

**CHINESE IMMIGRANTS' ATTITUDES TOWARD HIV
AND HIV PREVENTION INTERVENTIONS IN METRO
VANCOUVER: IS THERE A DISCONNECT?**

by

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ABSTRACT

Chinese immigrants are populating Metro Vancouver in large numbers; they bring with them values, beliefs and attitudes developed in China. Attitudes towards HIV are steeped in beliefs about taboo topics, at risk groups of people and the concept of face. Canadian school-based HIV prevention interventions do not consider cultural beliefs and are not relevant to most Chinese immigrants. Secondary research was undertaken to develop an understanding of Chinese attitudes toward HIV, Canadian HIV prevention interventions and the attitudes of Chinese immigrants living in “western” countries. Reviewing Chinese attitudes towards HIV and Canadian HIV prevention interventions illustrated a disconnect between the interventions and the intended audience: Chinese immigrants. Interventions informed by additional research and the involvement of Chinese immigrant families are needed to reach out to Chinese immigrants.

Key words: HIV/AIDS; Chinese immigrants; HIV prevention; HIV education; Vancouver

TABLE OF CONTENTS

Approval page	ii
Abstract	iii
Table of Contents	iv
1. Introduction	1
2. History of HIV and AIDS	2
2.1 Introduction	2
2.2 History	3
2.3 Testing and Treatment.....	6
2.4 Education.....	7
2.5 Current situation	7
2.6 Impacts	9
3. Chinese attitudes towards HIV	9
3.1 Historic China	9
3.2 HIV in China—Historic	11
3.3 Confucianism and HIV	12
3.4 The Chinese government, taboo topics and HIV	13
3.4.1 Chinese government’s grasp on information	13
3.4.2 Taboo topics.....	14
3.5 Sexual Health and HIV prevention education	16
3.6 HIV prevention initiatives	17
3.7 HIV in China—Current.....	18
4. Canadian HIV prevention approaches	20
4.1 HIV prevention intervention settings	20
4.2 School-based sexual health education	21
4.3 HIV prevention approaches	23
4.3.1 Social Cognitive Theory	24
4.3.2 Transtheoretical Model.....	24
4.3.3 Theory of Reasoned Action.....	25
4.3.4 Information Motivation Behavioural Skills Model	25
4.3.5 Common elements in the four approaches.....	27
4.4 HIV prevention approaches and HIV prevention objectives in B.C. schools	27
5. Migration patterns	28
5.1 Metro Vancouver Demographics	28
5.2 Canadian HIV rates	29

6. Identifying gaps in Chinese HIV attitudes and Canadian HIV prevention interventions	31
6.1 Overview.....	31
6.2 Chinese Immigrants in Metro Vancouver.....	31
6.3 HIV prevention interventions geared to minority youth	35
6.4 Chinese attitudes.....	37
6.5 Recommendations.....	39
7. Conclusion	42
Appendices	44
Appendix A: Figure 1 HIV Global Trends.....	45
Appendix B: Table 1 Global Summary of AIDS Epidemic.....	46
Appendix C: Figure 2 Total immigrants and immigrants of Chinese descent.....	47
Appendix D: Figure 3 Metro Vancouver Demographics.....	48
Appendix E: Table 2 Number of positive HIV test reports in Canada by year of test.....	49
Appendix F: Figure 4 Number of positive HIV tests in Canada by year of test.....	50
Appendix G: Table 3 Persons testing Newly Positive for HIV by ethnicity and year of testing in British Columbia	51
Appendix H: Table 4 Persons testing newly positive for HIV in British Columbia by ethnicity.....	52
Reference List.....	53

1. INTRODUCTION

In an increasingly interconnected world, immigration and disease are changing the face of many regions. Canada accepts approximately 250,000 immigrants into Canada each year. Canada's multicultural policy encourages immigrant groups to maintain connections with their cultures, values and traditions. While immigrants to Canada come from all parts of the world, there are parts of Canada where immigrants from the same country or region settle. Metro Vancouver is home to many immigrants and the cumulative effects of immigration are shaping the city. The largest group of immigrants to Metro Vancouver originate from China. According to Statistic Canada's 2001 national census, almost twenty percent of Metro Vancouver residents self-identify as Chinese (Statistics Canada, 2001).

While people are moving around the world, so are viruses and diseases. The globalisation of diseases is a reality in today's changing world. One of the most serious communicable diseases facing the world today is the Human Immunodeficiency Virus (HIV).

The transmission of the HIV virus is 100% preventable. As such HIV prevention education is incorporated into many elements of society. It exists in the home, in schools and in the general society. However, this education does not necessarily meet the needs of all members of the society. The purpose of this paper is to look at the attitudes Chinese immigrants have towards HIV, the

school-based HIV prevention interventions offered in Metro Vancouver and to determine where the disconnect exists between the two.

The first section sets the context by providing a brief history of HIV and AIDS. The second section highlights the Chinese ordering of sexuality, attitudes towards HIV and the government's response to HIV. As Chinese immigrants often come to Canada with fully formed attitudes and views, it is important to look at what is happening in China in regards to HIV. This provides insight into the ideas that the Chinese immigrants hold within Canada. The next section explores school-based HIV prevention interventions by examining leading models and the Ministry of Education's HIV-related objectives. The fourth section looks at the Chinese immigration patterns in Metro Vancouver and British Columbia in order to demonstrate the importance of this issue. The fifth section explores the disconnect between Chinese immigrants' HIV attitudes, the school-based prevention interventions, and provides some recommendations. The paper concludes with the identification of future directions for research.

2. HISTORY OF HIV AND AIDS

2.1 Introduction

Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) have been on the medical, social, political and economic landscape for more than twenty-five years. This section will provide a brief overview of the history of HIV and AIDS, situate the current epidemic and outline

some of the global impacts of the disease. This section will provide the reader with the context for examining the gap between HIV prevention education in Canada and the attitudes of Canadian immigrants of Chinese descent.

2.2 History

The symptoms that are now identified with HIV were first documented to have appeared in two parts of the world in 1981. In 1981, doctors noted that five young gay men in Los Angeles, California developed rare symptoms that were generally associated with immunological problems. This was uncommon in otherwise healthy young men. Around the same time in Mugana, Tanzania five women experienced untreatable anaerobic ulcers of the groin and anus. The German doctor who treated these women recognized their conditions as rare (Hooper, 2000). The cases in California sparked the first official report about the virus, which appeared in the June 5th 1981 edition of the American Center for Disease Control's weekly bulletin: *Morbidity and Mortality Weekly Report (MMWR)* (Grmek, 1989). After the announcement about this "new" virus physicians were able to identify and compile accounts of similar unexplained symptoms and illnesses in patients, all which pointed to compromised immune systems.

From 1982 in the United States of America, the incidence of AIDS grew quickly. In that year there were 10 new reported cases weekly, by 1984 this weekly rate had increased to 100 cases (Grmek, 1989). During this period AIDS was most commonly found among gay or bisexual men but other groups within

which the disease occurred included: Haitian immigrants, haemophiliacs, sex workers and intravenous drug users (who injected heroin) (Grmek, 1989).

In 1983 the immune system disease that was impacting gay communities across North America as well as communities in Africa and Europe was named: Acquired Immune Deficiency Syndrome (A.I.D.S.). The AIDS acronym now stands for Acquired Immunodeficiency Syndrome but is commonly known as AIDS (Grmek, 1989). Teams of scientists in Europe and North America were successful at finding the cause of AIDS throughout the period from 1984 to 1986, when the Human Immunodeficiency Virus (HIV) retrovirus was both identified and isolated (Grmek, 1989). In 1985, it was determined that the disease affecting North American gay communities was caused by the same pathogen impacting African communities (Hooper, 2000).

While the first documented cases of what is now known as HIV and AIDS date to the 1981 report in MMWR, it is widely believed that the virus was present in many parts of the world earlier (Grmek, 1989). This has lead many to query whether HIV and AIDS is a new disease. While it is difficult to say with certainty, “a disastrous epidemic of this type could not have occurred before the mingling of peoples, the liberalization of sexual and social mores, and above all, before progress in modern medicine have accomplished the control of the majority of serious infectious diseases and introduced intravenous injections and blood transfusion” (Grmek, 1989:109). It is likely that the disease has existed for some time but did not have the routes of transmission to reach noticeable levels. Some of the factors which contributed to an environment where a virus such as

HIV could spread include: scarce employment opportunities which could lead to temporary migration, drug use and sex work; transportation routes that often support the sex trade; and loosening of sexual restrictions against pre-marital sex (*Economist*, 1998). It is commonly believed in the scientific/medical community that early occurrences of HIV were misdiagnosed. The earliest documented blood sample containing the Human Immunodeficiency Virus (HIV) dates to 1959 in the Belgian Congo (now the Democratic Republic of the Congo) (*Economist*, 1998). This sample was re-examined and tested after the discovery of the virus in the mid-1980s.

The Human Immunodeficiency Virus is similar to one found in another primate: chimpanzees. It is unknown exactly how the Simian Immunodeficiency Virus (SIV) moved from chimpanzees to humans but a possible means was through the consumption of an infected chimp meat (Hooper, 2000), "... the consumption of raw monkey brain, of which certain Zairian tribes were fond" (Grmek, 1989: 146) or a monkey biting a human (Grmek, 1989). Other theories involve the use of chimpanzee cells in the formulation of an oral polio vaccine between 1956 and 1958. This theory is supported by the fact that early outbreaks of HIV appeared where some vaccines were tested and used (Hooper, 2000). Regardless of the means of transfer, SIV is believed to be the origin of HIV (Grmek, 1989).

The HIV virus has been divided into two categories: HIV-1 and HIV-2. The numbers correspond to when they were identified, not when they originated, which remains shrouded in debate. HIV-1 is the cause of most HIV cases

globally whereas HIV-2 is mostly confined to West Africa (*Economist*, 1998). HIV-2 is more closely linked to SIV than is HIV-1 (Grmek, 1989). War and its resulting impacts (food scarcity, significant migration, limited employment opportunities, and widespread sexual assault or transient sexual encounters) are factors that assist the spread of disease. This could explain why HIV-1 is the predominant strain of the virus worldwide whereas HIV-2 remains confined to West Africa (*Economist*, 1998).

2.3 Testing and Treatment

The identification of the Human Immunodeficiency Virus (HIV) also meant that testing mechanisms were developed to detect its presence (or absence) in individuals. A common and easy-to-use test is the ELISA test (Enzyme-Linked Immuno-Sorbent Assay). This test looks for antibodies that the human body would naturally produce after coming into contact with a foreign element, in this case HIV (Grmek, 1989). The adoption of the HIV test meant that the transmission of HIV through contaminated blood could be virtually prevented. Blood collection agencies in developed countries have adopted the testing mechanisms with the result that HIV transmission caused through contaminated or tainted blood is virtually non-existent (Montagnier, 2002). However, in other parts of the world, specifically in some parts of China, untested blood and blood products were the source of HIV transmission after the testing mechanisms became available (Beyrer, 2003).

While what is now known as HIV and AIDS was first recognized in 1981, it was not until six years later, in 1987, that a treatment drug was introduced. The

first drug was azidothymidine (commonly known as AZT). This first drug, approved to treat HIV, prolonged the lives of HIV positive individuals and resulted in an increase in the aggregate number of people living with HIV. Eight years later, in 1995, a significant treatment breakthrough was made with the introduction of HIV protease inhibitors and triple drug therapy, known as Highly Active Anti-Retroviral Therapy (HAART). In developed countries the introduction of HAART changed HIV from a certain premature death to a manageable chronic disease (Montagnier, 2002).

2.4 Education

Education has often been touted as the key to controlling the AIDS epidemic; however, it is important to consider the type and goals of the education programming. Fear-based and abstinence only education has proven to be ineffective, both in dealing with HIV in particular and sexually transmitted infections in general (Brandt, 1988). What Brandt stated in 1988 remains relevant in the twenty first century, “to be effective, AIDS education must be explicit, focused, and appropriately targeted to a range of at-risk social groups” (Brandt, 1988:369). Later in this paper, the impact of an additional factor will be considered in effectiveness: cultural appropriateness.

2.5 Current situation

In 2007, according to the UNAIDS/WHO approximately 33.5 million (range 30.6-36.1 million) people were living with HIV. Table 1 and Figure 1 show that in 2007, 2.5 million (range 1.8 to 4.1 million) people were newly infected with HIV

and 2.1 million (range 1.9 to 2.4 million) deaths were attributed to AIDS (UNAIDS, 2007). Women continue to be infected with HIV in increasingly higher percentages. "The 17.7 million [15.1 million-20.9 million] women living with HIV in 2006 represented an increase in over one million compared with 2004" (UNAIDS, 2006: 5). This can partially be explained by biological factors (vaginal walls are susceptible to tearing) and socio-cultural factors (women often lack the ability to negotiate when and how sexual intercourse occurs).

There are some easily discernible trends associated with HIV and AIDS. Forty percent of 2006's new HIV infections in adults 15 years old and older, occurred in young people between the ages of 15 and 24 (UNAIDS, 2006). Almost two third (63%) of people living with HIV and three quarters (72%) of AIDS deaths in 2006 occurred in Sub-Saharan Africa. While HIV is and has often been associated with risk activities such as intravenous or injection drug use (IDU) and sex between men, the most common form of transmission globally is through heterosexual intercourse (Goldin, 1992).

There is increasing recognition of the need to support African governments and health organizations in treating HIV positive individuals. Responding to this need, the World Health Organization launched a plan in 2003 to provide antiretroviral treatment to 3 million HIV positive individuals in developing countries by 2005, this plan was dubbed 3 by 5. While this plan was unsuccessful, falling short by almost 2 million people (Cameron, 2006), it drew global attention for the need for treatment in addition to prevention.

2.6 Impacts

The constant focus on prevention often overlooks one key challenge, which is the economic cost of consistent condom use. There is a global dearth of condoms and the quantity required for consistent safer sex practices is often beyond the financial means of many people living in developing countries (Goldin, 1992).

HIV and AIDS have had the most significant impact in Africa with almost two thirds of people living with HIV being residents of Sub-Saharan Africa (UNAIDS, 2006). The impact is felt in every element of life: food security, health care, family units and employment (Beyrer, 2003).

Currently the highest absolute number of people living with HIV occurs in South Africa. While African countries have higher proportions of people living with HIV, the sheer size of the population of China and India make them key countries to monitor in the epidemic.

3. CHINESE ATTITUDES TOWARDS HIV

3.1 Historic China

China's history is that of an agricultural, patrilineal society which had regional powerful leaders that controlled distinct regions of the large country. Chinese life was structured around the teachings of Confucius. Within this structure there was a clear focus on the family, as it was the base unit of production; Confucian ideology defined clear roles and responsibilities for all

members of society with a key relationship being between father and son. It is noteworthy that, in this model, sons obeyed fathers and women were subservient to men.

The first half of the twentieth century was plagued with war and occupation for China. In 1949, the People's Republic of China (PRC) was formed when the Chinese Communist Party (CCP) subsumed national power and control (Mitter, 2004). When Mao Zedong and the Chinese Communist Party (CCP) assumed control of China, they adopted a centralized structure that had an "explicit and widely penetrating influence of politics" (Mitter, 2004:186). This could be felt in public campaigns that ranged from land reform to anti-prostitution to Socialist Education. Mitter states that "the rhetoric of Maoist China was built on political certainty: the certainty of the Party. The mass campaigns did not allow for ambiguity or individualism, [which was] seen as self-indulgence" (Mitter, 2004:187-188). One of the first legislative acts of the CCP was the Marriage Law of 1950. While this law abolished the practice of arranged marriages and concubines, it also solidified the heterosexual family unit as the primary, acceptable sexual unit, the key unit in society (Sigley, 2006).

From 1966 to 1976, China experienced the Cultural Revolution. Among other things, this period was marked by stronger governmental control; discouragement of behaviour that was classified as superior, whether originating from advanced education, appreciation of the past or knowledge of and/or experience with the world outside of China; and "linguistic disorientation" (Mitter, 2004: 208). Linguistic disorientation refers to a change in the commonly

understood and agreed upon meaning of words and terms. Linguistic disorientation has a severe impact on all elements of life as expectations are no longer commonly held or met. During the Cultural Revolution discussions of sex, sexual health and sexuality were all taboo. The Cultural Revolution was marked by violence and instilled fear in many and ended with the death of Zedong Mao in 1976 (Mitter, 2004).

The period following the Cultural Revolution is referred to as post-Mao or the “new era”. The Tian’anmen Square incident in 1989 challenged the government’s control and direction, yet the CCP was able to maintain its power and control. It used several approaches to do so: controlled courting and acceptance of the West (including one unsuccessful and one successful bid for the Olympics); turning economic pursuits into political ones; encouraging education; and re-emphasizing Confucius and elevating him to the status of a great teacher. All these techniques allowed China to avoid serious civil unrest, the deleterious effects of the end of the Cold war and the fall of communist allies, and maintain control over the direction of the country both in terms of economy and politics (Mitter, 2004). This centralized and controlling nature of the Chinese government since 1949 set the stage for how HIV was addressed both by the government and the Chinese public.

3.2 HIV in China—Historic

The history of HIV in China can be traced through four distinct phases or stages: The first stage started on June 6th 1985 and lasted through 1988—the initial date marks the first documented case of HIV (in an Argentine tourist from

the United States of America) through to only a few cases. The second phase ran from 1989 to 1993; this phase focussed on four counties in Yunnan province, which is in the southwest adjacent to the Golden Triangle area along with Thailand and Myanmar. The third phase began in 1994 and ended between 1998 and 2000. During this period, there were documented cases of HIV and AIDS in every county, region and province in the country. China is currently in the fourth stage; there are between 600,000 and 800,000 people living with HIV, according to official records (Hyde, 2007; Naiqun, 2006; Zhang, 2004).

3.3 Confucianism and HIV

The Chinese belief in Confucianism and Confucian ethics has an impact on HIV prevention. One of Confucianism's primary conventions is the importance of marriage and reproduction. Marriage and reproduction are key as the main unit of production is the family and the most important relationship is the one between father and son. This means that sexual intercourse that occurs outside of these parameters is not viewed favourably (Trieze et al, 1996). Another concept that is prominent within Confucianism is the concept of "face" and maintaining face. Face is considered to be "...the public persona, dignity, or self-esteem" (Trieze et al, 1996: 90). People will go to great lengths in order to maintain both their own face and the face of others.

HIV involves many taboo topics. In addition to sexual activity and drugs being taboo topics, disease and death are, also, taboo. Many believe that talking about disease, illness or death is bad luck and could result in bringing it on or inviting it to occur (Kutcher, 2003; Trieze, et al 1996). The concepts of marriage,

reproduction and face are compromised in when considering HIV and its forms of transmission (shared use of needles and/or unprotected sexual intercourse with an infected person) as this forces acknowledgement of taboo topics and activities. To publicly talk about taboo topics makes maintaining “face” challenging. This is particularly the case with issues such as homosexuality, drug use and/or sex work (Kutcher, 2003).

3.4 The Chinese government, taboo topics and HIV

3.4.1 Chinese government’s grasp on information

As previously stated the first HIV diagnosis in China occurred in 1985, this corresponded with the initial post-Mao reform period. This period was still characterized by “the Maoist style of tight political and ideological control...” (Zhang, 2004:1161). As such, HIV was politically constructed as a disease of foreign decadence and questionable moral indulgence. China’s Confucian emphasis on sexual restraint was seen as a way to protect China against HIV and AIDS. Zhang states, “the policy framework, accordingly, was largely confined to tightened controls over national borders (e.g. compulsory HIV testing at airports arriving from abroad), as well as over information on AIDS” (Zhang 2004:1161).

China was slow to take action in regards to HIV and its transmission (Kutcher, 2003). The virus was being spread from 1990 to 1996 through dangerous practices associated with blood donation (for example, the use of unsterilized equipment and the pooling of blood cells that were then re-infused

into to donors to prevent anaemia) from both private and public clinics. The government was slow to halt this practice, has yet to prosecute any of the offenders and has been hesitant to publicize this practice, which could inform the public and prevent re-occurrences of an epidemic that was seen in some communities (Beyrer, 2003). During this same period, Chinese government officials began to make study tours throughout Asia to see how other countries were addressing HIV and AIDS. Programs like safer sex initiatives in Thailand and needle exchanges are models that were later adopted in some parts of China. In the latter part of the 1990s China held workshops and invited renowned experts on HIV and AIDS to address Chinese officials (Zunyou et al, 2007). However, it was not until 2001 that the Chinese government acknowledged HIV to be a serious health issue in China. Once this acknowledgement was made, the government began to dedicate resources to the issue by increasing the budget allocated to HIV from \$12.5 million in 2002 to \$185 million in 2006 (Gill & Oakie, 2007). Considering the significant role that the government plays in the lives of the Chinese, the government's inaction at either bringing HIV out into the public domain or placing much importance on HIV and AIDS was formative in how Chinese citizens have viewed the virus. As such HIV and AIDS are often considered the punishment for shameful activities (Kutcher, 2003).

3.4.2 Taboo topics

HIV and AIDS are associated with people and practices that are seen to be taboo or shameful. These include people such as drug users, prostitutes and homosexuals. Due to the social norms surrounding taboo topics and face, these

are people and subject matters considered to be unspeakable (Kutcher, 2003). One manner of addressing the unspeakable involves using euphemisms rather than directly naming activities. Kutcher explains that “prostitutes were never called such, instead they were called ‘flowers’, and visiting a brothel was called ‘admiring flowers’. Sex itself was referred to as the ‘clouds and the rain’” (Kutcher, 2003:283). This relates to the concept of face, by not talking about or referring to something directly there is the possibility that face can be maintained.

Sex workers or prostitutes in China are largely believed to be foreigners and/or ethnic minorities. A clear example is a region where the sex trade is emerging: Sipsongpanna Tai-Lue Nationality Autonomous Prefecture. There exist many assumptions about the indigenous cultural group, the Tai-Lue, and their cultural values. Hyde explains, “the underlying assumption was that the Tai are a loose and sexually uninhibited people (luanjiao) and that their sexual practices were leading to high rates of sexually transmitted infections (STIs) and now, HIV/AIDS.” (Hyde, 2007:7). Rather than focus on the fact that Sipsongpanna is increasingly popular as a sex tourism destination and therefore many of the women are employed in the sex trade, the characteristic is attributed to this minority group. They are considered to be promiscuous and therefore vectors of disease. There has been a tendency in China to link HIV with ethnic culture and perceived culturally specific behaviours; however the underlying factors are poverty and drug trafficking (Hyde, 2007). This perception by the Chinese that certain individual’s traits or characteristics place them at risk for HIV infection can be dangerous. It allows for the development of an “us and them”

dichotomy, which categorizes others at risk and neglects to acknowledge that activities are associated with risk and not groups of people. Ming emphasizes this situation when he wrote that “the public focus on ‘deviants’ as scapegoats in explaining the spread of the disease appears to have contributed to the belief among many in China that they are not at risk” (Ming, 2005:38).

3.5 Sexual Health and HIV prevention education

Sexual health education was brought into the middle-school curriculum in China in 1995 as “adolescent studies” (Hyde, 2007). This could have been in response to a significant increase in sexually transmitted infections (STIs). Hyde notes from the mid 1990s STIs were the third most frequent category of infectious disease, following dysentery and Hepatitis B, in spots one and two, respectively (Hyde, 2007: 156). The presence of STIs suggest that while non-procreative sexual activity outside of marriage is in violation of prominent Confucian values, it would appear to take place nonetheless (Zunyou et al, 2007). The implications for sex and HIV prevention education will be discussed later.

In a country as large and diverse as China standard sexual health and HIV prevention education would require the support and direction of the government. Zunyou et al highlight some of the biggest obstacles when they wrote that,

As with drug use, sexuality is not openly discussed in Chinese society and is therefore neither easily targeted by health promotion campaigns, nor has it traditionally been taught in schools. Even among university students, levels of AIDS knowledge and risk perception are alarmingly low (Zunyou, 2007:8).

Some believe that the sexual health and HIV prevention messages used in the West would not be suitable for a Chinese audience. The ideas of talking about sexual intentions and negotiating safer sex practices (such as condom use) would not be possible in light of the taboos and the concept of face (Treise et al, 1996).

3.6 HIV prevention initiatives

The first time that any comprehensive coverage of HIV in China appeared in the national press was in 1996 when the *Southern Weekend* newspaper ran a front page article about HIV and AIDS (Zunyou et al, 2007). Later in the decade HIV related public awareness attempts appeared in the media. In 1998 ads on buses in Guangzhou and in 1999 ads on the main government run stations for condoms... “were pulled after public criticism that they were in contravention of regulations banning advertisements relating to sexuality or obscenity” (Hyde, 2007:151-152). The ban on advertisement related to sexuality presents a significant obstacle to HIV prevention education.

In the area of HIV prevention education there have been attempts to decrease the stigma around HIV, especially for people living with HIV. Along this approach, high profile officials have used World AIDS day (celebrated globally on December 1st) to be publicly seen shaking hands with or visiting the homes of people who are HIV positive. The idea is to dispel myths about modes of transmission and break down stigma (Zunyou et al, 2007). However, the article *Educating the Masses on HIV* highlights the obstacles, in the form of government officials that still hamper HIV prevention messages and efforts. This article

highlights media sources that discovered high levels of fear, ignorance and stigma among Chinese officials about HIV and people who are HIV positive. This can partially explain why people do not want to get tested for HIV and HIV positive people do not want to disclose their status. As previously discussed, the Chinese government exercises a significant degree of power over and control of the public. The mixed messages that the government officials are sending have an impact on the ways that the Chinese public views HIV and AIDS.

3.7 HIV in China—Current

According to UNAIDS, approximately 650,000 people in China are living with HIV and AIDS (UNAIDS, accessed Sept 21 2007). This represents an adult (aged 15 to 49) prevalence rate of 0.1% (ibid). Some believe this to be a conservative estimate that reflects lack of HIV testing, stigma and ignorance on behalf of health care providers and government officials (Zunyou & Sullivan, 2006).

As HIV has only recently been seen as a serious threat, due in part to the relatively small number of reported cases, HIV was overlooked in funding, education and resource allocation. “Nonetheless, the officially confirmed HIV/AIDS cases still show an average of over 40 per cent increase per year since the 2nd half of the 1990s.” (Zhang, 2004:1156). Around this time, the mid to late 1990s, the Chinese government became more open in its acknowledgement of HIV and AIDS as an issue in China. In 2003, slightly more than 50 per cent of newly diagnosed HIV infections were attributed to transmission through intravenous drug use (Zhang, 2004:1158). For this same year, almost 23 per

cent of newly diagnosed infections resulted from tainted blood and in 18 per cent of newly diagnosed infections the transmission cause was unknown (Zhang, 2004: 1159). The acknowledgement of blood products being associated with transmission of a quarter of the cases is significant. This is a group that can be seen to be blameless, the victims of others. This has been the only group of HIV positive people that claim public sympathy and government support.

While it took the Chinese government until 2001 to acknowledge an AIDS epidemic in the country, it then acted relatively quickly. The national budget for HIV increased from \$12.5 million in 2002 to \$185 million in 2006—the same year that the Chinese Cabinet issued rules and regulations for HIV prevention and control (Gill & Oakie, 2007).

When the government and the media do represent HIV, the focus is on “deviants” as opposed to mainstream society. The “deviants” or groups at higher risk for transmission are homosexuals, injecting drug users and sex workers (Kutcher, 2003). Ming writes, “the 1998 State Council Long-Term Plan for HIV/AIDS Control emphasized ‘ensuring the safety of medical blood supplies, and clamping down on drug abuse and prostitution’ as the most important preventative measures in controlling the spread of the disease” (Ming, 2005:37). It is represented as HIV spreading from the “deviants” to mainstream and as such any prevention efforts are targeted at the “deviant” group. This results in no messaging to customers of sex workers or public education to students.

This focus on high risk or deviant groups allows for a scapegoat, a simple solution for people who want to believe that they are immune to HIV and are not

at risk (Ming, 2005). This can be a dangerous attitude for people to have and for the government to perpetuate.

4. CANADIAN HIV PREVENTION APPROACHES

4.1 HIV prevention intervention settings

HIV prevention interventions usually occur in two settings: the classroom and the public arena. The school-based environment is widely believed to be a valuable location for prevention interventions “since schools are the only formal educational institution to have meaningful contact with nearly every young person” (Boyce et al, 2003:17). The Society of Obstetricians and Gynaecologists of Canada, also, highlight the unique and important role that schools play in the delivery of sexual health education (SIECCAN, 2004).

A large study of over 11,000 students in Grades 7, 9 and 11 from schools across Canada was undertaken in 2002. It asked the young people questions on a variety of topics related to sexual health, one of which asked about source of information. The study found that school is the main source of sexual health information. The responses determined that “the greatest proportion of students indicate that they get information about HIV/AIDS from school rather than other sources” (Boyce et al, 2003:50).

Health departments and other governmental bodies, community-based organizations or regional and/or national non-governmental organizations usually organize public arena HIV prevention interventions. They can serve a variety of

purposes such as targeting a specific population to change their behaviours, decreasing stigma about HIV and AIDS, or encouraging the uptake of HIV testing. These interventions can be targeted at a specific population like campaigns seen across the country aimed at gay and bisexual men or they can be more broad-based. Due to the range of activities and factors involved in public arena HIV prevention interventions, it is difficult to comment on whether or not they are culturally appropriate and effective. Examining the connection between Chinese immigrants attitudes toward HIV and AIDS and public HIV prevention initiatives is beyond the scope of this paper.

4.2 School-based sexual health education

School-based sexual health education is not stand-alone. Most school-based interventions are designed to build on knowledge and information gained year after year from the school system, the home, and faith-based and other community groups (Weaver et al, 2002).

Across Canada, classroom-based sexual health education is regulated by the Ministries of Education; however, there is no national standard for which topics are covered in each course or grade from city to city of province to province. A national document, the *Canadian Guidelines for Sexual Health Education*, provides non-binding direction for the development, implementation and evaluation of sexual health education programs. The *Guidelines* identify schools as one of the key venues for sexual health education (Minister of Health, 2003).

British Columbia's Ministry of Education sets out curriculum guidelines with prescribed learning objectives for each grade and course offered. Learning objectives associated with HIV first appear in the Grade 8 curriculum for Health and Career Education. It can specifically be found under the eighth grade Health curriculum in the Healthy Living Section. One of the prescribed learning outcomes is for students to be able to "demonstrate an understanding of the consequences of contracting sexually transmitted infections including HIV/AIDS (e.g. symptoms, short-term and long-term health issues)" (Ministry of Education, 2005:20). It places a lot of emphasis on information, specifically increasing knowledge about sexually transmitted infections (STIs), potential symptoms of STIs, testing and treatment protocols, and prevention. In the ninth grade curriculum, HIV can be found in the same section with the objective to "assess the short-term and long-term consequences of unsafe sexual behaviour (e.g. unplanned pregnancy, sexually transmitted infections including HIV/AIDS, negative impact on future goals)" (Ministry of Education, 2005:21).

The topics of HIV and AIDS are also a part of the British Columbia's Ministry of Education's Planning 10 course curriculum, in the prescribed learning outcomes of the health decision section of the course. The learning outcome states that "it is expected that students will: analyse practices associated with the prevention of HIV/AIDS" (Ministry of Education, 2007:21). The document also lists some things that could indicate achievement of the objective, sited for this objective are to

accurately list behaviours that contribute to the spread of HIV/AIDS (e.g. unprotected sexual activity, using unclean needles, tattooing/body piercing with unclean needles, exposure to infected blood products) and [to] accurately identify practices that reduce the risk of contracting HIV/AIDS and sexually transmitted infections (e.g. abstaining from sexual activity, using safer sex practices such as proper use of condoms, testing for HIV)" (Ministry of Education, 2007:41).

Finally, HIV appears in the curriculum of one other set of courses: Career and Personal Planning 8 to 12. The prescribed learning objective related to HIV and AIDS falls under the Personal Development-healthy living section for each year. For each grade the prescribed learning objective is the same and it states that "it is expected the students will: demonstrate a knowledge of key lifestyle practices associated with the prevention of HIV/AIDS, sexually transmitted diseases, and other communicable diseases" (Ministry of Education, Skills and Training, 1997:16).

The curriculum from the courses previously outlined demonstrates the Province of British Columbia's requirements and goals toward HIV prevention intervention within the school system. These goals will be examined in relation to both Chinese immigrants attitudes toward HIV and AIDS in section 6 of this paper and HIV prevention approaches later in this section.

4.3 HIV prevention approaches

There are several different approaches that have been used when dealing with sexual health education. Some of the approaches are specifically used in HIV prevention interventions and others are used for a variety of health-based interventions (Fisher & Fisher, 1998). The approaches most commonly used in

regards to HIV prevention will be highlighted and include social cognitive theory, transtheoretical model, theory of reasoned action, and the information-motivation-behaviour model (Minister of Health, 2003; Fisher & Fisher, 1998).

4.3.1 Social Cognitive Theory

The Social Cognitive Theory (SCT) involves four key elements: the individual, a specific behaviour, the environment in which the behaviour takes place and the interaction between the preceding three. The theory emphasises that a change in any one of the first three elements, affects the other two. SCT also acknowledges the important role that accurate and relevant information places in effective interventions (Stewart et al, 1999). The Social Cognitive Theory is often applied to health interventions. It requires information that is related to one's vulnerabilities and to one's own ability. The next step involves behaviour by first developing risk reduction skills on an individual basis and then developing the individual's belief in his or her own ability to use the skills. This second part is often referred to as self-efficacy. The final part involves the environment and advocates for the use of peer support groups (Minister of Health, 2003; Stewart et al, 1999).

4.3.2 Transtheoretical Model

The transtheoretical Model (TM) identifies five phases that individuals will pass through in effective behaviour changing interventions. The first is a pre-contemplative stage when an individual may consider a situation or risk activity but has no intention of taking action or changing behaviour patterns. The second

stage is contemplation; this is when the individual thinks about taking action. The third stage is preparation, when steps are undertaken to get ready to take action. During this stage an individual's self-efficacy, or belief in one's own ability and skills, is the highest. The fourth stage is the action period, which consists of the act of doing. The final stage is maintenance; maintenance is achieved through consistent action or practice for a period of 6 consecutive months (Minister of Health, 2003).

4.3.3 Theory of Reasoned Action

Another approach that has been used in HIV prevention interventions is the Theory of Reasoned Action (TRA). This theory places focus on an individual's actual attitudes toward a given preventive behaviour. Attitudes are affected by perceived consequences or outcomes of an action. The next thing to be considered is the individual's perception of social norms towards the given preventive behaviour; this involves evaluating the perception of others' reaction to the action or behaviour. The final consideration in this theory focuses on the intention to employ the given preventive behaviour, which is influenced by self-efficacy and the previous two considerations (Minister of Health, 2003; Fisher & Fisher, 1998; Wong & Tang, 2001).

4.3.4 Information Motivation Behavioural Skills Model

A model that is frequently used when developing HIV prevention interventions is the Information-Motivation-Behavioural skills (IMB) model. The principles behind this model are that information will help individuals be more

informed about a specific topic or issue, motivation will help individuals to take action, and people must be equipped with the needed behavioural skills to put the information and motivation into practice. In order to be effective, all three elements must be interlinked. The information needs to be accessible, directly linked to the intended outcome and easily transferable into behaviour form.

When specifically considering HIV prevention, motivation comes in three different forms—emotional, personal and social. Behaviour involves both the actual skills and one's belief in one's own ability to use the skills, known as self-efficacy. This approach is seen as one of the fundamental requirements for sexual and reproductive health interventions that are effective in having an impact on behaviour change (Fisher & Fisher, 1998; McKay et al, 2001; SIECCAN, 2004).

“According to the IMB model, to the extent that individuals are well informed, highly motivated, and skilled, they are expected to initiate and maintain patterns of HIV preventive behaviour” (Fisher et al, 2002:178).

The IMB model identifies three stages of an intervention. The first involves performing research with the target population to assess or determine the existing knowledge base, attitudes and behaviour patterns. This information informs the second phase, which involves the design and implementation of a program that is geared toward the target population and that considers the data gathered in the first stage. The final stage is the evaluation stage to determine whether there was a significant impact on the intended outcome, whether or not there was a change in behaviour and if the change was the one that was anticipated (Fisher & Fisher, 1998; Fisher et al, 2002; McKay et al, 2001).

4.3.5 Common elements in the four approaches

There are some common elements among the prevention approaches that are frequently used in HIV interventions. While all four approaches operate from a basis of information, not all of them place the same emphasis on the relevance, interactivity or social environment of the information. Both the Social Cognitive Theory and the Theory of Reasoned Action identify the environment as a significant element in the interventions. The only common element that is present in all four approaches is self-efficacy, which is one's belief in one's own ability and skills to perform or participate in an intervention.

4.4 HIV prevention approaches and HIV prevention objectives in B.C. schools

The one common element, self-efficacy, is missing in all the objectives for HIV prevention offered in the various course curricula as outlined by the British Columbia Ministry of Education. The emphasis in most of the objectives explained earlier in this section is on information. The school-based HIV prevention education in B.C.'s schools is heavy on factual information and light on the interaction with one's environment, skills, and motivation, let alone culture. *Canadian Guidelines for Sexual Health Education*, which were produced by Health Canada, adhere to the Information-Motivation-Behavioural Skills model. This is an approach that has proven effective in HIV prevention interventions, which "should provide information that is relevant to sexual health behaviour, address the motivational factors that drive behaviour change, and teach specific behavioural skills that are required to effectively perform sexual health promotion

behaviours” (McKay et al, 2001:131). However, the objectives set out by British Columbia’s Ministry of Education places a strong emphasis on information, retaining and reciting information while almost ignoring the behaviour and motivation components. Unfortunately, the *Canadian Guidelines for Sexual Health Education* cannot be enforced; they merely compile best practices.

“Developmental research has shown that adolescents commonly deny or underestimate their personal susceptibility to STDs or HIV infection and may experience guilt over planning sexual intercourse. These developmental issues and attitudinal barriers, which may be reinforced within certain cultural groups, highlight the need for prevention programs that are more personal and targeted to specific minority groups. Unfortunately, few programs designed to promote sexual responsibility and prevent STD and HIV transmission have targeted interventions to meet the needs of minority adolescents” (Rodrigue et al, 1997:102).

5. MIGRATION PATTERNS

5.1 Metro Vancouver Demographics

As is shown in Figure 2, in 2005, 39,001 immigrants settled in Greater Vancouver Regional District (GVRD), now known as Metro Vancouver. Out of this total 15,688 came from China, which includes Mainland, Taiwan and Hong Kong. For the same period 917 of the 5,733 immigrants that settled in the rest of British Columbia also originated in China (BC Stats, accessed Jan. 25, 2007). In

comparison to the rest of Canada, Chinese immigrants arriving in 2005 are over-represented in the Metro Vancouver area. For all of Canada in 2005 there were 262,157 immigrants, 47,146 of this total number of immigrants originated from China (BC Stats, accessed Jan. 25, 2007).

According to the 2001 Statistics Canada census 1,986, 965 people resided in the GVRD (now called Metro Vancouver). The census asks people whether or not they are visible minorities; 342, 665 people self-identified as Chinese. Figure 3 shows that in the GVRD Chinese people make up the largest visible minority group, their number is more than double the next ethnic visible minority group: South Asians (Statistics Canada, 2001). While the statistics from the 2006 census are not yet available, Chinese immigrants continue to settle in Metro Vancouver. They represent a significant percentage of the population and are found in every community in the region.

5.2 Canadian HIV rates

Since May 2003, HIV has been a reportable disease in all Canadian provinces and territories. This means that all positive HIV test results are reported to the provincial or territorial centre for disease control, or equivalent governmental group. These figures are then recorded on a national level through the Public Health Agency of Canada (PHAC).

Table 2 and figure 4 show that by the end of 2005 HIV prevalence, the number of people living with the virus in Canada, was estimated to be 58,000 and the incidence, or number of new infections, is estimated to be between 2,300

and 4,500 (Public Health Agency of Canada, 2006). The prevalence figure represents a 16% increase from 2002 estimates, while the incidence rate has only increased slightly over the 2002 estimates, which range from 2,100 to 4,000. The actual number of new positive test results reported to the Centre for Infectious Disease Prevention and Control for the same year was 2, 483 (Public Health Agency of Canada, 2006: 4). It is noteworthy that there is a wide belief among public health officials and practitioners that up to 27% of people are unaware of their HIV positive status (Public Health Agency of Canada, 2006:10). This explains the gap between actual newly diagnosed positive HIV test results and the estimated incidence for 2005.

Approximately 18% of Canada's 2005 HIV prevalence resides in British Columbia, which is estimated at 10,420 individuals (Ministry of Health, 2005). It is noteworthy that about a quarter of this number is believed to be unaware of their positive HIV status. British Columbia's rate of 9.7 positive HIV cases per 100,000 people is higher than the national average of 7.7 for 2005 (Ministry of Health, 2005: 8). It is current protocol that pregnant women are encouraged to take an HIV test, in order to decrease the chance of vertical transmission (from the mother to the child). As the number of pregnancies vary from year to year, this number was removed from the total number of HIV tests in 2005 and there is an almost 5% increase over the number of tests administered in 2004 (Ministry of Health, 2005: 8). Ethnic data is not gathered for HIV tests administered; it is only recorded for newly diagnosed test results. In 2005, of the 410 newly diagnosed HIV positive individuals in British Columbia, 35 were identified as Asian. This

represents a concerning increase from the 30 newly diagnosed Asians in 2003 (Ministry of Health, 2005: 14). There is no evidence of a corresponding increase in the number of Asian individuals undertaking HIV testing. Tables 3 and 4 provide ethnicity data for newly diagnosed HIV positive test results in British Columbia by year from 2000-2006 year and cumulatively since 1995, respectively. As the results only illustrate the ethnic breakdown of newly diagnosed HIV positive test results and do not indicate the ethnic make up of all tests administered, the data represents only a partial picture.

6. IDENTIFYING GAPS IN CHINESE HIV ATTITUDES AND CANADIAN HIV PREVENTION INTERVENTIONS

6.1 Overview

This section looks at issues of Chinese immigration in Metro Vancouver as well as other Western nations, prevention interventions geared towards minority youth, the disconnect between the HIV prevention interventions currently offered and Chinese attitudes towards HIV, and then provides some recommendations.

6.2 Chinese Immigrants in Metro Vancouver

When Chinese immigrants come to Canada they bring with them their beliefs, values and attitudes. When adjusting to a new environment these beliefs, values and attitudes help to maintain a point of reference that are used to

interpret new situations. The fundamental beliefs, values and attitudes are a connection to their home country and are passed on to future generations. It can be difficult to determine how many of these family cultural connections are maintained in future generations and the degree to which acculturation occurs. According to Chiu et al, acculturation is “the psychosocial process of adapting to a new culture [which] is another important aspect of immigration, involving such challenges as learning new languages and norms for social interaction, wrestling new values and beliefs, and relating to family members who have chosen different modes of acculturation” (Chiu et al, 1992:206). Metro Vancouver has a vibrant Chinese culture, which is reflected in many forms. The active Chinese culture is portrayed through media, which boasts several Chinese language print, radio and television mediums as well as English language media geared at Chinese immigrants as well as Chinese Canadians. Chinese forms of entertainment ranging from karaoke to Mandarin and Cantonese movies can be found throughout Metro Vancouver. Finally, several non-profit social service groups, business associations and service clubs exist that tailor to Chinese immigrants. All these various elements of society aimed at Chinese immigrants and Chinese Canadians would suggest that a unique culture exists and that acculturation is not complete.

Shi and Lu (2007) looked at adolescents and young adult second-generation Chinese Americans to assess links between bilingual and bicultural development. The study found that, while the younger study subjects struggled with language and cultural identity, the older subjects had gained an appreciation

for their Chinese language and values. The older participants and their families made more of an attempt to retain their cultural identity. This could offer some insight into the extent of Chinese culture in Metro Vancouver, which is easily found and embodied through media, entertainment, and community.

Rosenthal and Feldman (1990) conducted comparative studies between Chinese immigrants in Australia and the United States of America (USA) and control non-immigrant groups in each country as well as in the home country, Hong Kong, China. Some of the results might be useful in understanding Chinese immigrants' attitudes in Metro Vancouver. Canada can be classified with countries such as Australia and the USA, all of which are societies that tend towards individualism and self-interest. In contrast, Hong Kong and the rest of China are viewed as favouring collectivism and the interests of the group or family unit. The Feldman and Rosenthal study looked at perceptions of family functioning from the perspective of the adolescent family members and found that perceived changes were not significant. While there were some areas where the immigrant families were more similar to the "host country" families (for example, involvement in extra-familial activities), there were other areas that more closely resembled the country of origin families (for example, they were perceived as structured and controlling families). The results indicate that the process of immigration and acculturation is complex. It is difficult to determine whether and to what extent changes in attitudes and behaviours will take place. This is especially difficult to determine when considering core values and moral beliefs that are attached to topics such as HIV and AIDS.

One Vancouver-based study can shed light onto Chinese immigrants' attitudes and beliefs after coming to Canada. This study focused on 23 foreign-born Chinese high school students who attended a high school where Chinese students were the majority of the population. The students found it easy to reconstruct their Chinese life in Vancouver. The study participants observed that the ease of recreating their Chinese lives had both the advantage and disadvantage of eliminating the need to adopt "Canadian culture", resulting in friendship circles mainly consisting of other Chinese immigrants, and hindering English language acquisition. While this study did not address issues of sexuality and HIV, one of the respondents stated that Canadian mainstream culture was more open than Chinese, specifically in regards to sexual orientation (Minichiello, 2001). This study provides insight into how Chinese attitudes can easily be maintained, unquestioned and unchanged, after immigration to Canada.

This can be extremely challenging in regards to HIV prevention. The struggles and challenges of immigrating to a new country can lead people to become vulnerable to HIV. This vulnerability could include financial need leading to engaging in sex work, isolation and/or peer influences leading to injecting drug use, or language barriers which could result in unsafe sexual activities. As the transmission of HIV is 100% preventable, it is important for HIV prevention efforts to speak to and resonate with Chinese immigrants. However, as this paper has highlighted, this is currently not the case.

Relevant HIV prevention intervention is important to Chinese immigrants and to all Canadians. As previously mentioned, HIV is a 100% preventable

communicable disease. It has life-long health, social and economic implications for individuals who are HIV positive, their families and their communities. An individual who is unaware of their HIV positive status can transmit the virus on to others through both activities that are considered risky (unsafe sexual or injecting drug use practices) and commonplace (childbirth). People who are aware of their HIV positive status may not seek medical attention due to the stigma and discrimination they face from their communities. In these cases, the person's health status can deteriorate which is associated with increased health care burden. When Chinese immigrants lack access to relevant HIV prevention interventions, it could have a negative impact on the greater community through the resulting health, social and economic impacts.

6.3 HIV prevention interventions geared to minority youth

There have been some studies on how HIV prevention and other sexual health interventions affect majority and minority youth. As these studies have been performed in the United States of America, the focus is on Caucasian, African American/Black and Hispanic youth. The author was not able to find any studies on the impact of school-based HIV prevention interventions geared towards Chinese or Asian youth. This points to a serious gap in research and resulting HIV prevention interventions. However, there is some information that can be gleaned from studies done with African American/Black and Hispanic minority students.

The studies of the unique circumstances in regards to HIV prevention of minority young people highlight differences in initiation of sexual activity, number

of sexual partners, and estimated STI (including HIV) incidence among African American/Black, Hispanic and Caucasian youth. The first two groups tend to initiate sexual activity earlier than the latter, as well as having more sexual partners. Early initiation of sexual activity and multiple partners are risk factors for HIV transmission (McKay, 2004; Rodrigue et al, 1997). In the United States of America, African American/Black youth are diagnosed with HIV at higher rates than Caucasian youth. In *Health Promotion in Minority Adolescents*, Rodrigue et al provide a few examples of effective HIV interventions geared toward minority youth. This includes interventions that make use of a multiethnic cast in an educational video, using facilitators of the same ethnic and/or cultural groups, and comic book format written in the same kind of verse used in rap music. Follow up results from these interventions showed that the youth engaged in the interventions had higher levels of knowledge and/or safer sex practices than the control group of youth (Rodrigue et al, 1997). This shows that it is possible to employ effective targeted interventions. It also suggests that understanding culture and ethnic background as well as incorporating this knowledge into HIV prevention interventions can have a positive impact on creating and implementing effective, targeted interventions to specific populations.

One of the key elements required for HIV prevention geared toward minority youth is to “pay attention to cultural values, religious beliefs, and social customs as well as to language and communication styles of participants” (Rodrigue et al, 1997:99). When using videos as educational tools it is important for the youth to see people who look, act and speak like they do.

Rodrigue et al highlight the importance of culturally responsive HIV prevention interventions for youth.

Developmental research has shown that adolescents commonly deny or underestimate their personal susceptibility to STDs or HIV infection and may experience guilt over planning sexual intercourse. These developmental issues and attitudinal barriers, which may be reinforced within certain cultural groups, highlight the need for prevention programs that are more personal and targeted to specific minority groups. Unfortunately, few programs designed to promote sexual responsibility and prevent STD and HIV transmission have targeted interventions to meet the needs of minority adolescents (Rodrigue et al, 1997:102).

This especially appears to be the case for Asian minority youth.

6.4 Chinese attitudes

As previously outlined, within the Chinese culture the concept of face plays a significant role. This involves both respecting cultural norms of what is considered taboo as well as subscribing to a rigid ordering of the world. Within this ordering sexual activity should occur in the context of marriage for the purpose of reproduction. While this is not always the circumstance under which sexual activity occurs, talking about non-procreative sexual activity within or outside of the context of marriage violates the concept of face. It requires people to publicly acknowledge an act that is not supposed to occur. This acknowledgement can involve discussion, the provision of information and planning activities. This is one of the challenges that Chinese immigrants face in school-based HIV prevention education.

Two key elements of Canadian school-based HIV prevention interventions are self-efficacy and the Information-Motivation-Behaviour Model. The concept

of self-efficacy plays a central role in all the leading HIV prevention models. Self-efficacy refers to confidence in one's own ability to do something. This can be particularly challenging for Chinese immigrants on a variety of levels. The school-based HIV interventions primary focus is on information and doesn't look at how culture impacts the acquisition of information and knowledge. Another challenge is that school-based HIV prevention interventions are supposed to supplement learning that happens in the home. As discussions around sexuality are in violation of Chinese attitudes in regards to face and taboo topics, HIV prevention learning is not likely to happen in the homes of Chinese immigrants. They would have to overcome Chinese cultural beliefs in discussing and planning taboo topics, and are in flagrant opposition to the concept of face. These are all elements that are reinforced in the home setting.

The other key point to interventions is highlighted through the three stages of the IMB model: research, design and implementation, and evaluation. The first stage of this model is the most relevant to Chinese immigrants as it involves research. Research into Chinese immigrants attitudes would then inform the design and implementation of HIV prevention interventions. This would allow the concepts such as face and Chinese views of sexuality to be considered. It is not impossible to develop interventions with these considerations in mind. It involves creative and alternative approaches to be employed. However, there is no evidence to suggest that the research has or is occurring in any systematic way.

Finally, in British Columbia the objectives of HIV prevention interventions focus on information. The approach taken emphasizes risk activities and

behaviours. This information needs to be shared with students' family members. The education approach cannot assume that the family members already possess the information. There needs to be a way to acknowledge that the family members of Chinese students are often immigrants and do not share the same knowledge foundation that the objectives of the education is attempting to develop.

6.5 Recommendations

The primary recommendation is that more research is needed. While some research exists on Chinese immigrants to Western countries in regards to economics, schooling preferences and habits, and family perceptions, little research has been conducted and published about changing cultural attitudes and beliefs and the impact they have on daily lives. This is especially important in consideration of sensitive or taboo issues such as HIV, illness and sexuality.

Acknowledging Chinese immigrants' attitudes toward HIV and sexuality could go a long way into designing and implementing HIV prevention interventions that are relevant to a wide range of young people. Some of the following recommendations could be easy to incorporate and apply to a wide range of students, both minority and majority. These recommendations will have a significant impact in reducing HIV risk and maintaining health.

The first step in developing HIV interventions that are responsive to the needs of Chinese immigrants is conducting additional research. Designers of HIV prevention curriculum need to understand the unique attitudes of Chinese

immigrants toward issues of sexuality and, specifically, HIV. This research would help inform the design of culturally appropriate HIV prevention intervention.

As with HIV interventions geared toward African American/Black and Hispanic minority youth in the USA, local interventions could be designed to attract and include the realities of Chinese youth. Their images and stories could be included in the interventions. As with the other minority youth, relevant popular culture, such as karaoke or Asian popular music, could be incorporated into the interventions.

An emphasis on risk activities rather than groups of at risk individuals, such as sex workers and injecting drug users, needs to be placed on HIV education geared towards Chinese immigrants. This emphasis can counteract the predominant Chinese view that only certain groups of people contract HIV. The tendency to focus on at risk groups can make people feel that they are immune to HIV if they are not injecting drug users or sex workers.

Finally, the family unit is the key unit in Chinese society. School-based HIV prevention intervention must consider and acknowledge this primary unit by including families in interventions. Parents and family might not have access to the information that Chinese students are getting in school-based interventions and they may not be receptive to currently used methods. Incorporating families into the HIV prevention interventions could increase its effectiveness. While this can be a challenging approach it will increase the likelihood of success.

Incorporating the significance of Chinese families into HIV prevention interventions would require creative and, possibly, time-consuming techniques. The reluctance of Chinese families to discuss sexuality, HIV and other taboo topics needs to be acknowledged and considered when developing approaches. An assets-based approach could honour the values of Chinese immigrants: family, established relationships and the concept of face. Rather than focusing on elements that are considered negative like preventing HIV, this approach could emphasize assets, or positive concepts, like maintaining good health, keeping family units strong and interacting safely with the non-immigrant community. This type of approach could be a more acceptable format for the delivery of information about safer sex practices and injecting drug use. Another approach that could respect the attitudes, beliefs and values of Chinese immigrant families would be to incorporate the HIV prevention information with other public health information. Information related to HIV and sexuality could be one of several health concerns addressed. This could help normalize the information while respecting the concept of face. In order for Chinese immigrants to accept HIV prevention interventions, family beliefs and attitudes need to be considered and respected.

7. CONCLUSION

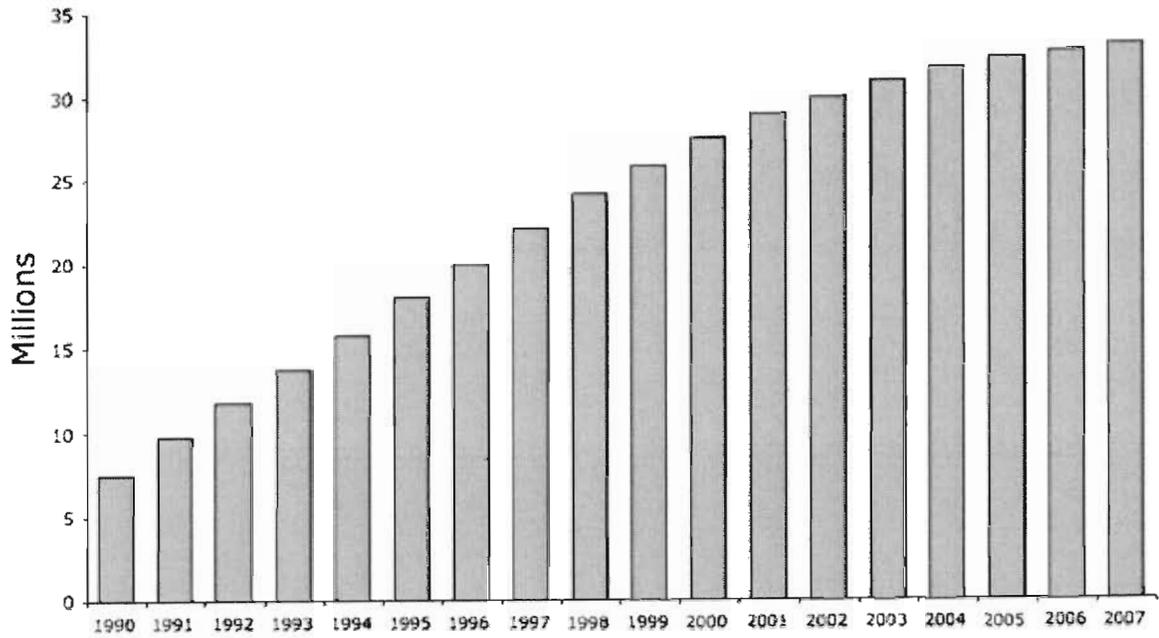
In an increasingly interconnected global environment, issues of immigration and disease must be addressed. Just as national borders have no relevance to disease, the concept of Canadian national attitudes and beliefs is losing relevance. In a community such as Metro Vancouver where immigration has a significant impact in shaping the society, a closer look at immigrants is needed. Chinese immigrants have specific views in regards to sexuality, which inform their attitudes toward HIV. When Chinese people immigrate to Canada, they bring these views and attitudes with them. More research into Chinese immigrants' attitudes toward HIV is needed in order to develop effective HIV prevention interventions. Some of the areas that need to be considered is the context under which sexual intercourse should occur, in heterosexual monogamous marriages, and the concept of face. Attitudes toward people who engage in high risk behaviours such as drug use and the sale of sex needs to emphasize the risk activities and not the characteristics of the individuals.

Current school-based HIV prevention interventions operate on the assumption that various forms of education are happening and working together (in the home, schools and communities). However, since the home/cultural element is working against the school-based one and the community one is generally not targeted to Chinese immigrants, different approaches are needed—both in quantity and quality.

With the changing demographics of many communities, mainstream educational approaches can no longer continue to be the status quo. HIV prevention interventions need to accommodate the cultural needs and existing attitudes of immigrants in order to be effective. If these considerations are not made, HIV incidence rates among Chinese immigrants will likely increase. With the health, social and economic implications associated with HIV infection, it is safe to say that such an outcome would be in no one's interest.

APPENDICES

Appendix A: Figure 1 HIV Global Trends



Number of people living with HIV and AIDS

Source: UNAIDS, December 2007.

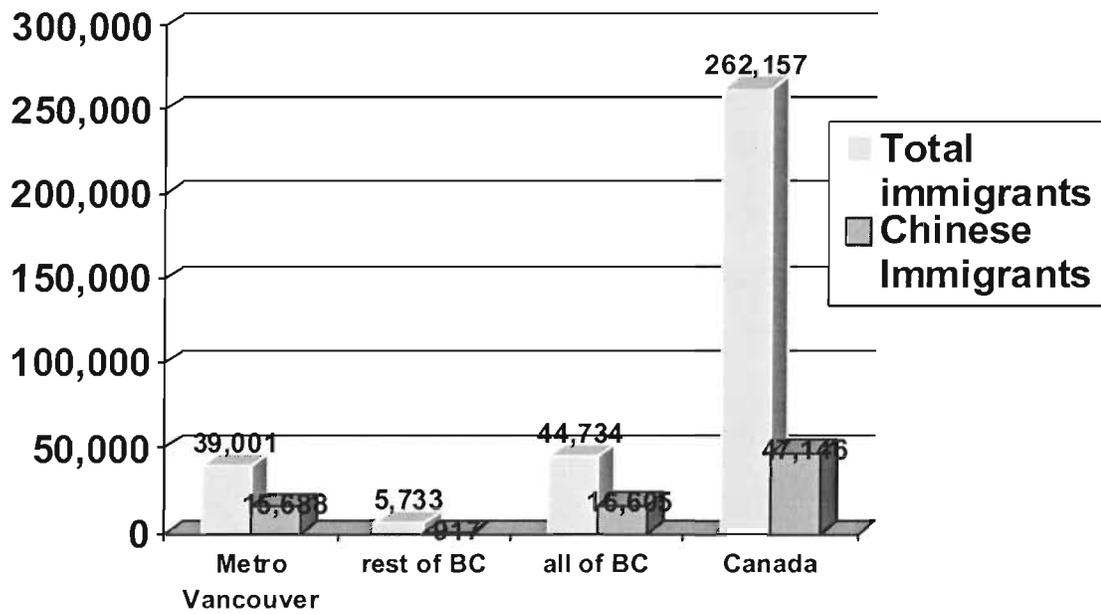
Appendix B: Table 1 Global Summary of AIDS Epidemic

	Estimate	Range
People living with HIV/AIDS in 2007	33.2 million	30.6-36.1 million
Adults living with HIV/AIDS in 2007	30.8 million	28.2-33.6 million
Women living with HIV/AIDS in 2007	15.4 million	13.9-16.6 million
Children living with HIV/AIDS in 2007	2.5 million	2.2-2.6 million
People newly infected with HIV in 2007	2.5 million	1.8-4.1 million
Adults newly infected with HIV in 2007	2.1 million	1.4-3.6 million
Children newly infected with HIV in 2007	0.42 million	0.35-0.54 million
AIDS deaths in 2007	2.1 million	1.9-2.4 million
Adult AIDS deaths in 2007	1.7 million	1.6-2.1 million
Child AIDS deaths in 2007	0.33 million	0.31-0.38 million

Source: UNAIDS, December 2007.

Appendix C: Figure 2 Total immigrants and immigrants of Chinese descent

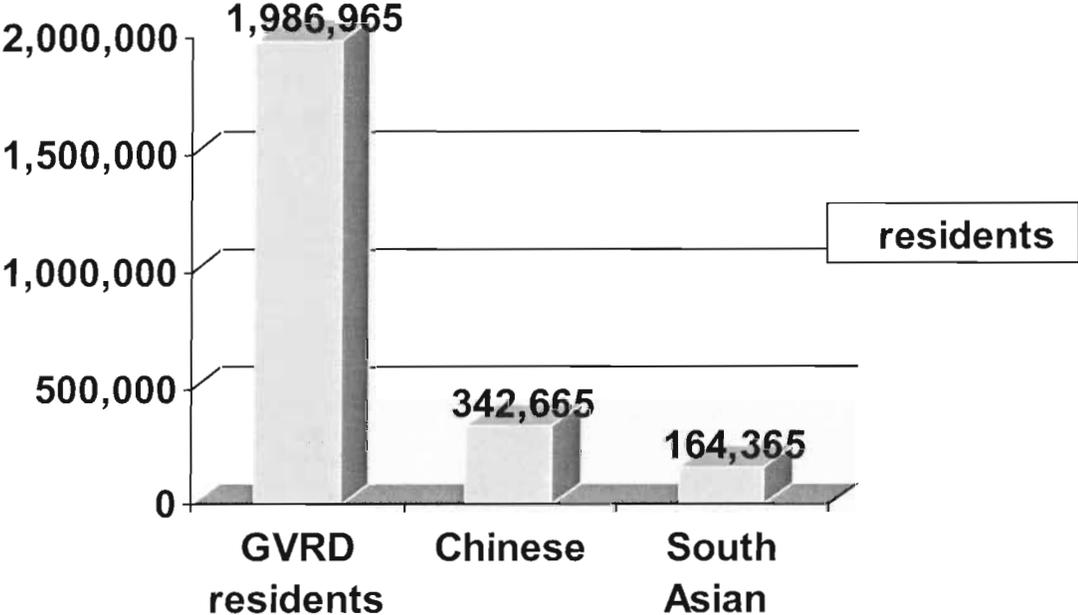
2005



Source: BC Stats, 2005

Appendix D: Figure 3 Metro Vancouver Demographics

2001 census



Source: Statistics Canada, 2001 Community Profile, Vancouver (Census Metropolitan Area).

Appendix E: Table 2 Number of positive HIV test reports in Canada by year of test

All ages^{1, 2}

Year of Test	Number reported to CIDPC*
1985-1994	33,004
1995	2,992
1996	2,790
1997	2,512
1998	2,338
1999	2,231
2000	2,114
2001	2,176
2002	2,496
2003	2,495
2004	2,547
June 2005	1,234
Total	58,929

¹ Annual data not available for positive HIV test reports prior to 1995 for all jurisdictions.

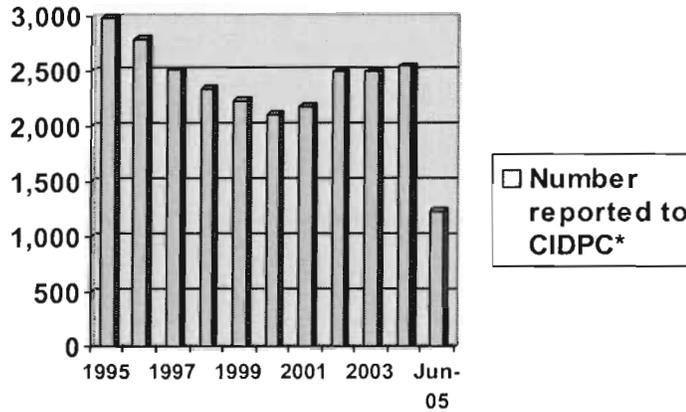
² Positive HIV test reports from Ontario (starting in 2000), Quebec and British Columbia exclude positive serology results for cases under 2 years of age.

* Centre for Infectious Disease Prevention and Control (CIDPC), Public Health Agency of Canada.

Source: Public Health Agency of Canada, 2005

Appendix F: Figure 4 Number of positive HIV tests in Canada by year of test

1995-June^{1,2}



¹ Annual data not available for positive HIV test reports prior to 1995 for all jurisdictions.

² Positive HIV test reports from Ontario (starting in 2000), Quebec and British Columbia exclude positive serology results for cases under 2 years of age.

* Centre for Infectious Disease Prevention and Control (CIDPC), Public Health Agency of Canada.

Source: Public Health Agency of Canada, 2005

Appendix G: Table 3 Persons testing Newly Positive for HIV by ethnicity and year of testing in British Columbia

2000-2006

Ethnicity	2000	2001	2002	2003	2004	2005	2006	TOTAL
Caucasian	252	273	267	256	295	263	218	1,824
First Nations	56	63	59	57	60	54	50	399
Inuit	2	-	1	1	-	-	-	4
Metis	1	3	4	8	10	5	2	33
Asian	19	12	19	14	14	19	16	113
South Asian	5	14	23	16	11	14	10	93
Black	18	23	15	24	19	17	16	132
Hispanic	8	10	21	13	11	16	14	93
Arab/West Asian	-	2	3	-	2	1	2	10
Other/Mixed Race	3	-	1	1	4	1	2	12
Unknown	36	20	5	19	15	11	30*	136
Total	400	420	418	409	441	401	360	2,849

* For 2006, not all ethnicity data was available at the time of this publication and thus these HIV cases were noted as “unknown”. As this ethnicity data becomes available it will be published in future reports.

Since 2002, ethnicity is no longer captured on the HIV requisition form. For this reason, the number of HIV tests performed is not longer published in the HIV tables associated with ethnicity.

Source: Hagg et al, 2007: 18.

Appendix H: Table 4 Persons testing newly positive for HIV in British Columbia by ethnicity

Cumulative, 1995-2006

Ethnicity	Males	Females	Unknown	TOTAL
Caucasian	2,874	561	11	3,447
First Nations	450	366	5	822
Inuit	4	1	-	5
Metis	34	19	-	53
Asian	166	18	-	184
South Asian	122	30	1	153
Black	129	87	1	217
Hispanic	153	13	1	167
Arab/West Asian	12	4	-	16
Other/Mixed Race	8	4	-	12
Unknown	449	101	14	564
Total	4,401	1,204	33	5,640

Source: Hagg et al, 2007:18.

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