

Increasing the Rates of Cervical Cancer Screening Among Aboriginal Women in
Garden Hill, Manitoba:
A Proposed Intervention

By

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A Practicum Project
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Increasing the Rates of Cervical Cancer Screening Among Aboriginal Women in Garden Hill, Manitoba: A Proposed Intervention

BY

Jennifer L. Wellborn

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of
Manitoba in partial fulfillment of the requirement of the degree**

Of

Master of Nursing

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Abstract

Adverse outcomes associated with cervical cancer are largely preventable with participation in regular screening. It is known that Aboriginal women are an under-screened group, and therefore are at increased risk for developing cervical cancer. Numerous risk factors and barriers which predispose Aboriginal women to develop this disease are identified in the literature.

The main objective of this practicum project was to develop an intervention to increase the rates of cervical cancer screening among Aboriginal women, specifically the women of Garden Hill, Manitoba. Multifaceted interventions based upon available literature were developed. In addition, Cox's Interaction Model of Client Health Behaviour (IMCHB) suggested interventions that would increase the knowledge and awareness of the health care provider, individual women, and the community as a whole. Concurrent strategies that cultivate the client-professional relationship and create a woman-to-woman outreach as a means of increasing awareness and Pap smear rates were developed. Although the practicum project was not implemented, the knowledge synthesis and uptake (interventions, evaluation) should be of value to clinicians and researchers.

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CHAPTER 1

Statement of the Problem

According to Health Canada (2002), cervical cancer ranks as the twelfth leading cause of cancer in this country. Although not the most prevalent form of cancer, more than 1,300 diagnoses of cervical cancer were expected to be made in Canada in 2004 with a predicted mortality rate of 410 women (Gavin et al., 2004; Maxwell, Bancej, Snider, & Vik, 2001). Each year in Manitoba there are approximately 66 new cases of cervical cancer and 20 related deaths (Bertram-Farough, 2004).

Aboriginal¹ women are generally considered to be at an increased risk of developing and dying from cervical cancer. Increased rates of cervical cancer can be seen in Aboriginal women worldwide when compared to their non-Aboriginal counterparts. According to the Canadian Cervical Cancer Screening in Canada 1998 Surveillance Report (Health Canada, 2002) there is an increased incidence rate among Aboriginal women when compared to their non-Aboriginal peers. For example, the incidence rate is two to six times higher among Aboriginal women in Saskatchewan, Manitoba and Ontario. The increased incidence and unfavorable outcomes of the disease process are often associated with the generally lower rates of cervical screening amongst this cohort of women, as well as the presence of associated risk factors for cervical cancer such as smoking and early onset of sexual activity (Health Canada, 2002). Canadian women of Aboriginal descent are less likely to participate in cervical screening programs and consequently these women are considered to be at increased risk for developing and

¹ For the purpose of this project, the term Aboriginal will include those of First Nations, Inuit, Métis and Non-Status identity.

dying from cervical cancer compared to the general female population (Young, Kliewer, Blanchard, & Mayer, 2000).

Statement of the Purpose

As there is an inverse relationship between screening rates and morbidity and mortality associated with cervical cancer, it is presumed that by increasing the rates of Papanicolaou (Pap) smears, the negative outcomes associated with the disease process can also be decreased. By making a conscious effort to address barriers that prevent Aboriginal women from participating in cervical screening programs the expected outcome is that more of these women will obtain Pap smears as recommended by the Canadian guidelines (Canadian Task Force on Preventative Health Care). These barriers include: discomfort with the procedure, a knowledge deficit on behalf of the patient and/or provider, relationship with health care provider, age, socio-economic status, and language.

This practicum project endeavors to develop a multifaceted intervention based upon the literature which is expected to increase the rates of cervical cancer screening in the First Nations community of Garden Hill, Manitoba. However, the project could easily be adapted for use in any Aboriginal community. This community was chosen as it is one of the largest, isolated Aboriginal communities in northern Manitoba and therefore the nursing station and community have the necessary resources, such as, staffing, a local radio station, and a supportive Chief and Council which would potentially permit implementation of the practicum project. In addition, the author is familiar with this community as she has worked there as a community health nurse (CHN).

Nurses are in an ideal position to act as agents of change and implement interventions which have the potential to positively influence cervical screening rates. Clemente (2000) notes that the responsibilities of a change agent include establishing a need for change, developing a rapport with the population, analyzing the issue from the perspective of the population, implementing change, and evaluating the results. The nurses within the community are a valuable resource for the implementation of this project, and are in an ideal position to establish change in the community along with other key stakeholders. The practicum project will aspire to address the above noted responsibilities in order to implement a successful intervention.

It has been shown that nurses practicing within an expanded scope of practice provide good preventive health services (Cardozo, Steinberg, Lepczyk, Binns-Emerick, Cardozo, & Aranha, 1998). The nurses in Garden Hill practice within an expanded scope of practice which allows for them to provide holistic and comprehensive primary health care within the community. The nurses are given the opportunity to educate women on health promotion, illness prevention and health maintenance behaviours, in addition to providing preventive health screening to those who present to the clinic.

Numerous interventions have been implemented in an attempt to increase cervical screening rates, one of the most effective being opportunistic screening opportunities provided by nurse practitioners (Yabroff, Mangan, & Mandelblatt, 2003). Other methods employed to increase Pap smear rates include patient and provider reminder systems, distribution of culturally appropriate educational materials, and outreach programs; all of which have been found to be effective at increasing rates of screening.

Looking at the fact that most interventions implemented show at least modest improvements, a multifaceted approach which aspires to increase the knowledge of the care provider and the women in an attempt to increase screening rates will be developed and implemented. Multifaceted interventions have been proven to be an effective means to increase cancer screening, especially in low-income settings (Paskett, Tatum, D'Agostino, Rushing, Velez, Michielutte, & Dignan, 1999). Issues which place the women of Garden Hill in an at-risk category for cervical cancer such as socio-economic status, education levels, and low rates of Pap smear use will be addressed, in addition to previously noted barriers for screening in an effort to improve screening rates.

Consultations will be undertaken with key members of the community to ensure that the interventions are appropriate for the women of Garden Hill. Consulting with members of the community, demonstrating respect for the local culture, traditions and knowledge of the community are important elements of implementation at the local level. Additionally, consulting local respected members of the community will help to establish a working relationship between the research team and the community which will benefit all involved in the proposed project while adhering to recommendations made by the Tri-Council's policy statement: Ethical Conduct for Research Involving Humans (Public Works and Government Services of Canada, 2003).

Summary

Nurses and other health care providers are increasingly being encouraged to be critical practitioners and reflect upon the available evidence and synthesize it to arrive at clinical actions best suited to the client population (Long, 2002); however, in busy

clinical settings, they may not always have the time to keep up-to-date on the latest research regarding all topics.

This practicum project aims to review what is known regarding cervical cancer screening and Aboriginal women and take that information and synthesize it so that interventions can be developed in order to increase screening rates in a successful manner. Reviewing the literature will provide information regarding what has previously been developed and implemented regarding the topic. By reviewing the literature, it is anticipated that interventions developed for the community of Garden Hill will be based upon available research in order to provide evidence-based recommendations regarding cervical cancer screening.

CHAPTER 2

Background Information

Cervical cancer is considered to be largely preventable with participation in screening programs. According to the Walton Report (1976), the development of carcinoma of the cervix follows a slow progression of changes which may be first noted as cervical cell dysplasia at the squamocolumnar junction of the cervix. This region is easily accessible and has a high neoplastic rate which allows for early identification of the precursors of the disease. It has been shown that Pap tests can detect cervical cell dysplasia at earlier stages and therefore allows for interventions to be initiated earlier, leading to decreased negative outcomes (Walton, 1976). Potential negative outcomes may include decreased quality of life, increase risk of invasive procedures, hysterectomies and premature death related to the disease process.

According to Brown (1996), Pap smears have been shown to decrease the incidence and mortality from cervical cancer by as much as 60-90%. Canadian data reflect that Papanicolaou cytology testing has been linked to an approximate 50% decrease in the rates of mortality from cervical cancer since its introduction (Health Canada, 2002). It has been documented that those who have never been screened or do not participate in regular screening are at the highest risk of dying from cervical cancer (Health Canada, 2002; Morrison, 1992). "Not undergoing regular Pap tests is the single greatest risk factor for a poor outcome in women who develop cervical cancer" (Health Canada, 2002, p. 17). Under-screened cohorts of women consistently show increased risks of morbidity and mortality secondary to cervical cancer.

The most recent Canadian guidelines for cervical cancer screening provided by the Canadian Task Force on Preventative Health Care recommends:

Annual screening is recommended following initiation of sexual activity or age 18; after two normal smears, screen every 3 years to age 69. Consider increasing frequency for women with risk factors: age at first intercourse <18yrs, many sexual partners or consort with many partners, smoking or low-socioeconomic status (Morrison, 1992, p.889).

Risk Factors

There are known risk factors for the development of cervical cancer (Table 1, p.8). As previously mentioned, not being screened or being under-screened is considered to be the greatest risk for the development of cervical cancer and a negative outcome associated with the diagnosis (Buehler & Parsons, 1997; Ferrante, Gonzalez, Roetzheim, Pal, & Woodward, 2000; Gavin et al., 1997; Health Canada, 2002; Liu, Semenciw, Probert & Mao, 2001; Maxwell et al, 2001; Pizarro, Tamera, Schneider, & Salovey, 2002; Reid, 2001). The importance of regular screening program participation is undisputed. Other factors which predispose women to the development of this type of cancer include cigarette smoking, early onset of sexual activity, increased number of sexual partners, male partner's sexual behaviours (such as increased number of partners), and human papilloma virus (HPV).

There is evidence to suggest that Aboriginal women may have an increased incidence of risk factors (tobacco use, early onset of sexual activity, multiple sexual partners) when compared with their non-Aboriginal counterparts (Young et al., 1997).

One must be cognizant, however, not to portray these risk factors as characteristics of Aboriginal women (Browne & Smye, 2002).

Women must be knowledgeable regarding these factors which may place them at increased risk of developing carcinoma of the cervix. Understanding that participating in regular cervical screening can decrease their risks of a late stage diagnosis or negative health outcomes associated with a diagnosis of cervical cancer is imperative. In addition to women being informed regarding risk factors, health care providers must be attuned to issues which may deter women from participating in cervical screening programs. Such deterrents may include modesty, embarrassment, language barriers, and other cultural factors which the health care provider can attempt to address to make the woman more receptive to participate in screening.

Table 1

Identified Risk Factors for Cervical Cancer

Risk Factors	Supporting Evidence
1. Under-screened	Buehler and Parsons, 1997; Ferrante, et al., 2000; Gavin et al., 1997; Health Canada, 2002; Liu, et al., 2001; Maxwell et al., 2001; Pizarro, et al., 2002; Reid, 2001.
2. Early onset of sexual activity	Health Canada, 2002; Sheets, 2002; Wright and Riopelle, 1982.
3. Human papilloma virus (HPV)	Herro, 1996; Sheets, 2002.
4. Multiple sexual partners - Male partner's sexual behaviour	Herrero et al., 1996; Sheets, 2002; Young et al., 1997.
5. Cigarette smoking	Ferrante et al., 2000; Health Canada, 2002; Herrero et al., 1996.

Early Onset of Sexual Activity

Onset of sexual activity at 17 years of age or younger is considered to be a risk factor for the development of cancer of the cervix (Sheets, 2002). Of 1,477 women

attending a clinic in downtown Winnipeg (42% of whom were Aboriginal), Young et al. (1997) found that 56.3% of the Aboriginal women reported their age at first intercourse to be 15 years or younger.

According to Wright and Riopelle (1982), studies support the theory that early onset of sexual activity (especially between 15 and 17 years of age) is the most important epidemiologic risk factor in the development of cervical cancer. They make the case for initiating screening based on the number of years of sexual activity rather than on chronological age as they found most cases of cervical cancer occur six to twenty years after the time of first intercourse. They found that most patients develop cervical cancer within 6 to 20 years following the onset of sexual intercourse irregardless of age at that time.

There are several explanations for the association between early onset of sexual activity and the development of cervical dysplasia which often progresses to carcinoma. According to Health Canada (2002) cervical tissues undergo changes during puberty which make the area more vulnerable to damage and therefore increase the risk of contracting HPV which has been associated with cervical cancer.

Human Papilloma Virus

HPV is transmitted through sexual activity, with strains 16, 18, 33, 35 and 39 being HPV types which are considered to be high-risk strains of the virus for the development of neoplasms (Sheets, 2002). According to Herrero (1996), HPV infection is necessary for the development of cervical cancer, but itself is not an adequate cause of the disease. The prevalence of HPV is similar among Aboriginal and non-Aboriginal

women (Young et al., 1997). This association between HPV and cervical cancer leads to the assumption that cervical cancer is a sexually transmitted infection caused by HPV.

Sexual Partners

The risk of developing cervical cancer is also correlated with the number of sexual partners that an individual has in her lifetime and the number of partners that his/her partner has had. According to Sheets (2002), five or more partners increases the risk of developing changes in cervical cells which potentially leads to cervical cancer. Over 28% of the Aboriginal women who participated in the study by Young et al. (1997) reported that they had had twenty or more sexual partners.

Cigarette Smoking

Cigarette smoking has been identified as having a potential link to the development of cervical cancer as cigarette components have been found in cervical mucous. Whether this is a cause of cervical cancer or merely a factor which increases the incidence of the disease is yet to be established (Health Canada, 2002; Herrero, 1996). Ferrante et al. (2000) found a trend towards late stage diagnosis and cigarette smoking.

According to Health Canada (1999), twenty-six percent of Canadian women smoke, and rates of smoking are significantly higher amongst the Aboriginal population (Health Canada, 2003). The smoking rate among the Aboriginal population is 57% verses 32% in the general Canadian population (Health Canada, 1999). Unfortunately, the rates of cigarette smoking increase with lower income levels thus putting an even greater burden on women who are already deemed to be an at-risk population (Health Canada, 1999).

Screening Rates

According to the 1996-1997 National Population Health Survey (NPHS), approximately 72% of Canadian women aged 18 and older reported having a Pap test within the past 3 years (Maxwell et al., 2001). The NPHS includes households and institutional residents in all provinces and territories except for those living on reserves, Canadian Forces bases, and some remote areas. It therefore does not account for many Aboriginal persons (Statistics Canada, 1998).

Lowest rates of screening were found among two cohorts: the youngest cohort of women, with 32.9% of the individuals between 18-24 years stating that they had never been screened; and, amongst the oldest group of women with 22.6% of these women 65 years and older reporting that they had never been tested for cervical cancer (Maxwell et al., 2001). These groups of women were not only less likely to have ever been screened for cervical cancer, but those who had been previously tested were less likely to have had one within the recommended time frame as outlined by the Canadian Task Force on Preventative Health Care (Morrison, 1992). These statistics indicate that women at both ends of the age spectrum must be targeted for screening programs as they are less likely to participate in regular screening thereby placing them at increased risk of developing and dying from cervical cancer. American findings estimate that approximately 50% of cervical cancers are found in women with no history of screening, and 60% in women who have not been screened in the preceding 5 years (Brown, 1996). These findings are congruent with Health Canada's which approximate that 60% of Canadian women diagnosed with cervical cancer are considered to be unscreened or under-screened (Health Canada, 2002).

The Manitoba Context

The Manitoba context for women indicates a higher than national average screening rate with 82.1% of women over the age of 18 indicating that they have been screened within the past 3 years (Maxwell et al., 2001). Unfortunately, it has been shown that individuals often overestimate the number of Pap smears that they have had (Gavin, Stuart, McGrigor, Duggan, & Nation, 1997). McKenna, Speers, Mallin and Warnecke (1992) found that women of increased age and those who have had numerous Pap smears in the past are those who are most likely to over report their screening histories. It is generally accepted in the literature that self-reports of cervical screening are unreliable (Gavin et al., 1997; McKenna et al., 1992; Pizarro et al., 2002).

Another problem with these increased screening rates in Manitoba is that women living on reserves and in remote areas were not included in the statistics (Statistics Canada, 1998). Manitoba has a significant Aboriginal population, and many of these individuals live on-reserve and in remote communities. The percentage of Manitoba's Aboriginal population living in Winnipeg is 35.5%, whereas the on-reserve population is 36.5%, with the remaining 28% dispersed throughout the provinces (Hallett, Nemeth, Stevens, & Stewart, 2000). When observing the fact that women in Manitoba seem to have increased rates of cervical screening compared with the rest of the Canadian public, one must be cognizant that a significant portion of the population may not have been accounted for.

The First Nations community of Garden Hill, Manitoba is for example, one of northern Manitoba's largest isolated First Nations communities and was excluded from the study. With a population of 2,021 individuals (Statistics Canada, 2003), Garden Hill

is located approximately 600 km north east of Winnipeg. The percentage of women between 18-69 years of age in Garden Hill who have had at least one Pap smear between January 2003 and January 2005 is 44% (CancerCare Manitoba, 2005), which is significantly lower than both the national and provincial data previously mentioned. It is interesting to note the trends in screening rates among the age groups within the community (Table 2). There is generally an inverse relationship between age and screening rates, with the youngest age group having the highest screening rates and a corresponding decrease as the women get older.

Table 2

Pap test by Age in Garden Hill from January 1, 2003 to January 1, 2005

Age	18-69	18-19	20-29	30-39	40-49	50-59	60-69
Women with at least one Pap smear taken	299	37	118	70	40	21	13
Population	676	49	220	182	110	73	42
Screened %	44.23%	75.51%	53.64%	38.46%	36.36%	28.77%	30.95%

(CancerCare Manitoba, 2005)

Under-Screened Women

Certain demographic groups are considered to be under-screened (Table 3, p. 14). These groups of women include the elderly, those with low education levels, unmarried women, those who do not speak English, those with poor preventative health behaviours, and those of an ethnic background (Maxwell et al., 2001). The term ethnic is defined by the Merriam-Webster's collegiate dictionary (1998) as "a member of a minority group who retains the customs, language, or social views of the group" (p.398).

Table 3

Cohorts at Increased risk of being Under-Screened for Cervical Cancer

Under-Screened Women
1. Elderly
2. Unmarried
3. Knowledge deficit
4. Poverty
5. Ethnic background (including Aboriginal)
6. Non-English speaking
7. Poor preventive health behaviours

Elderly Women

According to data from the United States, approximately 25% of cervical cancers are found in those over 65 years and these women account for 41% of deaths related to this disease (Brown, 1996). Ferrante et al. (2000) note that there is a linear relationship between age and stage at diagnosis, with women over the age of 65 being at greatest risk for a late stage diagnosis of cervical cancer. Although these women generally present to health clinics on a regular basis, cervical screening seems to be frequently overlooked in this population. Health care providers must make a concerted effort to continue to encourage these women to participate in regular Pap smear testing and help to educate them as to the ongoing need for cervical screening to ensure continued health.

It has been postulated that the low incidence of screening among older women is related to the lack of knowledge regarding cervical cancer and the benefits associated with screening practices (Grunfeld, 1997). Another hypothesis may be that these women

are not being offered screening at the same rates as younger women who are presenting for contraception and reproductive health care.

Knowledge Deficit

It has been noted in the literature that some women do not have adequate information regarding Pap smears (Reid, 2001). In a small study conducted on college women by Hasenyager (1999), it was found that over half of the women who participated in cervical screening procedures were unfamiliar regarding risk factors for cervical cancer. The majority of the women in this study were also confused regarding the purpose of a Pap smear test, often confusing a Pap smear with screening for other gynecological conditions. If college women, who have at least a high school education, exhibit knowledge deficits regarding concepts related to cervical cancer, it is fair to assume that women who do not have the same level of education will also exhibit a knowledge deficit. It is important to assume, then, that any woman has a knowledge deficit regarding cervical cancer and therefore each woman should be informed of risk-factors, screening guidelines and the importance of cervical cancer screening in relation to outcomes associated with the disease.

Brown (1996) found that the greatest barrier to obtaining cervical screening was a lack of knowledge either on behalf of the patient or the health care provider. This is congruent with findings by Hislop et al. (1996) who found that barriers to screening generally result from a lack of awareness and knowledge about Pap smears and the importance of the test. Health care providers should be aware that they have the potential to become a barrier to screening if they are not aware of who needs to be screened and are not encouraging these women to have their Pap smears done.

Other identified barriers include patient embarrassment regarding the procedure and the lack of an established relationship with the health care provider (Hislop et al., 1996). Recommendations suggest that health care providers must make a concerted effort to educate women concerning cervical disease (Hasenyager, 1999). Women with low educational levels have also been associated with decreased knowledge regarding cervical cancer screening (Harlan, Bernstein, and Kessler, 1991). Health care providers are in an ideal situation to educate women regarding cervical cancer and screening opportunities through opportunistic contact at the clinic in which they work.

Socioeconomic Status

Women of lower socioeconomic status in the United States have screening rates which are 10-13% lower than those with higher socioeconomic status (Brown, 1996). It could be suggested that this is secondary to the cost of health insurance; however, Katz and Hofer (1994) disagree. They found that rates of cervical screening in Ontario among women of lower socioeconomic status were comparable to those of similar status in the United States. They concluded that the lack of universal health care coverage does not account for this disparity. Gupta, Roos, Walld, Traverse and Dahl's research (2003), along with that conducted by Katz and Hofer (1994), support the idea that individuals of increased socioeconomic status tend to have increased rates of participation in preventative care activities including cervical screening.

Canadian statistics regarding Aboriginal women living in poverty are disconcerting: almost 50% of single, divorced or widowed women over 65 years of age are poor, and 41% of single Aboriginal women live in poverty (Morris, 2002). The average income of an Aboriginal woman is \$13,300 which is more than \$6000 less than

their non-Aboriginal female counterparts. Just under half of the Aboriginal population living on-reserve and 44% who are off-reserve live in poverty (Morris, 2002).

As there is no internationally accepted definition of poverty, Statistics Canada does not itself define poverty (Fellegi, 1997); instead, they routinely produce low-income cut-offs (LICOs) which other groups choose to use to define poverty status. LICOs are not defined as poverty lines; rather they are said to define a level of income below which individuals are said to be living in "straitened circumstances" (Status of Women, 2003). The most recent data from Statistics Canada (1999) defines the LICO based on 1992 data as being below \$12,142 for a one person household to below \$30,928 in a household with seven or more persons.

Unmarried Women

Ferrante et al. (2000) found unmarried status to be an independent risk-factor for late stage cervical disease in a 1994 retrospective study completed in Florida. A possible reason for this increased risk may be that these women are not presenting for gynecological care as frequently as their married counterparts. This may be secondary to the fact that they are not using prescribed contraception, or they are not sexually active and therefore feel that routine gynecological care is not as necessary.

Homosexual Women

Homosexual women may also present less frequently for gynecological care mistakenly thinking that they are at lower risk for cervical cancer (Ferrante et al., 2000). According to Rankow and Tessaro (1998) a thorough assessment of cervical cancer risk is necessary for all women seeking care, including lesbian and bisexual women as many of these women have been found to have significant risk factors for cervical cancer.

Ethnic Background

Browne (1996) notes that looking at ethnicity as a variable in cervical screening may be difficult given the presence of other confounding variables such as socioeconomic status and language barriers. Overall, women of ethnic minorities have a higher incidence and mortality associated with cervical cancer and are screened infrequently (Browne, 1996).

In certain cultures, modesty may play a role as a barrier to cervical cancer screening. Discussions regarding certain topics may not be culturally appropriate; for example, speaking about reproductive organs in some Aboriginal communities is discouraged (Hart-Wasekeesikaw, 1996). A pelvic exam places women in a situation in which they potentially feel very uncomfortable and vulnerable and care providers should be sensitive to this. These feelings of anxiety and vulnerability may be increased if the woman is not comfortable with the health care provider (i.e. gender).

Non-English Speaking Women

According to Statistics Canada (2003), over 94% of the female population in Garden Hill, MB, learned to speak in their Aboriginal language first and over 96% continue to speak the language in the home. The majority of women in the community are familiar with the English language, however, the nurses occasionally encounter an individual who is not comfortable expressing herself in English and requires a translator.

Canadian data specific to Aboriginal non-English speaking women and cervical screening rates has not been found, but studies related to other languages have the potential to be transferable to this population. Harlan, Bernstein, and Kessler (1991) found when evaluating data from the National Health Interview Survey (U.S.) that

women who spoke Spanish were nearly five times more unlikely to be unaware of Pap smears when compared with their English speaking counterparts. An attempt must be made to decrease the incidence of language barriers in clinical settings by having individuals available who are able to translate and can be trusted to maintain confidentiality. Caution must be taken when a family member or friend is assisting with translation services, especially when discussing sensitive topics as it may interfere with the transfer of important information between the care provider and the woman.

Aboriginal Women

Screening Rates

Aboriginal women are less likely to be screened for cervical cancer than their non-Aboriginal counterparts. Forty-three percent of Aboriginal women in Manitoba received one or more tests in their lifetime in contrast to 60% of their non-Aboriginal counterparts (Young, Kliewer, Blanchard & Mayer, 2000). These findings are comparable to those noted by Hislop, Deschamps, Band, Smith and Clarke (1992) where they found an approximate 30% decrease in screening rates among Aboriginal women compared with the rest of the female population. The highest rates of cervical cancer screening rates in the Aboriginal population in Manitoba are found amongst those in the 20 to 34 year old age group which is comparable to the non-Aboriginal population (Young et al., 2000).

Screening rates among the youngest group of Aboriginal women is contradictory to the rates of those in the general Canadian public. Aboriginal women between 15 and 19 years of age showed increased rates of screening when compared with their non-Aboriginal counterparts (Young et al., 2000). This is likely attributable to the increased

incidence of teenage pregnancies among Aboriginal teens compared to their peers as pregnant women obtain Pap smears as a part of their routine care. According to Health Canada (2003), the birth rate among Aboriginal women 15 to 19 years of age is five times higher than the non-Aboriginal population in that age range. Data from Manitoba indicates that the teenage birth rate among Aboriginal females is three times greater than the average rate (Hallett, Nemeth, Stevens, & Stewart, 2000).

Rates of cervical cancer in Manitoba are higher among Aboriginal women compared to non-Aboriginal women in all age groups (Young et al., 2000). In Manitoba, the rate of invasive cervical cancer in Aboriginal women is 3.6 times higher than that of the non-Aboriginal population; the rate of in situ cervical cancer is also 1.8 times higher (Young et al., 2000). These findings are similar to those reported in a retrospective study conducted in British Columbia; the mortality rates attributable to cancer of the cervix were significantly greater (four times) among Aboriginal women when compared to their non-Aboriginal counterparts (Band et al., 1992).

Barriers to Screening

There is a dearth of information in the literature regarding the barriers that preclude Aboriginal women from participating in cervical screening programs. Wilson (2002) provided insight into potential barriers elicited in a small Aboriginal community in Saskatchewan. This ethnographic study found that Aboriginal women prefer to seek screening from a healthcare provider, preferably female, with whom they have a caring and supportive relationship. A common reason cited as to why these women did not participate in screening for cervical cancer was related to past negative health encounters as well as a fatalistic view of cancer. This is not specific to Aboriginal women in

Saskatchewan or Canada; Reath and Usherwood (1998) confirmed that traits essential to successful cervical screening programs with Aboriginal women in South Australia included confidence and trust in addition to a stable and understanding staff.

Hart-Wasekeesikaw (1996) observed that Aboriginal women were immobilized by fear when it came to dealing with cervical cancer. This fear stemmed from the belief that cancer was thought to be a “death sentence.” Creative methods of knowledge dissemination may be required among these women as discussions about cancer are considered inappropriate, as are discussions regarding reproductive organs.

Browne, Fiske, and Thomas (2000) speak to Aboriginal women’s encounters with mainstream health care and the situations of vulnerability that women find themselves in when obtaining care. Some women are reluctant to seek out health care encounters which involve exposure of their bodies in order to avoid feelings of shame and invalidation, possibly related to previous history of abuse (Browne et al., 2000).

Hart-Wasekeesikaw (1996) recommends against using pamphlets to educate Aboriginal patients about cancer; instead, she states that these women would benefit from prevention and early detection approaches which are based upon the patient’s understanding of cancer through metaphor. Metaphors were found to be a powerful resource which could provide a succinct and powerful understanding about cancer. “Cancer-as-worm” was used to describe the consumptive nature of cancer by participants in the study. Also of note, women interviewed confirmed that providing education regarding the importance of Pap smears may lead to increased screening rates.

Interventions

Studies conducted in Canada related to the issue of cervical screening and Aboriginal women are limited, but there is an even greater paucity of research surrounding interventions aimed at increasing the rates of cervical screening amongst this cohort. As there is a deficit of interventions directed towards the Canadian Aboriginal population, literature consequently needs to be examined in relation to other cohorts of women who are also “at-risk” for cervical cancer.

The fact that Aboriginal women are considered to be an under-screened population and therefore an at-risk group for cervical cancer justifies the need for more information regarding the topic. Most research speaks to directing efforts to improve the cervical screening rates of at-risk populations by addressing barriers. The studies offer generalized recommendations and the applicability to Aboriginal women may not be relevant. Simple behavioural interventions are favored as the interventions of choice in the literature, although very few address the barrier of improving knowledge regarding cervical cancer screening (Table 4, p. 27).

In a systematic review of interventions to increase cervical screening published between 1980 and 2001, Yabroff et al. (2003) found great variability in the success of the interventions, however, most (behavioural, cognitive, and sociologic) have been found to be of value. Examples of behavioural interventions include both patient and provider reminders such as letters, telephone calls, health diary and chart reminders, as well as poster displays, mass media reminders, and financial incentives. Of these interventions, the patient diary was associated with the largest increase in screening rates (24.4%) among the interventions targeting patients; the use of flow sheets by providers was

associated with a 44% increase (Yabroff et al., 2003). Cognitive strategies used to increase Pap smear use included educational materials (letters, pamphlets), workshops and presentations, counseling, and mass media educational campaigns. A telephone call in addition to a reminder from a health educator was found to increase rates by 13.5% whereas an intervention which used chart reminders in addition to a workshop increased rates by 18% (Yabroff et al., 2003). Interventions which had a sociologic approach included those that were culturally sensitive and used lay health workers to encourage their peers to attend screening. A combination of patient and provider targeted interventions designed for specific patient and provider populations are suggested to be the most effective means for improving screening rates (Yabroff et al., 2003). It was also noted that "physician recommendation" is one of the strongest predictors of screening use; however, this is often overlooked as an effective means to increasing cervical screening rates (Yabroff et al. 2003).

Hislop et al. (1996) developed an intervention and set out to implement and evaluate the effect it had on the Pap smear screening rates among urban First Nations women. Interventions were aimed at addressing cognitive, emotional, and socioeconomic factors which have been identified as barriers to cervical screening. Culturally appropriate educational information (posters and pamphlets) was provided to the women, meetings were held to encourage the diffusion of information to the women of the community, Pap smear appointments were available on a drop-in or scheduled appointment basis, and an attempt was made to make a friendly clinical environment and to provide a female health care provider to conducted the Pap smear. No direct measures of whether this intervention actually improved screening rates were noted, however, the

impression given is that the women involved in the study were appreciative of the efforts to increase their accessibility to, and awareness of the importance of cervical screening. Browne and Smye (2002) applaud the cultural sensitivity implemented in this approach, however, it is important to note that there was little improvement in screening rates secondary to this intervention. It is thought that addressing sociopolitical issues (poverty, education, social disadvantage, and individual and institutional factors) in addition to the provision of culturally sensitive material would be more complementary and beneficial (Browne & Smye, 2002).

Buehler and Parsons (1997) conducted a prospective randomized control trial which was aimed at determining the effectiveness of a call-recall to improve compliance with cervical cancer screening recommendations among under-screened women. Results of this study showed that a simple letter of invitation was not sufficient to engage under-screened women in screening opportunities. It was postulated by the authors that follow-up reminders such as telephone calls, reminder letters and more of an emphasis on opportunistic screening during routine appointments would improve rates of cervical screening (Buehler & Parsons, 1997).

Opportunistic screening is supported in the literature as being an effective means to increase screening rates. This intervention is supported by Yabroff et al. (2003) who conducted a systematic review of the literature surrounding interventions to increase cervical cancer screening which found that same-day screening offered by nurse practitioners to be one of the most successful interventions. Hunt, Gless, and Straton (1998) found, however, that the enhancement of opportunistic screening with chart flagging only had a modest (small, statistically insignificant increase) effect on screening

rates in an Aboriginal community in Darwin, Australia. Cancer screening checklists with chart stickers indicating whether cancer-screening tests such as Pap smears were due has been found to increase rates of cancer screening among primary care clinics serving disadvantaged populations (Roetzheim, Christman, Jacobsen, Cantor, Schroeder, Abdulla, Hunter, Chirikos, & Krischer, 2004).

Interventions developed and implemented by a community coalition in North York, Ontario are said to be applicable to other communities looking to increase rates of cervical screening amongst socio-economically disadvantaged women (Cava, Greenberg, Fitch, Spaner, & Taylor, 1997). The program aimed to reduce mortality and morbidity associated with cervical cancer for young low-income women in order to reduce barriers to Pap screening. The program focused on not only involving the women at risk, but the community and implementing changes to the system all in an effort to bring about change. Five objectives were laid out to meet the outlined goals: community participation, education with women, supportive environment, education of health care professionals, and advocacy (Cava et al., 1997). Some strategies used in the program include suggestions made by Black and Ades (1994) which serve to assist in working with disadvantaged and underserved populations, some of which include: utilizing outreach staff indigenous to the community, keeping messages simple, being positive about the ability of individuals to affect their own health, develop culturally sensitive and community specific resources, and a focus on wellness and health rather than cancer and fear.

Paskett et al. (1999) advocate for the use of multifaceted interventions to improve screening rates among low-income women. They were able to improve screening rates

among women in their study by 21% by utilizing a combination of public health in-reach strategies (chart reminders, exam room prompts, in-service meetings and patient-directed literature) and community out-reach strategies (educational sessions, literature distribution, community events, media and church programs).

Table 4

Review of Interventions in the Literature

Authors	Cohort	Intervention	Conclusion
Hislop, Clarke, Deschamps, Joseph, Band, Smith, Le and Atleo, 1996.	Women 18-69 years from 27 band membership lists in B.C. focused on women living in Vancouver.	Poster, art card, and follow-up pamphlet campaign; articles in First Nations community papers; community meetings; and Pap smear screening clinics.	Family physicians are an important source of information and motivation for Pap smear screening among First Nations women.
Buehler and Parsons, 1997.	Women 18-69 years with no history of Pap test within 3 years prior to the study presenting to family medicine clinics.	Group sent letter asking them to seek Pap test and a reminder again in 4 weeks vs. control group who was not sent letters.	Letter of invite is not sufficient to encourage women who have never or infrequently undergone a Pap test to come in for cervical cancer screening.
Cava, Greenberg, Fitch, Spaner, and Taylor, 1997.	Young women of low socioeconomic status in North York, ON.	Multi-strategy approach (community participation, public and professional education, supportive environment, advocacy and outreach screening activities).	Not identified; focus on intervention development.
Hunt, Gless and Straton, 1998.	All women attending an Aboriginal community controlled clinic which provides primary care services in Australia.	File tagging and recruitment intervention trial (personal approach, letter or control group).	Enhancement of opportunistic screening by file tagging had a modest effect on increasing rates of screening. There was a minimal impact of recruitment interventions on screening rates with no marked difference among between three recruitment intervention groups. Most feasible means to encourage Pap smear screening is by opportunistic screening, and by using a holistic and culturally sensitive approach.
Paskett, Tatum, D'Agostino, Rushing, Velez, Michielutte, and Dignan, 1999.	Predominately African-American women over 40 years of age, residing in low-income housing.	Community intervention study, with a combination of community outreach and clinic based in-reach strategies. Multifaceted intervention including educational get-togethers, educational brochures, mass media techniques, targeted invitations, one-on-one educational sessions; clinic-focused interventions to address provider, system and patient barriers.	Increased Pap smear screening utilization rates by 21%.
Yabroff, Mangan, and Mandelblatt, 2003.		Systematic review of interventions to increase Pap smear use published between 1980-2001.	Most interventions increased Pap smear use, variability in effectiveness. Selection of intervention strategies depend upon provider and patient population characteristic and feasibility of implementation
Roetzheim, Christman, Jacobsen, Cantor, Schroeder, Abdulla, Hunter, Chirikos, and Krischer, 2004.	Under-served American population, 50-79 years of age.	Cancer screening checklist with chart stickers indicating whether cancer-screening tests were due, ordered, or completed.	Intervention significantly increased rates of cancer screening among primary care clinics serving disadvantaged populations.

Summary

Whether a woman participates in cervical cancer screening is dependant upon numerous factors, some of which that have been identified as affecting Aboriginal women are listed in Table 5 (p. 29). Interventions have been implemented by various research teams in an attempt to minimize barriers and increase screening rates. As so many barriers have the potential to prevent Aboriginal women from participating in cervical cancer screening, one must be prepared to address as many of them which are amenable to change as possible to improve Pap smear rates.

Success has been noted with culturally appropriate interventions by Hislop et al. (1996) which were introduced to improve screening rates among First Nations Women in British Columbia. Interventions aimed towards increasing screening rates among low-income women have been successful using comprehensive interventions by Cava et al. (1997) and Paskett et al. (1999). It is therefore assumed from the literature that a multifaceted approach will prove to be of benefit in addressing the majority of these issues.

It is also important to note that the health care providers share responsibility in improving rates of cervical screening and they too must be addressed in the interventions. Barriers to screening noted include references to the relationship that women have with their health care provider and the experiences that they have had at health clinics. Health care providers must be made aware of the role that they play in encouraging and/or discouraging women to participate in cervical screening programs.

Table 5

Barriers to Screening Encountered by Aboriginal Women

Barriers	Amenable to Change?
Frequent staff turn-over at the nursing station	No, however, an emphasis can be placed on promoting positive relationships between the health care provider and the woman.
Poverty	No. This can be addressed by informing health care providers of the potential negative impact that low income can have on cervical screening rates.
Education/lack of awareness regarding the importance of cervical screening	Yes. Efforts can be made to increase awareness of the importance of cervical screening.
Affective response to Pap smear (vulnerability, embarrassment, modesty)	Yes. This can be addressed by enhancing the relationship between the health care provider and the woman; by creating a supportive and friendly environment and encouraging the health care provider to be sensitive to these issues.
Fear of cancer and inappropriate topic of conversation.	Yes, by increasing awareness and knowledge regarding cervical cancer and screening; encouraging women to speak to one another about the issue.
Previous negative health care encounter	No, however, focus can be shifted towards present and future positive health care encounters.
Language barrier	Yes, by having nursing station staff available to translate as needed.
Elderly and/or unmarried women	Yes, all women should be screened for risks related to cervical cancer and screened appropriately.

CHAPTER 3

Proposed Practicum Project

Garden Hill

The purpose of this proposed practicum project is to increase the rates of cervical cancer screening among Aboriginal women in the First Nations Community of Garden Hill, Manitoba. Garden Hill is an isolated community with no road access located approximately 610 kilometers northeast of Winnipeg. According to the latest Statistics Canada Census data (2003), the total population is 2,021, with 945 of those individuals being women (Table 6). Approximately half of these women are within the proposed age range (18-69 years) for cervical cancer screening guidelines. Data were not found regarding rates of cervical cancer among the women of Garden Hill. However, it has been previously noted (Table 3, p. 14) that screening rates are less than ideal, and it has been established that under-screening is a risk-factor for cervical cancer.

Table 6

Female Population in Garden Hill, Manitoba

Age	Females in Garden Hill
0-4	130
5-14	265
15-19	95
20-24	80
25-44	240
45-54	65
55-64	35
65-74	25
75-84	10
>85	10

(Statistics Canada, 2003)

The average income of community residents is less than \$8,500, and there is a low education level among residents with only 4% of the female population over 25 years

having received a high school education (Statistics Canada, 2003). Education levels are significant predictors of knowledge regarding Pap smears; Harlan et al. (1991) found women with less than a high school education are three times more likely to be unaware of Pap smears.

Health Services Delivery Model

The local nursing station provides health care to community residents. It is the only health care facility located within the isolated community. The nursing station is open from 9 am to 5 pm on weekdays and provides after-hours emergency care. There is no public transportation in the community; however, the Band provides transportation to and from the nursing station for all community members. This service is free and easily accessible to all residents and is a definite asset to the community.

Ideally there would be nine community health nurses (CHNs) employed by the First Nations and Inuit Health Branch, Health Canada (FNIHB) to staff the nursing station. Unfortunately staffing needs are rarely fully met and the nursing station often functions with five CHNs. The nurses are responsible for the majority of patient care within the community along with local support staff and a physician who is present four days a week. Along with the CHNs, the Band has funding for two home care and two public health nursing positions which are infrequently all filled. Additionally, the Band employs support staff such as the three Community Health Representatives (CHRs) who aid in the functioning of the nursing station and who promote the health of the community. As an adjunct to their health promotion activities, these individuals act as a liaison between the nursing station and the community members, often assisting the nurses with care in the clinic.

Conceptual Framework

The conceptual framework guiding this project is Cox's Interaction Model of Client Health Behavior (IMCHB) as shown in Figure 1 (p. 34). According to Cox (1982), the intent of the model is to identify and suggest explanatory relationships between the client, the client-provider relationship, and the subsequent client health care behaviours. It allows for important variables such as psychological, environmental, and sociological factors to be addressed within the context of the client-health care provider relationship.

One may question why the IMCHB has been chosen versus another framework. Although there are many frameworks that would also be appropriate to use for the implementation of the interventions, none address the importance of the relationship between the care provider and the client as background elements that influence an individual's decisions to the same degree as the IMCHB. This model will not only target an individualized client population but it will also address the importance of the client-health care professional relationship. As previously noted, the relationship that a woman has with her health care provider can be a key factor which facilitates or impedes cervical screening programs, especially among Aboriginal women.

The Health Belief Model (HBM) has been well used and is considered by many to be one of the most influential models in health promotion (Roden, 2004). Both the HBM and the IMCHB use motivation as an important component of their frameworks. However, the IMCHB relies more upon a combination of factors which influence decisions, while the HBM relies heavily upon the individual's intrinsic motivation in

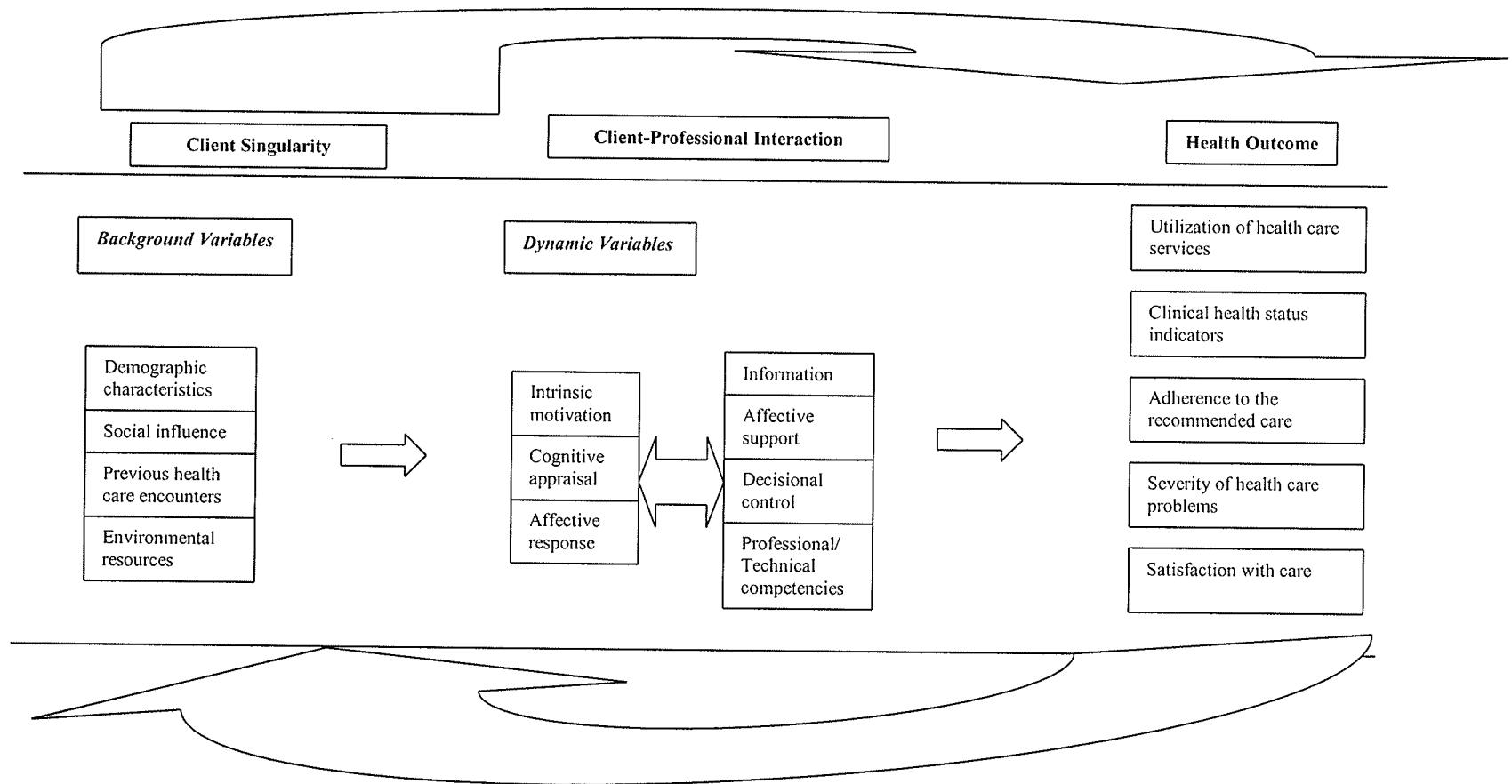
developing health interventions. This was an important point that was considered while contemplating a model for use with this project.

According to Carter and Kulbok (2002), there are numerous variables which explain the development of motivation, some which include health locus of control, social support and approval, income, education, self-esteem, and health. The IMCHB provides the opportunity for integration of these variables within the model by allowing for the barriers to be accounted for.

As previously noted in the literature review, socio-environmental and cultural factors influence the promotion of cervical screening among women and the HBM fails to provide such a succinct and organized manner to address these important components of a health intervention. Using Cox's model will allow for the development and integration of interventions aimed specifically at increasing the rates of cervical screening among Aboriginal women while taking into consideration potential barriers and background variables that have been found to hinder screening practices among this cohort.

Looking at the IMCHB (Figure 1, p. 34) one can break down the proposed health promotion intervention into three major sections: elements of client singularity, elements of client-professional interaction, and elements of health outcome. Each of these will be addressed in regards to increasing the rates of cervical screening in the target population (Appendix G).

Figure 1. Cox's Interaction Model of Client Health Behavior



(Cox, 2004).

Elements of Client Singularity

This aspect of the model allows for the acknowledgement of individual characteristics specific to each client. Elements of client singularity take into consideration the uniqueness of the woman or in this case, a specific group: Aboriginal women between 18 and 69 years of age living in the community of Garden Hill, Manitoba. According to Cox (1982), the identification of these elements allows for “describing the configuration of the client’s background variables, expression of motivation, appraisal of the health care concern, and the affective response to that concern” (p. 47).

Cox identifies four background variables which are interrelated and central to the model. These include: demographic characteristics, social influences, previous health care experience, and environmental resources. These four variables are all interconnected and influence one another as well as the other elements of the model. Although each of the women involved in this intervention are unique, they are also likely to share many characteristics by virtue of being raised in the same isolated community. It is important, however, to consider the uniqueness of each woman and realize that although they share similar background variables and contexts, each woman should be considered unique in the provider-client encounter.

Demographic characteristics. Characteristics which the targeted population are likely to share include: Aboriginal women from 18 to 69 years within an isolated First Nations community. As a whole, Aboriginal women are considered to be under-screened in relation to obtaining regular Pap smears and poverty and low-educational levels are independent risk-factors which place women at risk of being under-screened. The

majority of these women live below the poverty line; according to Statistics Canada (2003), the average income of a resident in the community of Garden Hill is less than \$8,500 per year. Residents are also unlikely to have completed a high school education with only 4% of the women over 25 years having received a high school diploma (Statistics Canada, 2003).

Social influences. As a whole, women tend to influence and are influenced by one another. These influences may be exerted within the context of the many relationships and/or roles that women play in the lives of one another. Some common significant roles include mothers, daughters, sisters, friends, and peers. Ritchot (2004) notes that Aboriginal women are valuable contributors to the community and the women add to the wealth of the community. A support system such as women supporting women has the potential to play an important role in health promotion activities and these relationships can provide the support and encouragement necessary to participate in self-care activities such as Pap smears.

Iwasaki, Bartlett and O'Neil (2005), in a study about stress-coping among Aboriginal people in Winnipeg, found that interdependence and connectedness was an important and common theme in this group. Women in this study highlighted the importance of the social support provided by their friends and significant others in their lives who face similar life circumstances and who understand their situations. Often Aboriginal women are modest when it comes to private matters such as reproductive health and pelvic exams (Clarke et al., 1998; Hart-Wasekeesikaw, 1996; Wilson, 2002), therefore these topics must be introduced and discussed with a great deal of sensitivity.

Previous health care encounters. Previous encounters with the health care system are quite individual and it is difficult to generalize this variable to a group of women. It is known, however, that past negative health encounters are a possibility and are likely to deter an Aboriginal woman from participating in cervical screening (Wilson, 2002). Clarke et al. (1998) identified that Aboriginal women in British Columbia often felt “caught” and unprepared for their Pap smear testing; the exam often occurring without the woman fully understanding the procedure.

Several barriers may exist for Aboriginal women related to the issue of health care encounters. One such barrier may be that many of the care providers are non-Aboriginal; although Hislop et al. (1996) found that a trusting relationship was more important than a specific Aboriginal health care provider. In such a private and personal encounter, an individual may feel more comfortable dealing with another health care professional who is of the same gender and whom they feel could relate to the situation.

There is a high rate of staff turn-over in nursing stations which may also act as a barrier for women, making it difficult to feel comfortable with their health care provider. The health care provider must be mindful of these potential barriers which may preclude women from having their Pap smear taken and a concerted effort must be made to minimize these in order to promote cervical screening.

Environmental resources. Resources available to staff and clients in Garden Hill are plentiful. Transportation to and from the Nursing Station is provided free of charge and appointments are easily accessible. Issues that may be considered to be environmental barriers include long wait times and perhaps child care issues. Women in the community often tend to bring their children with them to appointments. This has

the potential to distract the woman from fully appreciating the information provided and deter the woman from obtaining a cervical smear at that visit. This potential barrier could be addressed by encouraging women to watch each other's children while awaiting their respective appointment times. A better approach would entail having child care available in the clinical setting. This was one of the recommendations made by Aboriginal women participating in a study conducted by Clarke et al. (1996) which could potentially enhance cervical screening rates.

Each one of these variables interrelates and influences one another. All women in the target group may not have identical background variables or may not be influenced in the same manner by these factors; however, they are prevalent factors in the cohort being targeted.

Intrinsic Motivation

Motivation is an important concept in the IMCHB and in health promotion activities in general. The intended outcome of this project is to empower and inspire women to participate in cervical screening. Motivation "recognizes choice, desire, and the need for competency and self-determination as causal factors in behavior" (Cox, 1982, p. 49). An important point to be made is that the background variables influence the woman's motivation, cognitive appraisal, and affective response components of the framework. Clients must be aware that cervical screening is a significant health promotion activity. More importantly, they must be aware of why it is important and the potential for positive outcomes associated with the screening on their lives. By acknowledging and addressing potential barriers in relation to demographic variables,

health care providers can help to accomplish goals of increased cervical screening through increasing a woman's motivation to be screened.

Within the context of this proposed project, inspiring motivation will be directed at three cohorts: the community, the health care staff, and the individual women of the community. A collective community-wide motivation will attempt to be established to increase awareness and support throughout the community to collectively increase the rates of Pap smears. Health care providers will be motivated to encourage women to partake in screening opportunities and to share information about cervical cancer screening. The women will be motivated to participate in cervical screening opportunities and encourage friends and family to do the same.

Affective Appraisal

According to Cox (1982), behaviours must not only be considered to be based upon rational thought, as emotions play a large role in health behaviours. A woman may realize the importance of obtaining regular Pap smears, however, in order to actually get to the point of having an exam, she must feel comfortable doing so. Fear of pelvic exams, fear of a diagnosis of cancer, embarrassment or a sense of discomfort with the environment or the health care provider are all factors which may prevent a woman from participation in cervical screening programs. These issues must be recognized as legitimate issues for women and every effort must be made to attempt to support the woman and minimize these negative emotional responses to the procedure.

These three variables of intrinsic motivation, cognitive appraisal, and affective response are all affected by the client's background variables and therefore must also be considered in the development and implementation of the project. The combination of

the initial components of the framework all work together to affect the client-professional interaction which is an essential constituent of the health promotion intervention. Wilson (2002) emphasizes the importance of the relationship between the health care provider and the woman with respect to cervical screening. The bond that a client has with a health care professional may be one of the most significant determinants of whether a woman will be screened for cervical cancer or not.

Elements of Client-Professional Interaction

Affective support. The client-professional relationship has a major influence on health care behaviour (Cox, 1982). The health care provider must not only address the client's cognitive response to the proposed procedure and associated outcomes, but the emotional response as well. Aboriginal women have been found to be immobilized by fear when it comes to dealing with cancer (Hart-Wasekeesikaw, 1996). This fear must be addressed so that the woman can work through the issues that are perpetuating the fear and then move beyond it. The caring and supportive role that the health care provider can provide should not be understated. Women must feel comfortable in asking questions and not feel pressured into participating in cervical screening. Clarke et al. (1998) found this to be a factor in young Aboriginal women and those who did not feel comfortable in discussing Pap smear testing. Once a trusting professional relationship has been established, the health care provider can encourage women to also trust the health care system and participate in cervical screening programs as recommended by the current guidelines. In cultivating a relationship with the woman, the health care provider can address both the affective and cognitive aspects of cervical cancer screening. Factors such as health care provider's attitudes, ability to provide understandable information,

and ability to establish a trusting relationship were found to be crucial for participation in a Pap smear (Hislop et al., 1996).

The support of friends and family should also not be overlooked. Clarke et al. (1996) found that Aboriginal women in B.C. frequently referred to the support provided by friends and family regarding health issues, and that knowledge about health-related information often came from these sources rather than from a health care professional.

Providing the woman with a framed photograph of herself with a reference to the importance of caring for oneself is an important component of the intervention. Traditionally, gift-giving has been a sign of respect and thanks in the Aboriginal culture; however, the photograph is more than a token of appreciation for her time and consideration of the issue. In addition to this purpose, the picture will serve as a cue to prompt the woman to discuss cervical screening with her female friends and family. It is hoped that the woman will take the photo and mount it in her home, thereby eliciting comments about the photo from friends and family members thus beginning a discussion about how she came to have the photo. These conversations will aid in increasing awareness concerning cervical screening and in turn encourage other women to participate in screening programs. This method of knowledge diffusion may have an additional benefit of reaching out to those women for whom English is not their primary language, therefore addressing the issue of language barriers. It is also anticipated that seeing the photo in her home will remind and encourage the woman herself to obtain a Pap smear if not yet done.

Health information. The provision of knowledge along with the other elements of the health care initiative can all work congruently to provide for the expected outcomes.

Providing the client with information will impart knowledge to her and consequently allow for the development of goals for personal health care behaviours (Cox, 1982). It has been noted that provider-based educational strategies have been marginally effective in increasing Pap smear use; however, interventions targeting the knowledge of both patients and care provider were much more effective (Yabroff et al., 2003).

Knowledge regarding the screening is important, but women also appreciate knowing the results of their Pap smears, even if unremarkable (Hislop et al., 1996). By making contact with a woman and providing her with information regarding the results of her test will provide for an opportunity to clarify any areas of confusion and make plans for future screening opportunities.

Decisional control. As a part of developing and maintaining a trusting relationship, the health care provider must give the woman the autonomy, respect, and time to make her own decision. Caution must be ensured that the client does not feel pressured, thereby creating an uncomfortable environment and perhaps causing the woman to avoid future contact with the provider. Aboriginal women in B.C. were found to respond more favorably to an approach which encouraged the woman's choices for staying healthy rather than preventing cancer (Hislop et al., 1996). With a positive approach such as focusing on health rather than illness allows for greater personal control in decision making (Clarke et al., 1996).

Each woman must be given the opportunity to process the information presented and come to a decision on her own as to when, if, and under which circumstances she will participate in cervical screening. Women with high levels of anxiety associated with the Pap smear were found by Clarke et al. (1996) to exert control over the situation by

determining when the test would be done. If affective and informational needs are not met or are not congruent with the woman's elements of singularity there may be a limited ability for the woman to participate in the intervention.

Professional/technical competencies. Within this project, the client needs not only to understand the significance of cervical cancer and how it relates to her life, but she must also understand the process of the Pap smear in order to augment her knowledge and help her feel more comfortable with the procedure. It can be seen here how the interaction of all of the elements (affective support, health information, decisional control and professional/technical competencies) of this aspect of the model come together. The fear of the unknown can be debilitating and the speculum can be a frightening tool. She must be empowered with respect, knowledge, and security which will lead to increases in sense of decisional control and self-determination. Clarke et al. (1998) found that women participating in cervical screening had less anxiety associated with the procedure when they were aware of the routine nature of the procedure.

Professional and technical competencies also encompass the knowledge that the health care provider has regarding cervical cancer and screening. This is where the educational component of the intervention involving the health care professional becomes important; the professional must be aware of the risk-factors and barriers that the women of the community face in order to promote screening in an effective manner.

Proposed Interventions

As previously identified in the literature, increasing the rates of cervical screening is a complex task which has been best accomplished by approaching the issue with multiple and concurrent interventions. Interventions intended to increase Pap smear rates

within the community of Garden Hill will be approached in a similar multifaceted method (see Figure 2, page 53). It is important to note that although the interventions in Figure 2 are not causally related, they may influence one another in leading to the intended outcome of cervical screening.

Creating a Community Platform

Advisory committee. By creating an Advisory Committee composed of respected and influential members of the community, it is anticipated that the proposed interventions will be better adapted for implementation within the community. An additional benefit of this Advisory Committee will be the endorsement and support that these key individuals will provide to increase knowledge, awareness, and cervical screening rates.

The committee is expected to be composed of key members of the community including the Health Councillor, a Community Health Representative (CHR), two female Elders and women from various age groups (approximately six). The Health Councillor would be a representative for the Band. The CHR could provide input on behalf of the nursing station. The women would offer a woman-centred understanding as well as a community perspective. Elders could contribute overall guidance as they are respected and cherished members of the community who have a great deal of knowledge, wisdom, and experience (Royal Commission on Aboriginal Peoples, 1997). The issues regarding cervical cancer screening and their community and the proposed interventions will be presented by the researcher in a similar format to that used with Chief and Council (Appendix D). Input, suggestions, and advice will be requested from these key

individuals to implement an optimal cervical cancer screening program within their community.

Community intervention: radio commercials. Creating awareness regarding the issue of cervical cancer screening is central in encouraging women to discuss the topic. The local radio station in Garden Hill will be requested to help spread the message regarding Pap smears to the community through the use of commercials. CancerCare Manitoba has developed 7 English radio commercials (Appendix E) to promote cervical screening among the women of the Province, and permission has been obtained to use these commercials within the community of Garden Hill. The Chief and Council, as well as the Advisory Committee, will be asked to review these commercials to determine which ones are best suited to the community. Permission will then be sought from the Band to broadcast these advertisements over the local radio station for the proposed four week intervention period. It is hoped that the radio spots can be run in English language and also translated into the local dialect (Oji-Cree). By broadcasting in both languages, it is hoped that all women of the community can appreciate the messages without a language barrier.

Starting with an intervention which creates awareness of cervical cancer within the community proper is important. The radio spots introduce the topic and create familiarity with the issue among all members of the community. It is anticipated that exposure of the topic will make women will feel less anxious about the subject and more open to discussions with one another and their health care provider. In addition to increasing awareness regarding cervical cancer screening, the radio spots serve as an attempt to draw women to the clinic for Pap smears. Some women may be difficult to

reach through the clinical setting and might benefit from outreach strategies (Yabroff et al., 2003) such as the radio commercials.

Increasing Awareness among Health Care Providers

Education is a central component of this project. It is not only important to educate women and their community regarding their risks for cervical cancer and the importance of cervical screening, as well as educating health care providers. It has been acknowledged in the literature that the lack of knowledge regarding cervical cancer on the behalf of the health care provider is a barrier which prevents optimal screening. For that reason, one of the interventions in the project will be to refresh the knowledge of the nurses in the community regarding cervical cancer, risk factors, and potential barriers which may preclude screening and the issues relevant to cervical screening and Aboriginal women. The purpose of this information session will be to increase awareness among the health care professional regarding the fact that Aboriginal women, specifically women in their community, are under-screened and therefore an at-risk population.

Once ethical approval and community access has been provided, a meeting will be arranged to meet with the nurses and explain the project, the intended outcomes and the methods that are proposed to obtain these results. Any concerns raised will be addressed. The staff will be provided with a desktop reference sheet (Appendix F) which will provide essential information regarding cervical cancer screening and Aboriginal women. It is hoped that this desktop reminder will serve as a cue for nurses to speak with their patients regarding cervical cancer, the importance of pap smears, and to help patients identify the presence of risk factors which place them at-risk for cervical cancer.

The nurses in the community are busy; they often work with sub-optimal staffing complements and extended hours. They tend to complex patient needs and encounter stressful situations on a daily basis. These nurses will likely have constrained time to dedicate to this intervention and therefore it must be simple and user-friendly.

As the nursing positions in Garden Hill are not all filled, a request could be put forward to FNIHB to provide extra staff to assist with the implementation of the program and decrease the burden on the already busy CHNs within the community. The cost of a CHN salary for a two month time frame would be roughly equivalent to \$10,114 according to the rates of pay for community health nurses (Treasury Board of Canada Secretariat, 2005). It is important, however, to consider additional remuneration costs such as travel, northern allowance, and educational pay.

Increasing Awareness and knowledge among Women

Once the current information regarding the state of cervical screening among Aboriginal women has been shared with the health care providers, a concerted effort will be implemented within the community to share this knowledge with the women to increase their understanding of the importance of the issue and how it relates to their lives. During a specified 4-week time frame every woman between the ages of 18-69 who presents to the clinic will be provided with information and offered the opportunity to be screened. The woman may choose to partake in same-day opportunistic screening or return for screening at another time. Upon presentation at the reception desk the woman's chart will be flagged with a checklist placed on the front of the chart (Appendix A6). Yabroff et al. (2003), note that barriers surrounding health care forgetfulness can be overcome with such a method. A phone call can be placed by the station clerk to the

Manitoba Cervical Cancer Screening Program's (MCCSP) registry to determine whether the woman is due for her next Pap smear. The chart can then be updated as to the need for cervical screening.

The MCCSP was established by CancerCare Manitoba in 2000 and aims to decrease the incidence of cervical cancer and its associated mortality rates within the province. All cervical cancer screening tests conducted within Manitoba (since April 27, 2002) are reported to the MCCSP in an effort to organize, implement, and monitor cervical screening in order to provide a uniform standard of care throughout the province (CancerCare Manitoba, 2002).

The woman will proceed with her scheduled appointment and at the end of the visit she will be given a brief overview of cervical cancer, the benefits of screening, risk factors associated with cervical cancer, and provided the opportunity to be screened at that time if determined that she is due for screening. The health care provider can refer to the desktop reference which will help guide the sharing of knowledge with the women (Appendix F). Common fears regarding the procedure should be addressed at this time to help decrease the anxiety felt towards the screening. It is estimated that relaying this information to the woman would take between 5-10 minutes, with the Pap smear taking another 10-15 minutes. The Pap smear requisition forms would be filled out either prior to or post visit with the assistance of the support staff as this aspect of the visit can be quite time consuming and doing so would decrease the time burden upon the nursing staff.

Foster Relationship between Health Care Provider and Woman

The discussion between the health care provider and the woman will not only provide the opportunity for the woman to increase her knowledge regarding a subject with which she may not be comfortable or familiar with, but it provides an opportunity for a relationship to be cultivated. This nurse-client relationship should be one of trust and support so that the woman feels comfortable. Negative encounters with health care professionals have the potential to deter Aboriginal women from returning to a clinic (Tarrant & Gregory, 2003). Ideally the nurse will provide the environment in which the client will feel secure enough to ask questions and go ahead with the screening procedure. The nurse must be cautious not to use “medical-jargon” when providing information regarding cervical screening and should provide the opportunity for the woman to ask questions and process the information given.

Opportunistic screening at that visit would be ideal but one must consider that embarrassment is a barrier which precludes women from being screened and many may not feel comfortable with the same day screening practice. Hopefully these women will connect with the health care provider and will present again in the future for screening. If additional resources are allocated for a nurse to aid in the implementation of the interventions, a once a week drop-in opportunity for Pap smears could be established. Women could choose to attend this women’s only clinic time or to re-book an appointment for a Pap smear. A friendly and supportive environment could be created where women would feel comfortable discussing a sensitive topic while enjoying tea and bannock. Once the Pap smear has been taken, the woman will be encouraged to book a follow-up appointment to discuss the results of the screening. An added benefit of this

additional nursing position would be that if the clinic was too busy the nurse could provide each of the women with the information regarding cervical cancer and do the Pap test instead of the CHN.

Although Hart-Waskeesikaaw (1996) recommends against using written materials, CancerCare Manitoba has developed pamphlets which could be let out as additional information for the women to peruse. The delivery of information in an oral manner is important among many Aboriginal peoples, and therefore the use of written materials should not be relied on as a sole means of knowledge distribution (Royal Commission of Aboriginal Peoples, 1997). There are numerous pamphlets available for distribution from CancerCare Manitoba in a variety of languages, including English, Ojibway and Cree. These pamphlets can be accessed by visiting their website (http://www.cancercare.mb.ca/MCCSP/mccsp_professionals_pubs.shtm). In dealing with the issue of child care, women could be encouraged to watch each others children as they take turns with the nurse.

For those women who decline same day screening an opportunity will be presented for the woman to re-book an appointment at a time convenient for her. It is hoped that the health care provider will have provided the foundation for a trusting relationship and the woman will feel comfortable in returning to the clinic for screening.

Woman-to-Woman Outreach

As an additional intervention, the women will be encouraged to share the information that they have been given with other important women in their lives and to encourage them to also come in for a Pap smear. This may be difficult for some women as it has been previously noted that reproductive health and cancer are topics which are

not easily addressed in some Aboriginal communities (Hart-Wasekeesikaw, 1996; Wilson, 2002). Aboriginal women, however, have been noted to be excellent sources of encouragement and support for one another (Clarke et al., 1996). Additionally, an effort will be made to encourage the woman to continue to contemplate the issue of self-care once she leaves the clinic.

Photograph of the Woman

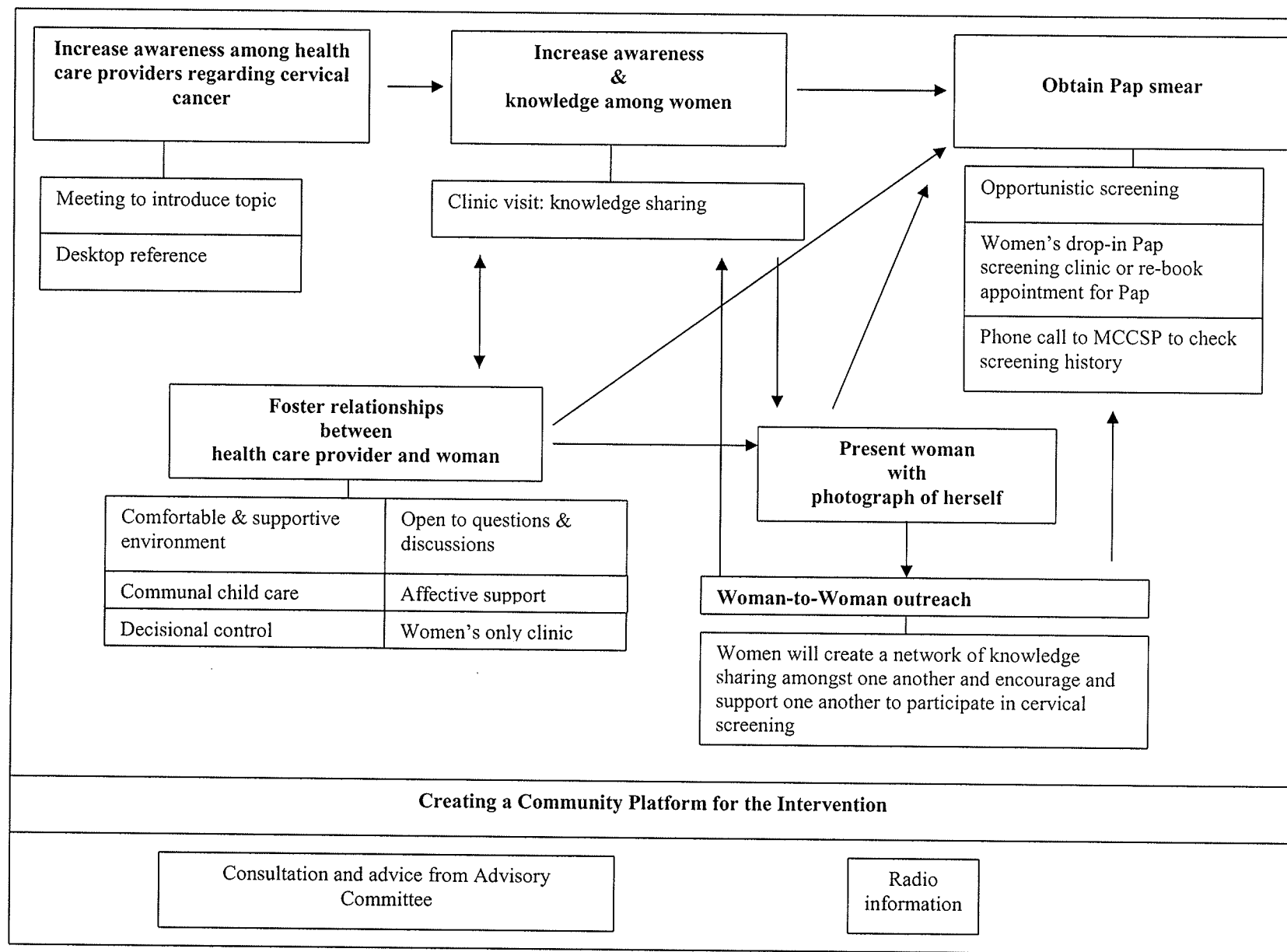
A gift of a photograph of herself will be offered to each woman who presents to the clinic during the intervention period. The photograph will be taken with a digital camera, and will be deleted from the camera's memory once the photograph has been printed off and presented to the woman. This photograph will be printed off without delay and enclosed with decorative captioning which will hopefully inspire the woman to engage in cervical screening opportunities and remind her of the importance that her health plays in her life and those around her (Appendix G).

The women will be encouraged to take the photo home and place it in a location that will provide an opportunity for others to comment upon it, and encourage discussions regarding the origins of the photo. These comments will hopefully remind the woman of her discussion with the health care provider regarding cervical cancer screening and encourage her to obtain her Pap smear if not yet done as well as inform other women regarding the importance of cervical cancer screening.

As many women may not be exposed to the information regarding cervical cancer screening through clinical appointments, it is hoped that their female peers who have will relay the information to them. Sociologic strategies have the potential to be effective in those women who have a distrust of the health care system or who do not routinely

present for care (Yabroff et al., 2003). It is anticipated that some of these women in Garden Hill will be affected by this woman-to-woman outreach intervention.

Figure 2. Proposed Interventions



Ethics

Prior to implementing any aspect of a project such as this, authorization must be sought to proceed. Ethical approval must be obtained from the University of Manitoba's Education-Nursing Research Ethics Board (Appendices B1-B6). It is important to note the historical context of research in relation to Aboriginal peoples and to be sensitive to these issues when working with this population. Research teams must be aware of these matters prior to proceeding with the implementation of this or any other project.

Individuals are encouraged to review and become familiar with the Tri-Council Policy Statement, focusing upon the section which provides guidelines for working with Aboriginal peoples (Public Works and Government Services of Canada, 2003).

Additionally, permission must be requested and granted from both the local Chief and Council and the First Nations and Inuit Health Branch (FNIHB, Health Canada) to work within the community of Garden Hill and its nursing station. Letters will be drafted and sent to both the Chief and Council and FNIHB requesting permission to implement the project within the community (Appendix C). Building partnerships with these groups is an essential step in ensuring success of the project. Having the support of these organizations will help to gain acceptance for the project by the community and the staff of the nursing station, thereby aiding in the success of the interventions.

Every attempt must be made to respect the local culture, traditions, and knowledge of the community (Royal Commission on Aboriginal Peoples, 1997). In an attempt to do so, an Advisory Committee (AC) will be established to assist in ensuring that the project is suitable for implementation within the community of Garden Hill.

Summary

By reviewing available research, interventions have been devised based upon evidence (Table 7, p. 55). Interventions will be implemented aimed at three different levels within the community: 1) community-wide: involving the local radio station, respected and esteemed members of the community and the local governing body, Chief and Council; 2) Individual women by enhancing their knowledge and awareness of an issue that affects them; and 3) The health care system by developing interventions aimed at increasing the awareness and knowledge of the health care providers. The use of Cox's IMCHB will allow for interventions to be implemented at these varied levels while at the same time addressing barriers identified as issues for Aboriginal women and cervical screening program participation. Although Cox does not specifically identify these three levels at which the interventions are directed, she does speak to them indirectly, and they are embedded within the framework.

Table 7

Proposed Interventions and Supporting Literature

Intervention	Supporting Research
Education of health care providers	Brown, 1996; Yabroff et al., 2003.
Education of women	Hart-Wasekeesikaw, 1996; Hasenyager, 1999; Hislop et al., 1998; Reid, 2001; Yabroff et al., 2003.
Woman-to-woman outreach	Clarke et al., 1996; Iwasaki et al., 2005; Ritchot, 2004.
Fostering health care provider-client relationship	Browne et al., 2000; Clarke et al., 1998; Hislop, Clarke et al., 1996; Reath & Usherwood, 1998; Wilson, 2002.
Community involvement	Cava et al., 1997; Public Works and Government Services of Canada, 2003; Royal Commission on Aboriginal Peoples, 1997.

CHAPTER 4

Evaluation/Outcomes

The final aspect of Cox's IMCHB (elements of health outcomes) will be used to guide the evaluative component of the proposed intervention; however, the practicum project will not actually be implemented, and therefore not actually evaluated.

Hypothetically, this aspect of the framework would allow for determinations to be made regarding the effectiveness of the interventions. According to Cox's framework, there are four components in this portion of the model: utilization of health care services, severity of the health care problem, adherence to the recommended care regimen, and satisfaction with care.

Evaluation methods of the proposed project interventions are outlined in Table 8. Results would demonstrate whether the project was successful in increasing the rates of cervical screening rates among Aboriginal women within the 18 to 69 year age range in Garden Hill, Manitoba.

Table 8

Outline of Evaluation Methods

Evaluation Methods	Summary
MCCSP Data	<ul style="list-style-type: none"> - Ensure proper use of screening guidelines - Provide baseline screening data, aggregated into various age-cohorts. - Monitor screening rates secondary to the intervention (up to 6 months post-intervention).
Woman-Centred Interviews	<ul style="list-style-type: none"> - 10-15 women who presented to clinic during 4 week intervention period - Interviewed within 1 month of clinic visit - Semi-structured interview.
Nursing Group: Focus Group Interview	<ul style="list-style-type: none"> - 5-10 nurses who participated in the implementation of the interventions - Semi-structured interview.
Advisory Group: Focus Group Interview	<ul style="list-style-type: none"> - Advisory Group participants will be interviewed.

Baseline and Intervention Screening Rates

The Manitoba Cervical Cancer Screening Program (MCCSP) would be an indispensable resource to utilize when evaluating such a program. Test dates, names, and addresses of the health care provider who performed the tests and results are all accessible to individual women and health care providers by contacting the MCCSP by telephone. Data would be collected from the MCCSP about the Pap smear participation statistics within the community of Garden Hill during the past 3 years (baseline data). Looking at the screening rates from previous years would provide a baseline of the screening rates for the various age cohorts within the community. Comparisons can then be made between rates prior to the intervention and post-implementation of the program. Increasing the rates of cervical screening is the identified objective measurement of the intervention.

Checklist Data: Age of Women

As previously noted, a checklist will be placed on each woman's chart acting as a reminder to the health care provider. Additionally, it will serve to collect data regarding screening throughout the intervention period (Appendix A6). The woman will have the option of leaving contact information to participate in further evaluation of the interventions, however, this is voluntary. By having the health care providers fill out the checklists at the clinical visits, statistics can be gathered regarding how many women were provided with information at the clinic and how many followed through in having a Pap smear.

Assuming the interventions do increase the rates of cervical screening within the community, it will be important to note whether certain age groups are more responsive

to the interventions than others. This can be accomplished by breaking down information found on the MCCSP registry into age categories and compared to the ages of the women who were involved in the program.

The MCCSP data will also be valuable in determining whether the women are being screened according to the recommendations as made by the Canadian Task Force on Preventative Health Care (Morrison, 1992). As noted in the literature, women frequently are erroneous in self-reports of their Pap smear use, and health care providers may have knowledge deficits which have the potential to interfere with Pap smear testing guidelines. By confirming the woman's screening history with the MCCSP prior to the appointment, the health care provider can avoid repeating unnecessary tests and provide screening to those women who are in need. This check will help ensure that resources are being used appropriately while avoiding needless costs to the health care system.

Women-Centred Interviewing

An important aspect of this model is the interaction between the health care provider and the woman, therefore this component of the intervention must also be addressed in the evaluative section of the intervention. Evaluation of satisfaction with care may be best identified by contacting the women and interviewing them about their experiences during the intervention period.

Participation and recruitment of women for this aspect of the evaluation would be voluntary and separate from the intervention component of the program. Upon initial presentation at the clinic, women would be asked if they would be willing to be involved in the evaluation of the intervention program. Women who expressed such an interest would be contacted within one month of their presentation to the nursing station and

invited to partake in an open in-depth interview regarding the program. The purpose of which would be to obtain the women's personal views while imposing as little as possible the researcher's own ideas on the conversation (Abbott, 2002). Using aspects of person-centered interviewing techniques will provide for the opportunity to engage the woman as an informant who can pass along her knowledge regarding the culture and the behaviours in relation to the interventions implemented (Levy & Hollan, 1998). Informed consent would be obtained prior to the interview.

As literacy and language barriers may be an issue for women participating in the program, it would be advantageous to look into hiring a female researcher who is familiar with the local dialect and could conduct interviews with the women in the language of choice. Permission would be asked to tape record the interviews and information would later be transcribed verbatim and analyzed. The data would undergo a basic content analysis (Burnard, 1991).

It is anticipated that no more than 10-15 women from various ages (between 18-69 years) would be contacted and interviewed. The interviews will be guided by the use of a semi-structured interview guide (Appendix A5) and are expected to last no more than 60 minutes. Areas to be addressed in the interview are based upon the interventions to which the women were exposed within the four week time-frame. Topics to be explored include the relationship with the health care provider, their understanding of the importance of cervical screening as a result of the interaction with the health care provider, whether the topic was approached in a culturally relevant/sensitive manner, and any suggestions that they may have for future program development (Appendix A5).

Nursing Group and Advisory Committee: Focus Group Interviews

Other key players involved with the program development and implementation would also be asked to participate in evaluating the interventions. These key players include the health care professionals (nurses) who helped implement the interventions and the community advisory group. Both of these groups will be invited to participate in a focus group interview to obtain their perspectives regarding the program. Benefits of focus-groups include the amount and range of data that can be collected from numerous people at the same time in a natural conversation style (Abbott, 2002).

Each focus group will be comprised of 5-10 individuals who will be asked to participate in a discussion facilitated by a member of the research team in order to evaluate the interventions implemented within the community. Areas to be addressed will be outlined in a semi-structured interview format (Appendix A5), and the focus group is expected to last approximately 90 minutes. Notes will be taken throughout the discussion and the information will later be content analyzed as appropriate. Topics to be covered throughout the discussion are those identified as being key interventions outlined in Figure 2 (p. 53).

Resources

The research team would not need to consist of many people; a principle investigator and a research assistant should be sufficient to implement and evaluate the interventions. There are, however, key individuals who are essential to ensuring the success of the program. These include the Chief and Council, the Elders, women of the community, the nurses and their employer (FNIHB), and the support staff at the nursing station. It is crucial to involve all of these members of the community and create

partnerships with them to enact a community-wide intervention which is successful. It is important to note that this is a project which aims to create and inspire change and that cannot be done without these key people and the resultant relationships with them.

An important consideration and potential limitation of a project such as this is cost, especially when the setting is an isolated northern community. It is suggested that funding be sought to aid in covering expenses as it is estimated that the project could roughly cost \$18,300 (Table 9).

As previously mentioned, cost-saving measures could be implemented such as omitting the recording of the interviews, thereby negating the need for a tape recorder and transcription services. Additionally, costs could be greatly decreased if FNIHB was willing to provide an extra staff nurse to help with the proposed interventions.

Table 9

Estimated Proposed Budget

Budget	Cost
Nurse	\$15,000
Research Assistant (60 hours @ \$15/hour)	\$900
Return flights for principal researcher x 2	\$824
Tape recorder	\$100
Tapes	\$75
Batteries for tape recorder	\$15
Transcription costs (60 hours @ \$15/hour)	\$900
Digital camera/printer/ink/paper	\$500
Total	\$18,314

CHAPTER 5

Conclusions

Overview

The main objective of this practicum project was to develop a program which would generate knowledge and awareness regarding cervical cancer screening, thereby increasing the rates of Pap smear use within the community of Garden Hill. By looking at the literature surrounding cervical screening and the barriers faced by Aboriginal women which lead to sub-optimal screening rates, it was determined that developing interventions directed towards addressing these barriers would likely result in increased Pap smear rates.

Figure 3 (p. 68) reviews important aspects of this practicum project, beginning with the risk factors which predispose women to developing cervical cancer and moving into the barriers which have been noted to preclude Aboriginal women from obtaining screening. The literature was reviewed in relation to these risk factors and barriers in Chapter 2 (p. 6-29). By utilizing Cox's Interaction Model of Client Health Behavior (IMCHB) to guide this project, interventions were developed specifically for the women of Garden Hill in an effort to address the above noted obstacles (Cox, 1982). Various strategies were considered when developing interventions, and all used in this project are reflective of the available literature. Evaluative methods aspire to provide measurable outcomes as well as addressing important components of the affective response to the practicum project.

Pap smears have been shown to decrease the incidence and mortality from cervical cancer by as much as 60-90% (Brown, 1996). Although cervical cancer

screening is known to decrease the incidence and mortality associated with this disease, many women are not adequately screened. The Canadian Task Force for Preventive Health Care recommends that women be screened every 3 years following two normal smears (Morrison, 1992). Women who are not screened according to these recommendations are at highest risk of dying from cervical cancer; Aboriginal women are generally considered to be in this category.

It is noted in the literature that there are numerous risk factors which predispose women to develop this disease. These include: early onset of sexual activity, presence of HPV, multiple sexual partners, cigarette smoking, and inadequate screening history (Figure 3, p. 68). There is evidence to suggest that Aboriginal women may have an increased incidence of these risk factors (Young et al., 1997). In addition to these risk factors, barriers have been identified which deter women from participating in screening programs. Barriers identified which preclude Aboriginal women from participating in these programs include: low socioeconomic status, low education levels, inadequate knowledge regarding the importance of cervical screening, fear, modesty, negative health care encounters, quality of relationships with health care providers, language, age, and marital status (Figure 3, p. 68). As noted, there are numerous barriers (behavioural, environmental, and systematic) which influence screening rates. Therefore, numerous and concurrent interventions should also be implemented to address these barriers. Furthermore, interventions must not only be targeted towards the women of the community, but should also be directed towards the health care staff, and the community proper.

In reviewing the literature, it was noted that gaps exist in relation to this topic. More studies are needed to develop specific recommendations to address known barriers which deter Aboriginal women from obtaining Pap smears. Most studies reviewed had quite generalized recommendations for increasing cervical cancer screening rates, and the applicability to Aboriginal women may not be relevant (Buehler & Parsons, 1997; Cava et al., 1997; Hunt et al., 1998; Paskett et al., 1999; Roetzheim et al., 2004). No studies were found pertaining to Aboriginal women living in remote Canadian communities such as Garden Hill. The implementation and evaluation of a project such as this is therefore important to the development of evidence-based clinical practice for health care providers working in isolated northern First Nations communities.

Cox's (1982) conceptual framework (IMCHB) guided the implementation of the interventions. This conceptual framework was a good match for the interventions in this project. It allowed for risk factors and barriers faced by the women of Garden Hill to be addressed without losing sight of the individuality of each woman in the health care encounter. In considering background variables and their effect on the health care encounter for each woman, the health care provider is able to be more mindful of issues which may present and prevent optimal screening in this community. The knowledge of these issues allows for the professional to be cognizant and sensitive to these issues, which aids in fostering positive encounters between the client and the professional. Cox emphasizes the importance of this client-professional relationship as a vital aspect of the framework. The framework not only encompasses the woman's role in promoting health behaviours, but also emphasizes the role that the health care provider plays in achieving intended outcomes.

Interventions were tailored towards increasing the knowledge and awareness of the health care provider, individual women, and the community proper through a variety of efforts which encouraged and supported women to present for cervical cancer screening. Concurrent efforts were made to cultivate the client-professional relationship and create a woman-to-woman outreach as a means of increasing awareness and Pap smear rates. Noted risk factors and barriers, specifically those which are known to exist in Garden Hill have been factored into all interventions.

The practicum project was not implemented, however, the knowledge synthesis and uptake (interventions, evaluation) should be of value to clinicians and researchers. Proposed methods of evaluation included the use of the Manitoba Cervical Cancer Screening Program (MCCSP) information database, woman-centred interviews, and focus group interviews (Figure 3, p. 68). These approaches would provide data vital to determining the effectiveness of the interventions, in addition to providing valuable information regarding the subjective evaluation from participants.

It is hoped that this practicum project will at some point be implemented, preferably within the identified community of Garden Hill. Once implemented and evaluated, the practicum project has the potential to be introduced into other communities on an annual basis or in conjunction with other women's health initiatives. There is some suggestion in the literature that interventions which are designed to increase rates of cervical cancer screening are best implemented in conjunction with other women's health programming (Cava et al., 1997). Additionally, it may be more economical, and have an increased potential for sustainability if approached in this manner.

It is strongly suggested that partnerships be developed between the team implementing the interventions, the nursing station staff, the community, Chief and Council, and the First Nations and Inuit Health Branch. These collaborations would serve many purposes, including the provision of the support necessary to ensure the successful implementation of the interventions.

By using a multifaceted, evidenced-based approach to increase cervical cancer screening rates, it is hoped that the health care staff and the women of the community will become more cognizant of the issues surrounding cervical cancer screening and how it relates to their lives. It is anticipated that such an intervention will not only benefit the women of Garden Hill, but the nurses, and the community as a whole.

Reflection

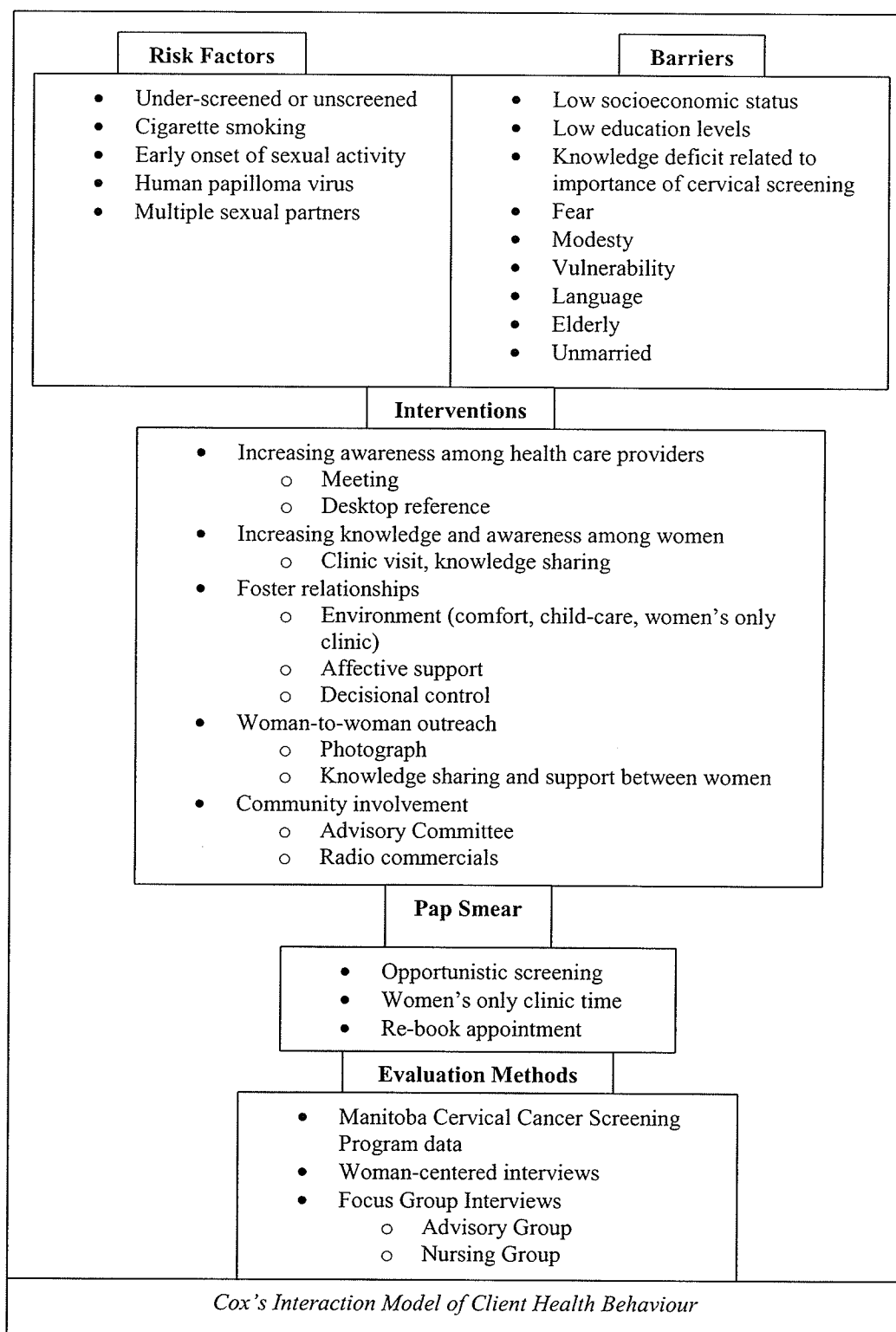
Throughout my Masters program, there has been much emphasis placed upon the importance of evidence-based clinical practice. This final practicum project has given me a greater appreciation for my colleagues who conduct research in order to develop these studies which guide my practice. It has also provided me with the opportunity to explore another aspect of practice by allowing me to develop an intervention based upon what is known in the literature.

Completing this project has provided me with the opportunity to learn more about the process behind developing a research-based intervention. I have learned that developing interventions can be a time-consuming and work-intensive challenge, although the end results can be very gratifying. Knowing you have contributed to the knowledge enhancement of your peers and that you are influencing the practice of other health care professionals in order to improve clinical practice must be immensely

satisfying. I feel somewhat saddened that I will not be able to follow-through with the implementation of the work that I've completed in these past few months. I believe that the project would be more fulfilling given the opportunity to be completed in its entirety. It is my sincere hope that the opportunity presents for this project to be implemented in the community of Garden Hill and that it is successful in achieving its objectives.

As I prepare to embark upon my new career as a nurse practitioner I realize the importance of being able to refer to evidence-based practice guidelines and I now have a greater appreciation for the work that goes into developing these recommendations.

Figure 3. Summary of Practicum Project



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Appendix A

Cox's Model of Client Health Behavior in Relation to Garden Hill Project

- 1) Elements of Client Singularity
 - a) Background Variables
 - i) Demographics
 - (1) Aboriginal women
 - (2) Ages 18 to 69
 - (3) Living in the community of Garden Hill, Manitoba
 - (4) < 5% have completed high school education
 - (5) Majority have income below the low-income cut-off
 - ii) Social Influence
 - (1) Socially undesirable topic
 - (2) Relationships/roles (family, friends, community)
 - (3) Cultural values (modesty, vulnerability, fear)
 - iii) Previous Health Care Encounters
 - (1) High rate of health care provider turn-over
 - (2) Few Aboriginal health care providers
 - iv) Environmental Resources
 - (1) Transportation
 - (2) Child care
 - (3) Availability of appointments
 - (4) Waiting times
 - b) Other Variables
 - i) Motivation
 - ii) Cognitive Appraisal
 - iii) Affective Response
- 2) Elements of Client-Professional Interactions
 - a) Affective Support
 - i) Address emotional issues related to screening
 - ii) Establish trusting, professional relationship
 - b) Health Information
 - i) Address informational needs of both woman and health care provider
 - ii) Women share information amongst one another
 - c) Decisional Control
 - i) Health care provider to allow the women enough autonomy, respect, and time to make her own decision.
 - ii) Do not pressure the woman to have Pap smear
 - iii) An emphasis to be placed upon health promotion rather than a focus on illness
 - d) Professional/Technical Competencies
 - i) Procedure will be explained to woman

- ii) MCCSP guidelines to be available to health care staff to review regarding proper Pap smear guidelines.
- 3) Elements of Health Outcome
 - a) Utilization of Health Care Services
 - i) Was there an increase in cervical screening rates in specified time frame post-intervention compared with previous years?
 - ii) Utilize MCCSP database
 - iii) Were certain age groups more responsive to interventions
 - b) Clinical Health Status Indicators
 - c) Severity of Health Care Problem
 - d) Adherence to the Recommended Care Regimen
 - i) Utilization of MCCSP database – are women being screened at appropriate intervals?
 - e) Satisfaction with Care
 - i) Discussions with women who attended clinic regarding experience with cervical screening promotion
 - (1) Comfort level with care provider and clinical experience
 - (2) Knowledge regarding cervical cancer and Pap smear
 - (3) Suggestions for improvements

Appendix B1

Human Subject Research
Ethics Protocol Submission Form (Ft. Garry Campus)

Psychology/Sociology REB _ Education/Nursing REB _ Joint-Faculty REB _

Check the appropriate REB for the Faculty or Department of the Principal Researcher. This form, attached research protocol, and all supporting documents, must be submitted **in quadruplicate** (original plus 3 copies), to the Office of Research Services, Human Ethics Secretariat, 244 Engineering Building, 474-7122. If the research involves biomedical intervention, check the box below to facilitate referral to the BREB: **Requires Referral to Biomedical REB _**

Project Information:

Principal Researcher(s): Jennifer Wellborn

Status of Principal Researcher(s): please check

Faculty _ Post-Doc _ Student: Graduate ☒ Undergraduate _ Other _

Campus address: TBA, Helen Glass Centre Phone: TBA Fax: TBA

Email address: jenwellborn@hotmail.com Quickest Means of contact: email

Project Title: Increasing the Rates of Cervical Cancer Screening Among Aboriginal Women in Garden Hill, Manitoba: A Proposed Intervention

Start date: TBA Planned period of research (if less than one year): 6 months

Type of research (Please check):

Faculty Research:

Self-funded _ Sponsored _

Project _

Course Number:

Administrative Research:

Central _

(Agency) _____

Student Research:

Thesis ☒ Class

Unit-based _

Signature of Principal Researcher: Jennifer Wellborn

This project is approved by department/thesis committee. The advisor has reviewed and approved the protocol.

Name of Thesis Advisor: David Gregory

Signature _____

(Required if thesis research)

Name of Course Instructor: _____

Signature _____

(Required if class project)

Persons signing assure responsibility that all procedures performed under the protocol will be conducted by individuals responsibly entitled to do so, and that any deviation from the protocol will be submitted to the REB for its approval prior to implementation. Signature of the thesis advisor/course instructor indicates that student researchers have been instructed on the principles of ethics policy, on the importance of adherence to the ethical conduct of the research according to the submitted protocol (and of the necessity to report any deviations from the protocol to their advisor/instructor).

Appendix B2

Ethics Protocol Submission Form (Basic Questions about the Project)

The questions on this form are of a general nature, designed to collect pertinent information about potential problems of an ethical nature that could arise with the proposed research project. In addition to answering the questions below, the researcher is expected to append pages (and any other necessary documents) to a submission detailing the required information about the research protocol (see page 4).

1. Will the subjects in your study be
UNAWARE that they are subjects?

____ Yes ☒ No

2. Will information about the subjects be
obtained from sources other than the
subjects themselves?

☒ Yes ____ No

3. Are you and/or members of your research team in a
position of power vis-a-vis the subjects? If yes,
clarify the position of power and how it will be
addressed.

____ Yes ☒ No

4. Is any inducement or coercion used to obtain
the subject's participation?

____ Yes ☒ No

5. Do subjects identify themselves by name
directly, or by other means that allows you or
anyone else to identify data with specific subjects?
If yes, indicate how confidentiality will be
maintained. What precautions are to be
undertaken in storing data and in its
eventual destruction/disposition.

☒ Yes ____ No

6. If subjects are identifiable by name,
do you intend to recruit them for future
studies? If yes, indicate why this is necessary
and how you plan to recruit these subjects
for future studies.

____ Yes ☒ No

7. Could dissemination of findings compromise
confidentiality?

____ Yes ☒ No

8. Does the study involve physical or emotional
stress, or the subject's expectation thereof, such as might
result from conditions

Basic Questions about the Project

2. Will information about the subjects be obtained from sources other than the subject themselves?

Information will be obtained from the Manitoba Cervical Cancer Screening Program's Registry in order to determine the woman's cervical cancer screening history. Information will be requested by the nursing station receptionist via telephone and the screening history will then be placed on the woman's chart for the purposes of providing her with necessary clinical care. This information is accessible by the health care team to provide optimal health care to clients as a part of regular care. The receptionist has access to personal health information and is bound by PHIA to maintain confidentiality as an employee at the nursing station.

5. Do subjects identify themselves by name directly, or by other means that allows you or anyone else to identify data with specific subjects? If yes, indicate how confidentiality will be maintained. What precautions are to be undertaken in storing data and in its eventual destruction/disposition.

Subjects will only be identifiable by age unless they agree to leave their name to be contacted at a later date for evaluation of the interventions. Approximately 10-15 women who previously acknowledged that they could be contacted in the post-intervention period to participate in an interview regarding the interventions will be contacted. The forms (checklists) on which the women provided contact information at initial contact will be kept locked in a geographically separate and secure location from the consent forms by the principle researcher.

Women participating in interviews will sign consent forms (provide their names). These forms will be locked in a secure space by the principle researcher. The names of the participants will not be used at any further point in time. Interviews will be conducted by a local woman hired as a research assistant. Interviews will be taped recorded and later transcribed. Women will be aware that the interview will be recorded; if they request that the recorder not be used, notes will be taken throughout the interview.

Individuals participating in focus groups will also be asked to sign consent forms. Participants in the focus groups will be asked to respect confidentiality, however, this cannot be guaranteed due to the nature of such an interaction. Participants will not be identified by name nor any other identifying information other than by identification numbers. Notes will be taken at the focus groups and these notes will be kept in a locked and secure location by the principle investigator.

All data collected (i.e. tape, consent forms, transcripts, checklists) will be kept for a period of 5 years by the principle investigator in a locked and secure location at which time they will be disposed of as confidential waste.

13. Does the study include the use of personal health information? The Manitoba Personal Health Information Act (PHIA) outlines responsibilities of researchers to ensure safeguards that will protect personal health information. If yes, indicate provisions that will be made to comply with this Act.

The study itself does not include personal health information; however, personal health information will be used in the context of the clinical encounter. All nurses and staff who have access to personal information at the nursing station are bound by their employers and PHIA to maintain confidentiality.

Appendix B3

Ethics Protocol Submission Form
Required Information about the Research Protocol

Each application for ethics approval should include the following information and be presented in the following order, using these headings:

1. **Summary of Project:** Attach a detailed but concise (one typed page) outline of the **purpose** and **methodology** of the study describing **precisely** the procedures in which subjects will be asked to participate.
2. **Research Instruments:** Attach copies of **all** materials (e.g., questionnaires, tests, interview schedules, etc.) to be given to subjects and/or third parties.
3. **Study Subjects:** Describe the number of subjects, and how they will be recruited for this study. Are there any special characteristics of the subjects that make them especially vulnerable or require extra measures?
4. **Informed Consent:** Will consent **in writing** be obtained? If so, attach a copy of the consent form. (see guidelines on informed consent). If written consent is not to be obtained, indicate why not and the manner by which subjects' consent (verbally) or assent to participate in the study will be obtained. How will the nature of the study and subjects' participation in the study be explained to them **before** they agree to participate. How will consent be obtained from guardians of subjects from vulnerable populations? If confidential records will be consulted, indicate the nature of the records, and how subjects' consent is to be obtained. If it is essential to the research, indicate why subjects are not to be made aware of their records being consulted.
5. **Deception:** Deception refers to the deliberate withholding of essential information or the provision of deliberately misleading information about the research or its purposes. If the research involves deception, the researcher must provide detailed information on the extent and nature of deception and why the research could not be conducted without it. This description must be sufficient to justify a waiver of informed consent.
6. **Feedback/Debriefing:** Describe the feedback that will be given to subjects about the research after they have completed their participation. How will the feedback be provided and by whom? If feedback will not be given, please explain why feedback is not planned. If deception is employed, debriefing is mandatory. Describe in detail the nature of the post-deception feedback, and when and how it will be given.
7. **Risks and Benefits:** Is there any risk to the subjects, or to a third party? If yes, provide a description of the risks and the counterbalancing benefits of the proposed study. Indicate the precautions taken by the researcher under these circumstances.

8. Anonymity and Confidentiality: Describe the procedures for preserving anonymity and confidentiality. If confidentiality is not an issue in this research, please explain why. Will confidential records be consulted? If yes, indicate what precautions will be taken to ensure subjects' confidentiality. How will the data be stored to ensure confidentiality? When will the data be destroyed?

9. Compensation: Will subjects be compensated for their participation? Compensation may reasonably provide subjects with assistance to defray the costs associated with study participation.

Ethics Protocol Submission Form
Required Information about the Research Protocol

1. **Summary of the Project:** Attach a detailed but concise (one typed page) outline of the **purpose** and **methodology** of the study describing precisely the procedures in which subjects will be asked to participate.

Summary of the Project

There is a dearth of information related to improving the rates of cervical screening among Aboriginal women in Canada. This practicum project aims to increase the rates of cervical cancer screening among the women of Garden Hill, Manitoba by addressing barriers and risk-factors that these women encounter. The purpose of the study is to evaluate the effectiveness of the interventions implemented within the community so that further recommendations can be made in regards to increasing the rates of screening. Interventions are not considered to be out of the normal scope of practice for the health care professional at the clinic, and they will be following their normal practice guidelines. An additional intervention will include offering to take a photograph of each woman and presenting it to her in order to further encourage cervical cancer screening.

Two focus groups will be formed in order to gain insight into the effectiveness of the interventions in addition to conducting one-on-one interviews with women who attended the nursing station while the interventions were being implemented.

Focus Group Interview with Advisory Committee: Approximately 10 members of the community will be approached to review the interventions prior to implementation within the community. The key individuals to be approached include the Health Councilor, 2 Elders as recommended by Chief and Council, a Community Health Representative, and approximately 6 women from different ages (i.e. child-bearing, menopausal, post-menopausal age ranges). These 6 women would be approached as recommended by other members of the Advisory Committee to participate. The committee member would be asked to reconvene post intervention to assist in evaluating the program in a focus group setting. The focus group interview would last approximately 90 minutes and would be lead by a member of the research team. These members will be asked to reflect upon the interventions implemented and the outcomes that they have had on the community in addition, suggestions for future program development would be encouraged.

Focus Group Interview with Nursing Station Staff: Nurses who participated in implementing the program will be asked to participate in a focus group interview which would last approximately 90 minutes. It is important to obtain the nurses perspective on the program as they were the one implementing the interventions and developing relationships with the women. The nurses have a strong role to play in this program and therefore their input is valuable to the evaluation of this program and future program development.

Individual Interviews with Women who attended the Nursing Station: Women attending the clinic during the specified intervention time will be asked if they wish to participate in evaluation of the program; if so, they will be asked to leave their contact information (Appendix A6). This information will be used to recruit approximately 10-15 women to participate in individual interviews (approximately 60 minutes in length) with a local woman hired to be a Research Assistant. These interviews will be tape recorded and later transcribed for analysis.

Written consent will be obtained from participants prior to conducting interviews. Examples of the consent forms can be found in Appendix B4.

2. Research Instruments. Please refer to Appendix A5 for semi-structured interview guides.

3. Study Subjects. There will be three different subject groups for this study: 2 focus groups and one group of individual interviews. Many of the individuals being interviewed are Aboriginal women; every attempt will be made to follow the "good practice" guidelines as outlined by the Tri-Council's policy statement for research involving Aboriginal peoples (Public Works and Government Services of Canada, 2003).

Focus Group 1. This group will be composed of 5-10 members of the community who participated on the Advisory Committee to ensure that the project and its interventions were appropriate for the community. This advisory committee will likely include 2 female Elders, the Health Councilor, 2 local women, and 1 Community Health Representative (CHR).

Focus Group 2. This group will be comprised of the nurses involved in implementing the project. The nurses who participated in the project will be approached in regards to evaluating their perspectives on the program. It is estimated that there will be between 5-9 nurses who would be available to participate in the focus group. There are no special characteristics which make this group especially vulnerable

Individual Interview Group. It is hoped that approximately 10-15 women of varied ages will be recruited to participate in an individual interview. The women will be invited to leave their name and contact number at their initial presentation to the nursing station if they are interested in participating in the evaluation of the program aimed at increasing rates of cervical cancer screening in their community. Approximately 10-15 of the women who left their contact information will be contacted within one month of their appointment to see if they would be willing to participate in the interview.

4. Informed Consent. Written consent will be obtained by all participants in the focus group and individual interviews.

5. Deception. No deception is involved in this study.

6. Feedback/Debriefing. A presentation will be arranged to be made within the community of Garden Hill. In addition, access to the study summary will be available for review at the nursing station. Copies of the summary will also be mailed out to those individuals who request a copy.

7. Risks and Benefits. There is no risk to the subjects participating in this study, nor to any other third party.

8. Anonymity and Confidentiality.

- All consent forms will be stored in a secure (locked) location with the Principle Investigator.
- Consent forms will be kept separate from interview data.
- Focus group participants will be asked to consider focus group discussions confidential.
- Interview data (written and recorded) will be stored in a secure and locked location by the principle researcher. Data will be destroyed as confidential waste five years post completion of the study.
- Photographs taken as a part of the intervention will be taken with a digital camera and will not be saved to memory. Hard copies of the photographs will be given to individual women who wish to have a photograph taken.

9. Compensation. No subjects will be compensated for their participation.

Appendix B4

Individual Interview Consent Form

Research Project Title: Increasing the Rates of Cervical Cancer Screening Among Aboriginal Women in Garden Hill, Manitoba: A Proposed Intervention

Researcher(s): Jennifer Wellborn

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

Thank-you for expressing interest in helping evaluate the effectiveness of interventions implemented within your community to increase rates of cervical cancer screening (Pap smears). The overall purpose of this study is to determine whether the interventions implemented were appropriate and helpful to you and your community.

As a woman who presented to the nursing station during the time frame when increased efforts were being made to provide information about Pap smears and encourage women to have their tests done, you are invited to help us evaluate the program by participating in a one-on-one interview.

Interviews will be conducted by a Research Assistant at a time that is convenient for you, and is expected to last under 60 minutes. Information that we are looking for is related to your thoughts, feelings and experiences with the efforts used to increase cervical screening with in the community. We are interested to see if you feel the program was implemented in a useful and appropriate manner in order to increase awareness regarding the importance of cervical screening.

There is no identifiable risk to you by participating in the interview. Interviews will be conducted in the language of your choice (Oji-Cree or English) and permission will be asked to tape-record the interview. Information obtained will only been seen by members of the research team. It is important to note that you will not be identified on the tape, or in any other manner; thereby ensuring that your privacy is protected.

Once the project is completed, a summary of the findings will be available for review at the nursing station, or if you prefer, the summary can be sent to you. If you wish to receive a summary of the findings, please fill out the section at the end of this form and a copy will be sent to you.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to

participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Jennifer Wellborn (insert telephone number)

This research has been approved by the [insert full name of appropriate REB once approved]. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature Date

Researcher and/or Delegate's Signature Date

I wish to receive a summary of the findings once the project is completed.

Name:

Contact Information:

Nursing Focus Group Consent Form

Research Project Title: Increasing the Rates of Cervical Cancer Screening Among Aboriginal Women in Garden Hill, Manitoba: A Proposed Intervention

Researcher(s): Jennifer Wellborn

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

Thank-you for expressing interest in helping evaluate the effectiveness of interventions implemented within your community to increase rates of cervical cancer screening (Pap smears). The overall purpose of this study is to determine whether the interventions implemented were appropriate and helpful to you and your community.

As one of the identified stakeholders, your input is important in evaluating the program. You are invited to participate in a focus group with your peers to discuss the interventions implemented in an effort to increase cervical screening within the community. A general discussion will be held regarding the interventions, the benefits and drawbacks of the program, the work-load upon the nursing staff, and suggestions for future programs. It is anticipated that the focus group will be composed of 5-9 of your nursing peers and will last approximately 90 minutes. The focus group will be held at a time convenient for you and your peers. The discussion will be lead by the Project Coordinator and notes will be taken throughout the discussion by another member of the research team. The notes will later be reviewed by the research team members and findings will be used to evaluate the program. There is no identifiable risk to you by participating in this interview, and you will not be identified in the analysis of the information. The confidential nature of the focus group discussion is encouraged to be respected by members of the focus group.

Once the project is completed, a summary of the findings will be available for review at the nursing station, or if you prefer, the summary can be sent to you. If you wish to receive a summary of the findings, please fill out the section at the end of this form and a copy will be sent to you.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial

consent, so you should feel free to ask for clarification or new information throughout your participation.

Jennifer Wellborn [Insert telephone number]

This research has been approved by the [insert full name of appropriate REB once approved]. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature Date

Researcher and/or Delegate's Signature Date

I wish to receive a summary of the findings once the project is completed.

Name:

Contact Information:

Advisory Committee Focus Group Consent Form

Research Project Title: Increasing the Rates of Cervical Cancer Screening Among Aboriginal Women in Garden Hill, Manitoba: A Proposed Intervention

Researcher(s): Jennifer Wellborn

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

Thank-you for expressing interest in helping evaluate the effectiveness of interventions implemented within your community to increase rates of cervical cancer screening (Pap smears). The overall purpose of this study is to determine whether the interventions implemented were appropriate and helpful to you and your community.

As one of the identified stakeholders, your input is important in evaluating the program. You are invited to participate in a focus group with your peers to discuss the interventions implemented in an effort to increase cervical screening within the community. It is anticipated that the focus group will be composed of 5-10 of your peers and will last approximately 90 minutes. The focus group will be held at a time convenient for you and your peers. A general discussion will be held regarding the interventions, the benefits and drawbacks of the program, and suggestions for future program development. The discussion will be lead by the Project Coordinator and written notes will be taken by another member of the research team throughout the discussion. The notes will later be reviewed by the research team members and findings will be used to evaluate the program. There is no identifiable risk to you by participating in this interview, and you will not be identified in the analysis of the information. Members of the focus group are asked to respect the confidential nature of the focus group discussions.

Once the project is completed, a summary of the findings will be available for review at the nursing station, or if you prefer, the summary can be sent to you. If you wish to receive a summary of the findings, please fill out the section at the end of this form and a copy will be sent to you.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial

consent, so you should feel free to ask for clarification or new information throughout your participation.

Jennifer Wellborn [Insert telephone number]

This research has been approved by the [insert full name of appropriate REB once approved]. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-7122, or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Participant's Signature Date

Researcher and/or Delegate's Signature Date

I wish to receive a summary of the findings once the project is completed.

Name:

Contact Information:

Appendix B5

Semi-Structured Interview Guide: Individual Interviews

- 1) Tell me about your experience at the clinic in regards to the program aimed to increase Pap smear use.
 - What did you like?
 - What did you dislike?
- 2) Do you feel that you know more about cervical cancer and the importance of screening now?
 - What did you learn?
- 3) Do you feel that the methods of informing women about Pap smear screening were appropriate?
 - Did you hear the radio commercials? What did you think of them?
- 4) Did you have your Pap smear done?
 - If yes: Did you have it done the on the same day, or did you re-book an appointment?
 - Can you help me understand your decision?
- 5) Did you attend the woman's only time set aside for Pap smear screening?
 - Do you think that setting aside this time is helpful?
- 6) What prevents you from having a Pap smear test done?
- 7) Do you feel comfortable with your health care provider?
 - If no, why not and what could be changed?
- 8) Did you encourage your female friends and family members to go for their Pap smear?
 - If yes, can you tell me about this?
 - If not, can you tell me about this?
- 9) What did you think of the photograph given to you?
 - Did it encourage you to speak with family and friend about cervical screening?
 - Did it encourage you to go in for you Pap smear?
- 10) Do you have any suggestions to help women get their Pap smears done in Garden Hill?

Semi-Structured Interview Guide: Nursing Focus Group

1. Did you find that you had time for the teaching surrounding cervical cancer and screening?
 - How long did it take to provide the women with the information and provide the Pap smear?
2. Was this a feasible and/or reasonable way to increase cervical screening rates?
3. Did you find the initial information session directed towards the health care providers to be helpful?
 - If yes, what was the most useful?
 - If no, what could be changed?
 - Were you aware of the potential barriers and risk-factors prior to the session?
 - Do you approach cervical screening any differently after reviewing barriers and risk-factors the women of your community often face?
4. Did you find the desktop reminder to be a useful guide when going over information related to cervical cancer with patients?
 - What changes would you recommend to be made to the desktop reference?
5. Did the checklist on the front of the chart help you to remember to speak to the women about Pap smears?
 - Did you find this useful?
 - How much time did it take you to fill out?
 - Would you make any changes to the form?
6. Did you find that most women participated in the same-day opportunistic screening?
7. Did you find that many women were coming back for screening?
8. Did you find that women were coming in requesting Pap smears?
9. Did you find much of a change in workload related to the interventions?
 - Was the addition of the "extra" nurse helpful in compensating for the increased workload?
 - Did you send many women to see the Pap smear nurse?
10. Did you find any part of the program to be overwhelming?
11. What did you like about the program?
12. What did you dislike about the program?

13. Do you have any suggestions for future program development related to increasing the rates of cervical screening among women of the community?

Semi-Structured Interview Guide

Advisory Committee

1. Do you feel that the program has increased awareness of cervical screening in the community?
2. What part of the program do you feel had the greatest impact on the women?
 - Radio program
 - Photograph
 - Education from health care staff
 - Women encouraging one-another to come in
 - Women's only clinic time
3. Do you feel that the interventions were carried out in a manner that was appropriate for the community?
4. What do you feel could have been done differently?
5. What were the strengths of the program?
6. What were the weaknesses of the program?
7. Do you think that the interventions were effective at reaching all women of the community?
 - If no, which women do you feel were not reached?
 - What would you suggest to be an appropriate way to reach out to these women?
8. Do you feel women are comfortable going to the nursing station for their Pap smear?
9. Do you feel that language barriers are adequately dealt with?
 - How could this be better addressed?
10. Are there any barriers that were not identified that keep women from participating in cervical screening?

Appendix B6

Checklist for Pap Smear Intervention

Age: _____

Last Pap smear: _____

Patient Recall: _____

MCCSP Records: _____

Is this an appointment booked specifically for a Pap smear? Y or N

Discussed:

Risk Factors	Y or N	Implications of Test	Y or N
Pap procedure	Y or N	Results	Y or N

Encouraged to discuss screening with friends and family: Y or N

Screening Offered: Y or N

If not offered, why:

Pap Done: Y or N

If not, why:

Re-booked if not done: Y or N

Would you be interested in participating in an interview to evaluate this program?

Y or N

If yes, please leave your name and a contact number:

Appendix C

Letter to Chief and Council

Date

Jennifer Wellborn

[Address]

Garden Hill First Nation Chief and Council
Attention: Health Councilor
Garden Hill, MB R0B 0T0

phone: 456-2085

fax: 456-9315

Dear [insert name of current Health Councilor]:

As per our previous telephone conversation, I am a registered nurse enrolled in the Nurse Practitioner program in the Faculty of Nursing, University of Manitoba. As part of my program, I am developing and implementing an intervention aimed at increasing the rates of cervical screening (Pap smears which help in preventing and detecting cases of cervical cancer) among First Nation women. It has been recognized in the literature that the death rate from cervical cancer among Aboriginal women is six times higher than that of the general Canadian population. This is commonly attributed to the overall reduced rates of cervical screening among Aboriginal women.

I have been employed by Health Canada (First Nations and Inuit Health Branch, FNIHB) for the past 4 years and have spent the majority of this time working at the Garden Hill Nursing Station. Over this time frame, I have developed relationships within the community and a familiarity with the nursing station which would be beneficial both for the proposed project and the community.

This letter is to request the permission of the Garden Hill First Nation Chief and Council to implement interventions aimed at increasing the rates of cervical screening among Aboriginal women; specifically, the women of Garden Hill. The proposed project would entail developing an information-sheet or tool for nurses working at the Garden Hill Nursing Station. This tool would assist nurses in reviewing the importance of cervical screening, the risk factors among Aboriginal women which place them at-risk for developing cervical cancer, and the low rates of cervical cancer screening amongst this cohort of women. After this information has created awareness among the nurses, it is hoped that a concerted effort can then be made to increase cervical screening in the community by providing education to each woman who presents for care at the clinic

during a four week time frame. As a consequence of this learning-care encounter (information, awareness of the need for cervical screening, and encouragement to follow through), the intended outcome is that these women will be motivated to be screened for cervical cancer. An additional benefit of this educational encounter would be the passage of information regarding cervical cancer screening from woman to woman within the community. As another aspect of the proposed project, it is anticipated that radio commercials will be run to reach out to those women who do not present to the clinic during the intervention period to encourage them to participate in cervical cancer screening.

The practicum project will undergo ethical approval by the Education Nursing Research Ethics Board (ENREB) prior to being initiated. Permission from the Garden Hill First Nation Chief and Council to proceed with these proposed interventions would be appreciated. A meeting time would be beneficial so that we could go over the importance of this topic to your community and provide you with more information regarding the interventions.

Please contact me with any questions, concerns or comments. I will contact you next week regarding the possibility of arranging a meeting time. Thank-you for your time and consideration.

Sincerely,

Jennifer Wellborn, RN, BN
Faculty of Nursing Graduate Student

Letter to First Nations and Inuit Health Branch, Health Canada

Date

Jennifer Wellborn

[Address]

Nursing Officer
First Nations and Inuit Health Branch, Health Canada
391 York Avenue
Winnipeg, MB R3C 4W1

Dear Ms. [insert name of current Nursing Officer]:

I am a registered nurse enrolled in the Nurse Practitioner program in the Faculty of Nursing, University of Manitoba. As part of my program, I am developing and looking to implement an intervention aimed at increasing the rates of cervical screening (Pap smears) among First Nation women; specifically, the women of Garden Hill. It has been recognized in the literature that the death rate from cervical cancer among Aboriginal women is six times higher than that of the general Canadian population. This is commonly attributed to the overall reduced rates of cervical screening among Aboriginal women.

I have been employed by Health Canada (First Nations and Inuit Health Branch, FNIHB) for the past 4 years and have spent the majority of this time working at the Garden Hill Nursing Station. Over this time frame, I have developed relationships within the community and a familiarity with the nursing station which would be beneficial both for the proposed project and the community.

This letter is to request the permission of Health Canada, First Nations and Inuit Health Branch to implement an intervention aimed at increasing the rates of cervical screening among Aboriginal women. The proposed project would entail developing an information-sheet or tool for nurses working at the Garden Hill Nursing Station. This tool would assist nurses in reviewing the importance of cervical screening, the risk factors among Aboriginal women which place them at-risk for developing cervical cancer, and the low rates of cervical cancer screening amongst this cohort of women. After this information has created awareness among the nurses, it is hoped that a concerted effort can then be made to increase cervical screening in the community by providing education to each woman who presents for care at the clinic during a four week time frame. As a consequence of this learning-care encounter (information, awareness of the need for cervical screening, and encouragement to follow through), the intended outcome is that these women will be motivated to be screened for cervical cancer. An additional benefit of this educational encounter would be the passage of information

regarding cervical cancer screening from woman to woman within the community. Additional interventions include radio commercials to increase awareness of the issue amongst the community and the potential for running a specific "pap smear" clinic on a weekly basis.

The practicum project will undergo ethical approval by the Education Nursing Research Ethics Board (ENREB) prior to being initiated. Support and permission from FNIHB to proceed with this proposed practicum project would be appreciated; permission is also being sought from the Garden Hill First Nation Chief and Council. A meeting time so that we could review the importance of this topic and provide you with more information regarding the interventions would be appreciated. Additionally any suggestions and/or concerns on behalf of FNIHB could be further discussed at that time.

Please contact me with any questions, concerns or comments. I will call you within the next week regarding the possibility of arranging a meeting time. Thank-you for your time and consideration.

Sincerely,

Jennifer Wellborn, RN, BN
Faculty of Nursing Graduate Student

Appendix D

PowerPoint Presentation for Chief Council

Slide 1

Proposed Intervention to
Increase the Rates of Cervical
Cancer Screening in Garden Hill

Presentation to Garden Hill First
Nations Chief and Council

- Thank all for attending
- Introductions

Slide 2

Cervical Cancer Facts

- 12th leading cause of cancer in Canada
- Thought to be largely preventable with participation in screening programs (Pap smear)
- Pap smears have been shown to decrease the incidence and mortality of cervical cancer by as much as 60-90%
- Not being screened, or being under-screened is the greatest risk for the development of cervical cancer and a negative outcome.

Slide 3

Aboriginal Women

- Increased incidence of cervical cancer among Aboriginal women when compared to their non-Aboriginal peers.
- Aboriginal women in Manitoba are less likely to receive one or more tests in their lifetime when compared with their non-Aboriginal counterparts.

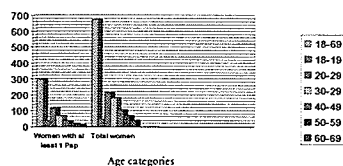
- In Manitoba, the rate of invasive cervical cancer in Aboriginal women is 3.6 times higher than that of the non-Aboriginal population; the rate of in-situ cervical cancer is also 1.8 times higher (Young et al., 2000).

- 43% versus 60%

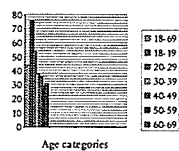
Slide 4

Garden Hill Cervical Screening Statistics
January 1, 2003 to January 1, 2005

Women with at least 1 Pap Smear



Slide 5

Garden Hill Cervical Screening Statistics
January 1, 2003 to January 1, 2005Percentage of women
with at least 1 Pap smear

Slide 6

Factors which Increase Risk of Cervical Cancer

- Under-screened or Unscreened
- Age of onset of sexual activity
- Multiple sexual partners or male partner with history of multiple sexual partners
- Cigarette smoking
- Human papilloma virus (HPV)

- Not being screened, or being under-screened is the greatest risk factor
- Age of onset of sexual activity under 18 years of age.
- Over 5 sexual partners is said to increase risk
- Cigarette smoking: components of cigarettes have been found in the cervical mucosa. Still unsure if this is a cause or merely a factor which increases the incidence of the disease.
- HPV is spread through sexual activity. Certain strains are considered to be high-risk for the development of cervical cancer.

Slide 7

Under-screened Women

- | | |
|-------------------------|---|
| ■ Elderly | ■ Embarrassment |
| ■ Unmarried | ■ Uncomfortable with topic/health care provider |
| ■ Knowledge deficit | ■ Fear of cancer diagnosis |
| ■ Poverty | ■ Modesty/vulnerability |
| ■ Aboriginal background | |
| ■ Non-English speaking | |

- Discuss demographic factors that place women of Garden Hill at increased risk.

Slide 8

What is planned...

- Goal: Increase rates of cervical screening in the community of Garden Hill, MB
- How: Multifaceted approach.....

Slide 9

Plan

1. Create an advisory committee to ensure that interventions are appropriate for community.
2. Increase awareness of the health care providers (nurses, nursing station support staff, doctors, etc...)
3. Increase awareness of women in the community
 - ▢ Radio commercials
 - ▢ Approach women at nursing station
 - ▢ Encourage women to discuss topic

Four week intervention:

- Advisory Committee: Composed of Health Councilor, CHR, female Elders x2, approximately 6 women from the community of various ages.
- Create awareness that this is an issue for the community
- Every woman who comes to the clinic will be provided with verbal information regarding cervical cancer screening, why it is a topic of concern and the risk factors associated with cervical cancer.
- Women will be provided with an opportunity to be screened or to book an appointment for screening.
- A women's only clinic time will be set aside each week of the program so that women can return to the clinic for their Pap smears if need be. Women will be provided with a supportive environment where it is hoped that they will feel comfortable discussing the issues which surround cervical cancer.
- Women will be encouraged to take turns watching one another's children while they are busy with the nursing staff.
- Women will be given a photograph as a sign of appreciation for their time and also with the intent that it will remind them to return for screening and encourage others to do the same.
- Hand-out of radio commercials to be given to Chief and Council to review and determine if appropriate to broadcast.

Appendix E

Manitoba Cervical Cancer Screening Program's Radio Transcript

The Intro would consistently read:

Male voice: "This program is sponsored by the Manitoba Cervical Cancer Screening Program, a program of Manitoba Health, managed by CancerCare Manitoba."

Female voice: "At the Manitoba Cervical Cancer Screening Program, we encourage women to lower the risk of cervical cancer by having regular Pap tests."

The Extro would consistently read:

Male voice: "This program has been sponsored by the Manitoba Cervical Cancer Screening Program, a program of Manitoba Health, managed by CancerCare Manitoba."

Female voice: "At the Manitoba Cervical Cancer Screening Program, we encourage women to lower the risk of cervical cancer by having regular Pap tests."

Commercial 1: (older and younger voice)

Person #2 (older voice): Most cervical cancers would NOT happen if women had regular Pap tests.

Person #1: (younger voice) What does the Pap test do?

Person #2: It looks for early changes in the cells on the cervix. Looking after early changes really lowers the risk of getting cervical cancer.

Person #1: Wow – I didn't know you could get cancer of the cervix.

Person #2: Yep – that's why you need a regular Pap test.

Person #1: Does the Pap test always find the early changes or cancer?

Person #2: No test is 100%. That's why you shouldn't go longer than 2 years between Pap tests. Sometimes you may have to go more often, so you should always check with your doctor or nurse. Remember, Pap tests save lives.

Person #1: I've never had one – I guess I should call and make an appointment.

Person #2: No guessing – I'm going to sit here while you call right now!

End voice: *Go for regular Pap tests. Call your doctor, nurse or clinic.*

Commercial 2:

Person #1: Hi. I'm here for my Pap test

Doctor/Nurse: Good – have you ever had a Pap test?

Person #1: No, but my Auntie said it was important.

Doctor/Nurse: She's right. It's an important test for any woman who's ever been sexually active and you should also know the Pap test doesn't check for sexually transmitted infections – do you want me to do those tests as well?

Person #1: Oh, OK.

Doctor/Nurse: Yes, the Pap test is used for finding changes on your cervix that can lead to cancer.

Person #2: Thanks, that's good to know.

END Voice: *Go for regular pap tests. Call your doctor, nurse or clinic.*

Commercial #3: (two older voices)

Person #X: I really think I can put off having my Pap test because no one in my family has ever had cancer.

Person #2: But cancer of the cervix doesn't run in families.

Person #X: It doesn't?

Person #2: No – Any woman who has ever been sexually active is at risk for cervical cancer. Most women who get cancer of the cervix haven't had regular Pap tests. You **can** **make the choice** to keep yourself healthy and have a regular Pap test.

Person #X: I'd better book my appointment today.

Person #2: Good for you – we need to value our bodies.

End voice: *Go for regular Pap tests. Call your doctor, nurse or clinic.*

Commercial #4 (older & younger)

Person #2: Did you know that Pap tests can lower your risk of cervical cancer?

Person #1: So who should be having Pap tests?

Person #2: Any woman who's ever been sexually active.

Person #1: You mean recently, don't you?

Person #2: No, I mean at any time in your life.

Person #1: Wow, like you mean my Mom should still have Pap tests?

Person #2: Yes – she should keep having Pap tests – even after menopause. When a woman turns seventy she can talk to her doctor to see if it is okay to stop having Pap tests, but until then she needs regular Pap tests.

Person #1: I should tell my Mom.

End voice: *Go for regular Pap tests. Call your doctor, nurse or clinic.*

Commercial 5:

Person #2: I got my Pap test result back and it was fine.... My doctor says I should have another one in two years.

Person #1: I got mine back too.

Person #2: and.....

Person #1: Mine shows early cell changes. I am concerned, but I'm looking after it before it becomes cancer. I'll need another Pap test in 6 months to see if the changes are better or worse?

Person #2: Better or worse?

Person #1: Yes, apparently they can sometimes go away on their own without treatment?

Person #2: Oh - but you won't know until you go for your next appointment? What if you forget?

Person #1: I've written it down because it's really important that I go for my next Pap test.

End voice: *Go for regular Pap tests. Call your doctor, nurse or clinic.*

Commercial 6:

Person #1: How did it go at the doctors? Is your Pap test still showing early cell changes?

Person#2: Yes, and my doctor says these changes could lead to cancer of the cervix, so I need to see a specialist for a different test now.

Person#1: Oh – my Auntie had to do that too. She said it was like a Pap test but they take a closer look at the cervix.

Person #2: That's what my doctor said, but I'm still nervous.

Person #1: It's really important that you have those changes looked at. Do you want me to go with you?

Person #2: That would really help – thanks.

End Voice: *Go for regular pap tests. Call your doctor, nurse or clinic.*

Commercial #7:

The Manitoba Cervical Cancer Screening Program provides education for Pap tests and cervical cancer prevention. They can even send you a copy of your Pap test results. Just call toll free 1-866-616-8805 for a free copy of your results or for information or pamphlets about Pap tests. For their web site, just go to CancerCare (that's one word) dot mb dot ca, and click on Prevention and Screening. You can get information there, but if you want your Pap test results you have to phone the toll free number. 1-866-616-8805.

End voice: *Go for regular Pap tests. Call your doctor, nurse or clinic.*

(CancerCare Manitoba, 2004).

Appendix F

Cervical Cancer Quick Reference**Who should be screened, and how often?**

Women should be screened as follows according to the Canadian Task Force on Preventative Health Care:

Annual screening is recommended following initiation of sexual activity or age 18; after two normal smears, screen every 3 years to age 69. Consider increasing frequency for women with risk factors: age at first intercourse <18 years, many sexual partners or consort with many partners, smoking or low-socio-economic status (Morrison, 1992, p. 889).

Risk Factors

- Under-screened or Unscreened (no Pap smear within the past 3 years)
- Onset of sexual activity before age 18
- Multiple sexual partners or male partner with history of numerous sexual partners (over 5)
- Cigarette smoking
- Presence of human papilloma virus (HPV)

Women who are under-screened?

- Elderly
- Unmarried
- Knowledge deficit regarding cervical cancer and screening
- Poverty
- Ethnic background including Aboriginal women
- Non-English speaking
- Poor preventive health behaviours

Quick Facts

- 12th leading cause of cancer in Canada (Health Canada, 2002)
- Rates of invasive cervical cancer are 3.6 times higher in Manitoba's Aboriginal women than their non-Aboriginal counterparts and rates of carcinoma in-situ are 1.8 times higher (Young, Kliever, Blanchard, & Mayer, 2000).
- Pap smears have been shown to decrease the incidence and mortality from cervical cancer by as much as 60-90% (Brown, 1996).
- Not participating in regular Pap smear screening is the greatest risk for a poor outcome in women who develop cervical cancer (Health Canada, 2002).
- Aboriginal women are less likely to participate in cervical screening and are therefore at increased risk for developing and dying from cervical cancer (Young, et al., 2000).

Brown, C. (1996). Screening patterns for cervical cancer: How best to reach the unscreened population. *Journal of the National Cancer Institute Monographs* 21, 7-11.

Health Canada. (2002). Cervical cancer screening in Canada: 1998 surveillance report. Retrieved March 2, 2005 from: <http://www.phac-aspc.gc.ca/publicat/ccsi-dccuac/pdf/cervical-e3.pdf>.

Morrison, B. J. (1992). Screening for cervical cancer. In *The Canadian Task Force on Preventative Health Care, The Canadian guide to clinical preventative health care* p. 884-889. Retrieved March 2, 2005 from: <http://www.ctfphc.org/>.

Young, T. K., Kliever, E., Blanchard, J., & Mayer, T. (2000). Monitoring disease burden and preventive behaviour with data linkage: Cervical cancer among Aboriginal people in Manitoba, Canada. *American Journal of Public Health*, 90(9), 1466-1468.

Appendix G

Photograph for Women

YOUR HEALTH IS A GIFT



TAKE CARE