MODULE THREE

Alcohol, Women, and Pregnancy

Drinking: A Norm?

Canadian Statistics

Level of Alcohol in Standard Drinks

Effect of Alcohol on Women

Addictions

Women's Substance Use

Influences on Women's Substance Abuse

Drinking and Pregnancy

Factors Contributing to Women's Drinking During Pregnancy

saskatchewan
preventioninstitute
our goal is **healthy** children

Alcohol, Women, and Pregnancy

DRINKING: A NORM?

Alcohol use is a norm in Canadian society. In media, including advertising and entertainment, alcohol is flaunted as a beverage that will do no harm. Alcohol is promoted as a means of being popular, sexy, fun and social. Alcohol sales are sanctioned by the government and, in Saskatchewan, controlled by the government. Such acceptance of alcohol within all levels of our society leads to lax attitudes regarding drinking and its possible negative outcomes.

Whether we drink at meals, with friends, or on our own, on special occasions or every day, drinking is a norm in our society and is linked to almost every facet of socializing. Those who choose not to drink are often pestered and questioned as to their reasons. This norm makes it difficult to examine our own drinking habits; a path we must follow if we are to examine the drinking of others.

CANADIAN STATISTICS

A recent Canadian survey concluded that in 2007 76.8% of Canadian women and 82% of Canadian men over the age of 15 drank alcohol (Canadian Executive Council on Addictions, 2008). For all demographics, the percentage of women who had *consumed alcohol in the previous year* was similar to men. Of interest, as education levels for both genders increased, so too did the prevalence of drinking for both genders. For women, this survey found that the frequency in which they consumed alcohol depended on a variety of factors such as age and economic status. With the exception of education, this is not true for men where alcohol consumption is similar across all demographics.

The Canadian Addiction Survey (2008) also examined the quantity of alcohol that Canadians consumed and found that the quantity decreased significantly with age. As well, women drink less in quantity than men in all age groups on a day-to-day basis. Factors which affect this include education, income, and marital status.

LEVEL OF ALCOHOL IN STANDARD DRINKS

One popular misconception is that different drinks have differing alcohol levels. In fact, this is not the case. Please consider the chart on the next page. In this chart, the percentage represents the typical percentage of pure alcohol per ounce of liquid. By multiplying the size (in ounces) of the drink, by the percentage of alcohol, you can determine the amount of pure alcohol present in one drink. You will see that each type of drink, consumed in a typical fashion, contains the same amount of pure alcohol (FAS/E Support Network of BC, 2002). As the saying goes, “A drink is a drink is a drink”.

Table 3.1: Comparison of Alcohol Content in One Standard Drink

Beer Bottle	Wine Glass	Shot Glass
12 oz of beer	4 oz of wine	1.2 oz of liquor
X 4%	X 12%	X 40%
.48 oz pure alcohol	.48 oz pure alcohol	.48 oz pure alcohol

One current trend in Canada is "supersizing". This includes alcoholic drinks and impacts the levels of alcohol noted in the table. Take wine for example. Wine glasses have increased in size over the last 10-20 years. One oversized wine glass holds up to two times the amount of wine as noted in the table above.

Most Canadians do not measure their drinks and as a result often serve larger sizes than what is considered to be one standard-sized alcoholic beverage. Keeping this in mind, it is not difficult to see that many adults cross the line into binge drinking. Binge drinking is considered to be 5 standard drinks for men per occasion and 4 standard drinks for women per occasion. If a woman uses a larger sized wine glass and has two glasses at supper, she will have "binged" and may not even been aware.

EFFECT OF ALCOHOL ON WOMEN

Binge drinking, long term drinking, and occasional drinking can impact a person's social, physical and emotional health. In the Canadians' Addiction Survey, women identified several harms related to drinking. These are listed in the table on the next page, along with the frequency of response.

Table 3.2: Harm Cited by Women Related to Their Own Drinking

Aspects of Harm	Percentage Citing Harm
Physical Health	11.4%
Friendships and Social Life	10.1%
Home Life and Marriage	4.7%
Work, School and Employment Opportunities	4.4%
Financial position	4.3%
Any (women reporting one or more types)	18.4%

(Adapted from Canadian Executive Council on Addictions, 2008)

ADDICTIONS

The DSM-IV refers to alcohol abuse as repeated use despite negative consequences. Further, alcohol dependence not only includes alcohol abuse (as defined above) but also tolerance, withdrawal, and uncontrollable urges to drink. Alcoholism has physical and mental health effects as well as social effects. For an alcoholic, establishing and maintaining sobriety can be extremely difficult.

It is important to note that people can drink without becoming alcoholics, but you cannot be addicted to alcohol without drinking.

WOMEN'S SUBSTANCE USE

Determinants of Health (DOH)

It is important to make note that women who drink during pregnancy come from all walks of life with a variety of life circumstances. The determinants of health may affect a woman's choice but do not dictate them. For example, not all women living in poverty drink during pregnancy.

The Public Health Agency of Canada (2003) describes twelve determinants of health: income/social status, social support networks, education/literacy, employment/working conditions, social environments, physical environments, personal health practices/coping skills, healthy child development, biology/ genetic endowment, access to health services, gender, and culture.

Table 3.3: Determinants of Health

Determinant	Key Factors
Income and Social Status	• "Life expectancy is shorter and most diseases are more common further down the social ladder in each society" (Wilkinson & Marmot, 2003, pp 10) • The healthiest populations are those where society is prosperous and there is an equitable distribution of wealth
Social Support Networks	• "Friendship, good social relations and strong supportive networks improve health at home, at work, and in the community" (Wilkinson & Marmot, 2003, pp 22) • Healthy, respectful, caring, trustworthy relationships give women a sense of satisfaction and well-being and can help women problem solve and cope with challenges in their lives • Networks include people that women identify as those they can confide in, count on in a crisis, count on for advice as well as those they feel love them for who they are and care about them
Education and Literacy	• Canadians with low literacy skills are more likely to be unemployed, live in poverty, have poor health, and die earlier than those with higher levels of literacy (Public Health Agency of Canada, 2003) • Education and literacy is closely tied to socioeconomic status • Education and literacy equip women with the skills and knowledge needed for problem solving and to access/understand health information
Employment and Working Conditions	• "Stress in the workplace increases the risk of disease. People who have more control over their work have better health" (Wilkinson & Marmot, 2003, pp 18) • "Job security increases health, well-being and job satisfaction. Higher rates of unemployment cause more illness and premature death" (Wilkinson & Marmot, 2003, pp 20) • Paid work provides a woman with not only an income, but a sense of worth/identity, social contacts, and opportunity for personal growth • When receiving little or no support, unpaid work (e.g., housework/caring for children/caring for older relatives) in combination with paid work on an ongoing basis can cause high levels of stress and be detrimental to health

Social Environments	• Social environment refers to a number of communities (i.e., the neighbourhood, city, region, province, country, workplace, school, family, etc.) • Social environments are a reflection of the institutions, organizations, and ways that people interact and build relationships with each other to create and share available resources • Positive social environments provide social stability, recognition of diversity, safety, good working conditions, and contain positive neighbourhoods
Physical Environments	• The physical environment refers to both the natural and built environments. • Examples of the natural environment are air quality, pollution, exposure to contaminants in the air, food, soil and/or water • Examples of built environment are housing, indoor air quality, design of communities and transportation systems
Personal Health Practices and Coping Skills	• "Stressful circumstances, making people feel worried, anxious, and unable to cope, are damaging to health and may lead to premature death" (Wilkinson & Marmot, 2003, pp 12) • Positive health practices and coping skills refer to actions that a woman can take to prevent disease and promote self-care, cope with challenges, develop self-reliance, solve problems, and make 'healthy' choices • There is a growing recognition that 'choices' are influenced by the other health determinants that are in play in the woman's life • Long-term stress can be the result of social and psychological circumstances such as low self-esteem, lack of control over work and/or home life, anxiety, social isolation, etc. The accumulation of these stressors over a lifetime increases the chances of poor mental health and premature death • When a woman is under constant stress, her body becomes more susceptible to health risks such as infections, high blood pressure, diabetes, heart attacks, stroke, depression, and aggression
Healthy Child Development	• "A good start in life means supporting mothers and young children: the health impact of early development and education lasts a lifetime" (Wilkinson & Marmot, 2003, pp 14) • The foundation of adult health is laid prenatally and in early childhood. For example, poor prenatal care can lead to less than optimal fetal development which in turn can lead to health risks later in life • Other determinants of health may affect the healthy development of an infant or child

Biology and Genetic Endowment	• An inherited predisposition to a wide range of health concerns may or may not be affected by the other health determinants (e.g., cystic fibrosis)
Health Services	• This refers to services that are designed to maintain and promote healthy choices, prevent disease, restore health, and/or contribute to the general health of the population • The better access a woman has to health services, the greater chance of better health outcomes (e.g., a remote northern community may have very limited medical care vs. living in an urban centre) • Another issue affecting access to health services is a woman's knowledge and comfort level for accessing appropriate services in her community • Lack of medical benefits may also hinder a woman's access to care
Gender	• Society assigns expected roles, personality traits, attitudes, beliefs, behaviours, values, and levels of power to each of the genders (e.g., girls like pink, boys play rough, boys don't cry, girls play with dolls, etc.). Some of these may impact women who are pregnant (e.g., myths about the "ideal mom") • Women and men can also have differing health concerns and these need to be addressed throughout a person's life
Culture	• Some cultural groups are more likely to be marginalized, stigmatized, have lost their language/culture, and/or may not have access to culturally appropriate health services

(Adapted from: Public Health Agency of Canada, 2003; Wilkinson & Marmot, 2003)

INFLUENCES ON WOMEN'S SUBSTANCE USE

There are several influences on women's substance use. Many of these also act as barriers if a woman wants to stop using.

Table 3.4: Influences on Women's Substance Use

• addictions to other substances • using substance abuse as a form of self harm or self injury • coping with past and/or present violence • media and societal perceptions that mothers who use substances are bad mothers • living in rural or northern locations (isolation) • experience of pleasure • coping with feelings • self-medication	• coping with illness, both mental and physical • peer pressure • coping with situations • coping with social isolation • parenting and lack of access to services • poverty • homelessness or constant relocation • substance use by other members of the family and support systems • individual, cultural and societal attitudes about alcohol and drug use

As discussed before, addictions are not easy to overcome and can be disabling. Substance abuse/ addictions are seen by some as a form of self injury and may occur at the same time as other self injurious behaviours such as cutting (Dell & Beauchamp, 2006).

Individuals do not just use illicit/prescription drugs recreationally. Many illicit and prescription medications are used to self medicate. Self medicating refers to the use of illicit or prescription drugs to relieve physical or emotional symptoms. This is different than when drugs are used as originally intended. An example of self medication is that women were twice as likely as men to report that they were using cannabis to alleviate the symptoms of depression (Canadian Executive Council on Addiction, 2008).

Addiction issues and mental illness can co-occur. Women who have co-existing disorders often have diagnoses such as major depression, anxiety, panic disorder, bulimia, post-traumatic stress disorder and borderline personality disorder (Blum, Nelson & Riggs, 1998). At times, it is difficult to tell which comes first; psychiatric illnesses or substance use.

An example of this can be seen with depression. According to Statistics Canada (2003), 1 in 20 women will experience depression in any given year. Co-existing depression and substance abuse is often seen. Depending on the individual, women who use substances may be more susceptible to depression (Koehn, 2008). Likewise, those who have depression may be more likely to use substances as a form of self-medication (Lukassen & Beaudet, 2005; Koehn, 2008). Issues related to mental illness such as discrimination, life events, stress, and poverty can also increase substance abuse (Koehn, 2008).
At times, substances are used by women as a means of coping with past and/or present violence (Newmann & Sallman, 2004; Boyd & Mackey, 2000; Martino, Collins & Ellickson, 2005). In a recent study, 120 women using shelter services for domestic violence were asked about their use of substances. Approximately 60% of these women were alcohol dependent and 55% were dependent on one or more drugs (Fowler, 2007). Unfortunately, for many, use of substances may also place women at risk for further abuse (El-Bassel, Gilbert, Schilling, & Wada, 2000; Kilpatrick, Acierno, Resnick, Saunders & Best, 1997).

In rural and northern communities, lower status of women in a community, isolation, economic instability, and limited resources and services may play a role in lowering women's self image and increasing the likelihood of substance use (Vaillencourt & Keith, 2007). Rural and northern communities can also present challenges in accessing services and supports. For example, the restructuring of social services from small local offices to larger, centralized offices has created access problems for many women (Vaillencourt & Keith, 2007). At times, this can result in women having to rely on others or having to leave their communities to obtain services.

Small communities are also harder to "hide" in and anonymity and confidentiality are hard to ensure (Boyd, 2003; Aston, Comeau & Ross, 2008). Anticipated and real consequences of stigma can cause women to keep their addiction hidden, avoid using services, and ultimately, intensifies isolation (Finfgeld, 2002). Stigma can be particularly harmful to women in prominent positions within the community, and/or those who are experiencing a mental illness (Aston, Comeau & Ross, 2008). Mothers may also be fearful of having others know about their addictions as there is a higher likelihood of children being removed from the home by Child Protection Services in rural areas than urban areas due to lack of staff for in home follow up services (Aston, Comeau & Ross, 2008).

DRINKING AND PREGNANCY

Recent reports note that the number of women self reporting drinking during pregnancy has declined in Canada with approximately 14% of women drinking during pregnancy (McCourt, Paquette, Pelletier & Reyes, 2005). However, these statistics are based on self reporting and therefore rely on the individual self disclosure of information that is potentially stigmatizing.

A more realistic way to reflect upon rates of alcohol consumption during pregnancy is to look at the percentage of pregnancies that are unintended. Pregnancies that are unintended are more likely to be detected later than those that are intended. As well, women who do not intend to become pregnant are less likely to be taking precautions that will increase the health of a baby, including avoiding alcohol and other harmful substances.

Unintended rates of pregnancy in Canada are approximately 40% (McCourt, Paquette, Pelletier, & Reyes, 2005). The Alberta Alcohol and Drug Addictions Commission (2004) looked at the 2000-2001 CCHS survey which asked women who were not pregnant and between the ages 18-44 about their drinking patterns in the past year. This survey showed that 72.8% of women of childbearing age had consumed alcohol during the 12 months prior to the survey. It is therefore safe to assume that women who have unintended pregnancies or do not stop drinking alcohol before a planned conception are at higher risk of having consumed alcohol during pregnancy.

Table 3.5: Unintended Pregnancy Rates Versus Percentage of Women Who Consumed Alcohol

Unintended Pregnancy Rate	Percentage of Women (aged 18-44 years) Who Consumed Alcohol in Past 12 Months
40%	72.8%

FACTORS CONTRIBUTING TO WOMEN DRINKING DURING PREGNANCY

Once women are aware that they are pregnant, some may continue to drink. The following have been found to be co-existing factors experienced by pregnant women who are drinking during pregnancy (Dell & Roberts, 2005; Sood et al., 2001; Bingol et al., 1987):

Table 3.6: Factors Associated with Women Drinking During Pregnancy

• single parenting • child(ren) in custody/ changes in custody • low income/poverty • limited access to prenatal/ postnatal care • feeling/experiencing loss of control • menial, low paying employment • cognitive impairments, possibly due to FASD • unplanned pregnancy/ • pregnancies • low self-esteem • historical and cultural factors • professional advancement	• older in age • mother's prenatal exposure to alcohol, tobacco and other drugs • poor early childhood environment of the women (stress, abuse, neglect) • physical, mental, social and spiritual imbalance • violence, abuse, sexual exploitation, or trauma • involvement in the criminal justice system • low social support • low education and literacy levels • shame • not wanting to reveal pregnancy until after the first trimester	• previous birth of a child with prenatal exposure to alcohol and/or other drugs • concurrent mental and physical health problems • co-existing use with other • substances • depression and other mental health issues • heavy consumption of alcohol prior to pregnancy • inadequate nutrition • paternal/partner alcohol and drug use during pregnancy • unstable housing/living conditions • wanting to keep up with colleagues at work

While pregnancy is often considered a motivator to quit drinking, a study found that 9.2% of Alberta women continued to drink during pregnancy (Alberta Alcohol & Drug Abuse Commission, 2004). The same report found that women who were in the highest income brackets showed high report rates for drinking alcohol during pregnancy, with 40.5% of women in the $80,000 and above bracket and 23.1% of women in the $60,000 to $79,999 income bracket reporting alcohol use during pregnancy (Alberta Alcohol & Drug Abuse Commission, 2004). This group of women may continue to drink during pregnancy because of beliefs that small amounts of alcohol do not harm the fetus or because they are unable to quit drinking without assistance (Alberta Alcohol & Drug Abuse Commission, 2004).

A smaller scale study performed in Saskatchewan illustrated similar outcomes (Muhajarine, D'Arcy, & Edouard, 1997). It is especially important that partners of women who are pregnant are supportive of a woman's choice not to drink during pregnancy. Depending on the couple and the role that alcohol plays in their life, this may mean that both individuals do not consume alcohol during the pregnancy, that alcohol is not readily available in the home, or that the partner backs up the pregnant woman in her choice not to drink.

CASE STUDIES

Case Study 3.1: Anna

Anna is a 29 year old lawyer. She works at a law firm and is hoping to one day become a partner in the firm. Anna is married to Thom. When they got married, they agreed that they would not have children until Anna was established in her career. Lately, Thom has been asking if she is ready to have children yet and Anna has agreed to stop using contraceptives.

Each time that a case concludes, Anna, and her colleagues and sometimes their partners go out for drinks after work. Anna feels that this is an important part of her establishing working relationships and working her way into the partnership. Anna and Thom also drink wine in the evenings as a way to relieve stress and spend time together. A couple of times a month they meet with friends at a sports bar to drink a few beers, watch a game and chat.

Anna feels that there is a lot of pressure on her to drink. At work, she does not want her colleagues to know that she and Thom are trying to get pregnant. She feels that this will negatively impact her chances of becoming a partner. With her friends, she is afraid that people will ask why she is not drinking and then watch her to see when/if she becomes pregnant. Anna does not want her relationship with her friends to change; many of whom are still single or couples who have decided not to have children.

Anna also does not want to stop drinking wine at night. The wine helps her to relax, is part of her relationship with Thom, and tastes good. Besides, she has looked up information on the internet and is aware that there is some controversy about how much one should drink when pregnant. Not to mention that she isn't even pregnant yet.

For this case study, reflect on the questions below.

1. Where does Anna drink?
    - *Social situations*
    - *Part of her work culture*
    - *Home*

2. How often and how much?
    - *In the evenings*
    - *With friends monthly*

3. Do you think that her drinking would cause concern from others?
    - *At this point, her not drinking would raise more questions*

4. What factors influence Anna's drinking?
    - *Her wanting to fit in at work*
    - *Stress relief*
    - *Her social network – friends and husband*

5. What could be the possible risks of Anna continuing to drink?
    - *Anna could become pregnant and continue to drink alcohol putting her baby at risk of FASD*

Case 3.2: Claire

Claire is a mother of 4 and is expecting her fifth baby in a few months. She lives in an isolated community. Claire's common-law partner has been very abusive to her. After the latest incident, the police came and he is now in jail. As has happened in the past, Claire knows that he will not be there for long and that when he gets out he will come looking for her. Whenever the courts have issued restraining orders in the past, it looks good on paper but doesn't really work when the RCMP take at least 45 minutes to get to her house. Besides, all they will do is charge him if he breaks his restraining order and then the whole cycle starts all over again.

Claire has no one to turn to. All of her friends are also her partner's friends and they have taken his side. In addition, his family lives in the area and they blame her for what has happened to their son. They say he is right to be angry, because she had so many children and doesn't know how to keep them out of his way.

In some ways, it is easier when her partner is home. At least she is not seen as a single mom or as a man hater. Her partner buys groceries, gets her off of their land once and awhile, and brings in some money.

Claire drinks alcohol to help her forget what is going on. Sometimes she drinks with her partner because he expects her to and because things always go smoother when she does what he wants. Most days she drinks small amounts throughout the day to take the edge off. She finds that she is much more easygoing with the kids when she is calmer and can deal with her partner easier too. Anna also takes her mother's Percocet pills. She takes some from her mother's house each time she visits. This helps her deal with pain when her partner hurts her and sometimes she just needs that extra help to numb out so she can get through the day.

For this case study, reflect on the questions below.

1. Where does Claire drink?
    - *At home by herself or with her partner*

2. How often and how much?
    - *Small amounts throughout the day*
    - *More with her partner*

3. Do you think that her drinking would cause concern from others?
    - *Claire's drinking may concern her children depending on their age*
    - *Her partner expects her to drink*
    - *His family may be concerned for the children's sake or they may expect her to drink as well*

4. What factors influence Claire's drinking?
    - *Abuse – physical, emotional, verbal*
    - *Isolation – geographical and social*
    - *Poverty*
    - *Addictions*
    - *To self medicate*

5. What could be the possible risks of Claire continuing to drink?
    - *The fetus could be at risk for FASD*
    - *The children could be taken into child protection*
    - *The children could continue to be raised in an unstable environment*
    - *Claire could be physically injured/killed by her partner*
    - *Claire's addictions could worsen*

Activities

Activity 3.1: Self Reflection on Personal Alcohol Use

Purpose: To have participants reflect on their own alcohol use.

Materials:

- List of questions

Instructions:

- Read the list of questions out loud to the participants.
- If you have ever used alcohol, think about when the following occurred and the circumstances involved.
    - When did you have your first taste of alcohol?
    - When did you have your first drink?
    - When was the first time you were intoxicated?
    - When was the first time you purposefully got drunk?
    - Did you ever start drinking regularly?
    - Were there ever any negative consequences when you consumed alcohol?
    - What would you consider social drinking?
    - When does alcohol use become a problem?
    - How do you feel about other people drinking? Do your feelings change depending on the circumstances?
    - How do you feel about people not drinking? Do your feelings change depending on the circumstances?

Discussion:

1. Have a general discussion about how participants felt when they were reading through the questions.

Activity 3.2: "Why is Jason in the Hospital?"

Purpose: To reinforce the idea of how different factors are interconnected and all that can affect health status. The *Story of Jason* exemplifies how the determinants of health are interconnected and creates a complex revelation of what appears to be a simple story.

Materials:

- The *Story of Jason*

  Why is Jason in the hospital?
  Because he has a bad infection in his leg.
  But why does he have an infection?
  Because he has a cut on his leg and it got infected.
  But why does he have a cut on his leg?
  Because he was playing in the junk yard next to his apartment building and there was some sharp, jagged steel that he fell on.
  But why was he playing in the junk yard?
  Because his neighbourhood is run down and there is no other place to play. A lot of children play there unsupervised.
  But why does he live in that neighbourhood?
  Because his parents can't afford a nicer place to live.
  Why can't they afford a nicer place to live?
  Because his Dad is unemployed and his Mom is sick.
  But why is his Dad unemployed?
  Because he doesn't have much education and he can't find a job.
  But why….?
  (Public Health Agency of Canada, 2003).

Instructions:

- Read the Story of Jason to the group.

Discussion:

1. How could recognizing all of the different factors influencing Jason's injury influence the care provided to him?
   - *More supports could be put into place for Jason's family*
   - *Jason and his family would be better understood and perhaps not labelled or stereotyped*
   - *Society may be motivated to address the broader issues affecting health*

DISCUSSION QUESTIONS

1. **Why do you think that drinking alcohol is a societal norm in Canada?**
   - *Sanctioned by the government – creates legal revenue*
   - *Linked to social gatherings*
   - *Portrayed in the media as exciting, fun, glamorous*

2. **What are some reasons why a pregnant woman uses alcohol during pregnancy?**
   - MANY factors that contribute to a women drinking during pregnancy

• *single parenting* • *child(ren) in custody/changes in custody* • *low income/ poverty* • *limited access to prenatal/postnatal care* • *feeling/experiencing loss of control* • *menial, low paying employment* • *cognitive impairments, possibly due to FASD unplanned pregnancy* • *low self-esteem* • *historical and cultural factors* • *professional advancement*	• *older in age* • *mother's prenatal exposure to alcohol, tobacco and other drugs* • *poor early childhood environment of the women (stress, abuse, neglect)* • *physical, mental, social and spiritual imbalance* • *violence, abuse, sexual exploitation, or trauma* • *involvement in the criminal justice system* • *low social support* • *low education and literacy levels* • *shame* • *not wanting to reveal pregnancy until after the first trimester*	• *previous birth of a child with prenatal exposure to alcohol and/or other drugs* • *concurrent mental and physical health problems* • *co-existing use with other substances* • *depression and other mental health issues* • *heavy consumption of alcohol prior to pregnancy* • *inadequate nutrition* • *paternal/partner alcohol and drug use during pregnancy* • *unstable housing/living conditions* • *wanting to keep up with colleagues at work*

References

Alberta Alcohol and Drug Abuse Commission (AADAC). (2004). *Windows of Opportunity: A Statistical Profile of Substance Use among Women in their Childbearing Years in Alberta*. Calgary, AB: AADAC.

Aston, S., Comeau, J., & Ross, N. (2008). Mapping uncharted terrain. Women and substance use problems in rural Canada. *Highs and Lows. Canadian Perspectives on Women and Substance Use*. Toronto, ON: Centre for Addiction and Mental Health.

Bingol, N., Schuster, C., Fuchs, M., Iosub, S., Turner, G., Stone, R.K., et al. (1997). The influence of socioeconomic factors on the occurrence of fetal alcohol syndrome. *Adv Alcohol Substance Abuse*, 6(4); 105-118.

Blum, L.A., Neilson, N.H., & Riggs, J.A. (1998). Alcoholism and alcohol abuse among women: report of the Council on Scientific Affairs. *Journal of Women's Health*, *7*, 861-871.

Boyd, M. & Mackey, M. (2000). Alienation from self and others: The psychosocial problem of rural alcoholic women. *Archives of Psychiatric Nursing, 3*, 134-141.

Boyd, M. (2003). Vulnerability to alcohol and other drug disorders in rural women. *Archives of Psychiatric Nursing, 17*(1), 33-41.

Canadian Executive Council on Addictions. (2008). Canadian Addiction Survey (CAS) A national survey of Canadians' use of alcohol and other drugs. *Focus on Gender*. Ottawa, ON: Health Canada.

Dell, C., & Beauchap, T. (2006). Self-harm among criminalized women. *Canadian Centre on Substance Abuse*. Ottawa, ON: Canadian Centre on Substance Abuse.

Dell, C. & Roberts, G. (2005). *Research update. Alcohol use and pregnancy: An important Canadian public health and social issue*. Ottawa, ON: Health Canada.

El-Basel, N., Gilbert, l., Witt, S., et al. (2003). Intimate partner violence and substance abuse among minority women receiving care from an inner city emergency department. *Women's Health Issues, 13,* 16-22.

FAS/E Support Network of BC. (2002). *A manual for community caring identification, understanding & intervention fetal alcohol spectrum disorder (FASD) trainer's guide*. Surrey, BC: Author.

Fingeld, D. (2002). Alcohol treatment for women in rural areas. *Journal of the American Psychiatric Nurses Association, 8,* 37-43.

Fowler, D. (2007). The extent of substance use problems among women partner abuse survivors residing in a domestic violence shelter. *Family and Community Health, Supplement 1*, S106-S108.

Kilpatrick, D., Acierno, R., Resnick, H., Saunders, B. & Best, C. (1997). A two-year longitudinal analysis of the relationships between violent assault and substance abuse in women. *Journal of Consulting and Clinical Psychology, 65* (5), 842-847.

Koehn, C. & Hardy, C. (2008). Depression and Problem Substance Use in Women. *Highs and Lows. Canadian Perspectives on Women and Substance Use*. Toronto, ON: Centre for Addiction and Mental Health.

Lukassen, J., & Beaudet, M. (2005). Alcohol dependence and depression among heavy drinkers in Canada. *Social Science & Medicine*, 61(8), 1658-1667.

Martino, S., Collins, R. & Ellickson, P. (2005). Cross-legged relationships between substance use and intimate partner violence among a sample of young adult women. *Journal of Studies on Alcohol, 66* (1), 139-149.

McCourt, C., Paquette, D., Pelletier, L., & Reyes, R. (2005). *Report on maternal and child health in Canada: Making every mother and child count*. Ottawa, ON: Public Health Agency of Canada.

Muhajarine, N., D'Arcy, C., & Edouard, L. (1997). Prevalence and predictors of health risk behaviours during early pregnancy: Saskatoon pregnancy and health study. *Canadian Journal of Public Health,* 88, 375-379.

Newmann, J. & Sallman, J. (2004). Women, trauma histories, and co-occurring disorders: assessing the scope of the problem. *Social Services Review, 78* (3), 466-499.

Public Health Agency of Canada. (2003). *What makes Canadians healthy or unhealthy?* Retrieved November 6, 2008, from http://www.phac-aspc.gc.ca/ph-sp/determinants/determinants-eng.php#personalhealth.

Sood, B., Delaney-Black, V., Covington, C., Nordstrom-Klee, B., Ager, J., Templin, T., et al. (2001). Prenatal alcohol exposure and childhood behaviour at age 6 to 7 years: I. Dose-response effect. *Pediatrics*, 108 (2): E34.

Statistics Canada. (2003). *The Canadian community health survey (CCHS)*. Retrieved February 14, 2008 from www.statcan.ca/english/freepub/82-617XLE/index.htm.

Vaillencourt, A. & Keith, B. (2007). Substance Use among Women in "The Sticks". Northern Perspectives. *Highs and Lows. Canadian Perspectives on Women and Substance Use*. Toronto, ON: Centre for Addiction and Mental Health.

Wilkinson, R., & Marmot, M. (2003). *Social determinants of health: The solid facts* (Second ed.) World Health Organization. Retrieved January 17, 2009, from www.who.dk/documents/e81384.pdf.