

Appendix F

Excluded studies

Population subgroup: Women misusing substances, their partners and families

First round exclusions (excluded from all questions)

Reference	Reason for exclusion
Asante et al. Pregnancy outreach program in British Columbia: The prevention of alcohol-related birth defects. 1990. Canadian Journal of Public Health 81[1], 76-77Canada.	A programme report, An opinion paper.
Al-Nasser et al. Providing antenatal services in a primary health care system. 1994. Journal of Community Health 19[2], 115-123United States.	Wrong population, not examining provision of services to substance misusing pregnant women.
Ashley et al. Effectiveness of substance abuse treatment programming for women: A review. 2003. American Journal of Drug and Alcohol Abuse 29[1], 19-53	Not related to pregnancy and antenatal care.
Astley. Fetal alcohol syndrome prevention in Washington State: evidence of success. 2004. Paediatric and Perinatal Epidemiology 18[5], 344-351	A descriptive survey study with no comparison group and no reported barriers to care.
Belizan et al. Impact of health education during pregnancy on behavior and utilization of health resources. Latin American Network for Perinatal and Reproductive Research. 1995. American Journal of Obstetrics and Gynecology 173[3 Pt 1], 894-899	Not specifically a substance misuse population. No subgroup analysis for substance misusers.
Bowler. Further Notes on Record Taking and Making in Maternity Care: The Case of South Asian Descent Women. 1995. The Sociological Review 43[1], 36-51	Not related to substance misuse population.
Bowler. 'They're not the same as us': midwives' stereotypes of South Asian descent maternity patients. 1993. Sociology of Health and Illness 15[2], 157-178	Not related to substance misuse population.
Bray et al. A primary health care approach using Hispanic outreach workers as nurse extenders. 1994. Public Health Nursing 11[1], 7-11	Not related to substance misuse population.
Byrd. Correlates of prenatal care initiation among low-income hispanic women. 1995. Dissertation Abstracts International Section A: Humanities and Social Sciences 55[12-A], 3753	Not addressing service provision or any outcomes of interest.
Calabro et al. Pregnancy, alcohol use and the effectiveness of written health education materials. 1996. Patient Education and Counseling 29[3], 301-309	Not substance misusing women.
Camp et al. Parenting training for women in residential substance abuse treatment: Results of a demonstration project. 1997. Journal of Substance Abuse Treatment 14[5], 411-422United States.	Only 40% of women in the study group were pregnant.

Reference	Reason for exclusion
Centre for Reviews and Dissemination. Effectiveness of substance abuse treatment programming for women: a review (Provisional record). 2008. Database of Abstracts of Reviews of Effects [3]	A provisional abstract paper.
Corrarino et al. Linking substance-abusing pregnant women to drug treatment services: a pilot program. 2000. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 29[4], 369-376	Not addressing outcomes of interest. Outcome was measured in terms of success of substance abuse treatment programme by the means of Addiction Severity Index (ASI) scores rather than pregnancy outcome.
Eriksson et al. Amphetamine addiction and pregnancy. II. Pregnancy, delivery and the neonatal period. Socio-medical aspects. 1981. Acta Obstetrica et Gynecologica Scandinavica 60[3], 253-259Sweden.	Does not consider antenatal service interventions. No outcomes of interest.
Flavin. A glass half full? Harm reduction among pregnant women who use cocaine. 2002. Journal of Drug Issues 32[3], 973-998	Does not consider antenatal service interventions. No outcomes of interest.
Freda MC et al. What do we know about how to enrol and retain pregnant drug users in prenatal care? Journal of women's health vol.4, no.1, 1995.	Non-systematic literature review. All included studies checked against inclusion criteria and assessed individually if appeared relevant.
Funkhouser et al. Prenatal care and drug use in pregnant women. 1993. Drug and Alcohol Dependence 33[1], 1-9	Does not focus on access and uptake, additional information, consultations or support. An overview of screening strategies.
Grella CE and Greenwell L. Substance abuse treatment for women: changes in the settings where women received treatment and types of services provided, 1987-1998. Journal of Behavioral Health Services and Research 2004, 31 (4), 367-383	Does not examine antenatal service interventions nor barriers to care. Survey of services available.
Gazaway et al. Prenatal care delivered in a drug abuse setting: Birth outcomes compared to ACOG standards. 1993. NIDA Research Monograph Series [132], 301United States.	Does not examine antenatal service interventions nor barriers to care. Describes the effects of drug use on pregnancy outcomes.
Heil SH and Linares Scott TJ. Voucher-based reinforcement therapy for drug-dependent pregnant women. Heroin Addict Relat Clin Probl 2007; 9(2):27-38	A non systematic review of studies using vouchers to encourage abstinence. Three of the included studies with desired outcomes are already included in our review, with the rest not addressing any questions and having no outcomes of interest.
Higgins et al. Changes in health behaviours made by pregnant substance users. 1995. International Journal of the Addictions 30[10], 1323-1333	Does not examine antenatal service interventions nor barriers to care.
Higgins et al. Voucher-based incentives: A substance abuse treatment innovation. 2002. Addictive Behaviors 27[6], 887-910United Kingdom.	Not related to antenatal care. Study population in most of the included studies are both men and women, only one study examines voucher-based incentives in promoting "smoking" abstinence among pregnant women.
Hodnett ED. Support during pregnancy for women at increased risk of low birth weight babies. 2003. The Cochrane Database of Systematic Reviews. Issue 3	Wrong population, not looking specifically at substance misuse.
Howell et al. A review of recent findings on substance abuse treatment for pregnant women. 1999. Journal of Substance Abuse Treatment 16[3], 195-219	Non-systematic review. All included studies checked against inclusion criteria and assessed individually if appeared relevant.
Huntimer. The utilization of antenatal care in the prevention and intervention of the consequences of parental alcohol use. 1987. South Dakota Journal of Medicine 40[7], 25-30	An opinion paper.

Reference	Reason for exclusion
Hyssala et al. Fathers' smoking and use of alcohol: The viewpoint of maternity health care clinics and well-baby clinics. 1995. Family Practice 12[1], 22-27United Kingdom.	Wrong population.
Jansson et al. Pregnancy and addiction. A comprehensive care model. 1996. Journal of Substance Abuse Treatment 13[4], 321-329	No comparison group, no barriers reported. Descriptive paper which does not address any of the clinical questions. The paper does mention findings from a related study reported as conference proceedings, Svikis et al, 1996, where a matched cohort comparison is reported. This does not relate to the present study however.
Kearney et al. Salvaging self: a grounded theory of pregnancy on crack cocaine. 1995. Nursing Research 44[4], 208-213	No outcomes of interest.
Kukko,H.; Halmesmaki,E. Prenatal care and counselling of female drug abusers: effect on drug abuse and perinatal outcome. 1990. Acta Obstetrica et Gynecologica Scandinavica 78: 22-26	Inappropriate comparison group, namely women who received the intervention and stopped misusing drugs were compared with those who also received the intervention but did not stop misusing drugs.
Kvigne et al. Alcohol use, injuries, and prenatal visits during three successive pregnancies among American Indian women on the northern plains who have children with Fetal alcohol syndrome or incomplete fetal alcohol syndrome. 2008. Maternal and Child Health Journal 12[SUPPL. 1], S37-S45United States.	No intervention relating to antenatal services and no barriers reported.
Meberg et al. Moderate alcohol consumption--need for intervention programs in pregnancy? 1986. Acta Obstetrica et Gynecologica Scandinavica 65[8], 861-864	No outcomes of interest. Outcome is not related to access or uptake of the services or any obstetrical/neonatal measures rather the study examines difference in the amount of alcohol consumption.
Mehl-Madrona LE. Psychosocial prenatal intervention to reduce alcohol, smoking and stress and improve birth outcome among minority women. Journal of prenatal and perinatal psychology and health, 14(3-4) 2000	Not specifically for substance misuse population.
Morrison et al. Beliefs about Substance Use among Pregnant and Parenting Adolescents. 1998. Journal of Research on Adolescence 8[1], 69-95	There is no specific intervention (participants were recruited from various programmes), no comparison group, no barriers reported.
Myles et al. Effects of smoking, alcohol, and drugs of abuse on the outcome of 'expectantly' managed cases of preterm premature rupture of membranes. 1998. Journal of Maternal-Fetal Medicine 7[3], 157-FetalUnited States.	Descriptive study which does not address antenatal service interventions or barriers to care.
Olds et al. Effects of home visits by paraprofessionals and by nurses: age 4 follow-up results of a randomized trial. 2004. Pediatrics 114[6], 1560-1568	No subgroup analysis for substance using pregnant women.
Pry. Problems of implementing and coordinating a programmed project grant on drug addiction. 1978. Journal of Reproductive Medicine 20[6], 337-339	An opinion paper.
Rees. The drugs in pregnancy service. 1995. Addiction 90[1], 144-145	An opinion paper.
Reiskin. Involving the target population and their providers in evaluation of substance abuse videos. 1992. Nursing connections 5[4], 47-54	An opinion paper.
Rosensweig. Reflections on the Center for Substance Abuse Prevention's pregnant and postpartum women and their infants program.	An opinion paper. Author's personal experience of involvement in a different substance abuse prevention programmes.

Reference	Reason for exclusion
1998. Womens Health Issues 8[4], 206-207	
Schorling, J.B. The Prevention of Prenatal Alcohol Use : A Critics Analysis of Intervention Studies. Journal of studies on alcohol. 1993, val54. issue 3. p261-267	Review of five studies, not systematically reviewed. All included studies checked against inclusion criteria and assessed individually if appeared relevant
Schumacher et al. Measuring self-efficacy in substance abuse intervention in obstetric practices. 2000. Southern Medical Journal 93[4], 406-414	Does not address any antenatal service intervention, nor barriers to care.
Sheffet et al. A model for drug abuse treatment program evaluation. 1973. Preventive Medicine 2[4], 510-523	Predominantly non-pregnant population (>50%), not addressing any issues of service provision or outcomes of interest.
Silverman et al. A reinforcement-based Therapeutic Workplace for the treatment of drug abuse: Six-month abstinence outcomes. 2001. Experimental and clinical psychopharmacology 9[1], 14-23United States.	Not related to antenatal care.
Silverman et al. Toward application of the Therapeutic Workplace: Reply to Higgins (2001), Marlatt (2001), McLellan (2001), and Petry (2001). 2001. Experimental and clinical psychopharmacology 9[1], 35-39United States.	A description of the "therapeutic workplace" programme. An opinion paper.
Smith et al. Characteristics of non-referred cocaine abusing mothers. 1989. NIDA Research Monograph Series 330),#1989. Date of Publication[95]United States.	An opinion paper.
Smith et al. Pharmacologic Interventions for Pregnant Women Enrolled in Alcohol Treatment. 2009. Cochrane Database of Systematic Reviews [3]	No intervention relating to antenatal care, no barriers reported.
Starn et al. Can we encourage pregnant substance abusers to seek prenatal care? 1993. MCN, American Journal of Maternal Child Nursing 18[3], 148-152	Non-comparative description of service organization and early results after the first year of data collection. No barriers reported.
Stichler et al. Examining the "cost" of substance abuse in pregnancy: patient outcomes and resource utilization. 1998. Journal of Perinatology 18[5], 384-388	Not addressing any antenatal service interventions relating to the clinical questions nor barriers to care.
Stuffet et al. Pregnant addicts in a comprehensive care program: Results of a follow-up survey. 1981. American Journal of Orthopsychiatry 51[2], 297-306	A follow up survey with no comparison group. No barriers reported.
Svikis et al. Cost-effectiveness of treatment for drug-abusing pregnant women. 1997. Drug and Alcohol Dependence 45[1-2], 105-2Ireland.	Addresses the cost effectiveness of treatment. Passed to health economist.
Tavris et al. Evaluation of a pregnancy outcome risk reduction program in a local health department. 2000. WMJ 99[2], 47-51	No comparison group. No barriers reported.
Waterson E et al. Preventing fetal alcohol effects: A trial of three methods of giving information in the antenatal clinic. 1990. Health Education Research 5[1], 53-61	Not alcohol or substance misusing population.
Wright et al. Management of women who use drugs during pregnancy. 2007. Seminars In Fetal and Neonatal Medicine 12[2], 114-118United Kingdom.	An opinion paper.
Zungolo. Commentary on The prevention of prenatal alcohol use: a critical analysis of intervention studies. 1993. AWHONN's Women's Health Nursing Scan 7[6], 16	A review of Schlorling (1992) paper (also excluded).

Q.1a. What aspects of service organisation and delivery are effective at improving access to antenatal services for women misusing substances?

Reference	Reason for exclusion
Andrus et al. Analyzing strategies for developing a prenatal health care outreach program to reduce social and cultural barriers. 1997. Journal of Health and Human Services Administration 20[2], 230-241United States.	Descriptive study of the process and conflicts involved in the initial stages of development of an outreach intervention program. No outcomes of interest.
Clark et al. Treatment Compliance among Prenatal Care Patients with Substance Abuse Problems. 2001. The American journal of drug and alcohol abuse 27[1], 121-136	Outcomes are measured as compliance rate of substance abuse treatment programme rather the antenatal care.
FitzSimmons et al. Pregnancy in a drug-abusing population. 1986. American Journal of Drug and Alcohol Abuse 12[3], 247-255	Description of a programme with no comparison group.
Haller et al. Perinatal substance abusers: Factors influencing treatment retention. 1997. Journal of Substance Abuse Treatment 14[6], 513-519United States.	No comparison group.
Johnston et al. The Community Perinatal Care Study: home visiting and nursing support for pregnant women. 2006. Zero to Three 27[2], 11-17	Intervention not targeted at drug or alcohol misusers. No subgroup analyses.
Richardson. Adolescent pregnancy and substance use. 1999. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 28[6], 623-627	Non systematic review. All included studies checked against inclusion criteria and assessed individually if appeared relevant.
Little et al. An evaluation of the pregnancy and health program. 1971. Alcohol Health and Research World 10[1], 44-53	A survey study, no comparison group.
Sanders et al. Assessment of client satisfaction in a peer counseling substance abuse treatment program for pregnant and postpartum women. 1998. Evaluation and Program Planning 21[3], 287-296	Wrong population, participants in comparison group were all non pregnant.
Zambrana et al. Prenatal care and medical risk in low-income, primiparous, Mexican- origin and African American women. 1996. Families, Systems and Health 14[3], 349-359United States.	Not substance misuse population.

Q.1b What aspects of service organisation and delivery act as barriers to take up of antenatal services for women misusing substances?

Reference	Reason for exclusion
Andrus et al. Analyzing strategies for developing a prenatal health care outreach program to reduce social and cultural barriers. 1997. Journal of Health and Human Services Administration 20[2], 230-241United States.	Descriptive study of the process and conflicts involved in the initial stages of development of an outreach intervention program. No outcomes of interest.
Brady et al. Maternal drug use and the timing of prenatal care. 2003. Journal of Health Care for the Poor and Underserved 14[4], 588-607	Not focusing on barriers for late initiation of antenatal care.
Finfgeld. Emergent drug abuse resolution models and their implications for childbearing and childrearing women. 2001. Health Care for Women International 22[8], 723-733	Qualitative study which does not look at barriers.
Kearney et al. Mothering on crack cocaine: A grounded theory analysis. 1994. Social Science and Medicine 38[2], 351-361United Kingdom.	No barriers investigated or reported.
Lewis et al. Illicit drug users' experiences of pregnancy: An exploratory study. 1995. Journal of Reproductive and Infant Psychology 13[3-4], 219-227	Descriptive small sample size study with no outcomes of interest.
Miner et al. Barriers to screening and counselling pregnant women for alcohol use. 1996. Minnesota Medicine 79[10], 43-47	Study examines recreational / occasional alcohol use in pregnancy not alcohol misuse. Moderate and occasional alcohol use in pregnancy have already been dealt in ANC guidelines.
Payne J, et al. Health Professionals' knowledge, practice and opinions about fetal alcohol syndrome and alcohol consumption in pregnancy. Aust N Z J Public Health 2005; 29: 558-64	Does not identify barriers to antenatal care.
SCUPHOLME et al. Barriers to prenatal care in a multiethnic, urban sample. 1991. Journal of Nurse-Midwifery 36[2], 111-116	Not alcohol or substance misuse population.
York et al. The impact of personal problems on accessing prenatal care in low-income urban African American women. 1999. Journal of Perinatology 19[1], 53-60	Not related to substance misusing pregnant women.

Q.2 What aspects of service organisation and delivery improve contact with antenatal services throughout pregnancy for women misusing substances?

Reference	Reason for exclusion
El-Mohandes et al. Prenatal care reduces the impact of illicit drug use on perinatal outcomes. 2003. Journal of Perinatology 23[5], 354-360	Shows a relationship between inadequate antenatal care, illicit drug use and low birth weight but not looking at the specific intervention.
Fiocchi et al. Treatment retention and birth outcomes of crack users enrolled in a substance abuse treatment program for pregnant women. 2001. Journal of Substance Abuse Treatment 20[2], 137-142United States.	Study looking at the maternal characteristics more than aspects of the service organisation. No outcomes relating to maintaining contact with antenatal care.
FitzSimmons et al. Pregnancy in a drug-abusing population. 1986. Am. J. Drug and Alcohol Abuse 12[3], 247-255	Descriptive evaluation of a programme, no comparison group.
Haller et al. Perinatal substance abusers: Factors influencing treatment retention. 1997. Journal of Substance Abuse Treatment 14[6], 513-519United States.	No comparison group. The study examines the association between demographic and psychosocial variables and treatment retention for antenatal substance misusing women.
Hankin. FAS prevention strategies: Passive and active measures. 1994. Alcohol Health and Research World 18[1], 62-66	Outcomes reported in this study are awareness of warning label among pregnant women and "drinking scores". Not related to antenatal care or birth outcome.
Johnston et al. The Community Perinatal Care Study: home visiting and nursing support for pregnant women. 2006. Zero to Three 27[2], 11-17	Intervention not targeted at drug or alcohol misusers. No subgroup analysis.
Knisely et al. The impact of intensive prenatal and substance abuse care on pregnancy outcome. 1993. NIDA Research Monograph Series [132], 300United States.	No intervention. No outcomes of interest.
Laken et al. Effects of case management on retention in prenatal substance abuse treatment. 1996. American Journal of Drug and Alcohol Abuse 22[3], 439-448United States.	No comparison group.
Lelong et al. Attitudes and behavior of pregnant women and health professionals towards alcohol and tobacco consumption. 1995. Patient Education and Counseling 25[1], 39-49	No intervention. Looks at general "low level" alcohol and tobacco use, not substance misuse.
Lieberman. Evaluating the Success of Substance Abuse Prevention and Treatment Programs for Pregnant and Postpartum Women and Their Infants. 1998. Women's Health Issues 8[4], 218-229	Paper looks at evaluation methodology rather than outcome of intervention.
Marshall et al. Sheway's services for substance using pregnant and parenting women: evaluating the outcomes for infants. 2005. Canadian Journal of Community Mental Health 24[1], 19-34	Description of service, no comparison group.
McGarva et al. No alcohol, but wine is permitted: A survey of obstetric units in Scotland. 1989. Scottish Medical Journal 34[4], 484-489United Kingdom.	A survey study, no comparison group.
Meng et al. Effect of a specialized prenatal clinic on medical student attitudes toward women with drinking problems. 2007. Journal of Maternal-Fetal and Neonatal Medicine 20[3], 217-FetalUnited Kingdom.	A prospective cohort study for modifying medical students comforts level and attitudes toward women with drinking problem. No outcomes of interests, no barriers were investigated.
Messer et al. Characteristics associated with pregnant women's utilization of substance abuse treatment services. 1996. American Journal of Drug and Alcohol Abuse 22[3], 403-422United States.	Epidemiological study. Part of a larger study of effectiveness of a multidisciplinary substance abuse programme. Comparing characteristics between two groups of women; those who accepted the offer of treatment services and those who declined. No outcomes of interest, not addressing any questions.

Reference	Reason for exclusion
Nardi. Ethical and methodological issues in evaluating a perinatal addiction treatment program with a fluid population. 1999. Qualitative Health Research 9[4], 559-567	Examines difficulties in evaluating a Perinatal Addiction Programme. No outcomes of interest.
O'Connor et al. Brief intervention for alcohol use by pregnant women. 2007. American Journal of Public Health 97[2], 252-258	Not related to substance misuse population.
Richardson. Adolescent pregnancy and substance use. 1999. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 28[6], 623-627	Non-systematic review. All included studies checked against inclusion criteria and assessed individually if appeared relevant.
Sanders et al. Assessment of client satisfaction in a peer counseling substance abuse treatment program for pregnant and postpartum women. 1998. Evaluation and Program Planning 21[3], 287-296	Participants in comparison group were all non pregnant. Wrong population.
Scully et al. Specialized drug liaison midwife services for pregnant opioid dependent women in Dublin, Ireland. 2004. Journal of Substance Abuse Treatment 26[1], 329-335 United States.	Study reports result of a retrospective, chart based survey of pregnant women referred to drug liaison midwife. It documents the socio-demographic background, substance use and medical histories of these women in addition to maternal and neonatal outcomes. There is no historic or current comparison group.
Sword et al. "New Choices" for women with addictions: perceptions of program participants. 2004. BMC Public Health 4, 10	Evaluating a programme from participants' points of view. Eleven Participants in the study are either pregnant or parenting young children. Not reporting on the number of pregnant participants. Not focusing on antenatal care. No comparison group.
Wang. Methadone treatment during pregnancy. 1999. JOGNN: Journal of Obstetric, Gynecologic, and Neonatal Nursing 28[6], 615-622	Non-Systematic review. All included studies checked against inclusion criteria and assessed individually if appeared relevant.
Wilyman-Bugter. Substance misuse and pregnant women: a study of a Sure Start early antenatal support programme. 2003. MIDIRS Midwifery Digest 13[2], 262-265	Description of Sure Start early neonatal programme with no outcomes reported.
Zellman et al. A search for guidance: examining prenatal substance exposure protocols. 2002. Maternal and Child Health Journal 6[3], 205-212	The study examines the variation in clinical protocol & hospital characteristics by surveying nurses and hospitals' parental substance of abuse protocol. Wrong population.

Q.3 What additional consultations and/or support should be provided to women misusing substances, their partners and families in order to improve pregnancy outcomes? (Additional here means over and above that described in the NICE Antenatal care guideline).

Reference	Reason for exclusion
Bass et al. A study of drug abusing African-American pregnant women. 1997. Journal of Drug Issues 27[3], 659-671United States.	No comparison group. No outcomes of our interest.
Berkowitz et al. Substance use and social outcomes among participants in perinatal alcohol and drug treatment. 1998. Womens Health 4[3], 231-254	No outcomes of interest.
Breitbart et al. The accessibility of drug treatment for pregnant women: A survey of programs in five cities. 1994. American Journal of Public Health 84[10], 1658-1661United States.	Study looking at women's acceptance into a treatment programme based on availability of funding/insurance/Medicaid. Not applicable to UK setting. No outcomes of interest.
Brindis et al. Options for Recovery: California's perinatal projects. 1997. Journal of Psychoactive Drugs 29[1], 89-99	Evaluation of a programme, no outcomes reported.
Clayson et al. Themes and variations among seven comprehensive perinatal drug and alcohol abuse treatment models. 1995. Health and Social Work 20[3], 234-238	An evaluation of recovery programme with no comparison group. No outcomes of interest.
Comfort et al. Predictors of treatment outcomes for substance-abusing women: a retrospective study. 2000. Substance Abuse 21[1], 33-45	No outcomes of interest.
Corse et al. Reducing substance abuse during pregnancy: Discriminating among levels of response in a prenatal setting. 1998. Journal of Substance Abuse Treatment 15[5], 457-467United States.	Programme evaluation study with no comparison group.
Elk et al. Behavioral interventions: effective and adaptable for the treatment of pregnant cocaine-dependent women. 1997. Journal of Drug Issues 27, 625-658	No comparison group.
Farrow et al. Pregnant adolescents in chemical dependency treatment: Description and outcomes. 1999. Journal of Substance Abuse Treatment 16[2], 157-161United States.	No outcomes of interests.
Fox et al. Alcohol consumption among pregnant smokers: Effects of a smoking cessation intervention program. 1987. American Journal of Public Health 77[2], 211-213United States.	Looking at smoking cessation intervention. No relevant intervention.
Green et al. Outcomes of pregnancy for addicts receiving comprehensive care. 1979. American Journal of Drug and Alcohol Abuse 6[4], 413-429United States.	No comparison group.
Hankin. FAS prevention strategies: Passive and active measures. 1994. Alcohol Health and Research World 18[1], 62-66	No intervention, no comparison group.
Lieberman. Evaluating the Success of Substance Abuse Prevention and Treatment Programs for Pregnant and Postpartum Women and Their Infants. 1998. Women's Health Issues 8[4], 218-229	Paper looks at evaluation methodology rather than outcome of intervention. No outcomes of interest.
Little et al. Preventing fetal alcohol effects: effectiveness of a demonstration project. 1984. Ciba Foundation Symposium 105, 254-274	No comparison group.
Marshall et al. Sheway's services for substance using pregnant and parenting women: evaluating the outcomes for infants. 2005. Canadian Journal of Community Mental Health 24[1], 19-34	Description of service, no comparison group.

Reference	Reason for exclusion
Nardi. Ethical and methodological issues in evaluating a perinatal addiction treatment program with a fluid population. 1999. Qualitative Health Research 9[4], 559-567	Examines difficulties encountered in evaluating a Perinatal Addiction Programme. No outcomes of interest.
O'Connor et al. Brief intervention for alcohol use by pregnant women. 2007. American Journal of Public Health 97[2], 252-258	Not related to substance misuse population.
Patni et al. How good are the maternity services for 'drug misusers' in England and Wales? A national survey. 2008. Journal of Obstetrics and Gynaecology 28[1], 44-47United Kingdom.	Study addresses the regional variation in the maternity services in England & Wales. No outcomes of interest.
Reynolds et al. Evaluation of a self-help program to reduce alcohol consumption among pregnant women. 1995. The International journal of the addictions 30[4], 427-443	Not related to substance misuse population.
Richardson. Adolescent pregnancy and substance use. 1999. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 28[6], 623-627	Non-Systematic Review
Rosner et al. The Northwest University Drug Dependence Program. The impact of intensive prenatal care on labor and delivery outcomes. 1982. American Journal of Obstetrics and Gynecology 144[1], 23-27United States.	No comparison group.
Smith et al. A comparison study of treated and untreated pregnant and postpartum cocaine-abusing women. 1992. Journal of Substance Abuse Treatment 9[4], 343-348United States.	Not addressing any interventions and outcomes. Emphasis on character of women accepting and not accepting the treatments.
St Pierre A. et al. Alcohol and other drugs of abuse in pregnancy. 1996. Hmo Practice 10[3], 114-118	Overview of a programme with no comparison group.
Suffet et al. A comprehensive care program for pregnant addicts: Obstetrical, neonatal, and child development outcomes. 1984. International Journal of the Addictions 19[2], 199-219	Evaluation a programme with no comparison group.
Sword et al. "New Choices" for women with addictions: perceptions of program participants. 2004. BMC Public Health 4, 10	No comparison group.
Wang. Methadone treatment during pregnancy. 1999. JOGNN: Journal of Obstetric, Gynecologic, and Neonatal Nursing 28[6], 615-622	Non-Systematic Review.
Wilyman-Bugter. Substance misuse and pregnant women: a study of a Sure Start early antenatal support programme. 2003. MIDIRS Midwifery Digest 13[2], 262-265	Description of Sure Start early neonatal programme. No outcomes of interest.

Q.4. What additional information should be provided to women misusing substances, their partners and families in order to improve pregnancy outcomes? (Additional here means over and above that described in the NICE Antenatal care guideline).

Reference	Reason for exclusion
Geller et al. The decision-making process for the treatment of abnormal uterine bleeding. 1997. Journal of Women's Health 6[5], 559-567	No comparison group
Herzig et al. Comparing prenatal providers approaches to four different risks: alcohol, tobacco, drugs, and domestic violence. 2006. Women and Health 43[3], 83-101	No outcomes of interest.
Patni et al. How good are the maternity services for 'drug misusers' in England and Wales? A national survey. 2008. Journal of Obstetrics and Gynaecology 28[1], 44-47United Kingdom.	Study addresses the regional variation in the maternity services in England & Wales. No outcomes of interest.
Rassool et al. Education and training of health care professionals in substance misuse. 1996. Journal of Substance Misuse , 114-115	An opinion paper.
Reynolds et al. Evaluation of a self-help program to reduce alcohol consumption among pregnant women. 1995. The International journal of the addictions 30[4], 427-443	Not related to substance misuse population.

Population subgroup: Recent migrants to the UK, refugees, asylum seekers, women with little or no English, and their partners and families.

First round exclusions (excluded from all questions)

Reference	Reason for exclusion
Adams et al. Access for pregnant women on Medicaid: variation by race and ethnicity. 2005. Journal of Health Care for the Poor and Underserved , 74-95	Not population of interest. Study population is not recent migrant/non English speaking.
Baxter. Research. The case for bilingual workers within the maternity services. 1997. British Journal of Midwifery 5[9], 568-572	Opinion paper
Bray et al. A primary health care approach using Hispanic outreach workers as nurse extenders. 1994. Public Health Nursing 11[1], 7-11	Opinion paper
Campbell et al. Sudan: situational analysis of maternal health in Bara District, North Kordofan. 1995. World Health Statistics Quarterly - Rapport Trimestriel de Statistiques Sanitaires Mondiales 48[1], 60-66	Not population of interest. Study population is not recent migrant/not speaking native language.
Cameron et al. Health planning for immigrants. 2005. Health Progress 86[1], 26-29	Opinion paper
Celik et al. The socio-economic determinants of maternal health care utilization in Turkey. 2000. Social Science and Medicine 50[12], 1797-1806	Not population of interest. Study population is not recent migrant/not speaking native language.
Chamberlain et al. Psychosocial costs of transferring indigenous women from their community for birth. 2000. Midwifery 16[2], 116-122	Not population of interest. Study population is not recent migrant/not speaking native language.
Chan. A study of health services for the Chinese minority in Manchester. 2000. British Journal of Community Nursing 5[3], 140-147	Not related to antenatal care.
Chisholm. Factors associated with late booking for antenatal care in central Manchester. 1989. Public Health 103[6], 459-466	Not specifically the population of interest, no sub group analyses presented.
Crump et al. Adverse birth outcomes among Mexican-Americans: are US-born women at greater risk than Mexico-born women? 1999. Ethnicity and Health 4[1-2], 29-34	Not related to antenatal care service interventions or barriers to care.
DeJoseph et al. The Development of a Social Support Intervention among African American Women. 1996. Qualitative Health Research 6[2], 283-297	Not population of interest. Study population is not recent migrant/non English speaking
Diani et al. Management of the pregnant immigrant woman in the decade 1992-2001. 2003. Journal of Obstetrics and Gynaecology 23[6], 615-617	Not related to antenatal care service provision, focuses on intrapartum care. No outcomes of interest reported.
Diaz et al. Interpersonal factors and perinatal depressive symptomatology in a low-income Latina sample. 2007. Cultural Diversity and Ethnic Minority Psychology 13[4], 328-336	Not related to antenatal care.
Edge D. 'We don't see Black women here': an exploration of the absence of Black Caribbean women from clinical and epidemiological data on perinatal depression in the UK. Midwifery 2008; 24(4):379-89.	Not population of interest. Population is Black Caribbean ethnic minority women neither recent migrant nor non English speaking.
Fernandes-Paul ME. Deconstructing the challenges of immigrant birth: An analysis of cross-cultural obstetrics. Dissertation Abstracts International Section A: Humanities and Social Sciences /24; Vol.69:(6-A).	Commentary
Fisher et al. Issues for South Asian Indian patients surrounding sexuality, fertility, and childbirth in the US health care system.[see comment]. 2003. Journal of the American Board of Family Practice 16[2], 151-155	Case reports (n=2)

Reference	Reason for exclusion
Frisbie et al. Prenatal care utilization among non-Hispanic Whites, African Americans, and Mexican Americans. 2001. Maternal and Child Health Journal 5[1], 21-33	Not population of interest. Study population is not recent migrant/not speaking native language.
Gerrish. Preparing nurses to care for minority ethnic communities. 1998. International Nursing Review 45[4], 115-116	Not population of interest. Study population is not recent migrant/non English speaking.
Gissler M, Alexander S, Macfarlane A et al. Stillbirths and infant deaths among migrants in industrialized countries. Acta Obstetrica et Gynecologica Scandinavica 2009; 88:(2)134-48.	Epidemiological paper. Does not address antenatal interventions nor barriers to care.
Gurman TA and Moran A. Predictors of appropriate use of interpreters: identifying professional development training needs for labor and delivery clinical staff serving Spanish-speaking patients. Journal of Health Care for the Poor and Underserved 2008; 19:(4)1303-20.	Not related to antenatal care.
Handler et al. Women's satisfaction with prenatal care settings: a focus group study. 1996. Birth 23[1], 31-37	Not population of interest. Study population is not recent migrant/not speaking native language.
Joyce et al. Welfare reform and the perinatal health and health care use of Latino women in California, New York City, and Texas. 2001. American Journal of Public Health 91[11], 1857-1864	Not intervention of interest. Investigates effects of change to funding/state benefits.
Kornosky et al. Reproductive characteristics of Southeast Asian immigrants before and after migration. 2008. Journal of Immigrant and Minority Health 10[2], 135-143	Not related to antenatal care service interventions or barriers to care.
Lane SH. Do nurses play a role in perpetuating racial/ethnic disparities in outcomes in maternal/child health? MCN, American Journal of Maternal Child Nursing 2009; 34:(2)78-Apr.	Opinion-based article not related to recent migrants but ethnic minorities in general.
Leveno KJ, McIntire DD, Bloom SL et al. Decreased preterm births in an inner-city public hospital. Obstetrics and Gynecology 2009; 113:(3)578-84.	Not population of interest. Study population ethnic minority pregnant women neither recent migrant nor non English speaking.
Leval et al. The encounters that rupture the myth: contradictions in midwives' descriptions and explanations of circumcised women immigrants' sexuality. 2004. Health Care for Women International 25[8], 743-760	Does not report outcomes of interest.
Lia-Hoagberg et al. Barriers and motivators to prenatal care among low-income women. 1990. Social Science and Medicine 30[4], 487-495	Not population of interest. Study population is low income American (White, Black and Indian) rather than recent migrant.
Liamputtong et al. Life as mothers in a new land: the experience of motherhood among Thai women in Australia. 2003. Health Care for Women International 24[7], 650-668	Not related to antenatal care.
Lee et al. Intimate partner violence among Asian immigrant communities: Health/mental health consequences, help-seeking behaviors, and service utilization. 2009. Trauma, Violence, and Abuse Vol.10[2], 143-170	Non-systematic review of literature. All included studies were carefully examined, all papers targeted non-pregnant populations.
Loiselle et al. Impressions of breastfeeding information and support among first-time mothers within a multiethnic community. 2001. Canadian Journal of Nursing Research 33[3], 31-46	Not population of interest and not related to antenatal care.
Lowe. Breastfeeding information and support services offered by Melbourne hospitals in antenatal classes. 1998. Breastfeeding Review 6[1], 23-28	Opinion paper.
Malin M and Gissler M. Maternal care and birth outcomes among ethnic minority women in Finland.	Epidemiological study. Does not address antenatal interventions nor barriers to care

Reference	Reason for exclusion
BMC Public Health 2009; 9:84	This cross-sectional study analyses the data from Finish Medical Birth Register in 1991-2001 and linked it with information of Statistics Finland on women's country of birth, citizenship and mother tongue and describe prevalence of various birth related outcomes (like low birth weight, Caesarean section etc.) in different ethnic groups.
Miller et al. The interactive effects of race and ethnicity and mother's residence on the adequacy of prenatal care. 1996. Journal of Rural Health 12[1], 6-18	Not population of interest. The study examines the association between race/ethnicity and use of ANC in US regardless of immigration status or language. The latter are not reported as sub-group analyses.
Murrell et al. Racism and health care access: a dialogue with childbearing women. 1996. Health Care for Women International 17[2], 149-159	Not population of interest. Study population is not recent migrant/non English speaking
Nigenda et al. Womens' opinions on antenatal care in developing countries: results of a study in Cuba, Thailand, Saudi Arabia and Argentina. 2003. BMC Public Health 3	Not population of interest. Study population is not recent migrant/non English speaking
Page RL. Positive pregnancy outcomes in Mexican immigrants: what can we learn? JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 2004; 33:(6)783-90	Non-systematic review. All included studies checked against inclusion criteria and assessed individually if appeared relevant.
Park et al. Impact of recent welfare and immigration reforms on use of Medicaid for prenatal care by immigrants in California. 2000. Journal of Immigrant Health 2[1], 5-22	Not intervention of interest. Investigates effects of change to funding/state benefits.
Pestronk et al. A partnership to reduce African American infant mortality in Genesee County, Michigan. 2003. Public Health Reports 118[4], 324-335	Not population of interest. Study population is not recent migrant/non English speaking
Pincombe. Transcultural approaches to midwifery care. 1992. Journal - Australian College of Midwives 5[2], 11-14	Not related to antenatal care service provision.
Poland et al. Prenatal care: A path (not taken) to improved perinatal outcome. 1991. Journal of Perinatal Medicine #19[6], 427-433Germany.	Not population of interest, no subgroup analysis presented.
Prasad. Towards better health care provision for ethnic minorities in Britain: Reproductive health and family planning in the Asian community. 1994. British Journal of Family Planning #19[4], 283-289United Kingdom.	Non-systematic review. All included studies checked against inclusion criteria and assessed individually if appeared relevant.
Puthussery S, Twamley K, Harding S et al. 'They're more like ordinary stropky British women': attitudes and expectations of maternity care professionals to UK-born ethnic minority women. Journal of Health Services and Research Policy 2008; 13:(4)195-201.	Wrong population - UK born ethnic minority women.
Rademakers et al. Diversity in sexual health: problems and dilemmas. 2005. European Journal of Contraception and Reproductive Health Care 10[4], 207-211	Opinion paper
Raine R, Cartwright M, Richens Y, Mahamed Z, Smith D. A Qualitative Study of Women's Experiences of Communication in Antenatal Care: Identifying Areas for Action. Maternal and Child Health Journal,2009	Not population of interest (Only 9 out of 30 participants were non English speaking. Migrant status not reported).
Ramsden. Teaching cultural safety. 1992. New Zealand Nursing Journal 85[5], 21-23	Opinion paper.
Rice. What women say about their childbirth experiences: The case of Hmong women in Australia. 1999. Journal of Reproductive and Infant Psychology 17[3], 237-253	Not related to antenatal care.
Richens. Building bridges: involving Pakistani women. 2003. Practising Midwife 6[8], 14-17	Opinion paper

Reference	Reason for exclusion
Richters et al. Concepts of sexuality and health among Iranian women in Australia. 2008. Australian Family Physician 37[3], 190-192	Not related to antenatal care service interventions nor barriers to care.
Shaw A and Hurst JA. 'I don't see any point in telling them': Attitudes to sharing genetic information in the family and carrier testing of relatives among British Pakistani adults referred to a genetics clinic. Ethnicity and Health 2009; Vol.14:(2)205-24.	Not specific to antenatal care interventions nor barriers to care.
Shi et al. America's Health Centers: reducing racial and ethnic disparities in perinatal care and birth outcomes. 2004. Health Services Research 39[6 Pt 1], 1881-1901	Not population of interest. Study population is not recent migrant/non English speaking.
Smith. Sociologic aspects of adolescent fertility and childbearing among Hispanics. 1986. Journal of Developmental and Behavioral Pediatrics 7[6], 346-349	Opinion paper.
Spetz et al. The effect of passing an "anti-immigrant" ballot proposition on the use of prenatal care by foreign-born mothers in California. 2000. Journal of Immigrant Health 2[4], 203-212	Not related to antenatal care service interventions nor barriers to care. No outcomes of interest reported.
Stapleton et al. Language use in antenatal consultations. 2002. British Journal of Midwifery 10[5], 273-277	Commentary/opinion paper.
Thomas et al. The health care needs of ethnic minority groups: are nurses and individuals playing their part? 1994. Journal of Advanced Nursing 20[5], 802-808	Opinion paper
Varga et al. Preventing mother-to-child HIV transmission among South African adolescents. 2008. Journal of Adolescent Research Vol.23[2], 172-205	Not related to antenatal care. Population is not recent migrant.
van der Zwaard. Accounting for differences. Dutch training nurses and their views on migrant women. 1992. Social Science and Medicine 35[9], 1137-1144	Not related to antenatal care (focuses on child-rearing practices)
Webb. NICE guidance on pre-conception care: its impact in ethnic minorities... This article was published in a short form in Diabetes & Primary Care Vol 10 No 3. 2008. Journal of Diabetes Nursing 12[7], 271-277	Opinion paper
Wharton et al. Sorrento Asian food tables: food tables, recipes and customs of mothers attending Sorrento Maternity Hospital, Birmingham, England. 1983. Human Nutrition - Applied Nutrition 37[5], 378-402	Not related to antenatal care service interventions nor barriers to care. Not related to outcomes of interest.
Zhao Q, Kulane A, Gao Y et al. Knowledge and attitude on maternal health care among rural-to-urban migrant women in Shanghai, China. BMC Women's Health 2009; 9:5.	Not population of interest. No antenatal intervention is studied, nor barriers reported.

Q.1a. What aspects of service organisation and delivery are effective at improving access to antenatal services for women who are recent migrants to the UK, refugees, asylum seekers or who have little or no English?

Reference	Reason for exclusion
Burks. Factors in the utilization of prenatal services by low-income Black women. 1992. Nurse Practitioner 17[4], 34	Not population of interest - Study focused on low-income black women. Not a recent migrant population.
Firdous. R. Bhopal. R. S (1989) Reproductive health of Asian women: a comparative study with hospital and community perspective. Health Public, 103, 307-315	Not population of interest - Study focused on Asian women living in UK, not a recent migrant population.
Sangi-Haghpeykar et al. Paternal influences on the timing of prenatal care among Hispanics. 2005. Maternal and Child Health Journal 9[2], 159-163	Not population of interest.
Wong et al. Consumer assessment of the quality of interpersonal processes of prenatal care among ethnically diverse low-income women: development of a new measure. 2004. Womens Health Issues 14[4], 118-129	No comparative outcome data on the impact of an intervention on access to antenatal care.

Q.1b What aspects of service organisation and delivery act as barriers to take up of antenatal services for women who are recent migrants to the UK, refugees, asylum seekers or who have little or no English?

Reference	Reason for exclusion
Alcalay R. Perceptions about prenatal care among health providers and Mexican-American community women: an exploratory study. <i>International Quarterly of Community Health Education</i> , vol.13(2) 107-118, 1992-3	Not population of interest - Not recent migrants/non-English speaking, 52% spoke English
Berggren V et al. Being different and vulnerable: experiences of immigrant African women who have been circumcised and sought maternity care in Sweden. <i>Journal of Transactional Nursing</i> , vol. 17 no.1 2006 50-57	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care (focus on labour and birth).
Berry AN. Mexican American women's expressions of the meaning of culturally congruent prenatal care. <i>Journal of Transcultural Nursing</i> , vol.10 no.3 1999	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care.
Bollenbacher et al. Maternity nurse's attitudes towards Mexican-American clients. 2000. <i>Journal of Practical Nursing</i> 50[3], 14-16	Not population of interest - Mexican American women, not a recent migrant population.
Burks. Factors in the utilization of prenatal services by low-income Black women. 1992. <i>Nurse Practitioner</i> 17[4], 34	Not population of interest - Study focused on low-income black women. Not a recent migrant population.
Chalmers B and Hashi KO. 432 Somali women's birth experiences in Canada after earlier female genital mutilation. <i>Birth</i> 27:4 2000	Not relating to antenatal care – focus is on birth.
Conrad JK, et al. Use of prenatal services by Hispanic women in San Diego County: a comparison of urban and rural settings. <i>Journal of Nurse-Midwifery</i> , vol.43, no.2 1998	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care.
Corosu et al. Pregnancy in immigrant women. 2006. <i>Clinical and Experimental Obstetrics and Gynecology</i> 33[3], 169-173	Does not report barriers to antenatal care.
Delvaux T, et al. Barriers to prenatal care in Europe. <i>Am J Prev Med</i> 2001; 21 (1): 52-59	Not population of interest.
DeSouza R. Transforming possibilities of care: Goan migrant motherhood in New Zealand. <i>Contemporary Nurse</i> (2005) 20:87-101	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care.
Downs et al. Providing culturally competent primary care for immigrant and refugee women. A Cambodian case study. 1997. <i>Journal of Nurse-Midwifery</i> 42[6], 499-508	Single case report.
Fowler H et al. Antenatal attendance and fasting of pregnant Muslims during Ramadan. <i>BJOG</i> 1990, vol.97 861-862	Population not well-defined (i.e. migrant status or level of English spoken). Does not report outcomes of interest i.e. barriers to antenatal care.
Fuentes-Afflick E et al. Use of prenatal care by Hispanic women after welfare reform. <i>Obstet Gynecol</i> 2006; 107:151-60	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care. Describes welfare reform in the US
Gaudion A and Homeyard C. No voice, no choice: barriers to the exercise of choice by 'marginalised' women (part two). <i>Midwives</i> 2008; 11:(6)-5p.	Does not identify barriers to care (reports barriers as existing but described in general terms)
Gray S et al. Attitudes and behaviours of African-American and Mexican-American women delivering newborns in inner-city Los Angeles. <i>Journal of the National Medical Association</i> vol. 87, no.5, 1995	Not population of interest - Urban poor population, not recent migrants.
Hennings J et al. Exploring the health needs of Bangladeshi women: a case study in using qualitative research methods. <i>Health Education Journal</i> 1996, 55, 11-23	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care. A methodological paper comparing interview techniques.
Hicks et al. Experiences with hospital care:	Not population of interest. Non pregnant population

Reference	Reason for exclusion
Perspectives of black and hispanic patients. 2008. Journal of General Internal Medicine 23[8], 1234-1240 United States.	– investigates experience of Black and Hispanic population with hospital care. No report of their migrant status. Not clear what percentage of women cannot speak English.
Hornberger J et al. Eliminating language barriers for non-English speaking patients. Medical Care vol.34, no.8 845-856	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care. Comparison of interpreting remotely versus having the interpreter in the room.
Hunt LM and de Voogd, KB. Are good intentions good enough?: informed consent without trained interpreters. Society of General Internal Medicine 2007; 22:598-605	Not relating to antenatal care.
Karl-Trummer et al. Prenatal courses as health promotion intervention for migrant/ethnic minority women: high efforts and good results, but low attendance. 2006. Diversity in Health & Social Care 3[1], 55-58	Not population of interest.
Lazarus. Falling through the cracks: Contradictions and barriers to care in a prenatal clinic. 1990. Medical Anthropology 12[3], 269-287	Not specific to population of interest. No sub-group analysis relating to population of interest.
Lundberg PC and Gerezgiher A. Experiences from pregnancy and childbirth related to female genital mutilation among Eritrean immigrant women in Sweden.	Not relating to antenatal care.
Maputle et al. Dealing with diversity: incorporating cultural sensitivity into midwifery practice in the tertiary hospital of Capricorn District, Limpopo Province. 2006. Curationis 29[4], 61-69	Does not report barriers to antenatal care - emphasis on labour and birth.
Medina. Hispanic maternity care: a study of deficiencies and recommended policies. 1980. Public Affairs Report 21[2], 1-7	Does not report barriers to uptake of antenatal care.
Meikle et al. Women's reasons for not seeking prenatal care: racial and ethnic factors. 1995. Birth 22[2], 81-86	Not population of interest.
Ny et al. Middle Eastern mothers in Sweden, their experiences of the maternal health service and their partner's involvement. 2007. Reproductive Health 4[9] United Kingdom.	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care.
Queiro-Tajalli. Hispanic Women's Perceptions and Use of Prenatal Health Care Services. 1989. Affilia 4[2], 60-72	Not recent migrants - Hispanic women from 1st, 2nd and 3rd generations, all of whom spoke English.
Rolls C and Chamberlain M. From east to west: Nepalese women's experiences. International Nursing Review 51, 176-184, 2004	Not relating to antenatal care.
Sangi-Haghpeykar et al. Paternal influences on the timing of prenatal care among Hispanics. 2005. Maternal and Child Health Journal 9[2], 159-163	Not population of interest.
Shiono et al. Ethnic differences in birthweight: the role of lifestyle and other factors. 1997. American Journal of Public Health 87[5], 787-793	Does not report barriers to antenatal care. Study looking into risk factors for low birth weight and ethnic group disparities in birth outcome.
Vangen S et al. Qualitative study of perinatal care experiences among Somali women and local health care professionals in Norway. European Journal of Obstetrics and Gynecology and Reproductive Biology 112 (2004) 29-35	Not relating to antenatal care.
Walker J and Pollard L. Parent education for Asian mothers. Modern midwife 1995	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care.
Weigers ME and Sherraden MS. A Critical Examination of Acculturation: The Impact of Health Behaviors, Social Support and Economic Resources on Birth	Not relating to antenatal care.

Reference	Reason for exclusion
Weight among Women of Mexican Descent. International Migration Review 2001; 35:(3)804-39	
Widmark C, et al. A study of Swedish midwives' encounters with infibulated African women in Sweden. Midwifery (2002) 18, 113-125	Not relating to antenatal care – focus is on birth.
Yeo S et al. Japanese couples' childbirth experiences in Michigan: implications for care. Birth 27:3 2000	Does not report outcomes of interest - Not related to experience of/barriers to antenatal care.
Young et al. Health status, health problems and practices among refugees from the Middle East, Eastern Europe and Southeast Asia. 1987. International Migration Review 21[3], 760-782	Non-pregnant population, not focusing on antenatal care.

Q.2 What aspects of service organisation and delivery improve contact with antenatal services throughout pregnancy for women who are recent migrants to the UK, refugees, asylum seekers or who have little or no English?

Reference	Reason for exclusion
Cabral H, Fried LE, Levenson S et al. Foreign-born and US-born black women: differences in health behaviors and birth outcomes. American Journal of Public Health 1990; 80:(1)70-2.	Not related to antenatal care.
Cramer et al. Evaluating the social and economic impact of community-based prenatal care. 2007. Public Health Nursing 24[4], 329-336	Not population of interest, not recent migrants or non-English speaking.
Dawkins et al. Health orientation, beliefs, and use of health services among minority, high-risk expectant mothers. 1988. Public Health Nursing 5[1], 7-11	Not population of interest. Study population is not recent migrant/non English speaking
Del Pezzo C, Malerba C, Camilli AR et al. Pregnancy and delivery in women not belonging to the European Union: "our experience". Italian Journal of Gynaecology and Obstetrics 2003; 15:(2)74-6.	Does not report intervention nor outcomes relating to maintaining contact with antenatal services.
Jewell et al. Increasing access to prenatal care: an evaluation of minority health coalitions' early pregnancy project. 2000. Journal of Community Health Nursing 17[2], 93-105	Not population of interest, not recent migrants or non-English speaking.
Markovic et al. Immigrant women's perspectives of shared antenatal care. 2003. Australian Family Physician 32[8], 672	Does not report outcomes relating to maintaining contact with antenatal services
Prater et al. A perinatal intervention program for urban American Indians: part 2: the story of a program and its implications for practice. 2002. Journal of Perinatal Education 11[2], 23-32	Not population of interest, not recent migrants or non-English speaking.

Q.3 What additional consultations and/or support should be provided to women who are recent migrants to the UK, refugees, asylum seekers, women who have little or no English, and their partners and families, in order to improve pregnancy outcomes? (Additional here means over and above that described in the NICE Antenatal care guideline).

Reference	Reason for exclusion
Guerin et al. Advocacy as a Means to an End: Assisting Refugee Women to Take Control of Their Reproductive Health Needs. 2006. Women and Health 43[4], 7-25	Not population of interest. Study population is not recent migrant/not speaking English.
Little et al. Improving pregnancy outcome and reducing avoidable clinical resource utilization through telephonic perinatal care coordination. 2002. Lippincott's Case Management 7[3], 103-112	Not population of interest (not recent migrant, asylum seekers, refugees or non-English speaking).
Pearce. Seeking a healthy baby: Hispanic women's views of pregnancy and prenatal care. 1998. Clinical Excellence for Nurse Practitioners 2[6], 352-361	Not population of interest. Study population is not recent migrant/not speaking English.
Tough et al. Does supplementary prenatal nursing and home visitation support improve resource use in a universal health care system? A randomized controlled trial in Canada. 2006. Birth 33[3], 183-194	Does not report specifically on population of interest, no sub-group analyses.
Willis et al. Lower rates of low birthweight and preterm births in the California Black Infant Health Program. 2004. Journal of the National Medical Association 96[3], 315-324	Not population of interest. Study population is not recent migrant/not speaking English.

Q.4. What additional information should be provided to women who are recent migrants to the UK, refugees, asylum seekers, women who have little or no English, and their partners and families, in order to improve pregnancy outcomes? (Additional here means over and above that described in the NICE Antenatal care guideline).

Reference	Reason for exclusion
Diaz et al. Interpersonal factors and perinatal depressive symptomatology in a low-income Latina sample. 2007. Cultural Diversity and Ethnic Minority Psychology 13[4], 328-336	No outcomes of interests
Ho. Chinese women's perceptions of the effectiveness of antenatal education in the preparation for motherhood. 2002. Journal of Advanced Nursing 38[1], 74-85	Not population of interest, not recent migrants or women who don't speak English.
Jacoby A. Mothers' views about information and advice in pregnancy and childbirth: findings from a national study. Midwifery 1988; 4:(3)103-10.	Not population of interest, not recent migrants or women who don't speak English.
Mattson S et al. Culturally Sensitive Prenatal Care for Southeast Asians. JOGNN 1991; 21[1], 48-54	No comparison group
Schlickau et al. Development and testing of a prenatal breastfeeding education intervention for Hispanic women. 2005. Journal of Perinatal Education 14[4], 24-35	Not population of interest, not recent migrants or women who don't speak English.
Tough et al. Does supplementary prenatal nursing and home visitation support improve resource use in a universal health care system? A randomized controlled trial in Canada. 2006. Birth 33[3], 183-194	Not specifically population of interest, no sub-group analysis.
Warrick et al. Evaluation of a peer health worker prenatal outreach and education program for Hispanic farmworker families. 1992. Journal of Community Health 17[1], 13-26	No comparison group

Population subgroup: Young women aged under 20, their partners and families.

Q.1a What aspects of service organisation and delivery are effective at improving access to antenatal services for young women aged under 20

Reference	Reason for exclusion
Bradley PJ and Martin J. The Impact of home visits on enrolment patterns in pregnancy-related services among low-income women. Public health nursing vol.11, no.6 pp392-398	No comparison group.
Hutchinson C A young mothers' midwifery scheme	No comparison group
Marsh JC and Wirick MA. Evaluation of Hull house teen pregnancy and parenting program. Evaluation and program planning, vol. 14, pp49-61 1991	Invalid comparison group: Comparative data for outcomes of interest (birth outcomes) based on each woman's own previous birth outcomes. This group is systematically younger and would contain a far higher proportion of nulliparous women. All before and after data collected related to school and work-based outcomes which are not outcomes of interest for this review.
Osofsky HJ and Osofsy JD. Adolescents as mothers – results of a program for low-income pregnant teenagers with some emphasis upon infants' development. Amer J. Orthopsychiat, 40(5) 1970	No comparison group. A school was set-up specifically for pregnant teenagers as they would be excluded from normal school. US setting.

Q.1b What aspects of service organisation and delivery act as barriers to take up of antenatal services for young women aged under 20?

Reference	Reason for exclusion
Bergman AG. Informal support systems for pregnant teenagers. Social Casework: the journal of contemporary social work, Nov. 1989	Mainly looking at what sources of support teenagers' use. Very small description of possible barriers but it is difficult to tell if these were the actual reasons the teenagers didn't attend antenatal care or prevalent attitudes among non-attending teenagers.
Hannafi HBO. A study of prenatal care initiation of adolescent mothers. Dissertation abstracts international col. 43 no.6 1982	Abstract only.
Horton N. The relationship of adolescent health beliefs and social support to time of entry into prenatal care. Dissertation abstracts international vol.52, no.19 1992	Abstract only.
Johnson AA. Et al. Determinants of late prenatal care initiation by African American Women in Washington, DC. Maternal and Child Health Journal, vol.7, no.2 June 2003	Not specifically teenagers and no subgroup analysis.
Maputle MS. Becoming a mother: teenage mothers' experiences of 1st pregnancy. Curationis 2006 29(2):87-95	Description of pregnancy with only mention of antenatal care.
Michels TM. Patients like us: pregnant and parenting teens view the health care system. Public health reports 2000 Vol.115	Description of antenatal care by US teenagers.
Price S and Mitchell M. Teenagers' experiences of the maternity services. Evidence based midwifery 2(2), 66-70 2004	Descriptive study with a very small sample size (N=10). Quotes from participants do not include barriers to care.
Wiemann CM, et al. Factors associated with adolescents' risk for late entry into prenatal care. Vol. 29, no.6 1997	Descriptions of women who enter care early or late, not reasons.

Q.2 What aspects of service organisation and delivery improve contact with antenatal services throughout pregnancy for young women aged under 20?

Reference	Reason for exclusion
Adams. Nurse-midwifery management of health care for pregnant adolescents. 1980. Issues in Health Care of Women 2[2], 53-61	No comparison group
Anderson et al. Missouri rural adolescent pregnancy project (MORAPP). 2000. Public Health Nursing 17[5], 355-362	Wrong comparison group – urban vs. rural
Bowman et al. Improving adolescent pregnancy outcomes and maternal health: a case study of comprehensive case managed services. 2003. Journal of Health and Social Policy 18[1], 15-42	No comparison group
Clark et al. Comprehensive antenatal care and education of young adolescents: beneficial effects on pregnancy and outcome. 1986. New Zealand Medical Journal 99[795], 59-62	Demographics not appropriate (Primarily looking at Maori and Pacific Islanders)
Copeland. Unwed adolescent primigravida identify subject matter for prenatal classes. 1979. JOGN Nursing 8[4], 248-253	No comparison group
Covington et al. Factors affecting number of prenatal care visits during second pregnancy among adolescents having rapid repeat births. 1994. Journal of Adolescent Health 15[7], 536-542	No intervention
Daaleman. The effect of a paraprofessional home visiting program on utilization of prenatal care. 1997. Kansas Medicine 98[2], 6-9	Not specifically looking at adolescents (no sub-group analysis)
de la Rey et al. Community-based peer groups: An intervention programme for teenage mothers. 1996. Journal of Community and Applied Social Psychology 6[5], 373-381	No comparison group
DelGiudice et al. A multidisciplinary teen clinic. Focus on care to young women. 1993. Hmo Practice 7[4], 170-173	Service description and opinion paper
Doyle et al. Midwifing the adolescents at Lincoln Hospital's teen-age clinics. 1979. Journal of Nurse-Midwifery 24[4], 27-32	Inappropriate comparison group: 1st year of programme compared with 2nd year of programme. This paper shows how a service has improved over a 2 year period rather than comparing this type of service with an alternative service or "usual care".
Elster et al. The medical and psychosocial impact of comprehensive care on adolescent pregnancy and parenthood. 1987. JAMA: the journal of the American Medical Association 258[9], 1187-1192	No outcomes of interest reported for Q.2 (included in Q.1a and Q.3)
Gavin et al. Medicaid service use and program costs for pregnant teens. 2005. Expert Review of Pharmacoeconomics and Outcomes Research 5[6], 683-694 United Kingdom.	No intervention Economics paper looking at Medicaid enrolment characteristics of pregnant adolescents and women aged 20-24 years
Gee et al. Service evaluation of the teenage clinic. 2002. British Journal of Midwifery 10[9], 560-564	No comparison group
Hansen et al. Effects on pregnant adolescents of attending a special school. 1976. Journal of the American Dietetic Association 68[6], 538-541	No comparison group
Hutchinson. A young mothers' midwifery scheme. 2007. RCM Midwives 10[2], 82-84	No comparison group
Kay et al. Process, costs, and outcomes of community-based prenatal care for adolescents. 1991. Medical Care 29[6], 531-542	Reported outcomes not relevant for question 2 (doesn't look at maintaining contact) (included in questions 1 and 3)
Koniak-Griffin et al. Public health nursing care for adolescent mothers: Impact on infant health and	No relevant outcomes reported (only postnatal outcomes reported)

Reference	Reason for exclusion
selected maternal outcomes at 1 year postbirth. 2002. Journal of Adolescent Health 30[1], 44-54	
Koniak-Griffin et al. Nurse visitation for adolescent mothers: two-year infant health and maternal outcomes. 2003. Nursing Research 52[2], 127-136	No relevant outcomes reported (only postnatal outcomes reported)
Korenbroet et al. Birth weight outcomes in a teenage pregnancy case management project. 1989. Journal of Adolescent Health Care 10[2], 97-104	No relevant outcomes reported for Q2 .(adequacy of care used in regression analysis but not compared between groups). (Included in question 3).
LaGuardia et al. Maternity shelter care for adolescents: its effect on incidence of low birth weight. 1989. American Journal of Obstetrics and Gynecology 161[2], 303-306	Social care intervention, not related to health care services.
Leppert et al. Cost averted by providing comprehensive prenatal care to teenagers. 1985. Journal of Nurse-Midwifery 30[5], 285-289	Does not compare intervention group with a control group who receive an alternative system of antenatal care, only compares differences in rate of low birthweight for babies born to women who attend a dedicated programme with those who do not attend for antenatal care.
Levy et al. Reducing the risks in pregnant teens who are very young and those with mild mental retardation. 1992. Mental Retardation 30[4], 195-203	Reported outcomes not relevant for question 2 (doesn't look at maintaining contact). (included in question 3)
O'Sullivan et al. A randomized trial of a health care program for first-time adolescent mothers and their infants. 1992. Nursing Research 41[4], 210-215	No relevant outcomes reported (only postnatal outcomes reported)
Peoples. A model for the delivery of health care to pregnant adolescents. Part I: assessment and planning. 1979. JOG Nursing 8[6], 339-343	No comparison group
Pillari et al. Teenage pregnancy; Preliminary results of special care unit. 1980. New York State Journal of Medicine 80[5], 746-751	No comparison group
Price et al. Teenagers' experiences of the maternity services. 2004. Evidence Based Midwifery 2[2], 66-70	No intervention or comparison Qualitative study of adolescents' perceptions of care received during their pregnancy, birth and postnatal period
Sarri et al. Health and social services for pregnant and parenting high risk teens. 2004. Children and Youth Services Review 26[6], 537-560	No comparison group
Taylor. An Improved Program for Adolescent Prenatal Care. 1984. Robinson, J. and Sachs, B. Nursing Care Models for Adolescent Families. Kansas City, Missouri, American Nurses' Association.	No comparison group

Q.3 What additional consultations and/or support should be provided to young women aged under 20, their partners and families in order to improve pregnancy outcomes? (Additional here means over and above that described in the NICE Antenatal care guideline).

Reference	Reason for exclusion
Adams. Nurse-midwifery management of health care for pregnant adolescents. 1980. Issues in Health Care of Women 2[2], 53-61	No comparison group
Anderson et al. Missouri rural adolescent pregnancy project (MORAPP). 2000. Public Health Nursing 17[5], 355-362	Wrong comparison group – urban vs. rural
Aries et al. Evaluating service delivery models for pregnant adolescents. 1981. Women and Health 6[1-2], 91-107	Relevant outcome data reported for only 31% of comparison group.
Barlow et al. Home-visiting intervention to improve child care among American Indian adolescent mothers: a randomized trial. 2006. Archives of Pediatrics and Adolescent Medicine 160[11], 1101-1107	Population too specific (native American population) – findings not generalisable to UK
Barnet et al. Reduced school dropout rates among adolescent mothers receiving school-based prenatal care. 2004. Archives of Pediatrics and Adolescent Medicine 158[3], 262-268	No relevant outcomes reported
Barnet et al. Home visiting for adolescent mothers: effects on parenting, maternal life course, and primary care linkage. 2007. Annals of Family Medicine 5[3], 224-232	Most of intervention postnatal and no birth related outcomes
Bloom. Use of the CenteringPregnancy Program in a school-based clinic: a pilot study. 2005. Clinical Excellence for Nurse Practitioners 9[4], 213-218	Relevant data reported for 23 controls vs. 6 women in the experimental group representing >50% attrition in the control group.
Breedlove. Perceptions of social support from pregnant and parenting teens using community-based doulas. 2005. Journal of Perinatal Education 14[3], 15-22	No comparison group
Clarke et al. The effectiveness of Florida's "Improved Pregnancy Outcome" program. 1993. Journal of Health Care for the Poor and Underserved 4[2], 117-132	Not looking at adolescents
Covington et al. Improving detection of violence among pregnant adolescents. 1997. Journal of Adolescent Health 21[1], 18-24	Not adolescent population
Covington et al. The effects of a prematurity prevention program on births to adolescents. 1990. Journal of Adolescent Health Care 11[4], 335-338	Covered by a similar report in systematic review
Davidson, Jr. An analysis of adolescent health care and the role of the obstetrician-gynecologist. 1981. American Journal of Obstetrics and Gynecology 139[7], 845-854	No comparison group
Donnelly et al. A review of the Chance to Grow Project: A care project for pregnant and parenting adolescents. 1994. Child and Adolescent Social Work Journal 11[6], 493-506	No outcomes of interest reported.
Furey. Are support and parenting programmes of value for teenage parents? Who should provide them and what are the main goals? 2004. Public Health 118[4], 262-267 Netherlands.	Combines AN and PN interventions
Goldberg et al. Teen Pregnancy Service. An interdisciplinary health care delivery system utilizing certified nurse-midwives. 1986. Journal of Nurse-Midwifery 31[6], 263-269	No comparison group

Reference	Reason for exclusion
Honig et al. When should programs for teen parents and babies begin? Longitudinal evaluation of a teen parents and babies program. 2001. Journal of Primary Prevention 21[4], 447-454 United States.	Looking at prevention of child maltreatment
Hutchinson. A young mothers' midwifery scheme. 2007. RCM Midwives 10[2], 82-84	No comparison group
Isberner et al. Comprehensive prenatal care for pregnant teens. 1987. Journal of School Health 57[7], 288-292	Included in systematic review
LaGuardia et al. Maternity shelter care for adolescents: its effect on incidence of low birth weight. 1989. American Journal of Obstetrics and Gynecology 161[2], 303-306	Social care intervention, not related to health care services.
Little et al. The influence of telephonic nursing care coordination on patient satisfaction in a predominantly low-income, high-risk pregnancy population. 2002. Lippincott's Case Management 7[1], 15-23	Not looking at adolescents
Marcenko et al. Home visitation services for at-risk pregnant and postpartum women: a randomized trial. 1994. American Journal of Orthopsychiatry 64[3], 468-478	Not looking at adolescents specifically
Hall Moran et al. A systematic review of the nature of support for breast-feeding adolescent mothers. 2007. Midwifery 23[2], 157-171	All interventions include a postnatal component
Norr et al. Maternal and infant outcomes at one year for a nurse-health advocate home visiting program serving African Americans and Mexican Americans. 2003. Public Health Nursing 20[3], 190-203	Predominantly postnatal intervention
Olds. Home visitation for pregnant women and parents of young children. 1992. American Journal of Diseases of Children 146[6], 704-708	No long term follow up for pregnancy only intervention otherwise as in original report
Olds et al. Effects of nurse home-visiting on maternal life course and child development: age 6 follow-up results of a randomized trial. 2004. Pediatrics 114[6], 1550-1559	Wrong comparison group
Olds et al. Improving the life-course development of socially disadvantaged mothers: A randomized trial of nurse home visitation. 1988. American Journal of Public Health 78[11], 1436-1445 United States.	Not adolescent specific
Olds et al. Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized controlled trial. 1998. JAMA: the journal of the American Medical Association 280[14], 1238-1244	Outcomes are in teen offspring of teen mothers
Peoples. A model for the delivery of health care to pregnant adolescents. Part I: assessment and planning. 1979. JOGN Nursing 8[6], 339-343	No comparison group
Perez et al. Use of a focussed teen prenatal clinic at a military teaching hospital: model for improved outcomes of unmarried mothers. 1998. Australian and New Zealand Journal of Obstetrics and Gynaecology 38[3], 280-283	Wrong comparison group, adults.
Pillari et al. Teenage pregnancy; Preliminary results of special care unit. 1980. New York State Journal of Medicine 80[5], 746-751	No comparison group
Raatikainen et al. Good outcome of teenage	No intervention – study reports demographic and

Reference	Reason for exclusion
pregnancies in high-quality maternity care. 2006. European Journal of Public Health 16[2], 157-161	birth outcome summary statistics only
Roye et al. Evaluation of an intergenerational program for pregnant and parenting adolescents. 1996. Maternal-Child Nursing Journal 24[1], 32-40	No comparative findings for relevant outcomes of interest
Sachs et al. Enhancing the adolescent reproductive process: efforts to implement a program for black adolescent fathers. 1990. Health Care for Women International 11[4], 447-460	Not adolescents
Sangalang et al. Differences in health behaviors and parenting knowledge between pregnant adolescents and parenting adolescents. 2005. Social Work in Health Care 42[2], 1-22	Wrong comparison group and outcomes
Sarrel et al. The young unwed mother. Obstetric results of a program of comprehensive care. 1969. American Journal of Obstetrics and Gynecology 105[4], 575-578	No comparison group
Sarri et al. Health and social services for pregnant and parenting high risk teens. 2004. Children and Youth Services Review 26[6], 537-560	No comparison group
Stevens-Simon et al. Tangible differences between adolescent-oriented and adult-oriented prenatal care. 1992. Journal of Adolescent Health 13[4], 298-302	Wrong comparison group (adults)
Stevens-Simon et al. Incentives enhance postpartum compliance among adolescent prenatal patients. 1994. Journal of Adolescent Health 15[5], 396-399	Postnatal outcomes only
Stirtzinger et al. Interrupting the inter-generational cycle in high risk adolescent pregnancy. 2002. Journal of Primary Prevention 23[1], 7-22United States.	Postnatal interventions
Stockbauer. Evaluation of the Missouri WIC program: prenatal components. 1986. Journal of the American Dietetic Association 86[1], 61-67	Not looking at adolescents
Tessaro et al. State health department and university evaluation of North Carolina's Maternal Outreach Worker Program. 1997. American Journal of Preventive Medicine 13[6 Suppl], 38-44	Not looking at adolescents
Villar et al. A randomized trial of psychosocial support during high-risk pregnancies. The Latin American Network for Perinatal and Reproductive Research. 1992. New England Journal of Medicine 327[18], 1266-1271	Not adolescent population
Webb et al. A comprehensive adolescent maternity program in a community hospital. 1971. Transactions of the Pacific Coast Obstetrical and Gynecological Society 39[0], 84-96	No data reported for outcomes of interest
Weinman et al. Early and late entry to prevent preterm delivery in adolescents. 1991. Adolescent and Pediatric Gynecology 4[3], 143-147United States.	Doesn't consider appropriate antenatal intervention (treatment for suspected pre-term labour)
Wrieden et al. The development and pilot evaluation of a nutrition education intervention programme for pregnant teenage women (food for life). 2003. Journal of Human Nutrition and Dietetics 16[2], 67-71	No comparison group Very high attrition/low take up

Q.4. What additional information should be provided to young women aged under 20, their partners and families in order to improve pregnancy outcomes? (Additional here means over and above that described in the NICE Antenatal care guideline)

Reference	Reason for exclusion
Dickerson et al. Prenatal education for adolescents in a delinquent youth facility. 1982. JOGN Nursing: Journal of Obstetric, Gynecologic and Neonatal Nursing 11, 39-44	No comparison group
Fedak et al. A teen-driven prenatal program. 1996. Canadian Nurse 92[1], 51-52	Not a research study. Description of antenatal classes provided to teenagers.
Giblin et al. Pregnant adolescents' health-information needs. Implications for health education and health seeking. 1986. Journal of Adolescent Health Care 7[3], 168-172	No comparison group
Howard et al. Adolescent mothers: self-perceived health education needs. 1985. JOGNN: Journal of Obstetric, Gynecologic, and Neonatal Nursing 14[5], 399-404	Postpartum information needs
Hoyer et al. Health information needs of the pregnant adolescent. 1994. Journal of the American Academy of Nurse Practitioners 6[11], 533-537	No comparison group
Jones et al. Prenatal education outcomes for pregnant adolescents and their infants using trained volunteers. 1990. Journal of Adolescent Health Care 11[5], 437-444	Attendance of an education programme no details of information given.
MacLeod et al. Are expectant teenage mothers adequately informed? 2002. British Journal of Midwifery 10[3], 144-147	No comparison group
Slager-Earnest et al. Effects of a specialized prenatal adolescent program on maternal and infant outcomes. 1987. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 16[6], 422-429	No outcomes of interest reported.
Smoke et al. Effectiveness of prenatal care and education for pregnant adolescents: nurse-midwifery intervention and team approach. 1988. Journal of Nurse-Midwifery 33[4], 178-184	Intervention involved counselling from a social worker and nutritionist as well as additional education sessions, therefore not a purely educational/information-based approach. This study is therefore excluded from Q.4 but included in Q.2 (maintaining contact) and Q.3 (additional consultations and support).

Population subgroup: Women experiencing domestic abuse

First round exclusions (excluded from all questions)

Reference	Reason for exclusion
Borowitz SM, Cox DJ, Tam A et al. Precipitants of constipation during early childhood. Journal of the American Board of Family Practice 2003; 16:(3)213-8.	Not relevant population, not women experiencing domestic abuse.
Bowker LH and Maurer L. The medical treatment of battered wives. Women and Health 1987; 12:(1)25-45.	Non-pregnant population.
Centre for Reviews and Dissemination. The effectiveness of public health interventions to reduce or prevent spousal abuse toward women (Structured abstract). Database of Abstracts of Reviews of Effects 2009;(2).	Population is all women victims of domestic abuse not exclusively pregnant women, no subgroup analysis.
Centre for Reviews and Dissemination. Training programs for healthcare professionals in domestic violence (Structured abstract). Database of Abstracts of Reviews of Effects 2009;(2).	A structured abstract by CRD reviewers. No reference to included studies.
Colombini M, Mayhew S, and Watts C. Health-sector responses to intimate partner violence in low- and middle-income settings: a review of current models, challenges and opportunities. [50 refs]. Bulletin of the World Health Organization 2008; 86:(8)635-42.	Non pregnant population. Not related to AN care
Eisenman et al. Intimate partner violence and community service needs among pregnant and postpartum Latina women. 2009. Violence and Victims 24[1], 111-121	No intervention studied relating to antenatal care and no barriers reported.
Hamilton et al. Perceived helpfulness and use of professional services by abused women. 1993. Journal of Family Violence 8[4], 313-324	Non pregnant population. Not related to AN care
Hoile OV, Green G, Jathanna S et al. Violence against women. Lancet 2002; 360:(9329)343.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Lee et al. Intimate partner violence among Asian immigrant communities: Health/mental health consequences, help-seeking behaviors, and service utilization. 2009. Trauma, Violence, and Abuse Vol.10[2], 143-170	Narrative review of literature. All included studies were carefully examined, all papers targeting non pregnant population.
MacMillan et al. Screening for intimate partner violence in health care settings: A randomized trial. 2009. JAMA - Journal of the American Medical Association 302[5], 493-JournalUnited States.	Not exclusively pregnant population. No outcomes of interest.
Martin SL, Mackie L, Kupper LL et al. Physical abuse of women before, during, and after pregnancy. Journal of the American Medical Association 2001; 285:(12)1581-4.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Mayer L and Liebschutz J. Domestic violence in the pregnant patient: obstetric and behavioral interventions. Obstetrical and Gynecological Survey 1998; 53:(10)627-35.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
No ai. Zero tolerance for domestic violence. Lancet 2004; 364:(9445)1556.	Editorial.
Parsons L, Goodwin MM, and Petersen R. Violence against women and reproductive health: toward defining a role for reproductive health care services. Maternal and Child Health Journal 2000; 4:(2)135-	Commentary, not primary research.

Reference	Reason for exclusion
40.	
Plichta SB. Interactions between victims of intimate partner violence against women and the health care system: Policy and practice implications. <i>Trauma, Violence, and Abuse</i> 2007; 8:(2)226-39.	Study population is all women victims of domestic abuse, not exclusively pregnant women, no sub-group analysis.
Pratt R, Burman E, and Chantler K. Towards Understanding Domestic Violence: Reflections on Research and the 'Domestic Violence and Minoritization' Project. <i>Journal of Community and Applied Social Psychology</i> 2004; 14:(1)33-43.	Opinion paper.
Pulido ML. Pregnancy: a time to break the cycle of family violence. <i>Health and Social Work</i> 2001; 26:(2)120-4.	Description of service provision. Does not report relevant outcomes.
Rae-Grant Q Physical abuse in pregnancy. What can we do about it? <i>CMAJ Canadian Medical Association Journal</i> 1993; 149:(9)1237-38.	Editorial.
Reading R. The prevalence of domestic violence in pregnant women. <i>Child: Care, Health and Development</i> 2003; 29:(4)314-5.	Commentary on earlier research work.
Rhodes KV and Levinson W. Interventions for intimate partner violence against women: clinical applications. <i>JAMA: the journal of the American Medical Association</i> 2003; 289:(5)601-5.	Case series including all women experiencing domestic abuse not exclusively pregnant women, no sub-group analysis.
Risemberg HM. Fetal neglect and abuse. <i>New York State Journal of Medicine</i> 1989; 89:(3)148-51.	Not relevant population, not women experiencing domestic abuse.
Robrecht LC and Anderson DG. Interpersonal violence and the pregnant homeless woman. <i>JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing</i> 1998; 27:(6)684-91.	Opinion paper.
Royer TD and Barth RP. Improving the outcome of pregnancy. <i>Social Work</i> 1984; 29:(5)470-5.	Opinion paper.
Savona-Ventura C, Savona-Ventura M, Drengsted-Nielsen S et al. Domestic abuse in a central Mediterranean pregnant population. <i>European Journal of Obstetrics Gynecology and Reproductive Biology</i> 2001; 98:(1)3-8.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Scholle SH, Buranosky R, Hanusa BH et al. Routine screening for intimate partner violence in an obstetrics and gynecology clinic. <i>American Journal of Public Health</i> 2003; 93:(7)1070-2.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Seeger SM. Delayed entry into prenatal care: effect of physical violence. <i>Journal of Nurse-Midwifery</i> 1998; 43:(2)126-7.	Commentary.
Sequin RE. Domestic violence in pregnancy: a survey of obstetrical patients at the UAMS department of obstetrics & gynecology clinics. <i>Journal of the Arkansas Medical Society</i> 1998; 95:(5)187-9.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Stevens L. 'A practical approach to gender-based violence: a programme guide for health care providers and managers' developed by the UN Population Fund. <i>International Journal of Gynaecology and Obstetrics</i> 2002; 78 Suppl 1:S111-S117.	Not primary research.
Taft AJ, Watson LF, and Lee C. Violence against young Australian women and association with reproductive events: a cross-sectional analysis of a national population sample. <i>Australian & New Zealand Journal of Public Health</i> 2004; 28:(4)324-9.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Taket A, Nurse J, Smith K et al. Routinely asking	Opinion based article.

Reference	Reason for exclusion
women about domestic violence in health settings. BMJ: British Medical Journal 2003; 327:(7416)673-6.	
Tower M, McMurray A, Rowe J et al. Domestic violence, health and health care: Women's accounts of their experiences. Contemporary Nurse 2006; 21:(2)186-98.	Population is all women victims of domestic violence not exclusively pregnant women with no sub-group analysis.
Veysey BM and Clark C. Introduction. Alcoholism Treatment Quarterly 2004; 22:(3-4)1-18.	Study population is all women victims of domestic abuse, not exclusively pregnant women, no sub-group analysis.
Walsh D. The hidden experience of violence during pregnancy: A study of 400 pregnant Australian women. Australian Journal of Primary Health 2008; 14:(1)97-105.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Watts C and Mayhew S. Reproductive health services and intimate partner violence: shaping a pragmatic response in Sub-Saharan Africa. International Family Planning Perspectives 2004; 30:(4)207-13.	Opinion paper.
Wiist WH and McFarlane J. Severity of spousal and intimate partner abuse to pregnant Hispanic women. Journal of Health Care for the Poor and Underserved 1998; 9:(3)248-61.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
Wyszynski ME. Screening women for family violence in the maternal child healthcare setting. Clinical Excellence for Nurse Practitioners 2000; 4:(2)76-82.	Opinion paper.
Yanikkerem E, Karadas G, Adiguzel B et al. Domestic violence during pregnancy in Turkey and responsibility of prenatal healthcare providers. American Journal of Perinatology 2006; 23:(2)93-103.	Does not address any of the guideline questions (not related to access, barriers to care, maintaining contact, additional consultations or information)
York R, Williams P, and Munro BH. Maternal factors that influence inadequate prenatal care. Public Health Nursing 1993; 10:(4)241-4.	Does not address individual barriers to care for women experiencing domestic abuse.

Q.1a. What aspects of service organisation and delivery are effective at improving access to antenatal services for women experiencing domestic abuse?

Reference	Reason for exclusion
Chambliss LR, Bay RC, and Jones RF, III. Domestic violence: an educational imperative? American Journal of Obstetrics and Gynecology 1995; 172:(3)1035-8.	Does not address antenatal care provision or access to services.
Curry MA. The interrelationships between abuse, substance use, and psychosocial stress during pregnancy. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 1998; 27: 692-699	Does not address antenatal care provision.
Duncan MM, McIntosh PA, Stayton CD et al. Individualized performance feedback to increase prenatal domestic violence screening. Maternal and Child Health Journal 2006; 10:(5)443-9.	Does not address access to care.
Keeling J and Birch L. Domestic violence in nursing curricula. Nursing Times 2002; 98:(48)36-7.5.	Does not address antenatal care provision or access to services.
McDonnell E, Holohan M, Reilly MO et al. Acceptability of routine enquiry regarding domestic violence in the antenatal clinic. Irish Medical Journal 2006; 99:(4)123-4.	Does not address antenatal care provision or access to services.
McNutt LA, Carlson BE, Rose IM, Robinson DA. Partner violence intervention in the busy primary care environment. Am J Prev Med 2002; 22: 84-91	Not correct population. Subgroup analysis shows that out of 60 pregnant women screened for domestic abuse none was found to be positive.
Price S, Baird K. Domestic violence in pregnancy. Pract Midwife 2001; 4: 12-14	Opinion paper.
Scobie J and McGuire M. Professional issues. The silent enemy: domestic violence in pregnancy. British Journal of Midwifery 1999; 7:(4)259-62.	Does not address antenatal care provision or access to services.
Stenson K, Saarinen H, Heimer G et al. Women's attitudes to being asked about exposure to violence. Midwifery 2001; 17:(1)2-10	Does not address antenatal care provision or access to services.
Taylor P, Zaichkin J, Pilkey D et al. Prenatal screening for substance use and violence: findings from physician focus groups. Maternal and Child Health Journal 2007; 11:(3)241-7.	Does not address antenatal care provision or access to services.
Webster J and Holt V. Screening for partner violence: direct questioning or self-report? Obstetrics and Gynecology 2004; 103:(2)299-303.	Does not include the right population nor address access to care.
Wiist WH and McFarlane J. The effectiveness of an abuse assessment protocol in public health prenatal clinics. American Journal of Public Health 1999; 89:(8)1217-21.	Does not address access to care.

Q.1b. What aspects of service organisation and delivery act as barriers to take up of antenatal services for women experiencing domestic abuse?

Reference	Reason for exclusion
Buck et al. Why don't midwives ask about domestic abuse? 2007. British Journal of Midwifery 15[12], 753-758	Excluded as a complete review as included both pregnant and not pregnant women. Individual references checked and studies included where appropriate.
Chamberlain et al. The impact of perceived barriers on primary care physicians' screening practices for female partner abuse. 2002. Women & Health 35[2/3], 55-69	No subgroup analysis by speciality. No specific mention of pregnant women in the paper.
D'Avolio et al. Screening for abuse: barriers and opportunities. 2001. Health Care for Women International 22[4], 349-362	Outcomes poorly reported from a methodological perspective, described by the authors as "impressions and observations about the barriers to screening at the study sites".
Garimella et al. Physician beliefs about victims of spouse abuse and about the physician role. 2000. Journal of Women's Health and Gender-Based Medicine 9[4], 405-411	Not related to pregnant population
Gutmanis et al. Factors influencing identification of and response to intimate partner violence: a survey of physicians and nurses. 2007. BMC Public Health 7, 12	No subgroup analysis for the staff working with pregnant women, no outcomes of interest relating to antenatal care.
McCloskey et al. Abused women disclose partner interference with health care: an unrecognized form of battering. 2007. Journal of General Internal Medicine 22[8], 1067-1072	Only 11.9% of the total population comprised pregnant women.
McFarlane et al. Assessing for abuse during pregnancy. Severity and frequency of injuries and associated entry into prenatal care. 1992. JAMA: the journal of the American Medical Association 267[23], 3176-3178	No outcomes reported on barriers to antenatal care
McNelis et al. Project SAFE: An armed forces cooperative initiative for the prevention and treatment of family violence. 1986. Evaluation and Program Planning 9[3], 233-241	Not related to pregnant population
Minsky-Kelly et al. We've Had Training, Now What? Qualitative Analysis of Barriers to Domestic Violence Screening and Referral in a Health Care Setting. 2005. Journal of Interpersonal Violence 20[10], 1288-1309	No subgroup analysis for the staff working with pregnant women. Outcomes not related to antenatal care.
Parker. Abuse of adolescents: what can we learn from pregnant teen-agers? 1993. AWHONNS Clinical Issues in Perinatal and Womens Health Nursing 4[3], 363-370	No outcomes reported on barriers to antenatal care
Petersen et al. Moving Beyond Disclosure: Women's Perspectives on Barriers and Motivators to Seeking Assistance for Intimate Partner Violence. 2004. Women and Health 40[3], 63-76	Non pregnant population.
Renker. Physical abuse, social support, self-care, and pregnancy outcomes of older adolescents. 1999. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 28[4], 377-388	No outcomes of interest, no barriers were identified.
Seeger. Delayed entry into prenatal care: effect of physical violence. 1998. Journal of Nurse-Midwifery 43[2], 126-127	Comment on a research paper already included in review
Taggart et al. Delay in prenatal care as a result of battering in pregnancy: cross-cultural implications. 1996. Health Care for Women International 17[1], 25-34	No outcomes reported on barriers to antenatal care
Wills et al. Improving detection and quality of	No subgroup analysis for the staff working with

Reference	Reason for exclusion
assessment of child abuse and partner abuse is achievable with a formal organisational change approach. 2008. Journal of Paediatrics and Child Health 44[3], 92-98	pregnant women. Outcomes not related to antenatal care.
Wilson et al. Health needs and barriers to healthcare of women who have experienced intimate partner violence. 2007. Journal of Women's Health 16[10], 1485-1498	Non pregnant population.

Q.2. What aspects of service organisation and delivery improve contact with antenatal services throughout pregnancy for women experiencing domestic violence?

Reference	Reason for exclusion
Liebschutz J, Battaglia T, Finley E, Averbuch T. Disclosing intimate partner violence to health care clinicians - what a difference the setting makes: a qualitative study. BMC Public Health 2008; 8: 229	Study population includes all women victims of intimate partner violence, not exclusively pregnant women, no sub-group analyses reported.
Wiist WH and McFarlane J. The effectiveness of an abuse assessment protocol in public health prenatal clinics. American Journal of Public Health 1999; 89:(8)1217-21.	Does not address intervention or outcomes relating to maintaining contact with antenatal services.

Q.3. What additional consultation and/or support should be provided to women experiencing domestic abuse in order to improve pregnancy outcomes? (Additional here means over and above that described in NICE Antenatal care guideline).

Reference	Reason for exclusion
Bacchus et al. Prevalence of domestic violence when midwives routinely enquire in pregnancy. 2004. BJOG: an International Journal of Obstetrics and Gynaecology 111[5], 441-445	Does not address provision of additional antenatal consultations and support.
Calderon et al. Cueing prenatal providers: Effects on discussions of intimate partner violence. 2008. American Journal of Preventive Medicine 34[2], 134-137	No outcomes of interest.
Campbell et al. Collaboration as a partnership. 1999. Violence Against Women 5[10], 1140-1157	Non pregnant population.
Chang et al. Asking about intimate partner violence: Advice from female survivors to health care providers. 2005. Patient Education and Counseling 59[2], 141-147	Non pregnant population.
Clark et al. Who gets screened during pregnancy for partner violence? 2000. Archives of Family Medicine 9[10], 1093-1099	Does not address provision of additional antenatal consultations and support.
Flynn et al. Brief detection and co-occurrence of violence, depression and alcohol risk in prenatal care settings. 2007. Archives of Women's Mental Health 10[4], 155-161	Does not address provision of additional antenatal consultations and support.
Humphreys et al. Mental Health and Domestic Violence: "I Call it Symptoms of Abuse". 2003. British Journal of Social Work 33[2], 209-226	Non pregnant population.
Janssen et al. The prevalence of domestic violence among obstetric nurses. 1998. Womens Health Issues 8[5], 317-323	Does not address provision of additional antenatal consultations and support.
Kataoka et al. Screening of domestic violence against women in the perinatal setting: A systematic review. 2004. Japan Journal of Nursing Science 1[2], 77-86	A systematic review looking at screening instrument suitable for use in clinical setting in Japan. Two of the included studies with our desired outcomes have been included in this review.
Martin et al. Health Care-Based Interventions for Women who have Experienced Sexual Violence: A Review of the Literature. 2007. Trauma, Violence, and Abuse 8[1], 3-18	Non systematic review of literature on women who had experienced sexual violence. None of the included studies are related to antenatal care provision.
McCaw et al. Women referred for on-site domestic violence services in a managed care organization. 2002. Women and Health 35[2-3], 23-40	Non pregnant population.
McFarlane et al. Behaviors of children following a randomized controlled treatment program for their abused mothers. 2005. Issues in Comprehensive Pediatric Nursing 28[4], 195-211	Study on behaviours of children following a treatment programme for their mothers. Not an antenatal programme. Does not address provision of additional antenatal consultations and support.
McFarlane et al. Secondary Prevention of Intimate Partner Violence: A Randomized Controlled Trial. 2006. Nursing Research 55[1], 52-61	Non pregnant population.
McFarlane. Abuse during pregnancy: the horror and the hope. 1993. AWHONNS Clinical Issues in Perinatal and Womens Health Nursing 4[3], 350-362	Does not address provision of additional antenatal consultations and support.
McHugo et al. Women, Co-occurring Disorders, and Violence Study: Evaluation design and study population. 2005. Journal of Substance Abuse Treatment 28[2], 91-107	Non pregnant population.
Mezey et al. Domestic violence, lifetime trauma and psychological health of childbearing women.	Does not address provision of additional antenatal consultations and support.

Reference	Reason for exclusion
2005. BJOG: an International Journal of Obstetrics and Gynaecology 112[2], 197-204	
Monroe et al. The Experience of Sexual Assault: Findings From a Statewide Victim Needs Assessment. 2005. Journal of Interpersonal Violence 20[7], 767-776	Non pregnant population.
Moracco et al. Knowledge and Attitudes About Intimate Partner Violence Among Immigrant Latinos in Rural North Carolina. 2005. Violence Against Women 11[3], 337-352	Non pregnant population.
Muthal-Rathore et al. Domestic violence against pregnant women interviewed at a hospital in New Delhi. 2002. International Journal of Gynecology and Obstetrics 76[1], 83-85Ireland.	Does not address provision of additional antenatal consultations and support.
Paranjape et al. Utilization of Services by Abused, Low-income African-American Women. 2006. Journal of General Internal Medicine 21[2], 189-192	Non pregnant population, no outcomes of interest.
Price et al. Asking the question: antenatal domestic violence. 2005. Practising Midwife 8[3], 21-22	No outcomes of interest.
Q.3 Melhado, L. For pregnant women, silence on domestic violence speaks loudly. 2005. Perspectives on Sexual and Reproductive Health 37[4]United States.	Does not address provision of additional antenatal consultations and support.
Quinlivan et al. Impact of domestic violence and drug abuse in pregnancy on maternal attachment and infant temperament in teenage mothers in the setting of best clinical practice. 2005. Archives of Women's Mental Health 8[3], 191-199	Does not address provision of additional antenatal consultations and support.
Rabkin et al. The role of social workers in providing comprehensive health care to pregnant women. 1995. Social Work in Health Care 20[3], 83-97	Not specific to women who are experiencing domestic abuse.
Renker. Physical abuse, social support, self-care, and pregnancy outcomes of older adolescents. 1999. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 28[4], 377-388	Does not address provision of additional antenatal consultations and support.
Salmon et al. An evaluation of the effectiveness of an educational programme promoting the introduction of routine antenatal enquiry for domestic violence. 2006. Midwifery 22[1], 6-14	Does not address provision of additional antenatal consultations and support. No outcomes of interest.
Sharps et al. Current evidence on perinatal home visiting and intimate partner violence. 2008. Journal of Obstetric, Gynecologic, and Neonatal Nursing: Clinical Scholarship for the Care of Women, Childbearing Families, and Newborns Vol.37[4], 480-491	Narrative reviews of 8 studies. All included studies were carefully examined; no domestic abuse interventions were included.
Sharps et al. Current evidence on perinatal home visiting and intimate partner violence. 2008. JOGNN - Journal of Obstetric, Gynecologic, and Neonatal Nursing 37[4], 480-490	Non-systematic review. All included studies were carefully examined, do not address provision of additional antenatal consultations and support, mainly focused on postnatal home visiting
Short et al. Assessing the success of the WomanKind program: An integrated model of 24-hour health care response to domestic violence. 2002. Women and Health 35[2-3], 101-119	Non pregnant population.
Tandon et al. Formative evaluation of home visitors' role in addressing poor mental health, domestic violence, and substance abuse among low-income pregnant and parenting women. 2005. Maternal & Child Health Journal 9[3], 273-283	Study population consists of pregnant and non pregnant women, out of 189 mothers who were interviewed only 5 were pregnant at interview, no subgroup analysis for pregnant population. No outcomes of interest.
Trabold. Screening for intimate partner violence within a health care setting: A systematic review of	Systematic review of literature on screening and safety. Three of the included studies with our

Reference	Reason for exclusion
the literature. 2007. Social Work in Health Care 45[1], 1-18	desired outcomes are already included in our review, the rest are either from a non pregnant population or have no outcomes of interest.
Trotter et al. Risk and protective factors for pregnant women experiencing psychological abuse. 2004. Journal of Emotional Abuse 4[2], 53-70United States.	Does not address provision of additional antenatal consultations and support.
Ulbrich et al. Making family planning clinics an empowerment zone for rural battered women. 2002. Women and Health 35[2-3], 83-100	No data on the number of pregnant women included in the study, no subgroup analysis.
Wathen et al. Interventions for violence against women. Scientific review. 2003. JAMA: the journal of the American Medical Association 289[5], 589-600	A systematic review. Three of the included studies with our desired outcomes are already included in the review, the rest of the included studies were neither related to antenatal care nor had outcomes of interest.
Williams et al. Domestic partner abuse treatment programs and cultural competence: The results of a national survey. 1994. Violence and Victims 9[3], 287-296	Non pregnant population, no outcomes of interest.
Williams et al. Violence against pregnant women. These two screening tools may prove valuable in identifying women at risk. 2003. AWHONN Lifelines 7[4], 348-354	Does not address target population and no outcomes of interest.

Q.4. What additional information should be provided to women experiencing domestic abuse in order to improve pregnancy outcomes? (Additional here means over and above that described in the NICE Antenatal care guideline)

Reference	Reason for exclusion
Olsen ME and Kalbfleisch JH. A survey of pregnant women's knowledge about sexual abuse. Journal of Pediatric and Adolescent Gynecology 1999; 12:(4)219-22.	Not women experiencing domestic abuse.