 studies (376 women)	RR 0.71, 95% CI 0.30 to 1.66, no evidence of a significant difference.
		SGA	2 studies (377 women)	RR 1.26, 95% CI 0.77 to 2.05, no evidence of a significant difference.
		IUGR		Outcome not reported.
Makrides 2014	Magnesium supplementation versus no magnesium	LBW	5 studies (5577 women)	RR 0.95, 95% CI 0.83 to 1.09, no evidence of a significant difference.
		VLBW	1 study (568 women)	RR 0.52, 95% CI 0.13 to 2.07, no evidence of a significant difference.
		ELBW		Outcome not reported.
		PTB	7 studies (5981 women)	RR 0.89, 95% CI 0.69 to 1.14, no evidence of a significant difference.
		SGA	3 studies (1291 women)	RR 0.76, 95% CI 0.54 to 1.07, no evidence of a significant difference.
		IUGR		Outcome not reported.
Ota 2015	Zinc supplementation versus no zinc (with or without placebo)	LBW	14 studies (5643 women)	RR 0.93, 95% CI 0.78 to 1.12, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	16 studies (7637 women)	RR 0.86, 95% CI 0.76 to 0.97 (p = 0.012), significant reduction in PTB for women receiving zinc supplementation in pregnancy.
		SGA	8 studies (4252 women)	RR 1.02, 95% CI 0.94 to 1.11, no evidence of a significant difference.
		IUGR		Outcome not reported.
Soltani 2015	Zinc supplementation versus no zinc (with or without placebo)	LBW	1 study (507 women)	RR 0.39, 95% CI 0.15 to 0.98, significant reduction in LBW for women receiving zinc supplementation in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	2 studies (1063 women)	RR 0.66, 95% CI 0.42 to 1.05, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.

Supplementary table 8: Results of multiple micronutrient (MMN) supplementation

Review	Comparison	Outcome	Number of studies (number of women)	Result
Fall 2009	MMN with iron and folic acid versus iron	LBW	12 studies (27676 women)	OR 0.89, 95% CI 0.81 to 0.97 (p = 0.01), significant reduction in LBW for women

	with folic acid			receiving MMN supplementation in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported
		PTB	12 studies (26396 women)	OR 1.00, 95% CI 0.93 to 1.09, no evidence of a significant difference.
		SGA	12 studies (26396 women)	OR 0.90, 95% CI 0.82 to 0.99 ($p = 0.03$), significant reduction in SGA for women receiving MMN supplementation in pregnancy.
		IUGR		Outcome not reported.
Haider 2015	MMN with iron and folic acid versus iron with or without folic acid	LBW	15 studies	RR 0.88, 95% CI 0.85 to 0.91 ($p < 0.00001$), significant reduction in LBW for women receiving MMN supplementation with iron and folic acid in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	15 studies	RR 0.96, 95% CI 0.89 to 1.03, no evidence of a significant difference.
		SGA	14 studies	RR 0.90, 95% CI 0.83 to 0.97 ($p = 0.0037$), significant reduction in SGA for women receiving MMN supplementation with iron and folic acid in pregnancy.
		IUGR		Outcome not reported.
	MMN with iron and folic acid versus placebo	LBW	1 study	RR 1.63, 95% CI 0.66 to 4.03, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	1 study	RR 1.10. 95% CI 0.41 to 2.95, no evidence of a significant difference.
		SGA	1 study	RR 0.93, 95% CI 0.53 to 1.63, no evidence of a significant difference.
		IUGR		Outcome not reported.
Ramakrishnan 2013	MMN supplementation versus control (placebo, iron or iron-folic acid)	LBW	15 studies (24255 women)	RR 0.86, 95% CI 0.81 to 0.92 ($p < 0.05$), significant reduction in LBW for women receiving MMN supplementation in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	9 studies (45909 women)	RR 0.99, 95% CI 0.96 to 1.03, no evidence of a significant difference.
		SGA	8 studies (15797 women)	RR 0.83, 95% CI 0.73 to 0.95 ($p < 0.05$), significant reduction in SGA for women receiving MM supplementation in pregnancy.
		IUGR		Outcome not reported.

Supplementary table 9: Results of protein supplementation

Review	**Comparison**	**Outcome**	**Number of studies (number of women)**	**Result**

Ota 2015a	Balanced protein/energy supplementation versus control or no intervention in pregnancy	LBW		Outcome not reported.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	5 studies (3384 women)	RR 0.96, 95% CI 0.80 to 1.16, no evidence of a significant difference.
		SGA	7 studies (4408 women)	RR 0.79, 95% CI 0.69 to 0.90 (p = 0.00038), significant reduction in SGA for women receiving balanced protein/energy supplementation in pregnancy.
		IUGR		Outcome not reported.
	High protein supplementation versus low or no protein supplements in pregnancy	LBW		Outcome not reported
		VLBW		Outcome not reported
		ELBW		Outcome not reported
		PTB	1 study (505 women)	RR 1.14, 95% CI 0.83 to 1.56, no evidence of a significant difference.
		SGA	1 study (505 women)	RR 1.58, 95% CI 1.03 to 2.41 (p = 0.036), significant increase in SGA for women receiving high protein supplementation in pregnancy.
		IUGR		Outcome not reported

Supplementary table 10: Results of marine oil and fatty acids supplementation

Review	**Comparison**	**Outcome**	**Number of studies (number of women)**	**Result**
Makrides 2006	Prostaglandin precursor supplementation versus none or placebo – all women	LBW	5 studies (2302 women)	RR 1.00, 95% CI 0.88 to 1.12 no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	5 studies (1916 women)	RR 0.92, 95% CI 0.79 to 1.07, no evidence of a significant difference.
		SGA	1 study (1374 women)	RR 1.13, 95% CI 0.96 to 1.34, no evidence of a significant difference.
		IUGR		Outcome not reported.
	Prostaglandin precursor supplementation versus none or placebo (singleton pregnancy only)	LBW	5 studies (1180 women)	RR 0.98, 95% CI 0.77 to 1.24, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	5 studies (1374 women)	RR 0.79, 95% CI 0.61 to 1.04, no evidence of a significant difference.
		SGA	1 study (263 women)	RR 1.17, 95% CI 0.81 to 1.69, no evidence of a significant difference.
		IUGR		Outcome not reported.
Salvig 2011	n-3 fatty acids supplementation versus placebo	LBW	3 studies (785 women)	RR 0.98, 95% CI 0.66 to 1.46, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.

		PTB	3 studies (921 women)	RR 0.61, 95% CI 0.4 to 0.93 ($p < 0.05$), significant reduction in PTB for women receiving n-3 fatty acids in pregnancy.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.

Supplementary table 11: Results of nutrition education

Review	Comparison	Outcome	Number of studies (number of women)	Result
Ota 2015a	Nutritional education during pregnancy versus no nutritional education (or normal care)	LBW	1 study (300 women)	RR 0.04, 95% CI 0.01 to 0.14 ($p < 0.00001$), significant reduction in LBW for women receiving nutritional education in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	2 studies (449 women)	RR 0.46, 95% CI 0.21 to 0.98 ($p = 0.043$), significant reduction in PTB for women receiving nutritional education in pregnancy.
		SGA	1 study (404 women)	RR 0.97, 95% CI 0.45 to 2.11, no evidence of a significant difference.
		IUGR		Outcome not reported.

Supplementary table 12: Results of reduced salt intake

Review	Comparison	Outcome	Number of studies (number of women)	Result
Duley 1999	Low dietary salt (20 or 50 mmol/day) versus an unchanged diet in pregnancy	LBW	1 study (361 women)	RR 0.84, 95% CI 0.42 to 1.67, no evidence of a significant difference.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	1 study (242 women)	RR 1.08, 95% CI 0.46 to 2.56 no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.

Supplementary table 13: Results of soil-transmitted helminthiasis preventive chemotherapy

Review	Comparison	Outcome	Number of studies (number of women)	Result
Salam 2015	Antihelminthics versus placebo or no	LBW	3 studies (3255 women)	RR 1.00, 95% CI 0.79 to 1.27, no evidence of a significant difference.

	treatment	VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	2 studies (1318 women)	RR 0.88, 95% CI 0.43 to 1.78, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.

Supplementary table 14: Results of preventive antimalarial drugs

Review	Comparison	Outcome	Number of studies (number of women)	Result
Radeva-Petrova 2014	Preventive antimalarials versus placebo/no intervention (women: parity 0-1)	LBW	10 studies (3619 women)	RR 0.73, 95% CI 0.61 to 0.87 (p = 0.00065), significant reduction in LBW for women receiving preventive antimalarial drugs in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB	3 studies (1493 women)	RR 0.85, 95% CI 0.66 to 1.10, no evidence of a significant difference.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.
Muanda 2015	Antimalarial drugs versus no use of antimalarial drugs	LBW	10 studies	RR 0.73, 95% CI 0.56 to 0.97 (p < 0.01), significant reduction in LBW for women receiving antimalarial drugs for preventing malaria in pregnancy.
		VLBW		Outcome not reported.
		ELBW		Outcome not reported.
		PTB		Outcome not reported.
		SGA		Outcome not reported.
		IUGR		Outcome not reported.

ELBW: extremely low birthweight; IUGR: intrauterine growth restriction; LBW: low birthweight; MMN: multiple micronutrient; PTB: preterm birth; SGA: small-for-gestational age; VLBW: very low birthweight.

Supplementary table 15: Excluded systematic reviews

Review	Review characteristics	Reason for exclusion
Nutrition-specific interventions		

Vitamin D supplementation for women during pregnancy (De-Regil 2016)	This systematic review included 15 RCTs assessing a total of 2833 women to examine whether oral supplements with vitamin D alone or in combination with calcium or other vitamins and minerals given to women during pregnancy can safely improve maternal and neonatal outcomes. Pregnant women of any gestational or chronological age, parity (number of births), and number of foetuses were included and received vitamin D supplementation (alone or in combination with other micronutrients) during pregnancy irrespective of dose, duration, or time of commencement of supplementation. The intervention was compared to placebo, no intervention, or other vitamins and minerals but no vitamin D. Outcomes of interest included LBW and PTB. Women receiving vitamin D alone had a significant lower risk of LBW (60%) and PTB (64%) compared with women who received placebo or no intervention.	This review was excluded because women with multiple pregnancy were included and outcomes not separately reported for singleton and multiple pregnancy.
Diet or exercise, or both, for preventing excessive weight gain in pregnancy (Muktabhant 2015)	This systematic review included 11,444 women from 65 RCTs and cluster-RCTs. It evaluated the effectiveness of diet or exercise, or both interventions for preventing excessive weight gain during pregnancy and associated pregnancy complications. Pregnant women of any BMI received any diet or exercise, or both intervention (e.g. healthy eating plan, low glycaemic diet, exercise intervention, health education, lifestyle counselling) and were compared with women who received standard or routine care for preventing excessive weight gain in pregnancy. Outcomes of interest included LBW, PTB, and SGA. There was no evidence of an effect of diet and/or exercise interventions compared with standard care on LBW, PTB, and SGA.	The review was excluded because of an inappropriate comparator intervention (comparison with other type of care).
Intermittent oral iron supplementation during pregnancy (Peña-Rosas 2015a)	This systematic review included 27 RCTs, quasi-RCTs, and cluster-RCTs randomising 5490 women to assess the benefits and harms of intermittent supplementation with iron alone or in combination with folic acid or other vitamins and minerals to pregnant women on neonatal and pregnancy outcomes. Pregnant women of any gestational age and parity with confirmed pregnancy at the moment of randomisation received oral supplements of iron, or iron + folic acid, or iron + vitamins and minerals, given as a public health strategy on an intermittent basis and compared with a placebo or no supplementation, or compared with the same supplements provided daily. Outcomes of interest included LBW, VLBW, and PTB. Intermittent iron (alone or in combination with vitamins and minerals) compared with daily iron (alone or in combination with vitamins and minerals) supplementation had no effect on LBW, VLBW, or PTB.	The review was excluded because of an inappropriate comparator intervention (comparison with daily iron supplementation).
Maternal nutrient supplementation for suspected impaired fetal growth (Say 2003)	This systematic review included 4 controlled evaluations with a total of 165 women and assessed the effects of nutrient administration for suspected foetal growth impairment on foetal growth and perinatal outcome. Women with suspected impaired foetal growth were included and received any nutrient administered orally, parenterally, or by amnioinfusion to the amniotic cavity, for the purpose of promoting foetal growth. There was no evidence of an effect of intravenous glucose or oral galactose compared with bed rest on reducing the risk of SGA. LBW and PTB were not assessed.	The review was excluded because of an inappropriate comparator intervention (comparison with bed rest).
Effects of interventions in pregnancy on maternal weight and obstetric outcomes: meta-analysis of randomised evidence (Thangaratinum 2012)	This systematic review of 44 RCTs randomising 7278 pregnant women evaluated the effects of dietary and lifestyle interventions in pregnancy on maternal and foetal weight and quantified the effects of these interventions on obstetric outcomes. Pregnant women with any BMI receiving any dietary or lifestyle interventions with potential to influence maternal weight during pregnancy and outcomes of pregnancy were included. The review assessed PTB and SGA and found that participants receiving dietary interventions in pregnancy had a significant PTB reduction by 32% but there no effect on SGA. Physical activity or the mixed approach of diet and physical activity had no effect on PTB or SGA.	The review was excluded because the types of comparator interventions were not described.
Nutrition-sensitive interventions		

Intermittent preventive therapy for malaria during pregnancy using 2 vs 3 or more doses of sulfadoxine-pyrimethamine and risk of low birth weight in Africa (Kayentao 2013)	This systematic review included seven RCTs and quasi-RCT of 6281 pregnancies to determine whether regimens containing three or more doses of sulfadoxine-pyrimethamine for intermittent preventive therapy during pregnancy are associated with a higher birth weight or lower risk of LBW than standard two-dose regimens. Pregnant women living in sub-Saharan Africa received a regimen of intermittent preventive therapy during pregnancy consisting of three doses or monthly dosing of sulfadoxine-pyrimethamine and were compared with women receiving the standard two-dose regimen. Outcomes of interest included LBW and PTB. Three or more doses were associated with fewer LBW births and no difference in preterm delivery was detected.	The review was excluded because of an inappropriate comparator intervention (comparison of different does of antimalarial drug).

LBW: low birthweight; PTB: preterm birth; RCT: randomised controlled trial; SGA: small-for-gestational age; VLBW: very low birthweight.