

**Theatre-Based Peer Education for Youth:
A Powerful Medium for HIV Prevention, Sexuality Education and Social Change**

by

Josephine Margaret MacIntosh
B.A., University of Victoria, 1997

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

in the Faculty of Graduate Studies (Social Sciences)

Interdisciplinary Studies

© Josephine MacIntosh, 2006
University of Victoria

All rights reserved. This thesis may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.

**Theatre-Based Peer Education for Youth:
A Powerful Medium for HIV Prevention, Sexuality Education and
Social Change**

by

Josephine Margaret MacIntosh

B.A., University of Victoria, 1997

Supervisory Committee

Dr. Aaron H. Devor (Department of Sociology)

Supervisor

Dr. Bonnie Leadbeater (Department of Psychology)

Member

Dr. Bram Goldwater (Department of Psychology)

Member

Dr. Peter Stephenson (Department of Anthropology)

Member

Dr. Cydelle Berlin (St. Luke's-Roosevelt Hospital Center, NY)

External Examiner

Supervisory Committee

Dr. Aaron H. Devor (Department of Sociology)

Supervisor

Dr. Bonnie Leadbeater (Department of Psychology)

Member

Dr. Bram Goldwater (Department of Psychology)

Member

Dr. Peter Stephenson (Department of Anthropology)

Member

Dr. Cydelle Berlin (St. Luke's-Roosevelt Hospital Center, NY)

External Examiner

Abstract

HIV/AIDS continues to challenge prevention, care and treatment efforts and presents an increasingly urgent and potentially catastrophic threat to population health. In the context of prevention, this fatal sexually transmitted infection (STI) underscores the importance of providing youth (the fastest growing risk group) with adequate information, motivation, behavioural skills, and access to resources that support the achievement and maintenance of sexual health across the lifespan. However, youth have proven to be a difficult audience to reach, particularly with educational programs that approach adolescent sexuality from an adult frame of reference, one that often stresses the negative aspects of human sexuality. Yet many of the tasks associated with a successful transition into adulthood and social integration depend upon the ability to initiate and maintain long-term, intimate sexual relationships. Using a case study methodology, this research—which was conducted in British Columbia, Canada—investigated the potential effects of an innovative theatre-based, peer-led HIV prevention/sexuality education program on four groups of high school students and the peer leaders.

The potential of theatre-in-education was examined to determine if this format would engage youth audiences—and keep them engaged—and if it would have a positive impact on self-reported confidence in performing risk-reduction behaviours. The results from the four case studies strongly suggest that peer-led theatre presented in conjunction with peer-led discussion has the potential to not only engage youth between 12 and 17, but to also increase self-reported confidence in their ability reduce risk. In two of the cases, engagement was high and constant; while the two other cases demonstrated that the format has a strong potential for drawing more reluctant audiences into discussions over time. In all cases, confidence reportedly increased. Further to this, audiences reported gains in knowledge, improvements in behavioural and communication skills, and increased motivation to use condoms and to access sexual health care. In addition, and perhaps most importantly, there were reports of increased communication about sexual health issues, the development of greater compassion and tolerance, along with the desire to avoid stigmatizing HIV-positive individuals and sexual minorities. The peer leaders reported comparable effects.

Given that stigma has been identified as the most persistent barrier to HIV/AIDS prevention, care and treatment, embedding peer-led theatre programs—focused on sexuality and HIV prevention—into currently existing theatre arts curricula within the public school system offers a powerful and cost-effective means of providing comprehensive sexual health education. It would be shrewd (from both a social and economic perspective) for education ministries and school districts to capitalize on the positive aspects of adolescent peer networks and youths' natural tendency to learn from one another. This research, while based on informed judgment, adequacy and plausibility rather than on the gold standard of a randomized control trial, arguably provides initial evidence that the theatre-in-education format is worthy of implementation on a wider scale. Investing in the set-up, maintenance and rigorous evaluation of peer-led theatre-in-education programs which focus on sexuality has the potential to normalize safer sexual practices and improve population health, for this generation and generations to come.

Keywords: HIV prevention, peer education, youth sexuality, theatre education, case study, stigma, social norms, population health

Table of Contents

Supervisory Page	ii
Abstract	iii
Table of Contents	v
List of Tables	vii
List of Figures	viii
Acknowledgments	ix
Dedication	x
Chapter 1: Introduction	1
1.1 Research Purpose	8
1.2 Definitions of Key Concepts	10
1.3 Organization of the Dissertation	10
Chapter 2: HIV/AIDS - A Primer	12
2.1 The Discovery of HIV/AIDS	12
HIV	14
2.11 The Causal Debate: Does HIV cause AIDS?	15
2.12 Where Did the Virus Come From?	19
2.2 The Epidemiological Findings	21
2.21 Virus Types	21
2.22 Infectivity and Incubation Periods	22
2.23 Stages of Infection	23
2.24 Transmission Networks	25
2.25 Patterns of HIV Transmission	26
2.26 Risk Groups and Risk Behaviours	26
2.27 HIV & Women	32
2.3 An Epidemic of Stigma	36
2.31 The Nature of Stigma	39
2.32 The Nature of Epidemics	50
2.33 How Stigma Influences Epidemics	55
2.34 Reducing Stigma, Improving Public Health	58
Chapter 3: A Review of HIV Prevention/Sexuality Education Literature	63
3.1 The Developmental Perspective	64
3.2 A Focus on Youth	70
3.3 Effective HIV Prevention Programming	73
3.4 Sex-Positive Education	74
3.5 Models of Behaviour Change	75
3.51 Individual-Level Models of HIV Prevention	75
3.52 Social-Level Models of Change	90
3.6 Peer Education	94
3.7 Theatre-in-education	96
3.8 The Theories in Context	104
3.9 A Word about Evidence	107
Chapter 4: Methodology and Research Procedures	112
4.1 Co-creation of the Play	112
4.11 The Vision	114
4.12 The Group	119

4.13 Developing the Script	120
4.14 Synopsis of the Play	128
4.15 Introduction to the Characters in the Play	128
4.16 Setting and Structure of the Drama	130
4.2 Method	135
4.21 Engagement Measures	139
4.22 Confidence Measures	142
4.23 Actor/Peer-Educators' Experiences	143
4.3 Data Analyses	144
4.31 Quantitative Analyses	145
4.32 Qualitative Analyses	145
Chapter 5: Results	147
5.1 Engagement – Preliminary Findings	154
5.2 Confidence – Preliminary Findings	158
5.3 Case Studies	164
5.31 Case 1	164
5.32 Case 2	167
5.33 Case 3	169
5.34 Case 4	171
5.4 Case Comparisons	174
5.5 Supplementary Analyses	176
5.6 Actor/Peer-Educator Experiences	178
Chapter 6: Discussion and Conclusions	185
6.1 Overview of the Findings in Relation to the Research Questions	186
6.11 Was the program engaging?	186
6.12 Did it Increase Confidence and Relate to Real Life?	189
6.13 Supplemental Analyses of Age and Gender	192
6.14 Did It Have a Positive Effect on the Actor/Peer-Educators?	196
6.2 The Findings in Theoretical Context	198
6.3 Limitations, Implications and Recommendations for Future Research	207
References Cited	216
Appendix A – Ethics Approval	239
Appendix B – Instruments	240
Appendix C – Consent Forms	245
Curriculum Vitae	250

List of Tables

Table 1 <i>School type, grades and average number involved in the program each week.</i>	150
Table 2 <i>Number of surveys collected each week from each group</i>	151
Table 3 <i>Group characteristics by case</i>	153
Table 4 <i>Engagement by weekly topic</i>	157
Table 5 <i>Case comparisons of self-rating of confidence by weekly topic</i>	175

List of Figures

Figure 1 <i>Overall engagement during Q &A sessions (Weeks 1 to 3 only)</i>	155
Figure 2 <i>Interaction during question-and-answer sessions (Weeks 1 to 3 only)</i>	156
Figure 3 <i>More or Less Confident than Before?</i>	159
Figure 4 <i>Self-rating of confidence by topic (sample means)</i>	161
Figure 5 <i>Case comparisons of percent engaged</i>	174
Figure 6 <i>Case comparison of frequency of interaction</i>	175
Figure 7 <i>Reported level of confidence by week by gender</i>	177

Acknowledgments

I am extremely grateful to the many individuals, groups and organizations which have supported my academic journey. Foremost, I wish to express my deepest appreciation of my academic supervisor **Dr. Aaron H. Devor** (Sociology) for his encouragement, guidance, unwavering support, and computer password. A true mentor in all senses, Aaron opened the door to interdisciplinary study and challenged me to follow my passion. His keen insight, constructive criticism and strong, yet gentle nature have inspired within me a commitment to excellence that moves beyond the academic. I also greatly appreciate the members of my supervisory committee: **Dr. Bram Goldwater** (Psychology) for keeping me on my toes and providing additional stimulus with each response, **Dr. Bonnie Leadbeater** (Psychology) for diagnosing my *gradstudentitis* and pointing out the forest when I was lost in the trees, and **Dr. Peter Stephenson** (Anthropology) for his benevolent ways of keeping me on the up-and-up. I am also very grateful to **Dr. Cydelle Berlin** (St. Luke's-Roosevelt Hospital) for her inspiration and participation in my oral examination. Cydelle was—unbeknownst to her—the muse, and in her role as my external examiner she became the magical friend who truly brought the research *full circle*. I sincerely thank you Cydelle—and many blessings to your new grandbaby!

The success of the *Full Circle* project was a product of the passion of many and I deeply appreciate the dedication, insight, courage, resourcefulness and motivation of those involved in the co-creation of the play. I sincerely thank: **Lidia D'Angelo** for her spirited enthusiasm and expertise in developing and mounting co-created theatre; **Ashley Dryburgh**, **Aubrie Karagianis**, **Tabetha Telford**, and **Dane Loucks** for their inspired work on script and stage; **Shar Kolic** and **Erik Osberg** for fostering early incarnations of Kevin; **Ryan Morley**, **Katherine Mackey**, **Dave Stansfield**, **Jen Quinn**, **Tony Yip**, and **Liz Dunsmore** for not only embodying the characters, but infusing them with life. I also sincerely thank my light man **Dan Fehr** and my invaluable research assistants **Kristin Lozanski**, **Danielle Prevost** and **Dan Rubin**. Thanks also to **Tom Woods** and the **Rock Solid Foundation** and the students, teachers and school administrators.

I am grateful to the **Vancouver Island Health Authority** (community project grant), the **Sara Spencer Foundation** (research award for applied social sciences), the **Planned Parenthood Federation of Canada** (Norman Barwin scholarship), and the **Michael Smith Foundation for Health Research/BC Medical Services Foundation** (doctoral fellowship in population health) for their generous funding. Special thanks to the faculty and students of the **Kinsey Institute for Research on Sex, Gender, and Reproduction** summer institutes for the invaluable training and endless inspiration, especially **Dr. J. Dennis Fortenberry**, **Dr. Bill Yarber** and **Dr. Cynthia Graham**. Many thanks also to **Dr. Dave Berry** (Learning and Teaching Centre), my **earlier mentors** at UVic and Camosun College, and to the sociology department secretaries **Zoe**, **Lisa**, **Ronna** and **Carole Rains** for their administrative expertise—with a special tip of the hat to Carole for the moral support!

In addition, I would like to express my deepest appreciation for my family and friends. Heartfelt thanks to: my mother **Beth** for never losing faith in me, my sister **Janet** for being my own personal cheerleader, my two incredible daughters **Liz** and **Allie** for being there to keep my priorities straight, and the **Winquist** and **Sommer** kin, especially my cousin **Jim Winquist** and his wife **Crystle** for always welcoming us with open arms, a proud smile, and a prairie sunset, and their sons **Bart**, **Curtis**, **TJ** and **Travis** for always looking out for my girls (whether that meant getting them into or out of trouble!). Special thanks to the numerous friends and colleagues both new and old who have assisted me in reaching this destination. Cheers to: **Dan**, **Debra**, **Jen**, **Michele**, **Sheena**, **Lynn**, **Gene**, **Marian**, **Linda**, **Susan**, **Bill**, **Helen**, **Wayne**, **Deb**, **Brenda**, **Daniel**, **Gary**, **Traci**, **Dave**, **Lisa**, **Brian**, **Greer**, **David**, **Roselyn**, **Ashala**, **Stewart**, **Paul & the Stats Cats**, **Paul B**, **Rachel**, **Murray**, **Dana** and **everyone else** I have not mentioned by name... you know who you are!!

Dedication

For my daughters, Elizabeth Alessandra & Allison Nicolle

aka

Miss Why and Miss How

You are the love and the light and the reason for this work. Thank you for inspiring me to seek answers to questions I may otherwise never have asked.

I adore you both... even when you are rolling your eyes at me!

Chapter 1: Introduction

As far as is known, in most places and at most times in human history, human sexuality has been central to social interaction. It has been speculated that the meaning given to sexual relationships changed significantly when males discovered their part in conception (Tannahill, 1992). To skip the next 10,000 years (without assuming they were uneventful), it stands to reason that our relationship to sexuality has once again changed significantly; initially in response to reproductive technology and shifts in sexual values and social/economic structures, and more recently in response to the HIV/AIDS epidemic.

Sexuality, the source of pleasure and progeny, shapes our physical, emotional, mental, spiritual, and social selves in countless ways. Given that sexuality undeniably influences humanity on both an individual and collective level, an understanding of it must be considered central to our understanding of human and societal development. To deny the primacy of sexuality is to deny humanity. However, the social taboos and controversies which have surrounded sexuality in general and sexuality research in particular, have made the advancement of knowledge difficult (Bancroft, 1997). Historically, sexuality research has been stigmatized, under-funded and not without scandal (Sanders, 2002; Rowland, 1999). As a result, a highly specialized, relatively disjointed, and often problem-focused literature is to be found only by scouring a multitude of disciplines (Bancroft, 1997; diMauro, 1995).

In an attempt to rectify this situation, in 1974, the World Health Organization (WHO) convened an international meeting focused on human sexuality education for health professionals. Leading teachers, researchers and clinicians were invited to critically examine the role of sexology (that is, the scientific study of human sexuality) in: health programs, the content and methodologies used to teach health professionals about human sexuality, treatment and counselling models, teaching and treatment programs, and, perhaps most importantly, international services for coordinating sexological research and resources. Additionally, participants were asked to develop recommendations designed to correct deficits identified in these key areas.

Notably, this meeting led to the adoption of a new definition of sexual health by the WHO, one that embraced the many different aspects of sexuality:

Sexual health is the integration of the somatic, emotional, intellectual, and social aspects of sexual being, in ways that are positively enriching and that enhance personality, communication, and love. Fundamental to this concept are the right to sexual information and the right to pleasure... the notion of sexual health implies a positive approach to human sexuality, and the purpose of sexual health care should be the enhancement of life and personal relationships and not merely counselling and care related to procreation or sexually transmitted diseases (World Health Organization, 1975:np).

Ultimately, this meeting brought human sexuality education to the forefront, stimulated sexological research, and increased awareness and understanding of how the many issues surrounding human sexuality can impact population health (World Health Organization, 1975).

As it turned out, this focus of attention on sexual health and education was well warranted. In the early 80s, the discovery of HIV/AIDS—a fatal sexually transmitted disease—necessitated an urgent public health focus on human sexual behaviour. The infusion of money into sexuality research under the banner of HIV/AIDS did much to legitimized sexuality research, and has greatly expanded the knowledge base (Bancroft, 1997; diMauro, 1995).

Research communities from such diverse disciplines as epidemiology, sociology, sexual medicine, geography, women's studies, and psychology crossed purposes (however unintentionally) with others from anthropology, biochemistry, education, public health, economics, and social welfare, while rushing to discover a means to avert the epidemic. Different research questions, theories, and methodologies were applied to the problem according to disciplinary focus. However, this flurry of new research did little to merge the sexological literature, or shift the problem-focused agenda (Bancroft, 1997; diMauro, 1995).

In 1995, a review of the state of sexuality research in the United States confirmed that there were not only gaps in the research, there were gaping chasms between what was known and what we needed to know in the face of HIV/AIDS, which by then had taken on pandemic proportions (diMauro, 1995). Many efforts to understand and modify

human sexual behaviour were still discipline specific, concentrated on negative sexual outcomes, and failed to account for the centrality of sexuality in the lives of most people in most places.

In 2000, under the auspices of the World Health Organization, the Pan American Health Organization (PAHO) once again attempted to rectify the situation. Since the initial WHO inquiry into sexual health education, twenty-five years of research—much of it sparked by the HIV/AIDS epidemic—had produced a wealth of knowledge that had not yet been systematically integrated into the World Health Organization sexual health mandate (Pan American Health Organization, 2001).

There had been great advances in our understanding of the many different aspects of human sexuality through theoretical, biomedical, clinical, social sciences and epidemiological research. Feminist scholars had produced a solid body of evidence which indicated that culturally constructed gender roles were crucial factors in determining human sexual behaviour. Reproductive health had been acknowledged as an important indicator of population health and sexualized violence against women, children and sexual minorities had been identified as a serious public health threat (Pan American Health Organization, 2001).

Advocacy for the recognition, respect and protection of sexual minorities (e.g., gay, lesbian, bisexual and transgendered individuals) had increased substantially and effective treatments for sexual dysfunctions had emerged. In addition, sexual rights were beginning to be recognized as basic human rights, albeit often only because of their role in reproduction. Moreover, the continued tide of HIV/AIDS coupled with a greater understanding of the impact of other sexually transmitted infections on the progression of the pandemic highlighted the need for “enhanced sexuality training and a much more concerted and comprehensive approach to addressing sexuality problems” (Pan American Health Organization, 2001:np).

The Pan American Health Organization (PAHO) collaborated with the World Association for Sexology (WAS) to re-examine the issues surrounding sexual health. The main objectives were to develop a conceptual framework for sexual health promotion, to identify sexual health concerns and problems, and to recommend actions and strategies that would help North, Central and South Americans achieve and maintain sexual health

over the lifespan (Pan American Health Organization, 2001). Participants at the 2000 meeting generated clearer and more precise definitions of the basic concepts of sex, sexuality and sexual health. Additionally, related concepts such as gender, gender identity, sexual orientation, eroticism, emotional attachment, sexual activity, sexual practice, safer sex and responsible sexual behaviours were more accurately and inclusively defined in order to construct an appropriate framework for dialogues on sexual health (Pan American Health Organization, 2001). In 2005, in order to once again highlight the importance of recognizing sexual health as an overarching theme connecting a vast number of other sexuality-related issues, the World Association for Sexology changed its name to the World Association for Sexual Health (WAS).

In the face of an HIV/AIDS pandemic, the importance of sexual health education cannot be overstated (Edwards & Coleman, 2004). In addition to the WHO and PAHO sexual health mandates which stress the importance of incorporating sex-positive education, both the Canadian and (more recently) the US governments have produced documents promoting national sexual health education which addresses the positive aspects of human sexuality as well as the potential negative outcomes.

The most recent publication of the *Canadian Guidelines for Sexual Health Education* (Public Health Agency of Canada, 2003) is an updated version of a 1997 Health Canada publication of the same name. Changes are based largely on the *Report from Consultations on a Framework for Sexual and Reproductive Health* which was initiated in response to the increased need for effective HIV prevention (Health Canada, 1999). The 2003 guidelines state that the goals of sexual health education should be:

- 1) To help people achieve positive outcomes (e.g. self-esteem, respect for self and others, non-exploitive sexual relations, rewarding sexual relationships, and the joy of desired parenthood), and;
- 2) To help people avoid negative sexual outcomes (e.g. unintended pregnancy, HIV/STIs, sexual coercion, and sexual dysfunction) (Public Health Agency of Canada, 2003:1).

The Public Health Agency of Canada (2003) further advocates for sexual health education which:

- 1) Fosters respect for the unique values, moral beliefs, religious and/or ethno-cultural background, and sexual orientation of each individual;
- 2) Emphasizes self-worth and dignity;
- 3) Inspires individuals to assess the impact of their sexual behaviour with respect to their partners;
- 4) Provides accurate information which helps reduce misunderstanding and discrimination, and;
- 5) Supports the individual in changing attitudes and behaviours through informed choice rather than coercion by external authority.

The Public Health Agency of Canada (2003) promotes accessible, comprehensive sexuality education that uses proven educational approaches and methods within a system that provides training and administrative support for sexual health educators as well as assistance with the planning, evaluation and updating of programs. This approach is believed to have the greatest potential for positively influencing sexual health at both the individual and population health levels.

In 2001, David Satcher (then US Surgeon General), with the assistance of numerous noteworthy sexuality researchers, medical and religious community leaders, educators, policy makers and others, issued the *Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior* (Office of the Surgeon General, 2001). In his *Call to Action*, Satcher described the high rates of HIV/AIDS and other STIs, abortion, unintended pregnancy, rape, and child abuse in the US as monumental threats to public health.

This landmark declaration proposed a new way of dealing with the problems associated with sexuality. In a country marked by the right wing moralistic promotion of an abstinence-only sex education agenda, Satcher's suggestions were progressive. By framing the issue from a public health standpoint he made it clear that increasing public awareness of the issues surrounding sexual health and responsible sexual behaviours was necessary. Additionally, in an attempt to promote and enhance the sexual health of US

citizens of all ages, Satcher advocated for the provision of health and social interventions including comprehensive, sex-positive education and access to sexual health care and treatment, as well as greater financial investment into research and the dissemination of research findings related to sexual health and responsible sexual behaviours (Office of the Surgeon General, 2001).

However, Satcher's call to improve sexual health in the US resulted in a feverish backlash from the religious right. The actions of the American Life League (ALL), a Christian-based organization using the slogan "Pro-life: without exception, without compromise, without apology" is one example. According to ALL (2001a:np) the only sexuality education programs that should be supported are those that:

- 1) Unequivocally express the truth: there are absolute standards of right and wrong, and no one has the "right to choose" morality.
- 2) Teach sexual morality in the context of leading children toward the practice of virtue and that avoid examining the subject of sex in any concrete, detailed or descriptive way in the classroom or other public setting.
- 3) Recognize, respect and support the primary role of parents in the moral formation of their children and their prerogative to impart any information beyond the abstract on the subject of sex privately, delicately and at the appropriate stage of development for the individual child.

After the release of the *Surgeon General's Call to Action*, the American Life League immediately condemned the report as nothing more than Planned Parenthood propaganda. ALL further called upon its membership to contact the White House and demand Satcher's resignation and also that Satcher be replaced "with someone who will not be a mouthpiece for Planned Parenthood's perverted sex ed agenda" (American Life League, 2001b:np).

Of greatest concern from a public health standpoint is the American Life League's (2001a) promotion of sexuality education programs which "avoid examining the subject of sex in any concrete, detailed or descriptive way in the classroom or other public setting" (np). While abstinence until marriage with an uninfected partner and monogamy thereafter may well be the "lifetime prescription for optimal sexual health" (American

Life League, 2001a:np), one has to wonder if parents have all the answers and if the limited sexual health education agenda promoted by ALL contributes to sexual well-being over the lifespan. Moreover, fostering a population that is all but ignorant about sexuality and the means by which one can achieve and maintain sexual health—while a fatal sexually transmitted disease looms on the horizon—presents a serious public health concern (Public Health Agency of Canada, 2003; Pan American Health Organization, 2001; Office of the Surgeon General, 2001; World Health Organization, 1975).

Logically, the likelihood of experiencing negative outcomes is higher, and the likelihood of experiencing the positive aspects of an activity is lower, when one remains ignorant of a subject—imagine driving a car without knowledge of the rules of the road or without a map, or even without a road or knowing what a car is! Similarly, sexual health depends on the development of health preserving knowledge, skills, behaviours and resources. Consequently, the provision of accessible, comprehensive sexuality education within a system that supports sexual health is imperative if we are to improve population health (Public Health Agency of Canada, 2003). Further to this, the provision of early, developmentally appropriate sexuality education has *not* been shown to increase sexual activity (as argued by the American Life League and others) and in many cases, good solid skills and education have been found to result in a later onset of first intercourse, less frequent intercourse, fewer sexual partners, and more consistent condom and contraceptive use among those who do choose to be sexually active (Office of the Surgeon General, 2001). Education, especially early education, thereby has the potential to reduce high-risk sexual behaviour and improve population health (Public Health Agency of Canada, 2003; Pan American Health Organization, 2001; Office of the Surgeon General, 2001; Kirby, 2001; 2005).

The World Health Organization (WHO), the Pan American Health Organization (PAHO), the Public Health Agency of Canada, the Office of the US Surgeon General, and the World Association of Sexual Health (WAS) have all recommended that sexuality be acknowledged as a central aspect of human health and well-being. Accordingly, the focus of modern sexual health programming should be on helping individuals to develop a responsible and healthy sexuality. It was in this spirit of empowerment that the HIV prevention/sexuality education project reported on here, began. While this paper is

designed to report mainly on the outcome measures of the *Full Circle Youth HIV Prevention and Sexuality Education Program*, a repeat, theatre-based, peer-led intervention staged at several schools on southern Vancouver Island, British Columbia, Canada, the *Full Circle Project* itself also included the co-creation, production and staging of a four-part drama which will also be described, albeit briefly.

1.1 Research Purpose

This dissertation project originated in response to the need for accessible, comprehensive sexuality education that uses proven educational approaches and methods, a need clearly identified by the World Health Organization and the three major health organizations responsible for the Americas. The main purpose of the study reported here was to examine the potential efficacy of using a theatre-based, peer-led model for HIV prevention and comprehensive sexuality education targeting high school youth.

The design of *Full Circle Youth HIV Prevention and Sexuality Education Program* was informed by several theoretical frameworks from different disciplines and draws upon the Information-Motivation-Behavioural Skills Model (social psychology), the Transtheoretical Model of behaviour change (developmental psychology), diffusion of innovation theory (sociology) and Theatre-in-Education (education). The program was designed to address important sexual health issues in an innovative and engaging manner. We addressed issues of homophobia, peer-pressure, decision-making, condom use, stigma, testing and treatment for sexually transmitted infections, and negotiation for safer sex. It was expected that by using theatre and youth culture as the framework for age-appropriate peer-led education focused on promoting sexual health and responsible sexual behaviours, we would engage our young audiences in discussions about sexual health. It was also expected that they would report having gained confidence in their own ability to apply prevention strategies, which could improve their current and future sexual health status.

This dissertation reports on the potential efficacy of Full Circle, a theatre-based, peer-driven approach to comprehensive sexual health and HIV prevention education. The main purpose of this study was to demonstrate the potential of the theatre-in-education format, thereby establishing a basis for promoting the integration of theatre-based

sexuality education programs into existing public-school curricula for ongoing evaluation.

The research objectives derived from those goals were:

- 1) An overall assessment of patterns of engagement during the question-and-answer sessions and patterns of engagement for each topic.
- 2) An assessment of confidence in using prevention strategies and changes in confidence by topic.
- 3) An evaluation of engagement, reported levels of confidence and changes in confidence for each of the cases (groups) by topic.
- 4) An evaluation of students' and actor/peer-educator impressions of the program.

The potential of the theatre-in-education format was examined to determine if using this format for HIV prevention and sexual health education would engage youth—and keep them engaged—and if it would have a positive impact on self-reported confidence. It was theorized that regardless of individual or group characteristics, this approach to teaching about HIV prevention and sexuality education would:

- 1) Generate high levels of engagement among students during the question-and-answer sessions;
- 2) Increase confidence among participants;
- 3) Have a positive effect on the actor/peer-educators.

Additionally, the dissertation briefly reports on the stimulating as well as challenging process of overseeing the co-creation of the drama *Balderdash*, which formed the basis of this project. In undertaking this ambitious project, which involved designing, implementing and evaluating an innovative HIV prevention and sexuality education program, I hoped to clearly illustrate the potential of theatre-based, peer-driven approaches for improving the sexual health of those in the intended target audiences, as well as that of the peer-educators.

1.2 Definitions of Key Concepts

The definition of sexual health is still evolving (Edwards & Coleman, 2004) however, the dissertation will for the most part follow the language proposed in the PAHO (2001) guidelines:

- 1) The term 'sex' will be used to describe the biological characteristics of maleness and femaleness rather than activities (e.g., having sex) or sets of behaviours (e.g., sex roles).
- 2) The term 'sexuality' will be used in reference to that central element of being human that includes sex and related concepts with the understanding that sexuality can be expressed or experienced on physical, emotional, intellectual or spiritual levels and results from the interplay of biological, psychological, socio-economic, cultural, ethical and religious/spiritual characteristics.
- 3) The term 'sexual health' will be used to describe the state of ongoing physical, psychological and socio-cultural well-being which enhances an individual's personal and social life with respect to sexuality, not simply the absence of disease and dysfunction.

Further, it should be noted that in this dissertation sexual health education, sexuality education, and HIV prevention education are viewed as a holistic concept, in that they are all concerned with the promotion and maintenance of sexual health. The importance of sexual health education was brought to the forefront in 1975 by the World Health Organization and by 1985; a fatal sexually transmitted disease was threatening global health. The emergence of HIV/AIDS has pushed the sexual health research agenda forward—in an attempt to avert a pandemic—and the research which has resulted includes a strong emphasis on sexuality education and behaviour change. The most recent HIV prevention literature presents the best practices in sexuality and sexual health education and vice versa, so I believe it is unnecessary to consider the concepts as separate.

1.3 Organization of the Dissertation

This dissertation is divided into six chapters. This first chapter has provided an introduction to the research topic, research objectives and key research concepts. Chapter 2 provides a review of the discovery and epidemiology of HIV/AIDS and obstacles to prevention, care and treatment. Chapter 3 is a review of the relevant literature on the need for sex-positive education for youth and the characteristics of successful HIV and pregnancy prevention programs. As well, a review of relevant individual- and social-level

HIV prevention theories, peer education, edutainment and theatre-in-education is provided. The final part of the chapter describes in greater detail how the main concepts from these areas have been synthesized to form a theoretical base for the project.

Chapter 4 reports on procedures and methodology. The first part of the chapter briefly describes the first phase of the project: the co-creation of the drama which was presented and includes an introduction to the characters, a description of the setting and structure of the drama, and a synopsis of the play. The latter part of the chapter provides an overview of the data collection, methodology and procedures, while Chapter 5 reports on the research findings. Chapter 6 is devoted to a discussion of the findings in the context of HIV prevention and sexual health promotion and provides a summary of the material introduced in the previous chapters, implications of the research findings and recommendations for future research.

Chapter 2: HIV/AIDS - A Primer

2.1 The Discovery of HIV/AIDS

AIDS

AIDS was recognized as an immunodeficiency disease by pattern recognition of the constellation of opportunistic infections associated with it. These revealed the underlying defect in host defense, specifically, in cell-mediated immunity (Pinching, 1996:207).

Acquired immune deficiency syndrome (AIDS) is described as a pattern of morbidity brought on by a gradual failure of the human immune system. The term *acquired* refers to the premise that AIDS is the result of contact with a pathogen, not a spontaneously occurring condition nor a genetic predisposition. Mortality is usually the result of various specific opportunistic diseases associated with AIDS which overcome the immune system of the human host.

In retrospect, medical histories dating back to 1959 have been found to describe symptoms of AIDS. In the 1970's an unusually high number of homosexual men in New York City, Los Angeles and San Francisco were diagnosed with *pneumocystis carinii* and Kaposi's sarcoma (KS), a rare form of cancer that affects blood vessel walls, and reports of similar pathologies were increasing. In 1979, the number of young men seeking medical assistance for, and dying of, rare diseases accompanied by a slow wasting syndrome reached a critical mass. The US Centers for Disease Control and Prevention (CDC) took note of the pattern of wasting, infection and death and in 1981 AIDS was first diagnosed (Global Programme on AIDS, 1998; Goldsmith, 1993; Shilts, 1987).

At that time, when North American researchers noted that AIDS showed a predilection for homosexual and bisexual men, it was assumed that some behavioural activity peculiar to that population was to blame for the illness. The use of amyl nitrite (a.k.a. *poppers*), a sex-enhancing stimulant commonly used in gay bathhouses, came under scrutiny. It was thought that this chemical might have caused some breakdown in the immune system that supported the development of opportunistic disease (Global Programme on AIDS, 1998; Shilts, 1987).

AIDS transmission was later connected to the blood supply when an extraordinary number of North American transfusion recipients and hemophiliacs who had received blood products began exhibiting the markers of AIDS: rare diseases accompanied by slow wasting. It was then assumed that AIDS-afflicted homosexual and bisexual blood donors were responsible for contamination of the blood system. However, this development forced the medical community to re-evaluate the disease. If, in fact, amyl nitrite was the antecedent of immune system breakdown the burning question became, *How could this be passed via blood and blood products?* It became clear to medical researchers that they were dealing with something more akin to a virus than something resulting from a chemical breakdown of the immune system. Medical reports of clusters of similar infections in Australia, New Zealand, Europe and Africa were also filtering in to the CDC at that time. (Global Programme on AIDS, 1998).

An analysis of social networks and patterns of contact among those diagnosed with AIDS led researchers to conclude that AIDS was probably caused by an infectious agent being transmitted via sexual activity, contaminated hypodermic needles, and blood-to-blood contact. In North America and Europe the initial groups observed to be at high-risk for developing AIDS included sexually active homosexual and bisexual men, injection drug users (IDUs), sex trade workers, blood product recipients, Haitians (many of whom had recently returned from war in Africa), and the sexual partners of these individuals (Triechler, 1999; Gorna, 1996). Yet, African infections did not appear to follow this pattern and were equally distributed between men and women, the majority of whom were not part of any previously identified risk group (Global Programme on AIDS, 1998).

Once researchers had concluded that AIDS was likely the result of a viral pathogen the race was on to find the culprit. The zeitgeist of early 1980s biomedical research was breakthrough-oriented and very competitive. Retroviruses were being investigated as causal factors in some tumourous cancers (because they replicated in cells without killing them), and cancer research was hot (Pert, 1997). Many of the most prominent cancer researchers of the day shifted their attention to AIDS research, which was seen as even hotter (i.e., generously funded). Laboratories were buzzing with activity as researchers raced to isolate a causal agent.

HIV

In the early 1980s when, amid much controversy, Robert Gallo of the National Cancer Institute announced that he had solved the AIDS dilemma and named a retrovirus as the cause, much of the world heaved a collective sigh of relief (Shilts, 1987). Scientists did not yet have a cure or a treatment, but researchers now had a place to start looking for one.

Retroviruses are known to inject their own genetic code into healthy cells which then begin to replicate the virus through a process called reverse transcription (Fan, Conner & Villarreal, 2004; Campbell, 1990). HIV infiltrates the human host system by binding with receptors on lymphocytes¹ and macrophages² or on dendritic cells and Langerhans³ cells and then injecting genetic material into the host cells by utilizing co-receptors. With T-helper lymphocytes, HIV binds with the CD4 protein receptors and the CXCR4 co-receptor which is known to promote cell growth, with macrophages the CD4 receptor and CCR5 co-receptors are used (Fan et al., 2004; Gorna, 1996). These types of white blood cells are most prolific in the mucous membranes of the anus, cervix, vagina, urethra, and under the foreskin of the uncircumcised penis. The concentration of these cells in these areas facilitates sexual transmission of the virus. White blood cell counts are also elevated when the body is attempting to fight off infection of any kind; therefore other STIs and/or general ill health also increases the probability of contracting HIV if exposure occurs (Gorna, 1996).

The biological make-up and action of a retrovirus makes it very difficult to arrest or to immunize against. Even with recent advances in biomedical technology, neither a cure nor a protective vaccine for HIV is imminent. HIV is a difficult target because it is persistent, capable of rapid mutation and because the mucosal transmission of the virus

¹ Lymphocytes are white blood cells that promote immune responses. Of the two main types (B- and T-lymphocytes), B-lymphocytes produce antibodies, T-helper lymphocytes organize the immune response while T-killer lymphocytes destroy infected cells (Fan et al., 2004; Gorna, 1996).

² A macrophage is a large immune cell that stimulates other immune cells. They attack and destroy invading pathogens and may act as HIV reservoirs because they can harbour large amounts of the virus without being killed (Fan et al., 2004).

³ Langerhans cells are a type of dendritic immune cell found in skin. Their thread-like dendrites (tentacles) trap invading viruses and bacteria and present them to T-cells so the T-cells can organize an appropriate immune response (Fan et al., 2004).

requires a specialized vaccine design (Fan et al., 2004; Letvin, 1998; Perrin & Tetenti, 1998). Laboratory research continues, with much of it focused on finding ways to disrupt the ability of HIV to bind with the receptors or co-receptors on target cells (Fan et al., 2004; Francis, 1996). The development of a vaccine against the sexual transmission of HIV has been described as a “daunting and perhaps impossible goal” (Varmus & Nathanson, 1998:1815). Nevertheless, much more recently scientists have identified a group of immune cells they may be able to use to test the efficacy of vaccines far more rapidly by directly monitoring immune response in the cellular level (Letvin, 2006). The ethics of human trials of HIV vaccines remain very controversial (Fan et al., 2004; Heyward, Osmanova & Esparza, 1996).

Currently, the pure virus cannot be isolated and there is no economically or temporally feasible test that is able to directly detect markers of the virus. Therefore, tests for HIV antibodies are relied upon exclusively. However, HIV antibodies, produced by the immune system in response to HIV infection, may not be detectable in the blood for several months to a year after initial infection. It is also during this period that HIV is considered most virulent and most likely to be passed to another person (Fan et al., 2004; May & Anderson, 1988). This reliance on antibody testing obviously presents an obstacle for prevention although more recent developments may change this (Letvin, 2006).

2.11 The Causal Debate: Does HIV cause AIDS?

Historically, scientists have relied on the use of *Koch's postulate* to determine whether or not an infectious organism causes a given disease. The initial premise of the postulate is that the organism deemed responsible for a specific disease must be found in every case of that disease. The second premise demands that the supposed causal organism must be isolated in the lab from an infected subject and when injected into a healthy animal, the injected animal must become infected with said disease. Further to this, the suspected infectious organism must then be re-isolated from the test animal. Any infectious agent that passes these rigorous tests is unquestioningly regarded as the causal agent of a given disease (Fan et al., 2004; Campbell, 1990).

A small, but nonetheless vocal minority of prominent biomedical researchers have disagreed with Robert Gallo's assertion that HIV causes AIDS. These scientists have argued, and quite persuasively at times, that because the HIV/AIDS causal link had not

been verified using the benchmark of medical science (Koch's postulate), Gallo's statement was premature and misleading. Moreover, a causal link between the HIV virus and AIDS has yet to be proven using the methods of Koch's postulate (Johnston, Irwin & Crowe, 2003; Philpott, 1997). As one might suspect, this has caused a great deal of consternation among the scientific community.

Professor Peter Duesburg, a cell and molecular biologist at the University of California at Berkley, and a pioneer in retrovirology who has won many accolades for his oncogene cancer research, is one of the primary (HIV does not cause AIDS) dissenters. Duesburg maintains that HIV does not meet the first premise of Koch's postulate because there are cases of AIDS-defining illness where HIV is *not* present. Furthermore, other researchers point out that pure HIV has never been isolated in the laboratory from an AIDS patient; hence, the virus has never been subjected to the rigors of the second premise of Koch's postulate.⁴ Collectively, they question how a causal link can be assumed when the premises of Koch's postulates are left unmet. They conclude that the presumption of a causal relationship is fallacious; HIV is neither a necessary nor a sufficient explanation for AIDS (Johnson, 1997; Duesburg, 1996; Lanka, 1995).

Those adhering to the established medical claim that HIV causes AIDS counter these arguments by asserting that the presence of certain microorganisms determined to be *markers* of the virus, such as HIV RNA, proves that it exists. They argue that the presence of these markers are sufficient grounds for a diagnosis of HIV infection, and that their presence in most cases of AIDS attests to a causal link (National Institute of Allergy and Infectious Diseases/National Institutes of Health, 2003). Further to this, it is suggested that Koch's postulates are sometimes too stringent to be applied to studies of viral agents because viruses cannot be grown in the absence of cells. While Koch's postulates were appropriate when they were proposed and when applied to bacterial infections and other viruses, they may or may not be applicable in research devoted to understanding retroviruses such as HIV (Fan et al., 2004).

⁴ At the time of writing, pure HIV had yet to be isolated from an AIDS patient. A number of large monetary rewards have been offered by Continuum Magazine and others to the first person finding or submitting a scientific paper establishing actual isolation of HIV. The rules of isolation are precisely those proposed in Koch's second postulate (Philpott, 1997).

However, further to his dismissal of a causal link, Professor Duesburg argues that the pathology of AIDS does not follow that of a disease caused by a retrovirus. Duesburg points out that retroviruses depend on the proliferation of infected cells for survival and suggests that it would be contrary to retroviral pathology for a virus to kill the cells it uses for replication (namely, white blood cells). He contends that laboratory research reveals that HIV isolates⁵ are not capable of infecting enough cells to cause harm, and that HIV has never been shown to kill T-helper lymphocytes (one of the markers used to gauge the progression of HIV to AIDS is a reduced T-helper cell count). Therefore, Duesburg suggests that either HIV is not a retrovirus, or that it is not killing white blood cells (Duesburg, 1996).

Additionally, Duesburg notes that the latency period of HIV (sometimes more than a decade) is incongruous to that of an infectious disease. Duesburg claims that this long latency period is indicative of system toxicity, but not of viral infection. He concludes that HIV is not an infectious agent and cannot be transmitted from one person to another and states most emphatically that immune impairment caused by environmental factors such as drugs or general ill health is the root cause of AIDS, not the HIV virus (Duesburg, 1996).

There is however, a more recent theory on the association of HIV and AIDS, which suggests that HIV is a necessary, but not sufficient explanation for AIDS. According to Professor Harold Foster (2002), a geographer at the University of Victoria, Canada, infection with HIV may lead to AIDS, but only if the immune system of the infected person is in what Foster calls a “selenium-CD4T cell tailspin” (67). Based on an exhaustive survey that showed strong correlations between global and regional distributions of HIV/AIDS infections and low levels of selenium in the soil used to grow food, Foster proposes that selenium deficiency is the underlying link between HIV infection and the progression to AIDS. “The virus competes with the host system for four key nutrients—selenium, cysteine, tryptophan and glutamine. When the body becomes depleted of these, it develops AIDS” (Foster as quoted in Litwin, 2004). Further to this, Foster suggests that if individual selenium deficiencies were rectified, AIDS would not

⁵ Scientific references to HIV isolates refer to laboratory grown HIV. Laboratory testing of the efficacy of anti-retroviral drugs and microbicides is generally done using synthetic, laboratory grown HIV or on monkeys infected with SIV, an analogous primate virus from the same lentivirus family (Duesburg, 1996).

be the outcome of infection with HIV, and that the probability of contracting the virus after contact with the pathogen would also be greatly reduced (if not eliminated). Small trials testing these nutrients in several countries in Africa found that the symptoms of dying AIDS patients could be reversed, and in about 6 weeks they would be ready to return to work. A 300 patient double-blinded clinical trial was underway in Uganda in 2005, where half of the HIV-positive patients get the nutrients, the other half a placebo, and an open trial is set to begin in a Zambian AIDS hospice. (Harold D. Foster, *personal communication*, Nov 3, 2005).

Even in the absence of corroboration via Koch's postulate, and in spite of Duesburg's claims to the contrary, the great majority of biomedical researchers agree that infection with HIV causes AIDS. They also agree that HIV is a retrovirus that can be transmitted via the exchange of sexual fluids, contaminated hypodermic needles, and blood-to-blood contact. These premises have informed all lines of inquiry into HIV/AIDS prevention and treatment over the course of the epidemic. While it is possible that HIV does not cause AIDS, the abundance of circumstantial evidence garnered from epidemiological studies which link patterns of interpersonal sexual contact, injection-drug networks and migration patterns with incidence of HIV and AIDS certainly suggests that AIDS is indeed, caused by HIV.

By all appearances, HIV is a fatal sexually transmitted disease. It is the contention of this author that HIV most probably causes AIDS, although quite possibly the progression of HIV to AIDS is mediated by a third factor such as selenium deficiency. However, even if it were found that HIV does not cause AIDS, the substance of this dissertation still has important and useful applications. Many individual behaviours, social structures and cultural conventions are obstacles to sexual health and the development of responsible sexual behaviours. Whether the factor motivating change is a fatal sexually transmitted disease or simply the desire for a healthier approach to sexuality and reproductive health, change can save lives.

2.12 Where Did the Virus Come From?

One of the most often asked questions in the face of this pandemic is, “where did this virus come from?” During the early years of the epidemic in North America, much time and energy were expended on trying to trace the elusive *Patient Number One*. This exercise led back to a gay, very sexually active international airline steward. However, once located, he aptly pointed out, that he too had contracted the virus from someone else (Schulman, 1993). Researchers from across the globe started comparing notes more carefully. After two decades of research, a number of theories on the origins of HIV have emerged.

The most generally accepted theory proposes that HIV infection in humans illustrates the natural evolution of a virus in response to the availability of human hosts (Cohen, 1989). In 1984, simian immunodeficiency virus (SIV) was discovered and scientists noted that it had an uncanny resemblance to one type of HIV. To date, eleven strains of SIV have been found in a number of African monkey species such as green monkeys, chimpanzees, grivets, mandrills, macaques, rhesus monkeys, and mangabeys. It is evident that HIV is a zoonosis, that is, an infectious disease that was transmitted from animals to humans under normal circumstances. It is now generally accepted that SIV is the genetic precursor from which HIV derived. Blood-contact with infected monkeys during the preparation of meat for human consumption is considered the most likely source of cross-species transmission⁶ (Fan et al., 2004; Cohen, 1989). More recently, chimpanzees in Cameroon have been identified as reservoirs of both pandemic and non-pandemic HIV (Keele, Van Heuverswyn, Li et al., 2006).

It is interesting to note that SIV rarely causes symptoms in the host species and therefore it has been theorized that the condition may have existed for thousands of years in primates before becoming pathogenic to a new host species (i.e., humans).

Alternatively, it is possible that HIV-1 (the most lethal and most easily transmitted form

⁶ The early writings of Robert E.L. Masters (1966) suggest that transmission may also have occurred via human/simian sexual contacts. Masters stated that, “Copulation with subhuman primates, by the way, has for centuries been fairly common practice in parts of Africa and the Middle East” (200). Masters also quotes works by Sir Richard Burton that attest to liaisons between humans and various types of monkeys. Burton suggests that some species of monkeys appear to have a heterosexual attraction to humans. However, most contemporary researchers have dismissed the notion of cross-species transmission via sexual contact.

of HIV) derived from an ancient but less deadly human virus (more like HIV-2) which persisted in small isolated groups until it mutated into its modern form (more on types and strains of HIV follows). Either way, human migration and mating patterns have dispersed the virus globally (Cohen, 1989).

Some theorists have suggested that HIV was introduced to human populations via widespread vaccination programs. They have charged that several batches of polio vaccine used in Africa in the 1950s were unintentionally contaminated with SIV, allegedly because chimpanzee kidneys were used in the production of the vaccine. However, according to doctors who were working in Africa at the time, chimpanzee kidneys were never used to make the vaccine. Furthermore, although there are no remaining samples of this vaccine lot, other 1950s-era polio vaccines have been tested and none have shown evidence of contamination with SIV or HIV. In addition, patterns of HIV incidence do not correspond with regional vaccination initiatives of that era (Weber & Alcorn, 2000).

Still others have proposed more sinister biotech theories about a Central Intelligence Agency (CIA) conspiracy to depopulate Africa. They have alleged that vaccines were intentionally contaminated with a laboratory grown version of HIV.⁷ It has also been suggested that HIV is a bio-engineered virus that was conceived as a biological weapon that was either intentionally or unintentionally unleashed in Africa (Fan et al., 2004). However, it must be remembered that human encroachment on uninhabited areas such as the jungles of Africa, potentially expose humans to new and exotic viruses. We might not like the fact that what we call progress has resulted in wide-scale death and disease that is threatening to destroy nations but, just as civilizations evolve, so too do viruses evolve. The various types, subtypes, and strains of HIV currently wreaking havoc are most probably the result of the mutation of a previously existing primate virus that has proven fatal to human hosts.

⁷ In a 1999 survey of African-Americans (n=520), greater than 1 in 4 responded that they “totally agreed” (14.3%) or “somewhat agreed” (12.2%) with the main survey question which was, “HIV/AIDS is a man made virus that the federal government made to kill and wipe out black people. How much do you agree with the above statement?” Those most likely to believe an AIDS conspiracy theory were culturally traditional, college educated males who reported that they had often suffered racial discrimination. Income was not related to belief in an AIDS conspiracy theory (Klonoff & Landrine, 1999).

2.2 The Epidemiological Findings

Formerly known as HTVL-III (human T-cell leukemia/lymphoma virus), HIV is defined as a rapidly mutating retrovirus, of the lentivirus genus (*lenti* meaning slow), that weakens the human immune system to the point of collapse (Fan et al., 2004; Global Programme on AIDS, 1998; May & Anderson, 1988). HIV is a relatively fragile virus that cannot survive outside the body of an infected person for any appreciable amount of time;⁸ thus it requires direct contact for transmission. Markers of the virus are evident in blood and other bodily fluids of infected individuals and are found at quite concentrated levels in the ejaculate (including pre-ejaculate) of infected men. Virus markers are present to a lesser degree in vaginal and cervical fluids (including menstrual blood) and in the breast milk of infected women. Markers of HIV have also been detected in other bodily fluids such as tears and saliva but there have been no reported transmissions via these fluids and it is assumed (though not proven) that the virus is not present in sufficient quantities to pose a risk (Fan et al., 2004; Global Programme on AIDS, 1997; Gorna, 1996).

2.21 Virus Types

AIDS cannot be explained by a single virus causing a single and continuous epidemic. Instead, worldwide spread is the work of a virus family of types, subtypes, and strains that cause more or less related epidemics. Each member of the family has its own distinctive behavior, and each epidemic runs its own distinctive course (Goudsmit, 1997:np).

There are currently two known major retrovirus types thought to be fuelling this pandemic. In 1983 and 1986, respectively, HIV-1 and HIV-2 were recognized. HIV-1 is thought to account for more than 99% of all HIV infections and has been identified in almost every country around the globe. HIV-2 accounts for less than 1% of global infections and is predominantly found in West Africa and in countries which are more closely linked to West Africa by human migration patterns and trade (e.g. France, Southern Africa, Latin America and the Caribbean) (Mann & Tarantola, 1996).

Epidemiological studies have concluded that HIV-1 is far more efficiently transmitted than is HIV-2, and the countries where HIV-2 was dominant are now more

⁸ This is the reason given for the failure of biomedical researcher in their quest to isolate the pure virus.

commonly finding HIV-1 infections. Because HIV-1 presents the greatest threat, most research efforts have focused on this type of HIV. HIV-1 is highly variable and a number of sub-types have been identified and numerous strains of the virus have evolved, many of which have become drug resistant over the course of the epidemic⁹ (Fan et al., 2004). While different sub-types and strains of HIV vary by ease of transmission, structural, serological and pathogenic characteristics; prevention strategies are identical for all types, subtypes and strains of HIV (Mann & Tarantola, 1996).

2.22 Infectivity and Incubation Periods

The estimated probability of contracting HIV via the transfusion of one unit of infected blood is believed to be in the range of 90 to 100% (World Bank, 1999). Some studies have found lower levels of infection probability via blood (around 60%) and suggest that this variability may be explained by the stage of HIV infection in the blood donor (Gorna, 1996).

The expected probability of contracting HIV sexually is much lower, with studies of discordant couples (where one is infected with HIV while the other is not) revealing transmission rates in the range of 10-20%. These studies have determined that male-to-female transmission appears to be two to four times more efficient than female-to-male transmission (Fan et al., 2004; Mastro & de Vincenzi, 1996). Research on the statistical probabilities of transmission show that with prolonged exposure to an infected partner, using no barriers, an adult heterosexual female's risk of infection is at least double that of an adult heterosexual male. Under these conditions, an adult heterosexual female stands a 22% chance of contracting HIV from an infected male partner, while an adult heterosexual male has less than a 10% chance of contracting the virus from an infected female partner (Mayer & Carpenter, 1992; May & Anderson, 1988). Other research suggests that female-to-male transmission probability may be even lower and that male-to-female transmission probability may be much higher (World Bank, 1999).

While the estimated probability of sexual transmission is much lower than the estimated probability of infection via blood-to-blood contact, 75 to 85% of all HIV infections are believed to be sexually transmitted with the majority attributable to

⁹ It is possible for an individual to be concurrently infected by more than one type, subtype or strain of HIV.

heterosexual activities (Joint United Nations Programme on HIV/AIDS, 2000; Global Programme on AIDS, 1998). It may therefore be stated that HIV's most efficient route of transmission is direct blood-to-blood contact but in the long run, sexual contact appears to be the best and most common vehicle for HIV diffusion. Sexual transmission may be less efficient but apparently, the bus comes more often!

In 1988, May and Anderson noted that most reports on AIDS incubation periods had generally been based on studies of blood recipients and that these studies may not be fully generalizable to sexual modes of infection. Of those infected with HIV through blood or blood products, 30-40% developed AIDS and 80% showed some degree of immune system deterioration within eight to nine years of infection. Incubation periods for the very young and for those over 60 years of age were found to be significantly shorter (around two years and five to six years respectively). There were also some indications that the incubation periods for sexual and injection-drug related infections may also be shorter. Longitudinal studies of HIV-infected homosexual men who took part in a 1978 Hepatitis B study showed that none had developed AIDS three years after exposure, 20% after six years and 36% had done so after seven to eight years (May & Anderson, 1988). Unfortunately these estimates of incubation periods do not take into consideration the stage of infection in the transmitting party. Further research is needed because the risk of HIV transmission has been found to be variable depending on the length of time HIV has been active in the human host system (Fan et al., 2004; Gorna, 1996).

2.23 Stages of Infection

The progression of HIV infection has been divided into phases which are descriptive of the amount of virus (viral load) present within the system (Anderson, 1996). Viral load is determined by measuring HIV RNA levels in blood plasma and is expressed as copies per mL of plasma. The viral load, along with CD4+ lymphocyte counts, is an important predictor of morbidity and mortality in HIV infections and is often used to gauge when antiretroviral therapy should begin. The viral load is highest at the onset of infection, and when left untreated, levels off to a relatively constant lower level. This level is highly variable between individuals and counts can range anywhere

between less than 400 copies/mL to greater than 500,000 copies/mL (Fan et al., 2004; Phillips, 1999).

Stage 1: Primary infection. This is the first stage of infection, before antibodies develop in the blood, and is the time when the probability of transmission peaks, because viral load is highest, health is good and few are aware of having become infected. HIV infection may initially produce mild flu like symptoms shortly after infection, but HIV itself does not cause illness; it compromises the human immune system, which facilitates intrusion by other pathogens. During Stage 1 there are no symptoms of disease and tests may be negative for HIV antibodies. In the first few months and up to a year after initial infection the viral load (in any bodily fluid) is higher than at any other time during the progression from HIV infection to AIDS (Fan et al, 2004; Gorna, 1996; Panos Institute, 1990; Anderson & May, 1992; Phillips, 1999).

Stage 2: Asymptomatic HIV positive. This stage can last for up to a decade or more and with current anti-retroviral treatments possibly much longer (World Bank, 1999). The viral load at this point is lower than at any other stage in the progression of the syndrome. It has been suggested that the drop in recorded rates of homosexual transmissions in the mid-1980s might be, at least in part, attributable to the reduction in viral load at this stage as well as to sexual behaviour change (Gorna, 1996).

Stage 3: Symptomatic HIV positive. In this stage the immune system begins to fail rapidly, white blood cell counts drop, one or more opportunistic diseases establish themselves and the viral load again begins to increase (Gorna, 1996).

Stage 4: AIDS. This last stage is complicated by various illnesses related to the suppression of the immune system. The viral load is higher than during stages 2 and 3. The viral load may or may not surpass the peak reached at the time of primary infection, yet opportunities for sexual transmission are likely reduced because health is poor and disease is evident (Gorna, 1996; Anderson, 1996).

There are indications that some anti-retroviral drugs reduce viral load. Significant reductions in HIV-1 RNA have been correlated with the use of early anti-retroviral drugs such as zidovudine (AZT) and lamivudine and with the use of more recently developed protease inhibitors (Fan et al., 2004). This reduction in viral load suggests that antiretroviral drugs have potential value for prevention (Cohen, 1999). It also may mean

that HIV infected individuals on antiretroviral therapies, especially those whose viral loads have dropped, may be less likely to use preventive techniques and devices because they assume (incorrectly) that they are no longer infective (Rofes, 1998).

2.24 Transmission Networks

Sexual transmission networks have been difficult to trace because of a lack of information available on population mobility, sexual mixing patterns and sexual behaviours. These factors combined with a long asymptomatic period and the length of time that a person may live with HIV/AIDS create problems for epidemiological analysis.

The limited data available on the rates of sexual-partner change and the frequency of sexual intercourse reveal great heterogeneity within populations. Within the variability, one can distinguish patterns. These patterns appear to be fairly consistent both across different communities (heterosexual and homosexual, for instance) and across different cultural settings (developed and undeveloped countries, for instance) (Anderson & May, 1992:61).

Anderson and May have theorized on the shape, duration and intensity of the HIV epidemic within various risk-groups and countries. They used mathematical probability models that tie rate of sexual-partner acquisition with degree of sexual mixing between groups deemed high, medium or low risk. Risk level was assessed by using rates of sexual-partner change, not frequency of sexual activity per se. In regards to the sexual transmission of HIV, empirical survey work on sexual contact patterns reported by Anderson and May (1992) suggested that 20-30% of individuals within a population accounted for 70% of reported sexual partnerships. Individuals who change partners often are deemed at high risk for infection because this increases the probability of encountering an infected partner.

Frequent changes in sexual-partners increase the likelihood of an epidemic among those with multiple sexual partners, yet it also implies that the infections will be restricted to the small fraction of individuals who change sexual partners often or engage in concurrent sexual relationships with more than one partner. On further review of studies on contact patterns between sexual partners of different age groups, and differing rates of partner change, Anderson and May predicted that the high activity population would seed

the epidemic in the low activity population. This would result in a slower progressing but ultimately larger outbreak, wherein the epidemic develops in waves, first in the high risk populations and later in medium and low risk populations (Anderson, 1996; Anderson & May, 1992).

2.25 Patterns of HIV Transmission

The World Health Organization (WHO) has identified three specific patterns of HIV transmission as defined by the predominant mode of transmission. *Pattern I* is largely found in industrialized countries and describes the population in which HIV was first discovered. Pattern I transmission occurs mainly through male homosexual activity and injection drug use. This mode is concentrated in North America, Western Europe, Australia and New Zealand. *Pattern II* infections are largely attributable to heterosexual activity, as is the case in sub-Saharan Africa. *Pattern III* transmission occurs via blood transfusion and heterosexual activity and is predominant in the Middle East, Asia and Eastern Europe (Anderson & May, 1992).

The patterns vary by region and demographics but are not static categories. For example, most cases of HIV in Latin American and the Caribbean were initially ascribed to Pattern I transmission but after a dramatic increase of HIV infections among women, the designation was changed. Infections in these countries are now denoted as Pattern I/II. This shift in Latin America from Pattern I to Pattern II reflects the fact that while sexual transmission is not HIV's most effective mode of transmission, it is the most likely and available route (Panos Institute, 1990). Most researchers now agree that HIV evolved in Africa and that the predominance of Pattern II heterosexual transmission in that area reflects the natural progression of the epidemic and that over time, more countries will be reporting predominantly heterosexual transmissions of the virus (Joint United Nations Programmes on HIV/AIDS, 2004; Global Programme on AIDS, 1998; Anderson & May, 1992).

2.26 Risk Groups and Risk Behaviours

In the early years of the epidemic when researchers were trying to understand the pathology of AIDS using limited North American data, the concept of categorizing people into risk-groups had certain usefulness. It allowed researchers to trace contact

patterns and establish that AIDS was the result of a sexually transmitted infectious agent and that it could be passed by direct blood-to-blood contact. It naturally followed those groups of individuals who were highly sexually active, or who injected drugs, or received blood or blood products were deemed to be at high risk of infection (Watney, 1996).

Later, with the inclusion of global data, the pathology of HIV/AIDS and the properties of the virus were better established. It became clear that assuming HIV was limited to particular risk-groups had serious limitations. Not all gay or bisexual men were at risk of infection; infections were to some degree restricted to those who changed partners frequently. Not all IDUs were at risk; those who shared unsterilized injection equipment were at greater risk. Not all blood and blood product recipients were at risk; only those receiving contaminated blood were being infected. Not all Haitians were infected; infections were highest among soldiers who had traveled to Angola in the 1970's, and their wives. Not all sexual partners of these individuals were infected; and were less likely to be infected if condoms had been used during sexual activities. In addition, in many areas heterosexuals not belonging to the identified risk groups, many of them women, were becoming infected at alarming rates (Gorna, 1996).

With this understanding, the research and educational focus shifted from risk-groups to risk-behaviours. Particular types of behavioural activities (e.g., needle-sharing and unprotected sexual contacts) rather than specific groups of individuals became regarded as high risk. In cases of sexual transmission, this fostered the belief that anyone could get AIDS, and resulted in intense educational campaigns in the US (and elsewhere) that advocated abstinence over precautionary measures such as condom use or non-penetrative sexual activity (where sexual fluids are not exchanged). However, categorizing sexual behaviours does not tell the full story of HIV risk either. Anal intercourse, considered to be the highest risk activity, is risky only if one of the partners is actually infected with HIV.

Furthermore, not all sexual activities are conducive to HIV transmission. Some sexual activities are riskier than others and many are considered to be very low to no-risk. Many researchers suggest that an expansion of sexual repertoire to include lower risk activities is necessary to curb the tide of HIV infections (Gorna, 1996; Patton, 1993). Intimate sexual relations are, for the most part, defined by penetration (Randall & Byers,

2003). In fact, according to a past president of the United States, any sexual relations that do not include penetration should not be classified as sexual relations at all (and many people seem to agree with him!) (Sanders & Reinisch, 1999). This is a common misperception that does nothing to advance HIV prevention efforts.

In the decades since the beginning of the HIV/AIDS epidemic in North America, much research has been focussed on the behaviours that increased infection risk for men who have sex with men (MSM). This research clearly shows that unprotected anal intercourse and large numbers of sexual partners acquired over a short duration of time were the major factors in the spread of HIV within the male homosexual community (Global Programme on AIDS, 1998; May & Anderson, 1988). Being the receptive partner during unprotected anal sex with an HIV infected man is considered the highest risk sexual activity for both men and women. The high viral load of HIV in seminal fluids coupled with the ability of the virus to bind with the cells that line the anus and the anal cavity provide the ideal biological conditions necessary for transmission (Global Programme on AIDS, 1998; Gorna, 1996).

Unprotected vaginal intercourse has been determined to be less risky than anal intercourse, because a mature healthy vagina is lined with cell structures that are not conducive to HIV binding. As well, a mature healthy vagina has a natural pH level which is acidic enough to deactivate HIV. The pH level becomes somewhat more alkaline around the time of menstruation indicating that women would be more vulnerable to infection with HIV at this time (Gorna, 1996). As mentioned previously, the likelihood of male-to-female transmission during unprotected vaginal sex is at least twice that of female-to-male transmission due to higher levels of the virus in ejaculate¹⁰ (Fan et al., 2004; Mayer & Carpenter, 1992; May & Anderson, 1988). As well, male genitalia, especially those without a foreskin, have a much smaller area of mucosal membrane than do female genitalia, limiting the opportunity for the virus to come in contact with the cells it uses to enter the bloodstream. The retention of sperm in the vagina also increases exposure time and thus, the potential for infection (Gorna, 1996).

¹⁰ Seminal fluid contains more white blood cells than do vaginal fluids and cervical secretions and is therefore a better vehicle for the virus (Gorna, 1996).

Oral-genital contact appears to be less risky, although once again the risk of male-to-female transmission via fellatio is thought to be higher than the risk of female-to-male transmission via cunnilingus. The normal pH level of a healthy mouth and throat is generally acidic enough to inactivate HIV. The calculated differences in transmission probability are directly related to viral load and amount of fluid contacted. In addition, lesions or infections around or in the mouth or throat (e.g. cold or canker sores or thrush) could facilitate transmission, as would any active bleeding (e.g. from flossing the teeth or from dental surgery) (Gorna, 1996).

Research has found that gay men and lesbians tend to have a larger repertoire of sexual behaviours than do most heterosexuals and many of these activities (such as mutual masturbation) are lower risk than anal or vaginal intercourse (Patton, 1993). Although there may be resistance from many sectors due to moral, religious and/or cultural beliefs and values, it could prove very beneficial, in the long run, if all HIV prevention interventions also included descriptions of sexual options that do not include penetration or direct contact with bodily fluids (Acker, Goldwater & Dyson, 1992).

Currently, there is a movement which advocates HIV testing (preferably linked with treatment) as the best means of reducing risk of infection and transmission (World Health Organization, 2003; 2005). The premise is that unprotected sex (of any kind) with anyone of unknown HIV serostatus is a high-risk activity. This has its benefits and its challenges, largely because of the pathology of the virus and the existing means of testing for infection.

Initial screening and confirmation tests for HIV are done using antibody tests. In general, antibodies are proteins produced by lymphocytes as a protective response against antigens, which are any molecule or substance that raises lymphocyte response (e.g., virus protein). HIV screening tests look specifically for the presence of antibodies to HIV, which mark the immune response (i.e., antibody tests *indirectly* assess presence of the virus). While antibody tests are imprecise to begin with because antibodies take time to develop, they tend to err on the side of caution by producing false-positive test results rather than false-negative results because it is less critical to transmission probability.

Although HIV antibody screening tests such as the enzyme immunoassay (EIA) and the enzyme-linked immunosorbant assay (ELISA), as well as most rapid blood assay

tests and saliva tests have very low rates of false-negative test results, some are less specific and sensitive than others. Rapid tests are widely used because they are inexpensive, portable, relatively easy to perform, and they require little expertise. Ideally, because there are also a significant number of false-positive results, a positive screening test would be replicated (a second screening test produces the same result) and then confirmed (Chohan, Lavreys & Mandaliya et al., 2001; Bennett, Fordan & Buff et al., 1999; Blumer, Schalla & Hearn, 1999).

The Western blot is the gold standard for confirming HIV infection because it has the sensitivity and specificity to separate true positives from false positives. However, these tests are more expensive and require laboratory facilities with trained experts. While it is important to know the true disease state of each person, and testing for HIV antibodies is certainly a useful means of determining HIV positive serostatus if the testing is done after the antibodies have developed to a detectable level, the limitations of the tests must be recognized. The failure of a test to detect antibodies does not necessarily mean the virus is not present, nor does it necessarily mean that a person is non-infectious. HIV antibodies may not reach a detectable level in the blood for months to a year after initial infection, so tests are current only if the last possible exposure occurred quite some time previously. It is also during this period—when antibodies are not detectable—that HIV is considered most virulent (May & Anderson, 1988). Working with these parameters, a person who has tested HIV positive is of known serostatus¹¹ and anyone who has not tested negative and been tested, re-tested and tested again during a year in which they have not engaged in any risk behaviour must be classed as a person of unknown HIV serostatus. This suggests that correct and consistent use of condoms (or other barrier methods) or engaging in non-penetrative activities may be safer than relying on dubious negative test results.

Further to this, sexual transmission probabilities for HIV are not related to amount of sexual activity per se, but rather to the type of sex engaged in and the number and rate of acquisition of new partners. The greater the number of partners, the quicker the acquisition of new partners, and the riskier the sex, the higher the probability of becoming infected with HIV (World Bank, 1999; Gorna, 1996; May & Anderson, 1988).

¹¹ Assuming re-testing was done to account for possible false-positive results.

Laumann and colleagues (1994) have reported that American men, in general, acquire more lifetime sex partners (mean=6) than American women (mean=2). Yet individual sexual proclivity, the specific risk activities that each partner may (have) engage(d) in, the network of contacts, and the duration and degree of infectivity of a carrier are variable factors that also require consideration (Gorna, 1996; May & Anderson, 1988). Given the difficulty in calculating the probability of *real* risk, preventative actions might be the safest bet.

The transmission probabilities for HIV are also influenced by co-infection with other STIs. Initially, it was noted that the presence of any genital ulcerative disease (GUD), such as herpes (HSV) and human papillomavirus (HPV), increased the likelihood of HIV transmission. It was assumed that ulcerative conditions allowed HIV to pass through the natural barrier that intact skin provides (Anderson & May, 1992). This is true, however, it was later noted that the proliferation of white blood cells in response to STIs and other infections also facilitates HIV transmission because the human immune system responds to infection by sending lymphocytes and macrophages to the infected area and these are precisely the cells with which HIV binds (Gorna, 1996). It has since been reported that an individual who is already infected with another STI is two to five times more likely to seroconvert if exposed to HIV and that treatment for existing STIs reduces the likelihood of becoming infected with HIV after exposure by 40 percent (Delisle, 1999).

Increasingly younger age groups are being infected with HIV and other STIs and young heterosexual women account for a disproportionate number of these infections (Centers for Disease Control and Prevention, 2006; Health Canada, 2004; Joint United Nations Programme on HIV/AIDS, 2006; McKay, 2000). Some of the reasons for this are purely biological. In addition to the anatomical and physiological factors already discussed, younger women with functionally immature reproductive systems produce less vaginal lubrication and are, therefore, in greater danger of contracting HIV via vaginal intercourse than more physically mature women (Alan Guttmacher Institute, 1997; Gorna, 1996). Add to this the physical trauma that a young woman with an intact hymen may experience during the first acts of intercourse and it becomes clearer why HIV infection rates in this population will continue to increase without proper intervention.

Moreover, the reluctance of youth to seek sexual health care and the reluctance of many physicians to discuss sexuality issues further compounds the risk for young women (McKay, 2005).

2.27 HIV & Women

The diagnosis of women with HIV in developed nations is often delayed due to societal and medical reluctance to consider non-IDU women as at-risk (Joint United Nations Programmes on HIV/AIDS, 2004; Mayer & Carpenter, 1992). HIV or AIDS is far more likely to be suspected (in light of seemingly ambiguous symptoms) in a homosexual man or a patient who injects drugs than in an otherwise healthy heterosexual woman. This bias is not evident in developing nations with a high prevalence of HIV that is equally distributed among men and women. In these areas, HIV is always suspect, yet the lack of adequate health care leaves little to be done once a diagnosis is made (Joint United Nations Programme on HIV/AIDS, 2003; Panos Institute, 1990). These factors, coupled with the social reality that women often have fewer financial resources to deal with ill health (in both developed and developing nations), mean that women often have less time between initial diagnosis and death than do men (Joint United Nations Programmes on HIV/AIDS, 2004; Mayer & Carpenter, 1992). In the past, lack of access to clinical drug trials for women has compounded this health inequity (Anis, Hogg & Yip et al., 1998; Panos Institute, 1990).

Diagnosis in women may also be delayed because the early physical symptoms of immune breakdown may present themselves very differently in women than in men. Women may or may not exhibit the typical male symptoms of AIDS, which include diarrhea, headaches, fatigue, swollen lymph nodes, general achiness, and extreme weight loss. As well, women rarely develop Kaposi's sarcoma. Symptoms common to women include recurrent *Candida albicans* (yeast infections, either vaginal or oral), cervical tumours, recurrent or recalcitrant genital warts, unexplained gynecological changes, pelvic inflammatory disease, abnormal pap smears, and hip and leg pain (Gorna, 1996; Mayer & Carpenter, 1992).

While it is apparent that women, and especially young women, are burdened by biology when it comes to the sexual transmission of HIV (and other STIs), on closer examination it becomes clear that this is not the only issue. Many of the factors that

increase women's vulnerability to HIV are artificially imposed. Numerous cultural and social roles, values and customs may expose women to an increased risk of contracting HIV. However, the most pervasive and universal issue to be addressed in attempts to reduce HIV infection among women of any age are prevailing gender roles. Gender roles are one of the few ethnographic commonalities that women, as a group, share. As such, traditional gender roles may present the largest overall obstacle to HIV prevention (United Nations Special Session on Gender, 2001).

Gender roles represent the unwritten rules governing the behaviours of, and social interactions between the sexes. These social rules/roles establish who is expected to behave in what manner and ultimately, who may assume what positions within social structures. Whether differing social roles for men and women originated because of biological differences (nature) or cultural forces (nurture) has been a hotly debated topic (Brettell & Sargent, 2005).

Proponents of biological theories on the origins of gender roles have investigated the differing social roles of men and women from within an evolutionary framework. The central concept of biological determinism is that *anatomy is destiny* hence, gender roles, including the division of labour, and the tendency for women to be subordinate to men, derive from biological attributes. Evolutionary theories have been divided, generally, into four categories: male strength hypotheses, male bonding hypotheses, male aggression hypotheses, and women's childbearing hypotheses (Brettell & Sargent, 2005).

Those asserting male strength hypotheses argue that men are superior to women because of their greater physical strength and larger size. Male bonding theorists suggest that the greater (genetically programmed) ability of men to form social bonds amongst themselves explains male domination over women because men are better suited to cooperative and political activities. The male aggression models are based on the belief that men dominate women because men are more aggressive due to higher levels of testosterone. Proponents of female childbearing theories suggest that women are not included in cooperative and political areas because they are biologically adapted for reproduction, and hence their maternal instincts leave them content to function within the domestic sphere (Brettell & Sargent, 2005).

Each of these biologically based evolutionary theories has been challenged by findings from research on nonhuman primates and cross-cultural studies. It is argued that “biology merely sets the parameters for a broad range of human behaviors... biological differences between men and women have no uniform and universal implications for social roles and relations... [and] biology, for humans, takes on meaning as it is interpreted by human culture and society” (Brettell & Sargent, 2005:4). Nonetheless, in most cultures and most societies, being female still means being subordinate to men. Traditional female gender roles are generally *ascribed* to women, and young girls are taught to value themselves for playing supportive, nurturing roles in society. On the other hand, traditional male gender roles are generally *achieved* and young boys are taught to value and strive for leadership roles (United Nations Special Session on Gender, 2001).

In most societies, women are not routinely offered the power, status, or economic autonomy that men generally have. Women are commonly assigned to undervalued support and service roles, which tend to be unpaid or low-paying tasks which often involve a high degree of emotional labour, which takes a further toll (Macionis, Benoit & Jansson, 2005). This historical pattern of women occupying the lower echelons in social structures increases her chances of becoming infected with HIV. Women’s subordinate position to men in political economic structures forces many women into positions of economic dependence. This position of economic dependence may cause a woman to submit to unsafe sexual behaviours in an attempt to secure economic advantage or survival (Global Programme on AIDS, 1998; Wingood & DiClemente, 1997; Gorna, 1996; Panos Institute, 1990).

Some have argued that homosexual men experience a similar degree of discrimination and marginalization (Gorna, 1996). Yet, one fact remains. Men are men, regardless of their sexual orientation, and as such, they are heir to the privileges that maleness bequeaths. While gay men as a group may hold a relatively lower perceived social status, individually, many have access to and hold positions of power within society. In North America and Europe, out gay men tend to be white, highly educated, and relatively advantaged. The same cannot be said for the majority of women in these and most other societies (Panos Institute, 1990).

“Human behaviour is rooted in the social and economic facts of individual lives... women’s choice’s, particularly about sexual behaviour are often subject to powerful and far-reaching constraints” (Panos Institute, 1990:19). This deep-rooted expectation of the female gender’s passive sexual role undermines women’s ability to act on the HIV risk-reduction information they may have. Wingood (1995) noted that HIV prevention programs aimed at high-risk women or gender-neutral audiences fail to address the cultural norms of gender relations. These cultural norms are seen as obstacles to HIV prevention, especially for disadvantaged and disempowered women and have changed little in the decades since the advent of HIV/AIDS (Joint United Nations Programmes on HIV/AIDS, 2006; United Nations Special Session on Gender, 2001).

Many women’s desire to fulfill gender-specific roles by becoming mothers, coupled with societal expectations that they will produce children, necessarily precludes safer sex. Yet, even those women who do not wish to conceive, who fully understand the risks of HIV infection and know about the need for safer sex do not always practice it (Wingood & DiClemente, 1997; Miranda-Maniquis, 1993; Panos Institute, 1990). Negotiating safer sex is difficult for many women because such behaviours defy “prevailing socially defined societal norms that dictate appropriate sexual conduct for women” (Wingood, 1995:592). In many cultures, “women who appear too knowledgeable or assertive about sexual matters may find their character called into question” (Panos Institute, 1990:35). In other words, the prevailing social attitude is to label women who use or carry condoms as *sluts* and/or *whores* (Gavin, 2000). The social construction of condom use initiated by women as morally deviant persists, and needs to be challenged. This is because the social structures that disenfranchise, the attitudes that devalue, and the social norms that censure responsible and empowered female sexuality place many women at greater risk for HIV infection (United Nations Special Session on Gender, 2001).

Many culturally defined male gender roles are also contraindicated for HIV prevention. This point is clearly illustrated by the extremes found in Latino gender roles. Men have been socialized into *machismo* roles that take for granted men’s superior knowledge of sexual matters and their authority over women. Women are socialized to

adhere to the *marianismo* role that is an extreme of female dependence, passivity and ignorance of sexual matters (Raffaelli & Suarez-Al-Adam, 1998).

For example, an HIV/AIDS prevention workshop presented to young adults (18-25 years) in Sao Paulo, Brazil, increased communication with partners about sex and AIDS, and reduced the incidence of reported unprotected sex with non-monogamous partners—for female participants only. The lack of change in the young Brazilian men was attributed to these culturally entrenched gender roles that presume male dominance and sanction male promiscuity (Antunes, Stall & Paiva et al., 1997).

It has become increasingly clear that HIV prevention education for women is a necessary, but not sufficient means of controlling the spread of the epidemic. Men have more lifetime sexual partners, they ultimately decide whether condoms are used, and they are less likely to seek sexual health care. There is an undeniable need for men to take responsibility for their sexual health and for the impact their sexual behaviours can have on the women who are intimate with them. It is important that men become more aware and more sensitive to the power they have to control women, and ethical use of that power should be encouraged (Joint United Nations Programme on HIV/AIDS, 2000).

The acceptance of sexual equality is integral to HIV/AIDS prevention. It is of utmost importance “to change accepted patterns of male behavior and expected patterns of female behavior” (Miranda-Maniquis, 1993:26) in order for women to be in a position to protect themselves from the very real threat of infection—which leads ultimately, to death.

2.3 An Epidemic of Stigma

December 1st, 2003 marked the 15th Annual World AIDS Day. In an unprecedented move, the 2003 theme, “Stigma and Discrimination”, was a repeat of the theme used the previous year (Avert, 2003). From the beginning of the HIV/AIDS epidemic, stigma has posed a persistent and often unyielding obstacle (Canadian HIV/AIDS Legal Network, 2005; 1999; Goldin, 1994; McGrath, 1992). In North America, a slow public health response was the result of the epidemic initially being located in a population labelled as deviant (homosexual men). Moral critics blamed the victims believing them to be responsible for their own infection because of their immoral lifestyles. As the epidemic spread, it moved into other stigmatized populations such as

injecting drug users, sex trade workers, and migrants. It was not until the disease began appearing in the more general population via the blood supply that the public health alarm bells began to ring (Gilmore & Somerville, 1994; Shilts, 1987).

Two decades into what is poised to become the worst catastrophe in recorded human history (Foster, 2002; Haseltine, 1993), we are still battling the stigma associated with HIV/AIDS. We are now armed with a tremendous amount of knowledge about this disease and know that social deviance is neither a necessary nor a sufficient explanation for the rapid spread of the virus. The initial public hysteria about the *gay plague* has been replaced by a general state of apathy among the public at large (Canadian HIV/AIDS Legal Network, 1999). The initial response was not consistent with the actual risk of contracting the disease and the current response is incongruent with the increasing severity of the epidemic and the looming economic crisis it brings with it.

Globally, the social costs of this epidemic have been high: An estimated 34 million dead by the end of 2004; An estimated 38.6 million [33.4 million–46.0 million] people living with HIV at the end of 2005, many of them unable to access healthcare or afford life-preserving medications; 4.1 million [3.4 million–6.2 million] new infections and an estimated 2.8 million [2.4 million–3.3 million] deaths in 2005 alone, and the burden of new infections is increasingly borne by women and youth (Joint United Nations Programme on HIV/AIDS, 2006).

Overall, the HIV incidence rate (the proportion of people who have become infected with HIV) is believed to have peaked in the late 1990s and to have stabilized subsequently, notwithstanding increasing incidence in several countries [e.g., China and Eastern Europe]... Changes in incidence along with rising AIDS mortality have caused global HIV prevalence (the proportion of people living with HIV) to level off. However, the numbers of people living with HIV have continued to rise, due to population growth and, more recently, the life-prolonging effects of antiretroviral therapy (6).

The economic costs have also been high, and are set to sky-rocket. Already the economies of several developing nations are on the brink of disaster while healthcare systems in more developed nations strain under the burden (World Health Organization, 2003).

In Canada, the overall prevalence of HIV/AIDS is relatively low—an estimated 0.3% [0.2 – 0.5%] at the end of 2005—yet this is unchanged from estimates for the end of 2001 (United Nations Joint Programme on AIDS, 2004; 2006). The incidence of HIV in Canada was steadily declining until 1995. However, since 2000, this trend has reversed, the numbers of newly reported HIV infections are again increasing. Officials suggest that this increase may be partly due to improved surveillance and reporting which, in most provinces and territories, also includes immigrants who are now faced with mandatory testing (Public Health Agency of Canada, 2004). By the end of June 2004, there were a total of 56,523 positive HIV test reports, and 19,468 reported AIDS cases (all ages included). The use of anti-retroviral therapy has been widespread in Canada since 1996, and this has resulted in an overall decline in AIDS diagnoses but a corresponding decline in HIV infections has not been evident (Health Canada, 2004).

As elsewhere, many of those who are infected are afraid to come forward for care and support. Many who may be infected are afraid to come forward for testing and counselling. Many at risk are afraid to learn about and adopt new behaviours because this may imply infection. These fears are fuelled by the potential for stigmatization and discrimination (United Nations Joint Programme on AIDS, 2004; 2006). Many of those infected, affected, and at risk, fear stepping into the firing line, and thus, avoid being identified. The isolation of persons from the larger community is troublesome enough from a humanitarian standpoint, but the dissociation of the person from the disease is an epidemiological nightmare.

Successful public health responses to infectious (contagious) disease depend upon a continuum of prevention and care, including treatment. A continuum of prevention and care helps mainstream the illness experience. Mainstreaming prevention and care allows communities to address the public health issues and help those infected and affected. There is also the potential for normalizing the illness and personalizing risk thereby instigating behaviour changes which have great potential for reducing the probability of exposure and limiting transmission. This effectively lowers the incidence of the disease (Busza, 1999; Malcolm, Aggleton, Bronfman, Galvao, Mane & Verrall, 1998; McGrath, 1991). Conversely, disruptions to the prevention/care continuum may result in a

worsening outbreak. This seems to have been the case with HIV, a highly stigmatized, fatal, sexually-transmitted disease which is inherently invisible until death threatens.

Throughout history stigma has divided the world, defining *us* and *them*. Whether the mark was a physical, mental, social, or spiritual characteristic, those who did not fit the social ideal of the time (or at least come close to it) were shunned, dishonoured, and scorned (Heatherton, Kleck, Hebl & Hull, 2000; Ainlay, Becker & Coleman, 1986; Jones, Farina, Hastorf, Markus, Miller, Scott & French, 1984; Katz, 1981; Goffman, 1963). Social ostracism reduces one's *life chances* (access to jobs, earnings, education, housing, etc.) and seriously jeopardizes health (Link & Phelan, 2001; Gilmore & Somerville, 1994). HIV, initially marked by its association with sexuality and with individuals who were already stigmatized, has proven to be a most difficult public health challenge (World Health Organization, 2003; Joint United Nations Programme on HIV/AIDS, 2003, 2006; Busza, 1999; Malcolm et al., 1998; Goldin, 1994; McGrath, 1992). By promoting tolerance and understanding through research, legislation and community-level action there is a good chance of decreasing the extent of the overarching epidemic of stigma and discrimination which in turn will help curb the HIV pandemic (World Health Organization, 2003; National Institutes of Health, 2005; Canadian HIV/AIDS Legal Network, 2005; 1999).

2.31 The Nature of Stigma

The world is without inherent, intrinsic meaning and man is constantly charged with the task of imposing meaning on it (Plummer, 1975:np).

Beginning a comprehensive discussion of the stigmatization process is a daunting task. Several branches of various disciplines within the social sciences have investigated numerous aspects of the personal, situational, cultural, and historical antecedents and consequences of stigmatization. Many of the theories concentrated on identity, attribution, prejudice, stereotyping, group dynamics, and social movements are relevant to a discussion of stigma, as are many other aspects of human interaction. As well, cross-cultural and historical contexts need to be considered given that stigmas which are significant in a particular society and/or at a particular time in history many be relatively insignificant in another society and/or at another time in history (Reingold & Krishnan,

2001; Neuberg, Smith & Asher, 2000). This part of the dissertation is also designed to explain how stigmatization can influence the progression of epidemics.

In his influential work on stigma Erving Goffman (1963) struggled to define and demonstrate the structural preconditions of stigma. The word stigma originated with the Greeks who were known to apply physical markers (e.g., scars and brands) to identify various deviant members of society such as slaves and thieves. The original meaning shifted in later Christian times and the word took on a two-fold meaning: Stigma could refer either to a physical indicator of holy grace (stigmata) or to a physical manifestation that signalled a spiritual fall from grace (Goffman, 1963).

The grace/disgrace dichotomy was a reflection of religious beliefs which taught that spiritual morality or immorality would be rendered visible to others and that physical disfigurements, disorders, or diseases were divine punishment for immoral behaviour (Reingold & Krishnan, 2001; Goffman, 1963). Goffman suggests that the word stigma is currently “used in something like the original literal sense, but is applied more to the disgrace itself than to the bodily evidence of it” (Goffman, 1963:2). It could be argued that the metaphorical interpretation of stigma as a physical manifestation of immoral conduct is still the tendency of the religious right, particularly in the case of sexually transmitted infections such as HIV. In the context of a grace/disgrace dichotomy (irregardless of bodily evidence of displeasing the gods), heuristic attribution processes coupled with justifying ideologies (Crandall, 2000) promote us vs. them thinking (Link & Phelan, 2001; Gilmore & Somerville, 1994).

Goffman (1963) described three types of stigmatizing features that lead normal individuals to stigmatize deviants, and thus differentiate themselves from those so labelled. In the case of what Goffman (1963) refers to as “abominations of the body” (4), that is, physical disfigurement, the stigmatizing feature tends to be readily apparent to any onlooker and can be known at first glance. “Blemishes of individual character” (4) may be less apparent but may be inferred from known records (for example, a history of mental illness or incarceration) so the deviant individual can never be certain whether the stigmatizing attribute is known or unknown to those with whom they come into contact. “Tribal stigma of race, nation and religion” (4) may also be less visible, however hereditary stigmas (when known) have the unique potential to discredit entire families. In

each case, the individual is possessed of a trait or association that does, or has the potential to, exclude them from social situations in which he or she might otherwise be welcomed (Goffman, 1963).

Upon encountering strangers, we tend to categorize them based on a quick assessment of visible physical features and accoutrements. In effect, each individual is assigned a social identity; a term Goffman (1963) suggests is more meaningful than social status because it encompasses personal characteristics (such as honesty) as well as social attributes (such as occupation). This process of attribution is largely unconscious and the judgments are often a better reflection of our individual prejudices and stereotypical thinking than they are a reflection of the individuals we encounter (Stangor & Crandall, 2000).

Our assumptions about given individuals provide them with virtual social identities, while our experiences with them allow us the opportunity to discover their actual social identities. If an individual's actual social identity is relatively congruent with the assigned virtual social identity, all is well. If, however, we are faced with an individual who does not fit our expectations and our interaction with them reveals an undesirable attribute that is interpreted as a "failing, shortcoming or handicap" (Goffman, 1963:3), our interaction becomes less straightforward. The marked individual is likely to be reduced in our eyes and thereby viewed as someone less than fully human, possibly someone to be discounted and hence stigmatized (Goffman, 1963).

Goffman (1963) also points out that "not all undesirable attributes are at issue, but only those which are incongruous with our stereotype of what a given type of individual should be" (9). If the discrepancy between the virtual and actual social identity allows us to place the individual into a different but previously anticipated social category, it is not likely to result in stigmatization, especially if the move is in an upward direction. Goffman (1963) furthers this notion by suggesting that to fully understand stigmatization it is necessary to employ a language that examines the relationship between attributes and stereotypes. That is, an attribute may or may not be stigmatizing depending on context, although some attributes are almost always stigmatizing and often inform stereotypes.

Later researchers suggested that the characteristics of stigmatized individuals may be a necessary but not sufficient explanation of the stigmatization process (Link &

Phelan, 2001; Heatherton, et al., 2000; Ainlay, Becker & Coleman, 1986; Jones et al., 1984; Katz, 1981). Stigma can be further understood in the context of the characteristics of relationships between those whom Goffman (1963) characterized as deviants and normals (what Jones et al. refer to as the marked and the markers). Jones et al. (1984) suggested that disruptive emotional, cognitive, and behavioural processes taint these relationships. They wisely point out that everyone can be marked as deviant to some extent in the eyes of others and because of this we can all imagine the feelings associated with being labelled negatively.

Social Categorization

As social animals, humans have constructed any number of social categories that are useful for managing routine interactions. When a category of individuals can be expected to behave in particular ways in certain social situations, we are able to interact with them without undue cognitive effort. We can anticipate what they are likely to do, and what we are likely to be expected to do. In turn, social order dictated by accepted social norms prevails (Goffman, 1963). Category labels guide information processing and words give meaning and also shape affect and behaviour. The phenomenon of social stigma is ubiquitous and reactions to signs of difference often include avoidance or hostile rejection. This can have “devastating consequences for emotions, thought and behaviour” of those who are stigmatized (Jones et al., 1984:4) and thus affect the formation of the self-concept.

Self-concept

The self-concept is developed through the process of gaining knowledge of the self in comparison to others and considering ourselves from the standpoint of another (see Mead, 1934; Cooley, 1922). It is thought that individuals actively construct a self-concept during social interactions that include self-relevant responses from others. The formation of a self-concept is “assumed to result from an elaborate interplay of one’s own thoughts and feelings about the self with the thoughts and feelings that are elicited or inferred from others’ reactions” (Jones et al., 1984:114). The self-concept is built upon what we feel about ourselves, coloured by what we feel others think about us (Cioffi, 2000). A well-formed self-concept contains representations of the unique aspects of our

abilities, achievements, temperament, appearance, and preferences and provides us with sense of continuity, stability, and personal coherence (Jones et al., 1984).

Through this process, we build a self-schema which describes that which we believe to be true about ourselves based on that over which we feel we have personal control and/or for which we have responsibility (Jones et al., 1984). Self-schemas allow individuals to know what to expect of, and for themselves. However, given the overwhelming amount of information about the self that is available, we selectively attend only to that which is salient in a personal, situational, and historical context. Stigmatization can negatively influence these processes. Jones et al. (1984) proposed that it would be necessary to consider six important dimensions when trying to define the extent to which an individual might be stigmatized, and thus develop a damaged self-concept and self-schema. Concealability, course, disruptiveness, aesthetic qualities, origin, and peril posed by a stigmatizing feature all have some bearing on the magnitude of stigmatization and are discussed below.

Dimensions of Stigma

As Goffman (1963) proposed, the social effects of potentially stigmatizing attributes depend to a large degree on how obvious the condition is and that concealability is a crucial dimension of stigma. At the one extreme, a stigmatizing feature remains unknown to both the stigmatizer and the potentially stigmatized, whereas at the other extreme both parties are fully aware of the stigmatizing feature. The extent to which information is available or potentially available about a stigma can affect the behaviour of both the stigmatized and the stigmatizer (Jones et al., 1984; Goffman, 1963).

The need to constantly monitor self-presentation and manage information is cognitively and emotionally taxing (Cioffi, 2000; Smart & Wegner, 2000; Jones et al., 1984; Goffman, 1963). Stigmas that are fully visible (such as facial disfigurement) put a stigmatized individual in a position of being *on stage* at all times during face-to-face interactions and their behaviour is often designed to reduce real or imagined social tension or negative responses. Stigmas that can be hidden, usually are (e.g., epilepsy that can be controlled with drugs and HIV before the onset of AIDS) and this situation demands that those possessing a stigmatizing condition or trait alter their behaviour so as to not unwittingly reveal their limitations. Often, this duplicity fosters feelings of shame

and guilt, as well as a fear of being discovered. Alternatively, a stigmatizing feature that is thought by its possessor to be concealed, but that is in fact known to the other party can also interfere with interactions. In addition, situations can arise where an individual is stigmatized for a feature that he or she is unaware of (e.g., social impropriety as judged by the other, not the self). In any of these situations, one or both individuals may feel anxious about the interaction and may behave in unexpected ways that are misattributed and result in inappropriate responses (Jones et al., 1984).

The course of the marking feature also influences social interactions. A mark may become more or less visible over time and the degree to which a known condition is seen as progressive, chronic, and incurable affects the degree to which the condition will be stigmatized. Generally, the worse the prognosis, the greater the stigmatism (Jones et al., 1984) and currently, the prognosis for HIV infection is the eventual onset of AIDS, and the prognosis for AIDS is death.

The disruptiveness of a stigmatizing feature is also important. A feature such as stuttering, which draws attention to itself, makes patterns of interaction uncertain and which may block or distort communication, is more disruptive than some other disabilities (such as having a club foot, a stigma that can often be ignored during interpersonal communications). Mental illnesses, because of the unpredictable nature of their manifestations, are also very disruptive and hence highly stigmatizing (Jones et al., 1984). Closely related to this, the aesthetic qualities of a stigmatizing condition are significant. A stigma which evokes strong negative affect upon discovery is likely to result in greater stigmatization. For instance, severe facial disfigurement can provoke fear and result in the active avoidance of such persons (Jones et al., 1984).

The last two dimensions of stigma, as put forth by Jones et al. (1984) deal with blame and threat. The origins of a stigmatizing condition and the level of danger associated with it can ultimately make the difference between social acceptance and social rejection. The circumstances under which a stigma originated, that is, who is responsible for it, lead others to make judgments about culpability. The more an individual is judged to be personally responsible for the stigmatizing condition, the greater the derision. Similarly, degree of stigmatization is related to the extent to which the condition is perceived as posing a danger to others. Conditions thought to pose

imminent and severe danger are highly stigmatized, more especially so if the individual is held personally responsible for bringing the condition upon themselves (Jones et al., 1984). More recently, researchers have suggested that the triad of perceiver-target, personal group-based identity, and affective-cognitive-behaviour responses must be conceptualized into a stigma framework for better understanding (Dovidio, Major & Crocker, 2000).

As noted above, much social scientific research has focussed on the stigmatization process. The majority of this research has addressed the individual characteristics of the stigmatizer (*aka* the perceiver, marker or normal) and the coping responses of the stigmatized (*aka* the perceived, target/marked or deviant) (Blascovich, Mendes, Hunter & Lickel, 2000; Jones et al., 1984; Katz, 1981; Goffman, 1963). Much research has also linked stigmatization with reduced self-esteem, but “the empirical evidence for this claim is at best inconsistent and at worst contradictory” (Crocker & Quinn, 2000:153). Given that the main focus of this section of the dissertation is on the epidemiological consequences of stigma, I will now concentrate on the origins of stigma, an area that has received little attention (Link & Phelan, 2001; Stangor & Crandall, 2000).

Origins of Stigma

Answers to the more fundamental question of where stigma originates have the potential to explain why are some attributes are universally stigmatizing, while others vary across cultures and time. These are issues that have not been sufficiently explained by individual-level theorizing that locates the mechanisms of, and responses to, stigmatization somewhere inside the stigmatizer and the stigmatized (Link & Phelan, 2001; Dovidio, Major & Crocker, 2000; Stangor & Crandall, 2000).

A comprehensive theory of stigmatization must account for shared beliefs as well as cross-cultural similarities and variances in perceptions of stigma (Stangor & Crandall, 2000). An extrapolation of theories from the prejudice and stereotype literature does much to explain the formation of shared beliefs and cross-cultural similarities and differences. In general, prejudice refers to attitudes (both positive and/or negative) held by individuals which inform cognitive representations (stereotypes) of other individuals or groups of individuals merely because they occupy a specific social position (Biernat & Dovidio, 2000). In general, both positive and negative stereotypes are oversimplified

cognitive conceptions or beliefs about individuals who belong to a particular social group or category. They tend to be rigid *caricaturizations* that often have little basis in reality (Dovidio, Major & Crocker, 2000).

Stereotypes & Prejudices

Stereotypes and prejudices develop through functional, perceptual or consensual processes (Stangor & Crandall, 2000). Functional theories propose that cognitive economy, self-enhancement, or the protection of the self from harm are central to the development of stereotypical and prejudicial thinking. Each provides a personal benefit; cognitive economy simplifies social perception, self-enhancement boosts self-esteem or social identity through downward comparison, and protecting the self from harm is adaptive in that it enhances the likelihood of survival. Functional theories provide some understanding of the initial impetus for stigma, however, they do not account for the creation of stigmatizing categories (Stangor & Crandall, 2000).

Perceptual theories of stereotype and prejudice formation propose that belief creation and accentuation are based on direct observation and subsequent cognitive distortions. The creation of beliefs may be based on illusory correlations where unique experiences (e.g., witnessing negative behaviour and interpersonal contact with minorities) are given salience and then erroneously paired with one another (Link & Phelan, 2001). In this process, stigma is believed to derive from the association of the unusual with negative experiences. An ecological approach to belief creation posits that *kernels of truth* discovered in interactions with others are then accentuated and over-generalized. Accentuation theories describe how perceived differences are exaggerated through cognitive biases such as biased information searches, biased memory, and biased attributions. Perceptual theories provide some understanding of existing stereotypes and prejudices, but do not account for the initial impetus for stigma (Stangor & Crandall, 2000).

Consensual theories of stereotype and prejudice formation attempt to explain conformity among beliefs, that is, how all or most individuals in a given group will attach the same meaning to a characteristic or behaviour. The focal points in consensus theory are social exchange and communication. In many ways, consensus theories are at odds with functional and perceptual theories in that direct experience with outgroups and the

need for cognitive simplicity or self-enhancement are neither necessary nor sufficient features for the construction of stereotypes and prejudices. Rather, prejudicial beliefs and stereotypes are social constructions and stigmatization can be predicted by the degree to which holding negative attitudes is socially acceptable. The suggestion is that individuals are simply repeating cultural norms and that differences in degrees of prejudice reflect conformity rather than individual personality constructs. Like functional and perceptual theories, consensual theories are relevant to a study of stigma but do not fully explain the origins of stigma (Stangor & Crandall, 2000). Based on their review of the stereotype and prejudice literature, Stangor & Crandall (2000) suggest that:

Stigma develops out of an initial, universally held motivation to avoid danger, followed by an (often exaggerated) perception of characteristics that promote threat, accompanied by a social sharing of these perceptions with others. Moreover... stigmas exist primarily in the minds of stigmatizers and stigmatized individuals as cultural social constructions, rather than as universally stigmatized physical features (62-3).

A Biocultural Framework

Stangor & Crandall's stance is congruent with the biocultural framework of stigmatization presented by Neuberg, Smith and Asher (2000) who propose that stigmatization "represents one end of the continuum of the process of assigning positive or negative labels to those we come across, and then valuing or devaluing them as their labels warrant" (31). While their paper focuses on the process of devaluation, the authors point out that a biocultural perspective also accounts for how others are marked in more favourable, nonstigmatizing terms. As a potential explanation of the origins of stigma, a biocultural framework appears promising.

Anthropological evidence strongly suggests that humans living within highly interdependent, cooperative groups had an evolutionary advantage. Forming and maintaining functional groups (generally based on kinships) is believed to have become a primary human survival strategy. The functionality of a given group, and hence its evolutionary advantage, depended to a large degree on sharing, cooperation, mutual investment, and trust that others would do the same. A functional group benefited individual group members and functional members benefited the group. Group functionality would be especially important during times when resources were scarce,

and reciprocal prosocial behaviour would enhance the chances for survival (Neuberg, Smith & Asher, 2000).

The evolutionary advantage afforded by reciprocal prosocial behaviour suggests that such behaviour would become normative within groups. Individual physical or behavioural characteristics that limited reciprocity and prosociality had the potential to threaten the continued existence of the group. According to a biocultural model, the processes and consequences of stigmatization within groups begin with violations of these group standards. Actions (or inactions) judged to weaken the evolutionary advantage gained by group living would be frowned upon or actively challenged. Physical disability or blatant disregard for group standards of reciprocity, in the form of thievery for instance, are two examples of stigmatizing forms of non-reciprocation. The latter is an active anti-social choice and also presumes a breach of trust unlike a disability which may be the result of a birth defect or an injury that may have been sustained in service to the community (e.g. war wounds). It is suggested that the perceived threat to survival presented by dysfunctional group members predicated stigmatization (albeit often to greatly differing degrees) (Neuberg, Smith & Asher, 2000).

In most cultures, at most times, those with various disabilities have depended upon the goodwill of others for survival. In times of plenty, goodwill was abundant. During times of scarcity, those who were unable to reciprocate likely depended upon the prosociality of key affiliates for continued existence. It appears that historically, non-reciprocation based on disability was stigmatized, but generally to a lesser degree than non-reciprocation that appeared to be the result of purposive disregard for group norms. Historically, the deliberate exploitation of others for personal gain tended to be more highly stigmatized than a failure to reciprocate predicated on inability (Neuberg, Smith & Asher, 2000).

Problematically, by their very nature, prosocial acts are ripe for exploitation. The exploitation of another's goodwill without reciprocation increases the chances for individual survival. For example, an individual who benefits from a share of the food provided by the group without sharing his/her own resources would have a greater chance of maintaining fitness (at least until the betrayal was discovered). It has been suggested that the potential benefits gained by exploiting group norms of reciprocation would be

tempting to many individuals, and as a result social sanctions against such behaviours were needed (Neuberg, Smith & Asher, 2000).

Within a biocultural framework, it is proposed that groups are built upon a foundation of trust and breeches of trust are perceived as *threats*. Group members are socialized to uphold group norms of trust and reciprocity and risk being labelled as a threat to social order if they deviate from these norms. Liars, cheaters, thieves, and traitors are stigmatized to a greater degree because individuals who actively exploit the norms of trust and reciprocity are seen to pose a significantly greater threat to survival of the group. At many times, in many cultures, those caught abusing trust, if not subject to the death penalty were/are subject to public exposure of their transgressions. Often this public exposure was in the form of various marks, for example, brands and tattoos were popular among the ancient Greeks, amputations were popular among the Taliban (Neuberg, Smith & Asher, 2000; Jones et al., 1984; Katz, 1981; Goffman, 1963). In Western culture, criminal records, jail time, and/or the stripping of professional licenses and credentials mark breeches of trust. Individuals bearing such marks are to be discredited, scorned, and avoided.

Further to this, group members can pose threats to the group in other ways. Groups thrive when members appreciate and adhere to the social rules and scripts that allow “coordinated social action and interaction” (Neuberg, Smith & Asher, 2000:47). This need for predictability suggests that individuals whose behaviour is unpredictable (e.g., those with certain mental illnesses such as schizophrenia) will be stigmatized, as will those who are too incompetent to contribute to group function (e.g., those with physical or mental infirmities). Additionally, the survival of the group depends on the reproductive fitness of group members. Individuals exhibiting defects marking genetic weakness, behaviours that threaten effective group reproduction and, perhaps most importantly for the context of this dissertation, those exhibiting symptoms of contagious disease tend to be stigmatized. Groups have a collective need to maintain fitness and to function effectively. Within-group members who present a threat to fitness, functionality, or both (whether the threat is tangible or intangible) are at great risk of stigmatization. As well, other outside groups can present threats (Neuberg, Smith & Asher, 2000).

At the risk of oversimplifying a very complex field of study, the fundamental differences between in-groups and out-groups can be understood by examining the quality of interactions among and between group members. Interaction within groups tends to be characterized by co-operative behaviour, whereas interaction between members from different groups tends to be characterized by competitive behaviour. While group cooperation affords an evolutionary advantage to all members of the group, between group competition affords that advantage to only one group or the other. The threat presented by competing groups tends to set in motion the mechanisms of stigmatization again; this time based more on group membership than on individual behaviours and physical characteristics (Neuberg, Smith & Asher, 2000).

To summarize, in an evolutionary context, the continuance of a social group depends upon trust, sharing, cooperation, and mutual investment in the form of reciprocation and prosociality. The functionality and reproductive fitness of groups depends on members conforming to social roles and expectations. Those unable or unwilling to meet these demands pose threats to survival and are thus stigmatized. In addition, competing groups which pose threats to survival are stigmatized. This is not without reason when viewed from an evolutionary standpoint. However, this is not to say that stigmatization is biologically determined nor that what was adaptive or even *natural* from an evolutionary standpoint is right or justifiable, especially in the context of contemporary society (Neuberg, Smith & Asher, 2000).

2.32 The Nature of Epidemics

This section is meant to discuss how the process of stigmatization can influence epidemics and negatively affect population health. In this context, the classification scheme for potentially stigmatizing conditions put forth by Reingold and Krishnan (2001) is of interest. Their epidemiological perspective suggests that stigmatizing conditions can be organized into four distinct and logical groupings:

- 1) Behaviours: which would include the use of alcohol, illicit drugs and tobacco, homosexuality, and spousal or child abuse;
- 2) Structural abnormalities: which would include facial and skeletal anomalies such as cleft lip and severe curvature of the spine, and abnormalities of the skin pigmentation and body size, such as albinism and obesity;

- 3) Functional abnormalities: which include abnormalities in motor coordination, speech, vision and hearing, abnormalities in mental functioning such as mental retardation and schizophrenia, as well other functional abnormalities such as epilepsy, and;
- 4) Contagious diseases: which would include leprosy, tuberculosis, and most importantly for this discussion, HIV/AIDS and other sexually transmitted infections.

These categories are not mutually exclusive because contagious diseases such as leprosy or HIV/AIDS can, in their later stages result in structural and functional abnormalities. Reingold and Krishnan (2001) also point out that cancer, which at some times in some places has been associated with stigma, does not readily fit into any of these groupings. For the purposes of this dissertation, the remainder of this discussion will focus mainly on contagious diseases and the behaviours associated with transmission, which are of greatest importance with regard to the spread of the HIV/AIDS epidemic.

Predicting the Size and Shape of an Epidemic

We typically think of a new epidemic in a 'virgin' population as something that arises suddenly, sweeps through the population in a few months, and then wanes and disappears (Anderson, 1996:71).

The prevalence of an infectious agent may be referred to as endemic, epidemic or pandemic. At an endemic level, there is a relatively low, but constant presence of the disease in a specific geographic area or population group. At the epidemic level, more cases of a disease occur than are expected in a given area or group. The term pandemic is used when an epidemic affects large proportions of a population and spans a wide area (several countries or continents). For example, while HIV/AIDS may, at one time, have been endemic to a specific region, it is currently a full-fledged epidemic, and the global distribution of infections gives it pandemic status (Anderson, 1996).

Human pathogens may be classified based on mode of transmission (although some pathogens such as HIV have more than one mode of transmission). Vector-borne diseases are those which are transmitted to humans via *non-human* hosts and humans should not be referred to as vectors. Mosquitoes, lice, and fleas are common vectors and

can transmit various diseases such as West Nile, malaria, typhus, and bubonic plague to humans; given a disease carrying vector, a susceptible human host, and adequate contact between the two, the transmission of disease is probable. (Adequate contact is defined as *contact adequate for disease transmission* which will vary by pathogen). Other diseases, such as measles, influenza, syphilis, and chickenpox are the result of direct contact between human hosts with no intervening vector. Transmission routes include respiration, fecal-oral contact, or sexual contact and given a susceptible human host, an infected human host, and adequate contact between the two, the transmission of disease is likely. Still other diseases such as cholera, typhoid, salmonella, and on occasion, HIV, are the result of environmental contamination. Transmission of these diseases occur when a susceptible human host comes in contact with a pathogen living in the environment via food, water, air, or items such as contaminated needles or clothing (McGrath, 1991).

The development of an epidemic depends on the effective reproduction of infection measured as case reproduction rates. With most contagious diseases, for example respiratory or intestinal tract infections caused by viral or bacterial agents, the classical epidemic curve (which is the measure of case reproduction) is bell-shaped. The steepness of the slope of the curve reflects how rapidly secondary cases are generated from primary infections (a measure of contagion or infectivity) and the length of the curve describes the duration of the epidemic. The degree to which secondary cases are generated from primary cases depends on the transmission efficiency of the infectious agent, which is an expression of the probability that an uninfected, susceptible individual will come in contact with an infected individual, multiplied by the possibility that transmission will occur during such contact (Anderson, 1996).

In the case of highly infectious diseases such as measles, which have a relatively short period of infectiousness (generally 2 weeks), the duration of an epidemic is also relatively short (typically 6 months to a year) (Anderson, 1996). In comparison, the genital herpes virus (HSV-2) has an intermittent period of infectivity (Steben & Sacks, 1997), while HIV has an extended period of infectiousness (Anderson, 1996). HSV-2 can be transmitted during times of viral shedding (which are unpredictable and often undetectable) over the course of a normal lifespan, while the HIV virus may be transmitted at any time after initial infection until death, a time span of up to a decade or

more (Steben & Sacks, 1997; Anderson, 1996). These lengthy periods of infectivity suggest that these epidemics could endure over a number of generations. It has been predicted that the HIV epidemic will be marked by an elongated epidemic curve showing several distinct peaks rather than a classical bell-shaped curve (Anderson, 1996) and this prediction has been borne out (Joint United Nations Programmes on HIV/AIDS, 2006).

The transmission of infectious agents depends upon the successful exploitation of physiological and anatomical vulnerabilities. The probability of transmission of infectious agents is also influenced by behavioural and social risk factors. When biological vulnerabilities are lessened by appropriate behavioural or social change that limits disease transmission, the natural course of an epidemic can be disrupted (Anderson, 1996; McGrath, 1991).

Preventing an Epidemic

According to McGrath (1991), there are four conditions that limit disease transmission: 1) Elimination of the source of infection, including vector populations, pathogenic organisms, or sources of environmental contaminants; 2) Elimination of adequate contact between sources of infection and susceptible hosts or susceptible vectors; 3) Reducing infectivity of vectors, hosts, or environments, and; 4) Reducing host susceptibility. “The biological appropriateness of a given response is evaluated in terms of how effectively it fulfills one or more of these four conditions” (McGrath, 1991:415). If a social response meets none of the four conditions, it will fail to affect the epidemic and the transmission of disease will continue. However, if a response eliminates the source of infection, eliminates contact with the source, decreases infectivity, and/or decreases susceptibility, the response will decrease the incidence of disease and hence, is biologically appropriate (McGrath, 1991).

“Disease is the result of a complex interaction of host, pathogen, and environment” (McGrath, 1991:407), and social responses to disease may or may not be biologically appropriate. Social responses which severely alter the normal functioning of a social system, thereby causing a high degree of social disruption have the potential to increase the biological impact of an epidemic by increasing incidence of the disease and therefore may not be biologically appropriate. In a 1991 review of ethnographic reports

of social responses to epidemics, McGrath outlined the most common social responses to epidemics, many of which have considerable potential for social disruption.

Social responses to disease can take the form of direct or indirect action and responses often hinge on the type of disease. The most commonly reported response to highly contagious, acute disease is *flight*, whereby those who are able, flee the area. This direct response can be highly disruptive to social systems in that the young, elderly, and impoverished are often left without adequate means to care for or heal themselves. The next most common response (which is also a direct response) is the adoption of extraordinary preventative or therapeutic measures to break the chain of transmission (previously untried or unproven methods of disease control). Extraordinary measures may include special medications, rituals, or quarantines aimed at or adopted by individuals or groups. Such measures can be socially disruptive in that they require special adaptations (McGrath, 1991).

The third most commonly reported response, and most common indirect response to epidemics is scapegoating, whereby blame is ascribed to individuals, groups or classes of individuals, or to religious or governmental authorities. The scapegoats are often those who are already marginalized, and hence deemed blameworthy. The scapegoating process reinforces prevailing social prejudices and may result in resignation or acceptance of the inevitability of morbidity and mortality among the population that is scapegoated (Gilmore & Somerville, 1994; McGrath, 1991).

Ostracism of those infected or those at risk of infection often accompanies scapegoating. The practice of social ostracism is qualitatively different from the public health practice of quarantine. Ostracism implies a moral or value judgment about the individual afflicted with a disease rather than a medical judgment about the disease itself. The attachment of a stigma to an illness does little to eliminate contact with contagions, although this can provide an artificial boundary between *us* and *them*. While this response may be psychologically satisfying for the stigmatizer, it can cause a great deal of social disruption for the ill, and now stigmatized, individual (Gilmore & Somerville, 1994; McGrath, 1991).

As well, the social disruption caused by stigmatization can extend to include those perceived to be at risk based on their associations and behaviours. Intragroup conflicts

about who or what is to blame for the epidemic can also produce social disruption (to the point of social disintegration), especially if the conflict threatens the fundamental organization of the group (e.g., rejection of government authority) (McGrath, 1991).

McGrath (1991) suggests that the social responses to epidemiological threats follow a predictable sequence over time. “At the outset of an epidemic, therapeutic and/or preventative measures are implemented based on the healthcare system in place at the time (“familiar responses”)” (412). If these measures work, the epidemic ends. If these measures fail, extraordinary measures such as quarantines and the development of new drugs will be tried. Once again, if these measures work the epidemic ends. If extraordinary measures fail, the chances for social disintegration increase because flight, rejection of authorities, and/or resignation and acceptance of the inevitability of morbidity and mortality ensue. Each of these last three responses can lead to intra-group conflicts, which further erode social systems (McGrath, 1991).

2.33 How Stigma Influences Epidemics

Just as people are labelled and given social identities, health conditions are labelled and given social meaning, and the symptoms of ill health become social facts with specific consequences (Brown, 1998; Waxler, 1998). The definition of health conditions and the associated social expectations depend greatly upon society and culture, often more so than on the biological characteristics of the condition. The adaptation to illness requires the ill (abnormal) individual to adopt appropriate roles to meet cultural expectations surrounding both general and specific illness and any deviation from this social role is discouraged (Goffman, 1963; also see Talcott Parsons, 1902/1979 for review of the *sick role*).

Societies attach meanings to illness based on three important factors: the ill individual, who provides the social circumstance; the *other* who provides a social reaction; and, a moral judgment (Brown, 1998). If the other judges an illness to be the result of morally reprehensible behaviour, the ill individual will tend to be stigmatized, especially if that individual is already socially marginalized due to lifestyle or group association(s). Often, the social reaction to a stigmatized disease (avoidance, hostility, or ostracism) is out of proportion with the pathology of the disease (Waxler, 1998; Inhorn,

1998), does little to reduce transmission, and may even increase transmission probability by prompting concealment and denial (McGrath, 1991; 1992).

The Social Construction of Illness

Waxler (1998) examined the social construction of illness in the context of a cross-cultural comparison of the stigma attached to leprosy (Hansen's disease). Her findings suggest that the social responses to leprosy are not universal and hence, the degree of stigma attached to the disease is dependent upon cultural context. It has been suggested that this is also true of HIV; stigmatization of the condition has not been constant across time and place (Busza, 1999). In the case of leprosy, the degree of stigma appears to increase in societies with strongly hierarchical organization such as in India, where social *castes* are used to organize society (Waxler, 1998). The degree of stigmatization associated with HIV has also been reported to differ with prevalence of infections. In areas with low HIV prevalence where few communities or families are affected, the illness tends to be highly stigmatized. Conversely, in high prevalence areas where many are infected and affected, the disease may become *normalized*, a process which appears to reduce stigmatization (Busza, 1999).

Both leprosy and genital herpes provide examples of diseases which are, in many cultures, demonized out of proportion with their biological consequences. In the case of leprosy, "a disease of biblical proportions" (Waxler, 1998:147), early diagnosis and treatment of the disease renders it relatively benign, and the progressive degeneration and associated disfigurement can be avoided (Waxler, 1998). However, even while medical science has disproved the disease of the unclean theory and shown that the *mycobacterium* that causes Hansen's disease is not highly contagious, the social reaction to lepers continues to feature fear and negative affect. In the case of genital herpes, the discomfort and potential for transmission during an outbreak is cause for concern, but the virus itself, while annoying to those afflicted, is again relatively benign (Inhorn, 1998). Throughout the world, sexually transmitted infections have been, and still are, frequently stigmatized because they are thought to reflect the immorality of the patient (Brown, 1998). Perhaps, HIV/AIDS provides the most poignant illustration of this.

In some senses, HIV/AIDS has become the new leprosy. Like Hansen's disease, HIV/AIDS has a known cause, an effective treatment, and no known cure. Thus, there is

a predictable outcome. Like lepers, HIV/AIDS patients are often feared, shunned, refused care, rejected, exiled, and in many cases routine treatment is neither offered, nor received. The medical facts of both diseases are also similar. Initially, the effects of infection with the *mycobacterium* or the human immunodeficiency virus are mild and unremarkable, which frequently results in late diagnosis and treatment. With early diagnosis and treatment, the progress of both of these two diseases can be delayed, symptoms disappear leaving no visible signs of infection, and the infected individual is able to lead a relatively normal life (Waxler, 1998). (Although it is important to note that with HIV/AIDS, the interruption of the progression of the illness is usually temporary and the need to take large amounts of anti-retroviral drugs makes the disease more visible when the patient is undergoing treatment (Canadian HIV/AIDS Legal Network, 1999)). Later, both Hansen's disease and HIV/AIDS result in serious and visible medical consequences (Waxler, 1998).

Deviance and Immorality

Historically, STIs have been stigmatized due to their connection with behaviours judged to be deviant and/or immoral (Gilmore & Somerville, 1994; Goldin, 1994). Moral judgments about the means of acquisition of STIs often result in the labelling of individuals as *guilty*, *innocent* or *defenceless victims* based on their perceived responsibility for infection. Those individuals or groups whose lifestyles are presumed to have lead them to infection are pronounced guilty (fornicators!), their naïve partners as innocent, and children of innocents are labelled as the defenceless victims (Busza, 1999). These moral judgments often serve to isolate afflicted individuals because a diagnosis has the potential to devalue them and thus set them apart from normal society. Unfortunately, these fears of stigmatization and discrimination can preclude health-preserving behaviours and increase the probability of transmission, thereby accelerating an epidemic.

This potential is amplified in the case of HIV because the stigma of the illness may be layered upon pre-existing stigmas associated with homosexuality, drug use, or sex-trade work (World Health Organization, 2003; Canadian HIV/AIDS Legal Network, 2005; 1999). The layering of stigma upon stigma has great potential for disrupting social systems which would normally support prevention and care.

2.34 Reducing Stigma, Improving Public Health

Upon review of the mechanisms of stigmatization and the interventions necessary to prevent the spread of contagious disease, it is clear that the social construction of HIV does not encourage interventions that are, at the same time, both biologically and socially appropriate. Biologically appropriate interventions must eliminate the source of infection or contact with the source of infection, or decrease infectivity or susceptibility to the pathogen (McGrath, 1992). Socially appropriate interventions should not result in undue social disruption and should promote stability along the prevention/care continuum (Busza, 1999; McGrath 1991).

While elimination of the source of infection *may* be biologically appropriate with nonhuman hosts (e.g., mosquitoes), and *some* might argue that genocide of the HIV host group (humans!) would be advantageous from an evolutionary standpoint, the social disruption caused by this response would ultimately lead to complete social disintegration. Therefore, until new technology is designed that can kill the virus without harming the host, elimination of the source of infection must be abandoned as an option because it is not only socially inappropriate it is socially reprehensible.

Eliminating direct contact with the source of infection can be achieved in several ways. Practicing celibacy, monogamy between uninfected partners, or safer-sexual behaviour can prevent contact with HIV. Eliminating the use of items contaminated with HIV such as needles, medical instruments, and blood products and using universal precautions when handling bodily fluids can also prevent contact. These responses are both biologically and socially appropriate and would cause only minor social disruptions (e.g., going to get tested, including condoms in the sexual repertoire, providing clean needles to drug users, donning rubber gloves). However, there is a high potential for social disruption caused by discrimination when moral judgments result in the stigmatization of HIV itself, those infected with HIV, or those engaging in known risk behaviours (regardless of precautions taken). Discrimination may manifest at the structural level in the form of legislation or directly between individuals at the community level (Link and Phelan, 2001; Busza, 1999; Malcolm et al., 1998).

National or local laws and policies which restrict travel, impose isolation (e.g., jail terms or quarantine for those infected), or which require mandatory testing and reporting

are socially disruptive and appear to do little to reduce transmission rates and are often at odds with international human rights agreements. Social discourse shared through the media often demonizes those who are infected, perpetuating fear and anxiety rather than normalization. In addition, media images often reinforce traditional gender roles which make women more vulnerable to infection. This type of societal-level discrimination has the potential to fuel the epidemic by disrupting normal health-promoting or health-seeking behaviours (the prevention/care continuum) (Busza, 1999; Malcolm et al., 1998).

At the community-level, HIV stigma leads to discrimination in many forms. The individual may experience isolation, rejection, and disenfranchisement from his or her family or immediate community. Mandatory testing for employment, involuntary follow-up testing, violations of confidentiality, and ostracism in the workplace are common. The refusal of medical treatment, the development of special treatment centres, protocols, and specialized medical advice (e.g., counselling HIV-positive women to abort pregnancies) set HIV-positive populations apart from mainstream society. The denial of traditional rituals like funerals and marriage, and restrictions on religious participation further marginalizes those with HIV. Fear of being labelled negatively and discriminated against often leads to the denial of infection or risk (Busza, 1999; Malcolm et al., 1998; McGrath, 1992).

The simplest means of disrupting case reproduction rates for HIV are measures aimed at eliminating exposure to the virus and this is both biologically and socially appropriate (McGrath, 1992). However, without a concentrated focus on reducing stigma and discrimination, this means of averting the epidemic will continue to fail because fear of experiencing stigma and discrimination prompts many who are infected or who risk infection to avoid or neglect the behaviours which reduce transmission of the virus (World Health Organization, 2003; Joint United Nations Programme on HIV/AIDS, 2003; National Institutes of Health, 2005; Canadian HIV/AIDS Legal Network, 1999; Busza, 1999; Malcolm et al., 1998; McGrath, 1992).

Decreasing infectivity and/or susceptibility to pathogens are also conditions which will decrease the incidence of disease (McGrath, 1991). An extraordinary response to HIV/AIDS by the biomedical research community reduced infectivity through the development of anti-retroviral drugs and highlighted the potential for reduced

susceptibility through research into vaccines. Unfortunately, while the infrastructure for the large-scale distribution of drugs and vaccines exists, with current drug prices, limited suppliers, and a high prevalence of the virus in developing countries, the resultant redistribution of wealth would collapse the economies of many nations (World Health Organization, 2003).

The large-scale distribution of drugs (and vaccines when they become available) would be biologically appropriate, but given that this carries with it the threat of social disintegration, safeguards such as reducing costs and expanding suppliers will be necessary. More unconventional and lower cost alternatives to vaccines have been suggested to reduce susceptibility to the virus (i.e., nutritional supplements) (Foster, 2002) and will hopefully be included in clinical trials.

Moreover, to ensure that measures designed to reduce infectivity and susceptibility do not fail in the same ways that prevention efforts aimed at eliminating contact with the virus have failed, attention must be concentrated on reducing stigma and discrimination (World Health Organization, 2003; National Institutes of Health, 2005; Canadian HIV/AIDS Legal Network, 2005; 1999; Busza, 1999; Malcolm et al., 1998; Gilmore & Somerville, 1994; Goldin, 1994; McGrath, 1992). The other options of apathy, anarchy and/or avoidance of the problem are neither biologically nor socially appropriate. These responses increase morbidity and mortality, promote intragroup conflict and could ultimately lead to total social disintegration.

As we have seen, with sexually transmitted infections, limiting exposure to a pathogen is not as straightforward as limiting exposure to less stigmatizing diseases (Malcolm et al., 1998; Gilmore & Somerville, 1994; McGrath, 1992). Initially, HIV was ignored due to its discovery among an already stigmatized group. As the epidemic spread to the more general population and traditional and modern medicine failed, new drugs were developed, and other extraordinary measures were instituted at legislative- and community-levels (Joint United Nations Programme on HIV/AIDS, 2003). Many of these responses promoted stigmatization and discrimination, which fuel the HIV pandemic (Link & Phelan, 2001; Busza, 1999; Malcolm et al., 1998; Goldin, 1994).

In a 1988 study, researchers developed a mathematical model which was used to predict future HIV infection rates based on known AIDS cases (May & Anderson, 1988).

The prediction was a “slow but continuous development of the AIDS epidemic over many decades...where the numbers of cases of HIV infection (and hence AIDS) increase faster as time goes on, in compound interest fashion” (Anderson & May, 1992:58). Using this mathematical model and assuming “exponential growth, with a doubling time of, say, three years, it would take 30 years for the prevalence of HIV infection to change from a thousandth of a percent to a detectable level of one percent, but only three years to change from 10 to 20 percent” (Anderson & May, 1992:59). In many places the epidemic is spreading at twice the initial predicted rate (Avert, 2005; Balter, 1998).

The enormous public health challenge presented by the HIV/AIDS epidemic requires special consideration given that this is a fatal disease which is primarily *sexually* transmitted. Prevention has been hindered because individuals fearing stigmatization and discrimination disassociate themselves from supposed risk groups, avoid testing and counselling, fail to access health care, and resist behaviour change. All things being equal, the incidence of disease will increase under these circumstances (McGrath, 1991).

For all intents and purposes, public health responses designed to limit exposure to STIs such as HIV/AIDS which include education, behavioural skills programs, counselling, testing, and access to latex should motivate biologically appropriate behaviour change. Yet, often, social acceptance is lacking and stigma and discrimination have been identified as the cause. Discovering and evaluating new ways to make biologically and socially appropriate public health responses more socially acceptable is a necessary next step (Link & Phelan, 2001).

As we develop new means of reducing infectivity and susceptibility, the appropriate public health response would be the provision of drugs and vaccines. Some problems with adherence to drug regimes are attributed to stigma and discrimination (Zimet, Blythe & Fortenberry, 2000). However, more recent research suggests that the social acceptability of vaccines for hepatitis B (Zimet, Kee, Winston, Perkins & Maharry, 2001), herpes (Zimet, Mays & Fortenberry, 2000), and HIV (Zimet, Perkins, Sturm, Bair, Juliar & Mays, 2005) has increased, although stigma continues to be an issue. The World Health Organization’s (2003) initiative to supply three million people with anti-retroviral drugs by 2005 (thereby normalizing treatment) is both biologically and socially appropriate. While the project is behind schedule, it is the kind of social action that

should be strongly supported by all peoples, in all nations. Overall, a social movement towards normalizing prevention and care at both the legislative- and community-level by supporting responses which are, at the same time, both biologically and socially appropriate is necessary.

We must be ever mindful of cognitive weaknesses that urge us to separate *us* and *them* based on a few (often irrational) attributions (Link & Phelan, 2001; Blascovich et al., 2000). Our hardwired fear of death is an over-reaction to a pathogen that is relatively easy to avoid (Gilmore & Somerville, 1994). Our propensity to blame others for public health threats (McGrath, 1991) is illogical when we have the capacity to eliminate risk of exposure, reduce infectivity, and potentially reduce susceptibility through the use of nutritional supplements (Foster, 2002). HIV/AIDS poses a great threat to humanity and if we are to survive, we must adapt. If the pandemic is to be halted, the overarching epidemic of stigma and discrimination that obstructs prevention, care, and treatment for those affected by HIV must be challenged publicly and politically, because *we are them* (Gilmore & Somerville, 1994). Education is key.

The project reported on in this paper used a peer-led theatre program to illuminate some of the effects of HIV stigma and discrimination. It was designed to provide sexual health knowledge and protective behavioural skills, to promote discussion about responsible sexuality, and to help normalize sexual health-seeking behaviours, thus potentially reducing HIV/AIDS stigma and improving population health.

Chapter 3: A Review of HIV Prevention/Sexuality Education Literature

In 1999, I was fortunate enough to attend the First National HIV Prevention Conference in Atlanta, Georgia, which was sponsored by the US Centers for Disease Control. On the last night of the conference, I attended a session that sounded much more lively than the lectures I had been attending for the preceding three days. It was my first introduction to theatre-in-education in action (Berlin & Hantman, 1999). The potency of this format for HIV prevention and sexual health education (Berlin & Berman, 1995) was immediately evident as I watched the STAR theatre troupe from New York enact various scenes reflecting the many stages of teenage sexual angst. As I watched the youth on stage, I was moved; it was as if I was suddenly transported to another time and place. There were tears in my eyes as I watched the characters struggle with the same issues I had struggled with as an adolescent, with a fatal sexually transmitted disease thrown into the mix. I was struck by the degree to which the drama vignettes that were presented touched me on both an intellectual and emotional level. But it was my emotional response—my heartfelt identification with the characters—that led me to believe that well-informed drama indeed had the potential to promote lasting behaviour change (Sood, 2002) by drawing audiences into an alternate form of reality (on stage) that closely paralleled lived experience (off stage). Moreover, it struck me that this might be a powerful means for shifting social norms.

The available literature on HIV prevention/sexuality education spans many disciplines and for this reason any thorough investigation of the subject requires an interdisciplinary approach (Bancroft, 1997). The majority of literature which was reviewed in depth for this dissertation comes from the social sciences. There is an emphasis on developmental theory, especially as related to sexual health-behaviour acquisition, maintenance and change. This is because I believe, as the literature suggests, that human sexual behaviour must be approached as a developmental and lifespan issue—one that intersects with countless social and cultural concerns and which affects all individuals. Additionally, literature focused on peer education, theatre-in-education and health communication strategies was examined. As will be seen, my work draws on

state-of-the-art HIV prevention theory and then further applies these principles in a somewhat unconventional form. It was my belief that defying convention was the best way to engage youth, and that a synthesis of theory might provide a plausible model for delivering comprehensive sexual health education, one worthy of being integrated into existing public-school arts curricula so that further—and more rigorous—evaluation can be conducted.

3.1 The Developmental Perspective

Seeing our children as beings-in-process of sexual development would make it possible to discriminate between what is essential for every one to know about sexuality and what might be more a matter of manners and appropriateness depending on person, time and place (Calderone, 1984:134).

Beyond research into the key components of successful interventions which are discussed in greater detail further on in this chapter, more general theoretical work in the area of human development also highlights some of those characteristics which sexual education initiatives should strive to emulate. According to a number of developmental theories, learning occurs in stages; therefore the most effective interventions would attend to the needs of the target audience with reference to their current stage of development (Lerner, Ostrom & Freel, 1997).

All adults have (or should have) a vested interest in socializing children to successfully meet the challenges and demands of social integration. Social integration requires psychosocial maturity, which has been defined as the demonstration of autonomy, interpersonal adequacy, and social responsibility. Attaining psychosocial maturity is considered the ultimate goal of adolescent development (Galambos & Ehrenberg, 1997) and marks the successful transition into adulthood (Arnett, 1999).

Many of the tasks associated with successful social integration depend upon the ability to initiate and maintain long-term intimate, sexual relationships. Developing an understanding of sexual health and function, the ability to converse with another about one's sexual feelings and desires, and the ability to make informed decisions that lead to responsible sexual behaviours are key skills that factor into the development of agency, interpersonal adequacy, and social responsibility. Yet, these are precisely the skills that

many adolescents (and adults) lack because they have not been exposed to comprehensive sexual health education—or they did not engage with the material if it was presented. This suggests that youth would benefit from engaging sexuality education both before and during adolescence to support the development of the skills necessary for negotiating intimate relationships, which are crucial to the attainment of psychosocial maturity.

Knowledge is vital to intelligent decision-making and cross-cultural research illustrates how sexual knowledge is fundamental to the ability to reason using that knowledge. An early study reported by Calderone (1984) demonstrated that Swedish youngsters—who receive sexuality education beginning at the age of eight—were five years ahead of their British and Australian counterparts and a further two years ahead of their American counterparts in their ability to reason using their sexual knowledge. The British, Australian and American children had all received sexuality education but it began much later in life in comparison to the Swedish children.

Even prior to the advent of HIV/AIDS, the superior performance of Swedish youth on measures of sexual reasoning suggested that the early acquisition of sexual knowledge led to the logical application of that learning. Calderone (1984) argued then that the poor performance of the American children on sexual reasoning tasks was reflective of the general pattern of western socialization that withholds sexual education or provides sexual education that is value laden and/or false. While this observation was made over two decades ago, it still holds true today; recall the current agenda of the American Life League (ALL) and their stance that sexuality education *should* be value-laden, *if* it is offered at all (American Life League, 2001a). The underlying concern of the American Life League and others who hold similar attitudes is that children who are provided with factual sexuality education will use that knowledge to become sexually active sooner and to acquire more partners (Jemmott & Jemmott, 2000); thus, the assumption is that educated youth would be at greater risk than uneducated youth. This stance is in conflict with the evidence presented in Calderone's (1984) report which clearly indicated that children provided with factual sexual knowledge reason with it and apply it in a logical manner that reduces sexual risk-taking. Other cross-cultural evidence comparing American youth to Swedish youth also refutes the assumption that early

sexual health education results in earlier onset of intercourse and increased numbers of partners (Weinberg, Lottes & Aveline, 1998).

Many Scandinavian countries are well known for their tolerant attitudes towards sexuality. This tolerance is reflected in the Swedish educational system which has, for generations, included comprehensive sexuality programming that promotes healthy and responsible sexual behaviour (Weinberg, Lottes & Aveline, 1998). In the west, and particularly in the US, attitudes towards sexuality are more restrictive and heated debates are common between conservative groups that promote traditional values and abstinence-until-marriage and more liberal groups which promote sexual equality, sex-positive education and respect for individual choice. In the context of HIV prevention, one major area of contention for these two groups is that of condom promotion. While both sides agree that HIV prevention is necessary, they have diametrically opposing viewpoints on how that can be achieved. Conservatives proclaim, with little in the way of evidence (Satcher, 2005), that abstinence until marriage is the only real protection against HIV because condom advocacy encourages sexual activity outside of marriage and thereby exacerbates the epidemic. The more liberal voices claim, as the evidence-base suggests (Satcher, 2005; McNeill, Gilmore, Finger, Lewis & Schellstede, 1999), that advocating condom use encourages responsible sexual decision-making and therefore reduces HIV incidence. Problematically, this schism has resulted in vague, ambiguous and confusing HIV prevention messages haphazardly integrated into a hodge-podge of educational programs, leaving many individuals unsure of which behaviours will actually reduce their risk of infection. Conversely, in Sweden the message is clear: safe, responsible sexual behaviour includes condoms, and this explicit message has been integrated into previously existing curricula (Weinberg, Lottes & Aveline, 1998).

The first comprehensive comparative analysis of HIV risk-reduction strategies among American (n=407) and Swedish (n= 570) heterosexual university students aged 20 to 22 provides further evidence that early comprehensive sexuality education reduces risk and that the concerns expressed by the American Life League and others (that education increases risk) are unsubstantiated (Weinberg, Lottes & Aveline, 1998). Heterosexual men and women in both countries responded to self-administered questionnaires that asked about their sexual activities, safer sex practices, numbers of partners and condom

use. It was found that students in Sweden took a more singular approach to HIV risk-reduction, namely the consistent use of condoms with non-steady partners. American youth took a broader approach to HIV risk-reduction and cited changes in sexual activity, including reductions in casual sex and increased condom use with both steady and non-steady partners.

Contrary to what might be expected, given their statements about the various HIV risk-reduction strategies they employed, the American men stood out as being at greatest risk for contracting HIV when compared to American women and to their Swedish counterparts of both genders. Specifically, the American men reported an earlier age at first intercourse, more coital partners in the past year, more lifetime coital partners, greater numbers of partners in the past year for any sexual activity, more frequent coitus in the past year and a greater frequency of any partner-related sexual activity in past year. Perhaps not surprisingly—given the historically puritanical attitude towards sexuality—American men and women also reported significantly less frequent self-masturbatory behaviour in the past year (one of the few *zero-risk* sexual activities) (Weinberg, Lottes & Aveline, 1998).

This study clearly contradicts the common preconception that early sexual education results in an earlier onset of intercourse and a greater number of partners. The authors suggest that the more consistent reliance of Swedish youth on condoms as an HIV risk-reduction strategy was fostered by several generations of extensive sex education in schools that promoted condom use and which emphasized sexual responsibility. It is believed that these factors have resulted in more positive attitudes towards condoms (and sexuality in general) than are evident in the US. (Weinberg, Lottes & Aveline, 1998) and other evidence along these lines continues to highlight the importance of early sexual health education (United Nations Population Fund, 2005; Maticka-Tyndale, 2005).

It appears, particularly for males, that the early acquisition of sexual health information and exposure to programs which advocate condom use do in fact reduce the risk of becoming infected with HIV. This is of great import, given that many women are at risk of contracting HIV *not* because of their own risky sexual behaviour but rather because of their male partners' risky behaviour. For example, of women in stable, long-

term monogamous relationships who become infected with HIV, up to 80% have been infected as a result of their partner's extramarital sexual activities or drug use (United Nations Special Session on Gender, 2001).

Further to the acquisition of knowledge, various psychological and social learning theories such as Social Cognitive Theory suggest that role-playing and viewing models of key behavioural and communications skills supports learning and can enhance a sense of self-efficacy within the targeted domain (Bandura, 1994). Accordingly, participation in age-appropriate prevention programs which identify and reinforce the key behavioural and communication skills needed to avoid negative sexual outcomes should help individuals maintain sexual health by providing social scripts for such behaviours. In light of other research that has demonstrated that college students tend to over-estimate the effectiveness of their ability to negotiate safer-sex (Williams, Doyle, Pittman, Weiss, Fisher & Fisher, 1998), it follows that gaining (even vicarious) experience with social scripts that effectively convince partners to consent to safer sexual activity will help reduce HIV risk (Ortiz-Torres, Williams & Ehrhardt, 2003). This skills-building logic is also in keeping with Vygotsky's (1978) developmental theory regarding the *zone of proximal development*, which posits that learning is incremental and builds upon itself. Thus, the greater the number of age-appropriate learning opportunities, the greater the potential for integrating the knowledge and skills necessary for successful transition to the next stage.

With reference to the developmental perspective, which suggests early education can help shape future behaviours, the target audiences of interest for this intervention were Canadian grade-eight and grade-nine students, most of whom would be between 13 and 15 years of age. Approximately 75 to 80 percent of youth in this age group can be expected to have not yet engaged in sexual intercourse (Fortenberry, 2001; McKay, 2000; 2004) and may therefore be considered as low risk. However, by the time they are 18 years of age, upwards of 80 percent of youth can be expected to have experienced intercourse at least once (McKay, 2000; Alan Guttmacher Institute, 1997). Of this 80 percent, almost 70 percent of the males and just over half of the females can be expected to have had more than three sexual partners by the time they are 20 years old

(Fortenberry, 2001). Clearly, sexual experimentation during late adolescence has become normative behaviour.

Youth who choose to engage in sexual intercourse must consistently use condoms during intercourse to protect themselves against HIV and other STIs. However, condom-use errors are common and it has been suggested that programs promoting consistent condom use must also provide condom-use education and skills-building components. A study by Crosby, Sanders, Yarber, Graham and Dodge (2002) outlined a number of problems associated with condom use by college men. In their convenience sample, it was found that 74% of respondents did not check the condoms they were about to use for visible damage, 61% failed to check the expiry date, and 60% reported that they did not discuss condom use with their partners before initiating sexual activity. In addition, 43% of the respondents reported putting the condom on *after* initiating intercourse, 15% removed the condom *before* intercourse was completed, 40% failed to leave space at the tip of the condom (which helps prevent breakage) and 30% had reportedly placed a condom on the tip of the penis inside out and subsequently flipped it over. All of these errors increase the probability of exposure to HIV or other sexually transmitted infections.

Clearly, condom-use skills were lacking amongst those participating in the study, and while the authors warn against generalizing the findings, it is important to acknowledge that most condom failure is due to human error, and practice can reduce error. Skills-building educational programs are necessary to ensure that when condoms *are* used, they are used *properly*. Further to this, because condom use occurs in the context of interpersonal relationships, it generally requires some degree of communication and consent between partners. Youth often have few role models for such behaviours, lack experience in sexual communication, and their peer-groups often lack the social supports that are required for such behaviours to become normalized (Crosby, Sanders, Yarber & Graham, 2004). Normalizing early comprehensive sexuality education which incorporates skills-building and which models responsible sexual behaviours would support youth as they strive to achieve autonomy, interpersonal adequacy, and social responsibility.

3.2 A Focus on Youth

High-risk sexual behaviour is common among adolescents and is reflected in rising incidence of HIV and other sexually transmitted infections (STIs) among this population. In both Canada and the US, deaths resulting from AIDS have dropped in recent years due to advances in drug therapy. However, rates of HIV infection continue to increase and female youth are one of the fastest growing risk-groups for HIV in North America (Health Canada, 2004; Centers for Disease Control and Prevention, 2006). In addition, in 2000, the Sex Education and Information Council of Canada (SEICCAN) reported that rates of chlamydia, gonorrhoea and syphilis infection in Canada had risen by more than one-third since 1997, especially within the 15-19 age group (Patrick, Wong & Jordan, 2000) and recent surveillance reports indicate a continued increase in the incidence of these STIs among youth (Public Health Agency of Canada, 2004). These trends suggest that many of those within this population *are* sexually active and are *not* practicing safer-sex.

Further to this, the increasingly younger age at which North American adolescents are sexually maturing, in conjunction with an historical trend of increased age at first marriage and increasing divorce rates, suggests that many youth will acquire more lifetime sexual partners than was true for members of previous generations (Kirby, 2000; Brooks-Gunn & Paikoff, 1997). Research also suggests that youth are sexually active at an earlier age and that sexual liaisons outside the confines of marriage have become normalized in contemporary society (Alan Guttmacher Institute, 1997; Laumann et al., 1994). However, this newfound sexual freedom has not, for the most part, been met with a corresponding change in social mores that dictate sexuality education for youth (Kirby, 2001; McKay, 2000). As a result, many youth still lack the ability to protect themselves from HIV, other STIs, unwanted pregnancy, and other negative sexual outcomes because they do not have the necessary skills (Sex Information and Education Council in Canada, 2005; Kirby, 2001; Patton, 1993). This puts them at risk, but perhaps the most important point is that many youth (and their parents!) recognize this, and strongly support the institutionalization of comprehensive sexual health education within the public-school system (Byers, Sears, Voyer, Thurlow, Cohen & Weaver, 2003a; 2003b; Weaver, Byers, Sears & Randall, 2002).

In the context of HIV prevention for youth, several risk factors unique to adolescent development are of importance. Adolescents are often thought to be risk takers and theories which attempt to reduce risk must account for the psychological, cognitive, social and biological factors specific to adolescence risk-taking (Kirby, 2000; Maggs, Schulenberg & Hurrelmann, 1997; Brown, DiClemente & Reynolds, 1991). As well, it has been found that youth at higher risk for infection with HIV are those who tend towards sensation-seeking and impulsive decision-making (Donohew, Zimmerman, Cupp, Novak, Colon & Abell, 2000), and that the pervasive homophobia found in Western society makes it very difficult for youth with same-sex attractions to construct positive self-identities (Hillier & Harrison, 2004). All of these factors have implications for successful program design.

Psychological theory in the area of adolescent development suggests that adolescent risk-taking serves a number of purposes for youth (Schulenberg, Maggs & Hurrelmann, 1997). Engaging in risk behaviours may help youth cope with frustration, anxiety, or feelings of inadequacy, it may support identity formation and peer affiliation, or it may be used as a means of exerting control and expressing autonomy by opposing social or parental authority (Brown, DiClemente & Reynolds, 1991). HIV prevention programs that not only get the message out, but also help meet these developmental needs would likely be more appealing and meaningful to youth. Further to this, sensation-seeking and impulsive youth are more likely to be engaged by novel, emotionally intense, complex and exciting programming (Donohew et al., 2000).

In addition, by adolescence cognitive development is incomplete (Beyth-Marom & Fischhoff, 1997). While many youth are able to reason in a temporal sequence at this stage, many others are not. Many adolescents view themselves as unique in the world and therefore immune to the cause and effect laws common to others. For example, youth may believe that they will not get an STI from unprotected intercourse, while knowing that it happens to others (Brown, DiClemente & Reynolds, 1991). As well, youth often perceive that sexual experiences happen by chance; failing to recognize the series of decisions they made which led up to the experience. This cognitive immaturity also leads them to be overly optimistic about their luck, thereby underestimating risk.

Over a decade ago, Brown, DiClemente and Reynolds (1991) pinpointed a number of reasons why it can be difficult for youth to realistically assess HIV risk which still pose problems today:

- 1) Most youth have had little opportunity to witness the consequences of infection due to the long latency period of the virus;
- 2) The long latency period does not allow for trial and error learning;
- 3) Their preoccupation with the here-and-now eclipses any concern with delayed consequences.

Programs for youth must help them envision potential long-term consequences of risk behaviours and recognize the ease with which they can learn to avoid negative outcomes, especially if there is peer support for risk reduction.

Social development in adolescence is intimately linked with peer group (Jessor, Turbin & Costa, 1998). Peers assist one another in making the transition to adulthood, with peer groups providing normative structures for adolescent decision-making and identity formation. The peer group has a strong influence on individual behavioural intention, with most youth opting to follow what they perceive to be the behavioural expectations of their peers (Jemmott & Jemmott, 2000). This is problematic for HIV prevention when individual adolescents believe that their friends think that condom use is unnecessary. Programs normalizing condom use can help shift peer norms in a positive direction (Crosby et al., 2004; Brown, DiClemente & Reynolds, 1991).

Physical development is also a crucial factor in adolescent development. The biological maturation process influences risk-taking by influencing cognition, perceptions of the self and social environment, and personal values, which in turn influence risk perception and peer-group affiliations. Early-maturing youth are often exposed to more and higher risk situations because they are often welcomed into older peer groups on the basis of their physical advancement, even when cognitive and emotional maturity are lacking (Brown, DiClemente & Reynolds, 1991).

Overall, developmental theory suggests that approaches to education which begin early and continue to consolidate learning over time will be the most successful. Sexual health education is no different. Empirical research has shown that the development of a healthy sexuality is supported by the early acquisition of accurate information and good

behavioural and communications skills, which in turn can motivate individuals to practice risk-reduction behaviours (Kirby, 2001; Peterson & DiClemente, 2000; Fisher & Fisher, 2000; McKay, 2000; Caldron, 1984). Further to this, adolescent development theory suggests that special attention also needs to be paid to the unique psychological, cognitive, social, and biological challenges that adolescents face as they prepare for adulthood (Jemmott & Jemmott, 2000; Brown, DiClemente & Reynolds, 1991). The wholesale adoption of early sexuality education also has the potential to normalize HIV/STI risk reduction behaviours by shifting social norms towards greater acceptance of preventative behaviours, thus capitalizing on the power of the peer to promote condom use, HIV/STI testing, negotiations for safer sex, as well as acceptance for HIV-positive people.

3.3 Effective HIV Prevention Programming

Contemporary research has provided a solid framework for the development of effective HIV prevention interventions based on successful programs that focus on reducing other STIs and unplanned pregnancy. STIs and unplanned pregnancy are often used as markers for measuring unsafe sexual practices and a recent review of program efficacy concluded that successful HIV, STI and pregnancy prevention programs all rely on the same components. According to Kirby (2001) the most successful programs are those that:

- 1) Focus on reducing one or more specific high-risk sexual behaviours;
- 2) Are theory-based;
- 3) Advocate avoiding sexual risk-taking;
- 4) Provide accurate information;
- 5) Attend to social pressures;
- 6) Model sexual communication and negotiation skills;
- 7) Use interactive teaching methods, which allow practice of necessary skills;
- 8) Are appropriately targeted by age, sexual and cultural experience;
- 9) Are adequate in length, and;
- 10) Include and train teachers and peer leaders.

It has also been noted that service learning programs (where youth volunteer for community projects), whether they address sexuality or not, result in delayed onset of

first coitus and reduce teen pregnancy rates among these youth (Kirby, 2001). It follows that these types of programs would also help reduce HIV risk.

3.4 Sex-Positive Education

In recent years, and chiefly in response to the HIV epidemic, there has been an increased interest in the social bases of sexual behaviour which has led to increased understanding of human sexuality as a part of the bi-directional interplay between hormones, bodily sensations, emotions and thought. This, coupled with the inability of traditional sex education approaches to curb rates of HIV, STIs, and unwanted pregnancy among youth, has led to a growing interest in educational programs emphasizing the positive aspects of human sexuality (Public Health Agency of Canada, 2003; Pan American Health Organization, 2001; Office of the Surgeon General, 2001; diMauro, 1995). The promotion of self-esteem, respect for self and others, non-exploitive sexual satisfaction, rewarding human relationships, and the joy of desired parenthood is now deemed equally as important as promoting the avoidance HIV/STIs, unwanted pregnancy, sexual coercion, and sexual dysfunction. Successful sexual health education programs have been found to be those that foster positive sexual outcomes while at the same time protecting against negative sexual outcomes (Kirby, 2001; McKay, 2000; 2004).

The implication is that attitudes towards sexuality affect behaviour. In a study devoted to understanding and preventing adolescent pregnancy and STIs, it was found that adolescents with positive attitudes towards sexuality (*erotophiles*) had a greater propensity to consciously plan ahead for the eventuality of sexual interactions and to actively acquire and use contraceptives and prophylactic devices when engaging in intercourse. On the other hand, it was found that adolescents with negative attitudes towards sexuality (*erotophobes*) avoided thinking about the eventuality of sexual interactions and were more likely to engage in unprotected intercourse and to experience negative sexual outcomes (Fisher, 1990). Clearly, fostering positive attitudes towards sexuality can have a positive impact on population health.

It has also been proposed that isolated STI/HIV prevention models need to be abandoned in favour of wider frameworks that address overall sexual and reproductive health. Fisher and Fisher (1998) have suggested that STI/HIV prevention is a small part

of a larger issue, and that addressing the many aspects of sexual and reproductive health *in general* will lead to positive behaviour change that will translate to all sexualized behavioural events (e.g.: contraceptive use, condom use, genital and pelvic examinations, breastfeeding, etc). Arguably, the normalization of positive attitudes and sexual health-preserving behaviours could be enhanced if the process of education began *before* adolescence, when children are still early in the process of learning what *is* normal. Perhaps this would also prove much easier than changing previously established risky behavioural patterns.

3.5 Models of Behaviour Change

A number of sexual-health promotion models have been applied to, or created in response to the HIV epidemic, some more efficacious than others. The most popular theoretical models for HIV/STI risk reduction highlight the importance of motivating target audiences to think and talk about their own need for behaviour change (DiClemente & Peterson, 1994; Peterson & Di Clemente, 2000). Information, behavioural skills, and the removal of perceived barriers are integral to the maintenance of individual-level behaviour change (Maticka-Tyndale, 2001). However, unless individuals have some personal motivation to actually integrate risk reduction strategies into their lives, even the best programs can fail (Fisher & Fisher, 2000; Peterson & Di Clemente, 2000). In addition to individual-level change, social-level change that supports prevention efforts has been found to bolster the success of individual-level interventions by shifting social norms towards wider-scale acceptance of safer behaviours (Ross, 2002). A short review of the most popular individual- and social-level models of change is presented below.

3.51 Individual-Level Models of HIV Prevention

Since the beginning of the HIV epidemic a myriad of individual-level behavioural change interventions have been implemented in a broad range of settings. However, the majority of these interventions have been initiated without the benefit of input from behavioural scientists, have rarely been based on sound theoretical frameworks, nor have they been rigorously evaluated. Prevention initiatives are generally funded by various levels of government and implemented either directly (e.g., public schools and health

departments) or through community-based organizations. Often, in attempts to provide inoffensive education, little other than information on HIV is presented—even though it has been established that while the provision of information is necessary, it is not sufficient for modifying HIV risk behaviour (Exner, Seal & Ehrhardt, 1997; Fisher & Fisher, 1992). This building of prevention programs on what could be termed ideological whimsy, coloured by funder-bias or educator embarrassment has resulted in a hodge-podge of programs that may or may not work for reasons unknown, and in many cases for reasons unknowable.

Nevertheless, behavioural scientists have successfully used a number of models for promoting individual behaviour change and the progress of the HIV epidemic highlights the importance of identifying effective theoretical approaches to both primary and secondary prevention efforts (Peterson & DiClemente, 2000). The following is designed as a brief overview of models that have been applied to HIV prevention with varying degrees of success and is based on an extensive review conducted by Fisher and Fisher (2000) which compared and critiqued the most popular behavioural change models by assessing their comprehensiveness, specification, parsimony, empirical support, and ease of translation into a risk reduction intervention (45).

Health Belief Model

The Health Belief Model (HBM) was designed by US Public Health psychologists in the 1950's to promote the enactment of simple health behaviours (such as getting a vaccination). The fundamental assumption behind the Health Belief Model is that conscious, rational decision-making processes determine health behaviours. Knowledge of a health risk should lead individuals to take preventative actions if they believe themselves to be at risk (susceptible or vulnerable), if the risk is severe (negative health or social outcomes), and if the benefits of prevention outweigh the costs (physical, psychological, economic and social) (Rosenstock, Strecher & Becker, 1994; Brown, DiClemente & Reynolds, 1991). In this model “the components of susceptibility and severity combine to provide the motivation for health-related outcomes, while the preferred course of action is determined by the individual's cost-benefit analysis” (Brown, DiClemente & Reynolds, 1991:51). The model, as it has been more recently been applied, also includes the concept of self-efficacy which is considered important

when individual's are attempting to modify life-long behaviours (Brown, DiClemente & Reynolds, 1991).

The applicability of this model to HIV prevention may be limited, and it has been suggested that the model design is not adequate for the promotion of complex health behaviours such as negotiating safer sex. The model hinges on the constructs of perceived risk, severity of health outcomes and cost benefit analyses. However, many persons engaging in HIV risk-behaviours do not perceive themselves to be at risk of infection and the substantial time delay between initial infection and negative health outcomes can also hinder commitment to safer practices. In addition, in many cases, the potential immediate cost of adopting a safer sexual repertoire is perceived to greatly outweigh any potential future benefits. For example, people will often ignore potential long-term health risks in favour of immediate sexual gratification or to avoid the embarrassment of discussing safe sexuality with their partners. It is also questionable whether or not rationality is a constant in the face of a health threat, or maybe more importantly, whether sexual activity can be considered to be under rational control at all times. It is also possible that the sexual repertoire is more affected by hormones, emotions, habits and schematic thinking than it is by any particular rational function. (Fisher & Fisher, 2000).

The application of this model to adolescent sexual behaviour is further complicated by factors such as cognitive immaturity, the struggle for psychological autonomy, peer influences, and physical development. Youth often have an unrealistically optimistic perception in regards to risks they face, they rarely acknowledge that their sexual activities are the culmination of rational decision making processes, and are most likely to behave in ways they believe meet the expectations of their peer group (Brown, DiClemente & Reynolds, 1991). Current trends show increased rates of STIs within this population (Health Canada, 2004; Centers for Disease Control and Prevention, 2003). This suggests that the prevailing social norms are not overly supportive of safer sexual behaviours and without a concentrated social marketing effort youth will continue to engage in unprotected sexual activity.

In the context of HIV prevention, the predictive power of the Health Belief Model has been inconsistent and the model itself lacks specificity and cannot really be tested empirically, therefore the mechanisms of the model remain unknowable. The Health

Belief Model does give us some clues about how to compel individuals to attend interventions, which is important, however, it does not indicate what those interventions should involve (Fisher & Fisher, 2000).

AIDS Risk Reduction Model

The AIDS Risk Reduction Model (ARRM) is a stage model of behaviour change designed specifically for HIV intervention (Dolcini, Coats, Catania, Kegeles & Hauck, 1995; Catania, Coates & Kegeles, 1990). As with the zone of proximal development (Vygotsky, 1978), the basic assumption underpinning this theory is that change occurs in incremental steps as part of an ongoing process and that different factors affect progression. In the context of HIV, the model posits that prevention efforts must build upon one another because complex behaviours are more likely to be enacted if the individual has first integrated lower level behaviours. With condom use as an example, theoretically the act of buying condoms, which is considered to be a simple behaviour, should promote condom-use negotiations, which are considered far more complex behaviours. In turn, the integration of these two lower-level behaviours should promote actual condom use (Dolcini et al., 1995). Each prevention intervention that helps an individual progress further along the *stage continuum* is deemed to promote the incorporation of higher-level preventative behaviours. As the logic goes, buying condoms should promote condom-use negotiations, which in turn should promote actual condom use. This model is considered to be applicable to sexually active individuals for whom the risk of infection with HIV is non-zero (Dolcini et al., 1995).

The effectiveness of AIDS Risk Reduction Model depends on the ability of the individual to rationalize the importance of, and systematically utilize the learned harm reduction techniques. For this to occur, first and foremost, the individual must *label* the behaviour targeted for change as risky. This requires accurate knowledge of HIV transmission routes and prevention methods and a perception of personal vulnerability to acquiring HIV, as well as the belief that HIV is undesirable. Secondly, the individual must make a *commitment* to reducing risk and increasing prevention efforts based on a rational assessment of perceived cost and benefits. Finally, the individual must consistently *enact* those behavioural changes that reduce risk and this may entail engaging in novel, complex activities and negotiations (Dolcini et al., 1995).

Like the Health Belief Model, the AIDS Risk Reduction Model is based on the assumption that the enactment of health behaviours is dependant on rational decision-making processes. However, these decision-making processes can be influenced by both internal and external factors, for better or worse. Alcohol and drug addictions can inhibit movement through the stages, as can many other factors. A lack of accurate information can hinder the process of labelling HIV negatively, emotional concerns can interfere with a commitment to use condoms, and a lack of access to condoms generally guarantees non-use. While the AIDS Risk Reduction Model was specifically designed for HIV prevention and there is empirical support that attests to stage theory being applicable to HIV prevention, the elements in this model have been criticized because they are not defined adequately enough to allow multivariate analysis and empirical support for the model has been somewhat ambivalent (Fisher & Fisher, 2000). This model also does not adequately attend to the unique needs of adolescents within the context of HIV prevention and these important factors for must be addressed for the AIDS Risk Reduction Model to be successful within this population.

Social Cognitive Theory

Albert Bandura (1994) maintains that self-efficacy (i.e., the belief that one can control his or her motivation, environment, and behaviour) is the key to effecting positive changes in health behaviour. Central to Social Cognitive Theory (SCT) are information, the development of self-regulatory and risk-reduction skills which increase feelings of self-efficacy, and social supports that facilitate change. According to Bandura (1994), the major goal of any intervention aimed at controlling or changing behaviour must be to impart the skills and self-beliefs that enable consistent engagement in the desired behaviours, regardless of counteracting influences.

Social cognitive theory has been applied to HIV prevention and focuses on imparting the social and self-regulatory skills and the self-beliefs fundamental to maintaining safer sexual behaviours. Because managing HIV risk-reduction involves managing sexuality, which requires managing interpersonal relationships, things such as coercion, allurements, and the desire for acceptance can influence the likelihood of behaviour change. Unlike other models, Bandura's (1994) model addresses gender issues and their potential effects on behaviour and self-efficacy. He notes that, "women have the

lowest assurance in their power to exercise control over pressures by a desirable partner to engage in unprotected intercourse that potentially places them at risk of infection” (26). He also points out that experiences of forced sex further reduce a woman’s sense of self-efficacy in negotiating harm reduction behaviours.

According to Bandura (1994), “the normative influences that foster preventive measures center on the behavioral practices by which the virus is transmitted and on the cultural patterning of social relationships” (43).

The major burden for self-protection against heterosexually transmitted diseases usually falls on women. Unlike protection against pregnancy, where women can exercise independent control through oral or implant contraceptives, use of condoms requires them to exercise control over the behavior of men. Men who possess coercive power over their partners resist the use of condoms if, in their view, it reduces their sexual pleasure, threatens their sense of manliness and authority, casts aspersions on their faithfulness, and carries the frightening implication that they may be carriers of disease (Bandura, 1994:44).

At the societal level, Bandura (1994) suggests that attitudes and norms must change and men must take greater responsibility for “the social and health consequences of their sexuality” (44).

Although social cognitive theory has been criticized for not being as parsimonious as it could be, and interrelations between the four crucial elements are not specified adequately enough for multivariate testing, there is much general support for each of the components of social cognitive theory (Fisher & Fisher, 2000). Several SCT-based HIV interventions have been successful in reducing risk, especially for women, although other SCT-based programs have failed to show effects. It remains unknown whether the failures of the model were due to some unaccounted for differences in the populations being studied or some weakness inherent to the model (Wingood & DiClemente, 1996). Its success rate nevertheless implies that some or all of the elements are important to effecting health behaviour change. Like the health belief model and the AIDS risk-reduction model, social cognitive theory highlights the importance of accurate information, strong behavioural skills, motivation and normative support for the integration of behaviours that can help individuals attain and maintain sexual health. Further to this, the model appears to address many of the unique developmental needs of

adolescents by stressing the importance of autonomy, by attending to power differentials within relationships, and by promoting personal responsibility for sexual health.

Theory of Reasoned Action and the Theory of Planned Behaviour

According to Fishbein, Middlestadt, and Hitchcock (1994) effective STI prevention programs must endeavour to change high-risk behaviours and/or maintain low-risk behaviours. These researchers assert that the more one knows about the underlying reasons for engaging or not engaging in a particular behaviour the better the chances are for modifying that behaviour. An underlying assumption within the framework of reasoned action is “that most socially relevant behaviours are under volitional control” (Fishbein, Middlestack & Hitchcock, 1994:64) and should therefore be predictable by intention, given an intention that corresponds exactly with the behaviour in question. Ultimately, the goal is to strengthen behavioural intent, which in turn, should increase the enactment of preventative behaviours.

As an extension of the Theory of Reasoned Action, the Theory of Planned Behaviour (TPB) adds *perceived behavioural control* as a construct. Unlike most of the models presented thus far, the theory of planned behaviour assesses the influence of factors such as sexual arousal, gender-based power differentials, and alcohol and drug use on an individual’s perception of their ability to act on their intentions. Factors such as these, which can undermine personal control can have an effect on preventative behaviour directly (by reducing the likelihood of enactment) or indirectly (as a determinant of intention). When personal control is perceived to be absolute, the theory of planned behaviour reverts back to its original form, the theory of reasoned action (Fishbein, Middlestack & Hitchcock, 1994).

Both of these theories propose that there is a causal chain of events which link beliefs to behaviour. Actual behaviour is conceptualized as a function of behavioural intention to act and in turn, behavioural intention is a function of attitude towards the act and/or subjective perception of normative support for the act (Fishbein, Middlestack & Hitchcock, 1994). Further to this, attitudes and subjective norms are considered to operate as a function of underlying cognitive belief structures. Attitudes towards an act are influenced by an individual’s belief that the behaviour leads to specific outcomes and their personal evaluations of those consequences. Subjective norms relating to the act are

influenced by a person's beliefs that specific referents (either individuals or groups) encourage or discourage such behaviour, multiplied by the individual's degree of motivation to comply with the referents wishes (i.e., depends on the importance of being included in a particular group) (Fishbein, Middlestack & Hitchcock, 1994).

Adding to the complexity of this model, once a specific behaviour has been identified as needing change and its determinants have been selected and identified fully, consideration must be given not only to the action, but also to the target, the context, and the time. Something as seemingly simple as using a condom takes on great variability when target, context and time are taken into account. The immediate determinant would be the intention to use a condom, but given the influence of attitudes and subjective norms it is not quite that simple. For example, if one holds the attitude that condom use leads to a loss of trust, using a condom may present no problem with casual partners, yet the attitude may have a significant negative impact on the likelihood of condom use with a primary partner (Fishbein, Middlestack & Hitchcock, 1994).

Subjective norms can also have similar effects: if condom use is not normative, the likelihood of use is decreased (Fishbein, Middlestack & Hitchcock, 1994). Moreover, whether behavioural intention is under attitudinal (individual) or normative (social) influence has also been found to vary by population. For example, US male college student's intentions to use condoms tend to be normative based, whereas Mexican male college student's intentions have been found to be predominantly attitudinal (Ajzen & Fishbein, 1980: as reviewed in Fishbein, Middlestack & Hitchcock, 1994).

The Theory of Reasoned Action is a well-specified, well-tested model that has been used extensively in HIV intervention programs for over two decades with consistent successes. It has been used with much success for predicting and understanding HIV preventative behaviour, although it has been used less widely and with less success in efforts to change HIV risk behaviour (Fisher & Fisher, 2000). There are several unresolved questions to be considered, such as what impact external and internal variables may have on behavioural intention. Personality, past experiences, perceptions of vulnerability to HIV, feelings towards sexuality, gender, and ethnicity can all affect behaviour indirectly by influencing behavioural intention, attitude towards the act, social norms and/or their determinants. The theory also does not account for issues such as

whether HIV preventative behaviours are (or are perceived to be) within the realm of personal control. However, as an extension of this theory, the Theory of Planned Behaviour, which was designed to overcome these weaknesses, clearly addresses perceived behavioural control and would be the applicable theory whenever personal control was not perceived to be absolute. When perceived control approximates actual control, this model becomes a very accurate predictor of behavioural intent (Fisher & Fisher, 2000).

There have been some failings with these models in regards to the translation of perceived control and intention to act into actual performance of prevention behaviours (Fisher & Fisher, 2000). Both the theory of planned behaviour and the theory of reasoned action have been criticized for being essentially motivational models that do not provide adequate focus on the acquisition of knowledge and behavioural skill sets, both of which are necessary for initiating and maintaining prevention behaviours. It should be noted however, that motivation is a key construct in behaviour change models and because of this, sexual health programs which focus on strengthening behavioural intent and social support for risk-reduction behaviours are likely to meet with greater success.

The applicability of these two models to adolescent HIV risk reduction may be problematic given that once again, the underlying assumption is “that most socially relevant behaviours are under volitional control” (Fishbein, Middlestack & Hitchcock, 1994:64). As mentioned previously, youth often attribute their sexual experiences to chance, and fail to recognize the series of decisions which led up to each experience (Brown, DiClemente & Reynolds, 1991). Further to this, youth who are uncomfortable with sexuality related subjects (erotophobes) are resistant to planning ahead for potential sexual encounters (Fisher, 1990). Obviously, a model that relies on reasoned action and/or planned behaviour may not be as suitable for youth as other models that account for cognitive immaturity and the different ways in which youth perceive their sexual activities.

Information-Motivation-Behavioural Skills Model

The Information-Motivation-Behavioural Skills model (IMB) as theorized by William Fisher and Jeffery Fisher (2000; 1992; 1993) was designed specifically to address the HIV epidemic. It integrates theory and research from both HIV prevention

and social psychology. The information-motivation-behavioural skills model posits that information and motivation are independent constructs, which, when found in conjunction with well-defined behavioural skills sets, are causally related to the enactment of preventive behaviours. The main assumption behind the model is that if an individual is well informed, highly motivated and possesses the necessary behavioural skills to reduce HIV infection risk, then that individual is likely to initiate and maintain HIV preventive behaviours. Additionally, the model addresses the importance of changing attitudes, social norms and emotional responses that are contradictory to the ideal of sexual and reproductive health.

The informational component of prevention programs should reveal the folly of using heuristic means to determine HIV status (e.g.: prognostication based on appearance, associations or personality factors). It is also important that the information base be factual, easily understood and easily translated into practice. It should not arouse undue fear, must recommend prevention techniques that mediate fear, avoid sexism and heterosexism and be designed so as not to unintentionally promote risk behaviours (Fisher & Fisher, 2000).

Motivation is considered to flow from the interplay between personal attitudes, social peer pressure and perceived degree of vulnerability to HIV. The information-motivation-behavioural skills model demands that efforts be made to change attitudes, social norms and emotional responses that are contradictory to the ideal of sexual and reproductive health. The success of the information-motivation-behavioural skills model in provoking change in attitudes and social norms is based in part on the theory of reasoned action (TRA). “Beliefs about the consequences of sexual and reproductive health behaviors, and perceptions of social support for performing such behaviors, are fundamental psychological underpinnings of attitudes and social norms regarding performance of these actions” (Fisher & Fisher, 1998:36).

Strengthening favourable beliefs and weakening or offsetting unfavourable beliefs will assist in shifting attitudes and social norms in a direction that supports the enactment of preventative behaviours. It is also possible to condition positive affect to sexual and reproductive health behaviours (i.e.: pairing sexual arousal with the performance of safer sexual behaviours or pairing anxiety with risk behaviours). Using natural opinion leaders

can also strengthen normative support for sexual caution. Both attitude change and normative change can be made when personal experiences of negative outcomes based on failure to act are presented by similar others and then coupled with a strong endorsement of easy to accomplish remedial behaviours (Fisher & Fisher, 1998; Singhal & Rogers, 2003).

Yet, information and motivation, as singular constructs, are indiscriminately and unpredictably related to preventive measures unless behavioural skills are present. Behavioural skills reflect objective ability and perceived self-efficacy in regards to the performance of preventive acts. Skill, in buying and putting on condoms, in negotiating condom use before and during a risky act, in negotiating HIV testing and monogamy and in reinforcing self and partner across time, predicts safer sexual behaviour. Behavioural skill sets involved in sexual and reproductive health can be fostered through role-playing and the enactment of supporting behaviours (e.g., purchasing condoms or talking to a physician about STIs) (Fisher & Fisher, 2000; 1998; Acker, Goldwater & Dyson, 1992).

Fisher and Fisher (1998) conceptualize STI/HIV prevention as a smaller part of a larger issue: the achievement and maintenance of overall sexual and reproductive health. They point out that behaviours “as diverse as condom use, diaphragm use, pelvic examination, breast self-examination, and breast feeding of infants are all sexualized acts which involve exposure and manipulation of sexual and reproductive anatomy”(41). Based on their research, they conclude that “all of these acts occur or fail to occur as a function of individual emotional responses to sexual cues” (42) and that reductions in negative affect to sexual cues should lead to positive behaviour change. Furthermore, this change in attitude should then translate to other sexualized behavioural events and increase a *range* of sexual health behaviours including, but not limited to, safer sex practices (Fisher & Fisher, 2000; 1998).

The information-motivation-behavioural skills model is operationalized in a way that allows multivariate testing and it has been shown to be useful with a wide range of HIV prevention target populations (i.e., inner-city minority youth, low-income African-American women, adult homosexual men, and urban IDUs) (Fisher & Fisher, 2000). It has also been applied successfully for the promotion of other sexual health behaviours (e.g., breast self-examination and pelvic examinations) (Fisher & Fisher, 1998). Like the

other models reviewed here, the information-motivation-behavioural skills model stresses the importance of knowledge, motivation, behavioural skills and social support for maintaining sexual health. However, this theory further articulates the importance of sex-positive education.

In the context of HIV prevention for adolescents, the information-motivation-behavioural skills model appears to provide a practical means of working with the unique developmental needs of youth. The three components provide opportunities for skill-building as well as bolstering motivation, and perhaps the interaction between the components can help shift negative attitudes towards sexuality, hence encouraging youth to reason and plan ahead for when they are in situations conducive to sexual experimentation. Providing youth with opportunities to learn, develop, and integrate healthy interpersonal scripts for initiating and maintaining equitable, long-term, intimate sexual relationships affords them the chance to develop a sense of mastery over an adult domain and thus, encourages psychosocial maturity.

Transtheoretical Model

Like the AIDS risk-reduction model, the transtheoretical model (TM) is also a stage model of behaviour change designed for HIV prevention which approaches change as a non-linear *process*. The six stages of change in TM describe the degree to which a person has thought about or acted upon prevention messages and takes into account those individuals who determine to change on their own, as well as those motivated by intervention programs (Prochaska & Velicer, 1997; Fisher & Fisher, 2000).

The six stages of TM are as follows:

- 1) *Precontemplation stage*: An estimated 35-55% of individuals fall into this category. In the context of sexually transmitted HIV, these individuals do not practice safer sex and have no intention to change their behaviour in the foreseeable future. Lack of information, misinformation, minimization of the knowledge they do have (a belief that ‘it can’t happen to me’), or previous unsuccessful or demoralizing attempts to change behaviours can all contribute to this lack of intention. These individuals commonly “avoid reading, talking, or thinking about their unhealthy behaviours, and resist outside pressures to

get them to change” (Fisher & Fisher, 2000:17). It is suggested that traditional action-oriented intervention programs will not reach this population.

- 2) *Contemplation stage*: 5-30% of individuals intend to change in the near future (within six months) but do not currently act on the information they have. They are somewhat ambivalent about the necessity for change, not ready to implement changes, and because of this it is again suggested that traditional *action-oriented* interventions will not serve this population. They are however, more open to information and the concept of change.
- 3) *Preparation stage*: 5-30% of individuals have serious intentions to make immediate changes (within the next month), may have previously tried to change, and may be “currently attempting to reduce their frequency of unsafe sex” (Fisher & Fisher, 2000:18). These individuals have an action plan, but have not yet fully implemented it; therefore the traditional action-oriented interventions are well suited to them.
- 4) *Action stage*: 5-30% of individuals have already made conscious changes that significantly reduce their risk of HIV infection. They have consistently used condoms or abstained from sex (or used clean needles) over a period of time (up to six months). These changes require a strong commitment and are often visible to others, yet there is still a high possibility of relapse to earlier stages.
- 5) *Maintenance stage*: After a full six months in the action stage individuals are confident, less prone to relapse and tend to maintain their safer behaviours. Typically, 20% of a population fall into this category.
- 6) *Termination stage*: Very few individuals meet the criteria for inclusion in this category. At this stage an individual has a complete sense of self-efficacy, consistently employs harm reduction techniques and there is no temptation to relapse.

An individual may be categorized, at any given time, into one of these stages or another, yet movement is not necessarily forward and regression to earlier stages can occur. Progress through the stages of change within TM hinge on a decisional balance that

varies throughout the process. The earlier stages (precontemplation, contemplation and preparation) rely on experiential processes, such as consciousness raising, awareness, and self re-evaluation. The later stages (action, maintenance and termination) depend more on behavioural processes such as reinforcement, counter-conditioning and helping relationships.

The two greatest challenges for effective intervention as identified by the transtheoretical model are finding a practical means to motivate *precontemplators* to process the information necessary for change, and finding reinforcements that will promote perseverance among those in the middle and later stages. Mismatching interventions and audiences has been found to result in low treatment efficacy, utilization and retention (Fisher & Fisher, 2000).

The transtheoretical model does not lend itself to multivariate analysis and it is unclear how much the constructs overlap. While it has been successful, it has been noted that each stage also involves the elements of the information-motivation-behaviour skills (IMB) model, which may be more parsimonious (Fisher & Fisher, 2000). The transtheoretical model uses the pros and cons of change in the same way the theory of reasoned action (TRA) uses positive and negative beliefs, and the self-efficacy construct of the transtheoretical model parallels that of social cognitive theory (SCT). However, the transtheoretical model takes SCT a step further by operationalizing self-efficacy in two ways: 1) as *situational confidence* in one's ability to change, and; 2) as *situational temptation* to forego the necessary harm reduction behaviours. There is an inverse relationship between these two: the higher the level of situational confidence, the lower the likelihood of yielding to temptation. As might be expected, increased situational confidence is a factor in progression through the change continuum and temptation is highest in the *precontemplation* stage, decreasing proportionately as situational confidence increases.

Like many of the other models described here, the transtheoretical model relies on the concept of rational decision-making skills being properly employed. However, it also reveals that a large number (35 to 55%) of individuals (*precontemplators*) are not prepared to even think about prevention (rationally or otherwise) and another large percentage (5-30%) of individuals (*contemplators*) are thinking about prevention, but not

acting (again, rationally or otherwise). From this, it becomes apparent that anywhere from 40-85% of a target population may be resistant or indifferent to HIV prevention messages that benefit their sexual health and reduce risk of exposure to the virus.

Preventive efforts must deal with this rational resistance and rational indifference to be successful, particularly in the case of adolescents, who do not necessarily link sexual activity with personal agency.

To summarize, the most popular individual-level theoretical models promoted for HIV/STI risk reduction highlight the importance of accurate information, motivation, behavioural skills and social norms which support safer behaviours. While many of the models presented have been successful in promoting HIV preventative behaviour, the reasons for these successes are not always clear and in some cases cannot be empirically tested because the constructs have not been operationalized in a way that allows for multivariate testing, thus the mechanisms of their failures and successes remain unknown, and perhaps unknowable. Further to this, many of the models do not appear to be suited to the unique developmental needs of adolescents. Perhaps of greatest import, models at this level—while acknowledging the significance of social norms—offer little insight into *how* to shift social norms to support safer behaviour.

In many ways, these individual-level behaviour change models also reflect what has been identified as “the fundamental limitation of contemporary theories of risk behaviour” (Rhodes, 1997:213), because these models are largely founded on the notion of *individual rationality*. The assumption that risk-perception and behaviour change are the result of conscious decision-making based on a rational assessment of cost and benefits fails to account for the social aspects of behaviour. Risk behaviour (and most especially sexual-risk behaviour) does not occur in a vacuum and is often the product of *social actions*, whereby meaning is attached to the risk behaviours through the process of social interaction. For example, a mutual decision by partners to discontinue using condoms is often used to signal commitment and trust (Flood, 2003), but does not necessarily indicate that the partners have actually been tested for HIV/STIs or that they are free of disease. This acknowledgment of the importance of the social aspects of risk behaviour necessarily “shifts the unit of analysis from individual factors to social factors” (Rhodes, 1997:213). This shift allows the development of a greater understanding of the

social organization of risk behaviours, especially those associated with social interactions, relationships and situations (Rhodes, 1997). Consequently, a review of social-level models of change is in order.

3.52 Social-Level Models of Change

In the context of HIV prevention, simply viewing risk behaviour as the product of individual decision-making and choice overlooks the fact that sexual-risk behaviour is, more often than not, the product of social interaction and, “is usually the outcome of ‘negotiated actions’ between at least two people” (Rhodes, 1997:216). Each of the aforementioned individual-level behaviour change models denotes the importance of social support in adapting/adopting interpersonal sexual behaviours that reduce the risk of HIV infection and other negative sexual health outcomes. Social models designed to shape the norms, values, and interests of at-risk social groups should be considered as necessary adjuncts to any large-scale intervention project. Reframing the concept of risk behaviour to include the social context is important because, “the epidemiology of HIV transmission highlights issues that are social rather than individualistic” (Friedman, Des Jarlais & Ward, 1994:96) and from this perspective, the mediating effects of group norms and values on individual perceptions of risk can be better understood and used to some advantage (Rhodes, 1997).

Potentially, social-level models can increase the efficacy of individual-level risk-reduction models. Successful intervention programs can be advanced by the inclusion of a set of strategies that promote the adoption of safer behaviours into group and subcultural norms. This can be done by capitalizing on and motivating existing community and interpersonal networks to improve public health delivery, and by removing social barriers that hinder safer behaviours (Ross, 2002; Friedman, Des Jarlais & Ward, 1994). While it may be difficult to operationalize and define the specific constructs of large social models, there are a number of theories of sub/cultural change that offer a framework for sexual health promotion on a social level. Once again at the risk of over-simplifying a very large and complex body of work, below I present the main assumptions underlying the most popular social-level models of change.

Diffusion of Innovation Theory

The diffusion of innovation theory is an anthropological and sociological model concerned with how new ideas spread among individuals within a social system, over time and through various communications channels (Rogers, 1962). The general strategies used within diffusion theory are those that employ messengers that the target audience can identify with and that use opinion leaders (i.e., those from whom others seek information and advice) to promote peer-to-peer communication about the new idea(s).

Thousands of studies have been published on how innovations spread and are subsequently adopted, and prior to the advent of HIV/AIDS public health professionals were using diffusion theory for a range of health interventions, notably including preventative and family planning initiatives. Thus, it is not surprising that the model was one of the first applied to HIV prevention program designs (Rogers, 2000). Early successes in the San Francisco gay community showed that at-risk individuals who were gathered by outreach workers into small groups and presented with prevention messages from an influential HIV-positive peer were more likely to adopt safer sexual behaviours. Further, as each participant told other peers of the innovation (safer sex), it was adopted throughout the community and HIV infection rates declined (Rogers, 2000).

When applying diffusion of innovation theory to HIV prevention within another culture or subculture some examination of sub/cultural norms is necessary to determine which innovations would be most likely to be adopted by the population of interest, and how an innovation may be used differently within a sub/culture other than the one in which it originated (Dearing, Meyer & Rogers, 1994). Anthropologists suggest that drug injection subcultures exist in response to the illegality of the behaviour (Singer & Baer, 1995). Likewise, sexuality—especially teen sexuality—is often a concealed or secret affair and in some cases, in some places, certain consensual sexual acts may also be illegal or considered immoral. Whether adolescents are sexually active or not, the development of intimate interpersonal relationships is important to the development of psychosocial maturity but abstinence-only programs are destined to fail when applied to those who place a value on interpersonal sexual relationships and pleasure (Dearing, Meyer & Rogers, 1994). While it is difficult to observe and analyse patterns of behaviour

and networks of sexual contacts, it *is* possible to use them to diffuse sexual health innovations.

Interventions involving opinion leaders and peers which promote interpersonal discussion of sexual health issues and which address adolescent sexuality in a manner acceptable to youth have the potential to improve population health. By providing sexuality and HIV prevention education worthy of further discussion outside of the classroom, naturally occurring peer networks can be utilized for the diffusion of sexual health messages and innovations. Because the diffusion of an innovation is often slow in the early stages, ongoing evaluation would be beneficial to measure changes and once an innovation has been adopted by a critical mass (estimated to be 12 - 15% of any given population) there will be a continued increase in adoption of the innovation. At this point, promotional efforts can be scaled down (Rogers, 2000). The diffusion of innovation is also the theoretical underpinning of mass media health-communication strategies and is discussed in greater detail in the context of *theatre-in-education* further on in this literature review.

Leadership-Focused Models

Leadership-focussed models capitalize on the important influences of peers and esteemed referents. These models require researchers to identify and induce pre-existing group leaders to champion harm reduction innovations. It is once again important to provide accurate information so that specific behaviours that increase HIV infection risk can be identified and so that acceptable alternatives can be substituted for the current behaviour. Observation of social networks allows for the identification of local leaders, who may then be recruited and trained. Amicable relations between this vanguard and the intervention project are also necessary, with the understanding that these leaders may have useful modifications to suggest, given their intimate knowledge of the population in question. Leadership-focussed models use existing networks and principals as a way of diffusing prevention messages and may be a useful means of jump-starting social movements (Friedman, Des Jarlais & Ward, 1994).

Social Movement Theory

Typically, social movements originate from the efforts of individuals and local leaders in response to a threat to the community, but on occasion they may be inspired by outside intervention. Social movement theory is especially useful if a high degree of local participation is necessary to implement change or if opposition is likely. In the context of HIV prevention, resistance from small groups (e.g., sex partners who are resistant to condom use or parents), from local leaders (e.g., needle sellers who are resistant to needle exchange programs or religious leaders opposed to condom use), or from political or economic elites (e.g., those who control the distribution of experimental treatments) will often be encountered and must be redressed (Friedman, Des Jarlais & Ward, 1994).

Researchers seeking to promote social movements that assist in HIV harm reduction are faced with many questions: Is change currently underway in the target group? If so, does it further public health goals? If nothing is underway, why not? What are the obstacles to change? Is it possible to work with a pre-existing social movement? Each of these questions must be addressed, and if it is necessary to seed the organization of a movement, social movement theory suggests identifying and training leaders, in the same fashion as diffusion of innovation and leadership models. However, social movements, once established, need to be given autonomy (Friedman, Des Jarlais & Ward, 1994).

The effect of community organization on social movements can be impressive. For example, the early mobilization of the gay community to counter the threat of HIV/AIDS by pressuring medical and public health institutions into committing substantial funds for AIDS research was “one of the most effective health behaviour interventions on record” (Friedman, Des Jarlais & Ward, 1994:106). However, the way that North American and European homosexual communities were able to respond to AIDS reflects the response of a unique, highly educated, relatively advantaged, and relatively cohesive group. This was also a group which was already in the midst of a social movement focused on gaining human rights and with the advent of HIV/AIDS, attentions were turned to the burgeoning epidemic. Unfortunately, a parallel social movement is not evident among those groups who are currently bearing the burden of infection. Furthermore, these tactics cannot be expected to work within a heterogeneous

group (such as youth, immigrants or women) that is lacking time, resources, networks and lobbying powers (Montoya, 1997; Panos Institute, 1990).

3.6 Peer Education

The social-level models highlight the power of the peer. Peer-education capitalizes on the positive aspects of adolescent peer networks and the natural tendency for youth to learn from one another (Planned Parenthood, 2002). It also helps circumvent the tendency of youth to ignore recommendations from adults (Brown, DiClemente & Reynolds, 1991). Because adolescence is a time when the importance of peers tends to replace the previous importance of family, youth tend to band together in order to develop a greater sense of individual identity through their membership in peer groups (Brown, Dolcini & Leventhal, 1997). Early family influences notwithstanding (Galambos & Ehrenberg, 1997), it is in peer groups that youth develop many of the social skills that will be carried with them for life (Maggs, Schulenberg & Hurrelmann, 1997) and according to the findings of the Joint United Nations Programme on HIV/AIDS (1999), the success of peer education models is based on:

Behavioural theory which asserts that people make changes not because of scientific evidence or testimony but because of the subjective judgement of close, trusted peers who have adopted changes and act as persuasive role models for change (10).

Over the past decade, peer education has gained ground as an important means of promoting health behaviour change in a range of settings, among a variety of populations (Lazdane & Lazarus, 2003). It has been demonstrated that youth tend to respond positively to interventions, particularly repeat-interventions, which are peer-driven, do not preach values, incorporate youth culture and language, and are presented within a context that addresses other issues affecting their lives (United Nations Population Fund, 2005; Berlin & Hantman, 1999; Berlin & Berman, 1995; Kirby, 2001; McKay, 2000). Among youth populations, peer education appears to reduce the barriers between target audiences and educators. Peer educators are perceived to be in touch with youth issues and to understand the terms of reference, thus they gain credibility with the target group (Stakic, Zielony, Bodiroza & Kimzeke, 2003). Amongst teens as a group, information

which comes from like others tends to be more highly valued than information coming from others outside the group (Planned Parenthood, 2002).

This makes peer education particularly potent for education programs focussed on promoting positive change associated with the sensitive behaviours linked to sexual and reproductive health. Unlike traditional education models, peer educators are seen as equals rather than as authority figures. Audiences tend to tune-in to the messages given them by their peers rather than tune-out, as they often do with messages coming from adults. As one young man working on this project put it, “When young people get [sex education] messages from authorities, it’s essentially in one ear, out your mother... with peers it’s.... more like helping out”. The information imparted by peer educators tends to be seen as useful advice that can be applied to the teens’ real lives instead of coming across as just another moralistic lecture from some out of touch adult (Planned Parenthood, 2002).

Evaluative research designed for multivariate testing on peer education is scarce, partially because it is expensive but also because it is difficult to isolate the influence of peer education, which is generally embedded in a more comprehensive strategy. However, anecdotal reports and outcome measures of peer-led programs are encouraging (United Nations Population Fund, 2005; United Nations Educational, Scientific and Cultural Organization, 2003; Planned Parenthood, 2002; Kirby, *personal communication*, Jun 2002). Importantly, peer education programs have two target audiences, the peer group and the peer educators. The little evaluative research that has been done suggests that the strongest influence is on the peer-educators, who report increased knowledge and positive changes in attitudes and behaviour (Kirby, *personal communication*, Jun 2002; Planned Parenthood, 2002).

Compared to more conventional adult-led sexual health education, peer-led programs tend to: 1) produce greater changes in attitudes regarding perceived risk; 2) increase motivation to change behaviour; 3) increase the likelihood of discussing sexual health; 4) reduce adherence to gender and social roles that increase risk; 5) reduce biases towards sexual minorities, and; 6) increase tolerance among both the peer group and the peer-educators. Moreover, the diffusion of health-protective social norms by peer-leaders has been shown to be a very effective means of stimulating and sustaining desired social

change amongst individuals within a community (Ross, 2002). As an additional benefit, peer education programs often reach unintended audiences such as family and the larger community (Planned Parenthood, 2002).

3.7 Theatre-in-education

In the context of this dissertation research, the feasibility and potential impact of the edutainment format for HIV prevention/sexuality education is explored using a theatre-in-education framework. While theatre-in-education (also known as TIE or TE) is a distinct area of study, by virtue of its goal to combine education with entertainment it also falls under the umbrella of a larger health-communication strategy (founded on diffusion of innovation theory) which is known interchangeably as education-entertainment, entertainment-education, edutainment, edu-tainment, and infotainment. By any name, the larger education-entertainment movement has challenged the notion that mass media programming must be *either* educational *or* entertaining (United Nations Population Fund, 2005; Singhal & Rogers, 1999).

Entertainment-education is the process of purposely designing and implementing a media message to both entertain and educate, in order to increase audience members' knowledge about an issue, create favourable attitudes, shift social norms, and change the overt behavior of individuals and communities. The larger purpose of entertainment-education programming is to contribute to the process of directed social change, which can occur at the individual, community, or societal level (Singhal & Rogers, 2003:289).

Often, when one thinks of theatre, one thinks *only* of entertainment. However, the use of theatre as a means of transferring personal and collective wisdom has a long and rich tradition that pre-dates recorded history. From its humble beginnings in primitive dance rituals, to the development of drama in Greece and Rome, to the present, theatre has long been used for more than entertainment purposes. For millennia, theatre has served as an effective and engaging means of transferring knowledge, illustrating social dilemmas, stimulating thought, and educating citizens (United Nations Population Fund, 2005; Singhal & Rogers, 2003; Wickham, 1995; Dosser, 1983; Landy, 1982).

While the prominence of live theatre may have been eclipsed in the past century by the advent of radio, motion pictures, television, the Internet and other modes of

communication, it is no less powerful a medium than it once was, nor should it be considered any less potent than mass media (Reardon & Rogers, 1988). Furthermore, given the intimacy of live theatre productions compared to mass media productions, it could also be argued that live theatre may be an even more powerful medium for edutainment than those relying solely on technological advances, and this may be particularly true for the presentation of sensitive subjects such as sexuality and HIV/AIDS education (United Nations Population Fund, 2005).

While edutainment and theatre-in-education have gained recognition only in the past three decades, the promotion of the idea that formal education is much more than simply a matter of book learning began in the 18th and 19th century. Educators such as Rousseau, Pestalozzi and Froebel maintained that education is best viewed as an experiential activity. These notions were carried into the 20th century by the likes of John Dewey and H. Caldwell Cook, and in 1938, the English Board of Education mandated that the entire school curriculum should encourage learning in terms of experiential activities rather than depend simply on the acquisition of facts (Dossor, 1983).

The concept of theatre-in-education is built upon these ideals of education as an *activity* and is supported by research into child development and social learning. Theatre-in-education intentionally applies the theatre genre to education and invites students to participate in the learning process. Research suggests that theatre-in-education is an effective and engaging means of stimulating problem-solving skills, promoting dialogue, and of meeting learning outcomes, often with much better results than more traditional means (United Nations Population Fund, 2005; Sloth Madsen, 2002; Berlin & Berman, 1999; Miller & Saxton, 1998; Dossor, 1983).

In short, theatre-in-education uses drama to illustrate the subject matter of interest and stimulate discussion, and it can take several forms depending on the degree of audience participation (Sawney, Sykes, Keene, Swinden & McCormick, 2004). The audience may participate in an extrinsic sense, where they are engaged in discussions about the drama they have witnessed, only after the fact. They may also be involved in a peripheral sense, where they are invited to participate during the performances however, their participation does not affect the outcome of the performances. The audience may also be involved in an integral sense, where they are invited to participate and their

participation can indeed affect the outcome of the play (Dossor, 1983). One such integral technique is known as *Theatre of the Oppressed*, developed by Brazilian social activist Augusto Boal, as a means of bringing *dialogue* to theatre (Paterson, 2005; Sant, 2006). Essentially, audiences are asked to identify oppressive situations in replayed scenes and provide the actors with alternative scripts and actions. This technique provides audiences with the opportunity to problem-solve and find alternative responses to oppressive situations.

The capacity of theatre to capture emotion and spark personal reflection has the potential to help motivate individual behaviour change as well as instigate changes in social norms. As with other edutainment mediums, this potential is enhanced by a performance which reflects interpersonal relationships and situations which are typical of the audience's day-to-day life and by presenting characters with whom the audience can easily identify (United Nations Population Fund, 2005; Rogers & Singhal, 1999; Ward & Rivadeneyra, 1999). As the individual-level theories emphasize, the capacity for individuals to integrate behavioural change depends greatly on the degree to which they are motivated to reduce their risk. Viewing a theatre production which mirrors their own personal and social situations can help them identify which of their own behaviours and/or attitudes may put them at risk, thus potentially motivating change. Significantly, peer-led sexual and reproductive health education which incorporates believable theatre would also have the potential to further increase the potency of peer education.

Theatre has the capacity to enlighten behavioural, interpersonal and social situations, to capture attention and emotion, and provoke thought and social discourse. A theatre-in-education format that provides youth audiences with straightforward prevention messages that can be easily acted upon has the potential to (positively) exploit the links between emotions, the formation of attitudes and their subsequent influences on behaviour (United Nations Population Fund, 2005). Importantly, it is also an educational method that can be successfully applied in resource-poor settings, as well as with non-literate target audiences (Singhal & Rogers, 1999).

The theoretical underpinnings of theatre-in-education are most often explained from a psychological standpoint, generally as put forth in Albert Bandura's social learning theory (Social Cognitive Theory) (United Nations Population Fund, 2005). The

basic tenet of social learning is that people (especially youth who are learning new roles) learn how to behave appropriately not only through personal experience and practice, but also by watching (Bandura, 1994). Still, the usefulness of theatre-in-education could just as well be explained by micro-level sociological theories such as George Herbert Mead's notion of the *Social Self* and Charles Horton Cooley's concept of the *Looking-glass Self* (see Mead, 1932; Cooley, 1922).

Mead and Cooley have laid the foundation for understanding the social construction of reality and shared meaning, which characterize every-day social interactions and situations (some of which will involve intimate and/or sexual relationships). The basic assumptions behind Mead's theory are that the social self is that part of an individual's self-identity which is defined and shaped through social interaction and experience, and that self-awareness and the ability to understand the intentions of others depend largely on being able to take the role of the *other* and to imagine situations from that other point of view (Gillespie, 2005; Macionis, Jansson & Beniot, 2005). As well, it has more recently been shown that this process is amplified if there is a perceived closeness between the parties and an emotional reaction to the social interaction (Lundgren, 2004).

Similarly, Cooley's theory suggests that others represent a mirror in which we see ourselves and that what we think of ourselves depends on what we think others think of us. The development of the looking-glass self is based on a feedback loop process whereby individuals imagine how they appear to others, then imagine how others judge or evaluate that appearance, then form feelings about themselves based on those imagined judgments (Cooley, 1922; Macionis, Jansson & Benoit, 2005). In a well crafted, emotionally engaging theatrical production that is developmentally and culturally appropriate, the social self should find itself on stage—confronted by a larger-than-life and exceptionally clear looking glass. In the context of theatre-in-education, the entertainment component becomes the forum for deconstructing myths and reconstructing reality and meaning, and the educational component offers a process by which youth can re-evaluate the judgments they may have made about themselves and others.

Further to the psychological and sociological interpretations, more philosophical interpretations go beyond cognition and suggest that the power of theatre lies in the embodied nature of the performance or *mimesis*, a term derived from the Greek word for imitation (Puetz, 2002). Mimesis—the notion that art imitates reality—by definition, describes “the deliberate imitation of the behavior of one group of people by another as a factor in social change” (Oxford English Dictionary Online, 2006: np). The concept, while extremely broad and somewhat elusive, is central to theoretical models used to explain the essence of artistic expression as well as human experiences of and responses to works of art (in this case, theatre) and has been the subject of philosophical debate throughout the ages. Plato suggested mimesis was inferior to original experience because of its illusory nature, while Aristotle described it as a natural human inclination and a means of getting closer to reality by allowing us to recognize aspects of our own experience through artistic representations that re-create, beautify, improve upon and universalize the world in which we live. More recently, it has been suggested that acts of mimesis are adaptive behaviours that blur the lines differentiating subject from object and self from other, thus allowing assimilation of differences rather than projections of separation (Puetz, 2002).

Mimesis is the answer objectified in a symbolic world of a subject seeking and finding orientation in a world of Others. In this involvement of the body, in its reference to the *I* of the actor and to Others, lies the essential difference between mimesis and purely cognitive ways of knowing. Mimesis aims at influence, appropriation, alteration, repetition; it operates by means of new interpretations of already existing worlds (Gebauer & Wulf, 1992: 316).

Clearly, using theatre-in-education as a means of increasing self-awareness and to redefine or reconstruct the reality surrounding interpersonal sexual relationships—in an attempt to change previously conditioned thoughts, feelings or behaviours that undermine sexual health—is in keeping with social learning theory, as well as philosophical and micro-level sociological theory. Whether the key to the development of safer behaviours is in mimicry, re-evaluating demoralizing self-concepts, developing the ability to stand in another’s shoes (embodying difference), or all of the above and then some, theatre-in-

education has the potential to promote positive change by mirroring personal issues and appropriate solutions in a way that promotes self-reflection about social interactions.

Under a theatre-in-education framework, the actors demonstrate both positive and negative role models. However the true key is the *transitional model* that is demonstrated by the character(s) who successfully make the change(s) desired within the target population (United Nations Population Fund, 2005). The transitional model is illustrated by characters who initially engage in high-risk behaviours and then subsequently incorporate risk-reduction behaviours into their repertoire. This transitional model highlights the impact of social interactions/reactions on decision-making processes, and helps to demonstrate that change is possible and can be achieved (although not without some effort) through self-regulation of thoughts, attitudes and behaviours.

As mentioned earlier, psychological theory has established that normal adolescent development often includes elements of risk-taking, which serve a number of developmental purposes (Brown, DiClemente & Reynolds, 1991). Thus, youth tend to be attracted to characters engaging in risky behaviours; especially those youth who can identify with the characters' frustrations, anxiety, or feelings of inadequacy, if the risky behaviour is linked to identity formation and peer affiliation, and/or if it is used as a means of exerting control and expressing autonomy. Providing youth with transitional models who come across as *hip* or *cool*, who seems familiar, and who are believable sets the stage (so to speak) for interpersonal communications and discussions with educators, peers, friends and family about the importance of integrating safer sexual behaviours (United Nations Population Fund, 2005).

Further to this, the experiences of the characters—especially those modelling transformation—have the power to motivate youth audiences. At the very least, audiences are encouraged to think and talk about possible negative consequences and alternative choices. Moreover, there is the real potential for motivating youth to develop and adopt new social scripts and interpersonal strategies for reducing their own risky behaviour, by allowing them to see the need for change without having to suffer the negative outcome(s) that sparked change in the character(s) with whom they identified (United Nations Population Fund, 2005). This is important for prevention because in the context of romantic relationships it has been found that safer sex is not included in most

gendered scripts. This leaves both genders vulnerable to falling into traditional patterns and expectations around female acquiescence and male promiscuity, whereas following non-traditional gender scripts facilitates the discussion and practice of safer sex (Ortiz-Torres, Williams & Ehrhardt, 2003; Seale & Erhardt, 2003; Eyres, Davis & Peacock, 2001).

According to Singhal and Rogers (2003), strategies such as theatre-in-education which combine entertainment with education contribute to social change by: 1) influencing awareness, attitudes and behaviours among audience members, thereby promoting change at the individual level, and; 2) influencing the social environment (including public and policy initiatives) thereby setting the stage for social change at the group or system level. For example, a radio soap opera, *Twende na Wakati* (Let's Go with the Times), which was aired in Tanzania had a dramatic impact on individual behaviour. The broadcasts increased public awareness of HIV/AIDS and prompted several hundred thousand (!) sexually active adults to increase their use of condoms and/or reduce their number of sexual partners. As another example, the radio soap opera, *Tinka Tinka Sukh* (Happiness Lies in Small Things) which was broadcast in Lutsaan, India prompted a community-wide rejection of the traditional practice of dowry exchange (Singhal & Rogers, 2003).

Edutainment, including theatre-in-education, is set apart from many other change initiatives because of its capacity to promote change at *both* the individual and social levels, and therein lays its strength. As mentioned in a previous section on models of behaviour change, the most popular theoretical models for HIV/STI risk reduction highlight the importance of motivating target audiences to think and talk about their own need for behaviour change (Peterson & Di Clemente, 2000; Di Clemente & Peterson, 1994). The provision of information and behavioural skills, along with the removal of perceived barriers are integral to the maintenance of individual-level behaviour change. However, in addition to individual-level change initiatives, social-level change initiatives that support prevention efforts are necessary to shift social norms towards wider-scale acceptance of safer behaviours (Ross, 2002; Rogers, 2000). In the context of HIV/AIDS prevention, edutainment is one of the few strategies which has the capacity to effect

change at *both* individual and social levels (United Nations Population Fund, 2005; Singhal & Rogers; 2003; 1999).

Interventions with educational messages consciously embedded within popular entertainment formats “earn high audience ratings, involve audience members, and spur interpersonal conversations” (Singhal & Rogers, 2003:292). Increasing the degree of interpersonal communication about sensitive or taboo topics (such as sexuality and HIV/AIDS) facilitates public discourse, and edutainment initiatives provide audience members with a means of talking about lifestyles and consequences without disclosing the details of their own lives.

It has been suggested that audiences find edutainment appealing because of its reliance on the narrative approach:

Which is not perceived as didactic or preachy by audience members...[and] highly complex narratives involving a variety of protagonists and antagonists, plots and subplots, and conflicts and resolutions... are perceived by audience members as more coherent, believable, and involving, than straightforward rational appeals (Singhal & Rogers, 2003:292).

Further to this, audiences tend to enjoy edutainment programs, especially those which include conflict-laden, suspenseful drama which promotes empathic connections with specific, well-defined characters. The emotional appeal of edutainment is thought to stem from the phenomenon of *parasocial interaction*, wherein audiences have a tendency to perceive their favourite characters as personal friends with whom they enjoy an ongoing relationship (Singhal & Rogers, 2003).

The majority of edutainment initiatives employ mass media such as radio, television, comic books, and popular music, and this is where theatre-in-education diverges from mainstream edutainment. However, the use of drama in its simpler form (that is, presenting live actors on a stage) limits the strategy only by virtue of audience size. While this may have the potential to reduce the scope of an initiative, by customizing design and delivery of an initiative based on the characteristics of the intended audiences and by tailoring the messages to specific individuals or a homogenous group within the target audience, live theatre performances have the same potential to achieve their desired objectives as do mass media productions (Singhal & Rogers, 2003).

Furthermore, the intimacy of live theatre productions may be an even more powerful medium for presentations on sensitive topics such as sexuality and HIV/AIDS education, which may be further enhanced by the inclusion of question-and-answer sessions and actor/peer-educator from the same community (United Nations Population Fund, 2005). In the context of a school-based sexuality education initiative, it would be relatively easy to integrate a theatre-in-education program into existing theatre arts curricula.

3.8 The Theories in Context

If a group of individuals ignore some manifest risks, it must be because their social network encourages them to do so. Their social interaction presumably does a large part of the perceptual coding on risks (anthropologist Mary Douglas, as cited in Rhodes, 1997:216).

Globally, HIV/AIDS has become an urgent public health issue. In the absence of a successful global treatment program or vaccine or cure, a public health response that motivates individuals and communities to initiate and maintain behavioural changes that reduce the risk of exposure to the virus is the most viable option for reducing transmission and the large-scale morbidity and mortality associated with the virus (Joint United Nations Programmes on HIV/AIDS, 2004; McKay, 2005; Peterson & DiClemente, 2000). While the situation in developing countries is *far* graver than in more developed nations such as Canada, developing effective prevention measures is no less important. In Canada and the US, the incidence of sexually transmitted HIV has, and continues to increase and is moving into ever-younger populations. These epidemiological trends make it imperative that youth receive timely and comprehensive sexual health education and access to sexual health services. This will assist them in avoiding exposure to the virus and will support them in achieving and maintaining sexual health throughout the lifespan. Further to this, a concentrated public health response that highlights the ease with which exposure to the virus can be avoided has the potential to normalize safer sexual practices and improve population health.

Past failures to end the HIV/AIDS epidemic in Canada and elsewhere have highlighted the importance of normalizing discussions of topics previously viewed as taboo. Particularly, our historical reluctance to discuss issues related to sexuality has left many at unnecessary risk. Many social changes have accompanied the advent of

reproductive technology that allows women to control their fertility, and contemporary youth acquire more sexual partners throughout their lifetime. Thus, they face an increased risk of exposure to HIV unless they consistently practice safer sexual behaviours.

Education which focuses on enhancing positive sexual outcomes as well as reducing negative outcomes has been recognized to have the potential to improve population health and sexual well-being, more so than more conventional programs which have tended to dwell on the negative and/or promote ignorance (Health Canada, 1997; Public Health Agency of Canada, 2003; Pan American Health Organization, 2001; Office of the Surgeon General, 2001; diMauro, 1995). Research has shown that the development of a healthy sexuality is supported by the early acquisition of accurate information (Weinberg, Lottes & Aveline, 1998; Alan Guttmacher Institute, 1997; Calderone, 1984), good behavioural and communications skills (Kirby, 2001; Williams et al., 1998; Bandura, 1994), and the motivation needed to practice risk-reduction behaviours (Peterson & DiClemente, 2000; Fisher & Fisher, 2000). The degree to which youth are motivated to avoid high-risk sexual behaviour or to practice HIV/STI risk reduction is also correlated with cultural attitudes, social norms, self-efficacy beliefs, positive affect towards protective behaviours, and gender (Coleman, 2002; Fisher & Fisher, 2000; McKay, 2000; Yarber, 1999; Exner, Seal & Ehrhardt, 1997; Kalichman, Carey & Johnson, 1996; DiMauro, 1995; Wingood, 1995; DiClemente & Peterson, 1994; Friedman, DesJarlais & Ward, 1994; Panos Institute, 1990). Unfortunately, there are few HIV prevention and/or sexuality education programs in place that adequately address all these issues in a sex-positive manner (McKay, 2005; 2000; Health Canada, 1997).

In summary, the literature suggests that the most successful HIV prevention/sexuality education initiatives are early interventions which target audiences with reference to their current stage of development. This allows for the building of knowledge and skills sets that may then be called upon when needed. The literature also indicates that sex-positive (rather than sex-negative) education has a greater potential for motivating behaviour changes that support the development and maintenance of sexual health over the lifespan. Further to this, it is evident that programs which only target individual risk behaviours will not be as successful as interventions which also target social norms and highlight interactions which support unsafe sexual behaviours. The

literature reveals that social-level change can be initiated most readily through the use of peer-led and leadership focussed models, and when coupled with novel approaches which combine education with entertainment, social norms may be shifted to support safer sexual behaviour. This would have a positive effect on population health.

As a whole, the literature reviewed here suggests that knowledge is best acquired before it is needed (i.e. knowing the fundamentals of ovulation is as important as knowing how to acquire contraceptives). HIV prevention programs should target audiences of an age at which the majority would not be sexually active because safer sexual behaviours are easier to shape before sexual debut than they are to change after the unsafe behaviour patterns have been established—especially if there is overarching social support. By providing youth with a variety of prevention strategies, including—but certainly not limited to—abstinence education, sexual health educators can help youth build confidence in their ability to take control of their own sexual health and thus avoid exposure to HIV. Problematically, many youth who are not sexually active fail to recognize that such training is essential to successfully negotiating safer sexual behaviours when they do become sexually active.

The most popular theoretical models for HIV/STI prevention highlight the importance of motivating target audiences to think and talk about their own risk (Peterson & DiClemente, 2000; DiClemente & Peterson, 1994). In the transtheoretical model of behaviour change it is suggested that 40% to 85% of any HIV prevention target population will fall into the two earliest stages of behavioural change (i.e. *precontemplators* and *contemplators*) and that individuals at these levels are the most resistant or indifferent to prevention messages. Additionally, for this group, the development of situational confidence is seen to be the most important developmental task for the integration of safer behaviours. However, youth who may otherwise be ready and willing to learn are often wary of sexual health education provided by adults.

To counter the probable resistance and indifference to prevention messages expected among this group, the integration of a peer leadership model would theoretically reduce the barriers between educators and audiences. Additionally, primary focus on experiential processes should help youth audiences increase their awareness of the centrality of sexuality in adult human relationships and to promote self re-evaluation in

regards to sexual health and risk. This should in turn increase participants' situational confidence in their own ability to use safer-sex strategies. A secondary focus on behavioural processes should also reinforce the behaviours necessary for the maintenance of risk-reduction behaviours over the long-term for youth who may be at later stages of change.

It appears, at least theoretically, that all that is left is to find a way to engage youth in the learning experience so that the desired sexual health messages can be internalized as confidence in one's own ability to act in a sexually responsible manner. This has the potential to increase the likelihood that the learning will be translated into safer sexual behaviours, or at the very least increase communication about a once taboo topic. Theatre-in-education, along with other edutainment formats, reportedly provide some of the best means for engaging audiences in a meaningful way and have been found to not only support safer behaviours at the individual-level but to have the potential to normalize risk reduction behaviours at the social-level. Embedding peer-led theatre-in-education programs—focused on sexuality and HIV prevention education—into currently existing theatre arts curricula within the public school system offers a powerful and cost-effective means of providing comprehensive sexual health education. It would be shrewd (from both a social and economic perspective) for education ministries and school districts to capitalize on the positive aspects of adolescent peer networks and youths' natural tendency to learn from one another by investing in the set-up, maintenance and rigorous evaluation of peer-led theatre-in-education programs which focus on sexuality education.

3.9 A Word about Evidence...

In June of 2001, members of the United Nations General Assembly Special Session on AIDS (UNGASS) set five global goals focused on youth, who as a group are experiencing the highest rates of new HIV infections (Maticka-Tyndale, 2005).

Commitments were made to increase access to the information, skills, and services that are necessary for HIV prevention, to decrease youths' vulnerability to HIV/AIDS, and to decrease the prevalence of HIV among this population. The target dates for these goals were 2005 and 2010, which meant that policy makers needed to move swiftly in order to meet their objectives. However, as has been stressed throughout

this literature review, successful HIV prevention programming is theory-driven and evidence-based. Problematically, the evidence base at the time was heavily skewed in favour of interventions that were developed in the socio-political North while on the global front, prevention needs are greatest in the socio-political South—where differing cultural, social, political, and economic factors influence the types of interventions that are needed (Maticka-Tyndale, 2005). While North-South influences are not an issue in the context of the research reported on here, it has been noted that many adults feel as if adolescents come from a different planet, so paying particular attention to the different social and cultural values of youth is equally important as understanding larger cultural divides.

In an attempt to clarify what exactly constitutes acceptable evidence for recommending implementation, the UNGASS HIV/AIDS group met numerous times and eventually reached a consensus. Despite the fact that randomized control trials (RCTs) are considered the *gold standard* in evidence-based programming, the timeline was too short to accommodate full-on RCTs before implementation of urgently needed prevention initiatives. To this end and not without facing many challenges, the committee outlined what should be considered acceptable evidence. They began by defining a hierarchy of evidence thresholds (the amount of evidence needed) before recommending implementation of specific HIV prevention initiatives (Maticka-Tyndale, 2005).

Generally speaking, evidence can be based on informed judgment (of those involved as leaders, participants or observers), adequacy (the expected changes occur but there are no comparison groups), plausibility (the expected changes appear to be a result of the program and not something else) and probability (the expected changes occur and are not the result of chance). Evidence based on informed judgment and adequacy is rated low on the hierarchy, the same evidence coupled with plausibility moves up the hierarchy, and evidence that meets the gold standard of being both plausible and probable (based on randomized control trials) is ranked the highest (Maticka-Tyndale, 2005).

However, with the recognition that randomized control trials are not only expensive but also time consuming, and in an attempt to move the prevention agenda forward quickly, the real task was to determine what thresholds and types of evidence of success are *realistically* necessary before implementation of different types of prevention

initiatives. Outcome and impact evidence should not be considered the only relevant factors. To this end, evidence threshold requirements were tied to five other factors:

- 1) *Feasibility of the intervention*: Feasibility is related to issues of cost, sustainability and demonstrated reach. The feasibility of an intervention is judged both on how it was originally delivered on a small-scale and if it would be cost-effective and sustainable if scaled-up to reach larger numbers (e.g., implementing a school-based intervention on a national level).
- 2) *Potential for negative outcomes*: Interventions with a high potential for adverse outcomes require a higher threshold of evidence (e.g., circumcising males to prevent the transmission of HIV has a high potential for negative outcomes, therefore strong evidence of the efficacy of this type of intervention would be required before implementation would be recommended).
- 3) *Acceptability*: Interventions which are readily acceptable to the target population and other stakeholders require less evidence of efficacy than do interventions which are met with resistance, scepticism, or fear (e.g., abstinence-only programming meets with less resistance and triggers less fear than comprehensive sexuality education which includes teaching condom-use skills, therefore the two types of intervention require different thresholds of evidence be met before implementation).
- 4) *Potential size of effect*: Evidence thresholds are lower for interventions which appear to have a very large desirable effect, while those exhibiting smaller effects require much stronger evidence.
- 5) *Other health and social benefits*: Interventions which (perhaps unintentionally) produce other health and/or social benefits require less evidence of efficacy than interventions that do not (e.g., increasing access to education can have a positive impact for HIV prevention by increasing knowledge, skills and an understanding of risk).

In the context of this dissertation research, these requirements and recommendations are important. According to UNGASS, interventions targeting youth, especially those delivered through or in partnership with existing youth organizations

(including public schools) are considered to be highly feasible, to have little if any potential for negative outcomes, and to be relatively acceptable (with acceptability linked to the overall acceptability of the hosting organization). Further, while effect size tends to vary depending on the scope of the intervention, there is a high potential for secondary health and social benefits. Accordingly, interventions which increase knowledge, skills, and access to health services while reducing the vulnerability of youth to HIV, even if only based on the informed judgement of key informants or adequate evidence should be recommended for wide scale implementation, especially those that appear plausible (Maticka-Tyndale, 2005).

Ultimately the UNGASS committee devised a relatively simple scale for determining whether, to what degree, and under what circumstances HIV prevention interventions should be recommended for implementation:

- 1) *Do not go*: When there is strong evidence that an intervention is not feasible, causes or has a strong potential to result in harm, or has had no measurable effect it is recommended that the intervention not be implemented on a wider scale and that resources be directed elsewhere.
- 2) *Steady*: If there is some evidence that a theory-based intervention will work and if other similar types of interventions provide evidence of success but evidence for that specific intervention does not meet the required threshold it is recommended that the intervention continue as is, where is, with further investments in rigorous evaluation and development.
- 3) *Ready*: When the evidence threshold is partially met (e.g., similar programs have demonstrated some effect, others no effect, but no undesirable effects have been detected) it is recommended that these initiatives be implemented on a wider scale with investment in rigorous evaluation.
- 4) *Go*: If there is evidence at the required threshold that a specific type of intervention helps meet at least some of the UNGASS goals, and there is no evidence of adverse outcomes, immediate widespread implementation on a large scale with continued monitoring is recommended (Maticka-Tyndale, 2005).

The research reported on next, while based on informed judgment, adequacy and plausibility rather than on the gold standard of a randomized control trial, arguably provides sufficient evidence that the theatre-in-education format used here is ready, and worthy of implementation on a wider scale so that rigorous evaluation can be completed.

Chapter 4: Methodology and Research Procedures

You have yet to understand that the shortest distance between a human being and Truth is a story (de Mello, 1986:23).

This project involved the co-creation of a play which was then used as the basis for the HIV prevention/sexual health education program which is evaluated in this dissertation. “The Full Circle Project”, staged an original one-act play entitled “*Balderdash*”, which was presented in four parts over the course of one month (once per week) to four groups of students. The play was written and performed by youth for youth, and was followed up using peer-led question-and-answers sessions, and interactive drama on the last day. The name of the play alludes to schoolyard myths about sexuality and the performances followed the relationships of eight typical teen characters through the trials and tribulations of their high school years. The play was co-created and presented by youth volunteers (aged 15 to 24) and used youth culture as the framework for promoting sexual health and responsible sexual behaviours.

This chapter will briefly outline the co-creation of the play as well as the methodologies and research procedures which were used: 1) to examine the utility of interactive drama for delivering sexual health education based on engagement measures; 2) to assess the impact of the program on youth audiences based on confidence measures and comments, and; 3) to learn about the actor/peer-educators’ experiences. I will begin by providing a short ethnographic review of the co-creation process, which may be helpful to others trying to coordinate such a project. This description will be followed by a more detailed description of the methods and procedures used in data collection and analysis.

4.1 Co-creation of the Play

This section provides a brief ethnographic review of the processes involved in co-creating the drama which was used as the focal point for the intervention. I will present a biography of the project, outlining the evolution of the play and my experience of the creative group, by describing the course of events from my own perspective. I have chosen to do this by using a stylistic innovation combining two ethnographic approaches.

I will tell the story from a *confessional* standpoint wherein I, as the author, am central to the story and on occasion I will include *impressionistic stylings* and wax poetic to make a point (Van Maanen, 1988). While this approach is less conventional than a standard ethnographic review, my intent in this section is to describe my own involvement as the coordinator of the project. This is done with the hope that others in the future, having recognized the power of this educational format and having learned from my experiences (both the opportunities and the challenges) will avoid some of the more obvious pitfalls in the process of co-creating powerful theatre-based peer-led sexual health education programs.

I will begin in Atlanta, where I first witnessed theatre-in-education focussed on HIV-prevention. From there I will move to my frustration and the dark night of the soul where I was not careful what I wished for. I'll describe the work I made for myself in that moment, my fairy godmother, her magical young friends and the forces of chaos which worked against us. I'll describe how good triumphed and clearly define my bias now: I believe this project was based on a good idea and it succeeded because it was recognized as such by academics, funding agencies, community partners, and schools. Even so, I believe it succeeded primarily because of the very talented and committed group of young people who embraced the idea wholeheartedly despite the many challenges it presented.

Recall that my leap to theatre was not precipitated by the literature. The literature most definitely lead me to the conclusions that HIV prevention for youth was important and failing, that individual behaviour change was possible, and that more than individual psychology was at play. While the literature was long on theory, it was short on novel approaches that might capture the attention of youth.

Where this all began for me was at the first National HIV Prevention Conference in Atlanta, Georgia. In September of 1999, on the last night of the conference, I attended a theatre-based presentation that sounded like an interesting change from the lecture sessions I had been attending for the preceding three days. As I watched the dramas presented by the NiteStar theatre troupe unfold, I was moved; it was as if I was suddenly transported to the real world of teenage angst. Tears welled up in my eyes as I watched the characters struggle with some of the very same issues I had struggled with as a

sexually maturing youth (albeit, without a fatal sexually transmitted disease thrown into the mix). I was touched on a very deep level and knew that I had just witnessed something very important. At the end of the shows, I left, somewhat stunned, and upon seeing the actors on my way out, I was able to say little more than, “that was awesome!!”

I returned to school, and my coursework focused on statistics, research methods, and developmental models. The poignant reality illuminated by NiteStar faded into the sometimes lacklustre abstractions of research and theory. Suddenly, it was the spring of 2001 and I was busy writing my master’s thesis, an immense literature review of HIV/AIDS research from what now seems like an infinite number of disciplines.

4.11 The Vision

Thursday March 29, 2001: The *Dark Night of the Soul* as I call it, began in a fleeting moment of existential angst. During a late night editorial session, as I was editing a chapter of my Master’s thesis devoted to HIV prevention theory, I was overwhelmed by what felt like the sheer futility of the academic exercise. I wondered what the point of prevention theory was if it was not being applied? What worth was there to my studies if they failed to provide a practical application? I wrestled with these monsters of doubt for a time and then fell into my bed, my body exhausted, my mind in overdrive. I wished for some clarity. What could I do to *really* help youth? What was I *supposed* to be doing? *Why* was I here?

As the questions echoed in my mind, I became acutely aware of my surroundings. Reality seemed to shift towards something known to shamanic practitioners as non-ordinary reality (see Harner, 1990). In that moment, I watched three golden cords extend from my navel. One snaked down the stairs to my computer room and appeared to double click on *my connection*. The second shot directly East-Southeast, to the Rock Solid Foundation office, less than half a mile away. Rock Solid runs a school-based anti-violence program for youth that uses dramatization. My inner critic (who often sounds like my mother, while using the syntax of my daughters’ generation) shouted out, “Yeah right, kids will just *love* talking to cops about *sex*. Not!” At that, I queried, “What kids?” In that moment, the third cord shot straight forward, this time East-Northeast until it reached my local high school. It was also close by, and at the time was the school that my

eldest daughter attended. “Yep”, snarled the critic, “She’d just *love* her Mom teaching about *sex* at her school. Very cool. Not!”

In my mind’s eye, there appeared a golden triangle connecting me, Rock Solid and my community high school. I looked up into the dark that was my bedroom ceiling. “What?” I implored. I was suddenly transported back to Atlanta, where I had seen NiteStar two years previous. “Here?” I questioned. “Me?” “Now?” “How?” The cord that was double clicking on *my connection* began tugging on me. I got up and quickly went downstairs.

As my computer connected, I shook my head in wonder. I opened my Internet browser and looked at *my favourites*. Seeing the *funding* folder, I clicked and opened it. The (former) Capital Health Region link caught my eye and in what seemed to be an involuntary response, I clicked on it. As the web page appeared, I realized it was a description of a community grant program that I had decided several months prior was not something I had time to pull together before the deadline because it required the involvement of at least two community partners. That deadline was April 6, now only nine days away.

I punched *Rock Solid* into the search engine, then laughed at how violent that seemed—found them. Next, I searched my local school—found them, *and* they had a first class career preparation Drama program! I nodded (as one will to Spirit now and again), disconnected, and went to bed—the angst I had been feeling earlier curiously absent.

Friday March 30, 2001: The next morning, as I started down the stairs, I had a vague recollection that something bigger than me had been in the house the night before. I poked my head into my computer room and saw that I had left the browser open. It all rushed back to me—the angst, the golden triangle, the looming deadline, and the absurdity of it all. I’ve heard it said you should be careful what you wish for because you just might get it. I had wished for clarity that night and had been given a vision of community collaboration. I brewed myself a strong cup of coffee, sat down and started writing what I hoped was a feasible project proposal. By the end of the day, I had a relatively coherent proposal that I sent off by e-mail to my potential community partners. I relaxed for the weekend, not really having a clue as to what I had gotten myself into.

Monday April 2, 2001: When I returned to my computer Monday morning, I had received affirmative responses from both community partners, an event that left my inner critic strangely silent. I then settled into the task of re-writing the proposal in more detail for submission to the funding agency.

Thursday April 5, 2001: The application was ready to go a day before the deadline. As soon as it was complete, I began drafting letters inviting the drama, jazz, and computer graphics departments at my partner school to become involved in the project. I delivered the application and letters of invitation early that afternoon.

[Enter my Fairy Godmother.]

Several hours later, I received an excited phone call from Lidia D'Angelo, a popular drama teacher, who was a staff member at the school. She told me she had read the invitation and knew a group of young actors and scriptwriters who would be very interested in working on the project. She also cautioned me that at present she was on a temporary leave of absence from work but would be able to volunteer her services as a dramatist to help get the youth started with the project.

We talked enthusiastically about her luck and a speedy recovery, then at length about my idea and the many possibilities. She told me about *Wanted@Home.Calm*, a play the group had recently been commissioned to co-create, that addressed the issue of youth homelessness. She invited me to come to a public performance to get an idea of their approach to serious social issues. Our phone conversation led to a flurry of e-mails as she shared details of their current project, and to several coffee dates where we let our imaginations run wild.

May 2, 2001: I attended one of a series of public performances of *Wanted@Home* and was awe-struck by the production. The group had co-created a truly deep and meaningful exposé on youth homelessness. The characters were fully developed, the storyline and script were engaging, the acting was first-rate, and the set design was simple. What more could I ask for than to be blessed with a group like this to work on my project? Funding approval, I supposed.

May 3, 2001: Day of revelation. The project was approved in principle! It was one of only 17 (of 91) proposals that were approved for the next phase. That next phase required that I submit a detailed proposal and budget (up to \$9,800) by June 12. I called

Lidia as soon as I heard. Both of us had difficulty containing our delight, so we stopped trying! Given this positive news, we scheduled several coffee dates to go over budget details together and planned a meeting with the youth.

May 4, 2001: After viewing *Wanted@Home.Calm*, it was clear to me that this group had the creativity, talent and dedication necessary to move my idea forward. What I didn't realize was that I was about to meet a very special group of young people who would ultimately change my life!

[Enter the Magical Friends.]

We gathered in the student lounge at the school and I explained my project proposal. I stressed that the grant had only received approval in principle and that there were several other steps in the process that would have to be successfully completed before funding would be secure. For the most part, my cautionary note fell on deaf ears, as the group began to discuss which characters from *Wanted@Home* might be suitable for the new play and in what ways they might need to be redeveloped. The group's youthful enthusiasm rubbed off on me and I left there with a strong sense that we would definitely be working together in the near future.

[Enter the Forces of Chaos]

May and June 2001: In May, a new provincial government had been elected on a tight fiscal platform. In an attempt to get a projected budget deficient under control it was determined that many social programs would be discontinued or have their funding reduced. Among the many programs expected to be discontinued was the *Youth Options* program, which provided post-secondary tuition credits to youth who volunteered on community projects such as ours. We had hoped to access *Youth Options* to give youth working on the project one more incentive to volunteer their time and talents. This development had the potential to seriously discourage youth involvement.

In early June, Lidia D'Angelo was informed that she would be teaching at a new school in September. This was a *very* disappointing development for all of us. The thought of not having Lidia on the project did not appeal to her or the youth. I decided to include some paid responsibilities for her in the budget proposal because I felt that I could not afford to let this turn of events discourage her participation (she was, after all, the project's most enthusiastic and active supporter!).

Additionally, teachers in the province had been bargaining with the new government for a collective agreement to replace their previous contract which was due to expire June 30 (British Columbia Teacher's Federation, 2001a). However, the government had rejected their offers, collective bargaining was at a standstill, job action was threatened, and rumours of a province-wide teachers strike began to circulate. This development had the potential to reduce our access to teachers and students from the school that had agreed to be our community partner and, depending on the extent and duration of the job action, it had the potential to seriously complicate our presentations at other schools. Despite these issues, the full proposal and budget details were delivered to the funding agency on time but not without some trepidation about how these events might impact our plans.

July 2001: After a busy two months (since approval in principle) which included writing up the detailed proposal and budget, organizing letters of support, arranging for the management of funds, justifying my choice of community partners, and explaining how the project could be accomplished with Lidia at another school, final approval of funding was received. The presentation of the program was tentatively scheduled for May 2002. I had a busy summer of training and conferences planned, Lidia had vacation plans, and most of the youth who had signed on with the project had summer jobs. For these reasons, we decided to begin our work together in late August. However, before I left I forwarded links to two websites supported by the US Centers for Disease Control that contained entertainment resources and tips for scriptwriters addressing HIV/AIDS and Youth issues:

- URL: http://www.cdc.gov/communication/entertainment_resources.htm

[Last viewed May 29, 2006]

- URL: http://www2a.cdc.gov/communication/entertainment_tips.asp

[Last viewed May 29, 2006]

August 2001: Once the funding was released, I ordered “*On the Edge*”, (a video series produced by NiteStar) so the group would have a better idea of the types of scripts and HIV prevention messages that I had in mind. I had hoped to receive these tapes by the time we had our first meeting but the shipment was delayed, initially because of fax

transmission problems, and later by the attacks on the World Trade Centre (the NiteStar offices are located at St. Luke's Hospital in Manhattan—just blocks away from ground zero).

Earlier in August, I had returned to Atlanta for the second National HIV Prevention Conference. I had inside information (from Cydelle Berlin at NiteStar) that Ken Hornbeck would be there with his newest Atlanta-based theatre troupe, EN-ACTE. I attended the EN-ACTE performances and was duly impressed. Ken was generous in sharing his insights and gave me an abundance of tips about working on this sort of project with youth. He suggested that because the process of co-creation could be slow, we should get started early (as we had planned to) and, perhaps most importantly, he suggest that I should be prepared to be flexible because the youth would come up with better ideas than I had (no doubt!).

4.12 The Group

It is difficult to describe this group of young spirits. The final group of scriptwriters was comprised of four youth (three females and one male) and Lidia, although everyone involved with the project provided ideas. The working group, which included the scriptwriters and the other actor/peer-educators, varied in size over the course of the project as several youth came and went. A final cast of ten (six female and four male) actor/peer-educators (some of whom doubled as scriptwriters) presented the play and led the question-and-answer sessions. While the composition of the group changed over time, from what I observed, the group dynamics did not: their genuine respect and affection for one another was apparent immediately, and obvious throughout. Each of them had an enthusiasm for the project, but their strength appeared to be in the cohesiveness that combining their creative energies encouraged. I noticed over time that several youth flitted in and out of the scene (some would return, some would not), but the incredible sense of group cohesiveness never seemed to weaken.

The working group had, at the same time fluidity and form and embodied the Storyteller's Creed (Fulghum, 1988:1):

The Storyteller's Creed

I believe that imagination is stronger than knowledge,
That myth is more potent than history,
That dreams are more powerful than facts,
That hope always triumphs over experience,
That laughter is the only cure for grief,
And I believe that love is stronger than death.

4.13 Developing the Script

August 2001 to May 2002: The first official meeting between myself, Lidia D'Angelo and those to whom I will refer to collectively as *the group* was held at my house. During this meeting I described our timeline, the presentation format (repeat visits with question-and-answer sessions following each drama piece) and my vision of the weekly scenarios which I thought would meet my prevention message goals:

Week 1: A variety of male and female characters infected with HIV describe how they became infected, how it has affected their lives, how others respond to the knowledge, and what they wish they had done differently in their lives. Message: HIV affects and infects people like you.

Week 2: Non-use of condoms has resulted in the transmission of a sexual infection (other than HIV) and an unplanned pregnancy within a circle of friends. The characters seek solutions to these negative outcomes (e.g., locating and attending a local clinic) and offer support and advice to one another for avoiding such problems in the future. Message: If you are sexually active you will need to access sexual health services.

Week 3: Male and female characters debate the pros and cons of initiating sexual activity and using condoms, and their motives for doing or not doing so, including a demonstration of correct condom application using a phallus-like prop. Message: If you are sexually active you must not only use condoms, you must use them consistently and correctly.

Week 4: This instalment was to include an interactive component, which would allow the audience to participate in the drama. Pairs of actors, portraying both

heterosexual and homosexual couples, would be shown negotiating for abstinence and for condom use. The actors could present lose/lose propositions where the characters end up alienated from one another or win/lose propositions where one character has been pressured into either agreeing to unwanted intercourse or agreeing to not use condoms. In the interactive component, audiences would be asked to provide win/win solutions to the dilemmas presented. Message: Making responsible choices might not be easy, but it can be done!

After presenting my ideas, I made a point of letting the group know that I was quite (my inner critic said “not completely”) open to giving them artistic license because *they* were the experts on youth culture. I clarified that my main concern was that the script in some way focused on the weekly learning outcome (the HIV prevention messages I wished to deliver), and that presentation style was negotiable. Based on what I had seen in Atlanta, I had some expectation that the weekly presentations would be stand alone vignettes, each addressing one specific HIV prevention message, so I continued by describing the format of the NiteStar and EN-ACTE productions.

Talk then turned to sexuality, responsible sexual behaviour, and what they knew *now* that they wished they’d known *then*. I was impressed by the candidness of everyone in the group and how I was not acknowledged as an outsider. I tried to keep my own (now ancient) stories of teenage angst to myself, but did find myself smiling in recognition of some common themes. At times, I had a hard time containing myself, especially with my inner critic shrieking, “These kids are awesome!!” (Imagine—we didn’t disagree for once!)

We scheduled meetings for once a week, alternating between my place and Lidia’s, with the understanding that group members weren’t expected every week, but that they were expected most of the time. I found the group encouraging one another’s participation in good-natured ways (such as joking about killing off a character who was “so last week”) as well as making sure that those who *had* missed a session were up to speed with plot development.

At this time, it was still widely expected that the teachers in the province would institute some sort of job action beginning in September. A collective agreement was far from being ratified and in a defensive move the government had legislated education as an essential service. This effectively blocked full-scale strike action but the process infuriated members of the Teacher's Federation because it substantially reduced their bargaining rights (British Columbia Teacher's Federation, 2001b). However, even without a full-scale walkout, this turn of events put our project in jeopardy. The teacher's union had announced that without a collective agreement and having lost the right to strike that they would *work to rule*, and while the legality of this job action plan was controversial under the new essential-service legislation, it was later upheld by the BC Labour Relations Board (British Columbia Teacher's Federation, 2001c). In our context, work to rule meant that teachers would not be communicating with administrative staff and that they might eventually refrain from engaging in all volunteer extra-curricular activities involving their students, including extra-curricular activities like our community project. Given that denial is a perfectly acceptable coping strategy under some circumstances, we decided to downplay this possibility and count our blessings. Ironically, the largest blessing seemed to be that Lidia was no longer working at the school which was our community partner. Her participation would not be in violation of a work to rule order because her connection with us was at the community-level and no longer through the school district.

[Insert heavy sigh of relief about here]

As soon as the schools re-opened in September, I sent e-mail to our partner school and the other schools that had agreed to have the presentations confirming that the project was on target. The responses were generally positive although concerns about how the job action might interfere with our plans were also expressed. At this point, with job action looming, I felt it best to concentrate on scriptwriting, and worry about the details later. We continued to meet weekly, with a flexible schedule that worked around various conflicts posed by school, work and other activities.

When the NiteStar videos arrived at the end of September, we scheduled a couple of screening nights where we viewed the series of presentations together. The stand-alone vignette format was nixed early on; the youth felt that using vignettes would not engage

the audiences in the way a more integrated, continuing storyline would. It was also clear to me that they were more engaged with the idea of co-creating a play with fully developed characters than they were with the thought of developing a series of disjointed vignettes featuring one-time characters with little or no depth. As they began to articulate their vision of a group of youth on graduation night looking towards their futures and reflecting back on the trials and tribulations their high-school years (which included losing a friend to HIV), I was sold. My inner critic was agreeable to the idea; we'd just have to find a way to break it up to fit the weekly message format.

As characters were developed and script ideas bounced around, I began the task of writing up a project evaluation proposal that would serve as my dissertation topic. My academic committee and the Dean's office had agreed to allow me to apply for a transfer into a Ph.D. program so I could complete an evaluation of the project that was far beyond the evaluation required by the funding agency. In addition, I was busy editing my uncompleted Master's thesis for use as a peer-educator's guide and applying for doctoral fellowships.

I attended the weekly meetings for several months. At this point, my role was mainly that of observer because I did not want to stifle their creativity, nor overtly influence their creative direction. It was clear that they understood my intentions and they were working hard to find interesting and engaging means to convey the appropriate messages. Meanwhile, I was working on designing useful measures for the evaluation.

In mid-October, the group decided they would like to work alone for the next few months (that is, without my presence). I was happy to agree, given my own workload and the complete faith I now had in the group. By the end of November, after the Teacher's Federation had served strike notice (British Columbia, Teacher's Federation, 2001d), the overall plotline and characters were set and they had the first draft of the first part of the play and were working on part two (of four). By request, I attempted to connect the group with HIV-positive individuals in the community so the youth could conduct research interviews which would help them gain greater insight for developing their characters and scripts. The work continued into December (without me) before they took a short break for the holidays.

By January 2002, after six months without a contract, we were no longer able to ignore the effect of the teachers' job action. Since early November the teachers had been working to rule and were not attending staff meetings. No movement was being made at the bargaining table and it was expected that job action would be stepped up and that teachers would withdraw from all extra-curricular activities when classes reconvened January 7 (British Columbia, Teacher's Federation, 2001e). I made contact with school administrators again after the holiday break. I had positive, but cautious responses because participation would depend on whether or not the labour dispute was settled. This turn of events began to concern me because we were now at the stage where some extra bodies for promotion would be helpful and it looked like our source was blocked!

Not only that, but it was clear now that enrolling our volunteers in the *Youth Options* program (for tuition credits in exchange for volunteer work) was not an option because the program was to be cut completely (Government of British Columbia, 2006). We would have to discuss changing the budget around to provide larger honorariums for our scriptwriters and actors. I just couldn't imagine offering them the projected \$50 each for their months of hard work and commitment. *Somehow* we would have to cut some corners and make the honorariums more substantial. I began to suspect this would mean that the group would have to remain small so that those who had been the driving force behind the project could be compensated at least a little bit better for their efforts (given our budget, I knew I could never give them what their work and time was truly worth!).

In mid-January, I was invited to a group meeting and we went over the script-to-date. There were a few places where I felt the messages were not as clear as they could have been, so several scenes and another character (a health teacher—the only adult character in the play) were added to clarify. With the plot set, all that remained was to complete the dialogue. Meeting nights were switched to Mondays to accommodate new school and work schedules and I attended occasionally as requested. The peer-educator guides were distributed at this time to past, current and potential members of the group and I fielded questions, in person, by phone and by e-mail.

At the end of January 2002, the government passed two legislative Bills that allowed them to impose a collective agreement on BC teachers. This heavy-handedness did not sit well with the Teacher's Federation and thousands of teachers vowed, among

other things, that they would refuse to participate in voluntary activities (British Columbia Teacher's Federation, 2002).

By early February, it also became apparent that the planned research interviews with HIV-positive community members would not pan out. However, as providence would have it, Lidia discovered an article in the *Shared Vision Magazine* that described the experiences of Bradford McIntyre, an HIV-positive man living in Vancouver (Weir, 2001). Bradford had been diagnosed with HIV sixteen years previously and his story is one of triumph that stresses the importance of *showing up for life*. This article inspired eventual changes to the storyline, giving it more life and passion.

It was at this time, shortly after the discovery of the article which focused on living positively with HIV, that Lidia told me about an new idea she had to shape the play. She sent us all a rough script presenting the many new ideas the group had been discussing. In the new vision, each character would present their version of a valedictorian speech: with two different characters giving speeches each week. Each character's speech would reflect the theme of the unique life lesson they had learned from their interactions with one another over the high school years and how their understanding of their own attitudes and behaviours helped them transform.

In part, this change was devised to help us deal with scheduling conflicts that might arise during the school presentations because it allowed for the absence of some characters, at some performances. Dates for the presentations were not yet set and by May it was expected that the group members attending university would have completely different schedules. We were expecting the unexpected and trying to plan for all eventualities. After reading the proposed changes, I very excitedly responded to the e-mail with some of my own ideas for building on the themes. I felt that my input would not interfere with the creative process because at this point it seemed that the group accepted my suggestions as just that, suggestions.

Over the course of the next few months, the play and characters evolved while I attended to important details such as getting human subjects ethics approval for the evaluative research, writing and delivering information packets to the schools, scheduling presentations and arranging for news releases. Several new youth joined the project (some stayed on, some did not) and we regretfully lost two very important members of

the group. For one member attending high school, it was a new, academic heavy semester that began in February, leaving no time for the project. For another member attending university, it was simple economics—after the funding for the *Youth Options* program was cut, it was necessary to begin paid work as soon as classes ended in April to earn next year's tuition.

In March, work continued and we started to see some interest from the local news media and others in response to the news releases. At one point a local filmmaker, with whom I had a chance encounter at the Rock Solid office, expressed interest in documenting our project. This sounded exciting and after consulting with the group, I invited him to a meeting. He had an abundance of ideas but his equally abundant criticisms rubbed the youth the wrong way. I was told in no uncertain terms that they would rather continue to work without outside involvement (unless I preferred to work without them!). Needless to say, the group had my loyalty and we went on about our business sans filmmaker.

Two local papers also picked up on our story and, had I been a bit more media savvy, and a bit more sensitive to the needs of the youth, I could have averted some (passing) hurt feelings. For the first story, I was interviewed by phone and asked to provide contact numbers for the youth and to arrange a time for a photo shoot. I called each of the youth to confirm if it was ok to give out this information (I should have confirmed this long before) then passed along the numbers of those who were home at the time. The reporter interviewed several of them and by the time some of the others returned my call, the reporter had enough information to write his story. Some of those who were not interviewed were quite upset by this, while others felt their contributions had been understated in the final story. When the second newspaper reporter called, I set up a group interview at a time when those who had missed being interviewed first time would be present. Unfortunately, through a series of unreturned calls and unchecked e-mails, not everyone was present for the scheduled interview and the accompanying photo showed only a few members of the group. This also upset some of those who were not present. Shortly after this, a television reporter called, and erring on the side of caution, I asked to call her back after I had found a time and date that would work for everyone.

Regrettably, our story slipped through the cracks of the time lag, my return call was never returned and we lost valuable media exposure.

It was towards the end of March, with our school presentations beginning in less than six weeks, that the group shifted to meeting twice weekly (with mandatory attendance once a week) and rehearsals began. It was also at this time that another one of the schools at which we were to present cancelled (because of other commitments); I had lost two of my four original schools. Luckily, one of the remaining schools volunteered another group, and the administration at Lidia's new school had requested that their students be included, so we were still on target with the audience numbers. Lidia was also busy writing up Teacher's Guides containing follow-up classroom activities for teachers who were interested in taking the question-and-answer sessions one step further.

By mid-April, despite the continuing labour unrest, we had the presentation schedule finalized and the stress level had gone up a notch. Lidia was actively searching for a couple of new actors to replace those who were unable to continue. She recruited several excellent cast members (some she had never worked with and still others from the *Wanted@Home* cast) who were quickly assimilated into the group, although we did have one other major problem. One of our actors was only available in the mornings and we also had afternoon performances scheduled. Lidia solved this by splitting a role between this actor and another actor from the *Wanted@Home* cast who felt she could not participate because she was only available in the afternoons. This solution worked very well and the continuity of the character was preserved because we presented to different schools in the mornings than in the afternoons.

Throughout April and on into May, everyone was busily writing, re-writing and rehearsing. There had been more changes to the script, some for the sake of time and clarity, others because we now knew we could have a full cast at each school every time we returned. The Teacher's Guides were delivered to the schools the week before our presentations began and rehearsals continued. I sat in on many and was fascinated by the dedication, good humour and talent that I witnessed. I truly felt blessed that I had come to know these youth. They had taken my vision and brought it to life in far more vivid and poignant terms than I had ever imagined. These talented social activists were ready to hit

the stages, cafeterias, resource rooms, and band rooms at the various schools in early May to present the play and facilitate discussions.

4.14 Synopsis of the Play

Themes that arise in *Balderdash* are trust of oneself and others, perception, identity, alienation and fear of it, sexual awakening, love, and undeserved reputations. Dave narrates the story of his experience as the new kid in school. He introduces Kevin, Adam, Tony, and Lori as people he has 'to put up with'. Linda and Angela are his friends. These young people face tough decisions about sex and intimate relationships. Sometimes they do not understand the direct relationship between their decisions and the possible consequences of acquiring an STI. Therefore, their everyday decisions are influenced only by their confusion between what they want and what they need. They continue the cycle of the old adage of 'fall back on what you know' without realizing the consequences of their decisions. They feel trapped by lies, rumours and gossip that create false reputations. They learn through experience that an STI can have very serious consequences when not treated, and that HIV is one of the most devastating... During *Balderdash*, the characters struggle with self-identity and alienation in a familiar environment and we see them learn to acknowledge and accept the truth about others around them as their relationships develop and change (D'Angelo, in MacIntosh & D'Angelo, 2002:5).

4.15 Introduction to the Characters in the Play

The play was built around the interactions of eight typical high school students who might be found in any school:

Kevin: A popular athlete in the school, Kevin always has to have his own way. He seems insecure in his sexuality and uses bragging, girls and bullying others he has stigmatized as homosexual as his main means of coping. He is suspected of spreading gonorrhoea and dates Lori but is unfaithful to her with Angela (and possibly others). He uses his male friends to bolster his over-inflated ego and to procure alcohol. He seems oblivious to the needs of others until Mona rejects his advances and draws him into her confrontation with her own impending death from AIDS.

Adam: A friendly follower who doesn't think for himself, Adam goes by rules only if they fit his life. He considers how he might have safe sex with someone infected with a sexually transmitted infection without quite

hearing Linda's message that it would be better to wait, especially under those circumstances. He is Kevin's friend, partly because his older brother is willing to bootleg and partly because he's a malleable yes-man. He participates in Kevin's constant bullying and begins dating Angela in grade eleven.

Dave: Dave is the new student to the school and the city. He narrates the story from his perspective as their relationships hit a turning point. The girls like him, but Kevin bullies him about being gay when he arrives at the school. Dave's a nice guy, but down on life. He contracts HIV and dates Linda for the majority of his high school years.

Tony: Tony keeps to himself for the most part but has a long-term friendship with Angela. He has a keen eye for detecting underlying motives and pinpointing deceptions. He is homosexual but has trouble coming out, mainly due to his well-founded fear of bullies like Kevin and Adam.

Mona: Mona is Lori's sister and is three years older than everyone else. She has no idea how she contracted HIV, and when she 'hooked-up' with Dave at the school dance, she was unaware that she was HIV-positive. She faces her own rapid progression to AIDS with stoicism and a dark sense of humour. Her impending death further reveals the profound interconnections between webs of deception and superficial self-images.

Lori: Lori, much like Kevin, appears to be insecure and uses gossip, boys and put downs as her coping mechanisms. She has become the popular girl in school for all the wrong reasons. She pursues Kevin (and many other boys) throughout high school and usually uses condoms, but in her desperation to snare Kevin she buys into his "but I can't feel anything with a condom" routine.

Linda: Linda is down-to-earth and practical. She is a long-term best friend to Angela and had an ongoing intimate relationship with Dave in which she chose to stay abstinent. They began dating in grade nine, drifted in and out of relationship in grade 10 as Dave hid his exposure and eventual diagnosis with HIV, and while they did break up after Dave revealed his serostatus, their genuine, mutual love for one another brought them back together with a promise to learn how to deal with Dave's infection— together.

Angela: Overly concerned with her perceived unpopularity, and sporting a very poor body image, Angela is naïve, friendly, inclusive and ultimately would just like to see people get along. She is interested in Kevin and goes to self-deprecating lengths to be with him. She dates Adam and eventually admits her duplicity.

4.16 Setting and Structure of the Drama

Balderdash is a one-act play that was divided into four parts for the purposes of the program. One part was performed each week before the question-and-answer sessions to provide a context for discussions. The play follows the story of the eight characters throughout their high school years.

PART 1: The story begins at the end of grade twelve in the local coffee shop with the group very anxious about Mona's rapidly declining health. Dave provides an introductory narrative describing this as a pivotal moment for the group, who have spent their high school years together in an often uncomfortable and co-dependent web of lies and self-deception. Something has happened to change all that, and Dave brings us back to the real beginning, when he transferred to the school in grade eight and began feeling a tremendous pressure to conform.

In the school bathroom, the audience overhears an eighth-grade Kevin boasting to the other boys about his frequent erections as if they were evidence of heterosexuality, while he arranges to have Adam get alcohol for them later. We then overhear the girls; Angela is worrying about being too fat and whether guys like her, Lori is backbiting, and

Linda is just trying to ignore all the negativity as they discuss guys and what sometimes happens when you slow dance with them.

The bell rings and the two groups head to the same Career and Personal Planning (CAPP) class. The teacher announces that the day's class is focused on HIV, a fatal sexually transmitted disease. The students show their ignorance and discomfort with the topic while the teacher calmly corrects their misperceptions and challenges their prejudices. When the teacher is out of the class while they are supposed to be working on an assignment, Kevin takes the opportunity to begin harassing Dave about his clothing, origin, and (imagined) homosexual orientation.

This harassment of Dave later escalates to violence in the hallway and the threats and intimidation continue at the school dance. Dave feels the only way to stop the harassment is to 'prove' to Kevin he is heterosexual, so he has sex with Mona at Kevin's urging. Afterwards, Dave questions his motives, his respect for himself and for women, and admits he didn't use protection. In the closing monologue, and back in the present time, Dave reveals how he understands now that it was his excessive concern about what other people thought of him that had triggered the series of events which exposed him to HIV and ultimately led to his infection.

PART 2: Begins with Tony being bullied by Kevin, Adam and Dave. Having proven himself to Kevin, Dave has been welcomed into Kevin's clique. By grade nine, Dave has been indoctrinated to the 'popular' life and now joins Kevin in his homophobic bullying rituals, this time with Tony as the target.

In the school bathroom, we overhear a ninth-grade Kevin boasting to the other boys about the size of his penis; again as if it was evidence of his heterosexuality, and again this is done while he arranges to have Adam get alcohol for him later. We then overhear the girls; Angela again worrying about being too fat, Lori backbiting, and Linda just trying to ignore all the negativity as Lori discusses the party she will be hosting, admonishing them not to invite any 'dorks'.

The bell rings and the two groups head to the same Career and Personal Planning (CAPP) class. The teacher announces that the day's class will focus on relationships, sexual behaviours, and infection rates for common STIs, and then the proper handling of condoms will be demonstrated. Linda and Adam have a side conversation about a girl he

wants to 'date' who might have an STI and wonders how he can get what he wants without getting something he doesn't. Later in the cafeteria, Kevin asks Angela to help him 'hook up' with Lori. This prompts Angela to plot the opposite and, unaware of Kevin's harassment she also tries to convince Tony he should come to the party.

Linda arrives at the party with Dave, Lori greets her saying he is exactly the type of 'dork' she didn't want coming. Linda finally stands up to her and asks why she needs to put other people down all the time, but her comment is ignored. Kevin enters with bravado and after breaking through the web Angela has woven, he sets his sights on Lori, who is very willing, and ready with a condom. We then eavesdrop on the morning-after telephone gossip tree and witness an argument between Lori and her sister about a broken lamp, which ends up to be about irresponsibility. Mona warns Lori about the importance of using condoms and being able to trust your partner. As Lori avoids the real issue of Kevin's untrustworthiness, Angela's phone rings and we hear Kevin invite her out. Over coffee later, Linda reveals her desire to take her relationship with Dave 'further' and Lori reveals Mona's HIV status, which comes as the greatest shock to Dave.

PART 3: Begins with a monologue from Dave describing the blur of doctor's appointments and HIV screening and confirmatory testing he had endured in his grade-ten year. He reflects on his emotionally isolating reactions to his HIV-positive diagnosis, and how his inability to tell Linda caused even greater isolation.

In the school bathroom, we overhear the girls discussing boyfriends and how much control they feel they have over how far things go, sexually speaking; Angela says Adam is respectful of her boundaries, Lori reveals that she really has no boundaries at all and is willing to do just about anything to keep a boyfriend, and Linda is just trying to figure out what is going on with Dave. We then overhear an eleventh-grade Kevin boasting to the other boys about his many sexual conquests over the summer and expresses concern about Lori's 'sexual health'.

The bell rings and the two groups head to the same Career and Personal Planning (CAPP) class. The teacher announces that the day's class will focus on symptoms and consequences of untreated STIs and her graphic presentation (not seen by the audience) of what can happen shocks them all.

Later, Adam becomes jealous of Angela's relationship with Tony and begins pressuring her to stop seeing him. She tells Adam off and leaves him standing there bewildered. Lori and Kevin argue about who may have infected whom with gonorrhea both blaming the other. Kevin tells a stunned Angela that she might be infected but refuses to go with her to get tested. Dave tells Linda he is HIV-positive and in a daze she ends it with him. Dave reveals to the audience the depth of his emotional pain at losing Linda because he told her the truth and he wonders "what if" as he entertains thoughts of suicide.

At the coffee shop that evening, Mona suggests that Tony tell Angela that he is gay, and while he isn't quite sure how Mona figured out his secret, he is relieved to break the silence. Kevin hits on Mona, is put in his place, but vows to keep trying. Adam is very forgiving of Angela when she confesses her unfaithfulness, chalking it up to Kevin's obsession with any girl he hasn't 'had' yet. Linda returns to Dave after having done her research and convinces him that he has many reasons to live and that she will be there for him.

PART 4: Begins with Dave setting the mood by reading a quote he found in one of his yearbooks:

Under the glove of a hot, unforgiving sun, three travelers make their way over the endless sand dunes of the Sahara. For five years these travelers have gone through sand storms, typhoons and blizzards all to finish their quest. After days without water the group has become very weak but they keep pushing on. Just as they are about to give up one member of the group spots an oasis in the distance, their prayers have been answered. Soon their journey will come to an end and the travelers can rest, but they know there is still much to come. ~ Unknown

In the coffee shop, Kevin and Mona talk about life and relationships. Mona points out to Kevin that most of the trouble in his life is his own doing, but that as far she can see he really isn't interested in changing even if he pretends to be. She tells him to take a good look at the impact of his behaviour on other people. Lori and Angela arrive as Kevin leaves and Lori goes on about how she'll get him back now that her STI is treated (and she's back to using condoms). Angela suggests that she should keep the condoms and lose the guy but Lori ignores her, dismissing her concern as jealousy. But Lori lets the audience in on a little secret, she is quite aware that her life is a mess. The next scenes

are a series of conflicts between the characters as various truths are revealed. Kevin now knows that he is indirectly responsible for Dave's HIV infection yet rejects him and just walks away. Dave and Tony have a chance meeting that leads to a deep conversation about how they have both isolated themselves from others by hiding important parts of themselves.

Later, Angela, Adam, Linda, Dave and Tony are all sitting together in the coffee shop and the opening scene repeats itself, bringing the story full circle. Kevin walks in, and then Lori enters looking pale and reveals that Mona is in hospital. Kevin wants to go and see her immediately but Angela stops him, which is where they left off in the opening scene. This time the scene continues, with Angela telling Kevin that he needs to face the truth of his own life before he can be of any help to Mona, as she faces her death. At the hospital the next day Mona reflects on how life is not something that just happens, you create it for yourself and your actions affect other people whether you pay attention to that or not. Through her dark humour she forces Kevin to see that her death and his life are the result of a series of thoughtless actions. She asks him to tell her story because she has never had the courage to tell it herself.

This part ends with Dave; now years in the future looking over his yearbooks, wondering aloud about where everyone is today. Each character is spotlighted for a closing monologue:

Kevin: How do you know when you are worth something? For me it was when I realized that someone else was worth saving more than myself.

Adam: It's the quality of a friend, not quantity, or how popular you are, Angela taught me that. I was taught not to like gays, I'll say it now, but I tell Angela to protect her friend because he's a good guy to her. And I know that I've done a lot worse things in my life than he has in his, so who am I to judge.

Tony: I wish we had a second chance in high school. If I could do it all over again.... I would be myself. Pick another school.

Linda: I've learned not to give up. I don't know where I get that faith from, all I know is that if I give up, Dave will too, and I don't want that to happen.

Lori: I have no regrets. What I do have are the memories of my sister. She always said live in the moment, not to be stupid. I'm planning for the future, so I have to make sure I have one.

Angela: Everything happens for a reason. We all have a purpose in life; we just have to make ourselves aware of it.

Dave: I know this much is true: "As many nights endure without a moon or star, so will we endure when one is gone and far". Leonard Cohen. One of my favourite writers. My ten-year high school reunion is this year. That's right, I'm twenty-eight and living positively with HIV for fourteen years. Attending my high school reunion was one of my goals. I take drugs for my HIV, which cause side effects, but that is the price of staying alive. I also take care of myself more than most people. There might be a miracle. I encourage everyone to show up for life. I swim, work out at the gym, ride a bike. I believe that everything always works out. My life is about trust.

4.2 Method

The research described here was a mixed methods study designed to evaluate a peer-led, theatre-based HIV prevention program presented in four parts to high school students in a medium-sized western Canadian city in May of 2002. Of interest was whether or not the target youth found the format engaging, and if it helped them feel more confident about their ability to support an HIV-positive person, to correctly use condoms, to seek testing and treatment for STIs (including HIV), and to resist unsafe sexual encounters or insist on safer sexual practices, as well as whether they thought the

play reflected their lived experiences. It was also of interest what effects participation in the program may have had on the youth who were involved as actor/peer-educators.

Four groups of youth attended separate performances of the original play *Balderdash*, which was presented in 15 to 20 minute segments, once a week for four weeks. The play was performed for each group in a regular venue at their own school. Each part of the play except the last one was followed by a 20-minute question-and-answer session (in the same venue) with the actors, who remained in character. These question-and-answer sessions were designed to give audience members an opportunity to talk with the characters about their relationships, motivations, and behaviours. Audience members were encouraged to voice their opinions and make suggestions about how the character(s) could improve their individual and interpersonal situations. Group-level behavioural observations of *engagement* were made during these sessions. As well, participants were encouraged to fill out short exit surveys at the end of each session collecting demographic information, a self-rating of *confidence* and *change in confidence* in relation to the weekly topic highlighted in the play, and written comments on the play. Semi-structured video interviews with the actor/peer-educators asked about their expectations when starting the project and later, after the project ended to reflect on those expectations and their experiences. Additional details of each methodology are presented under their separate headings below.

To clarify, I will speak of audiences, research participants, and survey respondents, as well as the actor/peer-educators, who are reported on separately. I use the term audiences when referring to everyone who watched the play, research participants when speaking of those who acted as subjects for the behavioural observations during the question-and-answer sessions, and respondents when referring to those who completed the surveys. Audiences included grade 8, 9, and 10 students who had parental consent to view the play, some of whom also provided parental, as well as their own consent to participate in the behavioural and survey research. The research protocol received Human Research Ethics Committee approval.

The sample was purposive in that it targeted in-school youth in their early teens, and while it was intended to be a convenience sample of a homogeneous group of grade-eight students from four nearby inner-city schools, our offering also attracted grade-nine

teachers and our timeline requirements proved to be inconvenient for two of the targeted schools. On request, one of the remaining schools volunteered a second group of participants (who were presented to separately from the other group at that school) and a suburban school was included at the request of the principal. In the end, two inner-city schools and one suburban school agreed to host the four-part program once a week at no cost. The three inner-city schools were situated in areas with poverty rates higher than the district average of 15.5 %, while the suburban school was situated in an area with a poverty rate of less than 7%, much lower than the district average (Community Social Planning Council of Greater Victoria, 2000).

Each of the three schools provided an audience comprised of students from two different classes and one of the inner-city schools provided an additional audience. The resultant four groups represented varied school environments and grades and given the relatively small number of individual cases, the data did not lend itself to multivariate testing. In addition, the research itself was designed to not only answer the questions posed, but also to help identify relevant questions for further research as well as issues that might require attention before wider implementation. Thus, each group is considered as a separate case study (the merits of which are further detailed in the *Data Analyses* section below).

The total number of students in the audience varied by school, and audience sizes also fluctuated at each school each week, nevertheless by conservative estimates the program reached over 120 students. The number of research participants varied by school, and fluctuated by week, but ranged from a minimum of 78 (in Week 2) to a maximum of 97 (in Week 4). However, it cannot be stated with certainty how many students were present for all four parts of the play or if research participants were present for all four question-and-answer sessions because the anonymity of audience members was preserved and all research participants were given the option of withdrawing at any time.

The audiences were not formally observed while the play was being staged because not all had consented to participate in the research. However, it was noted (by myself as well as the research assistants) that in all cases the audiences were very quiet and focused on the actors and appeared to be paying close attention to the storyline and

interpersonal relationships enacted. Several teachers also indicated that their classes were more attentive during the drama presentations than they were at most times during a lecture. In addition, several of the teachers noted that the degree of interaction between the students and actor/peer-educators during the question-and-answer sessions was significantly greater than in the normal classroom, even when the classroom topic was sexual health. These comments help give context to the results of the behavioural observations which were conducted.

Before the first performances I introduced myself, explained the format and goals of the program, and introduced the research assistants. I reminded everyone that their participation in the research was entirely voluntary and that they had the right to withdraw at anytime. At the end of the first performances, I explained to the audiences how to separate themselves into two groups based on whether or not they had consented to participate in the behavioural observations, and reminded them that if they had consented on paper they could still change their minds. They were also offered the option of completing the surveys even if they declined to participate in the behavioural observations. I explained how the behavioural observations would be conducted and that a short survey (and pencils) would be handed out at the end of the question and answer sessions, which they could fill out and place in a box that would be available before leaving. I stressed that their responses would be anonymous, and that the school would not have access to their information.

I described how four actor/peer-educators would be assigned to each group, and that while they would be remaining in character, they were there to answer questions about their characters' experiences in grade 8 from the perspective of their grade-12 selves. They were encouraged to use the question and answer sessions to address any questions that they may have had that could be dealt with in a public forum. I also informed them that school counsellors were available should they need to discuss things further in private. A condensed version of these instructions was provided for each of the three subsequent performances and question and answer sessions.

Dependent Variables: Engagement and changes in confidence are best viewed as a process rather than an event and for this reason, ongoing observations of engagement during each of the question and answer sessions was conducted. The instruments were

designed to assess the subjective processes of engagement and changes in self-confidence in a relatively objective way without the use of pre-test/post-test comparisons. The processes of engagement and changes in self-confidence that were measured in this study are described at the group-level in the context of the performances that were staged prior to the question and answer sessions, as well as with consideration for group characteristics and the various environments in which the program was delivered.

Two behavioural observation measures were used to assess level of engagement and survey data provided information on self-rating of confidence, changes in confidence, and comments on the applicability of the play to their lived experiences. Video interviews were used to assess the impact of the program on the actor/peer-educators. I will describe the engagement, self-confidence and video interviews each in a separate section. I will first describe the dependent variables used to gauge engagement and measure change in confidence. Lastly, I will describe the handling of the qualitative data from the written comments on the surveys and video interviews with the actor/peer-educators.

4.21 Engagement Measures

As outlined in Section 1.1, the first goal of the research was to evaluate the degree to which the question-and-answer portion of the program appeared to engage the student audiences and hold their interest. This was done using behavioural observation during the question-and-answer sessions. Data collected included two measures of engagement: *overall engagement* and *frequency of interaction*, both of which included sets of repeat-measures. These measures are analysed in two ways for two different reasons. A preliminary investigation was done to determine if participants stayed interested regardless of individual or group characteristics and whether some topics appeared more interesting than others. This served as a test of consistency of the program. Further analyses for case comparisons were done using aggregate measures.

At each venue, after viewing the drama, audiences were divided into two spatially separate groups located in the same room-those to be systematically observed and those not observed. Each of the two groups was attended by at least three actor/peer-educators who remained in character for the duration of the question-and-answer session. The characters answered questions generated by the drama and their on-stage relationships

but they did not try to direct the proceedings, this was left to the participants. The question-and-answer session during the second week also included a condom demonstration, when several brands of male condoms in a variety of thicknesses (regular, extra-strength, ultra-thin), fits (regular, large, baggie style with oversized reservoir tip for comfort and safety), textures (ribbed, studded), colours (tropical) and flavours (grape, strawberry, banana, chocolate, vanilla, cola) were handed out. Participants were shown where to look for an expiry date, how to open the packages safely, how to safely ascertain inside from out, the how and why of squeezing air out of the tip (to prevent breakage), and how to unroll the condom properly (onto their fingers). Hand wipes were provided. A polyurethane version for those sensitive or allergic to latex was shown, but all the condoms handed out were latex, all were lubricated, and none contained spermicide.

The research groups were observed each week during the 20-minute question-and-answer sessions. Two research assistants positioned on either side of the group recorded the two different measures of engagement: 1) *frequency of interaction* based on counts of direct indicators of engagement and; 2) *overall engagement* which was based on estimations of the percentage of the audience that appeared to be either directly engaged (as above) or more indirectly engaged (i.e., vicariously participating by listening attentively and paying close attention to the discussions).

Counts of the frequency of interaction were recorded over the duration of each question-and-answer session and the aggregate measures of direct engagement used in the statistical analyses included the following counts: *contributions*, *questions* asked, and *advice* offered by students. Differences in the frequency of the three different types of interaction are investigated, however results are interpreted with caution because it is not known with any certainty if contributions, questions and advice were on topic.

In addition to these direct indicators of engagement, estimations of overall engagement were also recorded; at the end of each five-minute interval the observers briefly shifted their focus from counting direct interactions to observing and recording the percentage of the group that appeared engaged. This estimation included those students expressing the more objective indicators outlined above, as well as those expressing more subjective indicators of engagement such as appearing to be watching and listening

attentively. This overall engagement measure allowed the inclusion of students who were less actively engaged, yet obviously captivated by the discussions.

Unlike the measures of confidence and changes in confidence, engagement measurements are examined only for the first three weeks because in the last session we used a different discussion format that was less appropriate for the behavioural observations. As well, the format of the last session required all the actor/peer-educators to participate at once, making it impossible for them to attend to the non-research group had the audience been divided in two, as was done previously. Given that this last session included the entire viewing audience and not just those who had consented to participate in the research, formal observation of the groups during this session would have been unethical—except for the one group with 100% research participation. Further to this, excluding part of the audience from the final wrap-up session did not seem like a viable alternative given that this session was designed to consolidate the intended learning outcomes from the previous sessions. Essentially—and hopefully for the greater good—the behavioural data for Week 4 was sacrificed so students in the non-research groups could participate in the grand finale.

Although the data from Week 4 was excluded from the engagement analyses for the reasons mentioned above, a description of this last session is in order. During the time allotted for questions and answers in Week 4, the actor/peer-educators replayed two or three of the scenes that we had collectively chosen from previous weeks using the *Theatre of the Oppressed* format (the number of scenes presented depended on available time). Audience members were invited to stop the replayed scenes when they recognized oppressive situations and then provide the actors with alternative scripts and actions (i.e., a transitional model) that they felt could realistically help the character overcome the interpersonal conflicts portrayed. This provided our audiences with the opportunity to problem-solve and find alternatives to participating in conflict and risky sexual behaviour.

One scene that was replayed (the bullying incident at the dance in grade eight) was a particularly poignant demonstration of how a one-time choice to resist peer-pressure can dramatically change the life trajectory of a character. After the scene was replayed incorporating the changes suggested by audience members, they were then

invited to conjecture on how their suggestions might have changed the life trajectory of the character. The audiences at all schools offered a wealth of creative suggestions for overcoming the oppressive situations they identified. From informal observations made by myself as well as the research assistants it was estimated that overall, 90 to 100% of all audiences appeared to be engaged in the problem-solving process during this last session.

4.22 Confidence Measures

The second goal of the research was to assess changes in self-confidence in one's own ability to apply various prevention strategies and whether or not the target audiences reported increased confidence in those abilities. Data on confidence and directional change in confidence were collected weekly using one-page, four-part anonymous exit surveys. The research-participants-turned-survey-respondents were given five minutes at the end of each session to complete the surveys which used the same format each week and gathered, along with basic demographic data: 1) a self-rating of confidence in own ability to use prevention strategies related to that week's learning objective; 2) an indication of whether or not the program increased confidence; and, 3) comments on applicability of the staged performances to their lived experiences. These measures are assessed in case-comparisons relative to the sample means and supplementary analyses explore possible age and gender effects.

Using a post-test only measure (due to time and fiscal constraints), the self-rating of confidence section presented a hypothetical scenario related to the desired learning outcome for the part of the play that had just been performed. The scenario presented in the first week was: *“Suppose that tonight a good friend told you that they had just found out they were HIV positive. How confident do you feel that you could support them in dealing with this issue?”* The scenario presented in the second week, which included the distribution of condoms for a demonstration of how to correctly apply a condom (youth were asked to use their fingers in place of a prop), was: *“Suppose that tonight you and your partner have agreed to have sexual intercourse using a condom. How confident do you feel that YOU could easily and skillfully apply that condom?”* The following scenario was presented in Week 3: *“Suppose that tonight you were told that you may have come in contact with a sexually transmitted infection like chlamydia, gonorrhea or HIV. How*

confident do you feel that you could go to a health clinic or your doctor and ask to be tested?” The scenario presented in the fourth and last week was: *“Suppose that tonight you were asked to have sexual intercourse by someone you liked, or did not want to alienate. How confident do you feel that you could refuse to have sex if you didn't want to, or that you could insist on safer sex if you did want to have sex with them?”*

Respondents were asked to rate their level of confidence on an eleven-point scale (0 to 10): with 'zero' defined as, *“Not at all confident. I would need a lot more encouragement &/or experience &/or coaching &/or practice”*; 'five' defined as, *“Average degree of confidence. I could do it, but I could do it better with more encouragement &/or experience &/or coaching &/or practice”*, and; 'ten' defined as, *“Maximum confidence. I can't imagine anything that would make me feel more confident to handle this than I already do now”*.

Given the lack of pre-test comparisons, all exit surveys also posed the following forced-choice dichotomous question: *“Do you feel that what you learned here today has made you MORE or LESS confident about this issue than you were before [viewing the drama and participating in the question-and-answer sessions]?”* which was used as an indicator of change (however subjective that change may have been). In addition, each survey allotted five lines for comments on the following open-ended question: *“How does what you have seen here today relate to your real life [lived experience]?”*. These comments were used to evaluate the perceived value of the program and to indirectly determine what, if any, learning may have occurred.

4.23 Actor/Peer-Educators' Experiences

The third goal of the intervention was to evaluate the learning experiences of the actor/educators. Initially, this evaluation was to include a pre-test/post-test comparison of HIV/AIDS knowledge (Yarber & Torabi, 1998), as well as conceptual content analysis of videotape-recorded interviews. However, all of the actor/peer-educators scored above 70% on the HIV knowledge pre-test, with most scores falling in the 90-to100% range. As a result, the post-test was never given because there was so little room for improvement. The video interviews were designed to document their initial expectations for comparison with their commentary on their actual experiences after the fact.

The volunteer actor/peer-educators who assisted in the co-creation of the play and the presentation of the program were invited to participate in short, semi-structured video interviews at two different points in time. As youth became involved in the project those who consented to participate in the research were asked: “*What do you hope to gain from your participation in the Full Circle Project?*”. The second interviews were conducted when the project was completed and unfortunately (due to technical difficulties) the youth were not able to review their original interviews as had been initially planned. Each of the actor-educators were asked the following three questions:

- 1) *After thinking about what you said in the previous interview, do you think you met or exceeded your goals?*
- 2) *Through your participation did you learn anything that you hadn't expected to learn?*
- 3) *How has working on this project changed you?*

The actor/educators were selected based on their commitment to the project and were paid small honorariums for their contributions. However, selection and honorarium payments were not contingent upon providing consent for the video interviews. Youth who dropped out before the completion of the project were not re-interviewed, although several of them who had made substantial contributions to the project did receive honoraria.

4.3 Data Analyses

Given that the main focus of this exploratory research was to illustrate the potential of this educational format for engaging audiences and increasing self-confidence, it was decided that treating the groups as individual case studies would allow the deepest and richest interpretation of the data. The case study approach is a relatively flexible scientific research method that can help bridge the gap between abstract theory (nexus) and concrete practice (praxis). Thus, it is well-suited to exploratory project designs such as this one (Jackson, 2002). The case study approach is also ideal for identifying questions and measures to be included in future research and provides a heuristic means of bringing to light new relationships as well as confirming and extending known relationships (Yin, 2002).

Yin (2002) articulated two general strategies that can be used in case-study research. With the first strategy, theoretical underpinnings are the focus of the analysis

and with the second, the focus is on descriptions of the processes of interest. Both strategies are used to present the results of this research. However, it is also important to remember that while initial findings from exploratory case study research may appear very convincing; these preliminary findings cannot be considered conclusive evidence because case-study research lacks experimental controls and comparison groups (Jackson, 2002). It is hoped that these four case studies might establish the potential efficacy of this educational format for sexuality and sexual health education and prompt wider implementation for more rigorous evaluation. The study included both quantitative and qualitative data and the analysis procedures for each are presented in separate sections below.

4.31 Quantitative Analyses

Demographic information from the survey data for each group was reported mainly using percentages, ranges, and means to describe the sample population and chi-square analyses were used to test for independence and equal proportions. Engagement measures were first assessed by time interval using t-tests to compare the time-series means (for the repeat-measures) and then examined using descriptive statistics, comparison of means, and analysis of variance (ANOVA). The degree of confidence reported each week along with the reports of feeling more or less confident after participating are presented using descriptive statistics and were further investigated using Chi-square, and ANOVA means comparisons. All statistical analyses were performed using SPSS statistical software (version 12.0) and statistical significance was accepted at the $p < .05$ level.

4.32 Qualitative Analyses

Responses to the open-ended survey question, "*How does what you have seen here today relate to your real life?*" were analyzed using conceptual content analysis (Carley, 1990). Of interest were themes related to achieving and maintaining sexual health including the acquisition of information, the development of motivation and behavioural skills and willingness to access sexual-healthcare services. It was also of interest whether respondents claimed that the program had an influence on their level of awareness, attitudes, or behavioural intentions and, perhaps most importantly, whether

they mentioned talking with others about the program. According Singhal and Rogers (2003) influencing awareness, attitudes and behaviours will promote change at the individual level, while talking with others can help influence the social environment, thereby contributing to social change at the group or system level.

In addition, the video interviews with actor educators were also subjected to conceptual content analysis. The initial videos were analysed to determine the most common reasons for participating in the project. The final interviews were analysed by question to determine how participation in the project impacted the youth (using much of the same criteria as above). Also of interest were their suggestions for improving the project.

Chapter 5: Results

The main goal of this study was to establish a basis for promoting the integration of theatre-based sexuality education programs into existing public-school curricula so that further—and more rigorous—evaluation can be conducted. The potential of the theatre-in-education format was examined to determine if using this format for HIV prevention and sexual health education would engage youth—and keep them engaged—and if it would have a positive impact on self-reported confidence.

To re-cap, the research objectives derived from those goals were:

- 1) An overall assessment of patterns of engagement during the question-and-answer sessions and patterns of engagement for each topic.
- 2) An assessment of confidence and changes in confidence by topic.
- 3) An evaluation of engagement, reported levels of confidence and changes in confidence for each of the groups (cases) by topic.
- 4) An evaluation of students' and actor/peer-educator impressions of the program.

The research questions arising from the above objectives were as follows:

- Objective 1 above is addressed by the questions: What were the overall patterns of engagement, generally and by specific topic? Were the patterns of engagement the same for all topics?
- Objective 2 is addressed by the following questions: How confident were the cases with regard to each topic in comparison to one another? Were changes in confidence topic dependent?
- Objective 3 is addressed by the questions: How did each case respond to the intervention? How do they compare to one another?
- Objective 4 is addressed by the question: What strengths and weaknesses were found?

After a preliminary review of inter-rater reliability on the behavioural measures and an initial description of the general characteristics of the sample, a brief review of preliminary demographic comparisons between the cases is presented as a means of establishing similarities and differences among the cases. Following this are preliminary

investigations of mean engagement and frequency of interaction by time interval and by topic, mean level of self-reported confidence and changes in confidence by week (i.e., topic), as well as a general assessment of comments about the performances' relation to lived experience. These preliminary overviews will be followed by an introduction to each case, along with an examination of the results for each case. Further to this, cross-case comparisons are presented prior to the presentation of the written comments and of the actor/peer-educator experiences.

The four groups of research participants were observed each week during the three 20-minute question-and-answer sessions that followed each part of the play. Frequency of interaction was recorded throughout each session on a tally sheet divided into five-minute intervals, and estimations of overall engagement were recorded at the end of each five-minute interval. Over the 12 separate behavioural observation occasions (Week 4 excluded), the overall inter-rater reliability between the two observers was sound, with a Cronbach's standardized alpha of .827. This indicates that for the most part, the two independent observers were consistently interpreting and coding interactive behaviours in the same way, as well as making similar estimations of overall engagement (Agresti & Findlay, 1997).

Separate comparisons of inter-rater reliability on the two different measures indicated that there was good consistency between the observers on both scales. Initially, agreement was slightly higher on the estimates of overall engagement (Cronbach's standardized alpha = .839) than on the frequency of interaction counts (.804). Further analysis of the reliability of the frequency count data alone revealed that the two observers had an acceptable level of agreement on the number of questions asked (.798) and the number of contributions (.764) but little agreement on what counted as offering advice (.393) and even less agreement on the number of interactions that occurred after the end of the question and answer sessions (.330). In both of the latter cases, any lack of agreement would have been exaggerated because of the relatively small number of observations recorded in these two categories. For this reason it was decided that the analysis should be re-run to include only counts taken *during* the question and answer sessions. This not only allowed the exclusion of the poorest reliability rating, it also ensured that both indicators of engagement included only data from the same time frame.

When the count data for interactions *after* the end of the question and answer sessions were excluded from the analysis, inter-rater reliability for frequency of interactions was marginally improved (Cronbach's standardized alpha = .861), and now slightly higher than the inter-rater reliability of the estimations of overall engagement.

A final analysis of overall inter-rater reliability including estimates of overall engagement and frequencies of interaction *during* the question and answer sessions only, resulted in a marginal improvement in Cronbach's standardized alpha (.866) for the combined measures. This reconfirmed that the overall inter-rater reliability between the two observers was "good" (greater than .80), and nearing "excellent" (greater than .90) (George & Mallery, 2003:231).

The four cases included in this study were four groups of youth from three different schools. The first school was a relatively small inner-city junior secondary school with an enrolment of just over 400 students in September 2001. This school provided the two groups that are referred to as Case 1 and Case 2. The second school was a larger inner-city senior secondary with an enrolment of slightly over 1000 students and the group from this school is referred to as Case 3. The third school was a midsize suburban senior secondary in a higher socio-economic area with a September enrolment of almost 750 students and provided the group referred to as Case 4.

While it had been hoped that the four groups would be homogeneous enough to allow for proper group comparisons, it was noted there were important qualitative differences among the groups on a number of factors. Students in three different grades, from two types of schools of three different sizes were included in the program (see Table 1). It was also noted that there were statistically significant between-group differences in the size of the audiences and the size of the research groups.

Table 1 School type, grades and average number involved in the program each week

	Case 1		Case 2		Case 3		Case 4		
School type	Inner-city		Inner-city		Inner-city		Suburban		
Grades included	9 & 10		9 & 10		8		8		
Group size ^{a, b}	Large		Small		Small		Large		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>Btwn grp differences</i>
Observed N	27	4.68	18	0.89	14	1.58	29	4.96	<i>F</i> = 32.26 ^{***}
Survey N	25	4.55	20	4.35	12	2.22	32	9.64	<i>F</i> = 8.21 ^{**}

^a Averaged over the four data collection times (rounded to nearest whole number).

^b Youth may have opted to be observed or complete a survey, or both.

^{**} $p < .01$. ^{***} $p < .001$.

On average, the one suburban school audience was half again as large as the inner-city audiences. A one-way ANOVA means comparison of audience size confirmed that this was a statistically significant difference. Moreover, the mean sizes of the research groups that formed the cases—hereafter referred to as Cases 1, 2, 3, and 4—were also disproportionate, with two of the research groups around twice the size of the other two groups. A one-way ANOVA indicated that the size difference between the research groups was statistically significant, and an assessment of the Scheffe multiple comparisons and homogeneous subsets revealed two unique pairs based on group size. Cases 2 and 3, both with a relatively small number of participants formed one subset, while Cases 1 and 4 formed another, $p < .05$. However, group size also varied from week to week, and as a function of this so did the number of surveys returned (see Table 2).

Table 2 *Number of surveys collected each week from each group*

	Case 1	Case 2	Case 3	Case 4	Total
Theme					
<i>Week 1: HIV stigma</i>	30	26	13	42	111
<i>Week 2: Condoms skills</i>	19	21	14	19 [†]	73
<i>Week 3: Testing</i>	26	16	13	33	88
<i>Week 4: Resist/Insist</i>	25	18	9	35	87
<i>Percent of total N</i>	31%	20%	25%	24%	100%

[†] A number of youth did not complete the surveys because they left early to participate in a pep rally.

Further to these differences, there were also statistically significant differences between the groups on all of the demographic variables that were investigated (see Table 3). Based on the information collected from audience members who were also subjects in the behavioural observations and who also responded to the exit surveys, it was found that this study included adolescents who reported ages ranging from 12 to 17 years ($M = 14.1$). The four groups evidently represented unique age groups, and gender, program enrolment, and ethnicity distributions were also heterogeneous.

Females were over-represented in the sample in comparison to regional population estimates for this age group, which suggest that 51.5% of the population in this age group can be expected to be female (Statistics Canada, 2002). The over-representation of females may have been a result of the types of classes which were volunteered for the project (by school administrators and teachers), because several of the courses were those that historically tend to attract more female students (e.g., sewing and drama).

The majority of respondents indicated that they were enrolled in regular academic programs. While data were also collected on the type of academic programs in which youth were enrolled (regular or enriched) and one group reported a very high percentage of honours students, there was a very high non-response rate for this item that was consistent among all four groups. The high non-response rate may have been caused by the choice of descriptor for enriched programs (“challenge”), or because some of the schools had other specialized programs (e.g., career preparation) that were not identified on the survey, or it may have been the result of a poorly embedded question that was

missed by many. Whatever the cause may have been, it suggests that caution should be used in interpretations involving this factor.

As would be expected in this region, the vast majority of respondents self-identified as Caucasian but cross-tabulations on the total sample showed that only two of the seven categories (i.e., *white* and *other*) held more than 10% of cases and Chi-square tests revealed that sixteen cells (57.1%) had expected counts of less than five. While regional population estimates of ethnicity for this age group could not be easily accessed, amongst the adult population in the area the percentage of visible minorities—including aboriginals—is reportedly 12.8% (Statistics Canada, 2002). This indicates that the sample may have also over-represented visible minorities. Given the enormous importance of cultural factors, it was not felt that inferences about possible influences of ethnicity—beyond simple references to levels of ethnic diversity—were appropriate with such sketchy data.

Table 3 Group characteristics by case

Variable^a	Case 1		Case 2		Case 3		Case 4		
Age^b <i>M=14.1 yrs</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>Btwn grp differences</i>
	14.5	.610	15.0	.801	13.3	.441	13.6	.587	<i>F = 119.370***</i>
Gender									
	<i>%</i>		<i>%</i>		<i>%</i>		<i>%</i>		
<i>Male: 38.3%</i>	55.6		23.5		25.0		40.2		<i>F = 7.022***</i>
<i>Female: 61.7%</i>	44.4		76.5		75.0		59.8		
Program									
	<i>%</i>		<i>%</i>		<i>%</i>		<i>%</i>		
<i>Regular: 73.1%</i>	93.4		93.3		84.2		41.6		<i>F = 38.271***</i>
<i>Enriched: 16.9%</i>	6.6		6.7		15.8		58.4 [†]		
Ethnicity									
	<i>%</i>		<i>%</i>		<i>%</i>		<i>%</i>		
<i>White: 70.2%</i>	69.0		55.6		81.6		76.0		<i>F = 4.618**</i>
<i>Other: 29.8%</i>	31.0		44.4		18.4		24.0		

^a Means comparisons were conducted using dummy variables.

^b Age: *n* = 322, Gender: *n* = 300, Program: *n* = 275, Ethnicity: *n* = 359.

[†] One of the 2 classes forming this group was reserved for honours students.

** *p* < .01. *** *p* < .001.

Based on these group characteristics it was possible to make some inferences in each of the four cases with regard to the potential effects of demographic variables on engagement, self-reported levels of confidence and changes in confidence. However, inferences about the potential effects of demographic variables must be treated with caution because they are limited not only by the fact that the initial sample was non-random, but also because it is entirely possible that the students who volunteered for the research groups and/or those who completed the surveys were not representative of the students who did not. Nor would the respondents necessarily represent the larger audiences or high school students in general. This may be especially true given the need for parental consent and the sensitive subject matter.

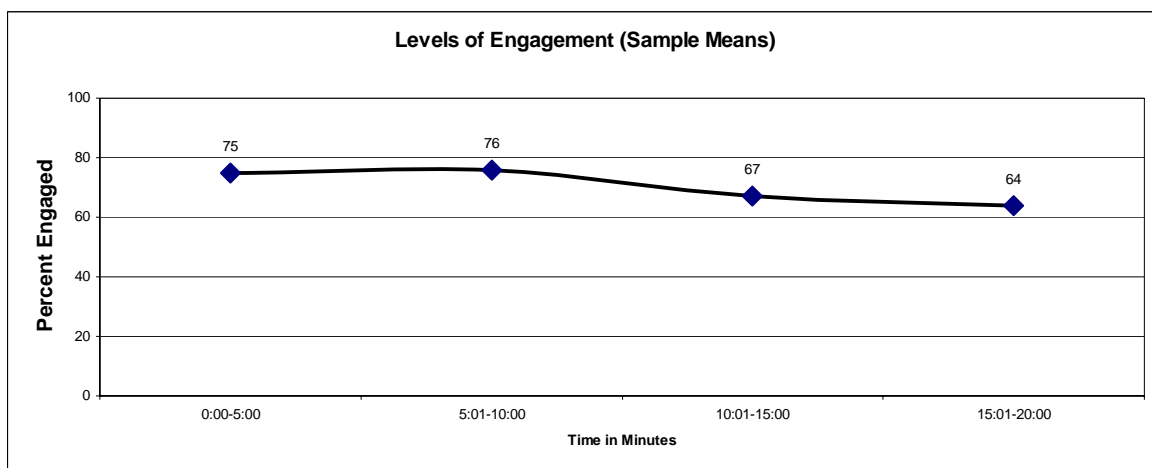
5.1 Engagement – Preliminary Findings

A preliminary investigation into whether or not overall engagement and/or frequency or types of interaction varied by time interval or by topic was conducted. This was done to determine if participants stayed interested for the duration of the question-and-answer sessions and whether they found some topics more interesting than others regardless of individual or group characteristics. For the most part, this served as a test of the quality and consistency of the program, but also offers a context (in the form of a contrived baseline) for discussion when the results of the four cases are introduced. Prior to a case-by-case analysis, the engagement data were first assessed by time interval using t-tests to compare the time-series means (for the repeat-measures) against the grand mean for each dependent variable and then assessed using an ANOVA model to compare mean engagement by week.

Did the Q & A's keep participants interested for 20 minutes? Engagement by time interval was of interest to assess whether there were any significant patterns of increasing or decreasing engagement over the duration of the question-and-answer sessions—regardless of group characteristics or week of production. Thus, an initial comparison of means for each of the four dependent variables (overall engagement, and counts of contributions, questions and advice) at each time interval was conducted, comparing them to their respective grand means. Results for overall engagement by time interval are presented first, followed by frequency of interaction.

In assessing *overall* engagement during the question-and-answer sessions it was found that on average, 70.35% of the research participants were engaged with the activities. Relatively high levels of overall engagement were recorded at each time the percentages were estimated (74.8%, 75.8%, 67.0%, and 63.8% at the five-, ten-, fifteen- and twenty-minute marks, respectively). Engagement of the audiences appeared to be greatest during the first 15 minutes of the question-and-answer sessions, decreasing somewhat towards the end of the 20-minute sessions (see Figure 1).

Figure 1 Overall engagement during Q &A sessions (Weeks 1 to 3 only)

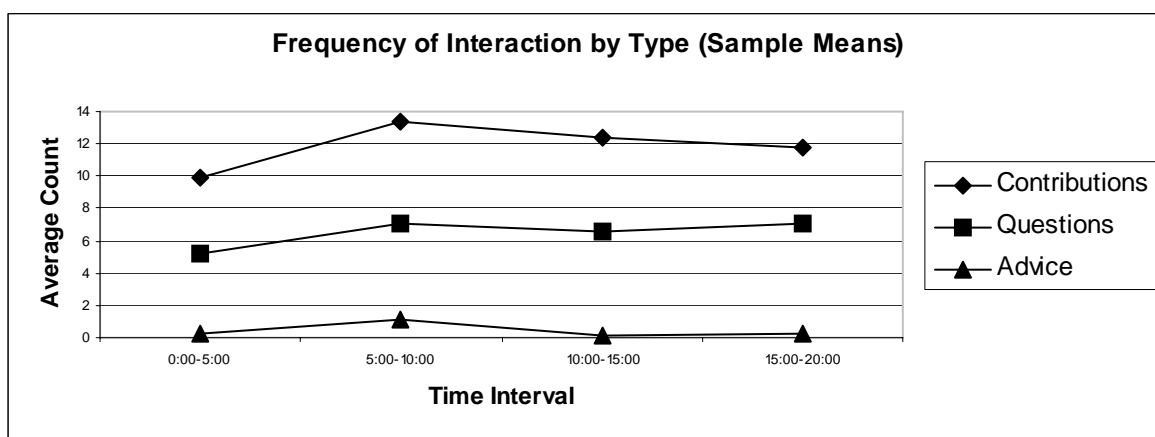


However, t-tests comparing percent engaged by time interval against the grand mean of percent engaged overall indicated that none of the time interval means varied significantly from the grand mean, $t(23) \geq -0.988 \leq 1.148, p > .05$ (for all comparisons). On average, overall engagement—as measured by an estimation of the percentage of students who appeared to be absorbed in the proceedings of the question-and-answer sessions—was relatively high and constant for the duration of the individual sessions.

Given that the overall engagement measures indicated that levels of engagement did not vary significantly over the duration of the question-and-answer sessions, it was of great interest whether or not the frequency and/or types of *interaction* varied over the course of each session, although there was no way of assessing how many contributions came from individual participants. A series of t-tests comparing the weighted (by group size) means of the counts for each time interval were run for each type of interaction recorded. On average, students made just over twelve *contributions* during each five-minute period ($M=12.45$). When the counts for each time interval were tested against the mean, the only statistically significant difference was in the first five minutes, $t(25) = -2.553, p < .05$; during which time there were fewer contributions. On average, students asked just under seven *questions* during each five-minute period ($M=6.78$). When the counts for each time interval were tested against the mean, once again the only statistically significant difference was in the first five minutes, $t(25) = -2.446, p < .05$; during which time there were fewer questions asked. The participants offered very little

advice at all ($M=0.54$), and an examination of the t-test results indicated that the majority of advice was offered during the second, ($M=1.29$) and last ($M=0.42$) five minutes of the question-and-answer sessions. These differences were not significantly above the mean, however the amount of advice offered during the first, ($M=0.26$) and third ($M=0.18$) five-minute intervals was significantly below the mean, $t(25) = -2.301$, $p < .05$; and $t(25) = -3.508$, $p < .01$; respectively.

Figure 2 Interaction during question-and-answer sessions (Weeks 1 to 3 only)



Were some topics more interesting? Assessing overall engagement and frequency/type of interaction specifically by week was also of interest because each week was focussed on a different learning outcome. Any significant differences in engagement or interaction by week—regardless of group characteristics—would help determine if a particular issue presented in the play appeared to influence engagement. Additionally, this may give some hints about the effects of the repeat visits, which at least emphasize the importance of the message by virtue of the time devoted to it, and at best encourage increased engagement by capitalizing on the familiarity and trust that builds over time.

For these analyses, the four repeat-measures for each of the dependent variables measuring engagement were combined (by adding them together and dividing by four) to form new versions of each variable which reflected mean counts by week for each indicator. An aggregate indicator for frequency of interaction was also created by adding together the recoded versions of the three different types of interactions for illustrative purposes (see Table 4). A comparison of means by week for each of the recoded

dependent variables (overall engagement, and counts of contributions, questions and advice) was then conducted. Again, results for overall engagement by week are presented first, followed by frequency of interaction by week.

Table 4 *Engagement by weekly topic*

Variable	Week 1 Stigma		Week 2 Condoms		Week 3 Testing		<i>Btwn topic differences[†]</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Overall (%)	68.3	31.07	75.0	20.98	67.7	18.57	<i>F</i> = 0.226
Contributions ^a	50.9	25.57	42.9	18.25	48.6	10.54	<i>F</i> = 0.372
Questions ^a	33.6	17.82	19.6	9.87	24.6	9.96	<i>F</i> = 2.350
Advice ^a	2.1	2.48	1.1	2.48	4.7	3.44	<i>F</i> = 0.358
Aggregate ^b	86.6	43.98	63.6	28.87	75.4	20.63	<i>F</i> = 0.994

^a Additive values which include counts for each five-minute interval.

^b Aggregated value which includes total number of contributions + questions + advice.

[†] No significant differences found.

As stated, the mean level of engagement averaged 70% and an ANOVA comparison of overall engagement during the question-and-answer sessions by week showed that on the whole, the differences in engagement by week alone (68%, 75%, and 68%, during Weeks 1, 2 & 3 respectively) were not statistically significant; $F(2, 23) = 0.226, p > .05$ (see Table 4). This suggests that no one question-and-answer session was any more or less engaging than the others, and that overall engagement—as measured by an estimation of the percentage of students who appeared to be absorbed in the proceedings—was relatively high and constant from week to week regardless of the issues brought forward in the play. Although, it is worth noting that the highest level of engagement was recorded during Week 2; the introduction of condoms in this week seemed to stimulate engagement and move it in the desired direction.

An ANOVA comparison of frequency of interaction during the question-and-answer sessions by week, as measured by the number of contributions, questions and advice, as well as the aggregate form of this variable revealed no statistically significant differences in the frequency or type of interaction by weekly topic. Engagement, mainly

in the form of contributions and questions was relatively high and constant from week to week, again indicating that no specific question-and-answer session was more or less engaging than the others (see Table 4). There are however, a number of relatively large standard deviations suggesting much variance between the groups.

Further to this, a comparison of mean frequency of the different types of interaction by time interval for each week indicated that overall, there were no statistically significant differences in the number of contributions $F(2, 25) = .836, p > .05$, but significantly more questions were asked in the first five-minutes of the sessions, $F(2, 25) = 15.347, p < .001$. As well, students were more apt to offer advice to the actor/peer-educators in the latter five minutes of the sessions, $F(2, 25) = 4.139, p < .05$. All in all, the frequency of contributions and questions was fairly high and constant after the first five minutes of each session.

To summarize, mean level of overall engagement did not vary significantly over the duration of each question-and-answer session, nor from week to week. Mean frequency of interaction was significantly less in the first five minutes of the question-and-answer sessions (see Figure 2) and this difference was constant from week to week. These norms will be used as the basis of discussion of differences among the cases.

5.2 Confidence – Preliminary Findings

The confidence measures included a self-rating of confidence in one's own ability to successfully engage in behaviours associated with reducing the risk of exposure to HIV, as well as a forced choice rating of whether participants felt *more* or *less* confident than they had before. The first dependent variable was *self-rating of confidence* and the second dependent variable was *change in confidence*. The two measures were specific to the four different weekly topics addressed in the play; therefore analyses were conducted for each week separately because for the most part (aside for the underlying theme) the topics were unrelated. Note: Unlike the engagement data which was only collected during the first three weeks, confidence measures were collected for all four weeks.

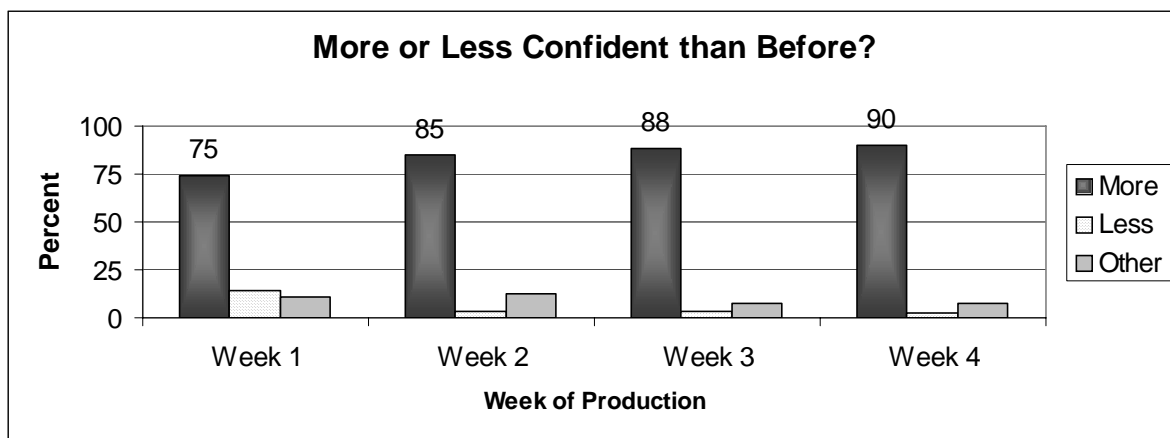
Of particular interest was whether or not students would report that participation in the program had left them feeling more confident about the issues than they had prior to attending. In addition to direction of change, self-ratings of confidence were also of interest. This section begins with an overview of the reported changes in confidence and

self-ratings of confidence by week followed by a more detailed description of the results by case.

The large majority of students reported an increase in confidence. Responses to the question: “*Do you feel that what you learned here today has made you MORE or LESS confident about this issue than you were before?*” revealed that overall, 84.4% (n=303) of respondents said they felt more confident, 6.7% (n=26) said they felt less confident, and 8.9% (n= 31) didn't answer or circled both options; $\chi^2 (6) = 18.585, p < .01$. When the missing and other responses were excluded from the analysis, 92.7% of the youth reported that they felt more confident; $\chi^2 (3) = 16.649, p = .001$. The individual research participants overwhelmingly reported that they felt more confident in their abilities to support HIV-positive persons, to skillfully apply condoms, to get tested if they suspected they might have contracted an STI, and to either resist sex or insist on safer sex after viewing the drama and having participated in the question-and-answer sessions.

However, because each week did address a different topic, an ANOVA comparison of mean level of confidence by week was conducted (excluding missing and other cases). There were statistically significant differences in responses from week to week, $F(3, 326) = 5.776, p = .001$ (highly skewed in the desired direction); which explained about 5.1% of the variance (Eta squared = .051). While the statistical tests did not include the *other* category, it is included in Figure 3 for illustrative purposes.

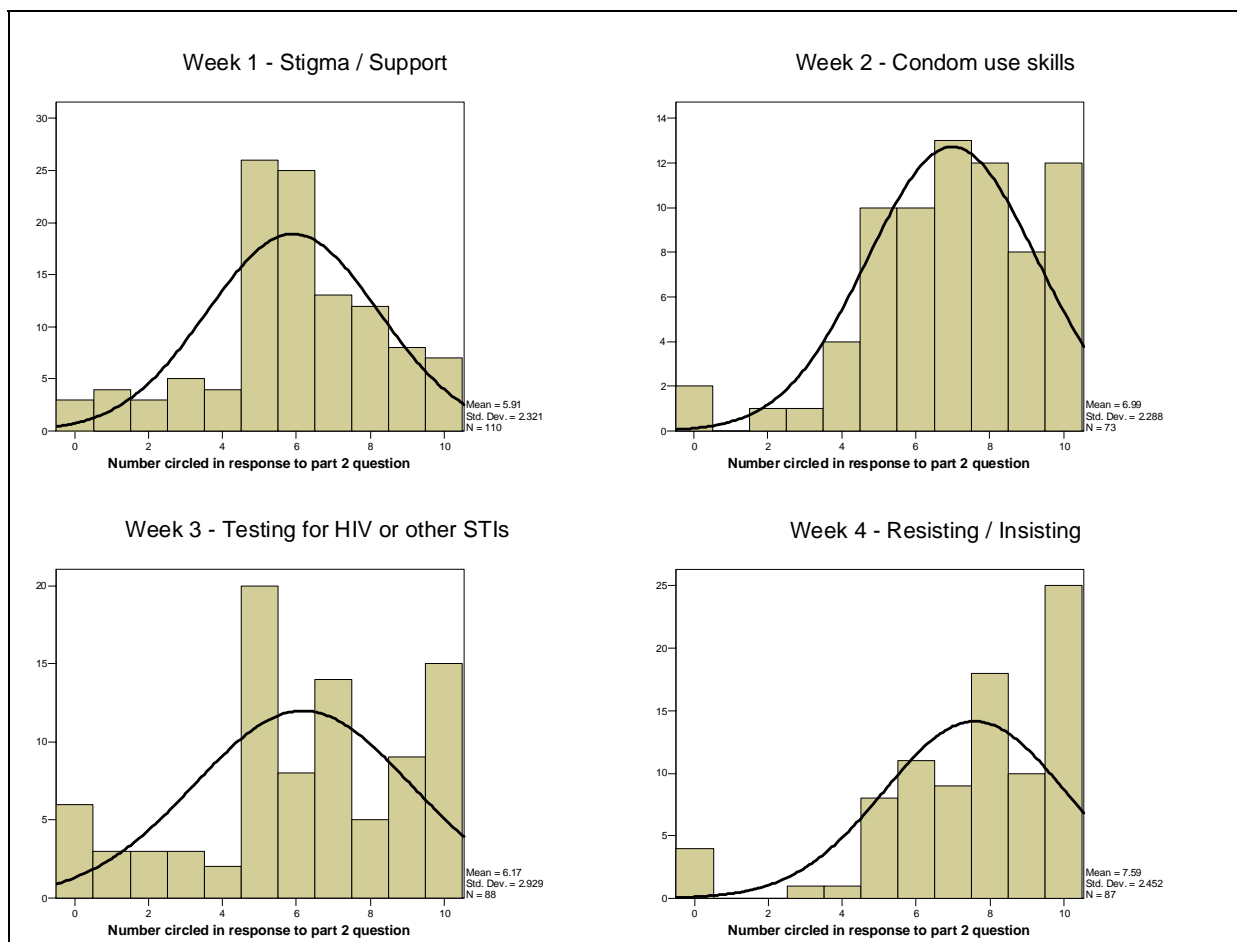
Figure 3 *More or Less Confident than Before?*



Post hoc multiple comparisons (unequal variances assumed) and an examination of the homogenous subsets from a preliminary univariate analysis revealed statistically significant differences between Week 1, which dealt with stigma and supporting an HIV-positive friend, and Weeks 2 and 4, which addressed condoms and negotiating safer sexual behaviours, $p < .05$ (Week 3 which focused on testing was not significantly different than any of the others). Although few youth reported feeling less confident; slightly more said they felt that way in the first week.

To assess how confident they reported feeling in each domain, the self-ratings of confidence were examined. Overall, less than one-third (32%) of all respondents rated their confidence as 5 or less, just over 40% rated their self-confidence between 6 and 8, and about one-quarter (26.3%) rated their confidence as 9 or above. As with the previous measure, the ANOVA comparisons of means by week showed statistically significant differences in confidence ratings from week to week, $F(3, 357) = 8.710, p < .001$; which explained about 7% of the variance (Eta squared = .069) (see Figure 4).

Figure 4 *Self-rating of confidence by topic (sample means)*



The histograms in Figure 4 display the frequency of responses for each point on the scale by weekly topic. The themes, questions asked and overall mean ratings of self-confidence for each week were as follows: Week 1 - Stigma: “*Suppose that tonight a good friend told you that they had just found out they were HIV-positive. How confident do you feel that you could support them in dealing with this issue?*” The mean level of confidence reported was 5.9 (SD 2.32) with a median of six. Week 2 - Condoms: “*Suppose that tonight you and your partner have agreed to have sexual intercourse using a condom. How confident do you feel that YOU could easily and skillfully apply that condom?*” This week included a condom demonstration and the overall mean level of confidence reported was 6.99 (SD 2.29) and the median was seven. Week 3 - Testing: “*Suppose that tonight you were told that you may have come in contact with a sexually*

transmitted infection like chlamydia, gonorrhoea or HIV. How confident do you feel that you could go to a health clinic or your doctor and ask to be tested?" The overall mean level of confidence was 6.17 (2.93) and a median of six. Week 4 - Resisting sex or insisting on safer sex: *"Suppose that tonight you were asked to have sexual intercourse by someone you liked, or did not want to alienate. How confident do you feel that you could refuse to have sex if you didn't want to, or that you could insist on safer sex if you did want to have sex with them?"* The overall mean was 7.6 (SD 2.452) with a median of eight.

On the whole, survey respondents reported higher levels of confidence in their condom-use skills and their ability to resist unsafe sex or insist on safer sexual practices than in their ability to seek testing if they suspected they might have contracted a sexually transmitted disease, and their ability to deal with HIV stigma by supporting an HIV-positive friend. While the mean self-rating of confidence was higher for testing than for supporting an HIV-positive friend, there was much greater variance in the responses in the latter. The lowest self-ratings of confidence were made with regard to the question about stigma (Week 1) and testing (Week 3) and the highest levels of self-confidence were reported in the context of abilities to negotiate safer sexual behaviours (Week 4) and condoms skills (Week2).

Each survey also allotted five lines for comments on the following open-ended question: *"How does what you have seen here today relate to your real life?"* It was hoped that the comments provided would offer some insight into whether changes in confidence were linked to perceived increases in knowledge, motivation, and behavioural skills, particularly those associated with sexual risk-reduction. The data was first assessed in an aggregate form and then by case and results are presented in that order after a preliminary description of how the data was handled.

Surveys with this section left blank (n=87), or marked with question marks, "no comment", incomplete thoughts (such as "I heard this guy"), irrelevant comments (such as "get hotter women actresses" or "I have a hangover") and responses of "not sure" or "don't know" (n=25) were excluded. A total of 69% of the surveys (n=247) contained useable data in this section.

Data generated from this open-ended question were first sorted into three basic categories. The first category included positive responses indicating explicitly or implicitly, by word or by phrase that, “Yes, it did relate to my lived experience”. The second category contained qualified negative responses (such as “No, but...”, “No, because...”, or “Not yet”) which implied some relation to lived situations, but that the participant felt removed from the risk for some reason. The third category contained unqualified negative responses indicating explicitly or implicitly, by word or by phrase, that “No, it didn’t relate to my lived experience much, or at all” (surveys marked “N/A” were assumed to indicate *no* and this category also included comments like “boo” and “bla”). Forty percent of participants (n=100) gave unqualified negative responses indicating that what they had seen had little, if any relation to their real lives. Sixty percent (n=147) gave either positive or qualified negative responses (as described above) indicating that the play had some or a lot of relevance to their real lives.

The positive and qualified negative responses were then further analysed with the intent of determining how exposure to the play and question-and-answer sessions had the potential to positively influence behaviour now or in the future. Many of the youth affirmed that what they saw on stage was related to their own lives without elaborating how, while others clearly removed themselves from risk groups or labels by offering qualified negative responses such as, “It doesn’t, I have not reached the age where I have sex a lot”, “It doesn’t relate to me cuz I am not gay!”. Still others detailed which parts of their lives had been/were/would be affected, and how.

Themes describing knowledge transfer, skills transfer, and increased behavioural motivation were evident. For example:

“It relates to my life because many people do have HIV so knowledge about it helps and is good to know”

“I [now] know how to skillfully apply the condom”

“I know when I am ready to have sex I will always use a condom”

“I would feel more confident to go get [a] test for [a sexually transmitted] disease”

5.3 Case Studies

The four cases included in this study were the four groups of youth who served as research participants and survey respondents. The first two cases were from a relatively small inner-city junior secondary school, the third case was from a large inner-city senior secondary and the fourth case was from a midsize suburban senior secondary school in a higher socio-economic area. It should be kept in mind that only one question on the surveys (with regard to learning outcomes) varied from week-to-week. Thus, overall demographic descriptions are derived from four repeat-measures that (theoretically at least) included the same youth.

5.31 Case 1

Case 1 included one class of Grade 9 students as well as one Grade 9/10 split class. The average audience size at this school was 29 students. The research group was considered large in comparison to the others and while the mean number of participants each week is recorded as 27, it should be noted that this average is deceiving. By the second week all of the audience members were participating, distinguishing this as the case with the highest rate of participation, nearing 100%. In total, 100 surveys were collected from the members in Case 1 over the duration of the program. The fewest number of surveys were returned in Week 2, the week in which condoms were distributed and condom use skills were demonstrated.

Forty-six percent of the survey respondents in this group were 14 years of age; 34% were 15 years old; 5% were 16; and 15 percent did not report their age. This was the one group in which females were not over-represented; in fact they were slightly under-represented (44%) in those who reported gender. The large majority (94%) reported that they were in regular academic programs and 69% of the students in this group indicated their ethnicity as white, with Asian/Pacific Islanders, Black/African Canadians and First Nations also represented.

The program was presented to this group during their first class period on four consecutive Thursday mornings in a rather small L-shaped room. It took some serious creativity from the actor/peer-educators to pull off scene changes because they were lacking a right stage exit. They solved this problem by using a rollout blackboard to hide behind when they needed to exit stage right. While this was less than ideal, mainly

because the lower parts of their bodies were still visible while they were 'off-stage', they did an excellent job of working within the limitations that were presented them. This group viewed the third performances of Parts 1 and 2 and the second performances of the last parts.

This case displayed the highest percentage of overall engagement when the topics were stigma and testing for sexually transmitted infections (92% for both). In terms of raw counts, this case had the highest frequency of interaction with the actor/peer-educators during the first week. This case also displayed quite a different pattern of interaction than the others. While it must be remembered that the weekly topics addressed somewhat discrete issues, the overall pattern of frequency of interaction in this case had a distinct downward trend, the students asked fewer questions and made fewer contributions as each week passed. Field notes suggest this was because the discrete interactions became more prolonged as the questions and contributions became more profound.

In this case, the mean self-rating of confidence reported in the first week with regard to supporting a friend who may be infected with HIV was 5.4, which was slightly below the sample mean (5.9). When asked to rate their confidence in their ability to use condoms correctly the mean response (6.4) was also slightly below the sample mean (7.0). It was also noted that during the second week participants were asking some very relevant questions and were very interested in the discussions with the actor/peer-educators until the condoms were distributed, at which time they became intently involved in the exercise and comparing which type they had received with their neighbours and friends. The mean level of confidence reported in the third week which asked about their comfort with accessing sexual health care services if they believed they may have come in contact with a sexually transmitted infection was 6.4, again somewhat below the mean (6.2). It was interesting that the field notes reported that during the last five minutes of this third question and answer session the interactions with the actor/peer-educators were not related to the topic, while it was also noted that at the end of the 20 minute period there was some reluctance on the part of the participants to end the session. In the last session, when they were asked to rate their confidence in their ability to resist

unsafe sex or insist on safer sex, the mean rating was 7.3, once again slightly below the sample mean (7.6).

In this case, when asked whether participation had left them feeling more or less confident, each week a larger percentage reported feeling more confident; 84% felt more confident about supporting a friend with HIV; 90% felt more confident in their condom-use skills; 92% felt more confident in their ability to access sexual health care if needed; and 96% reported feeling more confident that they could resist unsafe sex or insist on safer sex. It is also worth noting with regard to condom use and resisting/insisting, none of the participants indicated that they felt less confident, one wrote "neither" and two did not respond.

When describing the relationship of the play to lived experience, the comments collected in Week 1 suggested many parallels. The peer pressure to look and act a certain way, the conversations in the bathrooms, as well as some of the "situations where people do stupid things to impress other people" that were portrayed on stage were said to be often seen in school hallways. In addition, several participants in this group mentioned that they had a few friends who reminded them of the characters, others mentioned that they knew people who were HIV positive and the play had helped them better understand the situation, while others who did not know people who were HIV positive stated that the realism of the play gave them a better understanding of the issues. The comments in Week 2 suggested that the youth in this group identified with a party scene that was enacted. In the third week the respondents began making comments about their impressions of specific characters and how those characters mirrored real people in their lives. For example, one student who had apparently become somewhat annoyed with Kevin's ongoing bullying and overt homophobia suggested that he was probably gay and another mentioned that when Tony came out as homosexual it reminded them of when their cousin had come out. Comments in the last week reiterated that the respondents felt they had learned some positive things about how to react to other people more positively, how to deal with sexual innuendo, and that they had seen "some of the problems that people face in real life".

To summarize, this case represents a somewhat more male-dominated group of mainly grade nine, 14 and 15 year-old students largely enrolled in regular academic programs, and who were perhaps more prosocial than the others given their high participation rate. These youth displayed the highest percentage of overall engagement for two of the three weeks for which data was collected and seemed particularly interested when the topics addressed stigma and testing for sexually transmitted infections. They interacted with the highest frequency during the first week but over time their interactions with the actor/peer-educators became more prolonged exchanges based on thoughtful questions or comments, thus less frequent. The typical student in this case would rate their confidence possibly a little lower than most other youth, but would be very interested when the condoms were distributed and be very likely to say that they felt more confident after having participated.

5.32 Case 2

Case 2 was from the same school as Case 1, but was comprised of different students and also included one grade-nine class and one grade 9/10 split class. The average audience size in this group was the same as Case 1 (29 students) however fewer of these students volunteered to participate in the research. Thus, the research groups were smaller, with an average of about 20 students each week. Over the course of the program 81 surveys were collected from this group with a lower number being received in Week 3, which was focused on accessing health care.

The average age of the research participants in this group was 15 years old, and while this suggested that they were the oldest of the four groups there was a roughly equal distribution in the three age categories represented (14, 15 and 16, with a 12% non-response rate). Only 24% of the research group identified themselves as male, leaving females highly over-represented in this sample. Similar to the other case from this school, the large majority reported being enrolled in regular academic programs (94%). There was slightly more ethnic diversity within this group in comparison to the others with only 56% reporting their ethnicity as white.

The program was presented to this group in the late afternoon on four consecutive Thursdays in the school cafeteria, which was filled with a fair amount of ambient noise from the kitchen equipment and clean up staff. This location was less than ideal, and

although the T-shape of this room allowed for both stage left and stage right exits, the space was quite open so the actor/peer-educators tipped tables on their sides to hide behind when their characters were off stage. This group viewed the last performances of Parts 1 and 2 and the third performances of the last two Parts.

Overall engagement in this case hovered around 70% for each topic, but was highest during the first week (76%) and the frequency of interaction also represented the mid range in cross-case comparisons, although it did increase somewhat each week. The mean confidence level reported by this group was consistently not only higher than the sample mean, but higher than all of the other cases. Confidence was highest in Week 3, which assessed their ability to seek sexual health care (8.9) and to resist sex or insist on safer sex (7.9); and while comparable to no one but themselves, they indicated their lowest level of confidence was in their ability to support an HIV-positive friend.

Field notes indicate that this group provided good questions and even those who were not actively participating appeared to be very interested and were attentive. It was noted that by the second week, this group seemed to be very comfortable with the actor/peer-educators and were asking a lot of questions pertinent to the play itself. It was also noted that some of the participants were more inclined to pocket the condoms than follow along with the demonstration, and one youth approached me after the performance hoping for a sample of non-latex condoms (which I did not have). As well, before the third performance, three students were seen hanging around with the actors and were reportedly asking relevant questions. With regard to changes in confidence during the first two weeks, all of those who answered the question said that they felt more confident, and in both Weeks 3 and 4, only one participant reported feeling less confident than before, three intentionally circled the space between the choices and one did not respond.

When describing the relationship of the play to lived experience, the comments collected from this group in Week 1 suggested fewer parallels to their experiences in grade eight, although the peer pressure and bullying that were portrayed on stage were mentioned as being fair representations of their reality. In addition, several participants in this group also mentioned that they knew people who were HIV positive or who had AIDS and that the play had helped them better understand the situation, while others who did not know people who were HIV positive stated that the realism of the play gave them

a better understanding of the issues. The comments in Week 2 suggested that the youth in this group had recognized—even if they hadn't been in the situations that were presented—that there was the potential that it could happen to them in the future. In the third week, the respondents' comments focused largely on experiences with friends who previously needed to access sexual health care and how the play had helped instill confidence in that regard. The comments made in the last week echoed the comments from Case 1. Respondents felt they had learned more about the importance of treating other people and interpersonal relationships with greater respect, and that the program had offered a "great message for the future if I'm in that situation".

To summarize, this case represents a more female-dominated group with relatively equal numbers of 14, 15 and 16 year-olds who were largely enrolled in regular academic programs. Youth in this case typically displayed a mid-range of engagement and frequency of interaction, asked good questions and reported higher levels of self-confidence than the other cases with regard to all of the topics. Almost all of these youth reported that their already high levels of confidence had increased. In this case, it was not unusual for youth to interact with the actor/peer-educators before the program, take a few condoms home, or perhaps ask about acquiring non-latex condoms.

5.33 Case 3

Case 3 included two classes of grade-eight students with an average audience size of 30 and about half of the students in this group participated in the research making it the smallest group. A total of 49 surveys were collected from this group, with substantially fewer completed in the last week. Seventy-one percent of the participants in this case reported that they were 13 years old; 25% were 14; and two did not answer. In a similar fashion to Case 2, females were highly over represented in this group, with 75% reporting their gender as female (with 10% non-response). Compared to the first two cases, more students in this case reported being in enriched academic programs (16%), however there was less ethnic diversity among this group, where 82% reported their ethnicity as white and the only other category represented was Other.

Here, the program was presented in an ideal location, the school theatre. The actor/peer-educators had everything they needed for proper scene transitions, although the size of the theatre seemed to dwarf the already small audiences. Presentations were in

the early afternoon (right after lunch). However due to rotating class schedules as well as a statutory holiday that fell during the presentation schedule, the first and last presentations were on Mondays, and the other two were given on Tuesdays. It should be noted that in the beginning this audience was viewing the second performances however, when the switch was made to Tuesday this audience viewed the first performances of Part 3 and Part 4. There was also some prior familiarity among these participants and a number of the actor/peer-educators, who attended this school at the time or were recent graduates. In addition, at least one of the participants knew me from around the neighbourhood, and others may have known me through my children.

Overall engagement varied a great deal in this case, beginning at just over 80% and then going to both extremes the next two weeks. Engagement was highest among this group during Week 2 (93%) which included the condom demonstration, and lowest in Week 3 (48%) which focused on testing. These were the highest and lowest levels of engagement observed among the cases. In terms of raw counts, the frequency of interaction with the actor/peer-educators displayed a downward trend in this case, yet there was a relatively high frequency of interaction with the actor/peer-educators, especially with consideration of the small group size. As with the estimates of percent engaged, the frequency of interaction with the actor/peer-educators was much lower in Week 3. Field notes indicated that this group was more difficult to keep interested for the duration of the question and answer sessions, and that the latter half of the discussions were rarely related to the play, although they were reluctant to end the first session.

In this case, the rating of confidence reported in the first week with regard to supporting a friend who may be infected with HIV (7.0) and in the fourth week for resisting/insisting (7.9), were slightly above the sample mean. The ratings were lower than the sample mean for condoms skills (6.7) and getting tested (6.0). Most reported feeling more confident after participating, with three feeling less confident in the first week, one in the second and third weeks and none in the last.

When describing the relationship of the play to lived experience, the comments from this group in Week 1 again suggested fewer parallels, with one specifically mentioning this was because a lot of them had not yet lost their virginity. Participants from this group also mentioned knowing people who had AIDS, feeling better about what

they had learned, and feeling more capable of supporting an HIV-positive person, although one respondent pointed out that this learning led to a feeling of sadness for people who are infected. The comments in Week 2 suggested that the youth in this group had also recognized the personalities of the characters were very similar to the personalities of some of the people in their real lives. In the third week the respondents' comments focused largely on experiences with friends who previously needed to access sexual health care and how the play had helped instill confidence in that regard. The comments made in the last week suggested that most of the group had enjoyed the program. One of the participants also suggested that the program was useful to counteract the continual projection of sex and sexuality in the media, and this comment seemed particularly profound given the young age of this group.

To summarize, this case represents a decidedly younger, female-dominated group of grade-eight students, the majority of whom were 13 years old, white, and enrolled in regular academic programs. These youth displayed extremes in overall engagement, yet relatively frequent interactions with the actor/peer-educators. The typical student rated their confidence in supporting a friend or resisting sex or insisting on safer sex relatively high, but reported less confidence in using condoms correctly and seeking sexual health care. Most reported feeling more confident with regards to all topics.

5.34 Case 4

Case 4 included two classes of grade eight students from a suburban school in a higher socio-economic area. This was the largest group and the average audience size at this school was 46 students and about two-thirds of those students participated in the research each week. In total, 129 surveys were collected from this group over the duration of the program. The fewest surveys were returned in Week 2 when a number of the youth left early to participate in a school pep rally.

Forty-one percent of this group were 13 years old; 48% were 14; while 4 said 15 and one said 16. While there was a somewhat more balanced gender distribution in this group, females were still over represented (59.8%). Far more students in this group reported being in enriched academic programs (68.4%), a likely result of the fact that one of the two classes involved was reserved for honours students. Among this group 76.1%

reported their ethnicity as white, with Asian/Pacific Islanders, Indo-Canadians, and Other also represented.

There were some scheduling conflicts at this school due to other pre-planned school activities, which we accommodated. All presentations were first thing in the morning, however the first presentation was on a Monday, and the second on Tuesday the following week, then a week was skipped before we returned to the Monday morning schedule. This group viewed the first performances of Part 1 and Part 2, and the last performances of Part 3 and Part 4. All performances and question-and-answer sessions were held in a large multipurpose room, and we were provided with a set of portable folding screens that were designed for the purpose of creating the illusion of a stage. There was also prior familiarity among these participants with one of our actor/peer-educators who attended this school, and one of the classes included was taught by our director and stage manager, Lidia D' Angelo.

This case displayed the lowest percentage of overall engagement, however there was an upward trend in engagement which increased from 25% and 51% in the first two weeks to 61% in the third week. Frequency of interaction was well below the sample mean and this group made fewer contributions and asked fewer questions than the other groups except in Week 3. This increase may have been facilitated by one of the actor/peer-educators (who had apparently grown tired of the lack of interaction) because it was in this week that he began pointing at people and jokingly telling them it was their turn to ask a question. This highly unorthodox approach worked quite well! It was also noted in the third week that there were a lot of questions during the last five minutes, which was a change from the previous weeks. Notably, during the condom demonstrations (Week 2) interest was high after a little initial reluctance from a few, and a number of students took their condoms home.

In this case, the highest self-rating of confidence was in their ability to resist sex or insist on safer sex, however the mean ratings were below the sample means for all topics. In particular, this was the case with the lowest self-rating of confidence in supporting an HIV-positive friend (5.1) and accessing sexual health care (5.1). While the majority reported feeling more confident, there were a relatively high number in the first

week who reported feeling less confident (24%), as well as a fair number who indicated that they could not decide.

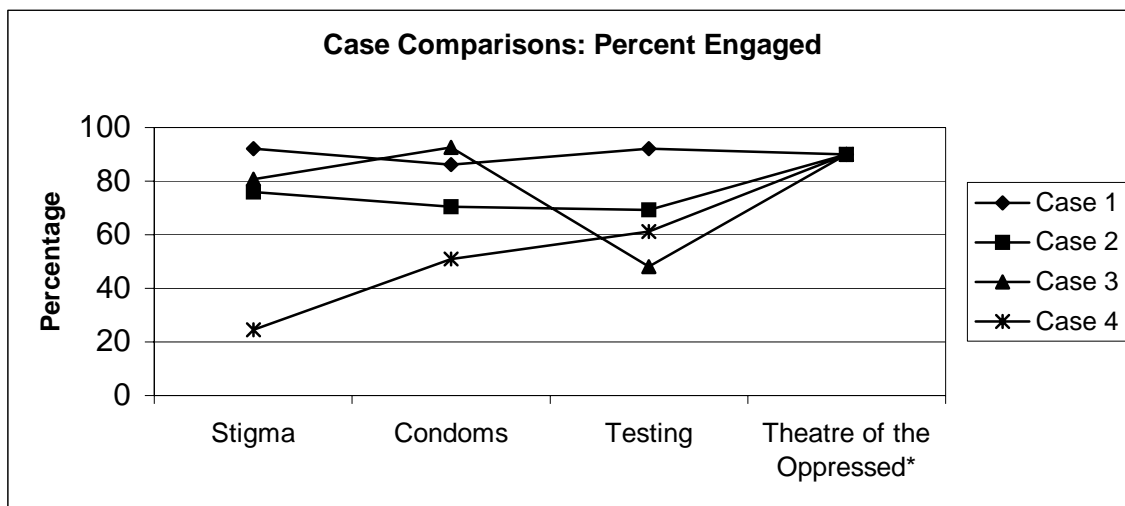
When describing the relationship of the play to lived experience, the comments collected in Week 1 suggested many parallels. The peer pressure portrayed on stage was said to be evident in school hallways and classrooms and again, several participants mentioned that they had a few friends of whom the characters reminded them. While the youth in this group did not directly mention that they knew people who were HIV-positive, they did state that the play had helped them better understand the situation. The comments in Week 2 suggested that some of the youth in this group were interested in initiating sexual experimentation. In the third week, respondents also made some comments about their impressions of the characters. Specifically one youth questioned Kevin's ongoing nasty behaviour ("Why is Kevin such a bitch?"). There were also comments that expressed fear around getting blood tests, and how some people's attitudes and obsession with sexual experimentation often left girls feeling pressured "to put out to keep or obtain a boyfriend". Comments in the last week focused once again on peer pressure, and one respondent brilliantly summed up the importance of the program by stating, "most people eventually are asked to have sex", thus suggesting that what was learned would not necessarily be applied immediately, but would be useful in the future. One of the respondents also felt it worthy to note that they had seen one of the actors at a party over the weekend.

To summarize, this case represents a large, somewhat female-dominated group of mainly white 13 and 14 year-old students, many of whom were enrolled in enriched academic programs. The youth in this case displayed the lowest percentage of overall engagement and frequency of interaction with the actor/peer-educators for the first two weeks in which data was collected and a number of them took their condoms home. Engagement and frequency of interaction increased notably by the third question-and-answer session. These youth had a tendency to rate their self-confidence below the sample means and compared to the others reported the lowest confidence in their ability to support an HIV-positive friend or to access sexual health care.

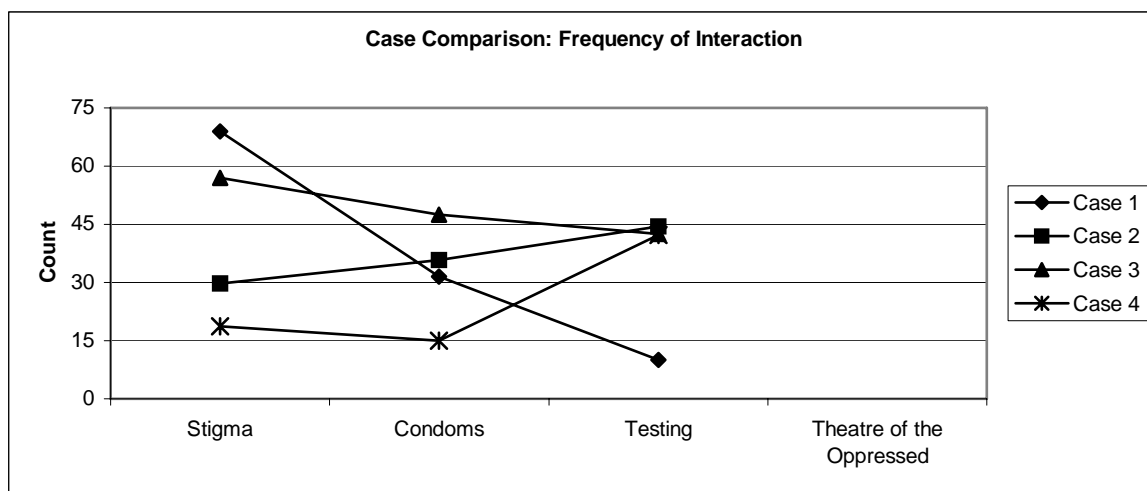
5.4 Case Comparisons

To summarize the findings to this point, the three cases from the inner city schools (Cases 1, 2 and 3) exhibited relatively high levels of engagement (70 to 92%) during the first two question and answer sessions which focused on supporting an HIV positive friend and condom-use skills (see Figure 5). In the third question and answer session, engagement in Case 3 dropped dramatically (to 48%) while it remained steady in the other three cases. Moreover, Case 4 showed a completely different pattern of engagement. With this group, student engagement was very low during the first question and answer session (25%) but increased with each subsequent visit (to 51% for the second question and answer session and to 61% for the third). As well, each case displayed at least a different frequency of interaction, if not a different pattern of interaction (see Figure 6).

Figure 5 *Case comparisons of percent engaged*



* Estimated percent engaged

Figure 6 Case comparison of frequency of interaction

In all cases the vast majority of youth indicated that participation left them feeling more confident and the number of responses to the contrary were highest during the first week and in Cases 3 and 4. Reported levels of self-confidence were generally lowest for the first week, where the play addressed stigma. There was also lower confidence reported in Week 3 (testing) and much greater variance in most cases that week. Case 2 rated their confidence higher than any of the other cases for all topics. Again, in most cases, the highest level of confidence was reported with regard to condom-use skills and resisting unsafe sex or insisting on safer sexual practices (see Table 5).

Table 5 Case comparisons of self-rating of confidence by weekly topic

	Sample mean		Case 1		Case 2		Case 3		Case 4		<i>Between grp differences</i>
	M	SD	M	SD	M	SD	M	SD	M	SD	
Week 1 <i>Stigma</i>	5.9	2.32	5.4	2.47	7.3	1.81	7.0	1.63	5.1	2.19	$F = 7.647^{***}$
Week 2 <i>Condoms</i>	7.0	2.29	6.4	1.61	7.7	2.08	6.7	2.61	7.0	2.76	$F = 1.171$
Week 3 <i>Testing</i>	6.2	2.93	6.0	2.36	8.9	1.36	6.0	3.24	5.0	3.03	$F = 7.686^{***}$
Week 4 <i>Resist/Insist</i>	7.6	2.45	7.3	2.81	7.9	1.77	7.9	3.06	7.5	2.39	$F = 0.275$

*** $p < .001$

5.5 Supplementary Analyses

The effects of gender and age are of particular interest with respect to sexuality education so these variables were subjected to supplementary analyses with regard to self-reported level of confidence for exploratory purposes only. While some of the possible effects of age were evident in the case-comparisons, potential gender differences would not have been revealed. ANOVA means comparisons were used to arrive the p -values, however given the nature of these data F -values are not reported because of the tentativeness of the relationships. They are presented for consideration in future studies that are designed for multivariate analyses.

Week 1: One hundred students (40 males and 60 females) responded to the question, “*Suppose that tonight a good friend told you that they had just found out they were HIV positive. How confident do you feel that you could support them in dealing with this issue?*” The sample mean was 5.96. There was a statistically significant difference by gender, $F(1, 99) = 9.260, p < .01$. Females reported a higher level of confidence (6.48) in regard to supporting an HIV positive friend (see Figure 7) than did males (5.18). For the 109 students who reported their age in Week 1, age appeared to be associated with the mean level of confidence reported, with level of confidence increasing with each year of age, $F(3, 108) = 2.892, p < .05$, with the exception of the oldest youth (aged 16 years) whom reported slightly lower confidence than those youth one year younger.

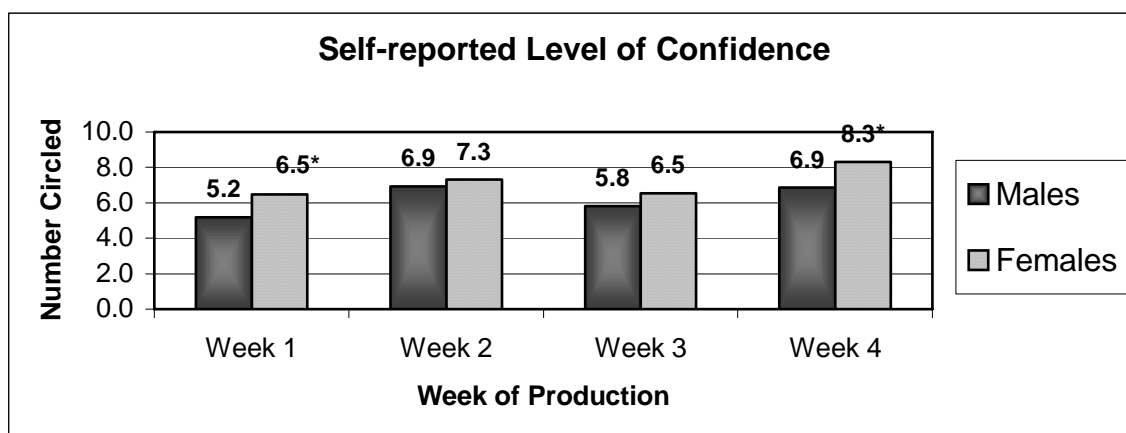
Week 2: Week 2 included a hands-on condom demonstration. Sixty-two students (25 males and 37 females) responded to the question, “*Suppose that tonight you and your partner have agreed to have sexual intercourse using a condom. How confident do you feel that YOU could easily and skillfully apply that condom?*” The overall mean level of confidence reported was 7.16. The difference between means by gender (see Figure 7) was not statistically significant, $F(1, 61) = 0.526, p > .05$, both males (6.92) and females (7.32) reported fairly high levels of confidence in regard to applying condoms. Age was not associated with reported level of confidence for this scenario $F(3, 64) = 1.303, p > .05$, although a consistent pattern of older youth reporting higher levels of confidence was noted.

Week 3: Seventy-two students (26 males and 46 females) responded to the question, “*Suppose that tonight you were told that you may have come in contact with a*

sexually transmitted infection like chlamydia, gonorrhea or HIV. How confident do you feel that you could go to a health clinic or your doctor and ask to be tested?" The overall mean level of confidence was 6.28. The mean difference by gender was not statistically significant $F(1, 71) = 1.075, p > .05$, both males (5.81) and females (6.54) reported similar levels of confidence in their ability to get tested for STIs (see Figure 7). In this week, age was associated with reported level of confidence, again with older youth consistently reporting higher levels of confidence, $F(3, 76) = 2.917, p < .05$.

Week 4: Sixty-five youth (23 males and 42 females) responded to the question, "Suppose that tonight you were asked to have sexual intercourse by someone you liked, or did not want to alienate. How confident do you feel that you could refuse to have sex if you didn't want to, or that you could insist on safer sex if you did want to have sex with them?" The overall mean was 7.80. The mean difference by gender was statistically significant, $F(1, 64) = 5.490, p < .05$ (see Figure 7). Females (8.31) reported greater confidence in their ability to refuse sex or insist on safer sex than did males (6.87). Age was not associated with reported level of confidence for this scenario, $F(3, 69) = 1.069, p > .05$. However, the previous pattern of older youth reporting higher levels of confidence appeared to reverse and for the most part, mean level of confidence decreased with each year of age.

Figure 7 Reported level of confidence by week by gender



* Denotes potentially significant effects

To summarize, potentially significant associations between gender and reported level of confidence were found for Week 1 (supporting an HIV-positive friend) and Week 4

(resisting sex or insisting on safer sex) (see Figure 7). Potentially significant associations were found between age and level of confidence for Week 1 (supporting an HIV-positive friend) and Week 3 (getting tested for STIs) and an interesting—if not statistically significant—reversal of the general pattern of older youth reporting higher levels of confidence was also noted in Week 4 (resisting sex or insisting on safer sex).

5.6 Actor/Peer-Educator Experiences

The final cast of ten actor/peer-educators including the scriptwriters (6 female, 4 male), ranging in age from 15 to 24 staged the play and led the question-and-answer sessions. Most were current students or recent grade 12 graduates, two of whom were in their first year of a university Theatre Arts program. Of this group, all of the youth provided first and last video interviews. In the beginning stages of their involvement with the project, potential actor/peer-educators were asked (on videotape), “*What do you hope to gain from your participation in the Full Circle Project?*”. Most stated that they did not have any expectations (often with the caveat that this was because they did not want to be disappointed), then went on to talk about how they hoped to learn more about HIV and STI prevention, how important they thought sex education was, and their desire to be part of a group that was actively communicating these messages in a way youth might find fun and interesting. Half asserted their wish to have fun, meet people, and develop their acting skills, and some mentioned their wish to improve their own interpersonal communications skills (as related to sexuality).

After the completion of the project, the youth who were still involved with the project were once again interviewed (on videotape). The purpose of this was to determine the impact of participating in a project such as this, as well as to gather information on perceived strengths and weaknesses of the program from the perspective of the actor/peer-educators. The results will be presented in the order in which the questions were asked.

The first question was, “*After thinking about what you said in the previous interview, do you think you met or exceeded your goals?*” All of the youth reported that they had met or exceeded their goals in regard to learning more, having fun, meeting people, and developing their acting skills. Below are excerpts from their responses:

Well, through my participation with the Full Circle Project, I probably learned... more [about], how to prevent HIV and sexual diseases that I wouldn't normally have learned through daily life... that was more of a benefit to me. Now I would be more prepared and willing to talk about it with others... (male, 17).

I definitely think I met them, I know a lot more now than I did about all the wonderful diseases you can contract sexually, yes, and I really think I matured as an actor during this... so I think that I definitely met my goals (female, 19).

I just wanted to have a good time and get paid, and so yeah, I definitely exceeded [my goals] 'cause I learned a lot (male, 21).

Yes, I think it did, a lot more. Actually, at first I was kind of nervous about going up on stage and writing. I wasn't too confident about my writing skills and everything just turned out really good. Actually it was a real confidence booster (male, 18).

The second question asked of the actor/peer-educators was, “*Did you learn anything you hadn't expected to learn?*” All of the responses indicated that the youth have learned something valuable from their participation.

They mentioned gaining knowledge about HIV/AIDS and other STIs.

I learned a lot about sexual health, AIDS prevention, sexually transmitted diseases. I learned a lot more that I thought I knew (female, 18).

They learned about the power of using a Theatre-in-Education format.

I didn't think people would be as interested as they really were. I remember watching plays when I went to high school, and them not being relevant to me, and not caring at all. But yeah, we had a lot of kids interested... I've seen a lot of these people outside of the actual play, and they still ask questions about stuff (male, 22).

I found that we had a really cool way of teaching kids, because coming back the four times... really helped a lot because the kids... got to warm up to us and not think that we were just some stupid sex ed thing. I definitely had a lot of fun with the project, and got to meet some cool people (female, 21).

I think that personally it would have been so much better for me when I was younger to have seen a play or something. You know, something I could have related to on a personal basis, rather than having my school nurse be like “yeah this is what a condom is and this is how it goes on, etc etc” and just like, boring facts one right after another. So I definitely think

I was surprised to see how the students took to it, and how much I think everyone in the play enjoyed doing it (female, 19).

I learned what I wanted to do with my life... I learned that... theatre and education is definitely something that I want to explore more... I'd love to go spend my whole life doing this (female, 19).

They learned about the power of peer education.

Well, I think I learned a lot, that students appreciate seeing things from youth rather than a 40-something-year-old teacher explaining like, sexual behaviour and sexuality to them (female, 19).

I think we did [reach] a few kids, which was what I kind of hoped, that we would get through to some of them and I think that we actually did (female, 21).

They learned about tolerance, compassion and being supportive.

What did I learn? Wow, I don't even know what I learned, I really learned a lot. I learned... that it would be easier than I think to deal with someone who had HIV. I never even thought about how I would react if a friend of mine ever said that to me, but after doing the play I realized that, you know, you could deal with it. I think I would have gotten freaked out beforehand, but now I think I would be able to take it rationally (female, 21).

Some also learned more personal lessons about teamwork and procrastination:

I learned that you can't procrastinate. We totally kind of procrastinated for a bit and by the end of it, we just kind of pulled everything together and I learned that procrastination is not a good thing. I also learned that when... you do all get together on a regular basis, and everybody puts the effort in then you come up with something really good out of it (male, 18).

The third question asked was, “How has working on this project changed you, if at all?” Most of the responses indicated that the youth had changed in some way. Some mentioned how the experience had given them insight into the experiences of other people through the characters they played or their characters’ interactions with others which promoted more tolerant attitudes towards homosexuals and HIV-positive persons.

Well, I think after doing this project, I am more accepting of others as what they are... regardless of their sexual orientation... because I played a gay guy, and I guess that has more of an impact on me, because before... if someone told me they were gay I would be like repelling kind of, but

now like after I played my part I would be more accepting because I would know how they feel now, of how, what they go through in life and stuff. And also... if others had problems I wouldn't... just shut them up and like, not have them talk about it. I would actually be willing to talk to them about their problems and maybe try my best to help solve [those problems] (male, 17).

I've always been sort of aware and safe and all that kind of stuff, but I think it has [changed me] sort of, because the character that I played was really just open about things and really just, yeah she was able to say certain things and was able to tell her boyfriends... the rules and all that kind of stuff, so I think it definitely changed me in that way, just a little... I think I am more open and able to express more things (female, 18).

They noted positive changes in their comfort in speaking about HIV/AIDS, STIs and other sexuality related issues.

I'm a lot more comfortable talking about sex with people I don't know, for sure... I think also I look at people who possibly have sexually transmitted diseases... a little differently. Looking into my character you know it's not all that easy, you know, not all that simple [to avoid STIs] (female, 19).

They reported feeling more confident in general as well as in their abilities to support an HIV positive friend.

It made me more confident and it made me realize that I was able to go out and do things like this (male, 18).

How has it changed me if at all? Well, like the answer to the last question, I feel like I could deal with that situation [having an HIV positive friend] a bit better (female, 21).

There were reports of an increased or renewed respect for peer education.

When I came into this project, I was just kind of like, 'Oh dude, these kids are going to hate us', and I totally thought they were just going to hate us and it was going to be this horrible experience. But then afterwards I realized that because of the way we were doing this, because we were giving them some entertainment along with the education, and because we came back in four instalments, they really got to warm up to us... and because we did four instalments, they were able to really soak it all in, so I think that has totally changed my opinion on being a peer educator and working on teaching (female, 21).

How has working on this project changed me? Not much to be quite honest. I've always felt confident on the stage, I always felt confident as a

peer counsellor, peer educator. I did that when I was in high school, so that hasn't changed me. It was fun to reinforce that and get back into that role (male, 21).

They also recognized how their own sexual education had been lacking:

I think I'm a little more conscious of how young adults perceive information now, and how we learn things, because when I was in grade 8, 9 & 10 we just had these really boring and really dull presentations come in, and how my friends and I had to learn everything through experience, and just how, if I had something like this happen to me when I was in grade 8 & 9, I think that I may have made some different decisions with my life (female, 19).

The last question posed was “*Do you have any other comments or suggestions?*”

The youth offered a number of useful suggestions based on their experiences with the audiences. The two most common concerns were that the youngest audience members were too young to fully appreciate the play and that staying in character for the question-and-answer sessions was not conducive to engaging the audiences in meaningful discussion.

It's good to hit the kids early... but... move it up to like, maybe Grade 9 (female, 21).

I felt the kids were a little young... I don't think staying in character for the talkbacks was a good idea... Instead of asking questions... they were trying to make us break character. It became a contest. So if I was able to do away with that and just talk to them from myself and from my heart, it would have been a lot better... if I had a chance to speak from my own experiences it would have been a lot more valuable (male, 21).

I definitely wouldn't have had us in character in the talkbacks ... for example [one of the actor/educators] had a lot of really brilliant things he could have taught those kids, but because he was in character, he had to leave it up to someone else, because the things he wanted to say, and could have said, wouldn't have suited the character, so he had to either drop out of character or prompt somebody else to say what he wanted to say (female, 21).

It was also suggested that the size of some groups in the question-and-answer sessions were too large.

I think having smaller groups in the talkback session... would have helped, because when there was a huge, huge group, there were only a few people who wanted to talk, if anybody at all (female, 21).

The actor/peer-educators also suggested that the program should be expanded, that other programs using a similar format would be of great benefit to youth, and that they very much enjoyed the experience.

I think it was a great project, and I just think that it should be done to more schools, more students should be seeing it, and it's just generally a good thing for youth to do with each other (female, 19).

I would just like to tell people to do more of this kind of thing... because it's easier and has a bigger impact than... if someone... came up to me and sat in front of me for an hour and lectured me on STI's... I wouldn't pay attention. I would be like, drifting off somewhere. But [with]... a drama, [youth]... pay attention because it's... interesting... they would pay attention, and the information would actually sink in... they would think about it, and have reflections on it (male, 17).

Yeah, just to keep on working on stuff like this... I didn't think it would go over as well as it did, but so many people took a lot of really good information from it, and it helped a lot of kids that, you know, never would have gotten this, or would have got this from some other source that wouldn't have been as interesting or exciting. But as I said, I've seen a lot of people come through and say "we really miss you guys we want you to come back and do more stuff". So yeah, just keep working on the general idea, keep it up and running (male, 22).

I hope it goes further than this... because I think it's something valuable that I think all the youth in [the city] should see (female, 19).

I don't know, I really wouldn't have changed anything. It actually turned out to be a lot better than I thought it would be (male, 18).

Yeah, I really liked how this project went a step further than the usual STD/STI awareness projects that students get in school... I like the way that the project approached it, where it mixed the seriousness with the humour so the students really got it (female, 18).

Josephine you rock! (female, 19).

To summarize, not unlike the target audiences, the actor/peer-educators mentioned that they had gained knowledge, honed their behavioural and communication skills, and were more motivated to avoid stigmatizing people with HIV/AIDS, to use condoms, and to access sexual health care. Further to this, many of them mentioned an increased level of communication about sexual health issues both amongst themselves and within their various circles of friends. Importantly, they also mentioned appreciating the fact that they had been challenged to think about things they'd never thought about before, and how the experience had helped them become more accepting and tolerant of others as well as more open and expressive.

All in all, the actor/peer-educators reported that their participation in the program had enhanced their already considerable knowledge, skills and motivation, with the added benefit of helping some of them clarify their career goals. Moreover, I would be remiss in not mentioning that I too, felt I had gained valuable knowledge, developed better communications skills, and ended up with a better understanding of the complexity of the issues faced by youth today in regards to developing a healthy and responsible sexuality (my friends and family learned a few things too!).

Chapter 6: Discussion and Conclusions

This research was conducted in response to the overwhelming need for effective, comprehensive sexual health education, the urgency of which has been underscored by the ever-expanding HIV/AIDS epidemic (Public Health Agency of Canada, 2003; Pan American Health Organization, 2001; Office of the Surgeon General, 2001). The design of the intervention was based on the principles of developmental theory which suggests that age-appropriate, early intervention is the best, and given the increase in HIV infections among youth (particularly female youth) early intervention is not only best, it is essential. The program was also developed on the evidence-based premise that sex-positive sexual health education is more effective than educational programs which focus exclusively on the potential negative aspects of sexual activities (Health Canada, 2003; Pan American Health Organization, 2001).

In addition, the program was informed by both individual- and social-level theories and models of behaviour change. These included the Information-Motivation-Behavioural Skills Model (Fisher & Fisher, 2000), the Transtheoretical Model (Prochaska & Velicer, 1997), peer leadership models, diffusion of innovation (Dearing, Meyer & Rogers, 1994), as well as education-entertainment, with a particular focus on theatre-in-education. The main goal was to develop an engaging, age-appropriate sexual health education program that demonstrated a strong potential to transfer knowledge and behavioural skills, and to perhaps motivate youth to behave in a more sexually responsible manner and access sexual health services as necessary. This researcher clearly had an agenda.

The ability of a researcher to maintain empathic neutrality—that is remain non-judgmental when compiling and reporting qualitative research findings—is particularly important with case study research. There is often a large personal investment of time, energy and sometimes ego, as well as the potential to either consciously or unconsciously ignore contradictory evidence. These concerns may be compounded when the research has a rhetorical nature, in that its goals are divided between social scientific inquiry and social advocacy. Clearly, this research was motivated by the identification of a serious public health threat affecting youth which led to questions about the best approach for educating youth about how to avoid that threat. After an interdisciplinary review of

relevant theory and best practices, the researcher proposed a synthesis of a number of theories and practices from a number of disciplines and perhaps has a vested interest. Further, the research was carried out with the precise goal of justifying that theoretical synthesis and demonstrating the potential of the approach, in the hope that the powers-that-be could be persuaded to consider it for wider-scale implementation.

In light of what appears to be very convincing evidence that the theatre-in-education format can engage and promote dialogue among a range of youth audiences, increase self-confidence and knowledge, strengthen behavioural intention and skills, and perhaps even motivate youth to be more sexually responsible, the importance of reducing bias and suspending judgment is even further underscored. With this understanding, it was decided that empathic neutrality might best be achieved by not only discussing the results in relation to the research questions but also in conjunction with the various theoretical underpinnings that were presented in the literature review. This strategy will also help identify relevant questions and measures for future research. An overview and brief discussion of the findings in relation to the research questions is provided first, followed by a more in-depth discussion of the findings in theoretical context. Limitations of the research, implications and recommendations for future research are presented at the end of the chapter.

6.1 Overview of the Findings in Relation to the Research Questions

6.11 Was the program engaging?

The first goal of the research was to evaluate the degree to which the question-and-answer portion of the program appeared to engage the student audiences and hold their interest. The audiences were not formally observed while the play was being staged, however it was noted that all audiences were very quiet and focused, and several teachers mentioned that their classes were more attentive during the drama presentations and more interactive during the question-and-answer sessions than at most times. These comments give further context to the behavioural observations of engagement and frequency of interaction.

While there was a slight decline in interest over the duration of the question-and-answer sessions (see Figure 2) this was not statistically significant and overall,

engagement was relatively high and constant for the duration of the sessions, indicating that for the most part the 20-minute sessions were neither too long, nor too short. However, a more directive approach (i.e. clarification of specific learning objectives prior to discussions) or the inclusion of other activities such as role-play among audience members may prove beneficial, as could more comprehensive training for the actor/peer-educators and a review of the utility of staying in character.

With reference to the specific weekly topics, the somewhat higher levels of engagement observed in most cases during the condom demonstrations suggest that providing experiential educational activities to go along with each topic might be beneficial for increasing engagement levels. As well, the very high level of engagement which was observed (informally) in all cases during the last session when *Theatre of the Oppressed* was used to demonstrate alternative responses to interpersonal conflict further supports the notion that providing novel experiences can increase engagement. Arguably, the novelty of the experiences would also be likely to increase the chances of participants further discussing the experiences among themselves, and would perhaps increase the chances of them sharing the experiences with friends and family who were not involved, thus increasing diffusion.

Engagement did vary by topic but only in some cases, and in one case the variance in engagement may have been more reflective of the general process of becoming engaged, than of interest in particular topics. Specifically, in Case 4, the level of engagement and frequency of interactions with the actor/peer-educators appeared to increase with each repeat visit. In some cases it also appeared that the quality and relevance of the interactions also improved over time. This was particularly true in Cases 1 & 2, which both came from the smallest of the three schools and which did not include grade-eight students.

While it might have been expected that the patterns of engagement in the other two cases (from larger schools and including only grade-eights) would also parallel one another, they did not. Case 3 appeared to lose a degree of interest after two sessions, while Case 4 showed increasing interest over time. However, it may also be reasonable to further examine the apparent increase in interest in the latter case. In this case, about half of the students involved were enrolled in a class taught by a prominent member of

the production team. It is very possible that there was a much higher level of self-consciousness in this case, as some participants may have been overly concerned about what their teacher might think. It is also possible that some of the differences in frequency of interaction found with Case 4 can be attributed to the environmental organization of the school and the prescribed format for interacting during classroom discussions. For example, this group appeared somewhat better behaved than its counterpart and thus, may have been better conditioned to raise their hands before asking questions and/or may have found the more relaxed atmosphere of the question-and-answer sessions a bit disconcerting to begin with.

On the other hand, if the factors affecting engagement and interaction in that case *were* self-consciousness and concerns about the judgment of authority figures, the principle did not seem to operate in quite the same way in Case 3. In that case, while the teachers were not directly involved in the creation of the program, both seated themselves directly behind the research group which allowed them to eavesdrop on the interactions, as well as interject comments. These arrangements did not appear to stifle interaction with the actor/peer-educators, however field notes indicated that interactions were often off topic. This suggests the possibility that to a certain degree, the watchful eyes of the teachers may have been a factor in what has been interpreted as avoidance of the subject matter.

In summary, the patterns of engagement were not the same for all cases, nor for all topics, but all in all the results suggest that this format is in fact, a reasonable means of engaging youth audiences and encouraging discussions about important sexual health issues. Nevertheless, it should be anticipated that patterns of engagement in the case of younger audiences may be less predictable, and the proximity of teachers to the discussion groups needs to be taken into consideration as a confounding variable, possibly affecting levels of engagement and both the quantity and quality of interactions with the actor/peer-educators. Further discussion of these findings in theoretical context is provided in Section 6.2 below.

6.12 Did it Increase Confidence and Relate to Real Life?

The second goal of the research was to assess the level of confidence survey respondents had in their ability to apply various prevention strategies and whether or not they reported increased confidence in those abilities. The mean ratings of self-confidence were not the same in all cases, nor for all topics, but in all cases the majority of individuals (58% to 86%) rated themselves on the higher end of the scale (between 6 and 10). But contrary to what might have been expected given the apparent association between lower engagement and younger age, in the case-comparisons it was not Cases 3 and 4 that most often rated themselves on the lower end of the scale (5 and under), but Case 1 (36%) and Case 4 (42%).

In all cases except Case 2 (which rated their confidence in accessing sexual health care the highest, but otherwise followed the same general pattern as the other cases), the highest ratings of self-confidence were reported in Week 4 with reference to resisting unsafe sexual encounters and/or insisting on safer sexual activity, followed by Week 2 with reference to skilful condom use. A cynic—being aware that these youth have been repeatedly targeted by a hodge-podge of (often fear-based) prevention programs that frequently have only these specific messages in common—might conclude that these youth have learned to talk the talk at least for the benefit of evaluations, but be left wondering (and rightly so given the continued increase of STIs among adolescent populations) if they *really* walk the walk.

In the case-comparisons of self-confidence ratings in relation to the weekly topics, age again seemed to have some association with the responses. In both of the two older cases (1 and 2), the lowest confidence ratings were recorded with reference to supporting an HIV-positive friend. This relative lack of confidence may reflect the enormity of HIV stigma and/or illustrate how ill-prepared youth are when it comes to dealing with difficult and potentially stigmatizing interpersonal relationships. Conversely, it is also possible that the ratings were lower simply because it was the first time the participants had engaged in the self-reflection necessary for answering the survey questions.

However, the explanation that the lower ratings in the first week were a function of naivety appears to be contradicted by the other two cases (3 and 4). In these two cases, the lowest ratings of self-confidence were made in the third week with regard to

accessing sexual health care. With respect to age, the lower ratings should come as no surprise considering that the individuals in these cases were younger, and many indicated in their written comments that they were not yet sexually active. Thus, it is likely that they would not have had prior experience in this domain, nor were they likely to have spent much time thinking about it, let alone mentally rehearsing for such an event.

It seems most likely that the two sets of cases reported the least confidence in two different domains because different skills are required to develop a sense of mastery in each domain. Aside from the relatively obvious relationship between maturity and depth of interpersonal relationships, research has shown that having a close interpersonal relationship with one or more HIV-positive individuals can serve as a protective factor, as well as help reduce stigmatization by personalizing the disease (Gorna 1996; Rofes, 1998). Interestingly, the majority of those reporting that they had friends or knew people with HIV/AIDS were also found in Cases 1 and 2, which rated their confidence lowest in this respect. These results appear contradictory to what might be expected, however it seems probable that the reports from youth who have had firsthand experience would reflect, at least to some degree, the real world challenges associated with HIV stigma. Their relative lack of confidence may stem from stigma, prejudice, and/or discrimination that they have witnessed, or in fact experienced themselves based on their association with a person who is HIV-positive. This again underscores the magnitude of the obstacle which stigmatization presents for HIV prevention, care and treatment, and the importance of developing interpersonal skills and shifting social attitudes.

With reference to accessing sexual health care (at least among those who have not received ongoing, comprehensive sexuality education) mastery in this domain may be more a function of age in that sexual experience, and thus the need for sexual health care, is age related. Although again, the importance of accessing sexual health care cannot be overstated. Developing these skills prior to needing them would—at the very least—save many young women from experiencing their first encounter with a sexual health care provider as an urgent and anxious affair premised on the singular objective of obtaining emergency contraception (i.e., the morning-after pill).

With regard to confidence in resisting sex or insisting on safer sex (Week 4), the two older cases reported the least confidence and the younger cases reported the most.

Previous research suggests that youth tend to over-estimate the effectiveness of their safer-sex negotiation skills (Williams et al., 1998) however, these results suggest that this tendency to over-estimate skills may not operate across the board. The tendency of the younger cases to report higher confidence suggests that the over-estimation effect may be age or experience dependent.

All in all, the cases reported that participation in the program had increased their self-confidence in a number of domains important to HIV prevention. When comparing the cases based on age characteristics, reports of reduced confidence were most likely to be found in the cases comprised of younger students and particularly in the first week—where 70% of the reports of reduced confidence were found (16 of the 23). Most of the reports of decreased confidence were also found in the two younger cases (Case 4 in particular), and while this was not their lowest rating on self-confidence, it again suggests that HIV stigma is a very difficult obstacle.

Some might consider this small potential for reducing confidence in youth as a negative outcome and perhaps see this a good reason to reject the educational proposal. However, it may be better to consider changes in this direction as a positive indicator, in that the youth who reported feeling less confident may have been encouraged to conduct a *reality check* in response to witnessing the difficulties encountered by the characters in the play, which would be a positive outcome. Further discussion of these findings in theoretical context is provided in Section 6.2 below.

The content analysis of the data collected to determine if the play reflected the real lives of the youth audiences suggests that many youth were able to relate and/or apply the educational experience to their lives in a meaningful way, as was hoped. Although interestingly, while only 60% said it was relevant, over 80% reported increased confidence. The ability to identify with the characters and situations has been shown to support the integration of knowledge, skills, and behavioural motivation that can act as protective factors against negative sexual outcomes, including HIV (Singhal & Rogers, 2003).

Thus, it can be assumed that the process of relating the experiences they witnessed to their real lives would increase the chances that they would retain and use the information they gained, either in the context of current or future relationships. Sixty

percent of the youth indicated that what they witnessed on stage had some relation to their real lives which indicates that the play which was co-created by the actor/peer-educators was a relatively accurate portrayal of the real lives of contemporary youth in the area. The youth who elaborated on exactly which parts of their lives had been/were/would be affected, and how this related to lived experience described the most important themes in HIV prevention: knowledge, skills, behavioural motivation, and accessing sexual and reproductive health services. This is indicative of the potential of this type of sexual health education format and speaks to the power of using youth culture and language to promote responsible sexual behaviour amongst youth populations.

6.13 Supplemental Analyses of Age and Gender

Determining which factors are associated with increased confidence in different domains and circumstances would allow for more specific tailoring of programs for the target audiences. While this research was not of the type able to predict the effects of age, gender, socio-economic status, academic achievement, or ethnicity, nonetheless age did appear to be an important factor, especially in the context of some topics and the supplementary analyses by gender suggest that it is also an important factor for consideration.

In Weeks 1 and 3, which focussed on supporting an HIV-positive friend and accessing sexual health care respectively, there seemed to be some links between self-reported confidence and age. Perhaps not surprisingly, Cases 3 and 4 (grade-eights only) reported the lowest levels of confidence in comparison to the other two cases. However, what was most intriguing about these results was the pattern of responses over the first three weeks compared to the pattern evident in the fourth week (see Table 5).

In the first three weeks, the response patterns all had the same characteristics: Younger participants reported lower confidence in their ability to support an HIV-positive friend, to skilfully apply a condom, and to access sexual health care. However, in Week 4, when it came to the question of resisting sex or insisting on safer sex, the previous pattern was reversed: the cases with the older participants reported lower levels of confidence in their ability to resist sex or insist on safer sex than did the cases with younger participants. This result is certainly noteworthy.

Older adolescents are more likely to be sexually active or to become sexually active in the near(er) future than are younger adolescents (Boyce, Doherty, Fortin & MacKinnon, 2003; Fortenberry, 2001; Fisher & Boroditsky, 2000). The lower levels of confidence that were reported by the older participants in regards to their own ability to resist sex or insist on safer sex may reflect their actual experiences. Older youth may be faced with the reality of a current or potential sexual relationship and may have experienced first-hand how difficult it can be to apply previously learned knowledge and skills in a heated moment of passion. The younger participants are more likely to be conjecturing about imagined experiences and hence, may not have a true understanding of how difficult sexual negotiations can be.

It may also be that the younger audience members are at a developmental stage where they are less interested in experimentation with sexual intercourse, hence more able to resist sexual propositions because their desire is less driven by hormones and they are under less social pressure to act grown up. It is also possible that the older youth are wanting to experiment sexually, so they are resisting not only someone else's desire, but also their own. Youth in both age groups will benefit from programs which stress the importance of developing the interpersonal skills necessary to negotiate safer sexual behaviours and which clearly address the many difficulties that can be encountered along the way to developing meaningful intimate relationships.

Gender was also found to be a potential predictor of participants' confidence in their ability to apply prevention strategies because differences between the genders were found with respect to ratings for some topics, particularly for supporting an HIV-positive friend (Week 1) and in their ability to resist sex or insist on safer sex (Week 4). In comparison to the females, the male respondents reported lower confidence in Weeks 1 and 4, and while changes in confidence were predominately in the desired direction, of those who reported feeling less confident about their abilities, it was the males who were most likely to report feeling less confident after participation.

While confidence in one's own ability to support an HIV-positive person was relatively low in general, males reported lower levels of confidence in this regard in comparison to the females. Because it is commonly reported that females tend to place greater emphasis on emotionally supportive interpersonal relationships than do males, it

may be understandable that males reported lower confidence in this domain. However, research has shown that having a close interpersonal relationship with one or more HIV-positive individuals is associated with behavioural change which reduces the risk of infection (e.g., abstinence, fewer partners, and consistent condom use) (Gorna 1996; Rofes, 1998). Thus, it is possible that an educational emphasis on developing interpersonal skills, coupled with the development of parasocial relationships with the HIV-positive characters may help increase confidence in this domain, seemingly of particular importance for young males.

It is also possible that the male responses to this question tapped into the ever-present homophobia that plagues males in western society. The play "*Balderdash*" dealt extensively with some of the possible negative sexual health consequences of capitulating to peer pressure based on homophobia. Research has shown that addressing the underlying homophobia associated with HIV/AIDS has a great potential to motivate positive behaviour change among heterosexual populations (Rofes, 1998; Patton, 1993). By illustrating some of the negative social and sexual health consequences associated with homophobia and by highlighting the humanity of sexual minorities, there is the potential for interventions such as this one to shift homophobic attitudes which exclude sexual minorities and act as barriers to sexual health. This potential was demonstrated in this research by the repeated references to increased tolerance and respect.

Both genders reported similar levels of confidence in their ability to skilfully apply a condom (in Week 2) which seemed somewhat illogical, especially considering the high degree of sexual inexperience that was revealed in the content analyses of comments on the program. It could be supposed that males (being the owners of penises) would feel much more confident in their ability to skilfully apply a condom than would females, given their lack of opportunity to practice applying condoms on the genuine article. Thus, the level of confidence reported by the females seems impressive. While we may wonder if the females' responses to this question are exaggerated, or whether they are based on real experiences or conjecture, both social cognitive theory and the transtheoretical model suggest that this sense of self-efficacy would at least imply that female youth will attempt to adopt safer behaviours based on their beliefs that they are capable of enacting such behaviours (Bandura, 1994).

Further to this, given that young women often have less power and control in the context of intimate sexual relationships and also carry the greatest burden of negative sexual outcomes (Wingood, 1995; Bandura, 1994), their self-proclaimed confidence in their abilities to skilfully apply condoms may help encourage their male partners to be more accepting of condom use. Research has shown that theory-based interventions for women which provide “skills training in condom use and sexual communication, and emphasize social support for behavior change” (Wingood & DiClemente, 1996:231) are the most effective. Nevertheless, few prevention efforts focus on females as the main agents in condom use; however, they may be a hidden and powerful resource. Educational programs should encourage females to develop the skills necessary to ensure that condoms are used both correctly and consistently (Crosby, Sanders, Yarber, & Graham, 2004).

Confidence around accessing sexual health care was generally low with no apparent gender difference, although males did report slightly lower levels of confidence in this regard. This suggests that all youth could benefit from education focussed on improving skills in this domain, which is strongly linked with the maintenance of sexual health over the lifespan and overall population health.

The gender differences found in self-reported confidence in one's ability to resist sex or insist on safer sex may well be an artifact of the so-called sexual double-standard, where male sexual promiscuity is expected, but female promiscuity is not acceptable. In many cultures, as in this one, young girls are socialized to maintain their virtue and may therefore have developed greater resistance skills to protect their reputations. Additionally, the risk of pregnancy, the burden of which is disproportionately shouldered by women, acts as an additional motivator for many female youth to practice (or at least intend to practice) safer sex and to develop the skills necessary for resisting sexual advances. Moreover, young men are socialized to equate sexual experimentation and impulsiveness and a voracious sexual appetite with manliness and thus are likely to be far less motivated to develop the skills needed to resist sex or insist on safer sex (especially in a culture such as ours where they are often not held responsible in the long-term for negative sexual outcomes such as pregnancy).

Given that the male youth reported that it might be more difficult for them to resist sex or insist on safer sex, educational programs must find ways to engage males, stress the importance of responsible sexual behaviour for both genders and challenge sexual double-standards. In this way, male youth can be given the opportunity to demonstrate the autonomy, interpersonal adequacy and social responsibility which denotes psychosocial maturity without putting their own health, or the health of their sexual partners in jeopardy.

In regards to this question, it is also possible that the young women were simply more forthcoming about their ability to resist sex or insist on safer sex. Young men, when asked, “Do you feel that you could refuse to have sex...?”, may be answering the question, “*Would* you refuse to have sex?” Again, the sexual double-standard implies that young women should be proud to respond in the negative, while young men who respond in this manner can expect to have their sexual identity/orientation called into question. Men who refuse opportunities for sex with women (safe or not) are often regarded as less than manly, and the ubiquitous homophobics of the western world threaten to label them as gay if they do not exhibit the appropriate (and oftentimes excessive) interest in heterosexual relationships and sexual intercourse. While the risks of being labelled homosexual, as well as the risks of capitulating to peer-pressure to prove otherwise were clearly illustrated in the play, the results suggest that it may be more difficult for young men to admit (or even allow it to appear) that they would resist engaging in sexual activity if given the opportunity. This underscores the importance of shifting social norms to support safer behaviours for *both* genders.

6.14 Did It Have a Positive Effect on the Actor/Peer-Educators?

The third goal of the intervention was to evaluate the experiences of the actor/peer-educators because published evaluations of peer education projects have mainly focussed on the effects of the program on audiences (Kirby, *personal communication*, July 2002). Little attention has been given to the impact that extended involvement in these projects has upon the peer-educators, especially in the realm of peer-led sexuality education programs. However, it is not that this data does not exist, but much of it has fallen victim to what Douglas Kirby terms *file cabinet drawer syndrome*,

where the data languishes at the back of the researcher's file cabinet, seldom subject to thorough analysis and rarely making it into print. Largely, these studies are not published because the effects of a program on a few youth are not deemed as important as its effects on larger numbers of youth (Kirby, *personal communication*, July 2002). However, peer-educators do report important changes in knowledge, behavioural skills, and/or motivation and it is quite conceivable that extended involvement in a sexual health project would have a greater and longer-term impact on peer-educators than it would on audience members.

As expected, the video interviews with the actor/peer-educators indicated that overall their participation had been a positive experience. Many talked at length about how involvement in the project had left them with a more solid knowledge-base and led them to communicate about sexuality, HIV and STI prevention more often, with greater confidence, and with a wider variety of people than they had in the past. They also spoke of how it helped them develop greater tolerance and compassion for those infected with HIV. They also mentioned numerous other personal and social benefits. Essentially, they relayed how their experiences went beyond the classroom (or stage, as the case may be).

Interestingly, the interviews revealed a recurring and important theme. The actor/peer-educators had started the project feeling like they were very well informed about HIV/STI prevention and finished the project with the realization that they had not known quite as much as they had previously thought. This is important because these youth had all scored very high on the HIV knowledge tests which were completed at the start of the project. Their post-project comments demonstrate that even older youth with relatively high levels of knowledge can make positive gains. With regard to other personal and social benefits, the actor/peer-educators mentioned a number of positive effects. For instance, they mentioned that they had fun, they met new people, they had the opportunity develop their acting and peer-counselling skills, but perhaps most importantly many stated that they had developed greater tolerance for sexual minorities and a greater compassion for those infected with HIV.

The interviews with the actor/peer-educators confirmed that these youth benefited greatly from their involvement. It also appears that participation in the program had a stronger effect on these individuals, which should come as no great surprise given their

role as educators as well as their extended involvement with the project. However, this is particularly important in relation to the statements about having developed greater tolerance and compassion for sexual minorities and HIV-positive individuals because social stigma continues to be one of the greatest impediments to prevention, care and treatment efforts. As well, if we are to take the target audiences' ratings of self-confidence at face value, very few of the youth participating in this study felt well prepared for supporting an HIV-positive person, and thus dealing with HIV stigma. This suggests that providing more youth with the opportunity to participate as actor/peer-educators could go a long way towards reducing the stigma, prejudice, discrimination, and ostracism that many sexual minorities and HIV-positive individuals face in their daily lives. Further discussion of these findings in theoretical context is provided in Section 6.2 below.

To summarize the findings in relation to the research questions, overall the results indicate that a theatre-based, peer education format using youth culture as the framework for promoting sexual health and responsible sexual behaviours appears to have great potential. The two behavioural observations measuring engagement suggest that the large majority of youth audiences found the format of the program very appealing. The measures of confidence gathered from the survey respondents indicated that youth audiences gained confidence in their ability to deal with the sexuality-related issues presented. In addition, the qualitative data suggests that many of the youth felt that the play reflected lived experience and their comments also support the thesis that the program can effectively increase knowledge, motivation, and the behavioural skills necessary for maintaining sexual health. Moreover, the interviews with the actor/peer-educators indicate that it is not just the audience members who benefit from participation in peer-led programs and that extended involvement in this capacity has the potential to multiply the desired effects and provide many other personal and social benefits.

6.2 The Findings in Theoretical Context

While the findings in relation to the original research questions provide convincing preliminary evidence of the efficacy of this format for sexuality education, numerous underlying questions remain. In this section the results are reviewed in

theoretical context to help identify links, as well as questions and measures that would be relevant to further evaluative research.

The literature review began with an overview of the developmental perspective on learning and its relation to decision-making and offered an outline of issues that are particularly relevant to risk-taking during adolescent development. The fundamental argument was that the provision of early sexuality education has a positive effect on the development of sexually responsible behaviours and supports the development of psychosocial maturity, and that this in turn has a positive effect on public health outcomes because it provides many of the behavioural and interpersonal skills needed to safely negotiate future sexual relationships.

The next sections of the literature review focused on the characteristics of effective HIV prevention programs and the utility of sex-positive education. While this project attempted to integrate all of the program characteristics that have been associated with success, in the context of this research and discussion several of the features are particularly salient. Specifically, attending to social pressures, using interactive teaching methods, including and training peer leaders, and providing age-appropriate, sex-positive education programming of an adequate length.

Next, a number of individual- and social-level models of behaviour change were introduced and the over-arching ideals upon which this program was designed were outlined. In the context of this research, of chief interest at the individual-level are the Information-Motivation-Behavioural Skills and Transtheoretical models; and the diffusion of innovation and leadership-focussed models are of central interest at the social-level. Findings will be discussed with reference to these theoretical underpinnings and in the context of peer education, education-entertainment and theatre-in-education. A discussion of the limitations and implications of this research and recommendations for further research including relevant questions and measures follows.

While this research can in no way be construed as a measure of health or behavioural outcomes, it does appear to indicate that many youth, including those who are not yet sexually active, are eager to talk about sexuality and even those who are reluctant to talk can be drawn into discussions over time. Under all circumstances, the vast majority of individuals in all cases reported increased confidence in relevant skills

after watching the play and participating in the discussions. Although, as might be expected from a developmental perspective, the majority of those who reported feeling less confident after the intervention were younger and had rated their initial level of confidence lower.

The content analyses of the comments on how well the play reflected lived experience revealed that a great number of the responses coded as *qualified negatives* included references to sexual inexperience. Aside from a very few comments indicating an increased interest in sexual experimentation, the majority of comments in this regard indicated that the educational program had consolidated intentions to delay the initiation of intercourse and/or strengthened intentions to use condoms. Whereas behavioural intentions are not always predictive of actual behaviour, strong intentions *are* associated with an increased probability of the behaviour occurring, especially when found in conjunction with well-developed skill-sets. Consequently, those intending to delay sexual initiation will be more successful if they have the necessary interpersonal communications skills and those intending to use condoms will also be more successful if they have the requisite negotiation and condom-use skills. In this regard, respondents described having gained knowledge, behavioural and interpersonal-communications skills, as well as increased motivation to reduce high-risk sexual behaviours as a result of their participation in the intervention. These findings suggesting that this format is compatible with the information-motivation-behavioural skills model.

Youth who have not developed the interpersonal and behavioural skills necessary for negotiating safer sexual experimentation may be at a great disadvantage because in a developmental context, risk-taking—including sexual risk-taking—may be used as a means of exerting personal control and expressing autonomy. In Western society at least, many youth have come to equate sexual initiation as a sign marking their successful passage into adulthood. However, passing this signpost of maturity without the requisite knowledge, skills and motivation for responsible decision-making makes it difficult for youth to develop a healthy sexuality and to avoid negative sexual outcomes. Accordingly, the provision of early, comprehensive sexual health education that promotes autonomy, interpersonal adequacy and social responsibility will assist youth in developing the psychosocial maturity necessary for social integration. This will allow them to become

healthy, productive members of society, while at the same time enabling them to experience the many positive aspects of human sexuality and avoid negative sexual outcomes. Moreover, as was found with the actor/peer-educators, the intervention appeared to assist the audiences in developing a better understanding, respect, tolerance and compassion for other people, particularly for sexual minorities and those infected with HIV, arguably marking a movement towards greater psychosocial maturity.

Thus, continuing to target younger groups who can—as this data indicates—be drawn into discussions about sexual health over time may be a better approach than waiting until later stages when sexual behaviours may have to be changed rather than shaped. Furthermore, it appears that early education has the potential to significantly impact HIV-related stigma, prejudice and discrimination, as well as that based on sexual orientation, by fostering tolerance and compassion.

With regard to the importance of addressing social pressures, the evidence from the content analyses of the comments from the survey respondents suggests that the play clearly reflected many of the social pressures faced by these youth. While at times the reality portrayed on stage may have been disconcerting to some outside observers, many participants remarked that the peer pressure and bullying incidents portrayed on stage were all too common and being played out in the classrooms and hallways of local schools on a day-to-day basis.

In addition, responses to the question-and-answer sessions highlighted how interactive teaching methods incorporating peer-education can stimulate engagement and interaction, even among those cases showing initial reluctance. This finding was also corroborated by teachers who indicated that their classes were more responsive and interactive than in normal classroom situations and by the actor/peer-educators who noted that in many cases the participants' degree of engagement and frequency of interaction were beyond expectations. The relatively high levels of engagement and interaction in most cases suggest that the program was age-appropriate, and the increase in engagement and interaction over time that was observed in one case suggests that the four one-hour visits would likely be a minimally adequate length.

However, the different patterns of engagement that were observed in the different cases are notable (see Figure 5). The relatively high levels of engagement shown in Cases

1 and 2 during all of the question-and answer sessions suggest that the majority of youth in these groups were ready and willing to enter into discussions about sexual health when given a non-threatening opportunity to do so. While Case 1 was the more engaged of these two, this may have been a function of the fact that this group was partially comprised of drama students who may have exhibited such a high degree of attentiveness for dual reasons. However, the research assistants as well as the actor/peer-educators noted that interactions in this case were no more focussed on the creative or technical aspects of the play than discussions with the others.

The drop in engagement observed in Case 3 during the third question-and-answer session may suggest that while this group was interested in discussing some aspects of sexuality, the realities associated with accessing sexual health care may be somewhat intimidating to this group because as suggested earlier they were younger and likely lacked personal experience in this domain. However, the importance of developing the capacity to discuss sexual health issues with healthcare providers cannot be overstated, and introducing this topic before the need becomes reality can set the stage (so to speak) for mastering skills which *will* be needed in the future. Further to this, the steady increase in engagement found in Case 4 suggests that this format, coupled with repeat visits, is a powerful means of drawing more reluctant audiences into discussions about sexuality.

A number of the actor/peer-educators indicated that they felt the groups comprised of only grade-eight students (Cases 3 and 4) seemed less willing to engage in meaningful dialogue during the question-and-answer sessions. At first glance, these different patterns of engagement that appear to be linked to age may suggest that targeting slightly older youth with this type of intervention may be the most fruitful (i.e., Grade 9 and above). However, according to the Transtheoretical Model of behaviour change, one of the most important undertakings is to engage *pre-contemplators* and *contemplators* in dialogues which encourage them to think about personal risk.

In the context of HIV prevention and sexual health education, pre-contemplators and contemplators are those youth who have not yet considered the importance of particular behaviours, as well as those who have considered the need but who have not yet acted upon it. Given that an estimated 40% to 85% of any target population can be expected to fall into one of these two categories, it is not surprising that the content

analyses revealed that the most common reasons given for feeling that the play did not relate to lived experience were various versions of:

- *It does not relate to me because I am not [or do not know anyone who is] gay [or HIV-positive];*
- *It does not relate to me because I don't have sex [yet, or often, or with more than one person], or;*
- *It does not relate to me because I do not have [or have not had, or do not know anyone who has/had] a sexually transmitted infection.*

In the context of the Transtheoretical Model, the drop in interest observed in Case 3 (with reference to accessing sexual health care) and the initial low levels of engagement observed in Case 4 should not be considered unusual, nor should these patterns be construed as indicating that the youth in these cases were too young or did not benefit. Quite the contrary, the avoidance behaviours are predictable and correspond to theoretical expectations. As noted by Fisher & Fisher (2000), the two greatest challenges for effective intervention (as identified in the transtheoretical model) are finding a practical means to motivate precontemplators to process the information necessary for change, and to find reinforcements that promote perseverance among those in later stages.

Meeting these challenges is essential because precontemplators commonly “avoid reading, talking, or thinking about their unhealthy behaviours, and resist outside pressures to get them to change” (17) and contemplators, while more open to information and the concept of change, tend to be quite ambivalent about the necessity for change. At these stages any indicators that experiential processes have fostered greater awareness or self re-evaluation should be viewed as signs of success. Thus, the youth who exhibited occasional lapses of interest or were drawn deeper into the discussions over time may in fact have benefited the most!

While the majority of youth who fall into the precontemplator and contemplator categories may not yet be sexually active, early intervention gives youth the opportunity to integrate what they have learned before they are called upon to enact that learning. Further to this and as indicated in the literature review, sexual health is best treated as a developmental and lifespan issue. Therefore, preparing youth for the almost inevitable eventuality of developing intimate sexual relationships by introducing difficult topics

early on provides the greatest opportunity for mastery. Consequently, early interventions providing comprehensive, sex-positive education will support the development and maintenance of sexual health over the lifespan.

Further to this, the development and maintenance of sexual health over the lifespan does not depend on the acquisition of knowledge alone. It also depends on the enactment of certain behaviours, and building confidence in one's own ability (i.e., developing self-efficacy) to successfully enact complex health-preserving behaviours is crucial (Fisher & Fisher, 2000; Dolcini et al., 1995; Bandura, 1994). In this context, the transtheoretical model stresses that developing *situational confidence* in one's ability to change will reduce *situational temptation* to forego harm reduction behaviours because there is an inverse relationship between these two constructs: The higher the level of situational confidence, the lower the likelihood of yielding to temptation. As might be expected, increased situational confidence serves as a measure of progression through the change continuum, and temptation is highest in the precontemplation stage, and decreases proportionately as situational confidence increases. The apparent capacity of this intervention to not only draw precontemplators and contemplators into discussions, but to also increase self-confidence in relation to a number of situational factors suggests that the theatre-in-education format is not only compatible with the Transtheoretical Model, but has a strong potential for counteracting avoidance and ambivalence among those in the earliest stages of change.

Previous research on edutainment strategies which combine entertainment with educational messages has shown that this type of initiative can contribute to positive behaviour change at both the individual and social level by involving audiences and spurring interpersonal communication about sensitive or taboo topics which then facilitates further public discourse. In addition, audiences exposed to edutainment strategies will often develop *parasocial interactions* with their favourite characters, perceiving them as close personal friends with whom they share an ongoing relationship (Singhal & Rogers, 2003).

In a theatre-based format that incorporates question-and-answer sessions with actors who remain in character, the development of this sense of relationship with HIV-positive characters may encourage youth to reassess their attitudes and be more accepting

of people and relationships they may have previously feared. This sense of relationship has the potential to reduce stigma and can also help reduce infection rates by helping youth realize that if it could happen to a *friend*, it could also happen to them.

Interestingly, there was much resistance to the idea of the actor/peer educators staying in character during the question and answer sessions, both from the participants and the actor/peer educators themselves. Field notes indicated that in some cases, participants took great delight in trying to get the actors to break character by asking about their personal lives rather than the lives of the characters. Comments from the actor/peer educators indicated that there was some ongoing awkwardness with staying in character, as well as some sense that doing so limited their capacity to share their own personal wisdom. However, having them remain in character is a means of enhancing the salience of the parasocial relationships, by creating the illusion that the staged performances were not just acts but actual portrayals of their real lives.

Both the participants and actor/peer educators displayed what appeared to be a strong desire to crossover from parasocial interaction to real social interaction. Case 2 in particular demonstrated that theatre-in-education audiences may make repeated attempts to cross the parasocial boundary. In this case, a number of participants could be found engaging the actor/peer educators in conversations before or after the sessions and some thought it worthy to report chance encounters with them. Whether or not it is imperative to maintain that boundary between illusory and real social relationships is debatable. While having the actors stay in character at all times while they are on location would certainly help preserve the illusory relationships, this may be more important in the context of one-off presentations. In the case of ongoing projects that include repeat visits, it may be less important to maintain that illusion because there is the potential for the development of real relationships. While the parasocial interactions may facilitate identification with HIV-positive characters, real social interactions with individuals who are obviously committed to bringing these issues to the forefront may have just as strong an impact.

The development of friendships with committed social activists is also likely to have a positive impact on behaviour. With respect to the micro-level sociological theories put forth by George Herbert Mead and Charles Horton Cooley, social interaction

strongly influences self-concept especially when there is a perceived closeness and emotional bond between the parties. Fostering personal interactions between participants and actor/peer educators may allow participants to shift their attitudes and behaviours through a process of imagining how these new friends—who clearly value tolerance, diversity, safer sexual practices and sexual health—will judge those attitudes and behaviours. Simply put, if the participants begin to use the actor/peer educators as referents, it is likely that positive behaviour changes will occur. It is also possible that positive behaviour change may occur among both groups, as participants strive to behave in ways that will garner positive judgments from the actor/peer educators, who in turn may be further motivated to champion the cause.

By extension, this suggests that embedding a sexuality education program into existing high school theatre arts programs would allow a greater number of youth to experience the many important benefits reported by the actor/peer-educators. For example, an ongoing in-school drama project where each year a new group of senior theatre arts students re-vamped the *Balderdash* script to reflect the current social pressures and sexual health issues in their locale before staging performances for their younger peers would allow more students the opportunity for extended involvement. Obviously, school-wide involvement and yearly repetitions of the performances and question-and-answer sessions would also extend the reach of the program in terms of audiences. The potential for shifting social norms would be greatly increased under these circumstances, which would encourage discussions about responsible sexuality over the long-term, and thus support the normalization of safer sexual behaviours.

To summarize, by and large, the majority of participants reported an increase in their confidence in their own ability to apply prevention strategies after watching the play and participating in the question-and-answer sessions. As Figure 3 illustrated, there was also a trend over time towards reporting increased confidence: Each week a larger percentage of respondents said they felt more confident in dealing with the interpersonal issues presented. While it is necessary to remember that the questions posed each week were in reference to different relational tasks, these results are substantively significant because it appears from these results that confidence in one domain builds confidence in

an associated domain, just as stage models of learning and behavioural change would predict.

Overall, the results point to the strength of using theatre as a basis for sexual health education, beginning at least as early as grade eight. Both the majority of audience members and actor/peer-educators reported that the program had a positive impact. Sexual health education programs are of little use if they fail to engage the target audiences or if they fail to motivate youth to integrate the knowledge and skills which have been offered. By all appearances the program was age-appropriate, engaging and increased confidence amongst many of the youth involved, thus this educational format appears to be an ideal means of delivering theory-based sexuality education.

6.3 Limitations, Implications and Recommendations for Future Research

The literature review concluded with a word about evidence and it is in this context that the limitations, implications and recommendations for future research will be discussed. Clearly this research does not meet the gold standard for social scientific research, and as a case study it is about as far from a randomized control trial as one could get. Nevertheless, these preliminary results indicate that using a theatre-based peer-education format for providing comprehensive sexuality education appears to have great potential. The two behavioural observations measuring engagement suggest that the large majority of youth audiences found the format of the program very appealing, and that it had the power to draw in more reluctant audiences. The measures of confidence indicated that youth gained confidence in their ability to deal with the sexuality-related issues presented. In addition, the qualitative data suggests that many of the youth gained knowledge, motivation, and behavioural skills while interviews with the actor/peer-educators indicated that extended involvement has the potential to multiply the desired effects and provide many other personal and social benefits. Moreover, there appeared to be a strong potential for this format to reduce HIV-related stigma as well as stigmatization of sexual minorities.

In 2001, the United Nations General Assembly Special Session on AIDS (UNGASS) urged all countries to commit funding to increase access to information, skills, and services that can decrease vulnerability and prevalence of HIV among youth populations (Maticka-Tyndale, 2005). While the prevalence of HIV in Canada is

relatively low, the epidemic is not under control and Canadian youth are at risk of experiencing numerous other negative outcomes related to sexuality because they lack effective education.

Despite the fact that randomized control trials (RCTs) are considered the gold standard in evidence-based programming, there is a hierarchy of evidence thresholds that are *realistically* necessary before implementation (Maticka-Tyndale, 2005). Plausible evidence that the expected changes occurred as a result of the intervention based on the informed judgment of those who were involved as leaders, participants and/or observers is adequate under certain circumstances. For example, when there is an urgent need for intervention and results from non-RCT research indicate that the proposed intervention is feasible, has a low potential for negative outcomes, is acceptable, has a potentially large effect and provides other health and social benefits, UNGASS would recommend immediate implementation on a wider scale with more rigorous evaluation.

An intervention is considered feasible if it would be cost-effective and sustainable to scale-up to reach larger numbers. It could be argued that integrating the play *Balderdash* (along with the peer-education component) into the theater arts curriculum of public secondary schools to meet a portion of the sexuality education curricula seems feasible. The required threshold for evidence also depends upon the potential for adverse outcomes. While there is always some potential for adverse outcomes, it could be argued that the potential the theatre-in-education format has shown to increase tolerance and reduce stigmatization of sexual minorities and HIV-positive individuals is worth a little risk, which should of course be monitored. In addition, acceptability is important and interventions which are readily acceptable require less evidence of efficacy than do interventions which are met with resistance, scepticism, or fear. While abstinence-only programming generally meets with less resistance from adults than comprehensive programming, it could/should be argued that in the case of sexuality education for youth what is most important is that *they* find it acceptable. It could also be argued based on this study that a peer-led theatre-based program is a perfectly acceptable way to deliver sexuality education within the public school system.

Evidence thresholds are also lower for interventions which appear to have a very large desirable effect, and the researcher with the vested interest would certainly

argue that this intervention had a much larger, and much more desirable effect than had been expected! She would also point out that because it provided other personal, social, and health benefits to both the target audiences and the peer volunteers who worked on the project, a lower threshold of evidence would be required to recommend implementation.

The main goal of this study was to establish a basis for promoting the integration of theatre-based sexuality education programs into existing public-school curricula so that further—and more rigorous—evaluation can be conducted. It has highlighted the importance of individual and social factors and the results strongly suggest that this peer-led, theatre-based sexual health intervention is a powerful, entertaining, and effective means of providing sexuality education that is worthy of wider-scale implementation and further evaluation. Further evaluation is essential because it is only by gaining a better understanding of how, why and under what circumstances this type of programming meets with success, that we can develop a deeper understanding of the dynamic interplay between individual- and social-level influences, as well as a better comprehension of how these factors might be manipulated in a positive manner to reduce risky sexual behaviour among youth.

As past programming failures and the continued spread of HIV have so clearly illustrated, understanding this dynamic interplay between the social and the individual is paramount in the context of HIV prevention and sexual health. This depth of understanding is lacking but necessary if we are *genuinely* interested in improving population health. Moreover, providing youth with opportunities to learn, develop, and integrate healthy interpersonal scripts for initiating and maintaining equitable, long-term, intimate relationships (including sexual relationships) affords them the chance to develop a sense of mastery over an adult domain and thus encourages psychosocial maturity. Providing youth with these opportunities can promote lasting change at both the individual and social levels and further substantiate the (adult) claim that their healthy development is the main concern.

The preliminary indicators from this case study suggest that future evaluations should be longitudinal in nature and, along with standard demographic information such as age, gender, ethnicity, socio-economic status and so forth, should also include repeat

measures assessing change at the social level as well as at the individual level. However there are a number of issues that must be taken into consideration first because the taboos surrounding sexuality often limit research questions, how those questions can be investigated, and who might provide the answers (Wiederman & Whitley, 2002). However, ethical studies which employ methodologies that have proven useful in prior research increase the likelihood of generating valid and reliable data relevant to the research questions (Bancroft, 1997).

Sexuality research has been approached in many different ways using many different methodologies (Wiederman & Whitely, 2002; Bancroft, 1997; Catania, 1999a). In this case, it is recommended that the research include collaborators from multiple disciplines, involve community-partnerships, and it may also be beneficial to allow participants to take an active role in design and data collection. The researcher(s) must ensure that the methodologies employed are appropriate given the theoretical underpinnings of the research, the research question(s), the measurements, the sampling methods, and the conclusions one wishes to draw from the data (Catania, Gibson, Chitwood & Coates, 1990). Above all, the proposed research must be ethical (Sanders & Graham, 2002; Wiederman, 2002b).

Collecting representative samples can be problematic at the best of times, but there are many sampling issues that are particularly problematic in sexuality research. For example:

- Self-selection (participation) bias - where individuals with particular traits tend to volunteer for or refuse to participate in sexuality studies. Participation bias poses a special problem when the population of interest is considered vulnerable (as are children and youth) because their study requires consent from 'gatekeepers' such as parents, legal guardians, or government officials;
- Coverage error - where many individuals are absent from the lists which are used to draw the sample, and;
- Selection on the dependent variable - where subjects are chosen because of particular sexual characteristics or attributes (Dunne, 2002).

Each of these sampling errors can affect either reliability or validity or both, so it is important to be aware of the limitations. In an ideal world, all samples would be probability samples, where each member of the population of interest would have an equal chance of being selected for the study but this is often not the case, especially in sexuality research (Dunne, 2002). Sometimes the best that can be hoped for is a representative sample, and one that may be representative in very limited terms (Dunne, 2002).

The reliability and validity of measurements can also be affected by reactivity to the idea of being studied which may lead participants to provide socially desirable responses rather than the truth. There are also many measurement errors common to sex research and it is important to have clear operational definitions of the constructs of interest, clearly worded, non-pejorative questions, as well as an awareness that adolescent males, in particular, are prone to over-reporting certain behaviours. Non-response or refusal to answer certain questions can also pose problems, as can the individual characteristics of the participants (e.g., memory, history, emotionality, self-presentation biases and motivations for participating), and the environmental conditions under which the research is conducted. Because sexuality is an intensely private issue, research environments that provide respondents with adequate privacy will generally produce more reliable results (Webb, Zimet, Fortenberry & Blythe, 1999). However, having a good understanding of the population of interest and doing the best to design a study which will meet their needs, as well as the needs of the research, can help reduce the chances that measurement error will skew results.

While it is very difficult if not impossible to collect a truly random sample when conducting sexuality research and it is also difficult to avoid some degree of measurement error, nevertheless, reliable, valid, and valuable data can be generated if the researcher(s) exercise caution and foresight when articulating the research questions and designing the study. Although many different methods have been used to conduct research on human sexual behaviour some are better suited to the goals of the proposed research. Surveys, questionnaires and daily diaries are some of the most popular (and least offensive) methods for gathering sexuality research data, and while there are specific issues related to the under-reporting of certain 'sensitive' behaviours and the

over-reporting of normative behaviours, they are probably the methods most appropriate under these circumstances.

In an ideal world, where the program had a high level of integration and wide-scope of implementation within the public school system, a single self-administered questionnaire fashioned after the *Mathtech Sexuality Questionnaire for Adolescents* which was designed "first, to measure the most important knowledge areas, attitudes, values, skills, and behaviours that either facilitate a positive and fulfilling sexuality or reduce unintended pregnancy [and HIV risk] among adolescents; and second, to measure important possible outcomes of sexuality education programs" (Kirby, 1998:35) would be used for pre-, post-, and follow-up testing throughout the school year.

In addition, a series of discrete measures could be randomly distributed among participants from different schools in different districts and regions. There are numerous well-validated and reliable sexuality-related measures that could be used to assess any number of domains of interest such as: the *Sexual Opinion Survey*, the *Intimate Relationships Questionnaire*, the *Hurlbert Index of Sexual Assertiveness*, the *First Coital Affective Reaction Scale*, the *Double Standard Scale*, *Attitudes Related to Sexual Concerns Scale*, the *Sexual Anxiety Inventory*, the *Sexual Belief Scale*, the *Dydactic Sexual Communications Scale*, and the *Condom Embarrassment Scale*, all of which can be found (along with a host of others) in the *Handbook of Sexually-Related Measures* (Davis, Yarber, Bauserman, Schreer & Davis, 1998).

This research also suggests that equal attention needs to be paid to changes at the interpersonal and social levels. Of chief interest would be measures of social distance (particularly with regard to sexual minorities) which tap into levels of stigma, prejudice and discrimination, and measures of interpersonal negotiation skills in both platonic and sexual relationships. Perhaps other measures of psychosocial maturity could also be included along with some measure of social attribution (blaming) for negative sexual and sexual health outcomes.

It may be most feasible to conduct these surveys via the Internet using controlled access to computer-assisted self-interviews (CASI). This option would likely be the most cost-effective because CASI technology standardizes data collection and can be programmed to automatically enter and tabulate data. Further to this, CASI systems are

well-suited to collecting information on sexual and other sensitive behaviours because of the privacy they afford, and can be programmed to handle conditional skip and branch questions (e.g., if a person answered 'no' to the question, "Have you ever had sexual intercourse?", they would automatically be forwarded to the next question, whereas someone who answered yes would be directed to a subset of related questions) (Gribble, Miller, Rogers & Turner, 1999; Turner, Miller & Rogers, 1997). This automation also provides enhanced confidentiality and helps conserve resources because there are no written records (Webb et al., 1999). It is also likely that this technology-savvy population would find the computer option much more acceptable than paper and pencil surveys.

Replacing human observers or interviewers with computer technology has been found to increase the respondents' sense of privacy, appears to reduce self presentation biases, and lends legitimacy and a perception of scientific value to the study. As well, computer-assisted interviewing appears to reduce over- and under-reporting of sensitive behaviours. It has been suggested that among adolescents at least, that females may be more inclined to report socially undesirable behaviours, while males may be less inclined to exaggerate under these circumstances (Webb et al., 1999). However, it is also been suggested that exaggeration or attempts to dupe researchers may be greater with the increased privacy offered by this method because, as demonstrated in the classic social psychological literature, those who are prone to unethical acts such as deception and cheating may be more likely to engage in such behaviours in unsupervised and unmonitored situations (Catania, 1999b).

With larger scale implementation would also be possible to collect specific behavioural data more frequently from some participants using daily or weekly diaries. The use of daily diaries for research on sexual behaviour has gained popularity and the method is useful for collecting both quantitative and qualitative data (Okami, 2002; Bancroft, 1997). It would also be useful for recording thoughts and behaviours related to stigma and discrimination. The main advantage of this method is that it does not rely on retrospective accounts of behaviours or thoughts and therefore reduces problems associated with recall and reactivity, although under- and over-reporting remains an issue (Okami, 2002). Traditionally, activities are recorded in a journal or on a palm-held device shortly after they occur, but cellular phone text messaging systems also provide another

option, with less chance of the information falling into the wrong hands which is a major concern for both participants in researchers (Fortenberry, Cecil, Zimet & Orr, 1997). It may also be worthwhile to conduct behavioural observations in a similar manner to what was done in the case study research. This would be particularly fruitful for monitoring reactions if changes to the script of the play or the format of the question answer sessions were made.

In conclusion, based on the strength of the preliminary evidence of the efficacy of peer-led, theatre-based sexuality education it is strongly recommended that a program very closely resembling the Full Circle Project be integrated into the sexuality curricula by incorporating Theatre Arts and other students as actor/peer educators. The recent commitment by the British Columbia government to include a full range of sexuality and diversity education within the public-school system (K-12) presents a perfect opportunity for the rigorous evaluation of a very promising program that is feasible, has a low potential for negative outcomes and seems acceptable to target audiences. While the original project demonstrated that there is a long list of other potential health and social benefits and that the potential effect is sizeable, the magnitude of that effect would increase dramatically with each expansion of the program to include more groups of youth.

In addition, the potential for lasting social change that could dramatically improve individual well being, as well as population health as the program repeats year after year thereby involving more students and reaching larger audiences should not be underestimated. Shifting norms is difficult and occurs over time, so commitment to ongoing funding for evaluation is also necessary. In this context, by the third or fourth year of the project—for the higher grades at least—the wisdom passed from peer-to-peer will have come full circle: Many of the youth involved in co-creating, performing and acting as peer-educators for the newest version of the play will also have been part of the target audience during their incoming years, perhaps adding even more salience to the experiences. As well, it is worth imagining how youth who have had creative opportunities to both receive and provide comprehensive, sex-positive sexuality education may benefit future generations. While far beyond the scope of the case study research, in the context of the *intergenerational transmission* of knowledge and skills,

when they become parents these youth will be far better equipped to support they own children in developing healthy and responsible attitudes towards sexuality. It could change society. If perhaps it somehow saturates the market to the point that sexually transmitted infections (including HIV) and unplanned pregnancies are no longer occurring and stigma, prejudice and discrimination against sexual minorities has ended, there are many other personal/social issues that can be addressed... but my guess is that the youth will still want to talk about sex!

References Cited

- Acker, Loren E., Bram C. Goldwater, and William H. Dyson. (1992). AIDS-Proofing Your Kids: A step-by-step guide. Ontario: Silvio Mattacchione.
- Ainlay, Stephen C., Gaylene Becker, and Lerita M. Coleman. (1986). The Dilemma of Difference: A multidisciplinary view of stigma. New York: Plenum.
- Agresti, Alan and Barbara Finlay. (1997). Statistical Methods for the Social Sciences (3rd ed.). New Jersey: Prentice Hall.
- Alan Guttmacher Institute. (1997). Sex and America's Teenagers. New York: Addison-Wesley Educational Publishers.
- American Life League. 2001a. "STOPP's sexual morality education policy." In the Ryan Report, October issue. STOPP International: Available online: <http://www.all.org/stopp/rr0110.htm>
- American Life League. 2001b. "PP helps surgeon general make his pro sex ed report." In the Ryan Report, October issue. STOPP International: Available online: <http://www.all.org/stopp/rr0110.htm>
- Anderson, Roy M. (1996). The Spread of HIV and Sexual Mixing Patterns. In Jonathan Mann and Daniel Tarrantola (Eds.), AIDS in the World II (pp.71-86). New York: Oxford University Press.
- Anderson, Roy and Robert M. May. (1992). "Understanding the AIDS Pandemic". Scientific American, 226 (5): 58-66.
- Anis, Aslam H., Robert S. Hogg, Benita Yip, Xiao-hua Wang, Julio S. G. Montaner, Michael V. O'Shaughnesy, and Martin T. Schechter. (1998). "Average annual drug cost and its determinants in a population based cohort of HIV-positive adult men and women". Pharmacoeconomics, 13(3): 327-336.
- Antunes, Maria C., Ron D. Stall, Vera Paiva, Camila A. Peres, Jay Paul, Mark Hudes, Norman Hearst. (1997). "Evaluating an AIDS sexual risk reduction program for young adults in public night school in Sao Paulo, Brazil". AIDS, Vol. 11, (Supp 1): S121-127.
- Arnett, Jeffery J. (1999). Emerging adulthood: A theory of development from the late teens through the twenties. Unpublished manuscript: University of Maryland.
- Avert.org. (2005). Worldwide HIV & AIDS Epidemic Statistics. Available online: <http://www.avert.org/worlstatinfo.htm> [Last viewed July 16, 2005]

- Avert.org. (2003) World AIDS Day. Website: <http://www.avert.org/worldaid.htm> [Last viewed December 19, 2003].
- Balter, Michael. (1998). "Global program struggles to stem the flood of new cases". Science, 280:1863-4.
- Bancroft, John. (1997). Researching Sexual Behavior: Methodological Issues (pp. ix-xvi). Bloomington: Indiana University Press.
- Bandura, Albert. (1994). Social Cognitive Theory and Exercise of Control over HIV Infection. In Ralph J. DiClemente and John L. Peterson (Eds.), Preventing AIDS: Theories and Methods of Behavioral Interventions (pp. 25-60). New York: Plenum.
- Bennett, S.B, S. Fordan, E. Buff, L. Haddock-Morilla, R. Caldwell, L. Hill and D. Williams. (1999). Rapid HIV Testing Vs. Traditional Testing: In a public health outreach setting. Oral Presentation (Abstract 117). 1999 National HIV Prevention Conference, Atlanta, GA.
- Berlin, Cydelle and J. Hantman. (1999). Taking Stage: The NiteStar Program. Abstract # 667. 1999 National HIV Prevention Conference. US Centers for Disease Control and Prevention: Atlanta, GA.
- Berlin, Cydelle and Laura Berman. (1995). "Theater, peers and HIV prevention: A model". Family Life Educator, 14(1), 8-13.
- Beyth-Marom, Ruth and Baruch Fischhoff. (1997). Adolescents' Decisions about Risks: A Cognitive Perspective. In John Schulenberg, Jennifer L. Maggs and Klaus Hurrelmann (Eds.), Health Risks and Developmental Transitions During Adolescence (pp. 110-135). New York: Cambridge University Press.
- Biernat, Monica and John F. Dovidio. (2000). Stigma and Stereotypes. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 89- 125). New York: Guilford Press.
- Blascovich, Jim, Wendy Berry Mendes, Sarah B. Hunter and Brian Lickel. (2000). Stigma, Threat, and Social Interactions. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 307- 333). New York: Guilford Press.
- Blumer, Sharon, William Schalla and Thomas Hearn. (1999). Statistical Analysis of the CDC Model Performance Evaluation Program (MPEP) Human Immunodeficiency Virus (HIV) Rapid Test Laboratory Performance Data. Oral Presentation (Abstract 117). 1999 National HIV Prevention Conference, Atlanta, GA.

- Boyce W., M. Doherty, C. Fortin, D. MacKinnon, (2003). Canadian Youth, Sexual Health and HIV/AIDS Study: Factors influencing knowledge, attitudes, and behaviours. Canada: Council of Ministries of Education.
- Brettell, Caroline and Carolyn Sargent. (2005). Introduction to 4th edition. Gender in Cross-Cultural Perspective (eds). Toronto: Pearson.
- British Columbia Teacher's Federation. (2001a). Teachers request urgent meeting with premier-elect. British Columbia Teacher's Federation: News Release May 17, 2001. Available online: <http://www.bctf.ca/NewsReleases/archive/2001/2001-05-17.html> [Last viewed May 29, 2006].
- British Columbia Teacher's Federation. (2001b). B.C. Teachers Outraged Over Essential Service Legislation. British Columbia Teacher's Federation: News Release August 12, 2001. Available online: <http://www.bctf.ca/NewsReleases/archive/2001/2001-08-14.html> [Last viewed May 29, 2006].
- British Columbia Teacher's Federation. (2001c). Labour Relations Board uphold teachers' job action plan. British Columbia Teacher's Federation: News Release November 2, 2001. Available online: <http://www.bctf.ca/NewsReleases/archive/2001/2001-11-02.html> [Last viewed May 29, 2006].
- British Columbia Teacher's Federation. (2001d). Teachers serve strike notice. British Columbia Teacher's Federation: News Release November 5, 2001. Available online: <http://www.bctf.ca/NewsReleases/archive/2001/2001-11-05.html> [Last viewed May 29, 2006].
- British Columbia Teacher's Federation. (2001e). Teachers to withdraw all voluntary activities in New Year. British Columbia Teacher's Federation: News Release December 20, 2001. Available online: <http://www.bctf.ca/NewsReleases/archive/2001/2001-12-20.html> [Last viewed May 29, 2006].
- British Columbia Teacher's Federation. (2002). Teachers are furious after Liberals gut collective agreements and wipe out protections for quality of education. British Columbia Teacher's Federation: News Release January 25, 2002. Available online: <http://www.bctf.ca/NewsReleases/archive/2002/2002-01-25.html> [Last viewed May 29, 2006].
- Brooks-Gunn J., and R. Paikoff. (1997). Sexuality and developmental transitions during adolescence. In Schulenberg, Maggs and Hurrelmann (Eds.), Health Risks and Developmental Transitions During Adolescence. UK: Cambridge University Press.

- Brown, L., R. DiClemente and L. Reynolds. (1991). "HIV Prevention for Adolescents: Utility of the Health Belief Model". AIDS Education and Prevention. 3:50-59.
- Brown, Bradford B., M. Margaret Dolcini and Amy Leventhal. (1997). Transformations in peer relationship at adolescence: Implications for Health-related behavior. In John Schulenberg, Jennifer L. Maggs and Klaus Hurrelmann (Eds.), Health Risks and Developmental Transitions During Adolescence (pp. 161-89). New York: Cambridge University Press.
- Brown, Peter J. (1998). Understanding and Applying Medical Anthropology. Toronto: Mayfield.
- Busza, Joanna. (1999). Challenging HIV-related Stigma and Discrimination in Southeast Asia: Past successes and future priorities (Literature Review). New York: Population Council.
- Byers, E. S., Sears, H. A., Voyer, S. D., Thurlow, T. L., Cohen, J. N., and Weaver, A. D. (2003a). "An adolescent perspective on sexual health education at school and at home: I. High school students". Canadian Journal of Human Sexuality, 12, 1-17.
- Byers, E. S., Sears, H. A., Voyer, S. D., Thurlow, T. L., Cohen, J. N., and Weaver, A. D. (2003b). "An adolescent perspective on sexual health education at school and at home: II. Middle school students". Canadian Journal of Human Sexuality. 12: 19-33.
- Calderone, Mary S. 1984. Above and beyond politics: The sexual socialization of children. In Carole S. Vance (Ed.), Pleasure and Danger: Exploring female sexuality. Boston: Routledge and Kegan Paul.
- Campbell, Neil A. (1990). Biology. 2nd Ed. Don Mills: Benjamin/Cummings.
- Canadian HIV/AIDS Legal Network. (2005). A Plan of Action for Canada to reduce HIV/AIDS-related stigma and discrimination. Available online: <http://www.aidslaw.ca/publications/publicationsdocEN.php?ref=48> [Last viewed September 9, 2006].
- Canadian HIV/AIDS Legal Network. (1999). HIV/AIDS, Stigma and Discrimination. Available online: <http://www.aidslaw.ca/Maincontent/issues/discrimination.htm> [Last viewed December 19, 2003].
- Carley, K. (1990). Content analysis. In R.E. Asher (Ed.), The Encyclopedia of Language and Linguistics. Edinburgh: Pergamon Press.
- Catania, Joseph A. (1999a). "A Comment on Advancing the Frontiers of Sexological Methods". Journal of Sex Research, 36(1): 1-2.

- Catania, Joseph A. (1999b). "A Framework for Conceptualizing Reporting Bias and Its Antecedents in Interviews Assessing Human Sexuality". Journal of Sex Research, 36(1): 25-38.
- Catania, J. A., T. J. Coates and S.M. Kegeles. (1990). "Towards an understanding of risk behavior: An AIDS risk-reduction model (AARM)". Health Education Quarterly. 17: 53-72.
- Catania, Joseph A., David R. Gibson, Dale D. Chitwood and Thomas J. Coates. (1990). "Methodological Problems in AIDS Behavioral Research: Influences on measurement error and participation bias in studies of sexual behavior". Psychological Bulletin. 108 (3): 339-362.
- Centers for Disease Control and Prevention. (2006). HIV/AIDS among youth factsheet. Atlanta: National Center for HIV, STD and TB Prevention Divisions of HIV/AIDS Prevention. Available online: <http://www.cdc.gov/hiv/pubs/facts/youth.htm> [Last viewed May 29, 2006].
- Chohan, Bhavna H., Ludo Lavreys, Kishorchandra N. Mandaliya, Joan K. Kreiss, Job J. Bwayo, Jeckoniah O. Ndinya-Achola, and Harold L. Martin Jr. (2001). "Validation of a Modified Commercial Enzyme-Linked Immunoassay for Detection of Human immunodeficiency Virus Type 1 Immunoglobulin G Antibodies in Saliva". Clinical and Diagnostic Laboratory Immunology, Vol. 8 (2): 346-348. <http://cdli.asm.org/cgi/content/full/8/2/346>
- Cioffi, Delia. (2000). The Looking-Glass Self Revisited: Behavior Choice and Self-Perception in the Social Token. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.) , The Social Psychology of Stigma (pp. 184- 219). New York: Guilford Press.
- Cohen, Mark N. (1989). Health and the Rise of Civilization. New Haven: Yale University Press.
- Cohen , Myron S. (1999.) "Antiretroviral Drugs Suppress HIV-1 in Semen". The Journal of Infectious Diseases; 180:2039-2043.
- Coleman, Eli. (2002). "Promoting Sexual Health and Responsible Sexual Behavior: An Introduction". The Journal of Sex Research. 39 (1): 3-6.
- Community Social Planning Council of Greater Victoria. (2000). Poverty and Inequality in the Capital Region of BC. Victoria: Author. Available online: <http://www.crd.bc.ca/poverty/project.htm> [Last viewed May 30, 2006].

- Cooley, Charles, H. (1922). Human Nature and the Social Order. New York: Scribner.
The Mead Project, Retrieved January 10, 2006
(http://spartan.ac.brocku.ca/~lward/Cooley/Cooley_1902/Cooley_1902toc.html).
- Crandall, Christian S. (2000). Ideology and Lay Theories of Stigma: The Justification of Stigmatization. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 126- 150). New York: Guilford Press.
- Crocker, Jennifer and Diane M. Quinn. (2000). Social Stigma and the Self: Meanings, Situations, and Self-esteem. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 153- 183). New York: Guilford Press.
- Crosby, Richard A., Sanders, Stephanie A., Yarber, William L. and Graham, Cynthia A. (2004). "Condom-use errors and problems: A neglected aspect of studies assessing condom effectiveness". American Journal of Preventive Medicine, 24 (4), 367-370
- Crosby, Richard A., Sanders, Stephanie A., Yarber, William L., Graham, Cynthia A. and Brian Dodge. (2002). "Condom Use Errors and Problems in College Men". Sexually Transmitted Diseases, 29(9): 552-557.
- Davis, Clive, W. Yarber, R. Bauserman, G. Schreer and S. Davis. (1998). Handbook of Sexuality-Related Measures. Thousand Oaks: Sage.
- Dearing, James W., Gary Meyer and Everett M. Rogers. (1994). Diffusion Theory and HIV Risk Behavior Change. In Ralph J. DiClemente and John L. Peterson (Eds.), Preventing AIDS: Theories and Methods of Behavioral Interventions, (pp. 79-93). New York: Plenum.
- Delisle, Susan. (1999). STDs in Adolescents: Overview and Implications for HIV Prevention. Panel Discussion (tape 81). 1999 National HIV Prevention Conference, Atlanta, GA.
- deMello, Anthony (1986). One Minute Wisdom, NY: Doubleday.
- DiClemente Ralph J., and John L. Peterson (1994). Preventing AIDS: Theories and Methods of Behavioral Interventions. New York: Plenum.
- diMauro, Diane. (1995). Executive Summary. Sexuality Research in the United States: An Assessment of the Social and Behavioural Sciences. New York: The Social Science Research Council.

- Dolcini, M, T.J Coates, J. Catania, S. Kegeles, and W. Hauck. (1995). "Multiple Sexual Partnerships and Their Psychosocial Correlates: The Population-Based AIDS in Multiethnic Neighborhoods (AMEN) Study". Health Psychology. 14:22-31.
- Donohew, Lewis, Rick Zimmerman, Pamela Cupp, Scott Novak, Susan Colon and Ritta Abell. (2000). "Sensation seeking, impulsive decision-making, and risky sex: implications for risk-taking and design of interventions". Personality and Individual Differences, 28, 1079-1091.
- Dossor, David A.N. (1983). Description, Definition, Evaluation and Implementation of Theatre-in-Education. Master's Thesis. Faculty of Graduate Studies: University of Victoria.
- Dovidio, John F., Brenda Major and Jennifer Crocker. (2000). Stigma: Introduction and Overview. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 1- 28). New York: Guilford Press.
- Duesberg, Peter H. (1996) Inventing the AIDS Virus. Washington D.C.: Regnery.
- Dunne, Michael P. (2002). Sampling Considerations. In Michael W. Wiederman and Bernard E. Whitley, Jr. (Eds.), Handbook for Conducting Research on Human Sexuality (pp. 85-112). New Jersey: Lawrence Erlbaum.
- Edwards, Weston M., and Eli Coleman. (2004). "Defining Sexual Health: A descriptive overview". Archives of Sexual Behavior, 33 (3):189-195.
- Exner, Theresa M., David W. Seal and Anke A. Ehrhardt. (1997). "A review of HIV interventions for at-risk women". AIDS and Behavior. 1(2): 93-124.
- Eyres, Stephen L., Eric W. Davis and Ben Peacock. (2001). "Moral argumentation in adolescents' commentaries about sex". Culture, Health and Sexuality. 3(1): 1-17.
- Fan, Hung, Ross Conner and Luis Villarreal. (2004). AIDS: Science and Society. Toronto: Jones and Bartlett.
- Fishbein, Martin, Susan E. Middlestadt, and Penelope J. Hitchcock. (1994). Using Information to Change Sexually Transmitted Disease-Related Behaviors. In Ralph J. DiClemente and John L. Peterson (Eds.), Preventing AIDS: Theories and Methods of Behavioral Interventions (pp. 61-78). New York: Plenum.
- Fisher, William A. (1990). "Understanding and preventing adolescent pregnancy and STD/HIV". In J. Edwards, R. S. Tindale, C. Heath, and E. J. Posavac (Eds.) Social Influence Processes and Prevention (pp. 71-101). New York: Plenum Press.

- Fisher, Jeffery D., and William A. Fisher. (2000). "Theoretical Approaches to Individual-Level Change in HIV-Risk Behavior". In J. Peterson and R. DiClemente (Eds.), Handbook of HIV Prevention (pp. 3-55). New York: Plenum.
- Fisher, Jeffery D., and William A. Fisher. (1992). "Changing AIDS risk behaviour". Psychological Bulletin. 111:455-474.
- Fisher William. A. and R. Boroditsky, (2000). "Sexual activity, contraceptive choice, and sexual and reproductive health indicators among single Canadian women aged 15-29: Additional findings from the Canadian Contraception Study". The Canadian Journal of Human Sexuality, (9) 2, p. 79.
- Fisher, William A., and Jeffery D. Fisher. (1998). "Understanding and Promoting Sexual and Reproductive Health Behaviour: Theory and Method". In R. Rosen, C. Davis, and H. Ruppel (Eds.). Annual Review of Sex Research, Vol. IX: 39-76.
- Fisher, William A., and Jeffery D. Fisher. (1993). A general social psychological model for changing AIDS risk behavior. In J. Pryor and G. Reeder (Eds.), The Social Psychology of HIV Infection (p. 127-153). New Jersey: Erlbaum.
- Flood, Michael. (2003). "Lust, trust and latex: Why young heterosexual men do not use condoms". Culture, Health and Sexuality. 5(4): 353-369.
- Fortenberry, J. Dennis, Heather Cecil, Gregory D. Zimet and Donald P. Orr. (1997). Concordance between Self-Report Questionnaires and Coital Diaries for Sexual Behaviors of Adolescent Women with Sexually Transmitted Infections. In John Bancroft (Ed.), Researching Sexual Behavior: Methodological Issues (pp. 237-249). Bloomington: Indiana University Press.
- Fortenberry, Dennis. (2001). Data presented at the Kinsey Summer Graduate Training Institute, "Understanding High-Risk Sexual Behaviour". July 22-29. Kinsey Institute, University of Indiana, Bloomington, IN.
- Foster, Harold. (2002). What Really Causes AIDS. Victoria BC: Trafford. Available online: <http://www.hdfoster.com/WhatReallyCausesAIDS.pdf> [Last viewed December 19, 2003].
- Francis, Donald P. (1996). HIV Vaccine Development - Progress and Problems. In Jonathan Mann and Daniel Tarantola. (Eds.). AIDS in the World II: Global Dimensions, Social Roots, and Responses (pp. 186-192). New York: Oxford.
- Friedman, Samuel R., Don C. Des Jarlais and Thomas P. Ward. (1994). Social Models for Changing Health-Relevant Behavior. In Ralph J. DiClemente and John L. Peterson (Eds.), Preventing AIDS: Theories and Methods of Behavioral Interventions (pp. 94-111). New York: Plenum.

- Fulghum, Robert. (1988). All I Really Need to Know I Learned in Kindergarten, NY: Villard Books.
- Galambos, Nancy and Marion Ehrenberg. (1997). The family as health risk and opportunity: A focus on Divorce and Working Families. In John Schulenberg, Jennifer L. Maggs and Klaus Hurrelmann (Eds.), Health Risks and Developmental Transitions During Adolescence (pp. 139-60). New York: Cambridge University Press.
- Gavin, Jeff. (2000). "Arousing suspicion and violating trust: The lived ideology of safe sex talk". Culture, Health and Sexuality. 2(2): 117-134.
- Gebauer, Gunter and Christoph Wulf. (1992). Mimesis: Culture, art and society. Translated by Don Reneau. Berkley: University of California Press.
- George, D., and P. Mallery. (2003). SPSS for Windows step by step: A simple guide and reference (4th ed.). Boston: Allyn and Bacon.
- Gillespie, A. (2005). "G.H. Mead: Theorist of the Social Act." Journal for the Theory of Social Behaviour 35(1): 19-39.
- Gilmore, Norbert and Margaret A. Somerville. (1994). "Stigmatization, Scapegoating and Discrimination in Sexually Transmitted Diseases: Overcoming 'Them' and 'Us'". Social Science and Medicine, 39 (9): 1339-1358.
- Global Programme on AIDS. (1998). 47th World Health Assembly exhibit. URL: <http://gpawww.who.ch/whademo/index.htm>
<<http://gpawww.who.ch/whademo/index>> [Last viewed July 30, 2003.]
- Goffman, Erving. (1963). Stigma: Notes on the Management of Spoiled Identity. New Jersey: Prentice-Hall.
- Goldin, Carol S. (1994). "Stigmatization and AIDS: Critical issues in public health". Social Science and Medicine, 39 (9): 1359-1366.
- Goldsmith, Barbara. (1993). "Women on the Edge". New Yorker. Vol. 69 (Apr 26):64-81.
- Goudsmit, Jaap. (1997). Viral Sex: The Nature of AIDS. New York: Oxford University Press. Quote online: <http://www.ccsf.edu/Departments/Biology/ctoebe/HIVtypes.htm>
- Gorna, Robin. (1996). Vamps, Virgins and Victims: How can women fight AIDS? New York: Cassell.

- Government of British Columbia. (2006). Youth Career Opportunities. Ministry of Advanced Education Webpage. Available online: <http://www.aved.gov.bc.ca/yca/welcome.htm> [Viewed May 30, 2006].
- Graham, Cynthia A. and John Bancroft. (1997). A Comparison of Retrospective interview Assessment versus Daily Ratings of Sexual Interest and Activity in Women. In John Bancroft (Ed.), Researching Sexual Behavior: Methodological Issues (pp. 227-236). Bloomington: Indiana University Press.
- Graham, Cynthia and David Strong. (1997). Methodological Aspects of Researching High-Risk Sexual Behavior: Qualitative Methods. Presentation at the 2001 Kinsey Summer Institute: Understanding High-Risk Sexual Behavior. The Kinsey Institute for Research in Sex, Gender and Reproduction. Bloomington, Indiana: July.
- Gribble, James M., Heather G. Miller, Susan M. Rogers, and Charles F. Turner (1999). "Interview Mode and Measurement of Sexual Behaviours: Methodological issues". Journal of Sex Research, 36(1): 16-24.
- Harner, Michael. (1990). The Way of the Shaman: A guide to power and healing. San Francisco: HarperSanFrancisco.
- Haseline, William A. (1993). The Future of AIDS. In Susan Bunting (Ed.), Human Sexuality 95/96 (p. 178-180). Guilford CN: Dushkin.
- Health Canada. (2004). HIV/AIDS EPI Updates, May 2004, Surveillance and Risk Assessment Division. Ottawa: Centre for Infectious Disease Prevention and Control.
- Health Canada. (1999). A Report from Consultations on a Framework for Sexual and Reproductive Health. Ottawa: Minister of Public Works and Government Services Canada.
- Health Canada. (1997). Canadian Guidelines for Sexual Health Education. Ottawa, N: Population and Public Health Branch.
- Heatherton, Todd F., Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull. (2000). The Social Psychology of Stigma. New York: Guilford Press.
- Heyward, William L, Saladin Osmanov and Jose Esparza. (1996). Preparing for HIV Vaccine Efficacy Trials in Developing Countries. In Jonathan Mann and Daniel Tarantola. (Eds.). AIDS in the World II: Global Dimensions, Social Roots, and Responses (pp. 193-195). New York: Oxford.
- Hillier, Lynne, and Lyn Harrison. (2004). "Homophobia and the production of shame: Young people and same-sex attraction". Culture, Health and Sexuality. 6(1): 79-94.

- Inhorn, Marcia C. (1998). Genital Herpes: An ethnographic inquiry into being discreditable in American society. In Peter J. Brown (Ed.) Understanding and Applying Medical Anthropology, (pp. 315-322). Toronto: Mayfield.
- Jackson, Winston. (2002). Methods: Doing Social Research. 3rd. Ed. Toronto: Prentice-Hall.
- Jemmott, John B. III and Loretta Sweet Jemmott. (2000). HIV Behavioral Interventions for Adolescents. In J. Peterson and R. DiClemente (Eds.), Handbook of HIV Prevention (pp. 103-127). New York: Plenum.
- Jessor, Richard, Mark S. Turbin and Frances M. Costa, (1998). "Protective factors in adolescent health behaviour". Journal of Personality and Social Psychology. 5(30), 788-800.
- Johnston, Robert, Matthew Irwin and David Crowe. (2003). NIAID/NIH 'Evidence' Rebuttal: A rebuttal to the NIAID/NIH document "The Evidence That HIV Causes AIDS". Toronto: HEAL (Health, Education, AIDS Liason). Available online: <http://www.healtoronto.com/nih/main.html> [Last viewed September 3, 2006].
- Johnson, Christine. (1997). "Is HIV the Cause of AIDS? An interview with Eleni Papadopulos-Eleopulos". Continuum, Autumn 5(1): 8-19.
- Joint United Nations Programmes on HIV/AIDS. (2006). Report on the Global AIDS Epidemic. Available online: http://www.unaids.org/en/HIV_data/2006GlobalReport/default.asp [Last viewed May 30, 2006].
- Joint United Nations Programmes on HIV/AIDS. (2004). Report on the Global AIDS Epidemic. Available online: <http://www.unaids.org> [Last viewed February 11, 2005].
- Joint United Nations Programme on HIV/AIDS. (2003). AIDS Epidemic Update: December 2003. Available online: <http://www.unaids.org> [Last viewed December 3, 2003].
- Joint United Nations Programme on HIV/AIDS. (2000). Report on the Global AIDS Epidemic. Switzerland: World Health Organization.
- Joint United Nations Programme on HIV/AIDS. (1999). Peer Education and HIV/AIDS: Concepts, uses and challenges. Available online: <http://www.unaids.org> [Last viewed April 4, 2005].

- Jones, Edward E., Amerigo Farina, Albert H. Hastorf, Hazel Markus, Dale T. Miller, Roberta A. Scott and Rita de S. French. (1984). Social Stigma: The Psychology of Marked Relationships. New York: W. H. Freeman.
- Kalichman, Seth C., Michael P. Carey and Blair T. Johnson. (1996). "Prevention of Sexually Transmitted HIV Infection: A Meta-analytic Review of the Behavioral Outcome Literature". Annals of Behavioral Medicine. 18: 6-15.
- Katz, Irwin. (1981). Stigma: A Social Psychological Analysis. New Jersey: Lawrence Erlbaum.
- Keele, Brandon, Fran Van Heuverswyn, Yingying Li, Elizabeth Bailes, Jun Takehisa, Mario L. Santiago, Frederic Bibollet-Ruche, Yalu Chen, Louise V. Wain, Florian Liegeois, Severin Loul, Eitel Mpoudi Ngole, Yanga Bienvenue, Eric Delaporte, John F. Y. Brookfield, Paul M. Sharp, George M. Shaw, Martine Peeters, Beatrice H. Hahn. (2006). "Chimpanzee Reservoirs of Pandemic and Nonpandemic HIV-1". Science. Published online 25 May 2006 [DOI: 10.1126/science.1126531] (in *Science Express Reports*).
- Kirby, Douglas. (2005) Impact of Sex and HIV Education Programs on Sexual Behaviors of Youth in Developing and Developed Countries. Durham: Family Health International/YouthNet.
- Kirby, Douglas. (2001). Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy (Summary). Washington, DC: National Campaign to Prevent Teen Pregnancy. Available online: <http://www.teenpregnancy.org/053001/emersanswsum.pdf>
- Kirby, Douglas. (2000). School-based interventions to prevent unprotected sex and HIV among adolescents. In J. Peterson and R. DiClemente (Eds.), Handbook of HIV Prevention. (Pp. 83-101). New York: Plenum.
- Kirby, Douglas. (1998). Mathech Questionnaires: Sexuality Questionnaires for Adolescents. In C. Davis, W. Yarber, R. Bauserman, G. Schreer and S. Davis (Eds.), Handbook of Sexuality-Related Measures. (Pp.35-47). Thousand Oaks: Sage.
- Klonoff, Elizabeth. A. and Hope Landrine (1999). "Do Blacks Believe That HIV/AIDS Is a Government Conspiracy against Them?" Preventive Medicine 28(5): 451.
- Landy, Robert J. (1982). Handbook of Educational Drama and Theatre. Westport: Greenwood Press.
- Lanka, Stefan. (1995). "HIV; Reality or Artefact?". Continuum. April/May. Available online: <http://www.virusmyth.net/aids/data/slartefact.htm> [Last viewed May 11, 2004].

- Laumann, Edward O., John H. Gagnon, Robert T. Michael and Stuart Michaels. (1994). The Social Organization of Sexuality: Sexual Practices in the United States. Chicago: The University of Chicago Press.
- Lazdane, Gunta and Jeffery V. Lazarus. (2003). "Does peer education work in Europe?" Editorial. Entre Nous. 56:3.
- Letvin, Norman. L., John R. Mascola, Yue Sun, Darci A. Gorgone, Adam P. Buzby, Ling Xu et al. (2006). "Preserved CD4+ Central Memory T Cells and Survival in Vaccinated SIV-Challenged Monkeys." Science, 312 (9):1530-33. DOI: 10.1126/science.1124226
- Letvin, Norman. L. (1998). "Progress in the development of HIV-1 vaccine". Science, 280:1875-80.
- Lerner, Richard M., Charles W. Ostrom and Melissa. A. Freel. (1997). Preventing Health-compromising Behavior among Youth and Promoting their Positive Development: A Developmental Contextual Perspective. In John Schulenberg, Jennifer L. Maggs and Klaus Hurrelmann (Eds.), Health Risks and Developmental Transitions During Adolescence (pp. 498-521). New York: Cambridge University Press.
- Link, Bruce G., and Jo C. Phelan. (2001). On Stigma and its Public Health Implications. Background paper presented at the Stigma and Global Health: Developing a Research Agenda conference, Bethesda, Maryland, September 5-7. Paper available online at: <http://www.stigmaconference.nih.gov/LinkPaper.htm> [Last viewed December 19, 2003].
- Litwin, Grania. (2004). "AIDS theory gives nutrients key role". Victoria Times-Colonist. December 10: C1.
- Lundgren, D. C. (2004). "Social Feedback and Self-Appraisals: Current Status of the Mead-Cooley Hypothesis." Symbolic Interaction 27(2): 267-286.
- MacIntosh, Josephine and Lidia D'Angelo. (2002). Full Circle Youth HIV Prevention and Sexuality Education Program: Teacher's Guide. Victoria: Author.
- Macionis, J., Mikael Jansson and Cecilia Benoit (2005). Society: the basics. Toronto: Pearson.
- Maggs, Jennifer L., John Schulenberg and Klaus Hurrelmann. (1997). Developmental Transitions During Adolescence and Young Adulthood: Health Promotion Implications. In John Schulenberg, Jennifer L. Maggs and Klaus Hurrelmann (Eds.), Health Risks and Developmental Transitions During Adolescence (pp. 522-46). New York: Cambridge University Press.

- Malcolm, Anne, Peter Aggleton, Mario Bronfman, Jane Galvao, Purnima Mane and Jane Verral. (1998). "HIV-related Stigmatization and Discrimination". Critical Public Health, 8 (4): 347-370.
- Mann, Jonathan and Daniel Tarantola. (1996). AIDS in the World II: Global Dimensions, Social Roots, and Responses. New York: Oxford.
- Masters, Robert E.L. (1966). Sex-Driven People: An Autobiographical Approach to the Problems of the Sex-Dominated Personality. Sherbourne Press, Los Angeles.
- Mastro, Timothy D., and Isabelle de Vincenzi. (1996). "Probabilities of Sexual HIV-1 Transmission." AIDS 10 (suppl. A): S72-82.
- Maticka-Tyndale, Eleanor. (2005). Ready, Steady, Go! Meeting the UNGASS goals on HIV/AIDS for youth. Keynote Address. World Congress of Sexology of the World Association for Sexual Health (WAS). Montreal, July.
- Maticka-Tyndale, Eleanor. (2001). "Sexual health and Canadian youth: How do we measure up?" The Canadian Journal of Human Sexuality. 10 (1/2): 1-17.
- May, R.M. and R. M. Anderson. (1988). "The transmission of human immunodeficiency virus (HIV)". Phil. Transactions of the Royal Society of London, 321B: 565-607.
- Mayer, Kenneth and C.J. Carpenter. (1992). "Women and AIDS". Scientific American, 226 (3):118.
- McGrath, Janet. 1992. "The Biological Impact of Social Responses to the AIDS Epidemic." Medical Anthropology, 15: 63-79.
- McGrath, Janet. 1991. "Biological Impact of Social Disruption Resulting from Epidemic Disease." American Journal of Physical Anthropology, 84(4): 407-419.
- McKay, Alexander. (2005). "Sex research Update: Lessons learned from 17 years of HIV prevention research". The Canadian Journal of Human Sexuality, 14 (3/4): 123-4.
- McKay, Alexander. (2000). "Prevention of sexually transmitted infections in different populations: A review of behaviourally effective and cost-effective interventions". The Canadian Journal of Human Sexuality, 9 (2): 95-120.
- McNeill, Erin T., Caroline E. Gilmore, William R. Finger, JoAnn H. Lewis, and William P. Schellstede. (1999). "The Latex Condom: Recent advances, future directions". Durham: Family Health International. Available online: <http://www.fhi.org/en/fp/fpothor/conom/index.html> [Viewed May 30, 2006].
- Mead, George H. (1934). Mind, Self and Society. Chicago: University of Chicago Press.

- Miller, Carole and Juliana Saxton. (1998). Lurching Out of the Familiar. In Juliana Saxton and Carole Miller (Eds.), The Research of Practice and the Practice of Research (pp. 165-177). Brisbane: IDEA
- Miranda-Maniquis, Estrella. (1993). "The Silence About Women". World Press Review. 40 (2):26
- Montoya, Isaac D., Alan J. Richard, David C. Bell, John S. Atkinson. (1997). "An analysis of unmet need for HIV services: The Houston study". Journal of Health Care for the Poor and Underserved. Vol 8 (4): 446-60.
- National Institute of Allergy and Infectious Diseases/National Institutes of Health. (2003). "The Evidence That HIV Causes AIDS", Maryland: NIAID/NIH Office of Communications and Public Liaison. Available online: <http://www.niaid.nih.gov/factsheets/evidhiv.htm> [Last viewed May 30, 2006].
- National Institutes of Health. (2005). Update: Stigma and Global Health Research Program. Details available online at the Fogarty International Center for Advanced Study in the Health Sciences website: http://www.fic.nih.gov/programs/research_grants/stigma/index.htm [Last viewed May 30, 2006].
- Neuberg, Steven L, Dylan M. Smith, and Terrilee Asher. (2000). Why people Stigmatize: Toward a Biocultural Framework. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 31-61). New York: Guilford Press.
- Office of the Surgeon General. (2001). Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior. Washington: U.S. Department of Health and Human Services.
- Okami, Paul. (2002). "Dear Diary: A Useful but Imperfect Method". In Michael W. Wiederman and Bernard E. Whitley, Jr. (Eds.), Handbook for Conducting Research on Human Sexuality, (pp. 195-207). New Jersey: Lawrence Erlbaum.
- Ortiz-Torres, Blanca, Samantha P. Williams and Anke A. Ehrhardt. (2003). "Urban women's gender scripts: implications for HIV prevention". Culture, Health and Sexuality, 17 (1): 1-17.
- Oxford English Dictionary Online. "Mimesis". New York: Oxford University Press. Available online by subscription: <http://dictionary.oed.com/> [Last viewed October 28, 2006].
- Panos Institute. (1990). Triple Jeopardy: Women and AIDS. Washington, D.C.: The Panos Insitute.

- Pan American Health Organization. (2001). Promotion of Sexual Health: Recommendations for Action. Proceedings of a Regional Consultation convened by the Pan American Health Organization (PAHO) and the World Health Organization (WHO) in collaboration with the World Association for Sexology. Available online: <http://www2.hu-berlin.de/sexology/GESUND/ARCHIV/PSH.HTM> [Last viewed May 30, 2006].
- Paterson, Douglas L. (2005). A Brief Biography of Augusto Boal. Omaha: Pedagogy and Theatre of the Oppressed. Online: <http://www.ptoweb.org/> [Last viewed May 30, 2006].
- Patrick, David M., Thomas Wong and Robbi A. Jordan. (2000). "Sexually transmitted infections in Canada: Recent resurgent threatens national goals". The Canadian Journal of Human Sexuality. 9 (3): 149-165.
- Patton, Cindy. (1993). Safe by Nature: Reconstructing Heterosexual Identity Under the Sign of AIDS. In Wilkenson and Kitzinger (Eds.), Heterosexuality: A Feminism and Psychology Reader (pp.257-260). London: Sage.
- Perrin, Luc and Amalio Tetenti. (1998). "HIV treatment and failure: Testing for HIV resistance in clinical practice". Science, 280:1871-1872.
- Pert, Candice B. (1997). Molecules of Emotion: Why you feel the way you feel. New York: Scribner.
- Peterson, John and Ralph DiClemente. (2000). Handbook of HIV Prevention. New York: Plenum.
- Phillips, Andrew N. (1999). "HIV Viral Load and Its Prognostic Significance in Women Compared With Men". Medscape HIV/AIDS, 5(3). Available online: <http://www.medscape.com/Medscape/HIV/journal/1999/v05.n03/mha0604.phil/mha0604.phil-01.html> [Viewed 08 March 2000].
- Philpott, Paul. (1997). Isolation 101: The Basics. VIRUSMYTH: A Rethinking AIDS Website, Robert Laarhoven (Webmaster). Available online: <http://www.virusmyth.net/aids/data/pp101basics.htm> [Last viewed 08 November 2001].
- Pinching, Anthony J. (1996). AIDS Research: Solidarity? Rivalry? Fraternity? In Jonathan Mann and Daniel Tarantola. (Eds.). AIDS in the World II: Global Dimensions, Social Roots, and Responses (pp. 205-211). New York: Oxford.
- Planned Parenthood. (2002). A Guide to Peer Education Programs for Teens. NY: Planned Parenthood Federation of America.
- Plummer, Kenneth. (1975). Sexual Stigma. Boston: Routledge & Kegan Paul.

- Prochaska J.O. and W.F. Velicer. (1997). "The transtheoretical model of health behavior change". American Journal of Health Promotion, 12: 38-48.
- Public Health Agency of Canada. (2004). HIV and AIDS in Canada. Surveillance report to June 30, 2004. Surveillance and Risk Assessment Division, Centre for Infectious Disease Prevention and Control, Health Canada, November 2004. Available online: <http://www.phac-aspc.gc.ca/publicat/aids-sida/index.html> [Last viewed February 15, 2005].
- Public Health Agency of Canada. (2003). Canadian Guidelines for Sexual Health Education. Available: <http://www.phac-aspc.gc.ca/publicat/cgshe-ldnemss/index.html>. [Last viewed May 29, 2006].
- Puetz, Michelle. (2002). "Theories of Media: Keywords Glossary - Mimesis". Chicago: Chicago University Press. Available online: <http://www.chicagoschoolmediatheory.net/glossary2004/mimesis.htm> [Last viewed November 15, 2006].
- Raffaelli, Marcella and Mariana Suarez-Al-Adam. (1998). Reconsidering the HIV/AIDS Prevention Needs of Latino Women in the United States. In Nancy L. Roth and Linda K. Fuller (Eds.), Women and AIDS (pp. 7-41). New York: Harrington Park Press.
- Randall, H.E. and Byers, E. S. (2003). "What is sex?: Students' definitions of having sex, sexual partner, and unfaithful sexual behaviour". Canadian Journal of Human Sexuality. 12: 87-96.
- Reardon, Kathleen and Everett Rogers. (1988). "Interpersonal Versus Mass Media Communication: A false dichotomy". Human Communication Research, 15(2): 284-303.
- Reingold, Arthur L. and Suneeta Krishnan. (2001). The Study of Potentially Stigmatizing Conditions: An Epidemiologic Perspective. Background paper presented at the Stigma and Global Health: Developing a Research Agenda conference, Bethesda, Maryland, September 5-7. Paper available online at: <http://www.stigmaconference.nih.gov/ReingoldPaper.htm> [Last viewed December 19, 2003].
- Rhodes, Tim. (1997). "Risk theory in epidemic times: sex, drugs and the social organization of 'risk behaviour'". Sociology of Health and Illness, 19 (2):208-227.
- Rofes, Eric. (1998). Dry Bones Breathe: Gay Men Creating Post-AIDS Identities and Cultures. New York: Harrington Park Press

- Rogers, Everett M. (2000). Diffusion Theory: A theoretical approach to promote community-level change. In J. Peterson and R. DiClemente (Eds.), Handbook of HIV Prevention (pp. 57-65). New York: Plenum.
- Rogers, Everett M. (1962). Diffusion of Innovations. The Free Press. New York.
- Rosenstock, Irwin M., Victor J. Strecher, and Marshall H. Becker. (1994). The Health Belief model and HIV Risk Behavior Change. In Ralph J. DiClemente and John L. Peterson (Eds.), Preventing AIDS: Theories and Methods of Behavioral Interventions (pp. 5-24). New York: Plenum.
- Ross, Michael W. (2002). "Sexuality and Health Challenges: Responding to a Public Health Imperative". Journal of Sex Research. 39 (1): 7-9.
- Rowland, David L. (1999). "Issues in the Laboratory Study of Human Sexual Response: A synthesis for the nontechnical sexologist". Journal of Sex Research, 36(1), 3-15.
- Sanders, Stephanie. (2002). Beyond Siege Mentality: Lessons from Public Controversy about Sex Research. Keynote presentation at the 44th Annual Meeting of the Society for the Scientific Study of Sexuality. Montreal, Que: November.
- Sanders, Stephanie and Cynthia Graham. (2002). Ethical Issues in Researching High-Risk Sexual Behaviors. Presentation at the 2002 Kinsey Summer Institute: Interventions for High-Risk Sexual Behavior. The Kinsey Institute for Research in Sex, Gender and Reproduction. Bloomington, Indiana: July.
- Sanders, Stephanie. A. and June Machover Reinisch. (1999). "Would You Say You "Had Sex" If...?". Journal of the American Medical Association, 281 (3): 275-277.
- Sant, Toni. (2006). The Applied and Interactive Theatre Guide. UK: Toni Sant. Online: <http://www.tonisant.com/aitg/index.shtml>. [Last viewed May 30, 2006].
- Satcher, David. (2005). Keynote Address. World Congress of Sexology of the World Association for Sexual Health (WAS). Montreal, July.

- Sawney, Fiona, Susie Sykes, Mandy Keene, Liz Swinden and Geraldine McCormick. (2004). It Opened My Eyes. Using Theatre in Education to Deliver Sex and Relationship Education: A Good Practice Guide. London: Health Development Agency.
- Schulenberg, John, Jennifer L. Maggs and Klaus Hurrelmann. (1997). Negotiating Developmental Transitions During Adolescence and Young Adulthood: Health Risks and Opportunities. In John Schulenberg, Jennifer L. Maggs and Klaus Hurrelmann (Eds.), Health Risks and Developmental Transitions During Adolescence (pp. 1-19). New York: Cambridge University Press.
- Schulman, Arnold. (1993). And the Band Played On. Produced by Aaron Spelling and directed by Roger Spottiswoode. 2 hrs, 20 min. Movies Unlimited. Videocassette.
- Seale, David W. and Anke A. Ehrhardt. (2003). "Masculinity and urban men: Perceived scripts for courtship, romantic, and sexual interactions with women". Culture, Health and Sexuality. 5(4): 295-319.
- Sex Information and Education Council in Canada. (2005). "Adolescent sexual health and reproductive health in Canada: A report card in 2004". The Canadian Journal of Human Sexuality. 13 (2): 67-81.
- Shilts, Randy. (1987). And the Band Played On: Politics, People and the AIDS Epidemic. New York: St. Martin's.
- Singer, Merrill and Hans Baer. (1995). AIDS and the Health Crisis of the U.S. Urban Poor. In Critical Medical Anthropology (pp. 203-234). New York: Baywood Publishing.
- Singhal, Arvind and Everett M. Rogers. (2003). Combating AIDS: Communications Strategies in Action. Thousand Oaks: Sage.
- Singhal, Arvind and Everett M. Rogers. (1999). Entertainment-Education: A Communication Strategy for Social Change. New Jersey: Lawrence Erlbaum Associates.
- Sloth Madsen, Jakob. (2002). "Reflections on HIV and AIDS Education: Communicating a behavioural change forum theatre as an alternative approach". The Communication Initiative. Available: <http://www.comminit.com/st2002/sld-5857.html> [Viewed July, 19, 2004].
- Smart, Laura and Daniel M. Wegner. (2000). The Hidden Costs of Hidden Stigma. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 220-242). New York: Guilford Press.

- Sood, Suruchi. (2002). "Audience Involvement and Entertainment-Education". Communication Theory, 12(2): 153-172.
- Stakic, Srdjan, Robert Zielony, Aleksandar Bodirosa and Greta Kimzeke. (2003). "Peer Education within a Frame of Theories and Models of Behaviour Change". Entre Nous, 4-6.
- Stangor, Charles and Christian S. Crandall. (2000). Threat and the Social Construction of Stigma. In Todd F. Heatherton, Robert E. Kleck, Michelle R. Hebl, and Jay G. Hull (Eds.), The Social Psychology of Stigma (pp. 62- 87). New York: Guilford Press.
- Statistics Canada. (2002). Population by Marital Status and Sex. Ottawa: CANSIM. Available online: <http://www40.statcan.ca/101/cst01/famil01.htm> [Last viewed Sept 12, 2006]
- Steben, Marc and Stephen L. Sacks. (1997). "Genital Herpes: The Epidemiology and Control of a Common Sexually Transmitted Disease". The Canadian Journal of Human Sexuality, 6 (2):127-134.
- Tannahill, Reay. (1992). Sex in History. USA: Scarborough House.
- Treichler, Paula A. (1999). How to have Theory in an Epidemic: Cultural Chronicles of AIDS. Durham: Duke University Press.
- Turner, Charles F., Heather G. Miller and Susan M. Rogers. (1997). Survey Measurement of Sexual Behavior: Problems and Progress. In John Bancroft (Ed.), Researching Sexual Behavior: Methodological Issues (pp. 37-77). Bloomington: Indiana University Press.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2003). Peer approach in adolescent reproductive health education: some lessons learned. Bangkok: Regional Clearing House on Population Education and Communication, Asia and Pacific Regional Bureau for Education.
- United Nations Population Fund. (2005). Theatre-based techniques for youth peer education: A training manual. Arlington: Family Health International/YouthNet.
- United Nations Special Session on Gender. (2001). Fact Sheet on Gender and HIV/AIDS. Available online: http://www.un.org/ga/aids/ungassfactsheets/html/fsgender_en.htm [Last viewed September 1, 2005].
- Van Maanen, John (1988). Tales of the Field: On Writing Ethnography. Chicago: University of Chicago Press.

- Varmus, Harold and Neal Nathanson. (1998). "Science and the control of AIDS". Science, 280: 1815.
- Vygotsky, L.S. (1978). Mind in Society: The development of higher psychological processes. Cambridge: Harvard University Press.
- Ward, L. Monica and Rocio Rivadeneyra. (1999). "Contributions of entertainment television to adolescents' sexual attitudes and expectations: The role of viewing amounts versus viewer involvement". The Journal of Sex Research. Vol. 36 (3): 237-249.
- Watney, Simon. (1996). "Risk Groups" or "Risk Behaviours"? In Jonathan Mann and Daniel Tarantola. (Eds.). AIDS in the World II: Global Dimensions, Social Roots, and Responses (pp. 431-432). New York: Oxford.
- Waxler, Nancy E. (1998). Learning to be a Leper: A Case Study in the Social Construction of Illness. In Peter J. Brown (Ed.) Understanding and Applying Medical Anthropology, (pp. 147-157). Toronto: Mayfield.
- Weaver, A. D., Byers, E. S., Sears, J. N., and Randall, H. E. S. (2002). "Sexual health education at school and at home: Attitudes and Experiences of New Brunswick Parents". Canadian Journal of Human Sexuality. 11: 19-32.
- Webb, Patrick M., Gregory D. Zimet, J. Dennis Fortenberry and Margaret J. Blythe. (1999). "Comparability of a Computer-Assisted versus Written Method for Collecting Health Behavior Information from Adolescent Patients". Journal of Adolescent Health, 24, 383-388.
- Weber, Jonathan and Keith Alcorn. (2000) "Origins of HIV and the AIDS Epidemic". WebMD Medscape Health Network. Available online: <http://www.medscape.com/viewarticle/408272?src=search> [Last viewed February 13, 2005].
- Wiederman, Michael W. and Bernard E. Whitley, Jr. (2002). Handbook for Conducting Research on Human Sexuality, (pp. 1-4). New Jersey: Lawrence Erlbaum.
- Weinberg, Martin S., Ilsa L. Lottes and David Aveline. (1998). "AIDS risk reduction strategies among United States and Swedish heterosexual university students". Archives of Sexual Behavior. 27(4): 385-401.
- Weir, Sonya. (2001). "Looking Forward: Bradford McIntyre Living with HIV". Shared Vision Magazine, November. Available online: http://www.shared-vision.com/sv/magazines/159/159_looking_forward.htm [Last viewed November, 2004].
- Wickham, Glynn. (1995). A History of the Theatre. 2nd Ed. Phaidon Press: NY.

- Williams, Sunyna, Tamara Doyle, Laura Pittman, Laura Weiss, Jeffrey Fisher and William Fisher. (1998). "Roleplayed safer sex skills of heterosexual college students influenced by both personal and partner factors". AIDS and Behavior, 2 (3): 177-187.
- Wingood, Gina M. (1995). "The Role of Gender Relations in HIV Prevention Research for Women". American Journal of Public Health, 85(4): 592.
- Wingood, Gina M., and Ralph J. DiClemente. (1997). "Child sexual abuse, HIV sexual risk, and gender relations of African-American women". American Journal of Preventive Medicine, 13(5): 380-384.
- Wingood, Gina M., and Ralph J. DiClemente. (1996). "HIV Sexual Risk Reduction Interventions for Women: A Review". American Journal of Preventive Medicine, 12(3): 209-217.
- World Bank. (1999). Confronting AIDS: Public Priorities in a Global Epidemic. Revised edition. Toronto: Oxford.
- World Health Organization. (2005). "3 by 5" Progress report, December 2004. Available online: <http://www.who.int/3by5/progressreport05/en/> [Last viewed February 15, 2005].
- World Health Organization. (2003) Treating 3 Million by 2005: Making it Happen. The 3 by 5 Strategy Document. Available online: <http://www.who.int> [Last viewed February 15, 2005].
- World Health Organization. (1975). Education and Treatment in Human Sexuality: the Training of Health Professionals. Technical Report Series Nr. 572. Available online: <http://www2.hu-berlin.de/sexology/GESUND/ARCHIV/WHOR.HTM> [Last viewed August 22, 2004].
- Yarber, William L. (1999). Prevalence and Associations of Selected Misconceptions About Correct Condom Use Among US Adolescents: Results from a National Study. Abstract # 625. 1999 National HIV Prevention Conference. US Centers for Disease Control and Prevention: Atlanta, GA.
- Yarber, William and Mohammad Torabi. (1998). HIV Prevention Knowledge Test for Teenagers. In C. Davis, W. Yarber, R. Bauserman, G. Schreer and S. Davis (Eds.), Handbook of Sexuality-Related Measures. (Pp.361-364). Thousand Oaks: Sage.
- Yin, Robert. K. (2002). Case study research: Design and methods. (3rd Ed.) Beverly Hills: Sage.

- Zimet, Gregory D., Susan M. Perkins, Lynne Sturm, Rita Bair, Beth Juliar and Rose Mays. (2005). "Predictors of STI vaccine acceptability among parents and their adolescent children." Journal of Adolescent Health 37(3): 179.
- Zimet, Gregory D., R. Kee, Y. Winston, S. M. Perkins, K. Maharry. (2001). "Acceptance of hepatitis B vaccination among adult patients with sexually transmitted diseases." Sexually Transmitted Diseases, 28(11): 678-80.
- Zimet, Gregory D., R. M. Mays and J. Dennis Fortenberry. (2000). "Vaccines against sexually transmitted infections: promise and problems of the magic bullets for prevention and control." Sexually Transmitted Diseases 27(1): 49-52.
- Zimet, Gregory D., M.J. Blythe and J. Dennis Fortenberry. (2000). "Vaccine Characteristics and Acceptability of HIV Immunization Among Adolescents". International Journal of STD and AIDS, 11 (3): 143-149.

Appendix A – Ethics Approval



University
of Victoria

Human Research Ethics Board
Office of Research Services
University of Victoria
Technology Enterprise Facility, Room 218
Tel (250) 472-4545 Fax (250) 721-7836
Email ethics@uvic.ca Web www.research.uvic.ca

Human Research Ethics Board Certificate of Approval

<u>Principal Investigator</u> Josephine Macintosh Graduate Student	<u>Department/School</u> SOCI	<u>Supervisor</u> Dr. Aaron Devor	
<u>Co-Investigator(s):</u>			
<u>Project Title:</u> An Evaluation of the Full Circle Project: The Effects of a Theatre-based HIV Prevention Intervention on Audience and Actor/Educator Learning			
<u>Protocol No.</u> 077-02	<u>Approval Date</u> 04-Apr-02	<u>Start Date</u> 04-Apr-02	<u>End Date</u> 03-Apr-03

Certification

This certifies that the UVic Human Research Ethics Board has examined this research protocol and concludes that, in all respects, the proposed research meets appropriate standards of ethics as outlined by the University of Victoria Research Regulations Involving Human Subjects.

Dr. Richard Keeler
Associate Vice-President, Research

This Certificate of Approval is valid for the above term provided there is no change in the procedures. Extensions or minor amendments may be granted upon receipt of a "Research Status" form.

077-02 Macintosh, Josephine

Appendix B – Instruments



FULL CIRCLE ~ Behavioural Observations

Tally Sheet ~~||||~~ ~~||||~~ ~~||||~~ |||

NAME OF OBSERVER:		WEEK #			
GROUP OBSERVED A OR B		SCHOOL:			
Minute	0:00 –5:00	5:01 –10:00	10:01 – 15:00	15:01 – 20:00	During Exit Survey
Number of contributions					
Question asked					
Advice offered					
% of youth who appear engaged in discussion	at 5:00	at 10:00	at 15:00	at 20:00	Overall Avg.

BEHAVIOUR OBSERVED AFTER EDUCATORS END DISCUSSION	No	Yes	If Yes, approx. what % ?
Some of the youth appear reluctant to end discussion			
Some youth continue the discussion while completing exit surveys			
Some youth linger in the room close to the actor/educators when dismissed from 'class'			



FULL CIRCLE Exit Survey ~ Week 1

The purpose of this research project is to evaluate the "Full Circle" Project. You have just seen this week's drama instalment. The purpose of this questionnaire is to evaluate whether you, as a member of the audience, learned what we had hoped to teach.

This questionnaire is completely **anonymous**. Please DO NOT put your name on the paper. Your participation in this research is **voluntary**. You DO NOT have to complete the survey. When you are finished please fold it in half and drop it in the box provided.

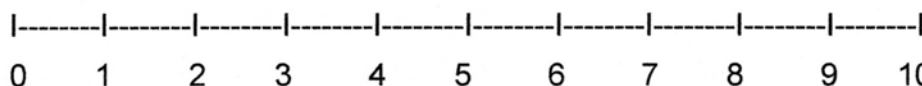
PART 1: Please (circle) the appropriate answers.

Age: 12 13 14 15 16 17 **Gender:** M or F **Academic program:** Regular or Challenge

Race/Ethnicity (circle all that apply): Asian/Pacific Islander Black/African-Canadian
 First Nations Indo-Canadian Latino White Other (specify) _____

PART 2: Please answer the question below, on the scale from 1 to 10, by (circling) the number which best reflects how you feel.

Q: Suppose that tonight a good friend told you that they had just found out they were HIV positive. How confident do you feel that you could support them in dealing with this issue?



Not at all confident:
 I doubt that I could do it. I would need a lot more encouragement &/or experience &/or coaching &/or practice.



Average confidence:
 I could do it, but I could do it better with more encouragement &/or experience &/or coaching &/or practice.



Maximum confidence:
 I can't imagine anything that would make me feel more confident to handle this than I already do now.

PART 3: Please (circle) the appropriate answer.

Question: Do you feel that what you learned here today has made you more or less confident about this issue than you were before? MORE LESS

PART 4:

Question: How does what you have seen or heard here today relate to your real life?



FULL CIRCLE Exit Survey ~ Week 2

The purpose of this research project is to evaluate the "Full Circle" Project. You have just seen this week's drama instalment. The purpose of this questionnaire is to evaluate whether you, as a member of the audience, learned what we had hoped to teach.

This questionnaire is completely **anonymous**. Please **DO NOT** put your name on the paper. Your participation in this research is **voluntary**. You **DO NOT** have to complete the survey. When you are finished please fold it in half and drop it (and the pencil) in the box provided.

PART 1: Please (circle) the appropriate answers.

Age: 12 13 14 15 16 17 **Gender:** M or F **Academic program:** Regular or Challenge

Race/Ethnicity (circle all that apply): Asian/Pacific Islander Black/African-Canadian
First Nations Indo-Canadian Latino White Other (specify) _____

PART 2: Please answer the question below, on the scale from 1 to 10, by (circling) the number which best reflects how you feel.

Q: Suppose that tonight you and your partner have agreed to have sexual intercourse using a condom. How confident do you feel that YOU could easily and skillfully apply that condom?

----- ----- ----- ----- ----- ----- ----- ----- ----- -----										
0	1	2	3	4	5	6	7	8	9	10
↑			↑				↑			
Not at all confident: I doubt that I could do it. I would need a lot more encouragement &/or experience &/or coaching &/or practice.			Average confidence: I could do it, but I could do it better with more encouragement &/or experience &/or coaching &/or practice.				Maximum confidence: I can't imagine anything that would make me feel more confident to handle this than I already do now.			

PART 3: Please (circle) the appropriate answer.

Question: Do you feel that what you learned here today has made you more or less confident about this issue than you were before? MORE LESS

PART 4:

Question: How does what you have seen or heard here today relate to your real life?



FULL CIRCLE Exit Survey ~ Week 3

The purpose of this research project is to evaluate the "Full Circle" Project. You have just seen this week's drama instalment. The purpose of this questionnaire is to evaluate whether you, as a member of the audience, learned what we had hoped to teach.

This questionnaire is completely **anonymous**. Please **DO NOT** put your name on the paper. Your participation in this research is **voluntary**. You **DO NOT** have to complete the survey. When you are finished please fold it in half and drop it (and the pencil) in the box provided.

PART 1: Please (circle) the appropriate answers.

Age: 12 13 14 15 16 17 **Gender:** M or F **Academic program:** Regular or Challenge

Race/Ethnicity (circle all that apply): Asian/Pacific Islander Black/African-Canadian

First Nations Indo-Canadian Latino White Other (specify) _____

PART 2: Please answer the question below, on the scale from 1 to 10, by (circling) the number which best reflects how you feel.

Q: Suppose that tonight you were told that you may have come in contact with a sexually transmitted infection like chlamydia, gonorrhea or HIV. How confident do you feel that you could go to a health clinic or your doctor and ask to be tested?



↑↑

Not at all confident:
I doubt that I could do it. I would need a lot more encouragement &/or experience &/or coaching &/or practice.

↑↑

Average confidence:
I could do it, but I could do it better with more encouragement &/or experience &/or coaching &/or practice.

↑↑

Maximum confidence:
I can't imagine anything that would make me feel more confident to handle this than I already do now.

PART 3: Please (circle) the appropriate answer.

Question: Do you feel that what you learned here today has made you more or less confident about this issue than you were before? MORE LESS

PART 4:

Question: How does what you have seen or heard here today relate to your real life?



FULL CIRCLE Exit Survey ~ Week 4

The purpose of this research project is to evaluate the "Full Circle" Project. You have just seen this week's drama instalment. The purpose of this questionnaire is to evaluate whether you, as a member of the audience, learned what we had hoped to teach.

This questionnaire is completely **anonymous**. Please DO NOT put your name on the paper. Your participation in this research is **voluntary**. You DO NOT have to complete the survey. When you are finished please fold it in half and drop it (and the pencil) in the box provided.

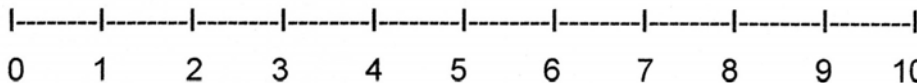
PART 1: Please (circle) the appropriate answers.

Age: 12 13 14 15 16 17 **Gender:** M or F **Academic program:** Regular or Challenge

Race/Ethnicity (circle all that apply): Asian/Pacific Islander Black/African-Canadian
First Nations Indo-Canadian Latino White Other (specify) _____

PART 2: Please answer the question below, on the scale from 1 to 10, by (circling) the number which best reflects how you feel.

Q: Suppose that tonight you were asked to have sexual intercourse by someone you liked, or did not want to alienate. How confident do you feel that you could refuse to have sex if you didn't want to, or that you could insist on safer sex if you did want to have sex with them?



↑↑

Not at all confident:
I doubt that I could do it. I would need a lot more encouragement &/or experience &/or coaching &/or practice.

↑↑

Average confidence:
I could do it, but I could do it better with more encouragement &/or experience &/or coaching &/or practice.

↑↑

Maximum confidence:
I can't imagine anything that would make me feel more confident to handle this than I already do now.

PART 3: Please (circle) the appropriate answer.

Question: Do you feel that what you learned here today has made you more or less confident about this issue than you were before? MORE LESS

PART 4:

Question: How does what you have seen or heard here today relate to your real life?

Appendix C – Consent Forms

UNIVERSITY OF VICTORIA
OFFICE OF THE VICE-PRESIDENT, RESEARCH
HUMAN RESEARCH ETHICS COMMITTEE

Participant Consent Form for Audience Members



With parental consent you can participate in a research study evaluating the effects of Full Circle. This is the research I have agreed to do as part of my Interdisciplinary Social Sciences Ph.D. program. You can contact me, Josephine MacIntosh, by calling the University of Victoria Sociology Department at (250) 721-7572 or by leaving a message at (250) 472-4735. Dr. Aaron H. Devor is supervising this research and you may contact him at (250) 721-7577.

You, and all students in your class, are being asked to participate in this study because your school has agreed to have Full Circle presented to your class. **If you want to, you can volunteer to be one of the teens in the talkback group that researchers will be observing and fill out a short survey each week.** You need parental/guardian consent to participate, but you do NOT have to take part just because you have permission. It is completely your choice. Your participation will help me to know if you thought Full Circle helped you to feel more confident that you can avoid high-risk sexual behaviour and if it was/will be of use to you in real life. I also want to know if you think Full Circle is a good way to teach HIV prevention and sex education, and why.

Full Circle is based on established HIV prevention program guidelines and designed to minimize risk. You will be encouraged to use the question and answer sessions to address any concerns you have that can be dealt with in a public forum. Should you become distressed, school counsellors are available for private discussion, can refer you to community and professional resources, and will encourage you to seek the appropriate support services when necessary.

Your participation is entirely voluntary. If for any reason you do not wish to take part in any aspect of this research you may withdraw at anytime, without any explanation or penalty.

You will remain anonymous. No personal information will be collected and no one besides the researcher(s) will see your data. In any presentations or write-ups about the research there will be no way for anyone to identify you. When the research is complete all raw data will be shredded.

If you are interested, a description of the results of this research will be posted at www.address.TBA as they become available.

If you have any concerns you can contact me, or my supervisor, at the above phone numbers. You can verify the ethical approval of this study, or raise any concerns you might have by contacting Dr. Howard Brunt, the Associate Vice-President, Research at the University of Victoria (250) 472-4362.

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researcher.

_____	_____	_____
Name of Participant	Signature	Date
_____	_____	_____
Name of Parent/Guardian	Signature	Date

A copy of this consent form will be left with you, and a copy will be taken by the researcher.

Parent's Information Sheet



Greetings,

Your child's school has volunteered to have "Full Circle" presented to two classes, one of which your child attends. The Full Circle project is an HIV prevention/sexual health initiative designed for in-school youth. The education initiative has been developed with a 2001 Community Fund Grant from the Vancouver Island Health Authority and with the support of the Rock Solid Foundation and Esquimalt Community School.

Clearly, high-risk sexual behaviour (HRSB) is common among youth. A recent report on three sexually transmitted infections (chlamydia, gonorrhoea and syphilis) in Canada indicated that rates have risen by more than one-third in the past three years and especially within the 15-19 age group. Additionally, in both Canada and the US, rates of HIV continue to increase, particularly among youth populations. Prevention should be a proactive endeavour, which is why we are presenting to youth of your child's age.

The goal of the intervention is to prevent and/or reduce the incidence of high-risk sexual behaviour (HRSB) among youth and to increase awareness and utilization of community sexual health resources and support services. The development of Full Circle has been guided by established research which outlines the key components of successful HIV prevention programs and uses interactive theatre. The theatre productions, written by youth for youth, will consist of a series of original, age appropriate dramatic productions presented by youth volunteers. Full Circle will use youth culture as the framework for education concerning such urgent issues as abstinence, HIV/STI prevention and treatment, pregnancy prevention, decision-making, peer-pressure, negotiation for safer sex, and alternative safer sexual behaviours.

Presented at one-week intervals, the productions will begin in May and will consist of a series of four 20-minute segments of drama followed by 20-minute 'talkback' sessions. Afterwards, 5-10 minutes will be set-aside for the audiences to complete standardized surveys related to the expected learning outcomes for each week.

Briefly, the scenarios are as follows: *Week 1:* A variety of male and female characters infected with HIV describe their lives. *Week 2:* Non-use of condom results in an STI and the characters seek solutions and offer advice for avoiding such problems in the future. *Week 3:* Youth debate the pros and cons of initiating sexual activity and using condoms, and their motives (includes demo of correct condom application using a prop). *Week 4:* Includes an interactive component. Pairs of actors negotiate for abstinence and safer behaviours. Audiences will be asked to provide 'lines' for the actors, giving them the chance to problem-solve in a pseudo-sexual scenario.

The success of the intervention will be evaluated using observation, surveys, and interviews with eligible students. The education initiative is a volunteer project that is a practical application of extensive research on HIV prevention for youth populations.

Great care has been taken to ensure that no aspect of the project or research will put your child at any greater risk than he/she would encounter in everyday life.

UNIVERSITY OF VICTORIA
OFFICE OF THE VICE-PRESIDENT, RESEARCH
HUMAN RESEARCH ETHICS COMMITTEE

Participant Consent Form for Peer Educators

 **Full Circle** YOUTH HIV PREVENTION & SEXUALITY EDUCATION INITIATIVE

An Evaluation of the Full Circle Project: The Effects of a Theatre-based HIV Prevention Intervention on Audience and Actor/Educator Learning

You are being invited to participate in a research study evaluating the effects of Full Circle. This is the social research I have agreed to do as part of my Interdisciplinary Social Sciences Ph.D. program. You can contact me, Josephine MacIntosh, at (250) 385-1714, by calling the University of Victoria Sociology Department at (250) 721-7572 or by E-mail: jmm@ampsc.com. Dr. Aaron H. Devor is supervising this research and you may contact him at (250) 721-7577.

This study is funded by a Michael Smith Foundation for Health Research Doctoral Trainee Award, a University of Victoria Graduate Teaching and Research Scholarship and in part by a Vancouver Island Health Authority Community Fund Grant.

The purpose of this research project is to evaluate the effects of "Full Circle". You are being asked to participate in this study because you volunteered as an actor/educator on the Full Circle project. All youth who volunteered to work on the Community Fund Grant project and who provided video interviews as part of that project are being asked to participate in this research.

If you agree to voluntarily participate in this research, your participation will include giving a video interview (max. 20 minutes) discussing your experiences as an actor/educator once the project is completed. If you are interested and are willing to allow transcriptions of both the before (Full Circle Video Interview 1) and after (Full Circle Video Interview 2) interviews to be included in the research, I will require a signed copy of this consent form. Youth under 19 will also require parental/guardian consent. There are no known inconveniences associated with participation.

While I believe that this research falls within the range of 'minimal risk' because participants can reasonably be expected to encounter no greater harm than that which they may encounter in everyday life, because sexuality is a very personal issue it is possible that there may be unforeseen social, psychological, and/or emotional repercussions. To prevent or to deal with these risks the researcher (Josephine MacIntosh) and the theatre director (Lidia D'Angelo) are available for private discussion, can refer you to community and professional resources, and will encourage you to seek the appropriate support services when necessary.

Your participation in this research has the potential to benefit you, society and the state of knowledge on the effects of peer-driven HIV prevention programs and on peer educator learning by giving you the opportunity to describe, in your own voice, your experiences as a Full Circle peer educator.

No inducement will be offered for participating in the video interviews.

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any penalty or any explanation. If you choose to withdraw part way through the study and request that your data not be used, your video interviews will be erased. If you chose to withdraw after the completion of the last interview, the transcript of your data will not be used and the video interviews will be erased. When transcription of your video interview is complete you will be given a copy to review for accuracy. If you request any changes or request that any part of the interview not be used in write-ups, those requests will be honoured. You will not be named in any publication or presentation of the research without your prior written permission. Any use of actual

video footage (i.e. for presentation or commercial purposes) will require separate consultation and consent.

I am the primary grant holder for the Full Circle Community Fund Grant project. To help prevent this relationship from influencing your decision to participate in the research, the following steps to prevent coercion have been taken: Your involvement in Full Circle and compensation for volunteering on that project is not contingent on taking part in the video interviews. The community project and this research are considered entirely separate. Your selection as an actor/educator makes you eligible to participate in this research but taking on that role does not imply that you have to participate in the research.

This research may lead to a commercial product or service. The nature of this commercial use is educational and aspects of this research may be used to secure public or private funding to offer the Full Circle program on a fee-for-service basis (e.g. to school districts, health authorities, etc.). You will have no claim on any commercial benefit based on your participation in this research.

To protect your anonymity in regards to the video interviews, only transcriptions of the interviews will be used in the write-ups. Only the researcher or her assistants who have signed a confidentiality agreement may transcribe the tapes. The transcribed data will also be stripped of any information that could reasonably be considered to identify you or other people. Video images will not be used without separate consultation with and consent from you and, if applicable, your parent/guardian.

While I cannot guarantee complete anonymity in the case of the video interviews because of the small number of actor/educators working on the project, your confidentiality and the confidentiality of the data will be protected by using a unique identification code which will be noted on the videotapes and consent forms for cross-referencing. The consent forms and videotapes will be kept in different locked cabinets.

Data from this study will be disposed of within five years of the time the research is complete. All raw data will be shredded and all video interviews will be erased. Individual video interviews (in whole or in part) will be exempt from erasure only if special arrangements have been made between that specific participant, their parent/guardian (if applicable) and the researcher.

It is anticipated that the results of this study will be shared with others in the following ways: This research will be written-up in my doctoral dissertation. It is expected that the results will be presented at various professional conferences and that one or more articles describing this research will be published in peer-reviewed journals including, but not limited to those dedicated to HIV/AIDS prevention, public health, adolescence, sexuality, and/or education. In addition, the results will be published on a website (www.address.TBA) that participants may access. It is also possible that some or all of the results may be described in a film portraying the Full Circle community project.

If you have any concerns you can contact me, or my supervisor, at the above phone numbers. You can verify the ethical approval of this study, or raise any concerns you might have by contacting Dr. Howard Brunt, the Associate Vice-President, Research at the University of Victoria (250) 472-4362.

Your signature below indicates that you understand the above conditions of participation in this study and that you have had the opportunity to have your questions answered by the researcher.

_____	_____	_____
Name of Participant	Signature	Date
_____	_____	_____
Name of Parent/Guardian	Signature	Date

A copy of this consent form will be left with you, and a copy will be taken by the researcher.

Curriculum Vitae
of
JOSEPHINE MACINTOSH

Department of Sociology, University of Victoria
P.O. Box 3050, Victoria, BC, Canada, V8W 3P5
Phone: (250) 385-1714 or (250) 721-7577
Fax: (250) 721-6217
E-mail: jmm@uvic.ca
Webpage: <http://web.uvic.ca/~jmm>

Education

- 2006 Ph.D., Interdisciplinary Studies, University of Victoria
1997 B.A., Psychology/Sociology, University of Victoria *with distinction*
1994 Assoc. Arts, Psychology, Camosun College

Ph.D. Dissertation

“Theatre-Based Peer Education for Youth: A Powerful Medium for HIV Prevention, Sexuality Education *and* Social Change?”.

Interdisciplinary Focus

Sociology; Psychology; Anthropology; Health Communication.

Research Interests

High-Risk Sexual Behaviour; Sexual Health & Education; HIV Prevention; Youth; Socio-cultural Constructions of HIV/AIDS; Population Health; Community-based Research.

Academic Appointments (University of Victoria)

- Jan 2007 Sociology 211 (S01): *Introduction to Sociological Research.*
Jan 2007 Sociology 321 (S01): *Sociology of Work and Occupation.*
Sep 2006 Sociology 100 (F02): *Introduction to Sociology.*
Sep 2006 Sociology 376 (F01): *Quantitative Research Methods.*
Aug 2006 Sociology 100 (S01): *Introduction to Sociology.*
Jan 2006 Sociology 100 (S01): *Introduction to Sociology.*
Sep 2005 Sociology 376 (F01): *Quantitative Research Methods.*
Aug 2005 Anthropology 355 (Q01): *AIDS in the World.*
Jan 2005 Anthropology 393 (S02): *Selected Problems in Cultural Anthropology - Cultural Constructions of HIV/AIDS.*

Professional Memberships

- Since 2003 Community Alliance for Health Research, University of Victoria.
- Since 2003 Centre for Youth and Society, University of Victoria.
- Since 2002 Society for the Scientific Study of Sexuality (SSSS).
- Since 2002 Pacific Sociological Association.
- Since 2001 Sex Information & Education Council of Canada.

Specialized Training

- 2002 Kinsey Institute for Research on Sex, Gender, and Reproduction, Indiana University, Bloomington IN, USA. *Kinsey Summer Graduate Training Institute, Sexual Science Seminar – K690, “Interventions for High-Risk Sexual Behavior: Design, Implementation, and Evaluation”*. June 9-16.
- 2001 Kinsey Institute for Research on Sex, Gender, and Reproduction, Indiana University, Bloomington IN, USA. *Kinsey Summer Graduate Training Institute, Sexual Science Seminar – K690, “Understanding High-Risk Sexual Behavior”*. July 22-29.

Professional Development

- 2005 *Instructional Technology Series I: Classroom Response Systems: "Clickers" making large classes feel small*. Learning and Teaching Centre, University of Victoria.
- 2005 *Regression Analysis Workshop Series*. Community Alliance for Health Research, Centre for Youth and Society, UVic. August.
- 2004 *Summer Institute in Qualitative Analysis*. Community Alliance for Health Research, Centre for Youth and Society, UVic. June.
- 2004/05 *Course (Re)Design Workshops*. Learning & Teaching Centre, UVic.
- 2004 *Integrating Excellent Teaching & Research: Examples of Win-Win Strategies from MIT*. Learning and Teaching Centre, UVic.
- 2003/05 *Graduate Training Colloquiums*. Community Alliance for Health Research, Centre for Youth and Society, University of Victoria.
- 2002/05 *Program in University Teaching (PUT)*. Learning & Teaching Centre, UVic.
- 2000 *Instructional Skills Workshop*. Learning and Teaching Centre, UVic.
- 2000 *UBC Press Publishing Seminar*. University of Victoria.
- 1999 *Communicating to Non-specialists*. Professional Writing Program Workshop, University of Victoria.
- 1999 *HTML I & II: Web Design Workshops*. Computing User Services University of Victoria.

Research Positions

- Summer 2005, **Research Assistant for Epidemiology and Disease Control, Vancouver Island Health Authority South.** Interviewer for "I-TRACK: Enhanced Surveillance of Risk Behaviours among Injecting Drug Users in Canada: Phase 2". Quantitative survey administration to assess high-risk injection and sexual behaviours and dry blood sample collection. A Health Canada multi-site study.
- 2004-present, **Research Assistant to Dr. Sandra Wieland, Centre for Counselling and Therapy, Victoria.** Administration of pre- and post-test measures designed to test the efficacy of "Stopping the Cycle", a program for children (ages 6-12) with sexually intrusive behaviours and their parents.
- 2003-2006, **Research Assistant to Dr. Cecilia Benoit, Sociology, University of Victoria.** Interviewer for "Interactive Service Workers Occupational Health and Safety and Access to Health Services". Collection of health relevant quantitative and qualitative data from interactive service workers. This study is designed to assess how differences in working conditions and prestige of the profession affect health and access to health services for the workers and their children.
- 2003-2005, **Research Assistant to Dr. Cecilia Benoit and Dr. Mikael Jansson, Sociology, University of Victoria.** Interviewer for "Risky Business?: Experiences of Children and Youth in the Sex Trade". Collection of health relevant quantitative and qualitative data from street-involved youth. "Risky Business?" is a collaborative study designed to investigate the causal links between youth marginalization, sex trade activity and injury. Part of Healthy Youth in a Healthy Society: A community alliance for reducing risks for injury in children and adolescents.
- Fall 2003, **Research Assistant for Epidemiology and Disease Control, Vancouver Island Health Authority South.** Interviewer for "I-TRACK: Enhanced Surveillance of Risk Behaviours among Injecting Drug Users in Canada: Phase 1". Quantitative survey administration to assess high-risk injection and sexual behaviours and dry blood sample collection. A Health Canada multi-site study.
- Winter 2003, **Research Apprenticeship with Dr. Bonnie J. Leadbeater, Psychology, University of Victoria.** Qualitative data coding and collection on a longitudinal study of the efficacy of the W.I.T.S. Rock Solid Primary Program for the Prevention of Peer Violence. Part of Healthy Youth in a Healthy Society: A community alliance for reducing risks for injury in children and adolescents.
- 1998- present, **Research Assistant to Dr. Aaron H. Devor, Sociology, University of Victoria.** Current: HTML authoring. Previous: Historical and biographical investigative research for "Sex, Drugs, Religion and \$40 Million Dollars: Reed Erickson and the Erickson Educational Foundation".

Grants & Academic Awards

- 2002/05 Doctoral Fellowship (population health), Michael Smith Foundation for Health Research/ BC Medical Services Foundation Trainee Award, Province of British Columbia. Three years, \$22,500/yr.
- 2002/03 Norman Barwin Scholarship, The Planned Parenthood Federation of Canada. \$2,500.
- 2002 Sara Spencer Foundation Research Award in Applied Social Science. \$2,500.
- 2002 Kinsey Summer Graduate Training Institute Scholarship, Kinsey Institute for Research in Sex, Gender, and Reproduction, Indiana University, Bloomington IN, USA. All expenses.
- 2001/02 Capital Health Region Community Fund Grant. For creation of "Full Circle": An HIV Prevention/Sexuality Education Program for Youth, \$9,800.
- 2001 Centers for Disease Control and Prevention (CDC), 2001 National HIV Prevention Conference Scholarship, Atlanta, Georgia, USA. All expenses.
- 2001 Kinsey Summer Graduate Training Institute Scholarship, Kinsey Institute for Research in Sex, Gender, and Reproduction, Indiana University, Bloomington IN, USA. All expenses.
- 2001 Dean's Interdisciplinary Graduate Scholarship, Faculty of Graduate Studies, University of Victoria. \$5,000.
- 1999 Centers for Disease Control and Prevention (CDC), 1999 National HIV Prevention Conference Scholarship, Atlanta, Georgia, USA. All expenses.

Publications

- In press "HIV/AIDS Stigma and Discrimination: A Canadian Perspective and Call to Action". *Interamerican Journal of Psychology. Special Issue (December 2006) - AIDS Stigma: International perspectives on research and intervention*. Nelson Varas-Diaz & Jose Toro-Alfonso, University of Puerto Rico (Eds.).
- 2006 "HIV/AIDS 101". Chapter in Eric R. Wright and Carrie E. Foote-Ardah (Eds.). Teaching the Sociology of HIV/AIDS: Syllabi, Lectures and Other Resources for Instructors and Students (3rd Edition). American Sociological Association.
- 2006 "Theories of Change & Some Examples of Successful Programming". Chapter in Eric R. Wright and Carrie E. Foote-Ardah (Eds.). Teaching the Sociology of HIV/AIDS: Syllabi, Lectures and Other Resources for Instructors and Students (3rd Edition). American Sociological Association.

Publications continued

- 2005 "Does Gender Matter? Males and Females in the Sex Trade". Oral presentation. XV World Congress of Sexology of the World Association for Sexology Conference Proceedings CD ROM. Montreal, Quebec: Content Management.
- 2004 "Challenging an Epidemic of Stigma: The Importance of Biologically and Socially Appropriate Interventions". Abstract D7833. XV International AIDS Conference Abstract CD ROM. Bangkok, Thailand: Congrex.
- 2004 "Stigma, Social Exclusion and Health: Sex Work in Canadian Society". *With Rachel Philips and Cecilia Benoit*. International Interdisciplinary Conference on Gender, Sexuality and Health. Conference Proceedings. Vancouver, BC: Simon Fraser University.
- 2003 "An Assessment of the Full Circle Project: Can Theatre-based Sexuality Education Help Overcome Cultural Barriers?". Track 2 Abstracts (Sexuality – Meanings, Values and Behavior). 2nd Asian Pacific Conference on Reproductive and Sexual Health. Bangkok, Thailand: Mahidol University.
- 2003 "The Full Circle Project: Using Theatre for Sexuality Education and HIV/STI Prevention". Abstract 181. 2003 National HIV Prevention Conference Abstract Book. Atlanta GA: National Center for HIV, STD, and TB Prevention.
- 2003 "An Assessment of the Full Circle Project: Some Effects of a Theatre-based HIV Prevention Intervention on Audience and Actor/Educator Learning". Congress Proceedings. 16th World Congress of Sexology. Havana, Cuba: CENESEX.
- 2002 "A Preliminary Evaluation of the Full Circle Project: Some Effects of a Theatre-based HIV Prevention Intervention on Audience and Actor/Educator Learning". Produced for the Vancouver Island Health Authority. Victoria, BC: Author.
- 2002 "An Evaluation of the Full Circle Project: The Effects of a Peer-driven Theatre-based HIV Prevention Intervention on Audience and Actor/Educator Learning". Abstract F12170. XIV International AIDS Conference Abstract CD ROM. Barcelona, Spain: Congrex.
- 2002 "Full Circle Youth HIV Prevention & Sexuality Education Program: Teacher's Guide", with Lidia D'Angelo. Victoria, BC: Author.
- 2002 "Full Circle Youth HIV Prevention & Sexuality Education Program: Peer Educator's Guide". Victoria, BC: Author.
- 2001 "A Visual Exploration of Social Marketing Strategies That Are Counter to HIV Prevention Efforts". Abstract 423. 2001 National HIV Prevention Conference Abstract Book. Atlanta GA: National Center for HIV, STD, and TB Prevention.

Conference Presentations

- 2006 Teaching the Sociology of HIV/AIDS. Workshop Co-facilitator. 100th Meeting of the American Sociological Association. Montreal, Quebec. July.
- 2005 "Does Gender Matter? Males and Females in the Sex Trade". Oral presentation. XV World Congress of Sexology of the World Association for Sexology. Montreal, Quebec. August.
- 2004 "Challenging an Epidemic of Stigma: The Importance of Biologically and Socially Appropriate Interventions". Poster session. XV International AIDS Conference. Bangkok, Thailand. July.
- 2004 "Stigma, Social Exclusion and Health: Sex Work in Canadian Society". Oral presentation with Rachel Philips. International Interdisciplinary Conference on Gender, Sexuality and Health. Vancouver, BC: Simon Fraser University. June.
- 2003 "An Assessment of the Full Circle Project: The effects of a peer-driven theatre-based HIV prevention intervention". Oral Presentation. Society for the Scientific Study of Sexuality. San Antonio, Texas. November.
- 2003 "An Assessment of the Full Circle Project: Can theatre-based sexuality education help overcome cultural barriers?". Oral Presentation on Sexuality – Meanings, Values and Behavior. 2nd Asian Pacific Conference on Reproductive and Sexual Health. Bangkok, Thailand. October.
- 2003 "The Full Circle Project: Using Theatre for Sexuality Education and HIV/STI Prevention". Poster session. 2003 National HIV Prevention Conference. Atlanta, Georgia. July (accepted, unable to attend).
- 2003 "Youth Sexuality On Stage: Using Theatre for Sex Ed and STI Prevention". Poster session. 2003 Guelph Sexuality Conference. June (accepted, unable to attend).
- 2003 "An Assessment of the Full Circle Project: Some effects of a theatre-based HIV prevention intervention on audience and actor educator learning". Oral Presentation. XVI World Congress of Sexology of the World Association for Sexology, Havana, Cuba. March.
- 2002 "Cultural Influences in HIV Prevention: Youth culture, gay culture, and ethnic culture". Roundtable Discussion, Society for the Scientific Study of Sexuality, Montreal, PQ. November.
- 2001 "A Visual Exploration of Social Marketing Strategies that are Counter to HIV Prevention Efforts", Poster Session. 2001 National HIV Prevention Conference, Atlanta, GA, August.

Invited Addresses

- 2004 "Challenging an Epidemic of Stigma: The Importance of Biologically and Socially Appropriate Interventions". Anthropology 355: AIDS in the World, University of Victoria, March.
- 2004 "Interdisciplinary Studies". Community Alliance for Health Research Graduate Student Forum, Centre for Youth and Society, UVic, February.
- 2004 "Group Dynamics". With Paul Squires. Learning & Teaching Centre, (TA Day 2), University of Victoria, January.
- 2001 "The Balancing Act of Teaching, Research, and Maintaining a Life!". Learning & Teaching Centre, (TA Day 1 & 2), University of Victoria, September and January.
- 2001 "Youth Sexuality and Social Policy", Interchange on Canadian Studies Conference at Royal Roads University. BC Ministry of Education, May.
- 2000 "Sexually Transmitted Diseases and HIV/AIDS: Focus on Women and Female Youth". Ingane iAfrica Fundraiser, Circle K, UVic, November.
- 2000 Sociology Department Research Seminar, UVic, October.
- 1999 Shoreline Community School, Career & Personal Planning, November.
- 1999 Sociology 565, Social Justice, February.

University Speakers' Bureau Lectures

- 2001 Shoreline Community School, Career & Personal Planning (CAPPS), October.
- 2001 Shoreline Community School, CAPPS class, October.
- 2001 Royal Roads University, Interchange on Canadian Studies, May.
- 2000 Ingane iAfrica Fundraiser, November.
- 2000 Reynolds Secondary School, STDs, CAPPS class, March.
- 2000 Reynolds Secondary School, STDs, CAPPS, April.
- 2001 Saanich Kiwanis, April.

University of Victoria Guest Lectures

- 2005 Sociology 382, Human Sexuality, November.
- 2004 Anthropology 355, AIDS in the World, March.
- 2003 Sociology 382, Human Sexuality, March.
- 2002 Sociology 382, Human Sexuality, February.
- 2001 Sociology 382, Human Sexuality, November.
- 2001 Sociology 382, Human Sexuality, February.
- 2000 Sociology 382, Human Sexuality, November.
- 2000 Sociology 103, Canadian Society, June.

WebPages Designed

- 2005 Anthropology 393 Website: <http://web.uvic.ca/~jmm/ANTH393>
- 2003 Cecilia Benoit's Homepage: <http://web.uvic.ca/~cbenoit/>
- 2002 Full Circle Homepage: <http://web.uvic.ca/~jmm/FullCircle/>
- 2002 My Homepage: <http://web.uvic.ca/~jmm/>
- 2000 Aaron H. Devor's Homepage: <http://web.uvic.ca/~ahdevor/>
- 2000 How Many Sexes? How Many Genders? When Two Are Not Enough, for Aaron H. Devor.
<http://web.uvic.ca/~ahdevor/HowMany/HowMany.html>
- 1999 Reed Erickson and the Erickson Educational Foundation, for Aaron H. Devor. <http://web.uvic.ca/~erick123/>

Desktop Publications

- 2001/02 Lang Cove Sunshine, Editor/Layout Artist, Newsletter, approx. 28 pages, quarterly.
- 2000 Lang Cove Sunshine, Editor/Layout Artist, Newsletter, approx. 28 pages, bi-monthly.

Academic and Community Service

- 2005/07 Departmental Representative for Sessional Instructors. Department of Sociology, University of Victoria.
- 2004 Steering Committee, "Youth Forum: Making Connections, Building Bridges". Centre for Youth and Society, University of Victoria, BC (in cooperation with the Greater Victoria School District 61).
- 2001/02 Co-ordinator, "Full Circle" Youth HIV Prevention/Sexuality Education Project. Funded by a Capital Health Region Community Grant, Victoria, BC.
- 2001 Jury Duty, Criminal Trial, Victoria, BC.
- 2000/03 Security Volunteer, Victoria Jazz Society, Blues Bash, Victoria, BC.
- 2000/02 Board of Directors, Lang Cove Housing Cooperative, Victoria, BC.
- 2000/02 Newsletter Editor/Layout Artist, Lang Cove Housing Cooperative, Victoria, BC.
- 1998 Chairperson, Education Committee, Lang Cove Housing Cooperative, Victoria, BC.
- 1997 Jury Duty, Speaker, Criminal Trial, Victoria, BC.
- 1996/97 Chairperson, Membership and Grievance Committees, Lang Cove Housing Cooperative.
- 1994/95 Board of Directors, Lang Cove Housing Cooperative, Victoria, BC.