



Pregnancy and complex social factors: Evidence Update January 2012

**A summary of selected new evidence relevant to NICE
clinical guideline 110 'A model for service provision for
pregnant women with complex social factors' (2010)**



Evidence Update 3

Evidence Updates provide a regular, often annual, summary of selected new evidence published since the literature search was last conducted for the accredited guidance they update. They reduce the need for individuals, managers and commissioners to search for new evidence and inform guidance developers of new evidence in their field. In particular, Evidence Updates highlight any new evidence that might generate future change to the practice described in the most recent, accredited guidance, and provide a commentary on the potential impact. Any new evidence that may impact current guidance will be notified to the appropriate NICE teams. For contextual information, Evidence Updates should be read in conjunction with the relevant clinical guideline, available from www.nice.org.uk/guidance/CG110. NHS Evidence is a service provided by NICE to improve use of, and access to, evidence-based information about health and social care.

Evidence Updates do not replace current accredited guidance and do not provide formal practice recommendations.

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Introduction

This Evidence Update identifies new evidence that might generate future change to the practice laid out in the following reference guidance:

 ¹**Pregnancy and complex social factors. NICE clinical guideline 110 (2010).**
Available from www.nice.org.uk/guidance/CG110

Just over 6100 pieces of evidence were identified and assessed of which 12 were selected for the Evidence Update. An Evidence Update Advisory Group, comprised of subject experts, has reviewed the prioritised evidence and provided a commentary.

Feedback

If you have any comments you would like to make on this Evidence Update, please email contactus@evidence.nhs.uk

¹ NICE-accredited guidance is denoted by the accreditation symbol 

Key messages

The following table summarises what the Evidence Update Advisory Group (EUAG) decided were the key messages from the Evidence Update. It also indicates the EUAG's opinion on whether new evidence identified by the Evidence Update has the potential to generate future change to the current guidance listed in the introduction.

The relevant NICE teams have been made aware of this evidence, which will be considered when guidance is reviewed. For further details of the evidence behind these key messages and the specific guidance that may be affected, please see the full commentaries.

Key message	Effect on guidance	
	Potential change	No change
General recommendations <ul style="list-style-type: none"> The risk of preterm or low birth weight deliveries in pregnant women with complex social factors may be reduced by targeted interventions, though evidence for effectiveness is currently limited and further research is required. 		✓
Pregnant women who misuse substances (alcohol and/or drugs) <ul style="list-style-type: none"> Current recommendations for training of healthcare professionals on the social and psychological needs of pregnant women who misuse substances appear to be supported by findings in recent evidence of increased risk of postpartum depression in this patient population. 		✓
Pregnant women who are recent migrants, asylum seekers or refugees, or who have difficulty reading or speaking English <ul style="list-style-type: none"> Pregnant women of minority migrant or black and minority ethnic origin appear to be at increased risk of severe morbidity compared with white British women, suggesting they should be given particular consideration and support, in accordance with current recommendations. Current recommendations to provide interpreter services appear to be supported by recent evidence. 		✓ ✓
Young pregnant women aged under 20 <ul style="list-style-type: none"> Current recommendations for service organisation to enhance access to antenatal clinics for young pregnant women appear to be supported by recent evidence. 		✓
Pregnant women who experience domestic abuse <ul style="list-style-type: none"> Evidence of the increased risk of adverse outcomes in pregnant women who experience domestic abuse appears to support the need to address the barriers to care experienced by these women. Current recommendations for training of healthcare professionals on the care of pregnant women who experience domestic abuse seem to be supported by the finding of increased risk of postpartum depression in this patient population. 		✓ ✓

1 Commentary on new evidence

These commentaries analyse the key references identified specifically for the Evidence Update, which are identified in bold text. Supporting references are also provided.

1.1 General recommendations

Service organisation

A systematic review by [Hollowell et al. \(2011\)](#) of experimental or observational studies with a control or comparator group assessed the effectiveness of antenatal interventions to reduce infant mortality and preterm birth in socially disadvantaged and vulnerable women in high-income countries. The review included women living in deprived areas, disadvantaged minority ethnic/racial groups, women in prison, travellers, homeless women, asylum seekers and refugees, recently arrived migrants/other immigrant groups, victims of abuse, women with mental illness/mental health problems, women with learning difficulties and sex workers. The 36 studies (number of patients involved not reported) included in the review covered a wide range of interventions including group antenatal care, home-visiting programmes, maternal care coordination and nutritional programmes. Many of the studies appeared to have serious methodological flaws (e.g. limited internal validity, concerns about statistical methods, potential selection bias) that may potentially restrict the value of the evidence provided. Seven interventions (e.g. group antenatal care) were identified as indicating a possibly beneficial effect on preterm births or infant mortality, of which three interventions (e.g. nutritional programmes) were considered potentially promising adjuncts to standard antenatal care.

The review provides some support for the recommendation of [NICE clinical guideline \(CG\) 110](#) for evaluation of different models of service provision for pregnant women with complex social factors.

Key reference

Hollowell J, Oakley L, Kurinczuk JJ et al. (2011) The effectiveness of antenatal care programmes to reduce infant mortality and preterm birth in socially disadvantaged and vulnerable women in high-income countries: a systematic review. *BMC Pregnancy and Childbirth* 11:13.

Full text: www.biomedcentral.com/1471-2393/11/13

1.2 Pregnant women who misuse substances (alcohol and/or drugs)

Service organisation

A post-hoc analysis by [Brigham et al. \(2010\)](#) found some evidence that issuing vouchers for local retail stores (\$25–30 per visit) to pregnant women entering outpatient substance abuse treatment at one of four US centres increased attendance at research visits compared with non-incentivised treatment visits (when subjects received either motivational enhancement therapy or usual treatment). The analysis was conducted among 175 non-methadone maintained women (41% Caucasian, 39% African Americans, 13% Hispanics; mean age 26 years) and the primary substance of abuse was marijuana (35%), cocaine (27%), alcohol (12%), methamphetamine (8%), opioids (4%), benzodiazepines or other (14%). Over 60% of women attended four consecutive incentivised research visits compared with just over 20% attending non-incentivised treatment visits ($p < 0.001$). There was no effect of income but there was an association between having fewer dependents and increased likelihood of attendance.

Although the study population may have limited relevance to the UK population of pregnant women who misuse substances, the study suggests a need for further research on the use of financial incentives to modify health-seeking behaviour in the UK population. The use of financial incentives is not specifically considered in the current recommendations given in [NICE CG110](#).

Key reference

Brigham G, Winhusen T, Lewis D et al. (2010) Incentives for retention of pregnant substance users: a secondary analysis. *Journal of Substance Abuse and Treatment* 38: 90–5
Full text: www.ncbi.nlm.nih.gov/pmc/articles/PMC2789836/pdf/nihms120237.pdf

Training for healthcare staff

A review by [Ross and Dennis \(2009\)](#) examined the prevalence of postpartum depression among women who misuse substances (one study in Finland and four studies in the US; n = 1485), women with current or past experience of abuse (eight studies; n = 2902) and women with chronic illness (four studies; n = 1121). Rates of postpartum depression appeared high in the studies of substance-misusing mothers. The studies may have limited application to the UK setting and further work is required to determine if the effect seen is attributed primarily to the substance abuse or to co-existent socioeconomic risk factors. However, it is clear that healthcare workers should be aware of the increased risk of postpartum depression in women who misuse substances. The risk of postpartum depression was also increased in women with a history of abuse (see **‘Training for healthcare staff’** in section 1.5), but not in those with chronic illness. This evidence of the psychological needs of pregnant women who misuse substances appears to support the recommendations of [NICE CG110](#) for training of healthcare professionals caring for this patient population.

Key reference

Ross LE, Dennis C-L (2009) The prevalence of postpartum depression among women with substance use, an abuse history or chronic illness: a systematic review. *Journal of Women’s Health* 18: 475–86
Abstract: www.liebertonline.com/doi/abs/10.1089/jwh.2008.0953

Information and support for women

A Cochrane review by [Stade et al. \(2009\)](#) (four randomised controlled trials [RCTs] conducted in the USA; 715 pregnant women all of whom were consuming some alcohol) examined the impact of a variety of psychological and educational interventions to reduce alcohol consumption compared with usual care. The interventions and outcomes measured were not sufficiently similar to allow meta-analyses to be performed, but results from individual studies suggest that educational and counselling interventions may encourage women to abstain from alcohol in pregnancy. Three of the studies were also included in a non-systematic review by [Nilsen \(2009\)](#), together with another RCT which concluded that brief interventions in antenatal care may achieve reduced alcohol consumption.

This Cochrane review on psychological and educational interventions to reduce alcohol consumption in pregnancy and prior to pregnancy is considered a useful addition to the body of evidence to support [NICE CG110](#), particularly when it is updated with future studies.

Key reference

Stade BC, Bailey C, Dzendoletas D et al. (2009) Psychological and/or educational interventions for reducing alcohol consumption in pregnant women and women planning pregnancy. *Cochrane Database of Systematic Reviews* issue 2: CD004228
Full text: www.onlinelibrary.wiley.com/doi/10.1002/14651858.CD004228.pub2/full

Supporting reference

Nilsen P (2009) Brief alcohol interventions to prevent drinking during pregnancy: an overview of research findings. *Current Opinion in Obstetrics and Gynecology* 21: 496–500
Abstract: www.journals.lww.com/co-obgyn/pages/articleviewer.aspx?year=2009&issue=12000&article=00008&type=abstract

1.3 Pregnant women who are recent migrants, asylum seekers or refugees, or who have difficulty reading or speaking English

Service organisation

The risk of severe maternal morbidity was examined by the UK Obstetric Surveillance System (UKOSS), which includes all hospitals with consultant-led maternity units in the UK ([Knight et al. 2010](#)). Between February 2005 and February 2006, 686 women experienced 'near-miss' events (acute fatty liver of pregnancy, amniotic fluid embolism, antenatal pulmonary embolism, eclampsia, peripartum hysterectomy) from an estimated 775,186 maternities. Of these cases, 74% of women were white and 26% were non-white. The estimated risk of severe maternal morbidities was 80 cases per 100,000 pregnancies for white women, compared with 126 cases per 100,000 for non-white women (risk ratio [RR] = 1.58; 95% confidence interval [CI] 1.33 to 1.87). After adjusting for differences in age, socioeconomic and smoking status, body mass index and parity, the risk in black and minority ethnic women remained higher than for white women (odds ratio 1.50; 95% CI 1.15 to 1.96). Black African women and black Caribbean women had the highest risk compared with white women (RR = 2.35; 95%CI 1.45 to 3.81 and RR = 2.45; 95% CI 1.81 to 3.31, respectively). This evidence for non-white ethnicity being a significant risk factor for 'near-miss' morbidity events reflects previously reported findings for mortality.

The evidence from this study highlights the importance of service organisation for pregnant women from ethnic minorities to ensure adequate access to care, as recommended in [NICE CG110](#).

Key reference

Knight M, Kurinczuk JJ, Spark P et al. (2009) Inequalities in maternal health: national cohort study of ethnic variation in severe maternal morbidities. *British Medical Journal (clinical research edition)* 338: b542

Full text: www.bmj.com/content/338/bmj.b542.long

Communication with women who have difficulty reading or speaking English

A retrospective analysis of pregnant women by [Thomas et al. \(2010\)](#) considered the impact of cultural and linguistic diversity at a single centre in Australia. The study included 4751 women (including 1046 non-Caucasian women, 117 women identified as refugees and 461 women using an interpreter). The primary outcome was a composite measure of stillbirth, preterm birth (< 37 weeks), caesarean section, postpartum haemorrhage (\geq 1000 ml), eclampsia, intrauterine growth retardation, low birthweight (< 2500 g), admission to neonatal unit, congenital abnormality and perineal trauma (3rd/4th degree tear). An association between refugee status and pregnancy outcome was not significant using regression modelling. The use of interpreters was identified as conferring benefit under both analytical methods.

A retrospective analysis by [Bray et al. \(2010\)](#) audited obstetric case records of 114/136 (84%) migrants from central Europe (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) giving birth in hospitals in the Lothian region of Scotland during 2006. While there were no significant differences in maternity outcomes from the general population, interpretation services were used infrequently, and poor communication affected care, for example by delays in receiving analgesia.

Both the observational study in Australia and the audit of a relevant UK migrant group support the existing recommendation in [NICE CG110](#) that women should be provided with interpreting services.

Key references

Bray JK, Gorman DR, Dundas K et al. (2010) Obstetric care of new European migrants in Scotland: an audit of antenatal care, obstetric outcomes and communication. *Scottish Medical Journal* 55: 26–31
Full text: www.smj.org.uk/0810/pdf/OA7.pdf

Thomas PE, Beckmann M, Gibbons K (2010) The effect of cultural and linguistic diversity on pregnancy outcome. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 50: 419–22
Abstract: www.onlinelibrary.wiley.com/doi/10.1111/j.1479-828X.2010.01210.x/abstract;jsessionid=47BC9A664026F0D00FBBF262BFEF0C03.d02t04?

1.4 Young pregnant women aged under 20

Service organisation

A retrospective cohort analysis reported by [Debiec et al. \(2010\)](#) analysed routine data on singleton births from a random sample of 30,000 adolescent women delivering in a US state during 1995 to 2006; complete records were available for 27,107 (90%). The analysis aimed to determine any association between preterm delivery (< 37 weeks) and frequency of prenatal visits (defined as ratio of actual visits compared with the expected number of visits based on American College of Obstetricians and Gynecologists guidelines for the gestational age at birth). After adjustment for potential confounders, the study found a clear inverse relationship between the proportion of prenatal visits received and preterm births. Nearly a quarter (24.1%) of women who did not receive prenatal care (n = 349) delivered preterm compared with 9.5% of 629 women with < 24% of expected visits, 5.9% of 2,254 women with 25–49% of expected visits, 5.0% of 5,718 women with 50–74% of visits and 3.9% of 8,983 women with 75–100% of visits (adjusted odds ratio [OR] of 7.4, 2.5, 1.5 and 1.3, respectively compared with women making 75–100% of expected visits). A strength of this study is its sample size achieved by the use of routine data, though this limited the availability of information on potential confounding factors. The findings support the need for ready access to antenatal services recommended in [NICE CG110](#).

Key reference

Debiec KE, Paul KJ, Mitchell CM et al. (2010) Inadequate prenatal care and risk of preterm delivery among adolescents: a retrospective study over 10 years. *American Journal of Obstetrics and Gynecology* 203: 122.e1–6
Full text: [www.ajog.org/article/S0002-9378\(10\)00288-7/fulltext](http://www.ajog.org/article/S0002-9378(10)00288-7/fulltext)

Information and support for women

In the US, almost one-quarter of adolescent mothers give birth to another baby within 24 months of having a baby. [Barnet et al. \(2010\)](#) reported a three-arm RCT conducted in the US to compare computer-aided motivational interview (CAMI) plus a multi-component home visiting programme in 80 pregnant teenagers, CAMI alone (n = 87) and standard care (n = 68) on the rate of subsequent births. The study population was predominantly African American (97%) and aged 12 to 18 years. The intention-to-treat analysis showed numerical reduction in the rate of subsequent birth with CAMI plus home visit (14%) and with CAMI alone (17%) compared with standard care (25%). The differences between treatment groups was not statistically significant. Although there is limited information about this potentially important issue in the UK, the intervention presented in this study may warrant further investigation in a relevant population.

Key reference

Barnet B, Liu J, DeVoe M et al. (2009) Motivational intervention to reduce rapid subsequent births to adolescent mothers: a community-based randomized trial. *Annals of Family Medicine* 7: 436–45
Full text: www.ncbi.nlm.nih.gov/pmc/articles/PMC2746510/?tool=pubmed

1.5 Pregnant women who experience domestic abuse

Adverse outcomes following domestic abuse

A systematic review by [Shah and Shah \(2010\)](#) of 30 observational studies reporting low birth weight or preterm births assessed the impact of domestic violence (almost half a million participants involved; 28 studies contributed data to the meta-analysis). Compared to those in the control group, women experiencing domestic violence were more likely to have low birth weight babies (adjusted OR = 1.53; 95% CI 1.28 to 1.82) and preterm births (adjusted OR = 1.46; 95% CI 1.27 to 1.67). This review provides evidence of the increased risk of adverse outcomes among pregnant women who experience domestic abuse and supports the rationale for the specific guideline, [NICE CG110](#), to address the needs of these women.

Key reference

Shah PS, Shah J (2010) Maternal exposure to domestic violence and pregnancy and birth outcomes: a systematic review and meta-analysis. *Journal of Women's Health* 19: 2017–29
Abstract: www.liebertonline.com/doi/abs/10.1089/jwh.2010.2051

Training for healthcare staff

As noted earlier (see 'Training for healthcare staff' in section 1.2), a systematic review by [Ross et al. \(2009\)](#) examined the prevalence of postpartum depression among women who use substances, women with current or past experience of abuse (four US studies, two Canadian studies and two Chinese studies) and women with chronic illness (four studies). Rates of postpartum depression appeared high in women with a history of abuse in seven of the studies; the sole study to find no significant association was limited by its small sample. Healthcare workers should be aware of the increased risk of postpartum depression in women with current or past experience of abuse. The evidence appears to support the recommendation given in [NICE CG110](#), for healthcare workers caring for women who experience abuse to be alert to issues these women face.

Key reference

Ross LE, Dennis C-L (2009) The prevalence of postpartum depression among women with substance use, an abuse history or chronic illness: a systematic review. *Journal of Women's Health* 18: 475–86
Abstract: www.liebertonline.com/doi/abs/10.1089/jwh.2008.0953

Information and support for women

An RCT by [Keily et al. \(2010\)](#) assessed the impact of a psychobehavioural intervention in reducing intimate partner violence during and after pregnancy in African American women in six community-based prenatal clinics in the USA. The intervention, comprising four to eight sessions delivered by social workers and psychologists, was adapted according to the risks revealed by the women at initial interviews. In the case of intimate partner violence the intervention emphasised safety behaviours, empowerment theory, provided information on types of violence, cycle of violence, danger assessment, preventative options and the development of safety plans. A total of 521 women were randomised to receive the intervention, including 169 women reporting intimate partner violence in the previous year; and 523 women were randomised to standard care, of whom 167 women experienced intimate partner violence. Women receiving the intervention were less likely to have recurrent episodes of intimate partner violence than the standard care group (OR = 0.48; 95% CI 0.26 to 0.80). The analysis showed a consistent benefit of the intervention in women experiencing minor, severe and physical partner violence. Women in the intervention group also experienced fewer very preterm births (< 33 weeks) than the control group (1.5% vs 6%; $p = 0.030$) and showed increased mean gestational age (38.2 weeks vs 36.9 weeks; $p = 0.016$). Although the US setting reduces the relevance of this study to the UK population, the intervention appears promising and warrants further investigation.

Key reference

Kiely M, El-Mohandes AAE, El-Khorazaty MN et al. (2010) An integrated intervention to reduce intimate partner violence in pregnancy: a randomized controlled trial. *Obstetrics and Gynecology* 115: 273–83
Full text: www.ncbi.nlm.nih.gov/pmc/articles/PMC2917915/?tool=pubmed

2 New evidence uncertainties

During the development of the Evidence Update, the following evidence uncertainties were identified that have not previously been listed on the NHS Evidence UK Database of Uncertainties about the Effects of Treatments (DUETs).

General recommendations

- Antenatal care programmes to reduce infant mortality and preterm birth in socially disadvantaged and vulnerable women in high-income countries

www.library.nhs.uk/duets/ViewResource.aspx?resID=411744

Pregnant women who misuse substances (alcohol and/or drugs)

- Psychological and/or educational interventions for reducing alcohol consumption in pregnant women and women planning pregnancy

www.library.nhs.uk/duets/ViewResource.aspx?resID=411736

Further evidence uncertainties for pregnancy and complex social factors can be found at www.library.nhs.uk/duets/ and in the NICE research recommendations database at www.nice.org.uk/research/index.jsp?action=rr.

DUETs has been established in the UK to publish uncertainties about the effects of treatment which cannot currently be answered by referring to reliable up-to-date systematic reviews of existing research evidence.

Appendix A: Methodology

Scope

The scope of this Evidence Update is taken from the scope of the reference guidance:

- Pregnancy and complex social factors. NICE clinical guideline 110 (2010). Available from www.nice.org.uk/guidance/CG110

Searches

The literature was searched to identify studies (randomised controlled trials, observational studies and qualitative studies) and systematic reviews relevant to the scope. Searches were conducted of the following databases, covering the dates 1 October 2008 (the end of the search period of [NICE CG110](http://www.nice.org.uk/guidance/CG110)) to 31 August 2011:

- Medline
- Embase
- CINAHL
- Cochrane Trials
- CSA Illumina (ASSIA, Sociological Abstracts, Social Service Abstracts)
- CDSR
- DARE
- PsycINFO

Table 1 provides details of the search strategy used. One search strategy was used that included all elements of the four separate search strategies used for the baseline guidance. No additional studies outside of the search strategy were identified by the Evidence Update Advisory Group members. Figure 1 provides details of the evidence selection process.

Table 1 MEDLINE search strategy (adapted for individual databases)

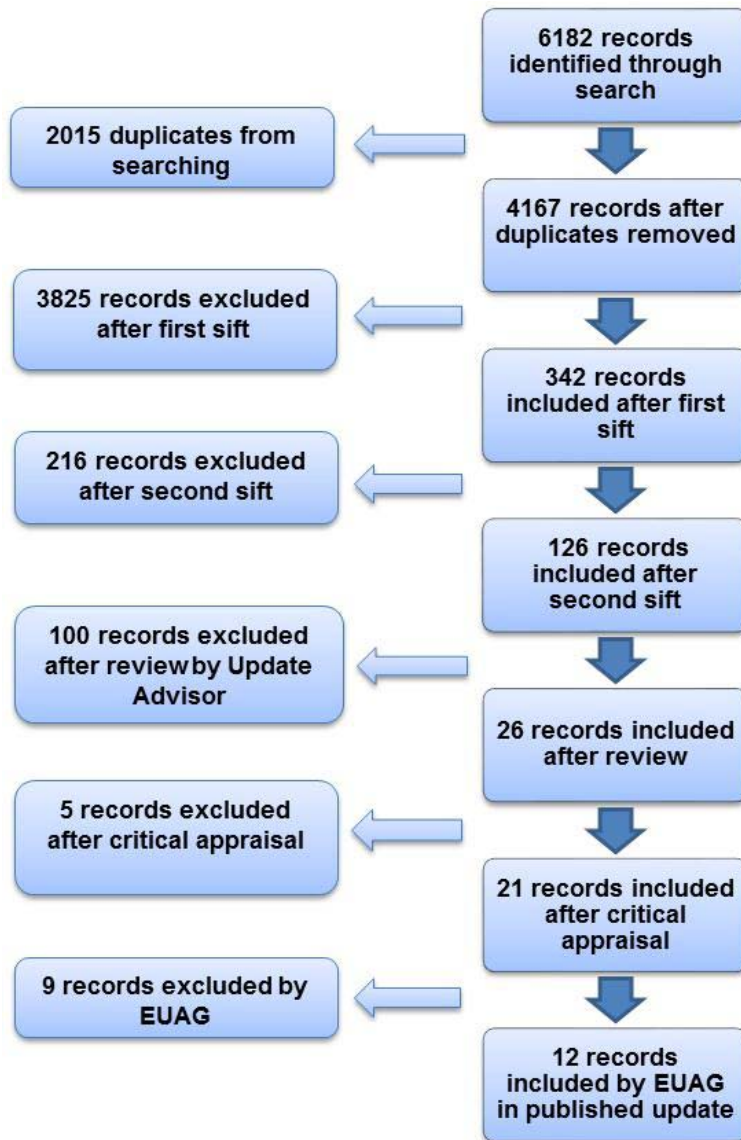
1	MIDWIFERY/
2	PRECONCEPTION CARE/
3	PRENATAL CARE/
4	PERINATAL CARE/
5	antenatal\$.ti,ab.
6	(midwife or midwifery or midwives).ti,ab.
7	((preconception\$ or pre conception\$) adj3 (care or healthcare or service? or clinic? or welfare or program\$)).ti,ab.
8	((prenatal\$ or antenatal\$ or perinatal\$) adj3 (care or healthcare or service? or clinic? or welfare or program\$)).ti,ab.
9	((pre natal\$ or ante natal\$ or peri natal\$) adj3 (care or healthcare or service? or clinic? or welfare or program\$)).ti,ab.
10	((obstetric\$ or family planning or reproductive) adj3 (care or healthcare or service? or clinic? or nurs\$)).ti,ab.
11	((pregnan\$ or expectant or maternal or pre?natal\$ or ante?natal\$) adj3 (contact\$ or access\$)).ti,ab.
12	exp MATERNAL HEALTH SERVICES/
13	((maternal or expectant or pregnan\$) adj3 (healthcare or service? or care or clinic?)).ti,ab.
14	MATERNAL-CHILD NURSING/
15	OBSTETRICAL NURSING/
16	NURSE MIDWIVES/
17	REPRODUCTIVE HEALTH SERVICES/
18	or/1-17
19	PREGNANCY IN ADOLESCENCE/
20	(adolescent and pregnancy).ti,ab.
21	MATERNAL AGE/
22	((adolescenc\$ or teen\$ or youth? or minor?) adj3 pregnan\$).ti,ab.
23	((adolescenc\$ or teen\$ or young or underage or school age) adj3 (mom or mum\$ or mother\$ or parent\$)).ti,ab.
24	or/19-23
25	exp SUBSTANCE-RELATED DISORDERS/
26	ALCOHOL DRINKING/
27	ETHANOL/ae, po
28	TEMPERANCE/
29	exp ALCOHOLIC BEVERAGES/
30	(liquor or beer\$ or lager or wine?).ti,ab.
31	((drink\$ or use\$ or consum\$) adj2 alcohol\$).ti,ab.
32	((misus\$ or abus\$) adj2 alcohol\$).ti,ab.
33	((hazardous or harmful\$ or problem\$) adj2 (alcohol or drink\$)).ti,ab.
34	BEHAVIOR, ADDICTIVE/
35	(addictive adj behaviour\$).ti,ab.
36	(dependency or dependencies or addict\$).ti,ab.
37	((drink\$ or alcohol\$) adj2 (spree? or binge? or bender?)).ti,ab.
38	(Temperance or sobriety or teetotal\$ or tee total\$).ti,ab.
39	((drug? or substance?) adj (abus\$ or use\$ or misus\$)).ti,ab.
40	exp METHADONE/
41	amidone.ti,ab.
42	dolophine.ti,ab.
43	methadone.ti,ab.
44	methadose.ti,ab.
45	phenadone.ti,ab.

46	physeptone.ti,ab.
47	symoron.ti,ab.
48	76-99-3.rn.
49	exp MORPHINANS/
50	naltrexone.ti,ab.
51	naloxone.ti,ab.
52	METHAMPHETAMINE/
53	meth??amphetamine?.ti,ab.
54	(crank or crystal meth).ti,ab.
55	(deoxyephedrine or desoxyephedrine).ti,ab.
56	(metamfetamine or n-methylamphetamine).ti,ab.
57	(madrine or desoxyn).ti,ab.
58	exp COCAINE/
59	cocaine.ti,ab.
60	50-36-2.rn.
61	LYSERGIC ACID DIETHYLAMIDE/
62	(LSD or lysergic acid diethylamide).ti,ab.
63	50-37-3.rn.
64	lysergide.ti,ab.
65	tetrahydrocannabinol.ti,ab.
66	(9-ene-tetrahydrocannabinol or delta\$-tetrahydrocannabinol or delta\$-thc).ti,ab.
67	(marijuana or marihuana).ti,ab.
68	MARIJUANA SMOKING/
69	hashish.ti,ab.
70	cannabis.ti,ab.
71	SOLVENTS/
72	((glue or solvent? or chemical) adj3 (sniff\$ or abus\$ or huff\$)).ti,ab.
73	((intravenous\$ or intra venous\$ or IV) adj3 (drug? abus\$ or drug? misuse\$)).ti,ab.
74	(inject\$ drug? adj3 (user? or misuse\$ or abus\$)).ti,ab.
75	(IDU or IDUs).ti,ab.
76	NEEDLE SHARING/
77	(n-methyl 3,4 methylenedioxyamphetamine or methylenedioxymethamphetamine).ti,ab.
78	(ecstasy or mdma).ti,ab.
79	codeine.ti,ab.
80	(n methylmorphine or ardinex or isocodeine).ti,ab.
81	exp BENZODIAZEPINES/
82	(valium or diazepam).ti,ab.
83	(xanax or alprazolam).ti,ab.
84	(librium or chlordiazepoxide).ti,ab.
85	(prosom or estazolam).ti,ab.
86	exp BARBITURATES/
87	(Mephobarbital or mebaral).ti,ab.
88	(Nembutal or pentobarbitalsodium).ti,ab.
89	NARCOTICS/
90	narcotic?.ti,ab.
91	HYDROCODONE/
92	(Vicodin or hydrocodone).ti,ab.
93	OPIUM/

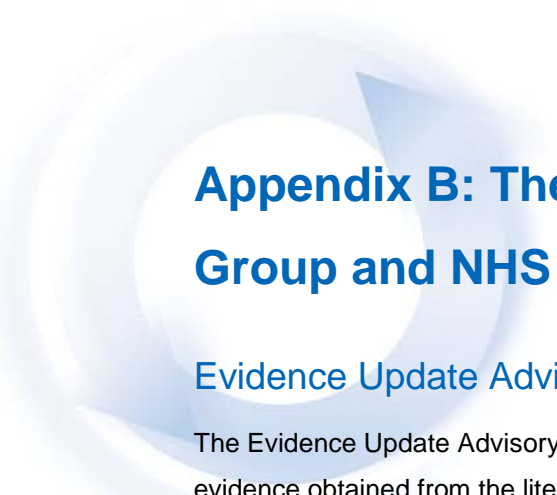
94	opium.ti,ab.
95	TRAMADOL/
96	tramadol.ti,ab.
97	DESIGNER DRUGS/
98	((designer or illicit or illegal) adj2 drug?).ti,ab.
99	STREET DRUGS/
100	((street or dealer) adj2 drug?).ti,ab.
101	((psychoactive or psychedelic) adj3 drug?).ti,ab.
102	PSYCHOTROPIC DRUGS/
103	exp HALLUCINOGENS/
104	(hallucinogen\$ adj2 drug?).ti,ab.
105	(detox\$ or withdrawal).ti,ab.
106	(rehab\$ adj3 (drug? or alcohol\$ or substance?)).ti,ab.
107	SUBSTANCE ABUSE TREATMENT CENTERS/
108	NEONATAL ABSTINENCE SYNDROME/
109	heroin.ti,ab.
110	or/25-109
111	"EMIGRATION AND IMMIGRATION"/
112	immigration.ti,ab.
113	"EMIGRANTS AND IMMIGRANTS"/
114	"TRANSIENTS AND MIGRANTS"/
115	REFUGEES/
116	exp AFRICAN CONTINENTAL ANCESTRY GROUP/
117	exp ASIAN CONTINENTAL ANCESTRY GROUP/
118	exp ETHNIC GROUPS/
119	(African? or Middle eastern or Persian? or Ethiopian? or Muslim? or Moslem? or Islamic or Somali\$ or Nigerian? or Pakistani or Cantonese or Hindu? or Arab or Bangladeshi or Iranian\$ or Iraqi\$ or Buddhist or Sikh\$ or Yemini\$ or Viatnemese).ti,ab.
120	((India? or Black or Chinese or Asia? or China or south Asian\$) adj5 (wom?n or people? or person? or immigrant? or patient?)).ti,ab.
121	(Turkish or Moroccan? or Greek or South African or Rwandan or Ruandan or Malaw\$ or Sudan\$ or Tunisian or Ugandan).ti,ab.
122	(Caribbean or Jamaican).ti,ab.
123	(romany or romanies or gypsy or gypsies).ti,ab.
124	(jew or jews or jewish).ti,ab.
125	(East\$ European\$ or Polish or Romanian\$ or Latvian\$).ti,ab.
126	(mixed race or mixed-race).ti,ab.
127	(multicultural or diversit\$ or transcultural or multiracial or multiethnic).ti,ab.
128	((BME or BAME) adj3 ethnic\$).ti,ab.
129	(migrant? or immigrant? or emigrant? or refugee? or expat\$).ti,ab.
130	(noncitizen\$ or non citizen\$).ti,ab.
131	(ethnic\$ or minorities).ti,ab.
132	(foreign adj2 national?).ti,ab.
133	(asylum adj3 seeker?).ti,ab.
134	(displaced adj3 (person? or people? or wom?n)).ti,ab.
135	(alien? adj3 (legal\$ or illegal\$)).ti,ab.
136	(deport\$ or exile?).ti,ab.
137	COMMUNICATION BARRIERS/
138	((linguistic\$ or language or communicat\$) adj3 (barrier? or problem? or difficult\$ or trouble?)).ti,ab.

139	LANGUAGE/
140	VOCABULARY/
141	(english adj3 (first language or second language or third language)).ti,ab.
142	(foreign adj3 language?).ti,ab.
143	(multilingual or bilingual or multi lingual or bi lingual).ti,ab.
144	((english or non english or nonenglish) adj3 (speak\$ or communicat\$ or read\$ or writ\$)).ti,ab.
145	(fluent or fluency or non fluen\$ or nonfluen\$).ti,ab.
146	(mother tongue? or native tongue? or native language?).ti,ab.
147	((Gujarati or Gujerati or Punjabi or Bengali or Arabic or Hindi or Polish or Turkish or French or Portuguese) adj3 (speak\$ or communicat\$ or first language or read\$ or writ\$)).ti,ab.
148	(interpreter\$ or translator\$).ti,ab.
149	vocabulary.ti,ab.
150	accent?.ti,ab.
151	or/111-150
152	sex offen?es/ or child abuse, sexual/ or rape/ or violence/ or domestic violence/ or spous\$ abuse/
153	BATTERED WOMEN/
154	((violen\$ or abuse\$) adj2 (home or house or dwelling)).ti,ab.
155	(domestic adj3 (abuse\$ or violen\$)).ti,ab.
156	FAMILY RELATIONS/
157	((partner or spouse\$) adj3 (abuse\$ or violen\$)).ti,ab.
158	((physical\$ or sexual\$ or psychological or emotional) adj3 (abuse\$ or violen\$ or behavio?r\$)).ti,ab.
159	(intimate adj2 violen\$).ti,ab.
160	(violen\$ adj2 relationship\$).ti,ab.
161	(threaten\$ adj3 (behavio?r\$ or violen\$ or abuse\$)).ti,ab.
162	(living adj2 violen\$).ti,ab.
163	(abus\$ adj2 wom?n).ti,ab.
164	(surviv\$ adj2 (abuse or abusive)).ti,ab.
165	love hurts.ti,ab.
166	((family or families) adj3 (abuse\$ or violen\$)).ti,ab.
167	(shaking or smack\$ or punch\$ or kick\$ or stab\$ or suffocat\$ or intimidat\$ or critici\$).ti,ab.
168	(stalking or harrass\$).ti,ab.
169	(jealous\$ or imprisonment).ti,ab.
170	restrictive behaviou?r\$.ti,ab.
171	(intimidat\$ or fear\$).ti,ab.
172	(isolation or isolated).ti,ab.
173	molest\$.ti,ab.
174	(control\$ adj2 behavio?r\$).ti,ab.
175	or/152-174
176	18 and (24 or 110 or 151or 175)

Figure 1 Flow chart of the evidence selection process



EUAG – Evidence Update Advisory Group



Appendix B: The Evidence Update Advisory Group and NHS Evidence project team

Evidence Update Advisory Group

The Evidence Update Advisory Group is a group of subject experts who review the prioritised evidence obtained from the literature search and provide the commentary for the Evidence Update.

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