Recommendations for a Comprehensive Smoking Cessation Framework

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Chaired and Coodinated By

MANTRA
MANITOBA TOBACCO REDUCTION ALLIANCE INC.

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1. Introduction

Preface

The 2009 Conference Board of Canada health report on *How Canada Performs*[1] ranked Canada with a "B" or 10th among 16 peer countries. This is down from a 5th place ranking in the 1990's. The report goes on to say that "Most top-performing countries have achieved better health outcomes through actions on the broader determinants of health such as environmental stewardship and health-promotion programs **focusing on changes in lifestyle, including smoking cessation**." It is interesting to note that the report refers specifically to 'smoking cessation' and not tobacco control in general. There is an increasing awareness in Canada and its provinces that it is time to focus attention on smoking cessation.

This framework looks at the health and financial impact of smoking in the Province of Manitoba, the benefits of smoking cessation, existing cessation resources, target populations and evidence based practices as they apply to both clinical and non-medical approaches for smoking cessation. It then recommends a plan for cessation that sets out a direction with goals and objectives that will positively improve overall health outcomes while making concerted efforts to reduce health disparities.

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2. Scope

Smoking Cessation fits within the broader framework of tobacco reduction and along with Prevention, Protection and Denormalization; it forms one of the four pillars of a National Strategy[2] that was adopted in 1999. There is a very real sense in which these four strategic directions are interrelated in their impact on reducing tobacco use.

For example, measures to protect the health of non-smokers through smoking bans in public have a direct impact on smoking cessation by changing the social environment. Prevention measures such as ban on display and promotion of tobacco products, reduces the incitement to smoke and enhances the resolve to remain smoke-free. While there is recognition of the interconnectivity of cessation and other strategic elements, an effort has been made to keep the focus on cessation.

Cessation activities, whether at a clinical level or population level, are most effective when conducted within the context of policy/legislative and mass media interventions. This strategy takes the approach that cessation activities must be integrated so that synergies are created to enhance outcomes. It also is developed with the understanding that only those practices that have demonstrated evidence of effectiveness should be considered for implementation. At the same time it is recognized that new challenges will result in new evidence-based practice. In order to maintain a leading-edge approach, it is essential that cessation activities be held up to scrutiny. This can only be accomplished when there is also investment in research, monitoring and surveillance and evaluation.

3. Executive Summary

A review of the Canadian Tobacco Use Monitoring Survey from 1999-2008 indicates that during that time Manitoba's smoking rates declined by 4%, the least decline of any province. In terms of real numbers, this is a decrease of 30, 072 over that period of time leaving an estimated quarter of a million individuals still smoking. Much of the provincial strategy focus has been centered on youth prevention and correspondingly youth smoking rates have declined significantly during the same time period resulting in a good long-term prognosis. This has been achieved largely through legislative and policy measures. However, in order to evidence a more immediate reduction in tobacco use, a strong cessation strategy is needed as part of a comprehensive strategy.

While a wide array of smoking cessation resources exist in Manitoba, many are limited by geography, demand, staff resources and the quality of the programs being offered. The cost of providing effective cessation resources must be weighed against smoking-related costs, direct and indirect, estimated at $526,000,000 in 2008. By far, the largest portion of the direct costs are related to health care costs and are reflective of the huge impact that smoking has on the health of Manitobans. The health burden created by smoking is largely determined by years of exposure, presence of other chronic disease factors, type of product consumed and the consumption level. Significant health benefits can be realized through cessation, which have a direct bearing on rates of cancer, cardio-vascular disease and pulmonary disease in particular. Additionally, psychological, emotional, spiritual, social and financial well-being is positively impacted through smoking cessation.

A disproportionate amount of the smoking-related health burden lies with disadvantaged populations. A 2010 report by the Manitoba Centre for Health Policy indicates that the growing gap between rich and poor is also accompanied by "profound and growing health gaps". New priorities must emerge to address the growing health gaps and the high smoking rates that are so prevalent in disadvantaged populations. Aboriginal populations bear a large portion of the smoking-related health burden and have the least available resources to address the issue.

An effective smoking cessation strategy must have as its overarching goal the aim of reducing the health and economic consequences arising from the use of tobacco products. This will be best achieved by increasing quit attempts at the earliest stage possible; motivating and supporting users in their efforts to quit and reducing tobacco consumption when cessation is not a consideration.

The body of this report is comprised of a series of ten recommended strategies and tactics that could be employed to effectively address the need to reduce tobacco use in Manitoba. These strategies rely heavily on recommendations being made by CAN-ADAPTT (Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-Informed Tobacco Treatment) and other recognized leaders in smoking cessation. The first two recommendations cover legislative and policy interventions and the use of health communications/media interventions. They continue the work of creating supportive environments in which motivation and encouragement is provided for making the smoking cessation choice. These are followed by three recommendations that deal with approaches to cessation and the role of training and capacity building in facilitating these approaches. Cessation interventions at an individual-level and a population-level are proposed along with recommendations to enhance training and build capacity. It is essential that changes occur which will allow for the integration of smoking cessation into existing systems and that individuals be properly trained to function effectively as catalysts for cessation within that system.

An abundance of scientific evidence exists that demonstrates the effectiveness of various approaches to achieving higher rates of smoking cessation. The greatest difficulty appears to exist in identifying and making available the necessary resources for implementation. The final five recommendations are devoted to identifying resource priorities and include recommendations for implementation and coordination.

The document is put forward with the anticipation that it could serve as a means for further, ongoing consultation and ultimately result in a coordinated effort to lower rates of smoking, improve health status and reduce cost to the health care system.

4. Current Situation in Manitoba

Smoking in Manitoba

Statistics released by the Canadian Tobacco Use Monitoring Survey[3] indicate that smoking rates in Manitoba in 2009 were 19% among those 15 years of age and older. From 1999 -2008 smoking prevalence decreased in Manitoba by only 4 percentage points, the least decline of any province. The average Canadian decline was 7 percentage points.[4] In real numbers, there were 262,252 smokers in Manitoba in 1999 and 232,180 in 2009, a decrease of 30,072.

Much of this net decline can be attributed to prevention rather than cessation. Youth (15-19) smoking rates evidenced the largest percentage decline from 29% in 1999 to 18%

in 2009. During the same time period, the number of "never smokers" increased from 49% to 56%.[5] It is encouraging to see youth smoking rates declining and measures to encourage further smoking prevention being implemented. However, this must be recognized as a long term strategy. The benefits to health and the health care system will not be realized for 25-30 years into the future. The more immediate future must include a plan to significantly reduce smoking rates through a comprehensive, integrated cessation strategy.

Strategies, Legislation and Policies

Manitoba has taken significant steps through policy and legislation to create an environment in which tobacco reduction initiatives can flourish. In 2004, Manitoba gained the distinction of being the first province to legislate smoke-free public places. In 2005, the Government of Manitoba passed legislation to prohibit the display, promotion and advertising of tobacco products. In the same year, community grants were made available through the Chronic Disease Prevention Initiative for communities to actively pursue initiatives, including tobacco reduction that would reduce the incidence of chronic disease. Legislation to prevent smoking in vehicles when children under the age of 16 are present was introduced in December, 2008. In the fall of the same year, the Education Minister announced that all schools in Manitoba had adopted policies that would make school grounds smoke-free. It was also in 2008 that the Government of Manitoba introduced enabling legislation that would allow the Province to bring a lawsuit against the tobacco industry for health care recovery costs. In 2010 a school based curriculum (BOT – Back off Tobacco) was introduced into the education system. These types of legislative and policy actions provide a supportive environment for action on tobacco reduction including cessation.

Existing Cessation Resources - Overview

Smoking cessation resources in Manitoba run the gamut from self help information to telephone and online cessation services, to trained professionals providing face to face counseling and nicotine replacement therapy. Some resources such as the Smokers' Helpline operate during set hours and are available throughout the province wherever a client has access to phone service. Many others are limited by geography, demand, cost, or staff resources. Resources vary greatly from region to region and there is little consistency in the type of programming being offered.

Please see **Appendix A** for a listing of cessation programs and services that are currently available in Manitoba. These are included for information and are not an endorsement of their effectiveness.

5. Case for a Smoking Cessation Strategy

Health Impacts of Smoking

In 2004, the U.S. Surgeon General issued a report looking at the health effects of smoking. The report[6] was able to clearly state that smoking was "causally linked" or proven to cause numerous types of cancer, cardiovascular diseases, adverse reproductive effects and a list of other health effects. According to Health Canada, smoking is linked to more than two dozen diseases and conditions[7]. Margaret Chan Fung Fu Chun, Director General WHO 2008 sums it up best, "Tobacco use can kill in so many ways that it is a risk factor for six of the eight leading causes of death in the world."[8] The carcinogenic nature of tobacco, combined with addictive nicotine, makes a deadly combination that will account for 6 million deaths world-wide in 2010[9]. Smoking remains the number one cause of preventable disease and death in Canada.

The health burden created by smoking is largely determined by:

Years of exposure

The average age at which Manitobans are quitting is 48 years. To reduce the health burden in the short term, it is important to promote earlier cessation and relapse prevention.

Presence of other chronic disease risk factors

Statistically, six out of ten Canadians have chronic diseases; nearly 30% of people with one chronic condition have six or more chronic conditions.[10] Smoking is a significant risk factor for chronic disease. According to the WHO "Dietary, physical activity and smoking cessation programmes should be integral to both the prevention and management of chronic diseases".[11]

Type of product consumed

More than 4000 chemicals are contained in cigarette smoke including 43 known carcinogens. The danger of these chemicals is compounded by the presence of nicotine, a potent, dependency creating drug, which makes it very difficult to quit. Nicotine replacement therapy and other safe, dependency reducing medications are available in Manitoba, but are not readily accessible to those who need them most.

Consumption level

No level of smoking is safe. However there is a direct relationship between health burden and the number of cigarettes consumed per day. Reducing consumption when cessation is not actively being considered is both prudent and effective in increasing likelihood of eventual cessation.

Economic Impact of Smoking in Manitoba

Given the substantial negative health consequences related to tobacco use, a significant portion of society's resources are consumed by this risk factor. Costs related to tobacco use can generally be split into two categories: direct costs and indirect costs. The largest **direct costs** incurred are health care costs related to tobacco use. There are also costs related to research, prevention, fire damage, and employer costs that place a burden on society. However, the health care costs associated with smoking represent an overwhelming proportion of total direct costs, and are often the key costs included in burden-of-illness estimates.

The **indirect costs** associated with tobacco use include disability and premature death due to tobacco use. The negative health consequences of tobacco use take people out of the workforce, and when a person is no longer able to work, the result is a lost economic contribution to society. A healthy workforce is a key component of a healthy economy.

Combined, the direct and indirect costs related to tobacco use represent a large weight on society. Consequently, reductions in tobacco use could significantly lighten the burden on society and in particular the health care system, allowing funds to be redirected to other needs.

The estimates of direct and indirect costs of tobacco use in Manitoba in 2008 split by gender are presented in the table below. These results were adjusted for multiple risk factors in one individual and have been adjusted for certain limitations in the exposure data (see full report for further details). In summary, the total direct and indirect costs of smoking in Manitoba in 2008 were $526,000,000.

Economic Burden of Smoking in Manitoba, 2008, by Gender

	% Smokers	# Smokers	Direct Cost per Smoker ($'s)	Indirect Cost per Smoker ($'s)	Total Cost per Smoker ($'s)	Total Direct Cost of Smoking (M$'s)	Total Indirect Cost of Smoking (M$'s)	Total Cost of Smoking (M$'s)
Males	29.8%	148,460	$687	$1,469	$2,156	$102.0	$218.0	$320.0
Females	24.1%	125,268	$544	$1,100	$1,644	$68.1	$137.8	$206.0
Both Genders	26.9%	273,728	$622	$1,300	$1,922	**$170.1**	**$355.9**	**$526.0**

For a more complete description of methodology see **Appendix B**

Benefits of Smoking Cessation

The benefits of cessation are numerous and go beyond what is often seen as health benefits.

Health Benefits to the Individual

- Quit before age 50 and the risk of dying prematurely is half that of continuing smoker.[12]
- Lung Cancer – risk of dying prematurely decreases steadily- at 10 years abstinence is approximately 50% of a continuing smoker.[13]
- Coronary heart disease – After one year off cigarettes, the excess risk of coronary heart disease caused by smoking is reduced by half. After 15 years of abstinence, the risk is similar to that of never-smokers.[14]
- The benefit of quitting even after a disease diagnosis can still be substantial. Smoking cessation reduces risk of dying prematurely after heart attack or cardiac surgery by 36%.[15]
- COPD – With sustained abstinence the rate of lung function decline returns to that of a non-smoker.[16]
- From a population perspective, smoking is the most modifiable cause of poor pregnancy outcomes in developed countries.[17]
- In Manitoba 8% of children age 0-17 are regularly exposed to second hand smoke.[18] Over 1000 Canadians will die of second-hand smoke related disease with approximately one hundred of those being children.[19] These deaths are totally preventable.

Other Benefits

The World Health Organization (WHO) defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." The full benefits of cessation include important aspects other than physical well-being that should be considered.

- Psychological Well-Being – There is growing evidence that smoking is linked to depression. Compared to non smokers and smokers who have quit, current smokers have higher rates of depression.[20]
- Emotional Well-Being - For those who develop dependency, tobacco smoking becomes an "emotional roller-coaster" with short highs of nicotine induced mild euphoria, quickly followed by the lows of nicotine withdrawal.
- Spiritual Well-Being - Those who smoke are well aware of the many harmful effects of smoking. The contradiction of continuing in a self-destructive behaviour often leads to feelings of guilt and inadequacy.

- Social Integration - People may smoke because they are marginalized or they may feel marginalized by smoking restrictions. Effective cessation programs can assist people to more effectively integrate into a society in which the social norms have changed.
- Financial Benefits - Smoking cessation can yield significant financial benefits to the individual. A pack a day smoker saves a minimum of $3,700 per year.

6. Special Considerations

Inequalities and the Health of Populations

Smoking related disease currently results in approximately 37,000 premature Canadian deaths per year with an average loss of 10-12 years of life.[21] A disproportionate amount of this smoking related health burden lies with disadvantaged populations who have not responded to population based tobacco reduction initiatives directed at the smoking population at large.

In 2004, Dr. Joel Kettner, Chief Medical Officer of Health, Manitoba co-chaired a Health Disparities Task Force which produced a discussion paper on *Reducing Health Disparities*.[22] One of the highlights of this paper states: "The most important consequences of health disparities are *avoidable* death, disease, disability, distress and discomfort; but it is clear that disparities are also costly for the health system and Canadian society as a whole… these consequences are avoidable and can be successfully addressed, but they nevertheless persist and, in some cases, are growing across the country".

The problem of growing health disparities is reiterated by the Manitoba Centre for Health Policy in their article entitled *Health Inequalities in Manitoba: Is the Socioeconomic Gap in Health Widening or Narrowing Over Time?(2010)*.[23] It indicates that the growing income gap between the richest households and the poorest households was also accompanied by "profound and growing health gaps".

New Priorities Must Emerge

It is obvious that new priorities must emerge. This will need to be accomplished with targeted messaging and programs for those who currently bear an inequitable proportion of the health burden caused by smoking. This typically occurs where smoking rates are highest and resources lowest. Consistent effort must be made to address the needs of specific vulnerable populations. The list of those who are disproportionately affected by the health and economic burden of tobacco is long. The following four have been chosen to highlight the need for a more focused approach based on the high rates of prevalence/consumption and the total number of people affected.

- Mental Health – Exceedingly high rates of smoking (2 to 4 times the population rates) exist among those with psychiatric disorders.[24] This includes smoking rates as high as 90% among those with schizophrenia (Glassman 1993).[25]
- Addictions – The relative risk of developing mouth and throat cancer are 7 times greater for those who use tobacco, 6 times greater for those who use alcohol and 38 times greater for those who use both tobacco and alcohol (Blot, W.J, Alcohol and Cancer 1992).[26] There is growing consensus that tobacco dependence is another addiction that should be addressed as part of the recovery process.
- Low Social Economic Status (SES) – According to the Centers for Disease Control (*Cigarette Smoking Among Adults 2008*)[27] – Low income people smoke more, suffer more, spend more and die more from tobacco use.
- Pregnant and post partum women – Approximately 20-30% of pregnant women use tobacco during pregnancy. Many of these women quit during pregnancy and another proportion reduce their tobacco use. However, cessation is often temporary. Relapse rates vary, but are reported as approximately 25% before delivery, 50% within four months postpartum, and 70-90% by one year postpartum.[28]

For a more complete outline of vulnerable populations please see **Appendix C**

Aboriginal Populations and Smoking Cessation

In the *Declaration on Prevention and Promotion* (2010)[29] the Ministers of Health and Health Promotion/Healthy Living of Canada agreed that, "Some people such as some First Nations, Inuit and Métis people – who occupy a unique place in Canada by virtue of history and health status – and those with lower of income and education, do not enjoy the same good health as the rest of Canada."

Aboriginal people represent 14% of Manitoba's population and it is expected that the Aboriginal population will continue to grow rapidly.[30] The City of Winnipeg has the largest number of Aboriginal people of any census metropolitan area in Canada.[31]

The need to develop smoking cessation resources specifically for Aboriginal peoples is critical, as the rates of smoking among Aboriginal adults is 59% nationally,[32] with anecdotal reports that smoking rates in some Aboriginal communities are in excess of 70%.

In order for tobacco control policy to be effective, the importance of the role that tobacco has in the lives of some Aboriginal people needs to be recognized and incorporated into policy. Acknowledging tobacco use in a traditional capacity shows respect for the customs and traditions of Aboriginal people. This understanding is a necessary component of tobacco control policy and smoking cessation programs as it acknowledges tradition and the importance of remembering.

Identification of Emerging Practices for Consideration in Aboriginal Program Cessation Design

In 2008, the Aboriginal Cancer Care Unit for Cancer Care Ontario produced *A Case Study Approach, Lessons Learned in Ontario – Aboriginal Tobacco Cessation*.[33] The document looks at two case studies of tobacco cessation programs, Sacred Smoke, operating at Wabano Centre for Aboriginal Health in Ottawa and Sema Kenjigewin Aboriginal Misuse Program from Anishnawbe Mushkiki Aboriginal Health centre in Thunder Bay.

Please see **Appendix D** for Identification of Emerging Practices for Consideration in Aboriginal Program Cessation Design.

To reduce tobacco misuse by Aboriginal people, consultation with groups such as the Assembly of First Nation's Tobacco Action Circle must take place in order to develop a tobacco prevention and cessation strategy. The Tobacco Action Circle was established to advise on federal tobacco control initiatives. Membership includes Elders, regional tobacco representatives appointed by the AFN regions, tobacco control and smoking prevention/cessation partners, youth representatives, and other partners. The Tobacco Action Circle will advise the Assembly of First Nations in the development of a National

First Nations Tobacco Control Strategy, which will include a scan of community-based practices, using existing knowledge sources, considering other strategies and exploring funding sources.

7. Goals for a Smoking Cessation Strategy

The following goals were arrived at with the understanding the first goal is the large overarching goal

- Reduce the health and economic consequences from the use of tobacco products
  - Increase quit attempts at the earliest stage possible
  - Motivate and support users efforts to quit
  - Reduce tobacco consumption when cessation is not a consideration

8. Guiding Principles for a Smoking Cessation Strategy

Guiding principles refer to the fundamentals which guide the stakeholders and partners in understanding

a) the principles that guide the formation of a smoking cessation strategy which include the following:

- Evidence Based – Builds on best available research, best practices, and best established approaches for decision making and strategy prioritization

- Comprehensive – Key components are integrated into an effective, unified system
- Clearly Enunciated Goals and Objectives – SMART – specific, measurable, actionable, realistic and timely
- Dynamic – constantly evolving to reflect latest evidence and practice as well as current client needs and opportunities to meet those needs

b) the principles that guide the interactions and relationships between various partners including the following:

- Partnerships must exist for an effective smoking cessation strategy and those partnerships must involve a variety of disciplines (decision makers, health care professionals, etc.) and must exist at various levels (provincial, regional and community)
- Client/patient centered interactions should be promoted. These build long term, meaningful relationships
- The Social Determinants of Health reflect a larger and more encompassing view of health and must be accounted for in a smoking cessation strategy. This includes recognition of the disparities that exist in various populations and a commitment to prioritize the needs of the vulnerable
- Continuous learning should be pursued through taking advantage of monitoring and evaluation which enhances knowledge and ensures its translation into future initiatives
- Ongoing research and the subsequent development of strategies and tools that will enhance smoking cessation initiatives

9. Proposed Strategies and Tactics – A Framework

The following outline of various strategies and tactics builds on the ongoing work of CAN-ADAPTT (Canadian Action Network for the Advancement, Dissemination and Adoption of Practice-Informed Tobacco Treatment) a practice-based research network. The network is one of a kind in Canada and is currently exploring components of effective smoking cessation systems across Canada. This strategy also relies heavily on recommendations contained in the United States Department of Health and Human Services[34]; New Zealand Ministry of Health[35]; French Health Products Safety Agency-(Smoking Cessation Guidelines)[36]; United Kingdom - Smoking Cessation Guidelines for Health Professionals)[37]; OMA (Ontario Medical Association Guidelines).[38]

I. Legislative and Policy Interventions

While legislative and policy actions which have already been taken provincially are commendable, there are also other areas of policy and legislation that would continue to provide an even stronger basis for tobacco reduction. These would act in a mutually supportive way with cessation and include:

- Reduce the density of tobacco by prohibiting the sale of tobacco products in certain places, such as pharmacies (8 other provinces have done this), and on university campuses
- Establish tobacco free zones by prohibiting the sale of tobacco around grade schools
- Implement a licensing system for all tobacco retailers. Charge annual fees for licensing as proposed in B.C.
- Enter into dialogue with First Nations leadership and communities to explore on reserve, smoking reduction opportunities
- Prohibit outdoor smoking in settings where it contravenes role modeling activities or healthy living activities such as sports fields or playgrounds
- Renew the provincial tobacco control strategy, setting specific targets for smoking cessation based on actual numbers
- Encourage policies that promote smoke-free multi-unit dwellings including both private housing and Manitoba Housing properties
- Make smoking cessation resources, including nicotine replacement therapies and prescription medications, more readily accessible as Saskatchewan has done

II. Health Communication and Media Interventions

Mass media campaigns are an established element of best practice in tobacco control. Campaigns serve to educate and remind audiences of the urgency and the benefits of quitting and the most effective ways to achieve this. Messaging from mass media contributes to both cessation and preventing youth from starting.

Mass media should be prioritized by provincial and federal governments. The report entitled 'The Effects of Tobacco Control Policies on Smoking Rates: A Tobacco Control Scorecard'[39], lists nine types of tobacco control policies that have been examined empirically and are capable of being implemented by various levels of government. Of the nine policy recommendations, the use of mass media ranked 3rd in importance. The use of mass media campaigns was found on average to yield a 7% decrease in prevalence rates when sufficiently funded and combined with other policies. The proven effectiveness of mass media campaigns is reinforced by reviews conducted by the National Cancer Institute[40] (2008) and mass media is recommended as part of CDC Best Practice [41](2007).

Proposed implementation tactics should consider:

- Media campaigns should be strategically targeted to populations with high smoking prevalence such as disadvantaged populations
- Reach, frequency and duration are the key elements in a successful mass media campaign. Cost considerations can be mitigated by a targeted approach that limits the reach and pays more attention to frequency and duration
- A campaign should be adequately funded to run at least 6 months to affect awareness of the issue, 12 to 18 months to have an impact on attitudes, and 18 to 24 months to influence behavior
- Audience research should be conducted to define the thematic characteristics and execution of messages and to develop campaigns that are influential and engage specific audiences
- Social marketing approaches, which allow built-in audience feedback, should be employed
- Traditional mass media communication tools should be augmented with policy measures, public relations efforts such as press releases, local events, media literacy and health promotion activities

III. Individual Approaches to Cessation

Tobacco dependence is a chronic, relapsing disease that often requires repeated intervention and multiple attempts to quit. Effective treatments exist that can significantly increase rates of long-term abstinence, and recommendations based on the evidence are found below.

Counseling Recommendations

- All physicians and other health care workers should strongly advise all patients who smoke to quit and provide brief advice, tailored to the client's smoking status .
- Multiple sessions of counselling combined with medication increase the chances of a successful quit.
- Treatment should be delivered by a variety of clinician types and by multiple clinicians who are trained in evidence-based smoking cessation practices.
- Telephone counselling, face-to-face counselling (both group and individual) and tailored self-help materials are all effective formats of psychosocial treatments and should be used in smoking cessation interventions.
- Follow ups should be conducted regularly to assess client progress. Smokers who relapse should be provided with ongoing counselling support and appropriate resources.
- Culturally sensitive methods should be used to deliver cessation services to racial or ethnic minorities.

Pharmacotherapy Recommendations

Pharmacologic therapy is available through the use of nicotine replacement and non-nicotine treatment options.

- Nicotine replacement therapy (NRT) products which include transdermal patches, lozenges, inhalers and chewing gum are available without a prescription and are effective smoking cessation treatments.
- Bupropion is an effective non-nicotine smoking cessation treatment and is available with a prescription.
- Varenicline is an effective non-nicotine smoking cessation treatment and is available with a prescription.

Systems Recommendations

There are a number of strategies that can be implemented at a systems level to create an environment in which the likelihood of current tobacco users making the decision to quit is increased, and being successful in the quit attempt. The following are evidence-based system-level recommendations:

- Hospitals, clinics and health care facilities should ensure that every patient who smokes is identified and offered, at minimum, a brief cessation intervention.
- Tobacco dependence treatments (both medication and counselling) are highly cost-effective relative to other reimbursed treatments and should be prioritized.
- RHA's should have regional policies that support and provide tobacco dependence services.
- All patients should be made aware of a hospital's smoke free policies and advised to quit smoking prior to admission. Inpatients should be provided with NRT.

IV. Population - Level Cessation Interventions

- The existing strategic plan for comprehensive tobacco control should be revised with input from appropriate partners at the regional and provincial level.
- The strategic directions of the cessation strategy should be incorporated into the larger strategic plan for comprehensive tobacco control.
- Individual level educational and clinical approaches should be integrated with population based efforts at all levels.
- Tobacco taxes should be increased annually to equal or exceed the rate of inflation.
- Federal and provincial efforts to control the sale of contraband tobacco products should be increased.
- Multi-component interventions that include telephone and on-line support should be an integral part of the provincial cessation strategy.

- Cessation programming should be prioritized to previously identified target groups, utilizing existing organizational structures to provide tobacco awareness and smoking cessation for all staff and clients.

V. Training or Capacity Building among Health Care Professionals

- Implement guidelines, training programs and incentives for health professionals to deliver brief smoking cessation interventions.
- Tobacco use cessation treatment should be included in core curricula of all clinical disciplines and at different levels of education.
- Training should be a core part of a tobacco use cessation program in all health authorities.
- Prioritize training for health care professionals who provide care to populations with a high prevalence of tobacco use.
- Tobacco use cessation treatment should be integrated into standards of care through accreditation bodies.
- Cessation knowledge and skills should be evaluated at licensing/certification evaluation.
- Specialty societies should adopt training as a uniform standard of competence for all members.

VI. Investment Priorities

A review of tobacco reduction activities across Canada readily reveals that those provinces with higher investments in tobacco control also have lower rates of prevalence.

a) Infrastructure Investment

The following investments in infrastructure are worthwhile investments.

- Establishing structures that provide coordination and collaboration at the federal, provincial, regional and community levels
- Strengthening the capacity of community-based organizations to positively influence social norms regarding tobacco use and to build relationships between health departments and grassroots, voluntary efforts
- Ssponsoring, regional and provincial training conferences, and providing technical assistance
- Supporting and/or facilitating tobacco prevention and control coalition development as well as linking to other related coalitions (e.g., cancer prevention & control, diabetes prevention & control)
- Supporting innovative demonstration and research projects to prevent youth tobacco use, promote cessation, promote tobacco-free communities, and reach diverse populations

- Providing assistance to regions wishing to establish a local strategic plan of action that is consistent with the province's strategic plan

b) Treatment Investment

The availability of cessation medications, both prescription and NRT does not guarantee their accessibility. Consideration should be given to investing in treatments (both medication and counseling) that are proven to be efficacious.

- NRT should be provided for patients in health care facilities whose smoking status has been recorded and who indicate a desire for cessation/reduction support.
- Sufficient resources should be allocated for systems support to ensure the delivery of efficacious tobacco use treatments.
- Cessation medications, both prescription and non-prescription as identified in the recommendations, should be covered by provincial health insurance plans.
- Priority for the availability of cessation medications should be given to recognized vulnerable populations.

c) Programs Investment

Program investment can provide the skills, resources, and information needed for implementation of effective community programs.

- Collecting community-specific data and developing and implementing Culturally appropriate interventions with multicultural involvement.
- Supporting innovative demonstration and research projects to prevent youth tobacco use, promote cessation, promote tobacco-free communities, and Reach diverse populations.
- Supporting local strategies or efforts to educate the public and media not only about the health effects of tobacco use and exposure to secondhand Smoke, but also about available cessation services.
- Implementing evidence-based policy interventions to decrease tobacco use initiation, increase cessation, and protect people from exposure to Secondhand smoke.

d) Research Investment

Continued commitment is needed, at all levels, to identify and fund research related to tobacco use cessation best practices.

- Develop mechanisms to consistently identify current research gaps to enable better decision making.
- Work with policy and decision makers to secure adequate funding for needed research.
- Enable better collaboration between policy makers, researchers and program providers.

- Ensure that knowledge translation is in place to promptly translate new research into practice and policy.

VII. Surveillance and Evaluation

A comprehensive tobacco control program must have a system of surveillance and evaluation that can monitor and document short-term, intermediate, and long-term intervention outcomes in the population to inform program and policy direction, as well as to ensure accountability to those with fiscal oversight.

- Process and outcome evaluation activities should be ongoing and should be used to assess individual program activities and to guide program improvement.
- Program evaluation efforts should build on and complement data collection by linking provincial and local program efforts to monitor progress toward program objectives.
- Evaluation planning should be integrated with program planning. Collection Of baseline data related to each objective and outcome indicator is critical to ensuring that program-related effects can be clearly measured.
- Surveillance efforts should include counter-marketing surveillance to track new products and examine the impact of pro-tobacco influences, including the
- Actual cost of cigarettes, free samples, advertising, promotions, media coverage, and events that glamorize tobacco use should be documented.
- Surveillance activities should also include the monitoring of policies and legislation (e.g. sales to minors, smoke-free public places, smoke-free school grounds)

VIII. Funding Levels for Tobacco Control

Without sufficient financial investment in programs, treatment and infrastructure, there cannot be a realistic expectation of successful outcomes in cessation/reduction activities. Manitoba currently has one of the highest provincial rates of tobacco consumption. It will take increased financial investment to alter that statistic. The following recommendations are provided as a starting point.

Current Manitoba spending (OTRU Update- September 1, 2010)[42]

Total expenditures (less salaries) $840,000

Per Capita (based on population of 1,222,000) $.69

- Lowest per capita spending in Canada based on available data
- Average Provincial/territorial per capita spending $3.54

Proposed year-one expenditure based on 1% of projected tobacco tax revenue

Estimated tobacco tax revenues (2010) $225,000,000

Proposed total tobacco control expenditures $2,250,000

Proposed per capita spending (including salaries) $1.82

Tobacco Control (Other than cessation) Prevention & Protection $1,112,500

Provincial and Community interventions

(including salaries)

Tobacco Reduction/Cessation

Breakdown by category of expenditure

Cessation Interventions	50%	$556,250
Mass Media/Communications	10%	$222,500
Surveillance & Evaluation (all tobacco)	10%	$222,500
Administration & Management (all tobacco)	5%	$111,250

Total Tobacco Reduction/Cessation ***$1,112,250***

Rationale for increased spending on cessation

- Smoking cessation initiatives provide one of the largest returns on investment for health care systems.
- The climate is right – 77% of Manitoba smokers would like to be smoke-free.
- More cessation resources are potentially available than at any time previous
- Smokers are tax payers and unlike others who may become addicted (e.g. gambling) they receive little or no services for their tax dollars.
- There is an increased interest among stakeholders wanting to assist in smoking cessation (e.g. pharmacists, nurses, social agencies, workplaces)
- The potential for a 1% annual reduction in smoking prevalence as proposed by the Primary Prevention Syndicate

IX. Planning, Alignment and Coordination

Planning involves the inclusion of stakeholders to determine the overall direction, goals, principles, strategies and tactics, as well as specific action plans that specify roles, responsibilities and sequencing of activities. Input into this strategic planning document was received from a broad cross-section of more than 50 stakeholders at a meeting held

on March 17. 2010. The successful implementation of a cessation strategy requires an effective implementation strategy. The system needs to be coordinated within the larger tobacco control strategy. It also requires discussion, collaboration and coordination with key stakeholders. In order for the strategy to be effective it will require the alignment of various stakeholders and coordination of the implementation of the various strategies

- Implementation of effective cessation strategies require the identification of strong management structures to facilitate coordination of program components, and the involvement of multiple agencies, levels of local government, voluntary organizations and community groups.
- The development of partnerships that recognize the primacy of a provincial strategy is critical, but it is also essential to recognize the autonomy of the various partners in developing their own priorities, working plans and provincial levels of participation.
- It is recommended that each stakeholder group be given sufficient opportunity to provide feedback to the proposed strategy. Meetings would then be held with various stakeholder groups to assess their level of commitment to the strategy as well as to identify role(s) that each could play in implementation and resource availability.

10. Appendices

Appendix A

Cessation Programs and Services

Cessation Counseling

Smokers' Helpline is a free confidential toll-free help line manned by trained professionals who can offer advice and support in a non-judgmental manner. The number is **1-877-513-5333** also available online at:

www.smokershelpline.ca

Freedom from smoking is an online quit program from the American Lung Association. Users are taken through modules, each containing several lessons that are to be completed before moving on. The program can be accessed day or night, seven days a week. www.ffsonline.org

Tobacco Dependence Clinic (in Brandon RHA only) offers one-on-one free counseling sessions for smokers trying to quit. Call 578-4200 for more information.

Tobacco Free 1-2-3 (in South Eastman RHA only) – offers this free, six week group quit smoking class that includes skills training, social support and medication (they have to buy their own at this point). For more information call the South Eastman Health Promotion office at 346-7195 or email tobaccofree@sehealth.mb.ca

Individual or group quit smoking assistance (Norman RHA only) is offered through the health promotion department. The contact is Deanna Johnson, Community Health Developer, NOR-MAN Primary Health Care Centre at 1-204-687-1369 or email djohnson@normanrha.mb.ca.

The Wellness Institute at Seven Oaks offers the *Kick Butt!* Program. The program includes an assessment with physician, five private sessions with program counselor, consultation with a wellness expert, and use of fitness facility for 3 months. Cost is $300 plus GST. Group sessions (6 sessions over 3 months) are also available. Call 632-3946 for more information.

Commit to Quit. Commit to Quit is a six-week smoking cessation group Program designed for adults. A trained facilitator assists participants to learn skills and techniques to be smoke free. The program discusses facts related to tobacco and health, smoking patterns, reasons for smoking, reasons to quit, triggers, coping with withdrawal, dealing with "slips" as well as the use of medications. Commit to Quit is sponsored by the Winnipeg Regional Health Authority.

Target: Adult smokers interested in quitting
Available from: Winnipeg Regional Health Authority

Margie Kvern (204-940-3649)
Cost: Negotiated on individual circumstances

Risk Factor Coach is an intensive individual smoking cessation counseling program offered through Burntwood Community Health Resource Centre in Thompson Manitoba.

Regional Health Authorities From time to time, smoking cessation support groups are running in various regional health authorities.

Doctors or Pharmacists are a resource for smoking cessation in Manitoba. Some are trained in Cessation counseling. Others can offer information about available NRT and pharmacotherapy.

Teen Programs

N-O-T on Tobacco is a 10 week, evidence-based program dedicated to getting teens to quit smoking. There are many trained N-O-T facilitators across Manitoba. More information is available at www.lung.mb.ca

The Winnipeg Regional Health Authority has a web page dealing with tobacco reduction that includes resources for people who want to quit, facts on second-hand smoke and the **Tobacco Reduction School Resource Kit** - for those working with middle and senior high school students. It contains both prevention and cessation materials.
www.wrha.mb.ca/healthinfo/preventill/tobacco/resources.php

Aboriginal Resources

Status Indians and Inuk peoples can receive free NRT and pharmacotherapy through the NIHB (non-insured health benefits program). Supply of these covered products is limited on a yearly basis. Persons who qualify for NIHB should speak to their doctor or pharmacist.

The Blue Light Project is a community-based initiative to help people protect themselves from second-hand smoke in their homes.

Resources for Health Professionals and Community Members

Manitoba Tobacco Reduction Alliance (MANTRA) has developed as a Peer Group Facilitator's Guide for Smoking Cessation. This intervention includes a Tobacco Basics CD which can be adapted to work with many different population groups. MANTRA also provides training in Health Behaviour Change with emphasis on vulnerable populations.
www.mantrainc.ca

The Canadian Cancer Society's Knowledge Exchange Network: Manitoba Division contains best-evidence information packages on Tobacco Control Evidence-based

information packages programs. There are proven prevention and cessation interventions available on the website at: www.cancer.ca click on Manitoba/ click on Knowledge Exchange Network/ click on "Information packages"/ click on Tobacco Control

The Public Health Agency of Canada has tobacco resources available for Smokers who want to quit, Youth, Health Professionals and Educators, Employees in the workplace. The resources are available at:
www.canadianhealthnetwork.ca

The Canadian Lung Association provides information about quitting smoking including information about nicotine replacement therapy and pharmaceuticals, withdrawal symptoms, as well as smoking fact sheets and much more.
www.lung.ca

Hospitals

Many Hospitals around the province offer Nicotine Replacement Therapy to in-patients at the hospital. Patients who are smokers should ask their attending Health Professionals if these products are available to them.

Health Insurance Plans

Some group insurance plans will pay for smoking cessation aids as part of their benefits packages.

Appendix B

Economic Impact Methodology

The following paragraphs summarize the methods used to calculate the direct and indirect costs of tobacco use in Manitoba. For a more detailed explanation of the methods, please refer to the full report from The Heart and Stroke Foundation of Manitoba.

The total direct costs related to cancers, cardiovascular disease, and respiratory diseases were estimated by taking the distribution of direct costs (hospitals, physicians, other health professionals, drugs, health research, and other health care costs) from the Economic Burden of Illness in Canada, 1998. The distribution of costs were then multiplied by Manitoba hospital expenditures in 2006, and subsequently updated to 2008 dollars based on the increase in expenditures in each cost category between 2006 and 2008 as indicated in CIHI National Health Expenditure Trends 1975-2009. The split between males and females was based on proportion of hospital days used by each sex for each co-morbidity.

To estimate the direct cost related to tobacco use, the totals for each co-morbidity were multiplied by the Population Attributable Risk (PAR) for Manitoba. PAR is the proportion of a particular disease burden that is caused by a particular risk factor. It is calculated by multiplying the relative risk (RR) of incident disease related to the risk factor by the prevalence of exposure (E) to the risk factor within a particular population.

The most relevant RR information was used for the report, and the most up-to-date public health surveillance information for Manitoba was used for calculating E. The calculation for PAR also took into account a multiple risk factor environment to avoid double-counting of incident cases.

The indirect costs of tobacco use in Manitoba were also calculated based on information from the Economic Burden of Illness in Canada, 1998 (EBIC). The EBIC uses a modified human-capital approach to calculate indirect costs, which considers unpaid work in addition to paid work. Unrealized lifetime earnings (gender- and age-specific) are based on years-of-life lost due to a specific illness, which are in turn discounted to a present value of lost production due to premature mortality. Similarly, value of production lost due to short-term disability and long-term disability are calculated. The information from the EBIC was used to calculate a ratio between indirect and direct costs for each category of illness related to tobacco use. The proportions were then multiplied by the tobacco-attributable direct costs calculated for Manitoba in 2008 to obtain the estimated indirect costs related to tobacco use in the same year.

Appendix C

Vulnerable Populations

There are a number of sub-populations who experience a disproportionate health and economic burden from tobacco. These include:

- Low SocioEconomic Status (SES)
- Youth/young adults
- Pregnant
- Mentally ill
- Aboriginal
- People living with HIV/AIDS
- Incarcerated populations
- Lesbian Gay Bisexual Transgendered Two-Spirited Queer (LGBTTQ)
- Geographically remote

People who are part of one or more of these populations also benefit from tobacco cessation interventions listed in the general recommendations. Some recommendations for specific populations are contained in the Dynamic Guidelines for Tobacco Control in Canada Version 1.0. as outlined below. In most instances the recommendations are a summary of the guidelines from US/NZ/FR/UK/OMA. Where the recommendation is taken from a single recommended source, which is also noted.

Specific Populations and Other Recommendations

1. Special populations [including HIV-positive smokers; hospitalized smokers; lesbian/gay/bisexual/transgender smokers; those with low socioeconomic status (SES)/limited formal education; smoking with medical co morbidities; older smokers; smokers with psychiatric disorders (including substance use disorders); racial and ethnic minorities; and women smokers.

US: The interventions found to be effective in this Guideline have been shown to be effective in a variety of populations. In addition, many of the studies supporting these interventions comprised diverse samples of tobacco users. Therefore, interventions identified as effective in this Guideline are recommended for all individuals who use tobacco, except when medication use is contraindicated or with specific populations in which medication has not been shown to be effective (pregnant women, smokeless tobacco users, light smokers, and adolescents).

2. Children and Adolescents

SUMMARY: Cessation counseling should be encouraged for adolescent smokers, supporting abstinence from tobacco and using NRT for those who are nicotine dependent. Counseling in pediatric settings can be useful to make parents aware about the harmfulness of secondhand smoke.

3. Light Smokers

US: Light smokers should be identified, strongly urged to quit, and provided counseling cessation interventions.

4. Non-cigarette Tobacco Users

SUMMARY: Cessation counseling interventions should be offered to all smokeless tobacco, cigar, pipe and other non-cigarette users by health professionals, including dental health professionals.

5. Pregnant and Breastfeeding Smokers

SUMMARY: Smoking cessation should be encouraged for all pregnant and breastfeeding women from initial visit and throughout pregnancy. Utilizing behavioural and cognitive therapies are a recommended first step, but if found ineffective, oral NRT is recommended over the patch after a risk-benefit analysis.

6. People who are Concerned with Weight Gain After Stopping Smoking

US: For smokers who are greatly concerned about weight gain, it may be most appropriate to prescribe or recommend Buproprion SR or NRT (in particular, nicotine gum and nicotine lozenge), which have been shown to delay weight gain after quitting.

7. Racial or Ethnic Minorities

SUMMARY: Culturally sensitive methods should be used to deliver cessation services to racial or ethnic minorities.

8. Hospitalized and Preoperative Patients

SUMMARY: All patients should be made aware of the hospital's smoke free policies and advised to quit smoking prior to hospital admission or surgery. Patients should be provided with NRT during their hospital stay to reduce tobacco use.

9. Patients with Cardiovascular Disease

SUMMARY: Patients with CVD are highly recommended to quit smoking and should be provided with NRT or other stop-smoking medications to facilitate the quit as advised by a physician.

10. People who use Mental Health Services/Patients with Psychiatric disorders

SUMMARY: Smoking cessation counseling and NRT should be offered to smokers who use mental health services. While using NRT, the patients' psychiatric conditions and medication dosages should be monitored and adjusted as necessary.

11. People who use addiction treatment services/Drug Dependence

SUMMARY: Smokers in addictions services should be screened and provided with brief counseling on smoking cessation.

12. People who make Repeat Attempts to Stop Smoking

SUMMARY: Smokers who relapse should be provided with smoking cessation support when they request it, using NRT as a way to increase motivation to complete the quit.

13. Aging

FR: Minimal counseling, behavioural and cognitive therapy and NRT have shown their efficacy in subjects more than 65 years old.

14. Low income smokers

UK: Considerations should be given to ways of increasing the availability of NRT to low income smokers, including at a reduced cost or free of charge.

Appendix C

Identification of Emerging Practices for Consideration in Aboriginal Program Cessation Design

The main lessons learned in Aboriginal tobacco cessation and identified by program managers and key staff at Wabano and Anishnawbe Mushkiki can be grouped in terms of program design, administration, support, and evaluation.

Program Design

- Observe the diversity of participants and recognize that interests may vary between First Nations, Metis and Inuit.
- Be cognizant of the various client supports needed while respecting individual situations, income, employment level, education and other social determinants of health.
- Incorporating various aspects of culture into programming may have an impact on some participants.
- Keep classes informal and ensure all participants have opportunity to speak.
- Elder teachings about traditional uses of tobacco, giving thanks and respecting and caring for the body are important for those who practice traditional First Nations culture.
- Factual knowledge about addiction and the process of change is essential.
- The program must be positively framed and emphasize harm reduction.
- Linkages with other health promotional activities provide opportune "teachable moments".
- Foster autonomy and self-efficacy among participants.
- Individual quit plans are required
- Accessibility to pharmacotherapies improves chances of success.

Administration

- The development and implementation of a cessation program entails various substantive costs and resources such as dedicated facilitator/ staff, managerial and finance staff, administrative support, food and beverages, transportation, childcare, facility space, overhead, Elder honoraria, and guest speaker fees.
- Personnel are critical to the success of the program, and should be Aboriginal, non-smokers, trained in tobacco cessation counseling, be able to develop health promotion strategies, harm reduction approaches, be knowledgeable about tobacco addiction and be familiar with the traditional uses of tobacco.
- Wrap-around support is important. Opportunities to integrate smoking cessation programs with other chronic disease programs (youth, senior's, healthy eating active living programs) should be explored.

Support

- Supportive infrastructure and capacity within the organization is essential. Each program supports one another via cross referrals, finance, administration and supervisory supports.
- Social support is critical for success in any tobacco cessation effort.

- Training healthcare workers in tobacco cessation techniques is necessary to ensure the success of the program.
- Programs should take a holistic approach to behavioural change.
- Capitalize on non-smoker role models, particularly among the youth:
    - Mentoring and role modeling opportunities.

Evaluation

- Qualitative data is equally important as quantitative data in evaluating program outcomes.
- Pre and post evaluations with clients should:
    - Examine current smoking behaviours prior to the interventions and outcomes after the intervention
    - Ask participants questions about program design and supports (i.e., is there anything that can be improved upon within the program design itself?).

Conclusions

Various lessons learned can be gleaned from the two tobacco cessation programs studied at Wabano and Anishnawbe Mushkiki. To begin to identify promising practices in this area, further investigation is required by other researchers. As a result of examining both programs, the following research gaps are suggested for follow up:

- Implementation of the emerging practices identified in this study to determine if the practices identified are easily replicated in other Aboriginal communities or by mainstream cessation program counselors when working with the Aboriginal population.
- Rigorous evaluation designs are recommended to analyze program results.
- Evaluation design needs to include qualitative as well as quantitative methods.
- As identified in the literature, the impact of tobacco taxes, smoke-free policies and environments and the denormalization of smoking cannot be overlooked in the context of any smoking cessation initiative.

Tobacco cessation programs must be integrated within the larger tobacco control community. At this present time, the author is unaware of population-level strategies pertaining exclusively to the Aboriginal population therefore warranting further research and investigation to determine the impact provincial and federal legislation, jurisdictional issues affect the Aboriginal population.

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