Using the ALPHA form in practice to assess antenatal psychosocial health

Anthony J. Reid,* MD, MSc; Anne Biringer,* MD; June D. Carroll,* MD; Deana Midmer,* BScN, EdD; Lynn M. Wilson,* MD; Beverley Chalmers,† PhD; Donna E. Stewart,† MD

Abstract

Background: The assessment of the psychosocial health of pregnant women and their families, although recommended, is not carried out by most practitioners. One reason is the lack of a practical and evidence-based tool. In response, a multidisciplinary group created the Antenatal Psychosocial Health Assessment (ALPHA) form. This article describes the development of this tool and experience with it in an initial field trial.

Methods: A systematic literature review revealed 15 antenatal psychosocial risk factors associated with poor postpartum family outcomes of woman abuse, child abuse, postpartum depression, marital/couple dysfunction and increased physical illness. The ALPHA form, incorporating these risk factors, was developed and refined through several focus groups. It was then used by 5 obstetricians, 10 family physicians, 7 midwives and 4 antenatal clinic nurses in various urban, rural and culturally diverse locations across Ontario. After 3 months, these health care providers met in focus groups to discuss their experiences. A sample of pregnant women assessed using the ALPHA form were interviewed about their experience as well. Results were analysed according to qualitative methods.

Results: The final version of the ALPHA form grouped the 15 risk factors into 4 categories — family factors, maternal factors, substance abuse and family violence — with suggested questions for each area of enquiry. The health care providers uniformly reported that the form helped them to uncover new and often surprising information, even when the women were well known to them. Incorporating the form into practice was usually accomplished after a period of familiarization. Most of the providers said the form was useful and would continue to use it if it became part of standard care. The pregnant women in the sample said they valued the enquiry and felt comfortable with the process, unless there were large cultural barriers.

Interpretation: The ALPHA form appears to be an important tool in assessing psychosocial health in pregnancy and to be readily integrated into practice. More study is required to quantify the number of risks identified and resources used, to determine the form's reliability and validity and, ultimately, to assess the effect of its use on postpartum outcomes.

Résumé

Contexte: Même si on la recommande, la plupart des praticiens ne procèdent pas à l'évaluation de la santé psychosociale des femmes enceintes et des membres de leur famille, notamment à cause du manque d'outils pratiques fondés sur des données probantes. C'est pourquoi un groupe multidisciplinaire a créé le questionnaire d'évaluation de la santé psychosociale anténatale (ALPHA). Cet article décrit la mise au point de cet outil et son utilisation au cours d'une première étude sur le terrain.

Méthodes : Une recension systématique des écrits a révélé 15 facteurs de risque psychosocial anténatal associés à des résultats familiaux médiocres après l'ac-

Education

Éducation

From *the Department of Family and Community Medicine, University of Toronto, and †the Maternal Infant Reproductive Health Research Unit, Centre for Research in Women's Health, University of Toronto, Toronto, Ont. ‡Dr. Stewart is the Lillian Love Chair of Women's Health, The Toronto Hospital, University of Toronto, Ont.

This article has been peer reviewed.

CMAJ 1998;159:677-84

\$ See pages 651 and 663 for other articles on antenatal health





couchement : violence envers les femmes et les enfants, dépression postnatale, dysfonctionnement marital/conjugal et maladies physiques plus nombreuses. Le questionnaire ALPHA, qui inclut ces facteurs de risque, a été mis au point et perfectionné par plusieurs groupes de réflexion. Il a ensuite été utilisé par 5 obstétriciens, 10 médecins de famille, 7 sages-femmes et 4 infirmières cliniciennes anténatales à divers endroits urbains, ruraux et différents sur le plan culturel de l'Ontario. Après trois mois, ces fournisseurs de soins de santé se sont réunis en groupes de réflexion pour discuter de leurs expériences. Un échantillon de femmes enceintes évaluées au moyen du questionnaire ALPHA ont aussi été interviewées au sujet de leur expérience. Les résultats ont été analysés au moyen de méthodes qualitatives.

Résultats : La version finale du questionnaire ALPHA a regroupé 15 facteurs de risque en quatre catégories — facteurs familiaux, facteurs maternels, abus des substances et violence familiale — et proposé des questions dans chaque domaine. Les fournisseurs de soins ont signalé à l'unanimité que le questionnaire les a aidés à découvrir des renseignements nouveaux et souvent étonnants, même lorsqu'ils connaissaient bien les femmes en cause. Ils ont habituellement intégré le questionnaire à leur pratique après une période d'initiation. La plupart des soignants ont déclaré que le questionnaire était utile et qu'ils continueraient de l'utiliser s'il faisait partie des soins normalisés. Les femmes enceintes de l'échantillon ont déclaré apprécier le questionnaire et se sentir à l'aise face au processus, sauf s'il y avait d'importants obstacles culturels.

Interprétation : Le questionnaire ALPHA semble constituer un outil important d'évaluation de la santé psychosociale au cours de la grossesse et être facile à intégrer à la pratique. D'autres études s'imposent si l'on veut quantifier le nombre de risques identifiés et les ressources utilisées, de déterminer la fiabilité du questionnaire et sa validité et, en bout de ligne, d'évaluer l'effet de son utilisation sur les résultats après l'accouchement.

raditional prenatal care has focused on the detection of obstetric and medical problems. However, psychosocial issues are increasingly being recognized as determinants of health for child-bearing women and their families. Recent guidelines state that "prenatal care should focus broadly on the health and well-being of the pregnant woman, the fetus, the infant and the family up to one year after birth"^{1,2} and recommend that comprehensive assessment of psychosocial risk be integrated into routine care.³

Several structured forms or guides have been developed to collect antenatal psychosocial data. An antenatal screening questionnaire developed by Forde and colleagues⁴ uncovers unexpected and previously unknown information; the Prenatal Psychosocial Profile⁵ measures and scores women's stress, social support and self-esteem; the Prenatal Social Environment Inventory⁶ determines the stress in women's lives; and Norwood's Social Support Apgar screening tool⁷ assesses adequacy of social support. These tools, however, were developed to predict obstetric outcomes rather than postpartum family functioning, and they were not based on critical reviews of the literature. In addition, they are too complex, narrow in focus or of limited utility to be acceptable for clinical practice.

Recent Canadian studies have revealed that health care providers value antenatal psychosocial assessment. Family physicians rated it as important but frequently did not incorporate this type of questioning, particularly about abuse, into practice.⁸ At the 1996 annual meeting of the Society of Obstetricians and Gynaecologists of Canada, over 90% of survey participants felt that enquiry into violence in pregnancy should be part of routine care but noted lack of time, training and resources as barriers to assessment (Dr. Dorothy Shaw, clinical professor of obstetrics and gynecology and of medical genetics, University of British Columbia, Vancouver: unpublished data).

Given the limitations of other forms in the literature and official encouragement to include psychosocial assessment as part of routine antenatal care, we sought to create a practical guide for clinical practice based on the best evidence. We hypothesized that health care providers enquiring in a systematic fashion would identify important issues for women and be able to suggest individualized responses to reduce postpartum family dysfunction.

Development of the ALPHA form

The Antenatal Psychosocial Health Assessment (AL-



PHA) form was created by a multidisciplinary team of family physicians, obstetricians, midwives and nurses. The Ontario Medical Association's Committee on Reproductive Care supported the project in anticipation that the ALPHA form would become part of the Ontario Antenatal Record and that psychosocial assessment would be incorporated into standard antenatal care. Project funding was provided by the Women's Health Bureau, Ontario Ministry of Health, and the Ontario Medical Association.

A systematic review of the literature dentified 15 antenatal psychosocial risk factors for which there was good evidence of association with at least one of the following poor postpartum outcomes: woman abuse, child abuse, postpartum dysfunction, couple difficulties and increased physical illness. This review followed the format of the Canadian Task Force on the Periodic Health Examination and included only risk factors with at least one high-quality trial (class A evidence). The 5 postpartum outcomes were based on a summary of all studies included in the review. A reference guide for providers was also developed as an educational tool. 11

Early drafts of the form were tested in focus groups of obstetricians, family physicians, midwives and nurses and then modified several times. Once a refined version was developed, a field trial was conducted in 8 Ontario sites to determine the acceptability of the form to health care providers and pregnant women. Further modifications were made based on the field trial.

Using the ALPHA form

The ALPHA form (Fig. 1) groups 15 risk factors into 4 categories: family factors, maternal factors, substance use and family violence. The assessment moves from less to more sensitive topics. The associated postpartum outcomes and strength of association are indicated for each factor. Suggested questions are included as a guide for health care providers, a feature requested during the focus groups. Space is provided to summarize issues and indicate interventions.

We recommend that the form be completed between 20 and 30 weeks' gestation, after rapport has been established and when other major pregnancy events are less frequent. After some practice, it can usually be completed in about 15 to 20 minutes. Women need to be assured that the information they reveal will be kept confidential and shared only with their consent. If possible, portions of the ALPHA form should be discussed with the woman alone, to permit open exploration of family violence. Once a problem is identified, a plan should be worked out with the woman to address her needs. It is important that the enquiry and interventions be woman-centred and sensitive to the family's needs. Available resources will vary by

community, and providers may use public health nurses to link women with appropriate resources. In some cases, interventions may consist of active listening or increased monitoring of family functioning and not require outside resources.

Evaluation

To determine acceptability of the form to providers and pregnant women, a field trial was completed at 8 clinical sites in Ontario, including downtown and suburban areas of Toronto, Ottawa, Stayner, Orillia and Timmins. Represented were inner-city, suburban, small town and rural practices, 2 cross-cultural settings and 1 predominantly French-speaking site. Five obstetricians, 10 family physicians, 7 midwives and 4 prenatal clinic nurses participated. The ALPHA form and a guide on its use¹¹ were introduced during an educational session that included a typical interview on video. After using the form for 2 to 3 months with their prenatal patients, the providers attended focus groups or were interviewed to discuss their experiences.

Qualitative methodology of focus groups was used to help us understand what the experience of psychosocial assessment meant to health care providers and pregnant women. Semistructured interview guidelines were used, and full discussion was encouraged by the focus group leaders (ALPHA investigators). The discussions of the focus groups were audiotaped, transcribed and analysed. Two pregnant women from each practice who had been assessed using the form were interviewed by telephone regarding their experiences. ALPHA team members analysed the transcriptions independently using basic content analysis by identifying key words and phrases that recurred in the transcripts. The investigators met as a group and compared and contrasted their findings until they reached a consensus on the results. Most concepts were readily identified with unanimous agreement; where disagreement arose, the text was re-examined until evidence produced common agreement.

The study was approved by the University of Toronto Ethics Committee.

Findings from the field trial

New information

With the ALPHA form, the providers said they were able to uncover pertinent, previously unknown psychosocial information about pregnant women and their families. This was true even for women whom the providers felt they knew well. Providers were surprised by this and commented on the richness of psychosocial information revealed. Some examples follow.



ANTENATAL PSYCHOSOCIAL HEALTH ASSESSMENT (ALPHA)

Antenatal psychosocial problems may be associated with unfavourable postpartum outcomes. The questions on this form are suggested ways of enquiring about psychosocial health.

Issues of high concern to the woman, her family or the caregiver usually indicate a need for additional supports or services. When other issues of some concern are identified, follow-up and/or referral should be considered. Additional information can be obtained from the ALPHA Guide.*

Please consider the sensitivity of this information before sharing it with other caregivers.

Addressograph	

ANTENATAL FACTORS

COMMENTS/PLAN

FAMILY FACTORS	
Social support (CA, WA, PD) How does your partner/family feel about your pregnancy? Who will be helping you when you go home with your baby?	
Recent stressful life events (CA, WA, PD, PI) What life changes have you experienced this year? What changes are you planning during this pregnancy?	
Couple's relationship (CD, PD, WA, CA) • How would you describe your relationship with your partner? • What do you think your relationship will be like after the birth?	
MATERNAL FACTORS	
Prenatal care (late onset) (WA) • First prenatal visit in third trimester? (check records)	
Prenatal education (refusal or quit) (CA) • What are your plans for prenatal classes?	
Feelings toward pregnancy after 20 weeks (CA, WA) How did you feel when you just found out you were pregnant? How do you feel about it now?	
Relationship with parents in childhood (CA) • How did you get along with your parents? • Did you feel loved by your parents?	
Self-esteem (CA, WA) • What concerns do you have about becoming/being a mother?	
History of psychiatric/emotional problems (CA, WA, PD) Have you ever had emotional problems? Have you ever seen a psychiatrist or therapist?	
Depression in this pregnancy (PD) How has your mood been during this pregnancy?	

ASSOCIATED POSTPARTUM OUTCOMES

The antenatal factors in the left column have been shown to be associated with the postpartum outcomes listed below. **Bold, italics** indicates **good** evidence of association. Regular text indicates fair evidence of association.

CA - Child Abuse CD - Couple Dysfunction PI - Physical Illness PD - Postpartum Depression WA - Woman Abuse



SUBSTANCE USE	ACTORS	COMMENTS/PLAN
Alcohol/drug abuse (WA, CA) How many drinks of alcohol do you Are there times when you drink mo Do you or your partner use recreation Do you or your partner have a proble Consider CAGE (Cut down, Annoye	re than that? onal drugs? lem with alcohol or drugs?	
FAMILY VIOLENCE		
Noman or partner experienced or with physical, emotional, sexual) (CA, WA) What was your parents' relationship Did your father ever scare or hurt your parents ever scare or hurt when your parents ever scare or hurt when you ever sexually abused as a	o like? our mother? you?	
Current or past woman abuse (WA, CA) How do you and your partner solve Do you ever feel frightened by what Have you ever been hit/pushed/slap Has your partner ever humiliated yo you in other ways? Have you ever been forced to have	arguments? t your partner says or does? ped by a partner? ou or psychologically abused	
Previous child abuse by woman or pare Do you/your partner have children no Have you ever had involvement with (i.e., Children's Aid Society)? Child discipline (CA) How were you disciplined as a child	not living with you? If so, why? h a child protection agency	
How do you think you will discipline	e your child?	
How do you think you will discipline	Homecare Parenting classes / parents'	Assaulted women's helpline / shelter / counselling Legal advice Children's Aid Society Other: Other: Other:
How do you think you will discipline How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he how do you deal with	Homecare Parenting classes / parents's support group Addiction treatment programs Smoking cessation resources Social Worker Psychologist / Psychiatrist Psychotherapist / marital / fam	shelter / counselling Legal advice Children's Aid Society Other: Other: Other:
How do you think you will discipline How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How do you deal with your kids at he How deal with your kids at he he How deal with your kids at he	Homecare Parenting classes / parents's support group Addiction treatment programs Smoking cessation resources Social Worker Psychologist / Psychiatrist Psychotherapist / marital / fam	shelter / counselling Legal advice Children's Aid Society Other: Other: Other:

Fig. 1: The Antenatal Psychosocial Health Assessment (ALPHA) form was developed by a multidisciplinary team as a practical, evidence-based tool for health care providers to assess the psychosocial health of pregnant women and their families. © ALPHA Project 1993, version: May 1998.

There were areas that I really had never thought of asking before . . . like about her partner's family and her relationship with her own family.

There were a lot of problems I was not aware of . . . and how much it was affecting her, that really surprised me. Being pregnant . . . meant that the fact that she wasn't getting along with her mom, that affected her more than I thought it would.

Women's comfort

Most of the pregnant women interviewed afterward said that they felt comfortable with the psychosocial assessment and considered it appropriate. An unexpected finding was that women felt the process of enquiry into important parts of their lives, often neglected during regular prenatal care, validated their experiences and allowed them to reflect on their situation. Discomfort was described in some cross-cultural situations by both the women and the providers. Providers felt that women from some cultures were reluctant to disclose some personal feelings for fear of being judged negatively by the provider, fear of authority figures or the presence of male family members during the assessment. Differences in cultural norms were seen as barriers at times.

Providers' attitudes

Providers experienced varying degrees of comfort using the form, depending on their experience, training and attitude. Those who were initially hesitant to assess for psychosocial issues became more comfortable as they became familiar with the form and gained interviewing experience. The training video and the guide were seen to be helpful, and the form was considered a user-friendly, efficient memory aid.

Providers commonly expressed fear that uncovering complex social problems would lead to loss of control of the interview, when they had neither the time nor the expertise to manage the situation. Enquiry into sexual or physical abuse was of particular concern. Experience with the form proved otherwise. No provider reported an unmanageable clinical situation. Women usually just wanted to talk about their problems and have their situations understood and appreciated by their providers.

The obstetricians showed some reluctance to using the form, perhaps because of the time pressures and lack of training or expertise in the detection and management of psychosocial problems. The family physicians readily incorporated the process into practice. The midwives did not like some of the suggested questions but wanted to add sections of the ALPHA form to their own interview schedule. The prenatal clinic nurses found the process comfortable and similar to their own evaluations.

Increased rapport

An unexpected benefit of using the ALPHA form was the enhanced sense of rapport reported by both the providers and the patients. Psychosocial assessment enhanced the provider–patient relationship.

It made [my relationship with my doctor] more close, so I could tell her more things, like uncomfortable things.

Of importance, most of the providers indicated that they would use such a form if it were introduced as a standard of antenatal care.

Interpretation

The development and evaluation of the ALPHA form extends psychosocial assessment beyond previous reports. The form (a) is based on a systematic literature review and examines postpartum family outcomes, not the events of labour and delivery; (b) focuses on identifying problems from the woman's perspective and helps providers support women in planning to deal with their problems;¹² (c) avoids the complexity of risk-scoring systems that attempt difficult quantification of psychosocial risks; (d) acts as a "communication tool to secure shared understanding of what was important in pregnancy";⁴ and (e) appears to be readily incorporated into practice, making it clinically useful.

Refined through consultative evaluation by a multidisciplinary group of health care providers, the ALPHA form is practical and acceptable to both providers and pregnant women. The field trial confirmed the strong clinical potential of systematic psychosocial enquiry. Although the trial did not quantify the risk factors identified, many significant new problems were identified. This finding is consistent with the experience of Forde and colleagues, who reported that 60% of the women in their sample had psychosocial problems identified by a systematic enquiry that had not been identified during routine care.

Some might argue that the ALPHA form should not be used until it has been tested for validity and reliability or involved in a randomized controlled trial to demonstrate that postpartum outcomes were improved through its use. However, we suggest that the form has strong face validity because of its foundation on best evidence and its endorsement by both providers and pregnant women during the field trial. The questions on family violence in the ALPHA form were taken from the Woman Abuse Screening Tool (WAST) form, which has been validated.¹³ There are problems establishing a gold standard for comparing psychosocial findings using the ALPHA form. Why would women tell the "truth" to a stranger more readily than to a known antenatal health care provider?



The use of scores seems artificial and inappropriate given the diversity and complexity of psychosocial issues. Moreover, the lack of demonstrated reliability and predictive value of existing obstetric risk-scoring systems would support a more individualized approach to risk assessment. Psychosocial enquiry has been consistently recommended by national and international bodies, and the ALPHA form permits assessment of this information in a systematic and efficient manner.

In addition, a growing body of knowledge supports the claim that psychosocial interventions can improve postpartum functioning. Nuckolls and colleagues¹⁶ showed that social support can attenuate significant psychosocial stressors. Oakley¹⁷ argued that social support improves the health of women and babies. Midmer and colleagues¹⁸ demonstrated that prenatal parenting education reduces stress a couple's relationship post partum. Awareness of previous depression has permitted health care providers to provide anticipatory counselling¹⁹ or early use of medication. Home visits by nurses have been found to reduce the incidence of child abuse and injuries.20-22 Detecting physical or sexual abuse during pregnancy allows providers opportunities to discuss safety strategies. Given the potential of interventions to improve the health of families, systematic assessment of psychosocial issues is clearly indicated.

Limitations

Our field trial did not quantify the number of psychosocial risk factors uncovered, nor did it measure whether or not pregnant women or their families fared better after the assessment and interventions. Psychosocial risk measurement against a gold standard was not done, and therefore significant information may have been missed. However, provider feedback indicated that much important new information about risk factors was uncovered. Clearly, using the ALPHA form yielded more information than if it had not been used. Further study of the prevalence of antenatal psychosocial risk factors, interventions and resources used, and the impact on postpartum outcomes is indicated. We are currently conducting a randomized trial with the form to examine these outcomes and certain aspects of validity and reliability.

Psychosocial assessment is often regarded as difficult, requiring special skills. Yet most of the health care providers in our field trial mastered the ALPHA form fairly readily when they had training and familiarization with materials. Their comfort with psychosocial assessment increased with experience.

Cross-cultural situations are challenging. Because the ALPHA form was developed from studies in Western culture, its usefulness in interpreting behaviour in

women from other cultures is unknown. We can only recommend, based on limited experience, that health care providers try to learn from non-Canadian women what behaviours are considered culturally normal and interpret the ALPHA questions accordingly. At the same time, providers have a responsibility to educate these women about Canadian laws concerning child and woman abuse and about available support services. Help from more expert social agencies may be required. Adaptation of the ALPHA form to other cultures requires further study.

We did not evaluate the resource utilization implications that might result from widespread use of the AL-PHA form, an important consideration given current financial constraints. However, identification of women at risk would allow more appropriate allocation of scarce resources. New resources to address the psychosocial health components may be identified, with the current emphasis on community-based care and health promotion initiatives. We recommend that health care providers identify what services are available in their own settings.

Conclusion

Antenatal psychosocial health assessment is recommended, yet achievement of this goal has been a challenge. The ALPHA form, evidence-based and refined through feedback from a multidisciplinary group and a sample of pregnant women, appears to facilitate systematic antenatal psychosocial assessment. Pregnant women appear to value this type of care. Further study will clarify the number of psychosocial concerns identified in practice and the resources used. We believe that health care providers will find the ALPHA form to be a practical tool to assess and support the childbearing families in their care.

We thank Sandy Cummings, Research Associate in the Department of Family and Community Medicine, University of Toronto, and Merryn Tate, RM, for their contributions to this work.

References

- Family-centred maternity and newborn care, national guidelines. Ottawa: Department of National Health and Welfare; 1987. Cat no H39-109/1987E.
- Rosen MG. Caring for our future: a report of the Public Health Service Expert Panel on the Content of Prenatal Care. Washington: Public Health Service, Department of Health and Human Services; 1989.
- Culpepper L, Jack B. Psychosocial issues in pregnancy. Prim Care 1993; 20:599-619.
- Forde R, Malterud K, Bruusgard D. Antenatal care in general practice. 1. A
 questionnaire as a clinical tool for collection of information on psychosocial
 conditions. Scand 7 Prim Health Care 1992;10:266-71.
- Curry MA, Campbell RA, Christian M. Validity and reliability testing of the Prenatal Psychosocial Profile. Res Nurs Health 1994;17:127-35.



- Orr ST, James SA, Casper R. Psychosocial stressors and low birth weight: development of a questionnaire. J Dev Behav Pediatr 1992;13:343-7.
- Norwood SL. The Social Support APGAR: instrument development and testing. Res Nurs Health 1996;19:143-52.
- 8. Carroll JC, Reid AJ, Biringer A, Wilson LM, Midmer DK. Psychosocial risk factors during pregnancy. What do family physicians ask about? *Can Fam Physician* 1994;40:1280-9.
- Wilson LM, Reid AJ, Midmer DK, Biringer A, Carroll JC, Stewart DE. Antenatal psychosocial risk factors associated with adverse postpartum family outcomes. CMA7 1996;154(6):785-99.
- Canadian Task Force on the Periodic Health Examination. The Canadian guide to clinical preventive health care. Ottawa: Health Canada; 1994. Cat no H21-117/1994E.
- Midmer D, Biringer A, Carroll JC, Reid AJ, Wilson L, Stewart D, et al. A reference guide for providers: The ALPHA Form Antenatal Psychosocial Health Assessment Form. Toronto: Department of Family and Community Medicine, University of Toronto; 1995. (Available at cost from the department, 8th floor, 620 University Ave., Toronto ON M5G 2C1).
- McCracken EC, Stewart MA, Brown JB, McWinney IR. Patient-centred care: the Family Practice Model. Can Fam Physician 1983;29:2313-6.
- Brown JB, Lent B, Brett PJ, Sas G, Pederson LL. Development of the Woman Abuse Screening Tool for use in family practice. Fam Med 1996; 28(6):422-8.
- Hutchison BG, Milner R. Reliability of the Guide to Pregnancy Risk Grading of the Ontario Antenatal Record in assessing obstetric risk. CMAJ 1994; 150(12):1983-7.

- Wall EM. Assessing obstetric risk. A review of obstetric risk scoring systems. 7 Fam Pract 1988;27(2):153-63.
- Nuckolls KB, Cassel J, Kaplan BH. Psychosocial assets, life crisis and the prognosis of pregnancy. Am J Epidemiol 1972;95(5):431-41.
- Oakley A. Measuring the effectiveness of psychosocial interventions in pregnancy. Int T Technol Assess Health Care 1992;8(1):129-38.
- Midmer DE, Wilson L, Cummings S. A randomized controlled trial of the influence of prenatal parenting education on postpartum anxiety and marital adjustment. Fam Med 1995;27:200-5.
- Holden JM, Sagovsky R, Cox JL. Counselling in a general practice setting: controlled study of health visitor intervention in treatment of postpartum depression. BM7 1989;298:223-6.
- MacMillan HL, MacMillan JH, Offord DR, with the Canadian Task Force on the Periodic Health Examination. Periodic Health Examination, 1993 update: 1. Primary prevention of child maltreatment. CMAJ 1993;148(2):151-63.
- Olds DL, Eckenrode J, Henderson CR, Kitzman H, Powers J, Cole R, et al. Long-term effects of home visitation on maternal life course and child abuse and neglect. 7AMA 1997;278(8):637-43.
- Kitzman H, Olds DL, Henderson CR, Hanks C, Cole R, Tatelbaum R, et al. Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries and repeated childbearing. *JAMA* 1997;278(8):644-52.

Reprint requests to: Dr. Anthony J. Reid, 403–100 Colborne St. W, Orillia ON L3V 2Y9; fax 705 326-9529

Q How do you find the information you need to make the best health care choices? A Consult The Cochrane Library



Now updated quarterly, this electronic library is designed to give you the evidence you need for informed health care decisionmaking. The Cochrane Library now contains 4 databases:

- The Cochrane Database of Systematic Reviews
- The York Database of Abstracts of Reviews of Effectiveness
- The Cochrane Controlled Trials Register
- The Cochrane Review Methodology Database

\$258.95/CMA members, \$324.95/nonmembers. All orders must be prepaid. Please add 7% GST, 15% HST (as applicable) and \$3 shipping/handling. Network prices also available. Choose from CD-ROM for Windows or 3½-inch disk for Windows

CMA Member Service Centre tel 888 855-2555 or 613 731-8610 x2307 cmamsc@cma.ca

