

INTRODUCTION

The Chatham-Kent Public Health Division promotes health and prevention of disease in the community through Ministry of Health Mandatory Health Programs and Services Guidelines. The Reproductive Health component is currently under revision and this report outlines the draft updated program requirements and outcomes. The report also discusses local birth data, community services related to healthy pregnancy, a local reproductive needs assessment and a follow-up survey of health professionals. These requirements and data will guide the future direction of local public health reproductive health issues.

LOCAL DATA

The needs assessment and survey were conducted by the Public Health Division to assess services available to Chatham-Kent women who are pregnant or planning a pregnancy. Information specific to Chatham-Kent residents was collected locally by the Public Health Division from sources such as Division-run prenatal classes; these data may not relate to statistics reported from other sources.

The Public Health Division collects information on local births (Table 1). Data are presented only for Chatham-Kent women who delivered in or outside of the municipality; the numbers do not include women who delivered in the municipality but who were not Chatham-Kent residents.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Mothers	1534	1497	1431	1383	1354	1047	1271	1166	1246	1180
Live Births	1550	1517	1441	1397	1379	1059	1289	1179	1256	1195
Total Births	1557	1529	1447	1402	1384	1064	1293	1183	1263	1197
Stillbirth Rate ¹	4.5	7.9	4.2	3.6	3.6	4.7	3.1	2.5	5.5	1.7
Death Rate ^{1,2}	3.2	4.0	4.2	0.7	2.9	1.9	3.1	3.4	2.4	5.0

Table 1 ¹ Rate per 1000 total births (LB + SB); ² Early neonatal deaths only.

Multiple births ranged from 10 to 25 per year and congenital anomalies ranged from 9 to 33 per year. Table 2 shows live births to mothers less than 20 years of age and 35 years of age or older.

Mother's Age	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Number < 20	121	123	112	119	93	105	95	94	99	81
Number 35 +	93	91	116	96	95	NA ²	137	107	146	140
Percent < 20 ¹	7.9	8.2	7.8	8.6	6.9	10.0	7.4	8.1	8.0	6.9
Percent 35 + ¹	6.1	6.1	8.1	6.9	7.0	NA ²	10.8	9.2	11.7	11.9

Table 2 ¹ Live births to age group divided by total number of mothers for that year; ² Data not available.

Low birth weight has been correlated with later health problems. The local incidence of low birth weight babies is shown in Table 3; data were not collected for large birth weight babies.

Birth Weight	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<1500 g	7	17	21	9	14	9	11	8	10	5
1500 - 2500 g	78	73	71	60	53	65	62	66	39	39
Total	85	90	92	69	67	74	73	74	49	44
Rate per 100 live births	5.5	5.9	6.4	4.9	4.9	7.0	5.7	6.3	3.9	3.7

Table 3

The Ministry of Health and Long Term Care target, as described in the 1997 Mandatory Health Programs and Services Guidelines, is to reduce the number of low birth weight babies to 4.0% by 2010. The Municipality of Chatham-Kent has met this target for the past two years.

The Public Health Division provides a series of prenatal classes early in pregnancy and partners with the Chatham-Kent Health Alliance to provide labour and delivery classes. At the time of delivery, women were asked whether they had attended prenatal class (Table 4). These numbers may reflect attendance at classes in other areas. These data also do not include prenatal teaching through other programs or home visits, at schools or at other classes such as Lamaze instruction.

Prenatal Class Attendance	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Women	569	567	468	437	419	423	379	391	367	351
Percent of Total Mothers	37	38	33	32	31	40	30	34	30	30

Table 4

Approximately 30% of new mothers attend prenatal classes, especially those expecting their first child. Prenatal information must be available from a variety of sources, therefore, to meet the information needs of the total population of mothers and their supports.

It has been shown that mothers who decide to breastfeed early in pregnancy are more likely to carry out this intention and breastfeed their child. Table 5 and Figure 1 show the number of women who indicated their intention to breastfeed when asked during attendance at Public Health Division early pregnancy prenatal classes.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Intending to Breastfeed	337	377	316	351	325	279	250	304	296	284
Total Mothers at Classes	554	546	439	497	416	375	331	391	380	345
Percent	61	69	72	71	78	74	76	78	78	82

Table 5

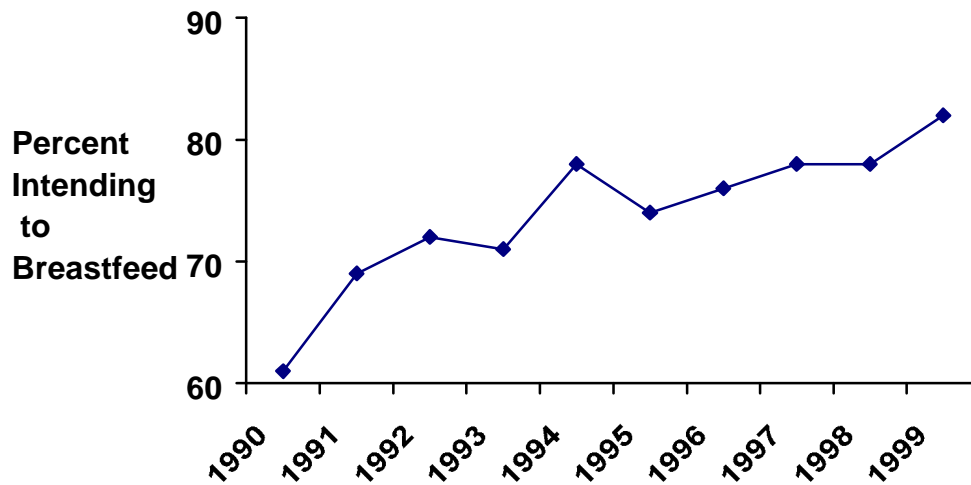


Figure 1

At the birth of their child, women were asked about smoking habits. Over the years 1993 to 1999, mothers who reported having smoked sometime during pregnancy ranged between 24 and 27%.

LOCAL SERVICES

Many services are available within Chatham-Kent for pregnant women and their families during the prenatal period. Services profiled here are not all-inclusive; this report focuses on services of which the Public Health Division is aware or in which it is directly involved. Highlighted services include:

- ?? Prenatal classes
- ?? Prenatal Health Fair
- ?? Oh Baby – Important Information for Expectant Parents booklet
- ?? Building Healthy Babies in Chatham-Kent program
- ?? Healthy Babies Healthy Children program
- ?? A Healthy Today for Healthier Babies Tomorrow campaigns
- ?? Public Health Division needs assessments and surveys concerning local reproductive health issues

Prenatal classes

Prenatal classes provide information and assistance to women who are pregnant and their families and supports. Prenatal classes are offered for couples and young single women through partnership between the Chatham–Kent Public Health Division and the Public General Campus of the Chatham-Kent Health Alliance. Women are encouraged to register as early in the pregnancy as possible. Classes are free and most are held at the Public Health Division in Chatham or at the local hospital.

The early series of four classes provides information about changes related to pregnancy, healthy lifestyles including healthy eating and avoidance of alcohol, tobacco and second hand smoke, comfort measures during pregnancy, breastfeeding, transition to parenthood and preparation for the new baby, including infant products and safety considerations. The later classes, ideally offered after the sixth month of pregnancy, prepare the woman and her partner for labour and delivery. These are held at the Public General Campus and include a hospital tour.

Prenatal classes are offered specifically for young single women who may have fewer supports. They register by calling the Chatham-Kent Public Health Division as early in pregnancy as possible. Classes focus on what is happening to the young mom during pregnancy and practices that support a healthy pregnancy such as nutrition, avoidance of alcohol, tobacco and other risk factors, infant feeding, preparation for labour and delivery, transition to parenthood and available community supports.

Lamaze classes are offered at the Sydenham Campus of the Chatham-Kent Health Alliance.

Oh Baby – Important Information for Expectant Parents

The Public Health Division produces a booklet that is distributed to physicians in areas such as Wallaceburg, Ridgetown and Tilbury to be given to women as soon as pregnancy is confirmed. The booklet covers much of the information presented in the early pregnancy prenatal classes at the Public Health Division in Chatham. Since classes have not been available in outlying areas for several years due to low attendance, the booklet is an alternative way to reach this population.

Prenatal Health Fair

For the past two years, a Prenatal Health Fair has been held on a spring evening in Chatham. The fair provides prenatal information to women who are pregnant or planning a pregnancy and their partners. It is planned by a group of community agencies and services interested in promoting prenatal health. Participants providing displays or information have included the Breastfeeding Connection, Building Healthy Babies in Chatham-Kent, Chatham-Kent Health Alliance, Chatham-Kent Public Health Division, Chatham-Kent Coalition on Smoking OR Health, and Midwifery and Doula services. Seminars on such topics as infant CPR, fatherhood, and nutrition in pregnancy are held throughout the evening.

The Public Health Division also provides prenatal information in print and audiovisual format, and on the Internet [<http://www.city.chatham-kent.on.ca/healthunit>].

Healthy Babies Healthy Children

This provincially funded program began in 1998. Administered through the Public Health Division, it screens women during the prenatal period to identify those who may be at risk of poor reproductive outcomes. Education and support is provided by linking these women to community services such as prenatal classes, professional and lay home visiting services as needed, and access to nutritional support which, in Chatham-Kent, is provided through the Building Healthy Babies program.

Although the prenatal component isn't due to be implemented province-wide until January 2001, screening began in Chatham-Kent in May 1999. Screening is done at prenatal class registration and at Building Healthy Babies in Chatham-Kent. Referrals are also received directly from the community, such as through physicians, birth control clinics and schools. In January 2001, local screening will be expanded to include the pre-assessment clinics at the Chatham-Kent Health Alliance Public General and Sydenham Campuses. A 2001 marketing campaign will further inform physicians and other health care providers about the program so that they might refer appropriate clients to its services.

Building Healthy Babies in Chatham-Kent

This prenatal nutrition program funded by the Canada Prenatal Nutrition Program of Health Canada was established in 1996. It aims to prevent babies born at low birth weights of less than 2500 grams. Building Healthy Babies provides nutrition supplements in the form of milk and food vouchers to pregnant women at risk of poor reproductive outcomes, and prenatal education and support in a group setting. Programs are held throughout the municipality in Chatham, Blenheim, Ridgeway and Wallaceburg, and at the Mennonite Central Committee. They may be held in other areas when there are sufficient numbers to support a group. Programs are free of charge and based on self-referral. Outreach home visiting is available to women in outlying areas who are unable to attend a group. Building Healthy Babies in Chatham-Kent works closely with the Public Health Division Healthy Babies Healthy Children program and uses Division staff to provide nursing visits, when required.

A Healthy Today for Healthier Babies Tomorrow

In 1998, the Public Health Division launched a campaign that focused on the importance of folic acid in the prevention of neural tube defects. It was targeted at women who were pregnant or in their reproductive years. The message was presented via the media, print material at doctors' offices, pharmacies, workplaces, fitness and health food stores, and displays throughout the community. Taste-testing sessions of food sources rich in folic acid were held at local grocery stores.

While the folic acid campaign will be sustained in upcoming years, a new focus will be added in 2001. This will address the need for women who are pregnant or planning a pregnancy to avoid alcohol to prevent Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE).

LOCAL NEEDS ASSESSMENT

In May 2000, the Public Health Division surveyed Chatham-Kent women in their reproductive years to identify local service gaps. Questions included access to prenatal information and food services, medical supervision, smoking, alcohol, physical activity, stress and workplace issues.

Surveys were distributed at As Parent and Baby Grow, Baby and I, Breastfeeding clinics, Building Healthy Babies in Chatham-Kent, couples and young moms prenatal classes, and the Baby Friendly Fair. Although these programs were held only in Chatham and Wallaceburg, women from throughout the Municipality and from a variety of socioeconomic levels attended. The data are summarized in this report; the full needs assessment report is available at the Public Health Division.

Participants

Of the total sample of 203 women, 112 (55%) were currently pregnant, with 80% expecting their first child. Thirty-two respondents were less than 20 years of age. Of these, 24 (75%) were pregnant at the time of the survey, with 69% expecting their first child.

Sources of Prenatal Information

The women received prenatal information from many sources (Table 6, Figure 2). Teens appear more likely to access the local Public Health Division. However, this may be a result of distribution of questionnaires at programs run by the Division and targeted to teens; surveyed teens might be more aware of Public Health services than the general teenage population. It does appear that teens receive less prenatal information from friends, or through reading or attendance at prenatal classes.

Source	All Ages %	Teen %	Source	All Ages %	Teen %
Doctor	89	88	Family	50	56
Prenatal Classes	69	56	Public Health Unit	38	47
Reading	68	44	TV	22	25
Friends	63	50	Internet	18	13

Table 6

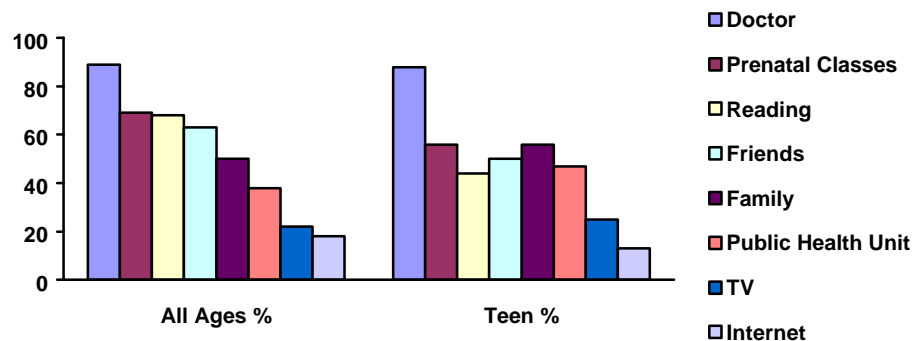


Figure 2

Almost all respondents were satisfied with the information they received and most reported no difficulty finding information. However, this sample was taken from women attending educational programs, who may be more aware of available information sources.

Medical Supervision

Almost all women indicated that they received regular medical supervision. Most had been seen by the sixteenth week. However, only 31% of teens had been seen by their sixth week of pregnancy, as compared to 60% for the total group.

Nutritious Food

Most stated that they knew how to eat healthily during pregnancy and were able to purchase nutritious food (Table 7). Four teenage respondents (13%) noted problems due to cost.

	All Ages %	Teen %
Knowledge of healthy eating during pregnancy	95	88
Ability to buy nutritious food during pregnancy	94	84

Table 7

While only 57% of the total sample were aware of local services that provide healthy food, 88% of teen respondents knew of such services and 78% had or would use them. However, these data may not reflect the general population since many teens completing the survey were attending a prenatal program that included a nutrition component.

Smoking

More teen respondents had smoked at some time, had partners that smoked and smoked at the time of the survey (Figure 3). Approximately one quarter of both groups smoked during pregnancy and most were unable to stop. While the majority of women in both groups were exposed to second-hand smoke, this was particularly evident in the teen group.

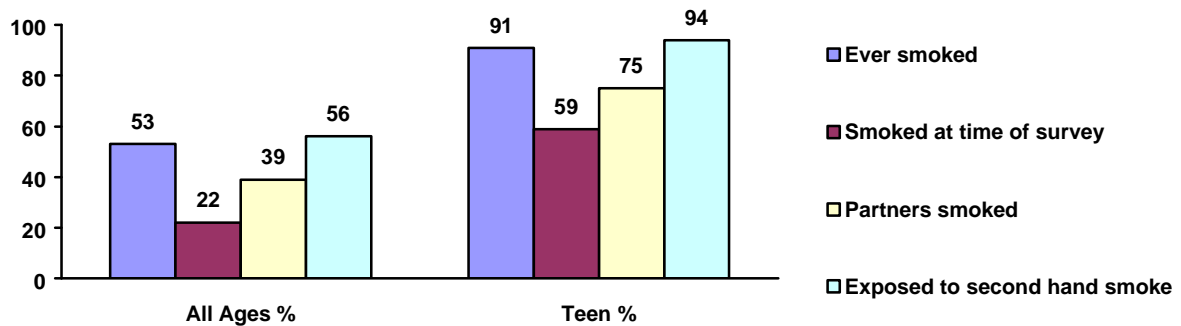


Figure 3

In The Effects of Tobacco Smoke and Second-Hand Smoke in the Prenatal and Postpartum Periods (Health Canada 1995) ¹, researchers stated that the risk of low birth weight increases with each trimester that the expectant mother smokes. There is some evidence that non-smoking mothers exposed to second-hand smoke, primarily from smoking partners, give birth to smaller babies. Researchers have also associated maternal smoking during the prenatal period with other risks such as spontaneous abortion and SIDS.

Although most women stated that they knew the risks of smoking and pregnancy, a significant number expressed interest in more information on smoking in pregnancy and how to stop, and exposure to second-hand smoke during pregnancy. While approximately one third of both groups wanted more information on the effects of exposure to second hand smoke, a greater number of teens wanted more information on smoking and how to stop (12% all ages, 28% teens). Teens also showed more interest in programs to quit smoking (11% all ages, 31% teens). Research reported in Smoking Interventions in the Prenatal and Postpartum Period (Health Canada 1995) ² showed that smoking cessation programs could double quit rates for pregnant women who did not quit smoking spontaneously before or during pregnancy.

Alcohol

Some women reported drinking during pregnancy (8% of the total sample, 16% of teens). Although almost all indicated they were aware of the risks, 26% of the total sample and 34% of the teens stated that it was safe to drink from an occasional drink to more than 5 drinks per week.

A significant portion of both groups (32% of total sample, 38% of teen respondents) reported that they were not told what is a safe amount to drink during pregnancy. The Joint Statement on the Prevention of Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE) in Canada (October 1996) ³ links use of alcohol during pregnancy with FAS/FAE in children. Since the safe limit of alcohol consumption during pregnancy has not been determined, 1999 Health Canada recommendations ⁴ state that women who are pregnant or wish to become pregnant should abstain from drinking alcohol.

Physical Activity

Almost all of the women attempted some physical activity every day. While the majority maintained or increased their level of physical activity, 41% of the total sample noted a decrease, mainly due to tiredness and the physical discomforts of pregnancy.

While 87% of the total sample knew the required precautions, this was reported by only 75% of the teens. Women need more information on how to cope with the discomforts of pregnancy and on the necessary precautions so that they can better incorporate physical activity into their pregnancy.

Stress

Most women reported stress during pregnancy. However, while 53% of the total group noted experiencing 'somewhat' to 'a great deal of stress', 72% of the teens reported similar stress levels.

Approximately 40% of each group reported seeking help for stress. Those indicating sources of help (110 respondents from the total sample, 15 from the teen group) listed the services in Figure 4 as most useful.

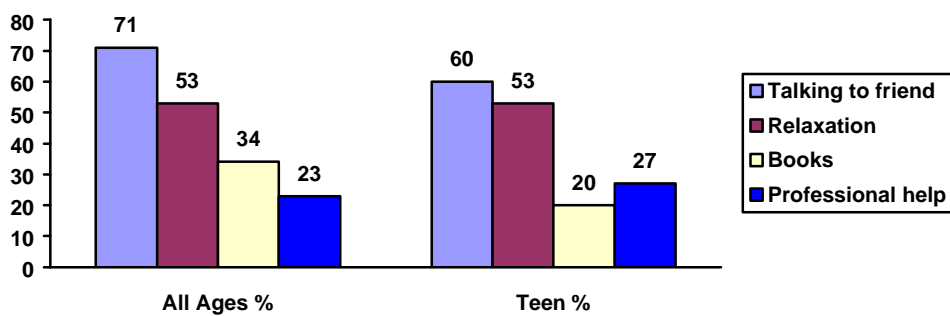


Figure 4

There is a need to promote awareness of methods of handling stress, and community agencies and services that offer help, especially in the areas of physical activity, smoking cessation and alcohol use during pregnancy.

Workplace Issues

Workplace practices such as standing or sitting for long periods of time, and lifting or carrying heavy objects have been described in the literature as affecting pregnancy. In this survey, 145 of the total sample (71%) worked outside the home. Work created problems for 37% of this group, mainly through physical concerns such as swelling of the feet and legs, muscle strain and neck tension.

Approximately one third of those reporting problems lost time from work. Information should be made available to women and employers about ways to minimize or eliminate strain and fatigue during pregnancy to improve overall well-being and job effectiveness.

Recommendations

The survey identified information needs of the local area:

1. Information needs of women who are pregnant or planning a pregnancy
 - ?? smoking in pregnancy and how to stop
 - ?? exposure to second hand smoke and its effects
 - ?? coping with the discomforts of pregnancy
 - ?? exercising safely to better incorporate physical activity into pregnancy
 - ?? handling stress
 - ?? minimizing or eliminating work-related strain and fatigue during pregnancy
 - ?? knowledge of community services that promote access to low cost healthy food and stress management
2. Information needs of health care providers
 - ?? Health Canada recommendations relating to alcohol use by women who are pregnant or planning a pregnancy
3. Information needs of employers
 - ?? Workplace practices that contribute to physical problems and ill health during pregnancy and policies that can be implemented to improve overall well-being and job effectiveness
4. Surveys
 - ?? Further surveys of health care providers and women to provide in-depth information of specific needs and information topics

SURVEY OF HEALTH PROFESSIONALS

Based on results of the original survey, the Public Health Division asked local health practitioners about the needs of women in their practices who are pregnant or planning to become pregnant and their assessment of patient knowledge of factors studied in the initial survey. Sixty-six surveys were distributed; twenty were returned. Table 8 shows the number of practitioners who noted each factor.

Factor	Number	Factor	Number	Factor	Number
Work	15	Discomfort	13	Smoking	13
Exercise	12	Community Resources	11	Second Hand Smoke	11
Food	10	Stress	10	Alcohol	5

Table 8

Factors rated as most important were coping with discomforts, smoking during pregnancy and access to nutritious food. Practitioners also noted the need for a comprehensive list of community resources, education to reduce the number of young single women that become pregnant, and more support for pregnant teenagers through access to public health information, services and counselling.

FUTURE DIRECTIONS

The Public Health Division operates according to Mandatory Health Programs and Services Guidelines developed by the Ontario Ministry of Health and Long Term Care, the most recent being released in 1997. The Public Health Branch of the Ministry is in the process of updating requirements and standards for the Reproductive Health component. These are due to be released by late 2001 and will guide public health practice for the next several years. The revised outcomes and highlights of the program requirements are available only in draft form at present.

Revised Outcomes (Draft):

1. To increase the proportion of full-term (≥ 37 weeks gestation) singleton infants born within a healthy range of birth weights (> 2500 and < 4000 gram) by 2010 [1995 baseline: 84.5%].
2. To decrease the pre-term birth rate (gestational age < 37 completed weeks or < 259 days) among singleton infants by 2010 [1995 baseline: 8.1%].
3. To decrease the rate of neural tube defects by 2010 [1997 baseline: 0.79 per 1000 live births].
4. To decrease the proportion of infants who have adverse outcomes due to infectious disease acquired in the prenatal period and during delivery by 2010.
5. To increase the proportion of both pregnant women and people planning pregnancies who intend to breastfeed by 2010 [1996 baseline of breastfeeding initiation: 75%]
6. To increase the proportion of pregnant women and their families who are linked to appropriate community services and supports.
7. To increase the proportion of pregnant women and their families who are ready to parent by 2010.

Highlights of Revised Program Requirements (Draft)

The reproductive health continuum will encompass preconception, prenatal, and transition to parenthood and other topics that the Public Health Division will continue to promote:

- ?? An individual's ability to improve her own health status and health practices by addressing such topics as adequate nutrition, physical activity, smoking cessation, avoidance of alcohol, and prenatal screening.
- ?? A social environment that supports positive reproductive outcomes, decreased exposure to second hand smoke, access to available community supports, and addresses the challenges and risks of youth pregnancy and parenting.
- ?? Awareness, education, skill building and access to information through interactive group sessions, individual contact, telephone advice, print materials, the Internet and community campaigns.

- ?? Consultation and assistance to students, teachers, and Boards of Education in curriculum and learning opportunities for reproductive health issues.
- ?? Assistance to community partners in promotion of reproductive health and readiness to parent within their specific clientele.
- ?? Smoking cessation and relapse prevention strategies to women of reproductive age, women planning a pregnancy or pregnant women and their families at risk of poor birth or parenting outcomes.
- ?? Availability of both formal and informal community services.
- ?? Development and co-ordination of new and existing services as appropriate, in order to build a service system that promotes reproductive health and readiness to parent.
- ?? Liaison with community partners to increase the workplace support of reproductive health and readiness to parent, addressing such issues as chemical, physical, and biological hazards, second hand smoke, ergonomic risk factors, working conditions, psychosocial risk and protective factors, and healthy lifestyle choices at work.
- ?? Liaison with community partners including municipal, provincial, and federal partners to develop and advocate for policies that address the broader determinants of reproductive health and readiness to parent such as socio-economic status, education/literacy, food security, child care, housing, abuse, and social support.

CONCLUSION

This report assesses local information, including data, services, and needs for women who are pregnant or planning to become pregnant, as well as future directions for Ministry of Health and Long Term Care Reproductive Health programs. By incorporating this information into the planning and delivery of local programs, the Chatham-Kent Public Health Division will continue to work with its community partners to enhance reproductive health throughout the municipality.

REFERENCES

1. Health Canada. (1995). The effects of tobacco smoke and second-hand smoke in the prenatal & postpartum periods: A summary of the literature. Ottawa: Health Canada.
2. Health Canada. (1995). Smoking interventions in the prenatal and postpartum periods. Ottawa: Health Canada.
3. Health Canada. (1996). Joint statement: Prevention of fetal alcohol syndrome (FAS) and fetal alcohol effects (FAE) in Canada. Ottawa: Health Canada.
4. Health Canada. (1999). Canadian perinatal surveillance system: Alcohol and pregnancy. Ottawa: Health Canada.