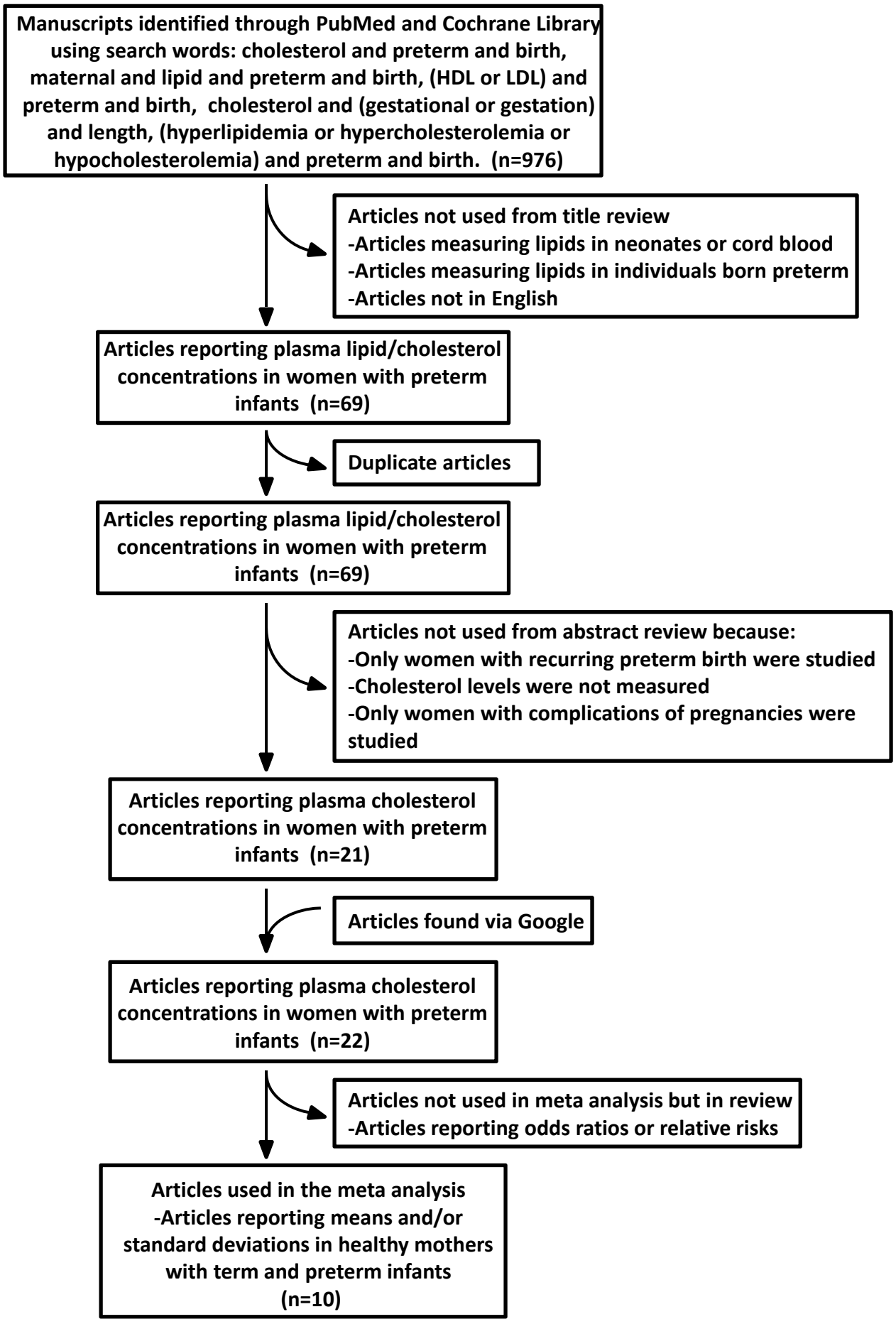
Manuscripts identified through PubMed and Cochrane Library using search words: cholesterol and preterm and birth, maternal and lipid and preterm and birth, (HDL or LDL) and preterm and birth, cholesterol and (gestational or gestation) and length, (hyperlipidemia or hypercholesterolemia or hypocholesterolemia) and preterm and birth. (n=976)
Articles not used from title review
-Articles measuring lipids in neonates or cord blood
-Articles measuring lipids in individuals born preterm
-Articles not in English
Articles reporting plasma lipid/cholesterol concentrations in women with preterm infants (n=69)
Duplicate articles
Articles reporting plasma lipid/cholesterol concentrations in women with preterm infants (n=69)
Articles not used from abstract review because:
-Only women with recurring preterm birth were studied
-Cholesterol levels were not measured
-Only women with complications of pregnancies were studied
Articles reporting plasma cholesterol concentrations in women with preterm infants (n=21)
Articles found via Google
Articles reporting plasma cholesterol concentrations in women with preterm infants (n=22)
Articles not used in meta analysis but in review
-Articles reporting odds ratios or relative risks
Articles used in the meta analysis
-Articles reporting means and/or standard deviations in healthy mothers with term and preterm infants
(n=10)

Supplement Table I. Associations of maternal cholesterol concentrations with preterm birth

	Meta	nPT/nT**	Location	Relative C level associations with PTB		
Early/Mid-pregnancy (<27 weeks)				TC	LDL	HDL
North America						
Catov et al. 2007a (CC)***	Yes	90/199	US-PA	high	high	none
Catov et al. 2007b (CC)	No	109/288	US-PA	high[a]	--	--
Edison et al. 2007 (C)	No	70/988	US-SC	low	--	--
Catov et al. 2008 (CC)	No	101/219	US-PA	--	high[b]	--
Kramer et al. 2009 (CC)	Yes	207/444	Canada	none	none	low
Baker et al. 2010[c] (CC)	Yes	30/90	US-NC	non none	none	
Mudd et al. 2012[d] (C)	Yes	221/988	US-MI	low/high	low/high	low/high
Alleman et al. 2013* (C)	Yes	200/2499	US-IA	none[e]	none	none
Jelleffi-Pawlowski et al. 2014* (CC)	No	129/713	US-CA, IA	none[f]	none[f]	none[f]
Europe						
Chatzi et al. 2009* (C)	No	71/554	Greece	none	none[g]	none[g]
Bartha et al. 2012 (CC)	Yes	48/50	Spain	low	low	low
Vrijkotte et al. 2012 (C)	Yes	207/3705	Amsterdam	none	--	--
Emet et al. 2013 (C)	No	44/757	Turkey	none	none	none
Africa						
Sanad et al. 2013 (C)	Yes	30/70	Egypt	low	--	--
Maymunah et al. 2014[h] (C)	No	23/264	Nigeria	high	--	--
Oluwole et al. 2014 (C)	Yes	13/248	Nigeria	low	--	--
Oaks et al. 2017[i]	No	320	Ghana	--	--	--
Asia						
Lei et al. 2016 (C)	No	810/4725	China	--	--	low
Late pregnancy (27 weeks-delivery)						
Europe						
Emet et al. 2013 (C)	No	44/757	Turkey	none	none	none
Africa						
Oaks et al. 2017[i]	No	320	Ghana	--	--	--
Asia						
Li et al. 2015 (CC)	Yes	200/178	China	low	low	low
Sowmiya et al. 2015[j] (C)	No	37/363	India	high	--	--
Jin et al. 2016[k] (C)	No	27/907	China	none	none	none
Cheng-Mao 2017 (CC)	No	97/48	China	low	low	low

*Associations of PTB risk and lipid levels only when combined with other factors, or was part of a predictive model.
**nPT is the number of women with preterm births and nT is the number of women with term births in the study.
***Type of study: (C) is a cohort study and (CC) is a case control study.

[a]An association was found between dyslipidemia (TC>240 mg/dl or TG>140 mg/dl) and PTB. The association increased when combined with inflammation (CRP).

[b]Only an association with hypercholesterolemia was examined. The association occurred with PTB at 34-37 weeks and with <34 weeks of age when combined with CRP.

[c]An association was found between low HDL-associated paroxanse and PTB.

[d]Associations were different for spontaneous (high C increased risk) versus medically-induced (low C increased risk) PTB.

[e]An association was found only when total cholesterol was included in a prediction model that included αfetoprotein and inhibin A.

[f]An association was found between early PTB when Q1 of HDL-C, HDL-C/TC or Q4 of LDL-C/HDL-C was combined with Q4 of TNFα.

[g]An increased risk of PTB was found with a higher LDL/HDL ratio when combined in a model with other maternal factors.

[h]This group determined the number of women with low, normal (200-240 mg/dl), or high cholesterol concentration with preterm births.

[i]This group did not examine the relationship of cholesterol and PTB, though their research showed an association of low HDL-C concentration late in gestation and shorter gestational length.

[j]Associations were made for women with normal versus “abnormal” cholesterol concentrations, either high or low.

[k]Only 2.9% of births in this study were preterm.