SUPPLEMENTARY MATERIAL

Supplementary Figure 1: Detailed Search Queries

Database	Search Query
Medline	((((("Breast Neoplasms"[Mesh]) OR "Breast Cancer") AND ("Triple Negative Breast Neoplasms"[Mesh] OR "luminal" OR "basal-like")) AND ((((((("Menarche"[Mesh]) OR "Menopause"[Mesh]OR "menopausal" OR "age at first birth") OR "Parity"[Mesh]) OR "Breast Feeding"[Mesh]) OR "Hormone Replacement Therapy"[Mesh]) OR "Estrogen Replacement Therapy"[Mesh]OR "HRT" OR "postmenopausal hormone" OR "hormone therapy" OR "estrogen therapy")) AND (((((("Contraceptives, Oral"[Mesh]) OR "Medical History Taking"[Mesh]) OR "Fibrocystic Breast Disease"[Mesh]) OR "Body Mass Index"[Mesh]) OR "Obesity"[Mesh]) OR "Alcohols"[Mesh]) OR "Breast Density"[Mesh] OR "mammographic density")
EMBASE	'breast cancer'/exp OR 'breast tumor'/exp OR 'triple negative breast cancer'/exp AND 'menarche'/exp OR 'age at menarche'/exp OR 'parity'/exp OR 'obesity'/exp OR 'alcohol consumption'/exp OR 'oral contraceptive use'/exp OR 'breast feeding duration'/exp OR 'menopause'/exp OR 'breast density'/exp OR 'hormone substitution'/exp OR 'family history'/exp OR 'biopsy'/exp AND [female]/lim AND [adult]/lim AND ('Article'/it OR 'Article in Press'/it) AND ('case control study'/de OR 'cohort analysis'/de OR 'controlled clinical trial'/de OR 'controlled study'/de OR 'longitudinal study'/de OR 'population based case control study'/de OR 'prospective study'/de OR 'randomized controlled trial'/de OR 'retrospective study'/de)
SCOPUS	(TITLE-ABS-KEY (breast AND cancer OR breast AND neoplasm OR triple AND negative AND breast AND cancer) AND TITLE-ABS-KEY ("Menarche" OR "Parity" OR "Adiposity" OR "Alcohol Drinking" OR "Contraceptives, Oral" OR "Breast Feeding" OR "Menopause" OR "Breast Density" OR "Hormone Replacement Therapy" OR age AND at AND menarche OR age AND at AND menopause OR biopsy AND history))

Supplementary Figure 2: Data Extraction Template

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Study ID	Exposure	Unit	Authors, Title	Design	Duration (days)	Location	Exposure level in "Exposed"	Exposure level in "Non-exposed"	"Exposed" group N	"Non-Exposed" group N	Exposed # of outcome events	"Non-exposed" # of outcome events
2	Study 1	Exposure A											
3	Study 1	Exposure B											
4	Study 1	Exposure C											
5	Study 2	Exposure B											
6	Study 2	Exposure C											
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													

Supplementary Figure 3: Example of risk of bias Assessment for the study Akinyemiju et al 2021

Risk of Bias Assessment

Scale/Tool: Newcastle - Ottawa Quality Assessment Scale for Case Control Studies

Study Authors: Akinyemiju et al 2021

Study Title: Association of body composition with odds of breast cancer by molecular subtype: analysis of the mechanisms for established and novel risk factors for breast cancer in Nigerian women (MEND) study

Scoring criteria: A study can be awarded a maximum of one star (1 point) for each numbered item within the Selection and Exposure categories. A maximum of two stars (2 points) can be given for Comparability.

Section A: Selection

1) Is the case definition adequate?
   a) yes, with independent validation (if cases come from registry, laboratory data)
   b) yes, eg record linkage or based on self-reports
   c) no description

2) Representativeness of the cases
   a) consecutive or obviously representative series of cases (star if cases come from geographic area or hospital)
   b) not stated
3) Selection of Controls
   a) community controls * (1 point)
   b) hospital controls
   c) no description
4) Definition of Controls
   a) no history of disease (endpoint) * (1 point)
   b) no description of source

Section B: Comparability

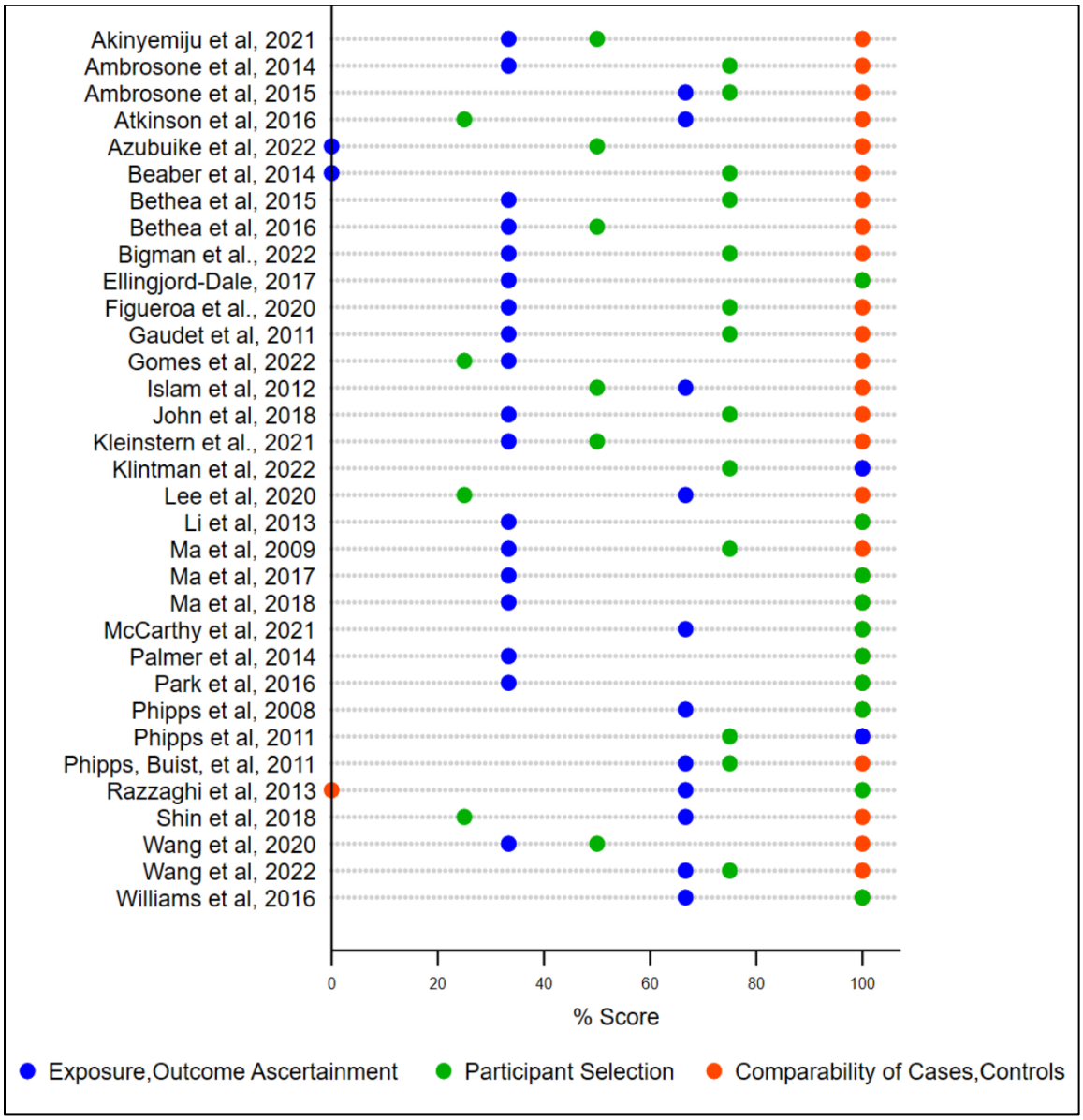
1) Comparability of cases and controls on the basis of the design or analysis
   a) study controls for Age * (1 point)
   b) study controls for additional factors (sociodemographic characteristics, reproductive history, and self and family history of cancer; anthropometric measurements) * (1 point)

Section C: Exposure

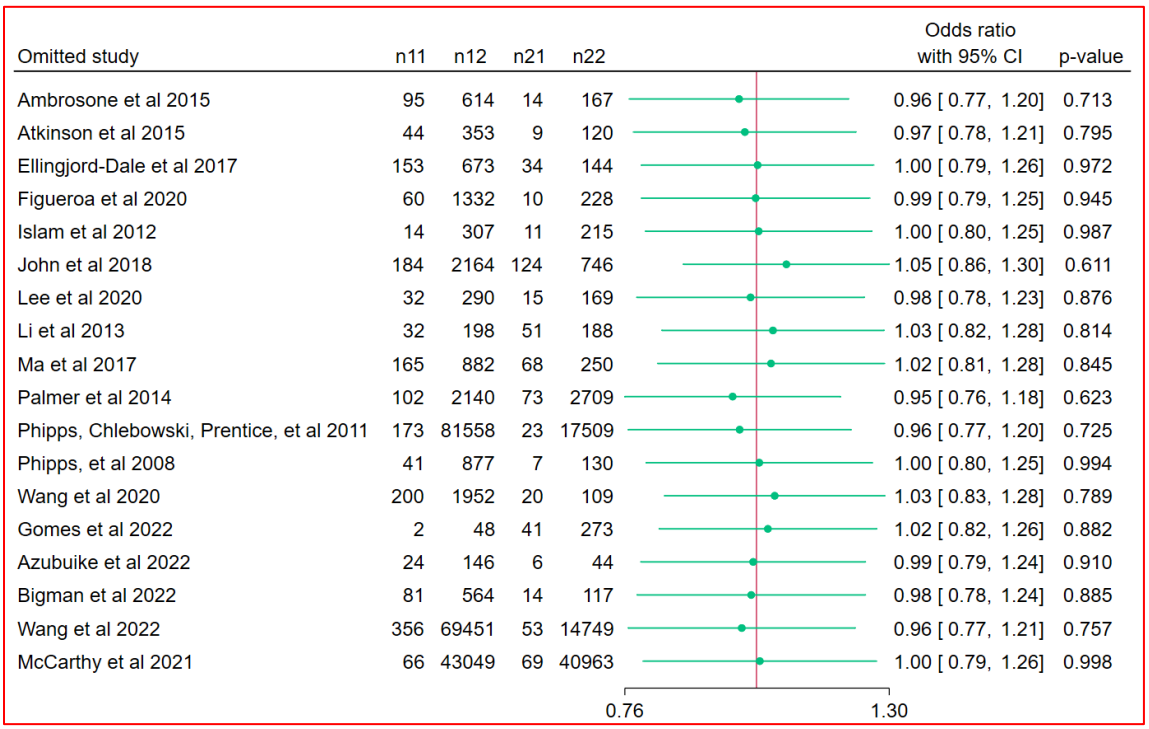
1) Ascertainment of exposure
   a) secure record (eg surgical records)
   b) structured interview where blind to case/control status
   c) interview not blinded to case/control status
   d) medical record only
   e) no description
2) Same method of ascertainment for cases and controls
   a) yes *(1 point)
   b) no
3) Non-Response rate
   a) same rate for both groups (10% or less difference)
   b) non respondents described
   c) rate different and no designation

SCORES: **Selection = 2 out of 4 (50%), Comparability = 2 out of 2 (100%), Exposure ascertainment = 1 out of 3 (0.33%)**

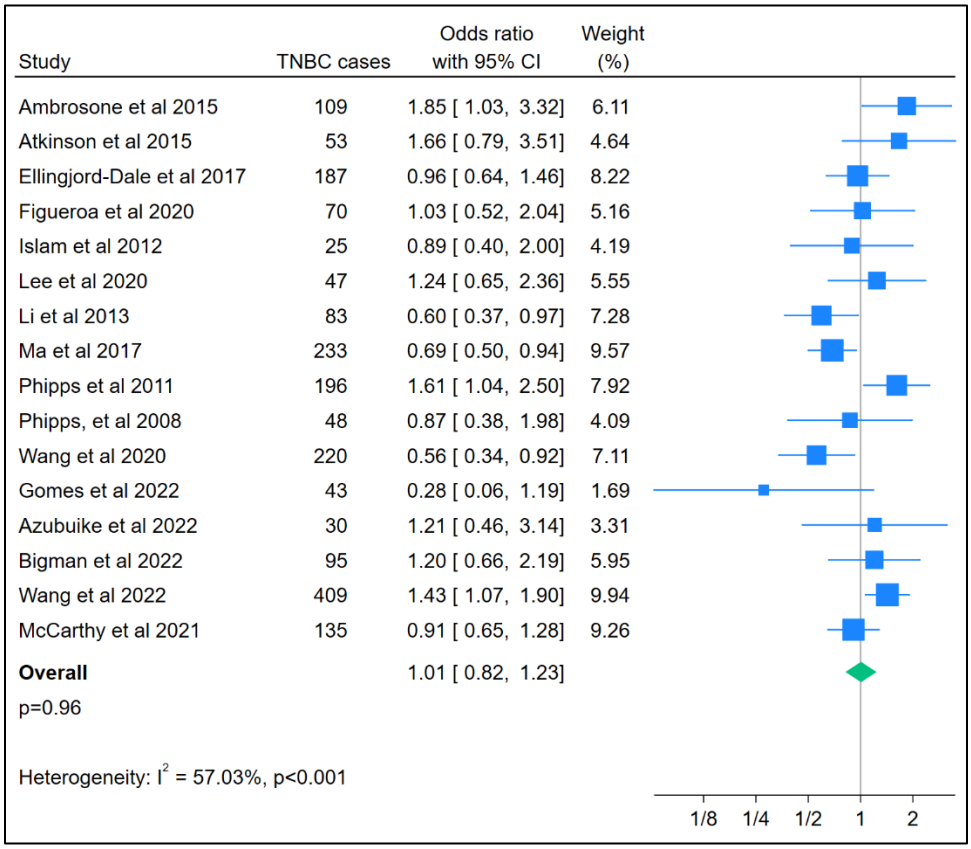
Supplementary Figure 4: Summary of Risk of Bias Assessment Scores for Included Studies



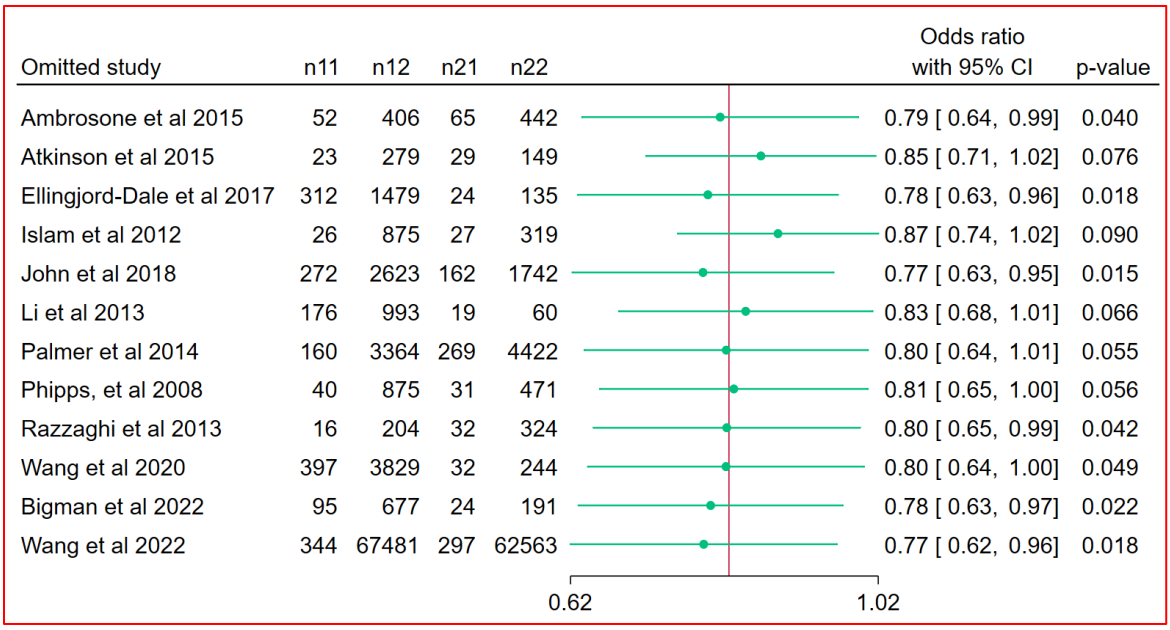
Supplementary Figure 5 - a: Leave One Out Sensitivity Analysis for Parity



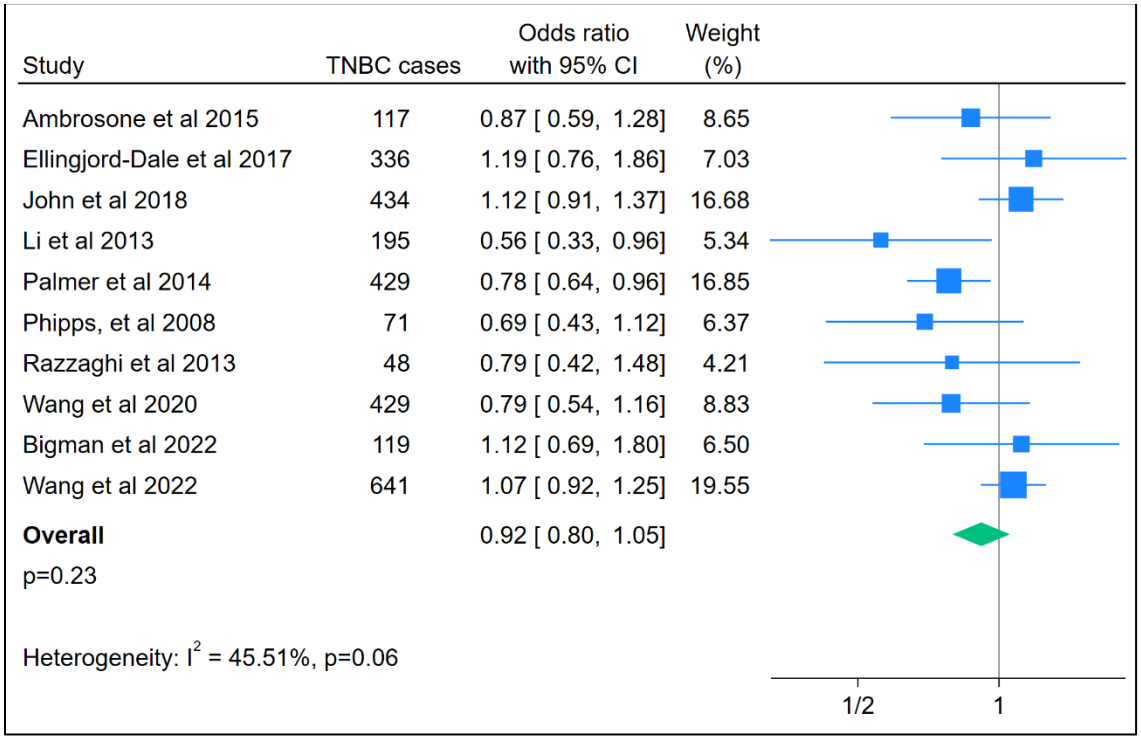
Supplementary Figure 5 - b: Forest plot for Parity omitting Palmer et al 2014, John e al 2018



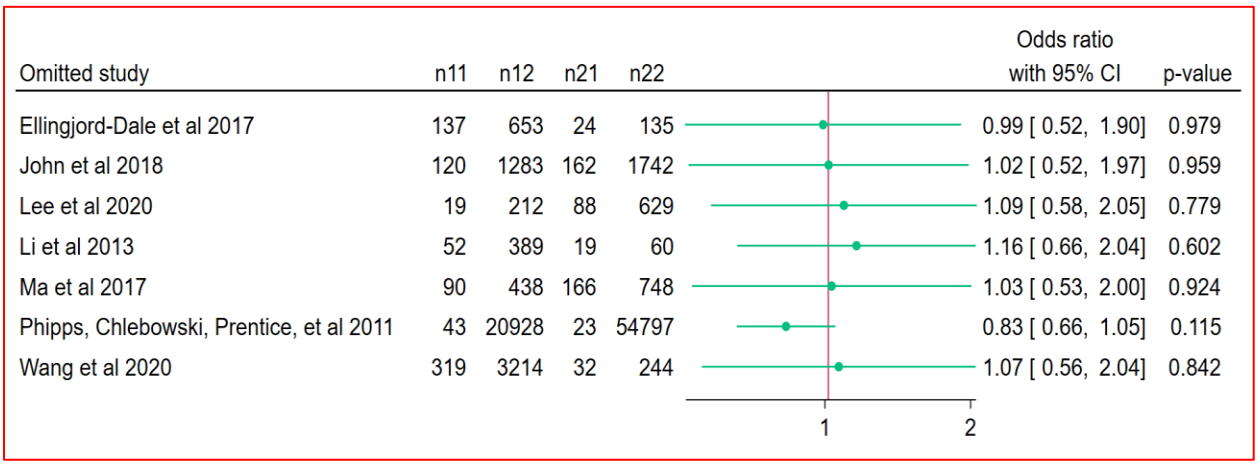
Supplementary Figure 6 - a: Leave One Out Sensitivity Analysis for Breastfeeding (ever vs. never)



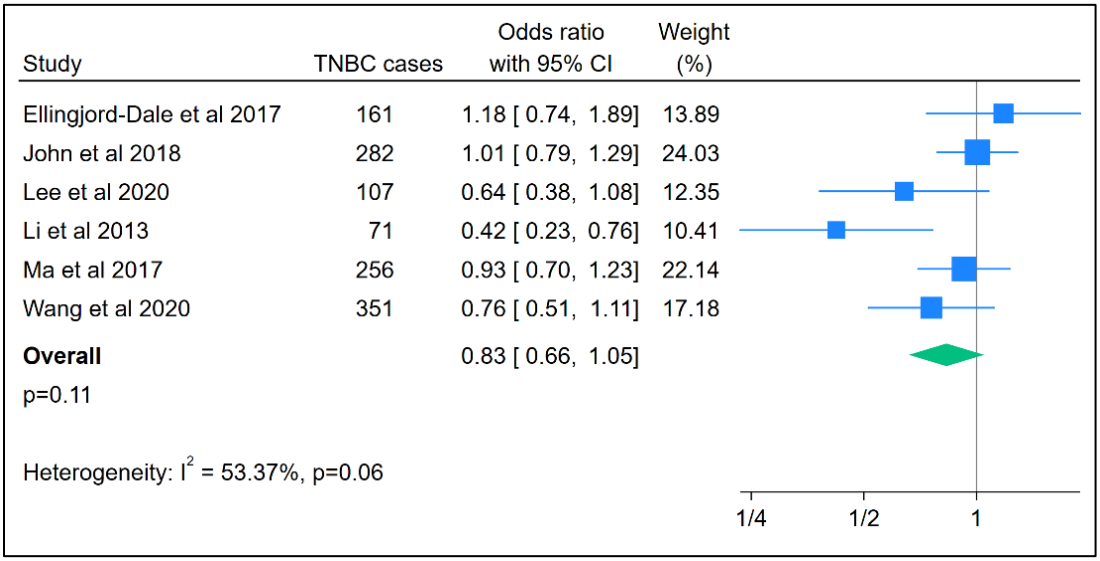
Supplementary Figure 6 – b: Forest Plot for Breastfeeding after omitting Islam et al 2012 and Atkinson et al 2015



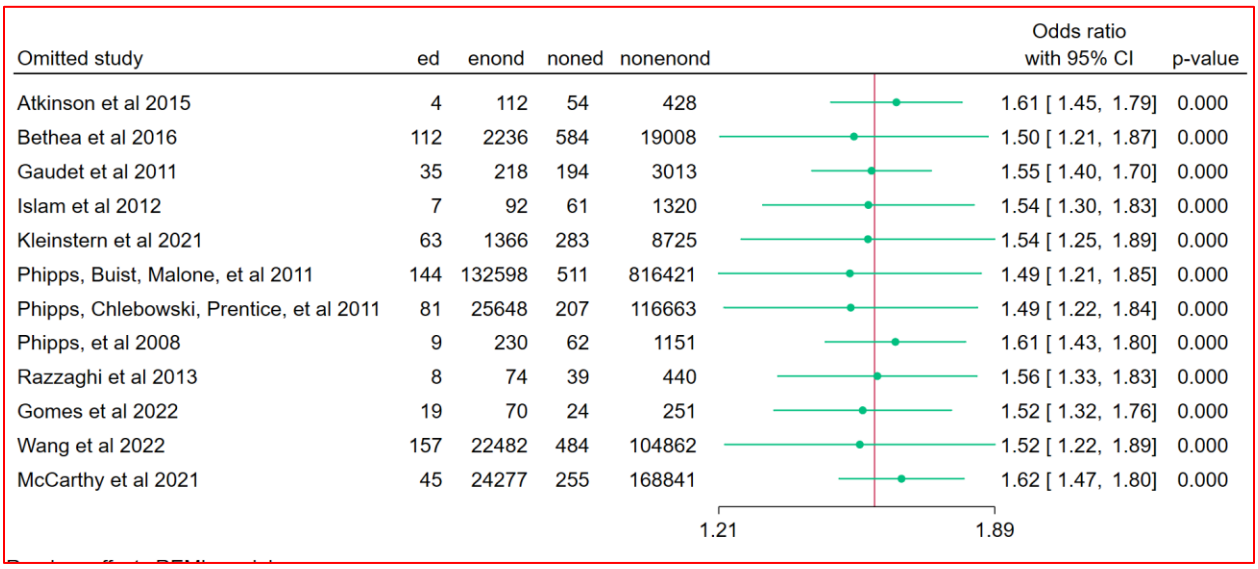
Supplementary Figure 7-a: Leave One Out Sensitivity Analysis for Duration of Breastfeeding



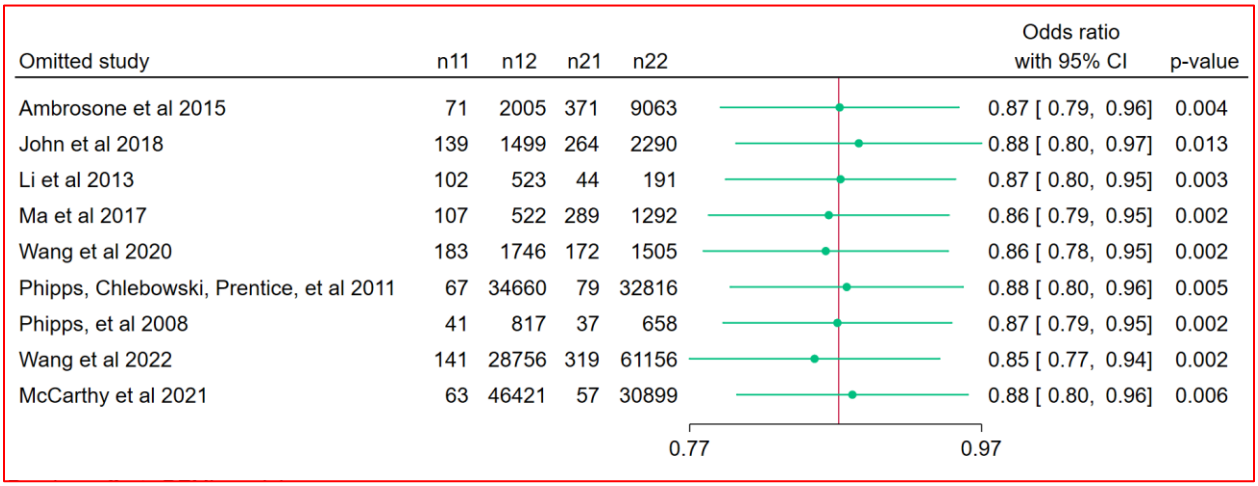
Supplementary Figure 7-b: Forest Plot for Duration of Breastfeeding after omitting Phipps et al 2011



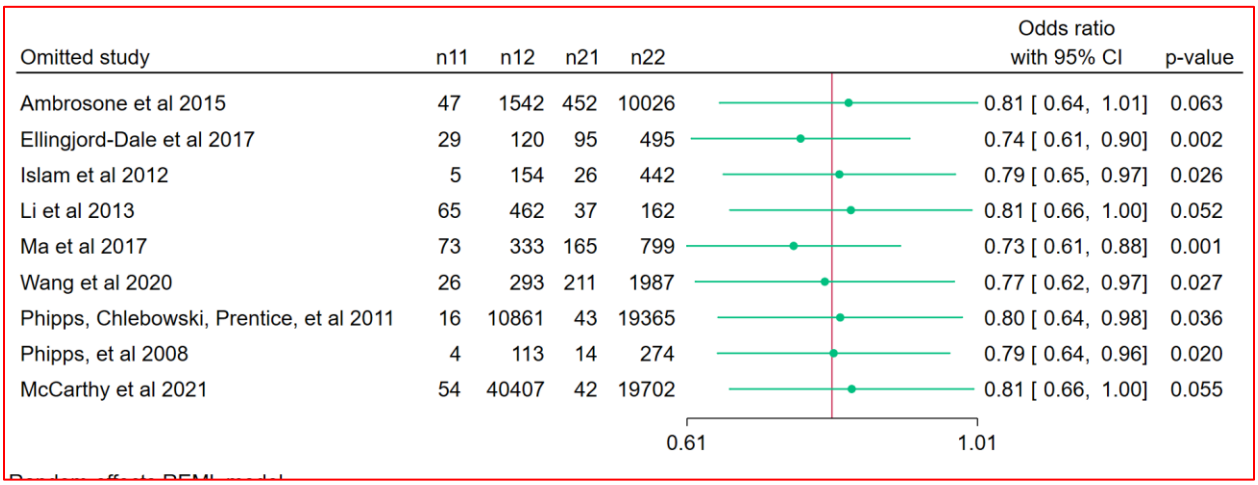
Supplementary Figure 8: Leave One Out Sensitivity Analysis for Family History



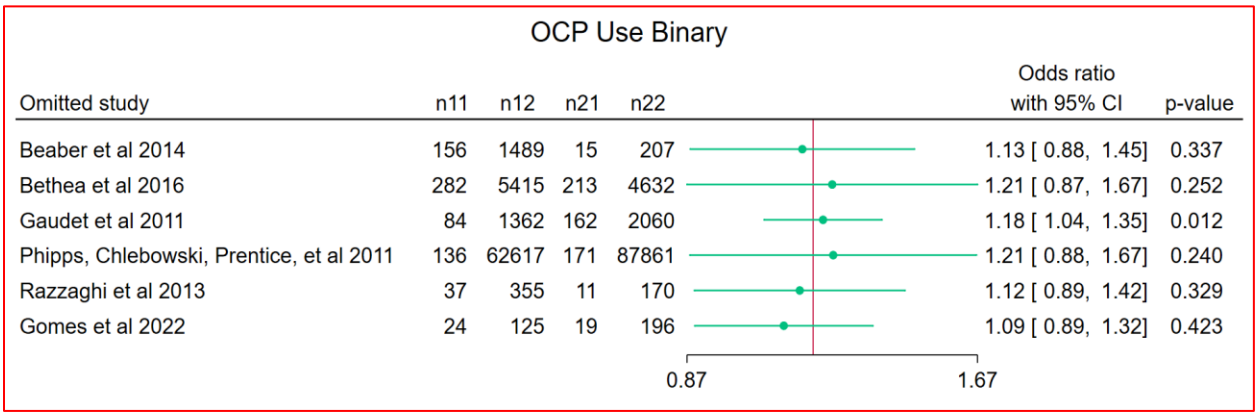
Supplementary Figure 9: Leave One Out Sensitivity Analysis for Age at Menarche



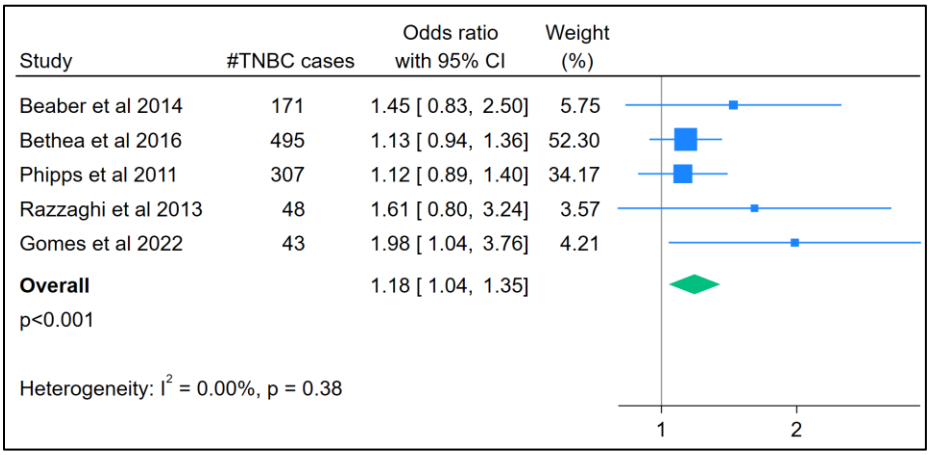
Supplementary Figure 10: Leave One Out Sensitivity Analysis for Age at 1st Live Birth



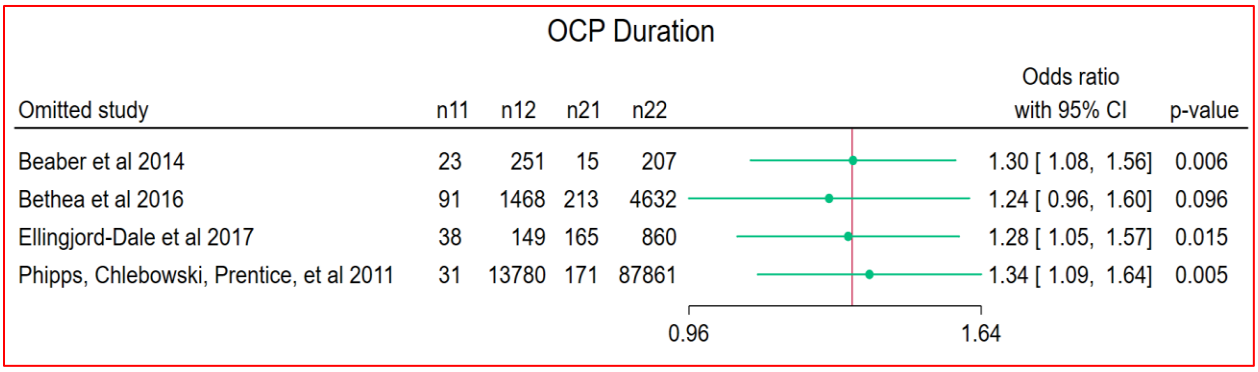
Supplementary Figure 11a: Leave One Out Sensitivity Analysis for Oral Contraceptive Use



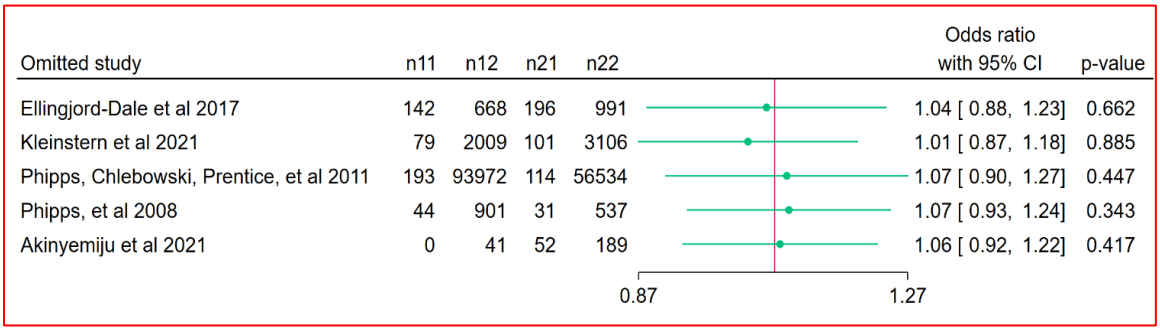
Supplementary Figure 11b: Forest Plot for OCP Use after omitting Phipps et al 2011



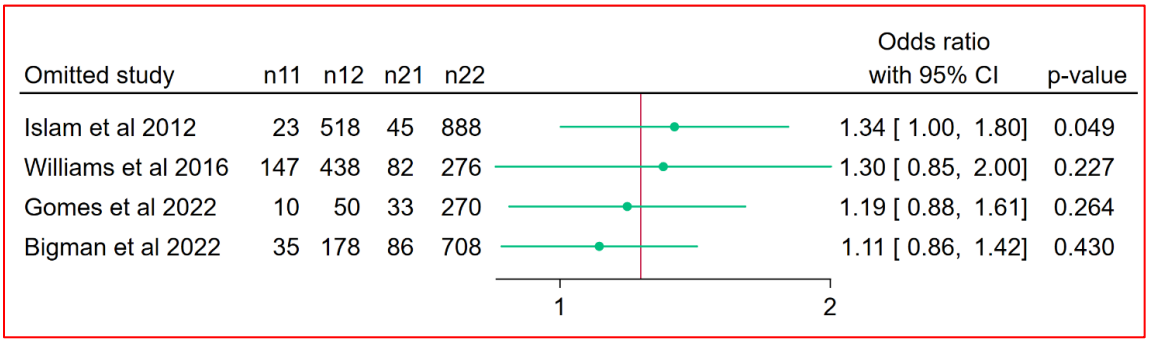
Supplementary Figure 12: Leave One Out Sensitivity Analysis for Duration of Oral Contraceptive Use



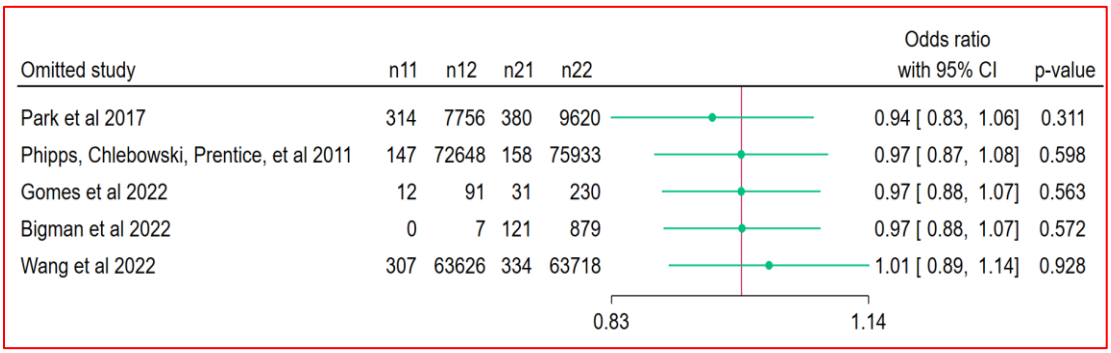
Supplementary Figure 13: Leave One Out Sensitivity Analysis for MHT Use



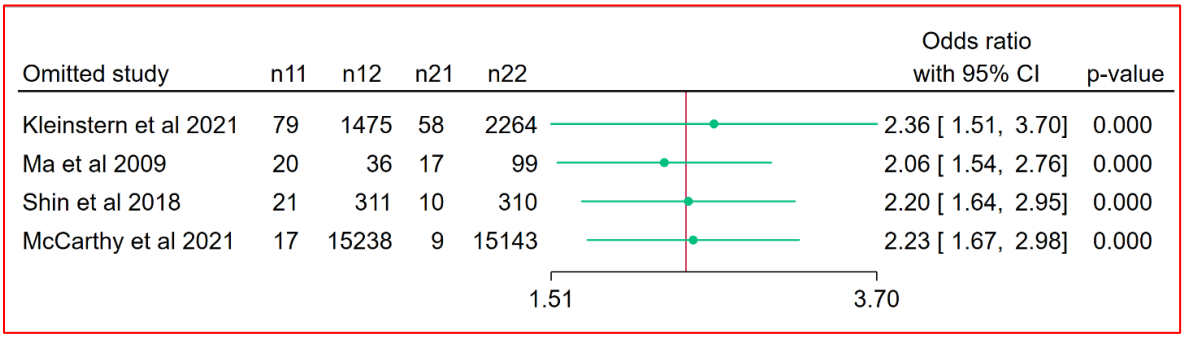
Supplementary Figure 14 Leave One Out Sensitivity Analysis for Alcohol Use



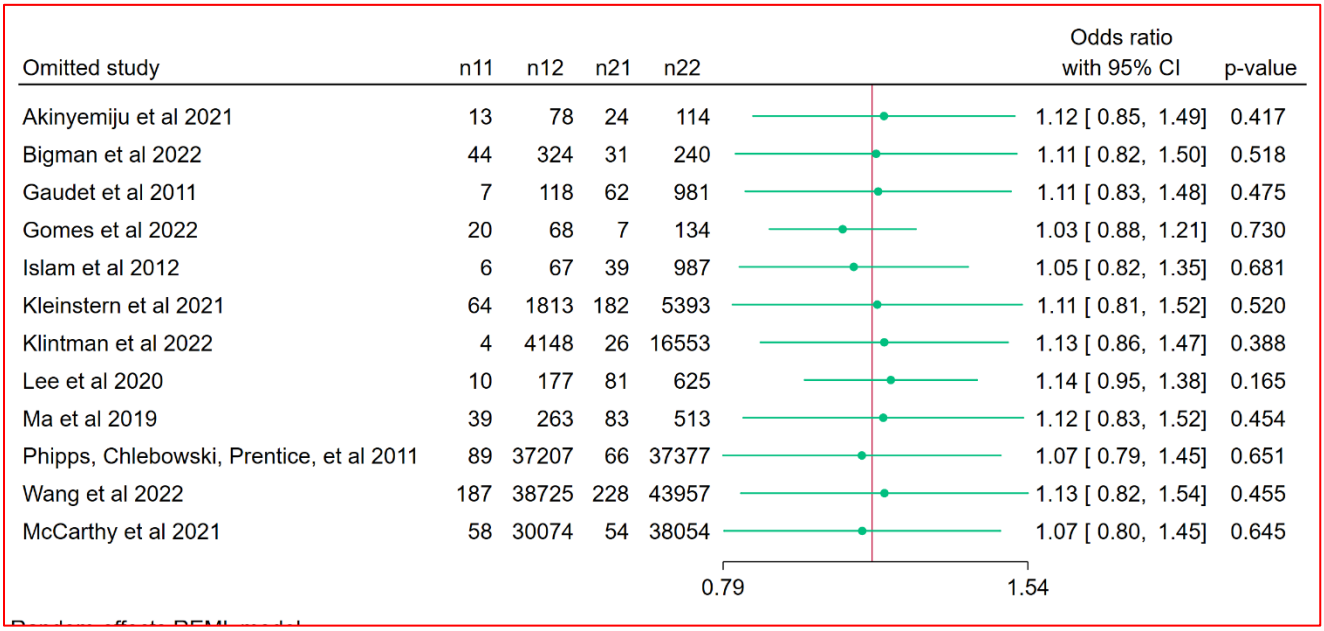
Supplementary Figure 15 Leave One Out Sensitivity Analysis for Smoking



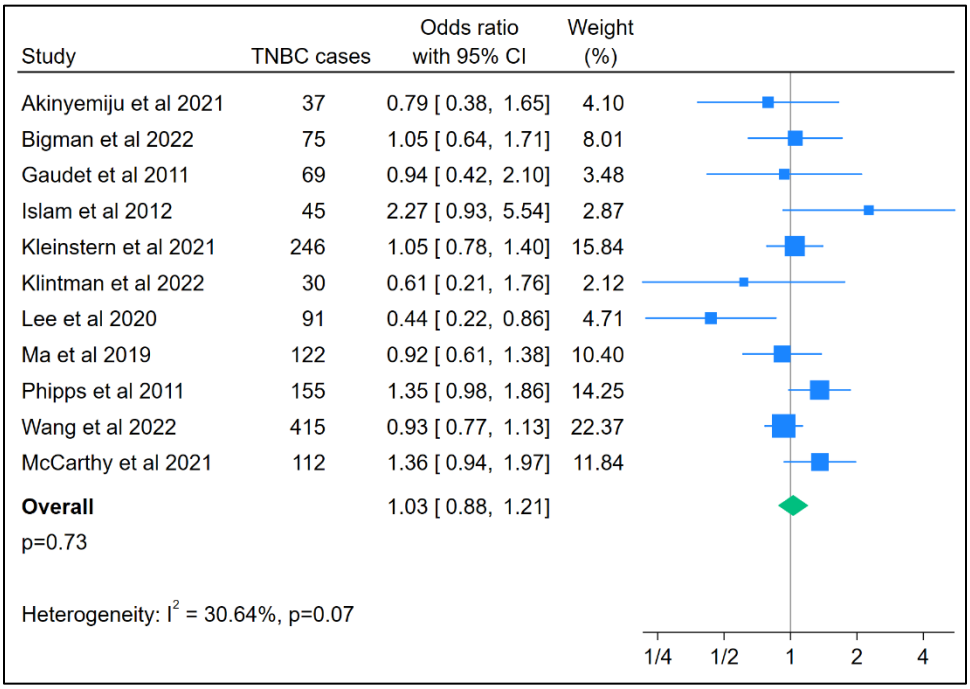
Supplementary Figure 16 Leave One Out Sensitivity Analysis for Breast Density



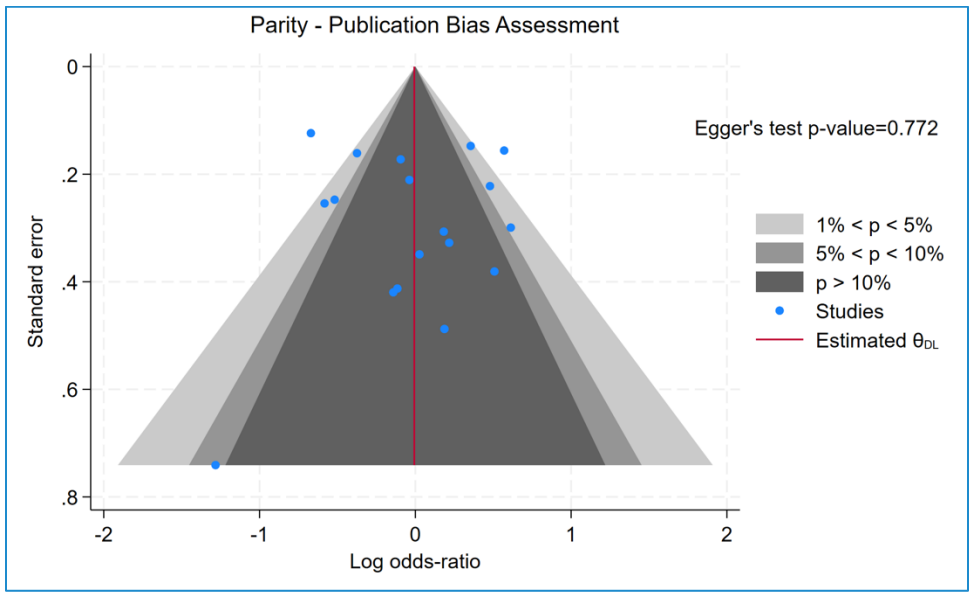
Supplementary Figure 17-a Leave One Out Sensitivity Analysis for BMI



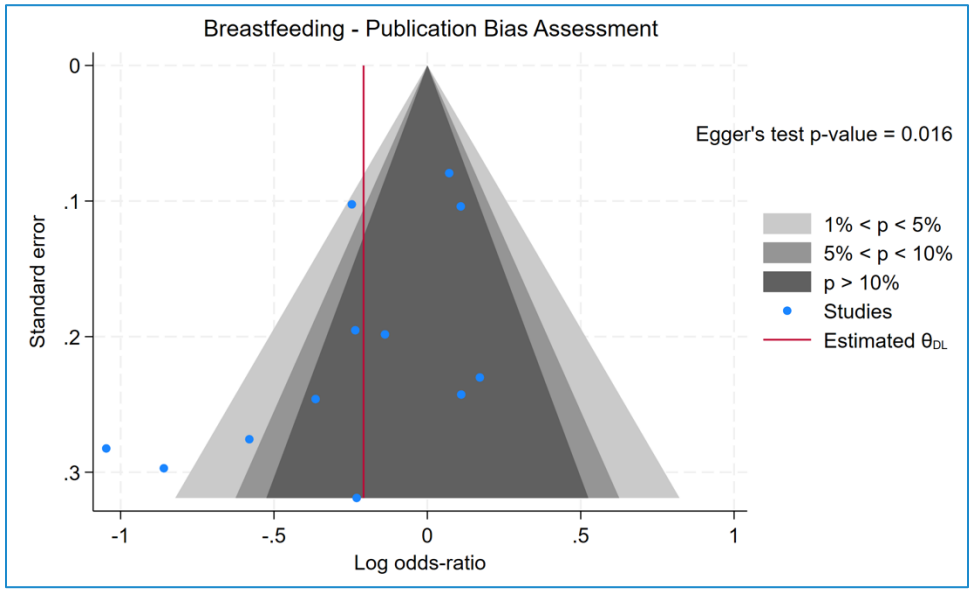
Supplementary Figure 17-b Forest Plot for BMI after omitting Gomes et al 2022



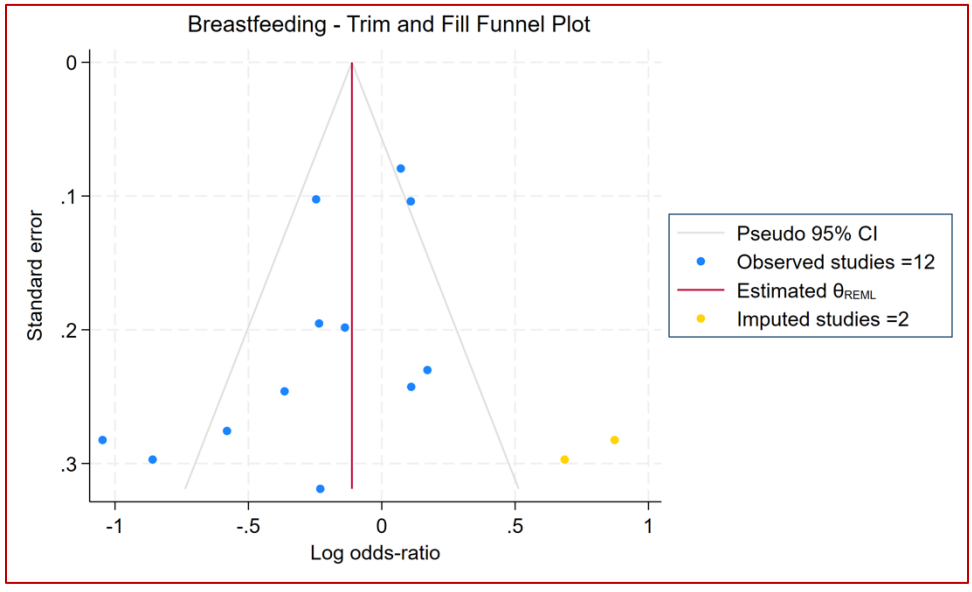
Supplementary Figure 18: Parity - Contour Funnel Plot & Egger's test Assessment



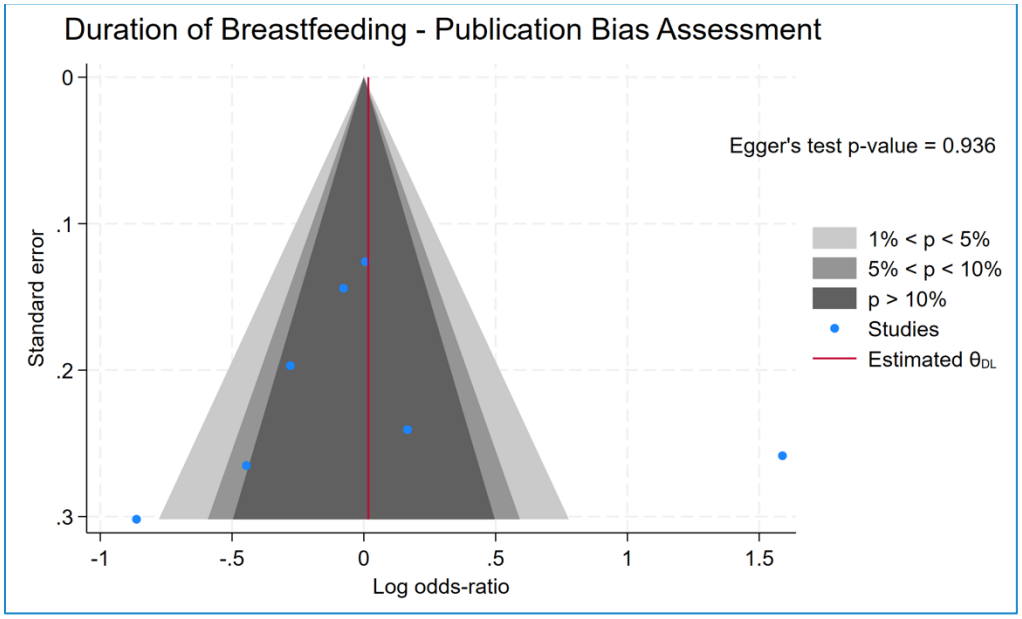
Supplementary Figure 19 –a: Breastfeeding - Contour Funnel Plot and Egger's Test Assessment



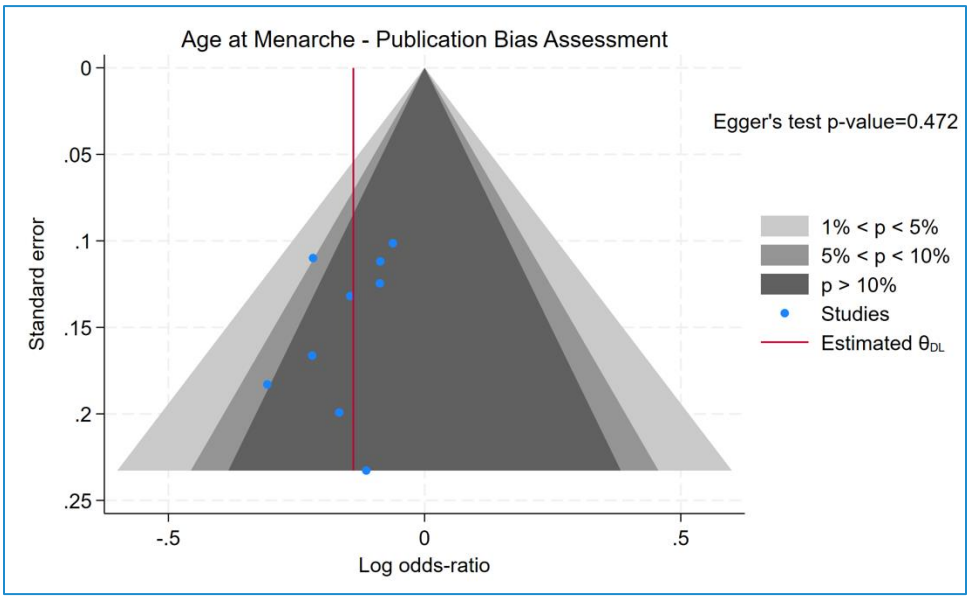
Supplementary Figure 19-b: Breastfeeding - Trim and Fill Plot



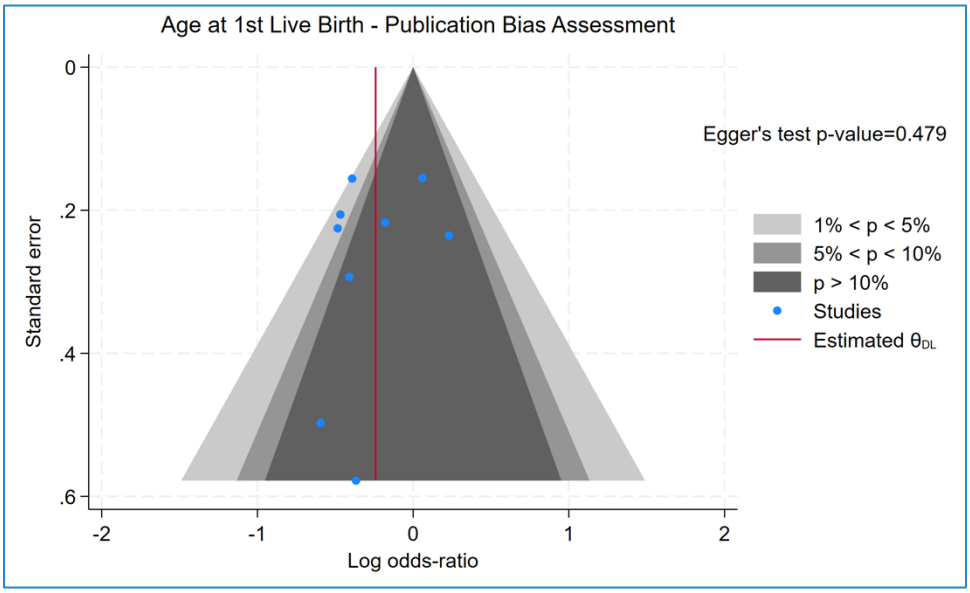
Supplementary Figure 20: Duration of Breastfeeding - Contour Funnel Plot & Egger's test Assessment



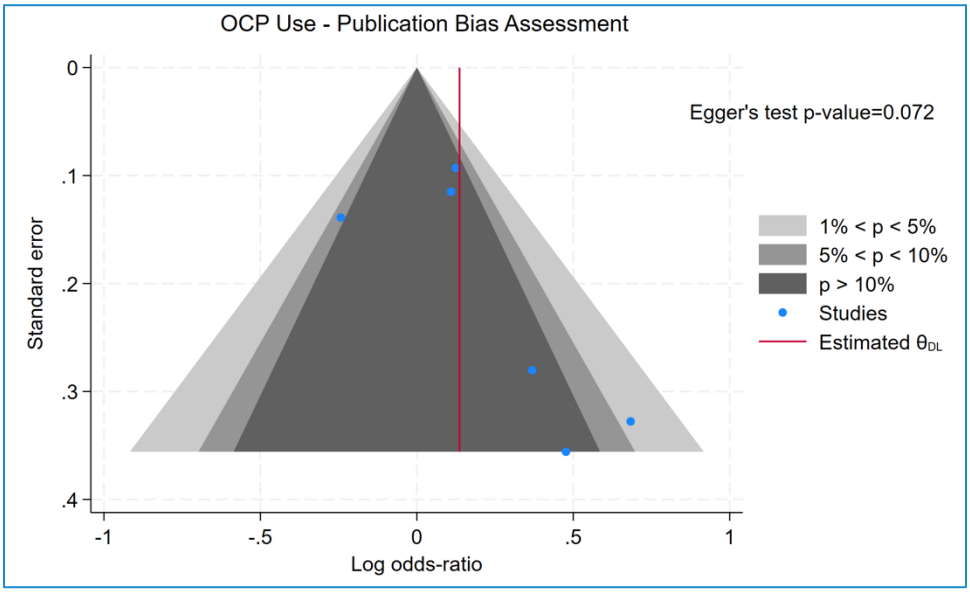
Supplementary Figure 21: Age at Menarche - Contour Funnel Plot & Egger's test Assessment



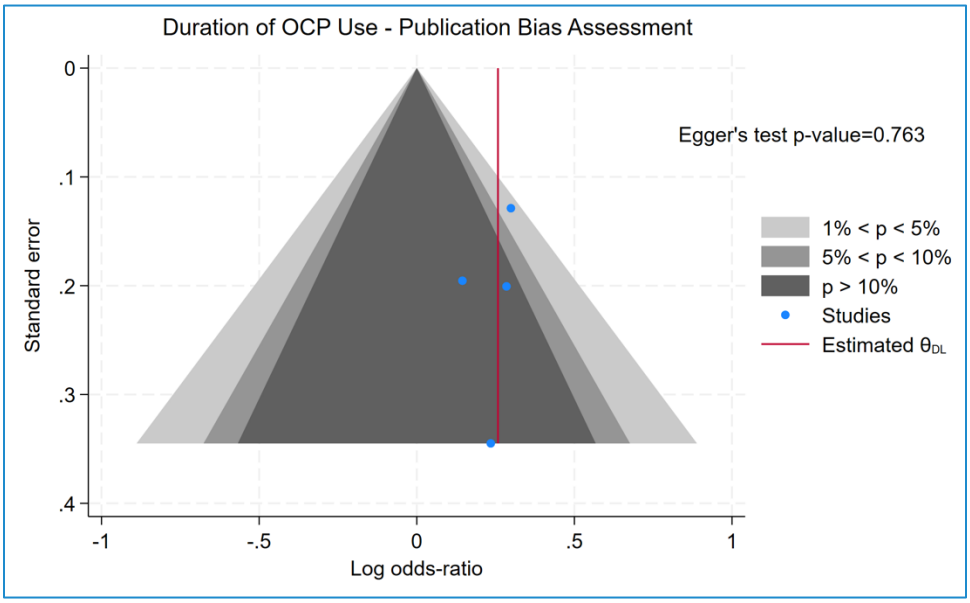
Supplementary Figure 22: Age at 1st Live Birth - Contour Funnel Plot & Egger's test Assessment



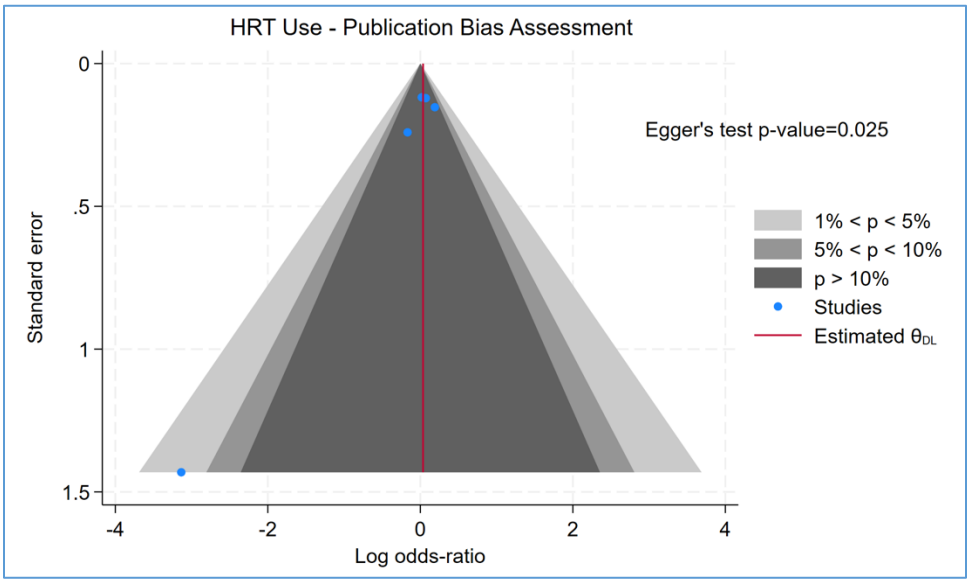
Supplementary Figure 23: OC Use - Contour Funnel Plot & Egger's test Assessment



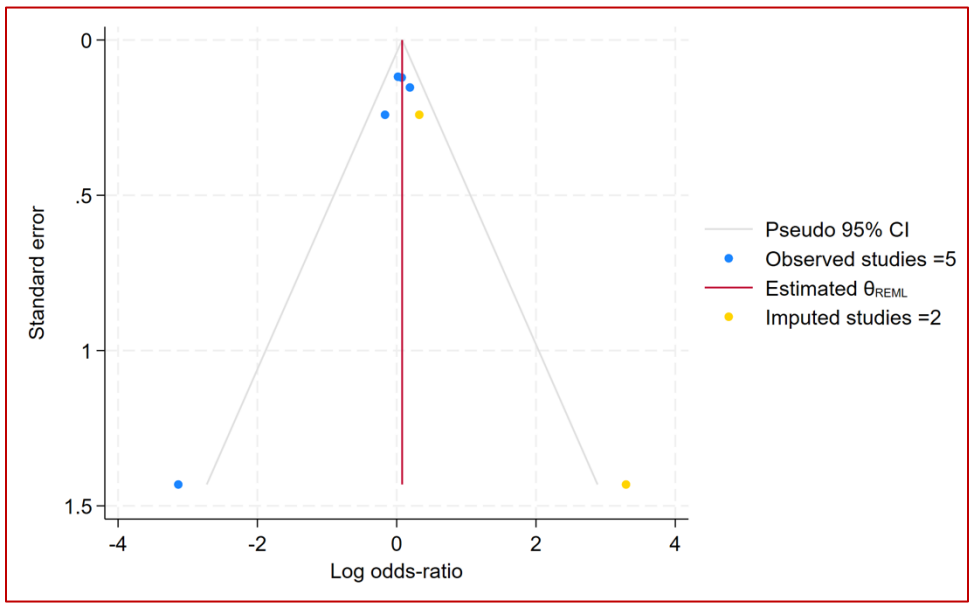
Supplementary Figure 24: Duration of OC Use - Contour Funnel Plot & Egger's test Assessment



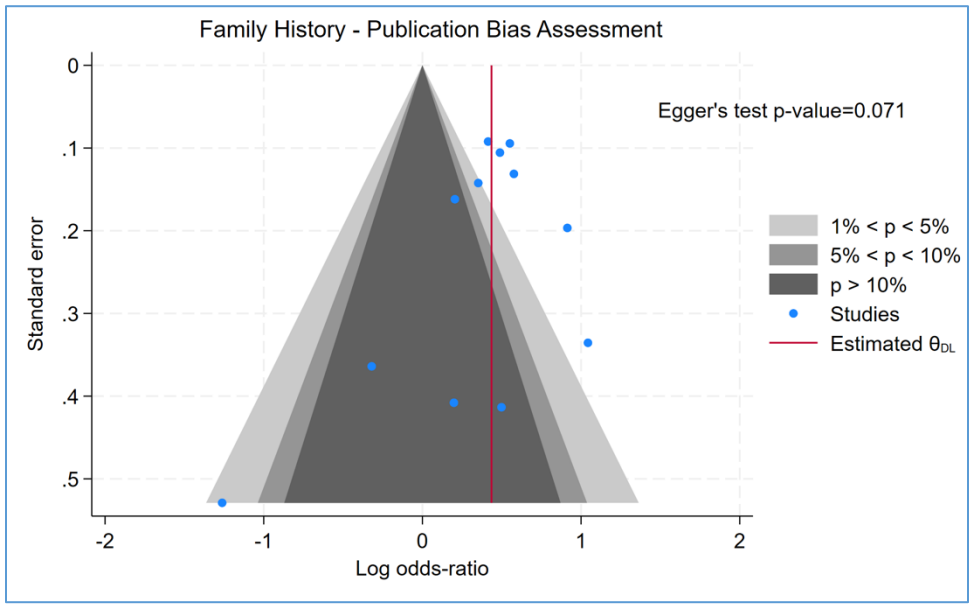
Supplementary Figure 25-a: MHT Use - Contour Funnel Plot & Egger's test Assessment



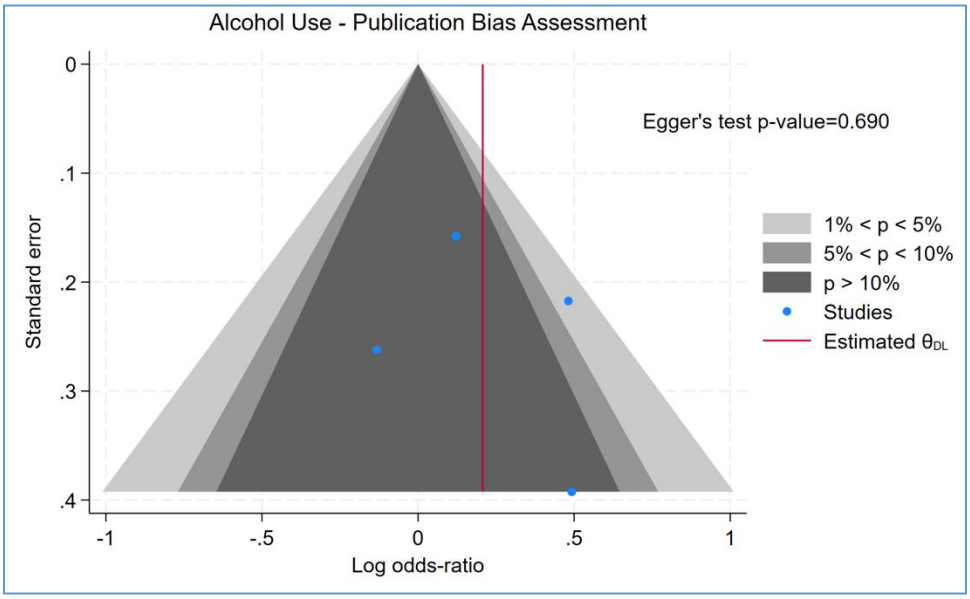
Supplementary Figure 25-b: MHT Use – Trim and Fill Plot



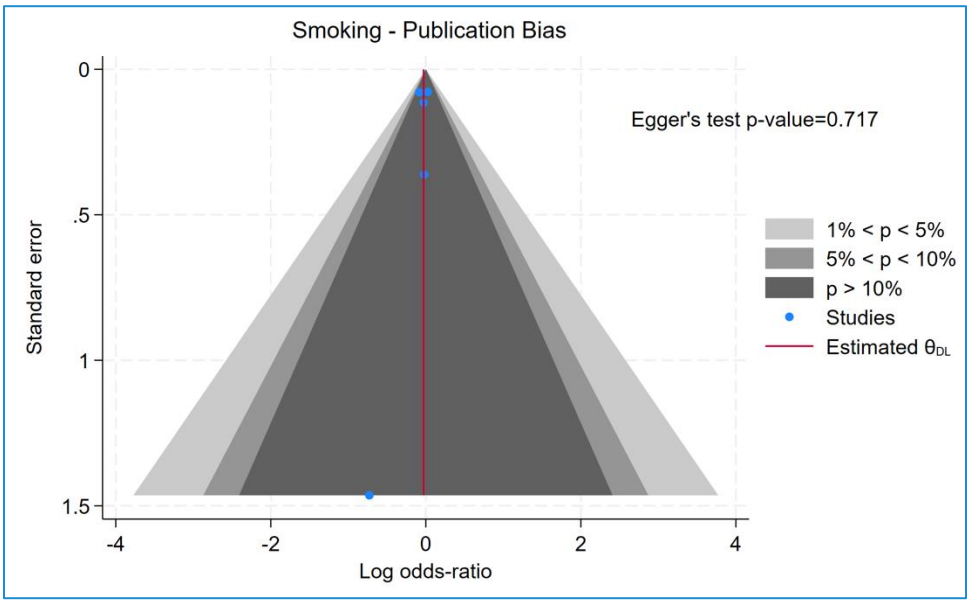
Supplementary Figure 26: Family History - Contour Funnel Plot & Egger's test Assessment



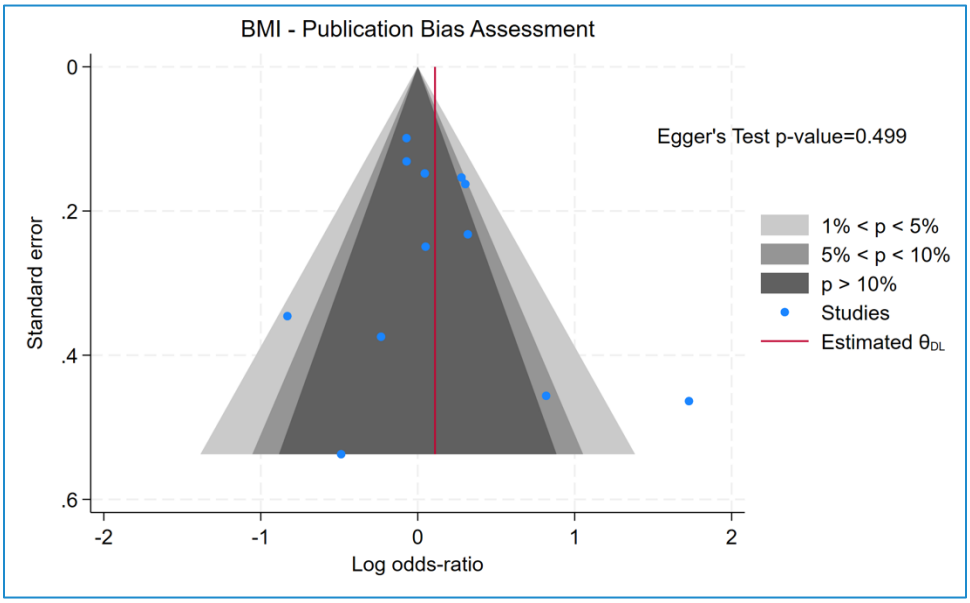
Supplementary Figure 27: Alcohol - Contour Funnel Plot & Egger's test Assessment



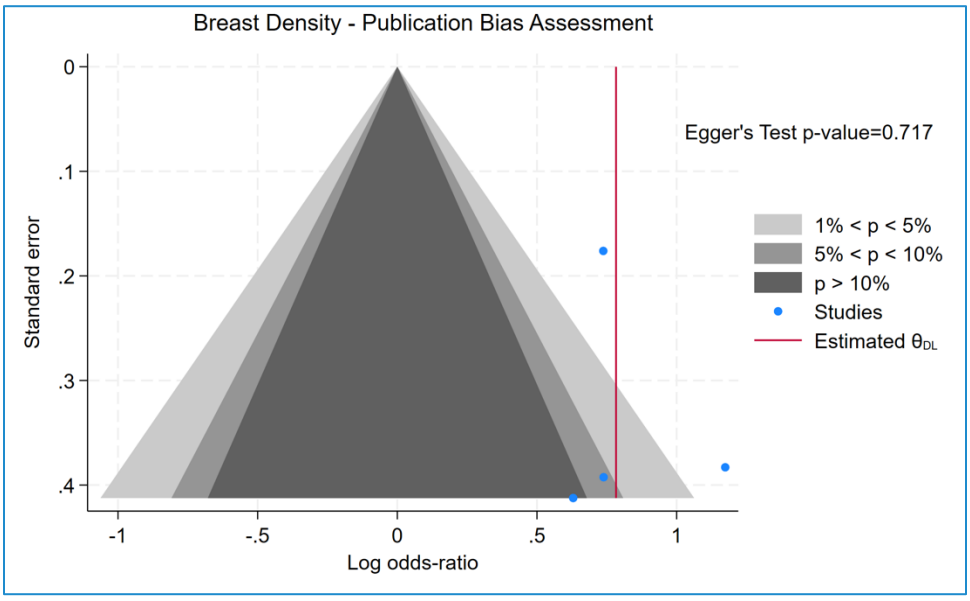
Supplementary Figure 28: Smoking - Contour Funnel Plot & Egger's test Assessment



Supplementary Figure 29: BMI - Contour Funnel Plot & Egger's test Assessment



Supplementary Figure 30: Breast Density - Contour Funnel Plot & Egger's test Assessment



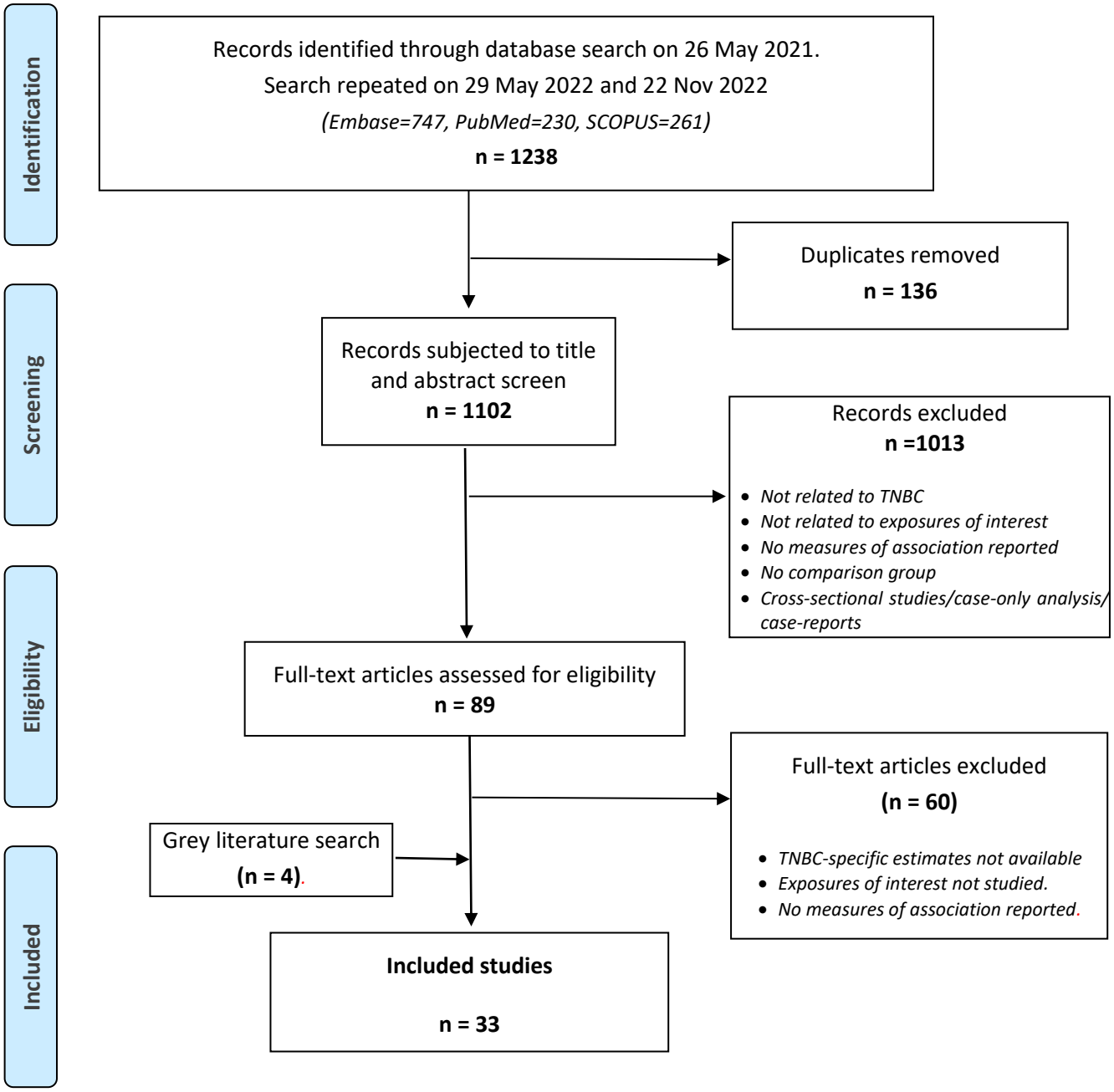
Supplementary Table 1: PRISMA Checklist

#	Item	Guidance	On page #	Author Comments
Title				
1	Title	Identify the report as a systematic review, or systematic review and meta-analysis, as appropriate.	Title page	
Abstract				
2	Structured summary	Provide a structured summary including, as applicable: • Background; • Objectives; • Data sources; • Study eligibility criteria, participants, and interventions; • Study appraisal and synthesis methods; • Results; • Limitations; conclusions and implications of key findings; • Systematic review registration number.	2	
Introduction				
3	Rationale	Describe the rationale for the review in the context of what is already known.	3	
4	Objectives	Provide an explicit Population-Intervention-Comparator-Outcome-Study Design (PICOS) or Population-Exposure-Comparator-Outcome-Study Design (PECOS) statement as appropriate, detailing the following in relation to the research questions being asked: • Participants • Interventions / Exposures (as appropriate) • Comparisons • Outcomes • Study design	3	
Methods				
5	Protocol and registration	Indicate if a review protocol exists, if and where it can be accessed (e.g. web address), and registration information including registration number (if available).	3	Protocol Regisstration number: PROSPERO 2021 CRD42021254594
6	Eligibility criteria	Specify study characteristics (e.g. PICOS/PECOS, length of exposure) and report characteristics (e.g. years considered, language, publication status) used as criteria for eligibility, giving rationale.	4	

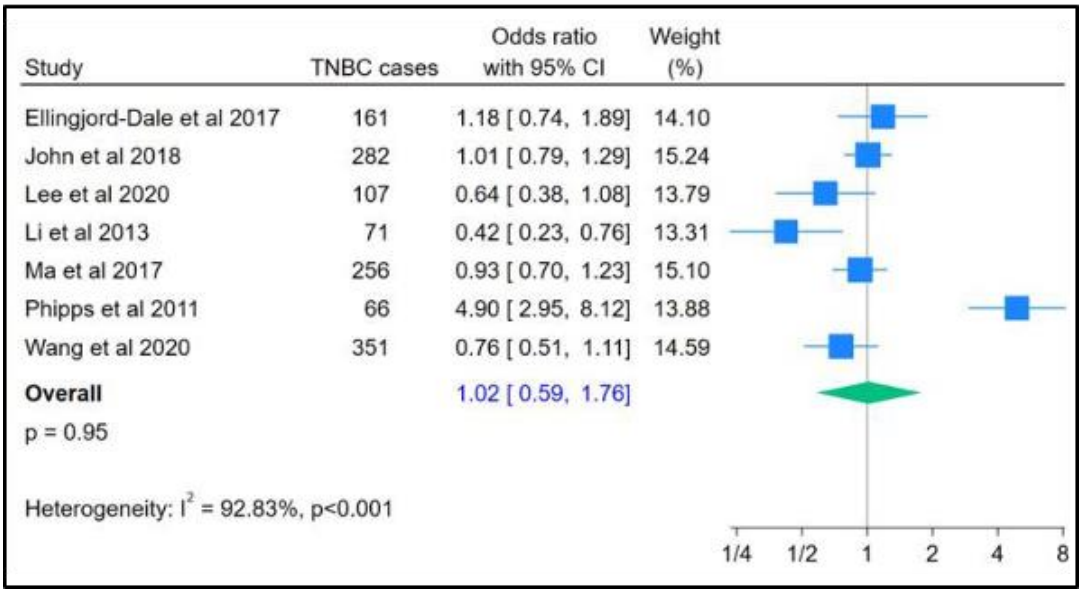
7	Information sources	Describe all information sources (e.g. databases with dates of coverage, contact with study authors to identify additional studies) in the search, and date last searched.	3	
8	Search	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	3	
9	Study selection	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	4	
10	Data collection process	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	5	
11	Data items	List and define all variables for which data were sought (e.g., PICOS/PECOS, funding sources) and any assumptions and simplifications made.	5	
12	Risk of bias in individual studies	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	5	
13	Summary measures	State the principal summary measures (e.g., risk ratio, difference in means).	5	
14	Synthesis of results	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	5	
15	Risk of bias across studies	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	5	
16	Additional analyses	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	5	
Results				
17	Study selection	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, illustrated with a PRISMA flow diagram.	6	
18	Study characteristics	For each study, present in a summary table the characteristics for which data were extracted (e.g., study size, PICOS/PECOS, follow-up period) and provide the citations.	6	
19	Risk of bias within studies	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	6	
20	Results of individual studies	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot (unless such a plot would be misleading)	6 to 8	
21	Synthesis of results	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	6 to 8	
22	Risk of bias across studies	Present results of any assessment of risk of bias across studies (see Item 15).	12	

23	Additional analysis	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	6 to 8	
24	Summary of evidence	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., researchers, users, and policy makers).	9	
25	Limitations	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	10 and 11	
26	Conclusions	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	11	
27	Funding	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	18	

Supplementary Figure 31: Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) Indicating Identification and Selection of Studies.



Supplementary Figure 32: Odds of TNBC in those with >=12 months of breastfeeding vs. 0 months.



Supplementary Figure 33: Odds of TNBC in those who ever used OC vs. those who never did.