



Effective Public Health Practice Project Summary Statement

October 2006

This is a summary statement written to condense the work of the authors of a systematic review. The reference for the full review is below. The intent of this summary is to provide an overview of the findings and implications of the full review. For more information on individual studies included in the review, please see the review itself.

Reference for Review: Doggett, C., Burrett, S., Osborn, D.A. (2005). **Home visits during pregnancy and after birth for women with an alcohol or drug problem.** *The Cochrane Database of Systematic Reviews 2005, Issue 4.* Art. No.: CD004456.pub2. DOI: 10.1002/14651858.CD004456.pub2.

Issue

Estimates of the proportion of Canadian infants exposed to alcohol prenatally range from 14% to 25% (Health Canada, 2003; Koren et al., 2003; Roberts and Nanson, 2000), while estimates of the number affected by FASD range from 0.5 to 9 in 1000 (Canadian Centre on Substance Abuse, n.d.; Koren et al., 2003). The Canadian government incurs costs of \$14,342 annually for each child with fetal alcohol spectrum disorders (FASD), and total annual costs of caring for individuals aged 0-21 with FASD in Canada is estimated to be \$344 million (Stade et al., 2006). The effects of prenatal exposure to drugs are more difficult to describe and quantify, but serious adverse sequelae exist and include prematurity, intrauterine growth restriction (IUGR) and neuro-behavioural abnormalities (Roberts and Nanson, 2000).

The Reproductive Health Standard of the Mandatory Health Programs and Services Guidelines (Ontario Ministry of Health and Long-Term Care, 1997) includes the “avoidance of alcohol and other substance use in pregnancy” as a topic to be addressed. Through the Healthy Babies, Healthy Children Program, health units are mandated to follow-up with and link high-risk pregnant women and families to services tailored to their needs. Health units require information on how best to assist women, including those who abuse these substances, in achieving abstinence.

Review Content Summary

This systematic review with meta-analysis examined the evidence from randomized and quasi-randomized trials on the effectiveness of home visits during pregnancy or after birth to women with alcohol or drug problems. Visitors included nurses, midwives, counsellors, advocates and lay women. The reviewers were interested in a broad set of outcomes related to drug and alcohol use, pregnancy, birth, infant morbidity and mortality, and psychosocial issues. Evidence was available from six trials involving a total of 709 women, but only two or three studies contributed data to each meta-analysis. Almost all visits took place after birth. No benefits from home visiting were detected for illicit drug or alcohol use, infant cognitive development,

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psychomotor development, or proportion of infants remaining in the care of their biological mothers. Little evidence is available for other outcomes.

Comments on this Review's Methodology

The search for published and unpublished studies included the use of health and psychology databases, hand-searching of journals and conference proceedings, reference lists, and contact with expert informants. Criteria for study selection were well defined. Allocation concealment was used as the primary indicator of study quality, but details of randomization method, completeness of follow-up and blinding of outcome assessors was also noted. Appropriate methods were used for pooling data and assessing heterogeneity. Substantial drop-out rates in four studies (ranging from 27% to 54%) and small sample sizes limit the interpretation of results from individual studies. The limited amount of data available for pooling also means that the meta-analysis should be interpreted with caution.

Evidence and Implications for Practice & Policy

Evidence points ARE NOT weighted or ranked according to strength.

What's the evidence?	Implications for practice and policy:
<ul style="list-style-type: none"> > Prenatal alcohol and drug exposure has serious adverse effects on infants. These are fully preventable. 	<ul style="list-style-type: none"> > Effective public health interventions to enable pregnant women to abstain from alcohol and drug use are needed. In addition, effective postnatal interventions are needed to ensure a more positive environment for the children of women with alcohol or drug problems.
<ul style="list-style-type: none"> > There is no evidence that home visits after birth reduce continued illicit drug use (relative risk [RR] = 0.95; 95% confidence interval [CI] = 0.75 to 1.20) or continued alcohol use (RR = 1.08; 95% CI = 0.83 to 1.41) in women with an alcohol or drug problem. 	<ul style="list-style-type: none"> > Research is needed exploring effective ways of reducing alcohol and drug use during pregnancy and after the birth of their infants in women with these problems.
<ul style="list-style-type: none"> > There were few eligible trials of home visits, and those that were found often had small sample sizes or high losses to follow-up. No eligible study examined an intervention with a significant prenatal component. 	<ul style="list-style-type: none"> > Future studies must include an adequate sample and use rigorous methods. The intervention should begin in the prenatal period.
<p>General Implications: Research is needed into public health interventions which are effective in reducing alcohol and drug use among pregnant women. Interventions must start in the prenatal period and continue into the postnatal period. Studies of such interventions should use rigorous methods.</p>	

Cost Benefit or Cost-Effectiveness Information: Not included in the review.

References Used to Outline Issue

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- Stade, B., Ungar, W.J., Stevens, B., Beyene, J., & Koren, G. (2006). The burden of prenatal exposure to alcohol: Measurement of cost. *Journal of FAS International* 4: e5, 1-14.

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