

**Table S1 - search strategies**

MEDLINE	<p>#1 economic evaluation OR economic analys* OR cost analys* OR cost effective* analys* OR cost-effective* analys* OR cost benefit* analys* OR cost utility* analys* OR cost-benefit* analys* OR cost-utility* analys*</p> <p>#2 postpartum OR post-partum OR post partum  #3 postnatal OR post natal OR post-natal  #4 perinatal OR peri natal OR peri-natal  #5 antepartum OR ante partum OR ante-partum  #6 pregnan*  #7 #2 OR #3 or #4 or #5 or #6</p> <p>#8 depress* OR anxi*  #9 #8 AND #7</p> <p>#10 #1 AND #9</p> <p>#11 Limit #10 to yr=2000-Current</p> <p>#12 #11 NOT cattle [ti] OR karyotyping[ti] OR aneuploid*[ti] OR smoking cessation[ti] OR tobacco cessation[ti]</p>
PsycINFO	<p>#1 anxi* OR depress*</p> <p>#2 postnatal OR post natal OR post-natal  #3 postpartum OR post-partum OR post partum  #4 antenatal OR ante natal OR ante-natal  #5 perinatal OR peri natal OR peri-natal  #6 antepartum OR ante partum OR ante-partum  #7 pregnan*  #8 #2 OR #3 OR #4 OR #5 OR #6 OR #7  #9 #1 AND #8  #10 cost analy* or *economic* or cost effective* or cost-effective* or cost benefit* or cost utility* or cost-benefit* or cost-utility*  #11 #9 AND #10  #12 Limit #11 to (all journals and yr="2000-Current")</p>
NHS EED/HTA	<p>*Title search*</p> <p>(depress* OR anxi*) AND ((postpartum OR post-partum OR post partum) OR (postnatal OR post natal OR post-natal) OR (perinatal OR peri natal OR peri-natal) OR (antepartum OR ante partum OR ante-partum) OR pregnan*)</p>

**Table S2** - Data extraction and quality assessment form

<b>Subject of the study</b>	
Intervention(s)	
Comparator(s)	
Intervention type	
Disease	
Study question/hypothesis	
<b>Key elements of the study</b>	
Type of economic analysis	
Study population	
Details of model (if applicable)	
Setting	
Country	
Dates to which data relate	
Link between cost and health benefit data	
<b>Clinical evidence</b>	
Clinical and epidemiological inputs	
Data sources	
Methods to obtain data	
<b>Measures of health benefit</b>	
Summary measure of health benefit	
Method of utility valuation	
Time horizon	
Discount rate for health benefit	
<b>Direct costs</b>	
Direct costs included	
Who bears the direct costs?	
Source of resource use data	
Resource use reported separately from costs	
Sources of unit prices	
Currency and price year	
Adjustment for inflation; other adjustments	
Costs excluded	
Time horizon	
Discount rate for direct costs	
<b>Indirect costs</b>	
Inclusion of indirect (productivity)	
Source of cost and quantity data	
Resource use reported separately from costs	
Time horizon	
Discounting of indirect costs	
<b>Statistical analysis of costs</b>	
Descriptive statistics/point estimates reported	
Significance testing reported	
Study powered to detect differences in cost	
<b>Analysis of uncertainty</b>	
<i>If model:</i> exploration of parameter uncertainty	

<i>If model:</i> exploration of structural uncertainty	
<i>All studies:</i> exploration of alternative subgroups / settings	
<b>Estimated benefits</b>	
Total benefit: intervention arm(s)	
Total benefit: comparator arm(s)	
Net (incremental) benefit	
Result of statistical test for difference in benefits	
Were adverse effects included?	
<b>Estimated costs</b>	
Total cost: intervention arm(s)	
Total cost: comparator arm(s)	
Net (incremental) cost (intervention versus comparator)	
Result of statistical test for difference in costs	
Did the duration of costs match the time horizon?	
<b>Synthesis of benefits &amp; costs, and conclusions</b>	
Synthesis of benefits and costs conducted (e.g. ICER)	
ICER	
Probability cost-effective	
Important differences in results for subgroups or sensitivity analyses	
Summary of authors' conclusions	
<b>Critical review</b>	
Is the choice of comparator suitably justified?	
<i>If model:</i> was the model structure suitable?	
<i>If model:</i> was a model schematic presented?	
<i>If model:</i> was the model adequately reported?	
Validity of primary effectiveness data	
Validity of secondary effectiveness data	
Validity of estimated health benefit	
Validity of estimated costs	
Do the authors discuss the generalisability of their findings?	
Do the authors compare their findings to previous studies?	
Are the authors' conclusions justified?	
<b>Implications</b>	
Do the authors describe policy implications of their findings? Are they appropriate?	

**Table S3** - Criteria list for assessment of methodological quality of economic evaluations:  
Consensus on Health Economic Criteria [9]

	Boath (2003) [1]	Petrou (2006) [2]	Morrell (2009) [3]	Stevenson (2010) [4]	Dukhovny (2013) [5]	Ride (2016) [6]	Grote (2017) [7]	Wilkinson (2017) [8]
1. Is the study population clearly described?	✓	✓	✓	✓	✓	✓	✓	✓
2. Are competing alternatives clearly described?	✗	✓	✓	✓	✓	✓	✓	✓
3. Is the economic study design appropriate to the stated objective?	✓	✓	✓	✓	✓	✓	✓	✓
4. Is the chosen time horizon appropriate to include relevant costs and consequences?	✓	✓	✓	✓	✗	✗	✓	✓
5. Is the actual perspective chosen appropriate?	✓	✓	✓	✓	✓	✓	✓	✓
6. Are all important and relevant costs for each alternative identified?	✓	✓	✓	✓	✓	✓	✗	✓
7. Are all costs measured appropriately?	✓	✓	✓	✓	✓	✓	✓	✓
8. Are costs valued appropriately?	✓	✓	✓	✓	✓	✓	✓	✓
9. Are all important and relevant outcomes for each alternative identified?	✓	✓	✓	✓	✓	✓	✓	✓
10. Are all outcomes measured appropriately?	✓	✓	✓	✓	✓	✓	✓	✓
11. Are outcomes valued appropriately?	✗	✗	✓	✓	✗	✓	✗	✓
12. Is an incremental analysis of costs and outcomes of alternatives performed?	✗	✓	✓	✓	✓	✓	✓	✓
13. Are all future costs and outcomes discounted appropriately?	✓	✓	✓	✓	✓	✓	✗	✓
14. Are all important variables, appropriately subjected to sensitivity analysis?	✗	✓	✓	✓	✓	✓	✗	✓
15. Do the conclusions follow from the data reported?	✓	✓	✓	✓	✓	✓	✓	✓
16. Does the study discuss the generalizability of the results to other settings and patient/client groups?	✓	✗	✓	✗	✓	✗	✗	✓

	Boath (2003)	Petrou (2006)	Morrell (2009)	Stevenson (2010)	Dukhovny (2013)	Ride (2016)	Grote (2017)	Wilkinson (2017)
17. Does the article indicate that there is no potential conflict of interest of study researcher(s) and funder(s)?	✓	✗	✓	✗	✗	✓	✓	✗
18. Are ethical and distributional issues discussed appropriately?	✗	✓	✓	✓	✓	✓	✗	✓
TOTAL SCORE	13	15	18	16	15	16	12	17
<p>Each criteria met is awarded one point: 15 or greater = high quality, 8-14 = average quality, less than 8 = poor quality.  Item 13 – studies where discounting is not applicable (i.e. time horizon less than one year) have been assumed to meet criteria.</p>								

**Table S4** - Currency conversion and inflation rates applied

	<b>Price year in study</b>	<b>Original currency</b>	<b>Exchange rate#</b>	<b>HCHS year</b>	<b>HCHS index (1987/88 = 100.0)</b>	<b>HCHS inflation factor to 2015/16*</b>
Boath (2003) [1]	1992/93	GBP	n/a	1992/93	150.3	1.98
Petrou (2006) [2]	2000	GBP	n/a	1999/2000	188.5	1.58
Morrell (2009) [3]	2003/04	GBP	n/a	2003/04	225.6	1.32
Stevenson (2010) [4]	2010	GBP	n/a	2009/10	268.6	1.11
Dukhovny (2013) [5]	2011	Canadian \$	0.63	2010/11	276.7	1.07
Ride (2016) [6]	2013/14	Australian \$	0.59**	2013/14	290.5	1.02
Grote (2017) [7]	2013	US \$	0.64	2012/13	287.3	1.03
Wilkinson (2017) [8]	2014	US \$	0.61	2013/14	290.5	1.02

GBP = Great British Pound/United Kingdom £ sterling; US = United States

#per 1GBP;

\*HCHS index 2015/16 = 297.0

\*The exchange rate between Australian dollars (\$) and GBP was notably different in 2013 (0.62 \$/£) and 2014 (0.55 \$/£) therefore the midpoint (0.59 \$/£) was used.

**Table S5 - reasons for exclusion of full texts screened**

Title	Year	Lead author	Reason
A randomized comparison of home and clinic follow-up visits after early postpartum hospital discharge.	2000	Lieu [10]	No economic evaluation reported
Costs and effectiveness of community postnatal support workers: a randomised controlled trial.	2000	Morrell [11]	No economic evaluation reported
Costs and benefits of community postnatal support workers: a randomised controlled trial.	2000	Morrell [12]	Duplicate - HTA report for same study reported elsewhere
The treatment of postnatal depression by health visitors: impact of brief training on skills and clinical practice.	2003	Appleby [13]	No economic evaluation reported
The Social Support and Family Health Study: a randomised controlled trial and economic evaluation.	2004	Wiggins [14]	No economic evaluation reported
Improving infant sleep and maternal mental health: a cluster randomised trial.	2007	Hiscock [15]	No economic evaluation reported
Stepped care treatment of postpartum depression: A primary care-based management model.	2008	Gjerdingen [16]	No economic evaluation reported
Screening for postnatal depression within the Well Child Tamariki Ora Framework.	2008	Sueb Wongpat [17]	Intervention – screening only
Screening for postnatal depression in primary care: Cost effectiveness analysis.	2009	Paulden [18]	Intervention – screening only
Postpartum follow-up: can psychosocial support reduce newborn readmissions?	2010	Barilla [19]	Intervention - aim of intervention not related to anxiety/depression, no measure of anxiety/depression collected
A model for maternal depression.	2010	Connelly [20]	No economic evaluation reported, review of existing evidence
A pragmatic randomised controlled trial to compare antidepressants with a community-based psychosocial intervention for the treatment of women with postnatal depression: the RESPOND trial	2010	Sharp [21]	No economic evaluation reported
Group cognitive behavioural therapy for postnatal depression: a systematic review of clinical effectiveness, cost-effectiveness and value of information analyses.	2010	Stevenson [22]	Duplicate - HTA report for same study reported elsewhere
Supporting women with postnatal depression through psychological therapies	2011	Centre for Reviews and Dissemination [23]	No economic evaluation reported, review of existing evidence

Peer support and interpersonal psychotherapy groups experienced decreased prenatal depression, anxiety and cortisol.	2013	Field [24]	No economic evaluation reported
Effects of an infant-focused relationship-based hospital and home visiting intervention on reducing symptoms of postpartum maternal depression: A pilot study.	2014	Nugent [25]	No economic evaluation reported
Antidepressant treatment of depression during pregnancy and the postpartum period	2014	McDonagh [26]	No economic evaluation reported, review of existing evidence
Enhanced engagement: An intervention pilot for mental health promotion among low-income women in a community home visiting program.	2015	Price [27]	Patient group - not restricted to the postpartum period
Perinatal depression and child development: exploring the economic consequences from a South London cohort.	2015	Bauer [28]	Intervention - observational study, no intervention
Improving perinatal depression care: The Massachusetts Child Psychiatry Access Project for Moms.	2016	Byatt [29]	No economic evaluation reported, no comparator intervention

## References

1. Boath E, Major K, Cox J. When the cradle falls II: the cost-effectiveness of treating postnatal depression in a psychiatric day hospital compared with routine primary care. *J. Affect. Disord.* Elsevier; 2003;74:159–66.
2. Petrou S, Cooper P, Murray L, Davidson LL. Cost-effectiveness of a preventive counseling and support package for postnatal depression. *Int. J. Technol. Assess. Health Care.* Cambridge Univ Press; 2006;22:443–53.
3. Morrell CJ, Warner R, Slade P. Psychological interventions for postnatal depression: cluster randomised trial and economic evaluation. The PoNDER trial. *Health Technol. Assess. (Rockv).* 2009;13:1–153.
4. Stevenson MD, Scope A, Sutcliffe PA. The cost-effectiveness of group cognitive behavioral therapy compared with routine primary care for women with postnatal depression in the UK. *Value Heal.* Wiley Online Library; 2010;13:580–4.
5. Dukhovny D, Dennis CL, Hodnett E, Weston J, Stewart DE, Mao W, et al. Prospective economic evaluation of a peer support intervention for prevention of postpartum depression among high-risk women in Ontario, Canada. *Am. J. Perinatol.* Thieme Medical Publishers; 2013;30:631–42.
6. Ride J, Lorgelly P, Tran T, Wynter K, Rowe H, Fisher J. Preventing postnatal maternal mental health problems using a psychoeducational intervention: the cost-effectiveness of What Were We Thinking. *BMJ Open.* 2016;6:e012086.
7. Grote NK, Simon GE, Russo J, Lohr MJ, Carson K, Katon W. Incremental Benefit-Cost of MOMCare: Collaborative Care for Perinatal Depression Among Economically Disadvantaged Women. *Psychiatr. Serv. Am Psychiatric Assoc;* 2017;appi – ps.
8. Wilkinson A, Anderson S, Wheeler SB. Screening for and Treating Postpartum Depression and Psychosis: A Cost-Effectiveness Analysis. *Matern. Child Health J.* 2017;21:903–14.
9. Evers S, Goossens M, de Vet H, van Tulder M, Ament A. Criteria list for assessment of methodological quality of economic evaluations: Consensus on Health Economic Criteria The authors thank the following persons for their participation in the Delphi panel. *Int. J. Technol. Assess. Health Care.* 2005;21:240–5.
10. Lieu TA, Braveman PA, Escobar GJ, Fischer AF, Jensvold NG, Capra AM. A Randomized Comparison of Home and Clinic Follow-Up Visits After Early Postpartum Hospital Discharge. *Pediatrics.* 2000;105:1058–65.



11. Morrell CJ, Spiby H, Stewart P, Walters S, Morgan A. Costs and effectiveness of community postnatal support workers: randomised controlled trial. *Bmj. British Medical Journal Publishing Group*; 2000;321:593–8.
12. Morrell CJ, Spiby H, Stewart P, Walters S, Morgan A. Costs and benefits of community postnatal support workers: A randomised controlled trial. *Health Technol. Assess. (Rockv)*. 2000;4.
13. Appleby L, Asherson P, Aznar C, Bebbington P, Bridges S, Brugha T, et al. Mental Health and Wellbeing in England. *Adult Psychiatric Morbidity Survey 2014*.
14. Wiggins M, Oakley A, Roberts I, Turner H, Rajan L, Austerberry H, et al. The Social Support and Family Health Study: a randomised controlled trial and economic evaluation of two alternative forms of postnatal support for mothers living in disadvantaged inner-city areas. *Health Technol. Assess.* 2004;8:iii – iix.
15. Hiscock H, Bayer J, Gold L, Hampton A, Ukoumunne OC, Wake M. Improving infant sleep and maternal mental health: A cluster randomised trial. *Arch. Dis. Child.* 2007;92:952–8.
16. Gjerdingen D, Katon W, Rich DE. Stepped Care Treatment of Postpartum Depression. A Primary Care-Based Management Model. *Women’s Heal. Issues.* 2008;18:44–52.
17. Suebwongpat A, Standfield L, Campbell S, Norris S. Screening for postnatal depression within the Well Child Tamariki Ora Framework. 2008.
18. Paulden M, Palmer S, Hewitt C, Gilbody S. Screening for postnatal depression in primary care: cost effectiveness analysis. *Bmj. British Medical Journal Publishing Group*; 2009;339:b5203.
19. Barilla D, Marshak HH, Anderson SE, Hopp JW. Postpartum follow-up: Can psychosocial support reduce newborn readmissions? *MCN Am. J. Matern. Nurs.* 2010;35:33–9.
20. Connelly CD, Baker-Ericzen MJ, Hazen AL, Landsverk J, Horwitz SM. A Model for Maternal Depression. *J. Women’s Heal.* 2010;19:1747–57.
21. Sharp DJ, Chew-Graham C, Tylee A, Lewis G, Howard L, Anderson I, et al. A pragmatic randomised controlled trial to compare antidepressants with a community-based psychosocial intervention for the treatment of women with postnatal depression: the RESPOND trial. *Health Technol. Assess.* 2010;14:iii – iv, ix – xi, 1–153.
22. Stevenson M, Scope A, Sutcliffe P, Booth A, Slade P, Parry G, et al. Group cognitive behavioural therapy for postnatal depression: a systematic review of clinical effectiveness, cost effectiveness and value of information analyses. *Health Technol. Assess. (Rockv). NIHR Health Technology Assessment programme*; 2010;14:1–135.
23. Centre for Reviews and Dissemination. Supporting women with postnatal depression through psychological therapies: Evidence Briefing. 2011.
24. Field T, Diego M, Delgado J, Medina L. Peer support and interpersonal psychotherapy groups experienced decreased prenatal depression, anxiety and cortisol. *Early Hum. Dev.* 2013. p. 621–4.
25. Nugent JK, Bartlett JD, Valim C. Effects of an infant-focused relationship-based Hospital and home visiting intervention on reducing symptoms of postpartum maternal depression: A pilot study. *Infants Young Child.* 2014;27:292–304.
26. McDonagh M, Matthews A, Phillipi C, Romm J, Peterson K, Thakurta S, et al. Antidepressant treatment of depression during pregnancy and the postpartum period (Provisional abstract). *Database Abstr. Rev. Eff.* 2014;1.
27. Price SK, Gray LA, Thacker LR. Enhanced engagement: An intervention pilot for mental health promotion among low-income women in a community home visiting program. *Best Pract. Ment. Heal. An Int. J.* 2015;11:69–82.
28. Bauer A, Pawlby S, Plant DT, King D, Pariante CM, Knapp M. Perinatal depression and child development: Exploring the economic consequences from a South London cohort. *Psychol. Med.* 2015;45:51–61.
29. Byatt N, Biebel K, Moore Simas TA, Sarvet B, Ravech M, Allison J, et al. Improving perinatal depression care: The Massachusetts Child Psychiatry Access Project for Moms. *Gen. Hosp. Psychiatry.* 2016;40:12–7.