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**COMPREHENSIVE HEALTH EDUCATION
AND PREVENTION SERVICE NEEDS OF CHILDREN
IN OUT-OF-HOME CHILD WELFARE SETTINGS
IN MASSACHUSETTS**

by
DOROTHY M. WEBMAN

A dissertation submitted to the Graduate Faculty of Social Welfare in partial fulfillment of the requirements for the degree of Doctor of Social Welfare, The City University of New York.

1996

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This manuscript has been read and accepted for the Graduate Faculty in Social Welfare in satisfaction of the dissertation requirement for the degree of Doctor of Social Welfare.

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ABSTRACT

**COMPREHENSIVE HEALTH EDUCATION AND PREVENTION SERVICE
NEEDS OF YOUTH IN OUT-OF-HOME CHILD WELFARE SETTINGS
IN MASSACHUSETTS**

by

DOROTHY M. WEBMAN

ADVISOR: Dr. Irwin Epstein

Each year, approximately 1,800 of the 13,500 children in the care of the Massachusetts Department of Social Services (MDSS) receive residential treatment services (MDSS, 1996). Teenagers are placed in the care and custody of the MDSS for a variety of reasons including removal from family due to abuse or neglect, disrupted adoptions, voluntary placements or through Child in Need of Services (CHINS) petitions.

A focal point of this dissertation is the risk-taking behavior of 300 adolescents who were studied while in the care of MDSS and placed in residential treatment centers throughout the state. Results of this analysis were compared to a similar study of 3,050 youth in public schools in Massachusetts. Both studies employed the use of a

nationally recognized risk-assessment instrument, the Youth Risk Behavior Survey. This study revealed startling information about the age of onset of a range of risk-taking behaviors among youth in residential programs. Before the age of nine, fifty-four (18.0%) of the subjects smoked their first cigarette; sixty-five (21.7%) of these youth had their first alcoholic beverage; sixty-one (20.3%) of these girls and boys first tried marijuana; and sixty-nine (23.0%) had sexual intercourse. Clearly, these young people entered residential treatment with a substantial history of risk-taking behavior.

Significant differences between public school and residential school students on all dimensions of risk-taking behaviors were identified. Residential school students reported three times more tobacco use, five times more injectable drug use, five times more incidents of pregnancy, and double the rate of violent experiences than did their public school peers. Residential school students also reported significantly higher rates of suicidal thought and planning attempts. Girls in these residential schools reported higher involvement in most dimensions of risk-taking than their male peers in residential programs.

Despite the fact that youth in residential treatment exhibit such serious health-related risk-taking behaviors, they rarely receive comprehensive health education and prevention services. This study explores categorical funding streams and services systems that could alleviate this life-threatening service gap. Finally, recommendations for re-organizing, integrating, and coordinating systems of care for teenagers in Massachusetts are offered.

DEDICATION**In Memoriam**

Daniel Gage, Jr.
Wendy Bennet-Alder
My Grandmother - Mary Nardone
My Aunt - Dorothy Webman
My Uncle - Sid Bass

Thank you for your love, friendship and support and for teaching me what I needed to know about leading a full and healthy life. Collectively, you were part of the "village that raised this child" to be the doctoral candidate she is today. I will do my best to honor you by sharing your unique perspectives of life with others.

In Honor Of

The thousands of young people and their families
I have worked with over the past 15 years and throughout
the "Making Smoking History in Residential Schools Project".

Thank you all for teaching me about risk-taking and resilience and for sharing the joys and sorrows of your lives with me. You are the inspirational force for this manuscript.

With Highest Hopes and Lots of Love

To my godchild, Kendall Mary Dickieson

Remember, "The canvas blank---so many possibilities." - George Seurat

Kendall, I promise your family will try to provide you with all the love, encouragement and support you will need to lead a happy, healthy and productive life.

In Germany they first came for the communists, and I didn't speak up because I wasn't a communist. Then they came for the Jews, and I didn't speak up because I wasn't a Jew. Then they came for the trade unionists, and I didn't speak up because I wasn't a trade unionist. Then they came for the Catholics, and I didn't speak up because I was a Protestant. Then they came for me—and by that time no one was left to speak up.

-Pastor Martin Neimoller

Never doubt that a small group of thoughtful committed citizens can change the world; indeed it's the only thing that ever does.

-Margaret Mead

It takes a village to raise a child.

-African Proverb

Each one teach one; each one greet one; each one bring one into the sun.

-African Proverb

Teach the lessons that promote love and competence.

-Albert E. Trieschman

Don't stop thinking about tomorrow.

-Fleetwood Mac and President Bill Clinton.

All we are saying is give peace a chance.

-John Lennon

ACKNOWLEDGMENTS

I feel extremely fortunate to have known and been cared for by so many wonderful human beings. My mentors, colleagues, friends and family members, who stood by me throughout this process, as well as the young people who participated in this study, have had a lasting impact on my life and career. Their support and encouragement have been invaluable to me. Special thanks go to the following people:

Irwin Epstein, my doctoral program advisor and dissertation chair person, for his infinite wisdom, inspiration, patience and generosity. His thought-provoking feedback, constructive criticism, and sound advice made a tremendous contribution to this work. I am indebted to him for helping me think through the practice and research challenges I faced throughout the development of this dissertation and the course of my doctoral studies. He always believed in me—even when I was uncertain—and supported me personally and professionally throughout the process. For these and numerous other reasons, I thank him and vow to share the skills and values he taught me with others.

Bogart Leashore, Dean of Hunter College School of Social Work, who took the time out of his extremely demanding schedule to participate in my dissertation committee. I have been most fortunate to have had the opportunity to work with Dean Leashore over the years and to benefit from his depth of knowledge in child welfare practice and services for high-risk young people and their families. I thank him for sharing his observations about the findings of this dissertation and for his sensitivity to

my advocacy agenda. His insightful comments and feedback are woven throughout this manuscript. I have been and continue to be sincerely appreciative of his support for all my professional and academic endeavors.

Paul Gitelson, Executive Director of the Jewish Child Care Association of New York, alumni of this doctoral program, and the person responsible for my application to the program, for his unconditional personal and professional support. From the day I met him, Dr. Gitelson has taken it upon himself to offer me career guidance and to gently let me know when I needed to stop and rethink a critical issue or situation. His practice-based feedback and interpretations of the findings in this dissertation were invaluable. I thank him for all he has done to help me grow as a professional and an individual. I also thank him for the reminder that I have an obligation to ground my intellectual pursuits in practice realities.

Harold Weissman, Director of the Social Welfare doctoral program at CUNY and member of my dissertation committee, for sharing his “practice wisdom” and the multiple sides and interpretations of many political and policy issues. His persistent efforts to help me expand my critical thinking capacity have radically shaped the way I think and act as an advanced generalist social worker and program and policy development consultant.

Richard Weissbourd, my CAS advisor at Harvard University Graduate School of Education and the Kennedy School of Government, who inspired me to reframe my thinking about risk and resilience and helped me learn about new ways to influence policy makers and communities to create better environments for growing children. I was most fortunate to have Dr. Weissbourd, one of the most insightful and supportive experts in the field of risk and prevention studies, and author of *The Vulnerable Child*, as a mentor. I thank him for being a great role model and a terrific teacher.

Carol Gilligan, Mimi Abramowitz, and Marguerite Rosenthal

Each of these female leaders in the fields of human development and social work have heightened my awareness of the void in the research and policy literature on girls and women. Their collective perspectives inspired the gender analysis of the data collected for this project. I have been most fortunate to have studied with them and to have benefited from their research, practice and advocacy wisdom.

Stephen Joffe, President/CEO of Concord-Assabet Family and Adolescent Services, my friend, mentor and colleague, for believing in me and taking a risk on the Making Smoking History in Residential Schools Project. His undying faith in the mission of the project and his willingness to allow me to conduct this secondary analysis of the data for this dissertation made all the positive outcomes possible. I have a special appreciation for his “unique sense of the obvious” and his constant search for better ways to help serve troubled children and their families.

**The Massachusetts Department Of Public Health And
Massachusetts Department Of Education**

Their funding of the Making Smoking History in Residential Schools Project and the Statewide Special Education and Child Welfare Comprehensive Health Education Library were critical to the development of this dissertation. MDPH and MDOE's actions validated the needs of youth in residential schools to access comprehensive health education and prevention services. I thank them, personally and on behalf of the children who have benefited from these programs, for taking on this critical issue. Special thanks to the Tobacco Control Program staff in both departments.

Project Research Assistants

To all the people who have given selflessly to this project and especially to Susanna Witt, Jessica Semerjian, and Rob Jacoby. I thank them for the special contributions they made to this effort and for their support of this work. These young leaders administered surveys, entered data, helped broker community prevention services for project participants, and, most importantly, helped keep me afloat throughout the process. For this and many other reasons too numerous to mention, I thank them all.

Sandy Shannon, doctoral program logistics master par excellence, for her unending support throughout the program. She kept me informed and included in everything despite the fact that I spent one year on leave and in another state. I thank her for listening to me, believing in me and helping me take care of all the details. And special thanks for all the calls she made to Vince DeLuca.

Gary Anderson, Professor at Hunter College School of Social Work and Principal Investigator of the National Resource Center for Permanency Planning, for supporting me throughout the doctoral program. His kind words of encouragement were always an inspiration to me. While working with Dr. Anderson on Resource Center activities, I was able to learn much of what I needed to know to conduct a thorough analysis of a state child welfare system. I am grateful to him for providing me with that opportunity.

A Special Thanks To All My Friends And Colleagues

I have determined that it is nearly impossible to get into or out of a doctoral program without the support of friends, family and colleagues. I have had the good fortune to have had many such people in my life.

Kevin Cranston, Director of the MDPH Adolescent HIV Division - I thank him for teaching me how to navigate multiple systems and for supporting my interest in finding ways to meet the comprehensive health education needs of youth in residential care.

Geneva Woodruff, founder of the transagency transdisciplinary model - I thank her for introducing me to Aunt Sally and all the other critical players in program development. I also thank her for being there for me through the last hours of this dissertation process, and, most importantly, for all the years of mentoring and friendship she has given me.

Gary Mallon - I thank him for lending me his books, calling me every month to see how I was doing, and for entertaining and sharing research questions and advocacy strategies with me. He always listened to me and reiterated his faith in my ability to get through the dissertation and the doctoral program.

Ed Chuang - I thank him for being there through all the toughest times and for being my friend.

I am grateful to each of the following people who have “been there” for me at critical junctures of this process: **Nora Schaaf, Paul Duck, Stewart Bloom, Tina Cowles, Maria Teresa Cudiero, Mario Nardone, Jake Terpstra, Ron Manderscheid, Barbara Dune, Mark Krueger, John Robards, Rick Bizot, Anita Cotton, Aunt Lenore, Jennifer Goldberg, Katie Miller, Heather Clayton, Ben Taxy, Desiree Quintana, Amy Baron, Betina Schultz, the Work Group, Phil Micali, Thomas Idiculla, Astrid and Doug Dodds, Malcolm and Elisa Harriman, and Giovanni** - They have all helped to keep me sane. Thank you!

My Family

And last but not least –When I told my father that the last thing I had to do for this dissertation was to write the acknowledgments he said, “you mean you can’t just say “thanks mom, dad and everyone else...Short, sweet and to the point.” Well, I want to thank my father for always making complex tasks seem do-able, for sharing his value

of the pursuit of intellectual questions, and for telling me all he expected was that I try my best. A special thanks for the *New York Times* service—it came in handy at all the right times. I would like to thank my mother for teaching me how to be a competent female leader and strong woman. I am especially appreciative of my mother's dedication to family and her selfless dedication to her children and grandchild. I must also thank both of my parents raising me in an intellectually stimulating environment and for encouraging me to explore community service at an early age. Needless to say, this led me to a line of work I enjoy and love. I am also grateful for their joint commitment to encouraging me to think critically. To my sisters, Marcia and Beverly, and my brother-in-law, Brad, I want to thank you all for your love and support. Most importantly, thanks to the whole family for understanding about all the events I missed or had to postpone—the next one will be at my house and everyone will be invited! It is truly time to celebrate!

PREFACE

In the course of more than ten years of work in child and adolescent residential treatment centers and national resource centers serving residential treatment agencies, I found that the majority of residential treatment centers were not funded to provide comprehensive health education and prevention services for the youth and families in their care. I also found that because of this lack of services, the comprehensive health education and prevention needs of the youngsters who live in these settings were not being adequately addressed (Combs-Orme, Chernoff, & Kager, 1991).

These observations moved me to advocate for comprehensive health education and prevention services for youth who receive “care and treatment” in residential programs. Over a period of eight years, I regularly delivered testimony to various government officials, advocating for the implementation of equal access rights of all youth in residential treatment, as well as for the funding of new initiatives to address these youth’s unmet comprehensive health education and prevention services needs. Simultaneously, I offered training and technical assistance to child welfare agencies addressing comprehensive health education/prevention programs and policies. I also worked to enlist child welfare professionals in the fight for funding for comprehensive health education and prevention services for emotionally disturbed, learning disabled, and behaviorally disordered (ED/LD/BD) youth and their families. After eight years,

despite these many efforts, little financial support has been made available to adequately address these youth's comprehensive health education and prevention needs.

Categorical funding streams and boundaries between the child welfare, education and public health systems have allowed each agency to transfer blame and responsibility for the comprehensive health education and prevention needs of this population to the other. The net result is that none of these agencies is accepting the financial obligation to provide comprehensive health education and prevention services for children in child welfare residential settings. This lack of responsiveness has contributed to the perpetuation of a critical service gap. Today, all of these agencies are calling for better services coordination to address the needs of high risk, high service utilizing populations. None of these agencies want the service gap to continue to exist, yet a lack of adequate funding keeps all of them from offering new initiatives that can meet the comprehensive health education and prevention needs of youth in residential treatment.

Though legislators and other stakeholders have found the equal access argument compelling, they have been unwilling to act or move forward without statistical evidence to substantiate the need for youth in residential treatment to receive special comprehensive health or prevention programs. To date, conclusive data has not been available. Data on the risk-taking behavior of youth in out-of-home care needed to be compiled and analyzed. Baseline information could provide a basis to verify the comprehensive health education and prevention needs of the population. There was

also a need to study the impact of public health, education, and child welfare systems' eligibility criteria and service standards on the availability of comprehensive health education and prevention services for the ED/LD/BD child welfare population in question. This study was designed to fill this information void.

It is important to note that this project came to life during times of economic restraint, times when existing social programs are being cut and new ones are rarely being funded. In 1992, quite surprisingly, a new funding stream, the Massachusetts Tobacco Control Program (MTCP), provided an opportunity for the pursuit of this information. In 1993, MTCP funded a three-year research-based demonstration program that included an investigation of the comprehensive health education and prevention needs of youth in out-of-home care in Massachusetts. As the principal investigator of this study, I was afforded the opportunity to assess the prevalence of risk-taking behavior of youth in residential treatment centers and to identify their comprehensive health and education service needs of youth in residential treatment.

Tripodi, Fellin, and Epstein (1978) have said that solid program evaluation should begin at the pre-implementation stage of project development. They suggest that pre-implementation process markers such as the activities that lead to funding the program, the ways that the project staff develop a mutual understanding of the problem and the level of consensus they reach in the program design, may significantly influence overall project outcomes. With this in mind, a brief overview of the pre-implementation circumstances that surrounded the development of the project will be presented.

The Impetus For Project Initiation

In 1992, Massachusetts voters adopted a cigarette tax and instructed legislators to direct revenues generated from the tax to support the development of a comprehensive statewide education, prevention and cessation campaign to “Make Smoking History in Massachusetts.” The new social program, placed under the auspices of the Massachusetts Department of Education (MDOE) and the Massachusetts Department of Public Health (MDPH), created opportunities to target a variety of populations in a number of different ways. In the past, it had been very difficult to fund comprehensive health education or prevention activities for youth in residential programs because health education and prevention initiatives traditionally have targeted youth by geographic catchment areas. Residential youth do not come from the geographic area in which they are served; therefore, they can and do slip through the comprehensive health education and prevention funding cracks. The innovative funding categories of this new smoking prevention initiative provided an opportunity for youth in these programs to make progress toward gaining equal access to services funded for comprehensive health education and prevention services for the first time. These services were provided within a broad category of the initiative called research-based demonstration projects.

It is important to note that, as in the past, it was impossible to apply to MDPH for funding under this initiative under the category of “youth smoking prevention” because eligibility for that funding stream was limited by geographic community. However, the

research-based demonstration project category was open to populations statewide, had no defined age limits, and therefore created the chance to get the “Making Smoking History in Residential Schools” project funded. The grant was awarded to Concord-Assabet Family and Adolescent Services (CAFAS), a multi-service, non-profit child, youth and family services organization. The charge of the grant was to implement a three-year research-based demonstration project to investigate smoking among ED/LD/BD youth and to measure the effects of educational and therapeutic interventions on youth and their smoking behavior. Upon being awarded the grant, the agency opted to subcontract the research, curriculum development and project coordination components of the project to Webman Associates.

Within six months, two more grants were secured for CAFAS under funding from the Tobacco Tax dollars. Both of these grants used the equal access argument. The first grant was given to create a statewide comprehensive health education resource center for special education and residential treatment. This grant established the foundation upon which the agency was able to secure a second year to expand the resource center’s activities. I believe that the nuances of these pre-implementation events are relevant to one of the central tenets of this dissertation, which is that there is a serious need to find ways to mobilize key stakeholders to address the comprehensive health education and prevention services needs of children in out-of-home settings.

As mentioned above, this dissertation focuses solely on the first year’s work in this research project. Therefore, I will conclude this overview of the pre-implementation

activities with an explanation of the understanding that enabled me to use the data collected in year one of the project for the purposes of this dissertation.

Developing a Plan for Secondary Analysis of the Data

The first phase of the project involved the collection of baseline data on the comprehensive health-related risk-taking behavior status of the ED/LD/BD youth and the preparation of a report that documented their smoking history and behaviors as compared and contrasted with that of their peers in public school.

The Massachusetts Youth Risk Behavior Survey (MYRBS), a nationally recognized, valid and reliable instrument, was elected to measure the incidence and prevalence of risk-taking behaviors of youth in residential schools. Because the MYRBS is administered regularly to youth in public schools, it was possible to compare results from the survey administration in residential schools to results from the survey administration of the MYRBS to youth in public schools. The MYRBS contains 89 questions that cover a range of risk-taking behaviors such as: diet, vehicle safety, suicidality, violence, sexual behavior, alcohol use, drug use and tobacco use. To fulfill grant requirements, MDPH required an analysis of some, but not all, of the comprehensive health risk factors covered by MYRBS and the relationship those risk factors had to smoking behavior.

In addition to analyzing these factors, I requested permission of CAFAS to use the additional pool of baseline data to support the research efforts of this dissertation.

CAFAS and MDPH approved my use of the information and understood that the dissertation would focus on a secondary analysis of the data. All parties clearly understood that the survey activities proposed for the first year of the project would serve two purposes: (1) to establish and compare the prevalence rates of smoking behavior of youth in residential schools in Massachusetts to the smoking behavior of their public school peers; and (2) to collect baseline information on the comprehensive health education and prevention needs of youth in out-of-home care in Massachusetts.

Overview of the Dissertation

This dissertation describes the goals, methodology and research design for the baseline study of risk-taking behaviors of youth in child welfare residential treatment settings in Massachusetts. Findings of the secondary data analysis of the 1994 MYRBS regarding differences in risk-taking behaviors between residential school and public school students, as well as between boys and girls, are presented. Additionally, the results of an in-depth review of the literature on youth and risk-taking behavior, and of state agencies' administrative and practice guidelines with regard to comprehensive health education and prevention services, are presented.

This dissertation seeks to identify the comprehensive health education and prevention service needs of youth in residential schools in Massachusetts and to provide recommendations for programmatic and policy changes at all levels of the service delivery system. Implications for social work, public health, and child welfare practice are addressed. This paper calls for a state and society that puts children's and families' needs first.

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CHAPTER I: Contextualizing The Problem Of Comprehensive Health Education And Prevention Service Gaps For Youth In Residential Treatment Centers

Each year approximately 1,800 of the 13,500 children in the care of the Massachusetts Department of Social Services receive residential treatment services at a total cost of \$85,000,000 (MDSS, 1996). Teenagers are removed from their homes and placed in the care and custody of the MDSS for a variety of reasons including: removal from family due to abuse or neglect, disrupted adoptions, voluntary placements or requests for services initiated by youth, parents or guardians, or through Child in Need of Services (CHINS) petitions. A focal point of this dissertation is the risk-taking behavior of the 300 adolescents who were studied while in the care of MDSS and placed in residential treatment centers throughout the state. Results of this analysis were compared to a similar study of 3050 youth in public schools in Massachusetts. Both studies employed the use of a nationally recognized risk-assessment instrument, the Youth Risk Behavior Survey.

This study revealed significant information about the age of onset of a range of risk-taking behaviors among these youth. Fifty-four (18.0%) of the subjects smoked their first cigarette before the age of nine; sixty-five (21.7%) of these youth had their first alcoholic beverage before the age of nine; sixty-one (20.3%) of these girls and boys first tried marijuana; and sixty-nine (23.0%) had sexual intercourse. Two hundred fifty-three (84.3%) reported having had sexual intercourse by the age of seventeen. Likewise, residential youth began other risk-taking behaviors very early: before the age of thirteen, 71% had started to use tobacco, 60% had started to drink alcohol, 45% had

started to use marijuana, 10% had used cocaine, and 62% were sexually active.

Although it is known that risk-taking behavior increases with age, it is highly unusual to see the early rates of onset and escalation of risk-taking behaviors that these youth report. Clearly these young people entered residential treatment with a substantial history of risk-taking behavior.

Significant differences between public school and residential school youth were found on all dimensions of risk-taking. In fact, residential youth use tobacco three times more frequently and regularly than their peers in public school. Their experience with injectable drugs is approximately five times that of their public school peers.

Residential youth also reported a pregnancy rate five times that of public school youth and approximately double the rate of violence and harm from violence compared to public school peers. In addition, residential students reported significantly higher rates of suicidal thought, planning, and attempts.

Despite the fact that youth in residential treatment exhibit such serious health-related risk-taking behaviors, they rarely receive prevention or education programming. In an effort to understand why, a final section of this study considers the categorical funding and services systems that could be brought to bear to alleviate this life threatening service gap. This study concludes with recommendations for re-organizing systems of care for teenagers in Massachusetts.

This dissertation suggests that categorical funding streams and boundaries between the child welfare, education and public health systems have allowed each agency to transfer blame and responsibility for the comprehensive health education and prevention needs of this population to the other. This misunderstanding has resulted in none of these

agencies accepting the financial obligation to provide comprehensive health education and prevention services for children in child welfare residential settings. The resulting lack of responsiveness has contributed to the perpetuation of a critical service gap for high risk youth and their families. None of these agencies want the service gap to continue to exist, yet a lack of adequate funding keeps all of them from offering new initiatives that can meet the comprehensive health education and prevention needs of youth in residential treatment. Today, all of these agencies are calling for better services coordination to address the needs of high risk, high service utilizing populations.

The primary goals of this dissertation are:

1. To establish the existence of baseline data on the risk-taking behavior of youth in residential treatment centers in Massachusetts.
2. To establish the existence of differences in the prevalence and incidence of risk-taking behaviors between public school youth and residential school youth in Massachusetts.
3. To examine gender differences in risk-taking behaviors of residential school youth and, where possible, to compare gender difference between residential and public school youth.
4. To use the baseline data to identify comprehensive health education and prevention service needs of youth in residential schools in Massachusetts.
5. To gather sufficient information about the impact of categorical funding and service fragmentation on the development of services or services gaps to determine whether or not there is a need for better integration and coordination of public

health, education and social work efforts to meet the comprehensive health education and prevention needs of youth in out-of-home care in Massachusetts.

6. To offer recommendations to the fields of social work, child welfare, education and public health about the coordination of service delivery for children in out-of-home care.

The hypotheses upon which this study was based are:

1. There are significant differences between the risk-taking behaviors of public school youth and youth in residential school settings.
2. There are significant differences between the risk-taking behavior patterns of girls and boys in residential school settings. Girls in residential school will also exhibit risk-taking histories that more closely mirror those of their male peers in residential school than those of girls in public school.
3. There are differences in the availability of comprehensive health education and prevention services for youth in public school and residential school settings.

To test the hypotheses of this dissertation and achieve its goals, the following research procedures were developed and implemented:

1. A review of the literature. The purpose of this literature review was to provide a basis for the development of this project. The literature review provided the intellectual support underlying the research activities of the study and offered a point of departure from which the research findings could be discussed. This literature review examined articles that described prevalence of the following

adolescent risk-taking behaviors: tobacco, alcohol and other drug use, sexual activity, suicide attempts, and violence-related behaviors. Additionally, studies of public school youth's risk-taking behaviors with the risk-taking behaviors of adolescents in residential treatment centers or institutions were also examined. Careful attention was paid to references noting gender differences in risk-taking behaviors among both populations. The literature also was reviewed for studies that demonstrated the impact of categorical funding on service development, delivery coordination and fragmentation.

2. Secondary analysis of the findings of a research study of 300 youth in residential treatment centers in Massachusetts. The purpose of this study was to present the historical and current risk-taking behaviors of emotionally disturbed (ED), learning disabled (LD) and behaviorally disordered (BD) youth in selected residential schools in Massachusetts. The Massachusetts Youth Risk Behavior Survey (MYRBS) was used to measure the risk-taking behavior. The MYRBS, a nationally recognized reliable instrument, has been used by MDOE in alternating years throughout Massachusetts to measure the prevalence of risk-taking behavior of public school youth. This study marked the first attempt to use this instrument with a residential school population. To be sensitive to the needs of the participants surveyed and the settings in which they studied and resided, the implementation of the survey as it was used in public schools required considerable adaptation. The modification of survey implementation procedures for a residential population proved to be a time-consuming and lengthy process. A description of these adaptations as well as the full research design that was used are described in detail in chapter three of this dissertation.

3. A comparison of the risk-taking behavior of 300 ED/LD/BD youth in residential schools in Massachusetts to the risk-taking behavior of 3,000 Massachusetts public school youth. The research study used a standardized instrument, the MYRBS, which had been used in the past in Massachusetts public schools. Therefore, it was possible to compare the findings from this study to the findings from a similar public school study. The results of this investigation and the comparative analysis of public school and residential school youth risk-taking behavior were used to demonstrate the differences between the two populations in regard to their need for comprehensive public health education and prevention services. Additionally these data were cross-analyzed by gender. This comparison also yielded information for legislators and practitioners about the unique needs of youth in residential services with regard to comprehensive health education and prevention services.

4. An examination of the policies and practice guidelines that drive the availability of comprehensive health education and prevention services for youth in Massachusetts. The literature review offered some evidence of how categorical funding streams and service fragmentation affected the availability of services for the youth. A study of policies and regulations that guide service development and availability was used to determine the adequacy of available funding and services to meet the comprehensive health education and prevention needs of the ED/LD/BD residential youth population in Massachusetts.

Categorical funding streams that affected child welfare, public health and education were described. Within the child welfare literature there was a particular emphasis on funding streams and services for youth in out-of-home care or foster care.

Foster care services for the purpose of this study encompass residential, therapeutic and basic foster care, group homes and staffed independent living apartments. Within the public health and education literature, special attention was paid to programs funded with federal flow-through dollars for comprehensive health prevention and education activities from agencies such as the Centers for Disease, the Centers for Substance Abuse, and the Drug-Free Schools Program.

5. Recommendations for reconfiguring services for youth and families in Massachusetts. Based on the research findings, recommendations were made to reconfigure child and family services in Massachusetts so that youth in out-of-home care settings would be able not only to access comprehensive health education and prevention services but also so that these services would be tailored to meet their unique learning and situational needs.

In the pages that follow, you will learn about the literature review that informed the development of the study, the research design and methods, and the findings. Implications and recommendations for improving the quality of services delivered to youth in residential treatment by addressing their comprehensive health education and prevention services needs are offered. The need for the full funding of integrated public health, child welfare and education services for these youth is illustrated throughout this dissertation.

CHAPTER II: Literature Review

A computerized search of the Harvard University library system, the largest library system in the United States outside of the Library of Congress, was conducted via an automated database system. This database itemized all books, journals and periodicals available in all of Harvard's libraries. In addition, several professional on-line searches were conducted to identify relevant articles for this review including: HandsNet, a child welfare on-line service, and PIE-on-line, a mental health and substance abuse industry on-line service. Keywords used in the search included: teen, adolescent, child, youth, and risk-taking, emotionally disturbed, learning disabled, residential, prevalence, service coordination, public funding, categorical funding, and service integration.

These searches revealed significant amounts of information on children, adolescents, teens and youth and the prevalence of their risk-taking behavior. However, there was little available information in the literature on the topic of ED/LD/BD youth and youth in residential treatment and their risk-taking behaviors.

This literature review offered an overview of theories of adolescent risk-taking behavior and examined articles that described the prevalence of the following adolescent risk-taking behaviors: tobacco, alcohol and other drug use, sexual activity, suicide attempts, and violence-related behaviors. Additionally, studies that have compared and contrasted public school youth's risk-taking behaviors with the risk-taking behavior of adolescents in residential treatment centers or institutions were also identified. Careful attention was paid to references noting gender differences in risk-taking behaviors

among both populations. The literature was reviewed for studies that demonstrated the impact of categorical funding on service development, delivery or fragmentation.

Finally, the literature review revealed a comparative count of the number and type of comprehensive health education and prevention programs available for public school and residential school youth.

Perspectives on Adolescent Risk-Taking Behavior

Theories of adolescent risk-taking behavior address behavior patterns that are considered to be “developmentally normal” for adolescents as well as those that are believed to be “deviant” or “unhealthy.” Much of the social work literature focuses on the impact of the social environment on adolescents’ risk-taking activities. Some proponents of a medical model have suggested that risk-taking behavior is primarily stimulated by biological predispositions such as temperament (Kagan, 1992). It is noteworthy that theorists’ definitions and assumptions about a problem shape the way they construct their theory and recommendations for interventions. The underlying values and assumptions they employ when they differentiate what is healthy and normal from what is unhealthy, deviant or dangerous should be taken into consideration. This literature review offers a synthesis of some of these perspectives on adolescent risk-taking behavior.

Theories of Adolescent Risk-Taking Behavior

Most contemporary theorists agree that the phenomenon of adolescent risk-taking behavior is complex. In her study of 80 adolescents in mental health clinics and their self-reported risk involvement and risk perceptions, Lavery (1993) considered each of

the following theoretical models of risk-taking behavior: problem-behavior perspective, risk-taking as normal and adaptive, adolescent egocentrism and its effects on adolescent risk-taking, and a decision-making perspective of adolescent risk-taking. She concluded that "adolescent risk-taking behaviors appear to be a multi-dimensional phenomenon involving personality correlates and cognitive aspects." Allen et al. (1994) found that "co-occurrence of problem behaviors results from multiple pathways of influence," although he noted that individual problem behaviors tended to retain certain unique traits. Bell (1993) identified the complexity of risk-taking behaviors over the course of time. In her book, *Adolescent Risk-Taking*, she focuses on the psychological processes and vulnerabilities that affect adolescent decision-making.

Researchers seem to explore certain fields of influence on adolescent risk-taking behavior more than others. This literature review revealed eight commonly studied spheres of influence: personality (Brown & Gilligan, 1992; Kagan, 1992; Tinsley et al, 1995), biological predisposition (Kagan, 1992; Rowe, 1991), cognitive ability (Davis et al., 1992; Fischer & Ayoub, 1994; Kagan, 1992; Tinsley et al., 1995), psychological processing capability/human development (Bell, 1993; Gilligan, 1992; Krieder, 1995; Lavery, 1993), family support (CWLA, 1996; Edelman, 1995; Hartman & Laird, 1983; Mallon, 1992; Mechanic, 1991; Morehouse, 1984; Pecora et al., 1992; Weissbourd, 1995), peer influences (Anderson, 1988; Bell, 1993; Hein, 1989; Hopkins, 1990; Mechanic, 1991), decision-making skills (Hein, 1990; Tinsley et al., 1995), and environmental influences (Edelman, 1994; Garbarino, 1995; Germain, 1979; Hechinger, 1992; Mallon, 1992; Pecora et al., 1992).

The next section will offer a more detailed description of some of the literature with respect to a selected subset of these domains of influence on adolescent risk-taking behavior.

Unraveling the Mysteries: Influences on Adolescent Risk-Taking Behaviors

As noted above, several theorists and researchers have begun to investigate the relationships among various risk-taking behaviors and factors that influence risk-taking behaviors among adolescents in America today. The influences of time and human development, gender, genetics and/or biological predisposition, and the social environment are particularly pertinent to this investigation of risk-taking behavior.

Time and Human Development

Tinsley et al. (1995) found that children and adolescents rely on different sources of influence for decision-making at different times in their lives. Brown and Gilligan (1992) have suggested that the respective psychological developments of boys and girls at various times in their lives are affected differently in regard to the degree to which they are vulnerable to becoming involved in dangerous risk-taking behaviors:

“Women’s psychological development within patriarchal societies...is inherently traumatic. The pressure on boys to dissociate themselves from women early in childhood is analogous to the pressure girls feel to take themselves out of relationship with themselves and with women as they reach adolescence.... Consequently a healthy resistance to losing voice and losing relationship which seemed ordinary for eight year old girls and heroic by age eleven, tended to give way to various forms of psychological resistance....Open conflict and free speaking that were part of girls’ daily living thus gave way to more covert forms of responding” (Brown and Gilligan, 1992).

Gender

Tinsley et al. (1995) found that girls' and boys' decision-making processes are influenced by different factors over time. Both girls and boys tend to choose "key informants," or people whom they trust to help them make decisions, based on their gender-related needs. Brown and Gilligan (1992) have suggested that, contrary to popular belief, adolescent girls may be more vulnerable than adolescent boys to engaging in dangerous risk-taking behavior. They believe that modern female adolescence is characterized as a time when girls fall out of relationship with their mothers, female role models, and psychologically with their feminine selves. This results in their becoming uncertain in the decision-making processes of day to day life. Brown and Gilligan see the impact of society's expectations of girls as being a silencing process that leaves them without a voice and without confidence in their ability to navigate the world.

Consistent with Brown and Gilligan's (1992) findings, I contend that the social fabric that may have protected girls from acting violently and engaging in other risk-taking behaviors in the past has aged, deteriorated and changed, leaving girls increasingly vulnerable to being victims of violence and becoming equal players in the games of violent revenge and other risk-taking behavior. Garbarino (1995) said "girls may have a protective factor against a propensity for violence" over boys. Kagan (1992) believes that temperament plays a critical role in determining behaviors such as assertiveness and aggression. However, recent increases in violent behavior among teenage girls in America contradict the theory that girls' temperaments are the primary predictors of their violent inclinations. According to the U. S. Justice Department, arrest rates for girls under 18 increased 63% during 1988-1992, compared to a 43% increase for male juveniles (New York Times Magazine, 1995). Undoubtedly, the root causes of this

phenomenon are complex. This study explores the risk-taking behavior of girls in residential treatment and documents their disproportionate risk (compared to male peers) for substance abuse, early onset of sexual behavior, sexually-transmitted diseases, pregnancy, suicidal thinking, and particular forms of violence.

Gender Issues In Residential Treatment: A Special Focus on the Girls
Krieder (1995) has suggested that "Psychological symptoms common to adolescent girls such as depression, eating disorders, suicidal thoughts and gestures and lowered self-esteem (Petersen, 1988) are manifestations of...self-silencing." Krieder's (1995) investigation of the developmental issues and risk-taking behaviors of girls in residential treatment revealed that girls in group care experience certain problems, including suicidal gesturing and runaway reflexes more than boys, as well as incidence of teen pregnancy. She noted that in 1992 the Massachusetts Department of Social Services reported that 69% of youth who ran away from out-of-home placements were girls. Krieder calls for a more thoughtful approach to identifying the unique treatment needs of girls in group care. The data collection and analysis process of this dissertation seeks to examine the comprehensive health education, prevention and treatment needs of these high risk girls. In the general population, "girls and boys appear to engage in risky behavior differentially dependent on the behavior examined" (Tinsley, 1995). However, girls and boys in residential treatment tended to engage in risky behavior at a similar rate with different motivation. The literature on boys in residential treatment has not been reviewed for the purposes of this dissertation, because the intention was to place a special emphasis on the void found in the residential group care literature and the field on the unique needs of girls.

Genetics and Environment

Kagan (1992) believes that temperament plays a crucial role in determining behaviors such as assertiveness and aggression. Rowe (1994) has also examined genetic influences on temperament and children's "predisposition" to engage in risk-taking behaviors. He suggests that the sibling effects model and the epidemic model are two possible explanations of adolescent risk-taking behaviors. The sibling effects model contends that there are "inherent traits, immediate social influences, and age-associated social norms that can be united in one statistical model to explain variation in delinquency and sexual experience." The epidemic model traces the increase of behaviors such as smoking and onset of sexual behavior in relation to the influences of same-age peers. The epidemic model is completely reliant on external influences and rejects or significantly minimizes the notion of any genetic influence on adolescents' decision-making processes.

Social Environment

Social workers, sociologists and anthropologists have sought to understand the interactive relationship of adolescents' social environment and their decisions to engage in risk-taking behaviors. Mechanic (1991) discusses adolescent risk-taking behavior in the context of the family and community supports available for the child. He believes that there are "two alternative pathways to developmental problems" such as risk-taking behaviors. They are: (1) exposure to "deprivations of large magnitude that overwhelm adolescents and their families, and result in hopelessness and a failure to see possibilities"; and (2) growing up in environments that are economically secure but that make few demands (of the youth) for responsible contributions and mature behavior. Hopkins (1990) has explored the impact that adolescents' varying levels and types of social participation has had on their involvement with hazardous activities such as

delinquency, alcohol consumption, smoking and other drug use. Hopkins found that the more youth are involved in social activities that encourage healthy behavior over dangerous behavior, the more these experiences will lead to positive outcomes.

Garbarino (1995) has theorized that the decline of communities and families in America has created a war-zone-like environment for our children. He believes that this “socially toxic” environment has traumatized children, causing increasing numbers of young people to react with violent revenge. He suggests that the availability of growth-producing social circumstances unfortunately is not a right or privilege of all American youth and is often not present at all in many families’ social landscape. Like Hopkins (1990), Mechanic (1991) and Brown and Gilligan (1992), Garbarino recommends that a re-calibration of the youth’s growing-up experiences (via strengthening of families, educational systems, neighborhoods, and relationships or social networks) is necessary to stop the vicious cycle of toxicification of young American life today. Edelman (1994), an internationally renowned child advocate, has noted the relationship of poverty to many forms of dangerous risk-taking behaviors and experiences. Edelman notes that factor may be critical to understanding the high prevalence of risk-taking behavior for some children from inner-city neighborhoods ravaged by poverty, violence and crime. This dissertation does not explore the relationship of the child’s social environment to his/her risk-taking behavior; however, a description of the target population in chapter 3 and the MYRBS findings noted in chapter 4 suggest that many of these youth have come from troubled families or environments.

The Need For Service Coordination:**The Call for Child Welfare, Education and Public Health Collaborations**

The literature supports the hypothesis that policies and funding streams that dictate service development are critical factors in assuring that youth have access to comprehensive health education and prevention programs for youth in the child welfare system. For example, Combs-Orme, Chernoff and Kager (1992) found that foster children do not have adequate access to health care because foster care policies and regulations do not enable them to exercise their right to access the health services they require. Additionally, the American health care system is not designed to meet complex medical and social needs of children in foster care. Combs-Orme et al. believe that health care utilization is a product of three factors: health care policy, the structure of the system, and characteristics of the population. This dissertation examines the ways that the Massachusetts foster care system supports or falls short of supporting the comprehensive health education and prevention needs of youth in residential treatment, in these three areas.

Coordination of Prevention & Education Policies, Services, & Funding Streams: The Rhetoric and The Realities

Categorical funding streams and boundaries between the child welfare, education, and public health systems have allowed each system to defer blame and responsibility for the comprehensive health education and prevention services needs of this population on the other, leaving each unwilling to accept the financial obligation to provide comprehensive health education services for ED/LD/BD youth in child welfare.

According to England and Cole (1992), systems of care for seriously emotionally disturbed children have not changed much since Hobbs described them as an “unconscionable disarray” of services in which children in need of assistance often get lost. Furthermore, Reynolds (1994) has explained, “Government has also had to compromise on categorical programs for youth, especially for those with problems arising from disabilities, poverty, and family instability. These factors have resulted in a jumble of poorly managed programs and bureaucratic procedures for determining those eligible programs.”

England and Cole (1992) and Stroul (1993) support blueprints for organized systems of care for seriously emotionally disturbed children, who are similar to the youth found in residential treatment centers in Massachusetts. In their view, organized systems of care call for the integration of five agencies that have statutory responsibility for these children: child welfare, mental health, public health, health education, and juvenile justice. They cite the successes of the CASSP program, a national child and family services systems integration pilot program, as evidence that this type of system integration can be attained. According to Stroul, “Comprehensive community-based services for children and adolescents cut state hospital admissions and inpatient bed days by between 39-79%, and reduced average days of detention by 40%.”

Massachusetts has not yet developed such an integrated delivery system for seriously emotionally disturbed children and children in need of out-of-home placement.

The Realities

Weissbourd (1996) has noted, “Many of the problems with the system are even more fundamental than its fragmentation.” He cites large caseloads and inadequately trained

care providers as being integral to the problem. A review of MDOE, MDPH, and MDSS regulations and RFPs revealed that current policies limit accessibility of comprehensive health education and prevention services for youth in residential treatment (MDOE, 1994; MDPH, 1993; MDSS, 1992). Allowable expenditures within each system's reimbursement regulations contribute to the creation of this service gap. For example, consistent with Weissbourd's (1996) observations, I found that in Massachusetts, residential treatment facilities are reimbursed for limited direct care worker training programs. MDSS regulations mandate that workers attend 20 hours of training during their first year of employment and that this training must include first aid, CPR and crisis intervention training. Training alone consumes more than 20 hours. Therefore, the contractor is left to bear the burden of the cost of any additional staff training. For those agencies that rely solely on DSS for funding, the cost for training their staff on best practices in comprehensive health education and prevention is beyond the capacity of their budget.

While practitioners in the provider agency and the state would probably agree that this kind of training is essential to ensure quality service delivery, funds are not allocated to support professional development in the area of comprehensive health education and prevention. MDSS only provides support for the practical skills training they mandate. Although agencies may try to access MDPH or MDOE discretionary grants to launch pilot projects, these funds are universally not available (MDPH, 1993; MDOE, 1993; MDSS, 1992).

Supported Rhetoric and Pilot Projects

Today government agencies are calling for and predicting the dawn of service coordination and integrated delivery systems. MDOE, MDPH and MDSS have all launched pilot programs to test the efficacy of such efforts. MDPH (1993) has claimed that “increasingly, the focus is shifting away from a fragmented, disease-oriented model of health care toward a delivery system that emphasizes primary care and preventive services. Efforts to develop more integrated health systems are surfacing in some communities and among professional groups.”

MDPH (1993) required its contractors to adopt coordinated and collaborative approaches to their community-based work and has required its service providers to demonstrate linkages with other systems of care. Over the past three years, MDSS has sponsored several new initiatives characterized by cross systems planning and service delivery. The newest of these ventures is the recent release of a RFP to create regional networks of service delivery for adolescents who have experienced multiple out-of-home placements. The emphasis of this RFP (MDSS, 1996) was a coordinated system of care that could offer youth the opportunity to be served in the least restrictive, safest and most family-like settings possible. This landmark RFP required that providers submit a plan to incorporate pregnancy and substance abuse prevention strategies into their treatment array. Unfortunately, no extra funds were allocated for these mandated prevention services.

MDOE has a long standing history of cooperation with the MDSS, especially with regard to children in out-of-home care. Local school districts, partially funded by MDOE, typically pay for the school portion of residential treatment stays. However, the MDOE does not have governance over the private provider agencies that operate the

residential treatment centers and therapeutic day school programs. Therefore, when MDOE set policies in 1994 that required public schools to become smoke free, private special education programs were not included in the mandate. Yet, through its commitment to "provide coordinated and comprehensive services," the health education division of the MDOE has increasingly worked to integrate the needs of special education students into its comprehensive health education RFPs and initiatives (MDOE, 1990; MDOE, 1993). Unfortunately, this effort has been met with minimal success.

The Role of Politics in Achieving Service Coordination

Within the last few months, the governor of Massachusetts released a government agency reorganization plan (Wang, March 1996). The plan calls for a consolidation of the divisions of health and human services in the state. It is ironic that the governor did not do what advocates suggested, which was to consolidate child and family services. It is not clear what his rationale was for not consolidating these services. There is evidence in the literature to support the notion that services integration is a difficult, if not insurmountable task that can be complicated by conflicting political agendas (Gilbert, 1977; Illback and Neill, 1995). It is possible that the governor feared that the potential risks involved outweighed the possible benefits. Although this governor is a proponent of services delivery innovations such as privatization and managed care, he apparently was not willing to take the risk of offering this particular type of integration effort. Since it is an election year in which the governor is running for the U.S. Senate, it might not be politically wise or expedient to take a stand on an issue certain to be wrought with conflict and dissension. This situation may illustrate a relationship between politics and movement toward service integration.

Critical Analysis of Service Systems

In his classic monograph on program design, Gilbert (1977) states,

Critical analyses of the delivery of social services tend to be organized around four kinds of problems: fragmentation, inaccessibility, discontinuity, and unaccountability...At least six methods of solving these kinds of problems can be identified. They are coordination, citizen participation, role attachments, professional disengagement, development of new agencies, and purposeful duplication.

Gilbert (1977) defines coordination as a “method aimed at the development of an integrated social service system through either the centralization or the federation of service agencies.” Implications inherent to the process of coordinating services beyond “posing a remedy for service fragmentation” must be considered. Centralization of services, Gilbert warns, “harnesses the potential for intraorganizational conflict to sharpen, especially when a variety of heretofore autonomous agencies with different aims, technologies and perceptions of the persons they serve and their problems are cast into a unitary organizational mold or framework.”

Illback and Neill (1995) have observed administrative challenges to service coordination including: clear role delineation, specialized cross system training, and organizational retooling. Richardson et al. (1989) have noted that comprehensive services coordination relies heavily on formal interagency agreements, boundaries determine financial responsibility, control over programs and future directions.

MacBeth (1993) states that it is essential for successful services coordination to address the unique languages, territorial issues and politics of each of the disciplines when developing and affiliations.

The Case for Integrated and Coordinated Systems of Care

One way to assure that comprehensive health education and prevention services are made available to youth and their families in the child welfare system is to develop more integrated (multiple intervention strategies within one service package) and coordinated (drawing on resources across categorical lines to enhance services available to clients) models of service delivery. Numerous theorists and researchers support the development of coordinated service delivery systems (England & Cole, 1992; Pecora, Whittaker & Maluccio, 1992; Illback & Neill, 1995; Stroul, 1993; Morehouse, 1994; Anderson, 1988). Richardson et al. (1989) note that children with developmental disabilities receive their services from multiple service systems simultaneously (such as child welfare protective and/or out-of-home care services and MR/DD) and could benefit from better service coordination. Illback and Neill (1995) have noted the need for coordination of services for seriously emotionally disturbed children. Morehouse (1994), and Anderson (1988) both have reported successes at integrating substance abuse prevention strategies in public school settings and Morehouse (1994) has also replicated these achievements in residential treatments centers serving child welfare clients and found them to be successful.

Financing Coordination: The Key to Success

Program developers and evaluators believe that the challenges of service coordination can and will be overcome when government regulations that limit the blending of categorical funds are removed and service providers are mobilized in an effort to improve systems of care for troubled children and their families (England and Cole, 1992; Stroul, 1993). Blended funding pilot programs have been met with mixed successes. These blended funding projects have improved the quality of services for

the target population and contained the cost of services delivery at the same time (Stroul, 1993; England and Cole, 1992; Shore & Cohen, 1990; Morehouse, 1993; Kowal et al., 1989; Woodruff, 1995). However, because they are pilot programs, the funders only provide time limited start-up demonstration funding. Once this funding ends, attempts to continue or replicate the programs at the same service level often are not possible. The inadequacy of funding for child and family services is a long-standing reality (Sidel, 1986; Edelman, 1994). Thus, a case can be made that until there are adequate funds for child and family services, best practices, such as the integration of comprehensive health education and prevention programming in child welfare residential treatment centers, will not be implemented.

Making the Case for Funding: The Usefulness and Limitations of the Data in the Policy and Funding Process

A major undertaking of this dissertation involved the secondary analysis of data. The purpose of analyzing the data was to verify the prevalence of comprehensive health problems among youth in residential treatment in Massachusetts. It was hoped that the findings could be used to persuade policy makers to allocate new and additional funds for prevention and education programming for youngsters in residential treatment and their caregivers. To develop a plan of action that would ensure that the data is used for its intended purpose, and not misused to the detriment of the needs of the target population, a review of the literature on best practices in data utilization was conducted.

Several theorists and researchers have examined the utility and limitations of the data in the political and policy setting processes (Maier, 1991; Weiss, 1977; Smith, 1988; Mowbray, 1988; and Patton, 1988). In 1977, Carol Weiss noted that "research

utilization is an extraordinarily complicated phenomenon. She suggested that the term could encompass at least six different meanings: (1) instrumental uses—a linear problem-solving model, (2) knowledge-driven model, (3) interactive model, (4) research as political ammunition, (5) research as conceptualization, and (6) miscellaneous uses. Several of these interpretations of research utilization apply to this dissertation.

For example, this dissertation project was funded as one of 30 research-based demonstration projects, each of which promised to study tobacco use and preventive interventions designed to prevent tobacco use with different populations and intervention strategies. The purpose of this multifaceted approach was to generate knowledge from a variety of sources about best practices in tobacco risk reduction and prevention programming. Weiss calls this type of research utilization the interactive model. This model calls for the mobilization of the talents and beliefs of a diverse group of people who are interested in an issue toward the end of identifying innovative ways to solve or resolve the problem.

It could be argued that all the data in the world would not change the attitudes of people who believe that troubled youth are just bad boys and girls who deserve to be punished and that society should not waste time and money on their rehabilitation. In order to prepare for resistance and opposition to the findings of this study, I found Weiss's discussion of the "research as ammunition" model particularly useful. She explains, "very often the constellations of interests around an issue predetermines the positions that decision makers take. Or debates drag on until opinions are set. At this point, decision makers are not receptive to new evidence. For reasons of ideology, intellect, or interest they have taken a stand that research evidence is not likely to shake." Yet,

she also holds out hope for the uses of good data, even in this seemingly untenable circumstance. Even though some decision makers will refuse to be swayed by new evidence she says, “research can still be used. It becomes ammunition for the side that finds its conclusions most congenial and supportive. Partisans brandish the evidence in an attempt to neutralize opponents, convince waivers, and bolster supporters.”

Preliminary findings of this study have begun to influence the policies and practices of some residential treatment centers. Interestingly, each agency that decided to take action was influenced by a different aspect of the findings. This observation supports Weiss’s opinion that “the research as a conceptualization model” is an incremental process of re-orienting or “drastically revising” societal views of a social problem or policy issue. Weiss explains, “Global reorientation of this sort is not likely to be the outcome of a single study or one specific line of inquiry. But over time and with the accumulation of evidence, such uses can have far reaching implications.” The long-term plan for the use of this data is incremental, involves a multitude of stakeholders, and is intended to re-orient people to a heightened awareness of the dire need of youth in residential treatment centers to receive comprehensive health education and prevention services.

With this agenda in mind, Mowbray’s (1988) adapted version of Chelmisky’s steps to maximizing utilization is useful. Mowbray suggests that there are opportunities for maximizing data utilization at six phases of project development and implementation: (1) marketing evaluation as a worth while service, (2) developing and focusing on policy questions, (3) planning and designing the evaluation, (4) conducting the evaluation, (5) translating the findings, (6) making people pay attention to the results. This model calls an incremental but comprehensive approach to creating positive

attitudes about the usefulness of the data before, during and after the data collection process. The research design and methodology chapter of this dissertation describes the ways in which the original data collection and analysis processes sought to engage participating youth, families, and residential and state agencies in the research endeavor. Recommendations for the findings of this secondary analysis of the data, found in the final chapter of this dissertation, also reflect attention to Mowbray's suggestions for maximizing the data and research utilization opportunities.

Conclusions From The Literature: Literature-Based Justification for Project Initiation

The literature search revealed no comprehensive studies of the comprehensive health education and prevention services needs of the target populations. The initiation of a study of the prevalence of risk-taking behavior of ED/LD/BD adolescents in residential treatment was justified by this void and necessary in order to fill it. Furthermore, evidence from the literature indicated that a more careful study of gender differences in the risk-taking behavior of ED/LD/BD youth in residential settings was also merited. Finally, theorists and program evaluators noted both the challenges and the opportunities in attempts to achieve service coordination across child and family service systems, suggesting a need to document the comprehensive health education and prevention needs of youth in child welfare settings and to study both the potential risks and positive possibilities of service coordination among child-serving agencies in Massachusetts. I hoped, based on the findings of this study, to make valuable and viable recommendations about integrated services designed to meet the unique needs of youth in residential treatment. The next section describes the research design and data analysis that led to the policy recommendations generated by this study.

CHAPTER III: Research Design And Methodology

Because this dissertation focuses on the secondary analysis of data collected as part of the year one activities of the “Making Smoking History in Residential Schools Project,” the research design and methodology employed for the special administration of the MYRBS are described in this chapter. The secondary analysis procedures used for this dissertation included: (1) analysis of frequencies of all variables other than smoking. These smoking data had been previously analyzed by project staff; (2) a comparative analysis of frequencies of residential school and public school youth’s responses to the YRBS; and (3) a study of the relevance and limitations of the MYRBS instrument to residential youth populations.

Survey Instrument Selection

The Massachusetts Youth Risk Behavior Survey (MYRBS), a nationally recognized, reliable instrument, was selected to measure the prevalence of risk-taking behaviors of youth in residential schools. The MYRBS is administered regularly to youth in public schools. Therefore, it was possible to compare the results obtained (from the most recent administration of the MYRBS to 3000 youth in public schools) to the survey administration done for this study on 300 youth in residential schools. (For a description of the standard public school YRBS research methodology, please see Appendix A).

Content of the Massachusetts Youth Risk Behavior Survey

The Youth Risk Behavior Survey (YRBS) is conducted periodically by the Massachusetts Department of Education (MDOE) as a part of a nationwide effort to monitor the prevalence of youth behaviors that most influence health. According to Faulkner (1993), the YRBS is sponsored by the Division of Adolescent and School Health of the U.S. Centers for Disease Control (CDC). The YRBS focuses on six health areas related to the leading causes of morbidity, mortality and social problems among youth and adults in the United States. State-related modifications to the survey instruments are tracked by the CDC and the instruments are renamed to reflect the state version. In this case, the instrument was renamed the Massachusetts YRBS (MYRBS). The MYRBS contains 89 questions which cover a range of risk-taking behaviors including: diet, vehicle safety, suicidality, violence, sexual behavior, alcohol use, drug use and tobacco use. (Please see Appendix B for the MYRBS survey instrument.)

Survey Participant Selection

A purposive sampling method was employed to select agencies for participation in this study of residential youth. Random selection was not employed because of the need to recruit and work closely with participating agencies. Because this was a grant project, the early identification and support of participating agencies was critical to the success of the application for funding. Furthermore, it was also important to streamline the participant selection process in order to work within the confines of the budget and timelines of this project.

All of the chosen sites for this study had an enrollment of under 100 students. Ten schools and treatment centers originally committed to participate in the project. Once the project was funded and agencies were informed of the availability of services, several treatment centers dropped out. Most of those who dropped out did so because of internal political struggles that did not involve concerns about implications for agencies about smoking policies or practices.

The survey was administered in twelve schools, some of which were in the original cohort and some of which were added. Although unintentional, this change actually resulted in the selection of agencies that were located in a broader geographic area than originally planned.

However, it is important to note that there was no identifiable relationship between location of facility and home towns of survey participants. Therefore, it is not possible to infer that because the location of facilities was known to cover a diverse geographic spectrum that the youth themselves were from these same areas. Nonetheless, it is true that youth were referred to all participating sites from all over the state. In fact, to ensure anonymity, students were not asked to identify their home town as part of the demographic data collection process; therefore, geographic factors were not examined in this study.

Student participation was both voluntary and anonymous. Although schools were not required to obtain parental consent to administer the survey, students' records were checked to ensure that their parents or guardians had signed the standard agency waiver allowing students to participate in voluntary and anonymous survey research activities.

If a student had a signed release form in his/her client record and if the student was willing to participate, he/she was invited to participate.

Target Population and Settings

The Population

The participants from residential treatment centers in Massachusetts were between the ages of 12 and 18. Most of these youth were referred for treatment by the Massachusetts Department of Social Services. Their common diagnostic label was emotionally disturbed/learning disabled/behaviorally disordered (ED/LD/BD).

Youth in residential programs undergo treatment because they exhibit risk-taking behaviors such as inclinations toward drug use, violence and suicide. Often, these behaviors stem from histories of sexual, physical and emotional abuse. Resulting low self-esteem, poor refusal skills and lack of assertiveness leave this population especially vulnerable to risk-taking behaviors (Pecora et al., 1992).

Root causes of ED/LD/BD adolescent risk-taking may come from a variety of sources. Again, the absence of research in this area leaves more questions than answers. For the purposes of this study, it was hypothesized that some of these reasons would parallel the risk-taking behavior of the general population of teens and that others would be specific to these youth.

Youth in both residential and public schools are susceptible to peer pressure and may look at smoking and drug use, violence, or early onset of sexual activity as a means of fitting in with their peers and acting out against authority figures. However,

ED/LD/BD youth may be particularly susceptible to peer pressure due to pre-existing low self-esteem. The prospect of exploring the multitude of reasons why youth in residential settings might engage in any one of the high risk behaviors previously mentioned is daunting.

Take the issue of smoking, for example. In general, youth smoking behavior is influenced by family, friends and the media. Students in residential schools are similarly influenced to smoke. However, the intensity of the influences for youth who reside in residential schools seems to be greater. A disproportionately high percentage of youth in residential and day treatment enter treatment smoking. Those who enter as nonsmokers may feel pressure to take up smoking to be accepted. Poor refusal skills and poor decision-making skills contribute to ED/LD/BD youth giving in to the peer pressure to smoke (Fidler et al., 1992). Other youth in residential treatment may also turn to smoking as a means to self-medicate or to control their behavior. Likewise, students who attend Narcotics Anonymous and Alcoholics Anonymous as part of their treatment plan may find themselves surrounded by people who use smoking as an alternative means of behavior management. Smoking is also used by many youth in residential treatment, especially females, to control eating. They often enter treatment with eating disorders and then identify smoking as a method to either control their disorder or decrease their appetite.

For this and other reasons which will be discussed later, it was hypothesized that there would be differences in the nature and intensity of risk-taking behaviors of youth in residential and public schools in Massachusetts.

The Settings

Agencies participating in this study met all state licensing requirements for a residential treatment center as well as the following American Association of Children's

Residential Centers (AACRC, 1995) definition of residential treatment:

A Residential Treatment Center (RTC) for children and adolescents is a facility or distinct part of a facility that provides a total, 24 hour-a-day specialized form of highly organized, intensive and planned therapeutic intervention which is utilized to treat some of the most severe mental, emotional, and behavioral disorders. Its practitioners employ a wide range of differing organizational structures and varieties of staffing patterns, treatment practices, and modalities. It is a definitive therapeutic modality designed to deliver specified results for a defined group of problems for children or adolescents for whom outpatient, day treatment or other less intrusive levels of care are not appropriate, and for whom a protected, structured milieu is medically or psychologically necessary for an extended period of time.

A Residential Treatment Center must clearly evidence in its daily operations:

- an acceptance of the value of clarification of goals, roles, patterns or authority and lines of communication;
- the essential need for unity of purpose;
- the emphasis on individualization of care and treatment;
- the recognition of psychological, psychobiological, and psychosocial interactions as critical treatment elements;
- the importance of an adequate theory of normalcy and child and adolescent psychopathology, child development, family and group processes and dynamics;
- clearly articulated diagnostic treatment planning and treatment procedures as well as a monitoring and quality assurance mechanism;
- the specialized attention to every detail of the child's and family's condition with particular attention being paid to their ethnic and cultural background, religion, and socio-economic status;
- a comprehension, coordination, and collaboration with all significant forces, organizations, and persons both within and without the facility that impact on service delivery;
- a commitment to continuity of care; and
- an acceptance of the true meaning and importance of an integrated team approach in which child care is seen as the cornerstone of professional activity.

If the RTC is part of a multiservice program, it must be both physically and programmatically distinct. It must be organized and staffed with professionals and support personnel sufficient to provide an integrated, comprehensive program

of planned group living and educational services wherein individualized psychotherapeutic interventions can take place that are consistent with the needs of each child and their family members. Clinical staff must not only be licensed/certified in accordance with whatever state or local laws/regulations that may apply; they must also demonstrate ongoing competency in the performance of the tasks to which they are assigned in accordance with the standards established by the agency.

In addition to meeting whatever local licensing standards that may apply, a RTC must also be accredited. This may be done by meeting the standards for psychiatric services for children and youth as established by: 1) The American Association of Psychiatric Services for Children; 2) the Joint Commission on Accreditation of Organizations under the Consolidated Standards Manual; or, 3) by the Council on Accreditation.

However, great variation existed between the selected participating agency sites and programs. This variation is nationally normative. In his paper "Critical Issues in Short-Term Residential Treatment," O'Malley (1994) explains:

Residential treatment is being offered as a treatment modality all over the country by a greater number of providers than ever before (Frank & Dewa, 1992; Wells, 1991). Yet, it has been difficult enough to simply define residential treatment as mental health treatment which is provided in 24-hour facilities not licensed as hospitals. This definition includes a vast range of programs from group homes to residential schools to highly structured residential centers and is an overly broad definition for any purposes of specificity or clarity. There is no consensus in the current literature regarding any more specific definitions of residential treatment based on program description or appropriate patient characteristics. In terms of specifications from managed care and of systems of psychiatric treatment (e.g. Stroul & Friedman, 1988), residential treatment is considered to be a level of care of less cost intensity than hospitalization, but greater than partial hospitalization, group homes, and transitional programs. With regard to length of stay, in a recent review Wells (1991) examined criteria for placement of children in residential treatment and found that, while a general target population could be identified, no specific criteria have been established which relate important patient characteristics such as diagnosis, etiology, family characteristics, and developmental needs, to requirements for length of stay.

The participating agencies all offer 24-hour structured group living environments in both urban and suburban environments and distinct educational programs for special education students. The programs vary with respect to whether or not they offer any comprehensive health education and prevention activities, though most isolate this work in one of two ways: (1) as part of a dedicated health week in the academic curricula or

(2) as lessons taught at “teachable moments” in the milieu when students raise health related issues or concerns with milieu workers (Trieschman et al., 1969). The state requires only 40 hours of training for new milieu workers, including first aid, CPR, orientation and mandated crisis intervention training. It could be argued that because the agency is not given incentives via state licensing regulations and accompanying financial line items for rates of reimbursement to cover additional training costs, it is nearly impossible to ensure that staff are trained and prepared to address the comprehensive health education and prevention services needs of youth in their care. Therefore, it was critical to carefully consider the needs of the youth and staff in these settings prior to administering the MYRBS. The following description of survey administration illustrates the attention that was paid to these issues.

Survey Administration Methodology

Survey participation in the residential school study was voluntary and anonymous. The survey was partially self administered. For the purpose of this study, partially self administered, meant one of the following:

- (1) Students were read the questions and answers and then choose the answer by themselves;
- (2) Students read the questions and answers themselves in a room where the surveyor was available to read the questions aloud; or
- (3) Students self administered the survey (one classroom).

The standard MYRBS is completely self administered and students answer questions on a separate, scannable answer sheet. In this study, none of the students used a separate answer sheet. The decision not to use an answer sheet was influenced by a preliminary focus group meeting with teachers who worked with the students. They reported that they did not believe that their students' learning disabilities and emotional problems would allow them to answer accurately on a separate answer sheet. The

standard MYRBS takes approximately 35 minutes for the average student to complete. On the average, it took the students who participated in this survey at least a full class period (45 minutes) to complete the MYRBS. There also were some students who were allowed additional time to finish the survey.

Survey Administration Procedures

Significant modifications to the survey administration procedures were required in order to engage residential treatment agencies and the youth they served in the process. Based on discussions with key informants and my own professional experience, I constructed the following set of adaptive procedures for the administration of this survey.

First, an orientation meeting was held with the Education Director, the Project Coordinators and staff of each of the project sites. In order to administer the survey in the manner most suitable to the students at each school, they were asked to offer recommendations about optimal surveying conditions for the students in their facility.

The Project Coordinators identified people at each program site to oversee the administration of the MYRBS. These MYRBS Coordinators were asked to accept responsibility for assuring that all necessary permission for participation was secured from students prior to the survey administration time. In all cases, guardians had already signed permission slips at intake allowing the agency carte blanche authorization to choose, in their professional judgment, appropriate and anonymous studies in which their child might participate. Each of the MYRBS coordinators were contacted by phone to determine the types of accommodations their students might need

to take the MYRBS.

Next, MYRBS coordinators received a letter detailing all preparations they would need to make prior to survey administrators' arrival at the site. (For a copy of the letter sent to MYRBS Coordinators, please see Appendix C.) This letter was intended to minimize the potential for disruption of day-to-day agency activities.

This letter described recommended behavior management procedures to follow during the survey. It is important to note that the behavior management plan was developed because of requests made by the education directors. Similar to the public school administration procedures, staff were then asked to remain in either the back or front of the room throughout the administration of the survey. This was done to minimize the likelihood of students being concerned that their anonymity would be violated by onlooking staff. It was also done to minimize the staff concerns about the safety of leaving strangers alone in the classroom with these students.

All students were given an instruction letter and contract of participation adapted from the MDOE's YRBS instruction letter. This visually stimulating, easy-to-read instruction letter reviewed survey procedures and rules, and concluded with a contractual agreement. Students were asked to mark an "x" in a box to demonstrate that they understood the directions and to confirm that they were willing to participate. Students were then asked to trade the "x-in-the-box contracts" for survey instruments. This formal method of securing student participation was employed in order to emphasize the voluntary nature of the survey and to provide the additional structure that students with behavioral difficulties often require. Contracting is a process with which students are both familiar and comfortable. Therefore, it was used as a way to

normalize the experience of survey. (For a copy of this student instruction letter and student contract, please see Appendix D.)

For the survey completion phase of this study, adaptive mechanisms were again developed to ensure the students' successful participation. Unless otherwise instructed by teachers, the survey administrators made allowances for the lower reading levels of some students by reading each question out loud and asking students to read along. After the question was read, the students were asked to review the answer choices by themselves. If a student required additional assistance reading or understanding answer choices, he or she raised a hand and was given the assistance they required. The survey instrument itself was adapted by enlarging the font to facilitate easier reading. The survey was administered to five to fifteen students at a time, most often in a classroom setting and during school hours. The average class contained seven students.

Upon completion of the survey activities, students and staff were given a gift for their participation. Although participation in the survey was voluntary, students were offered an incentive to complete the survey. Each teacher (and classroom) received a copy of Salt n' Pepa's video "Let's Talk About AIDS" and the students received comic books featuring Batman and Spiderman anti-smoking messages, a bookmark, and an HIV-prevention sticker. Reward systems are a common aspect of a special needs student's daily, if not hourly, activities. Many students in residential treatment lack the internal controls and decision-making capacities needed to control behavior. Therefore, rewards are often used as an external prompt to indicate which choices of behavior are more socially acceptable than others. A reward system was used in this study both to normalize the students' experience and offer added incentive for participation.

When the survey administration process was completed, the data entry and analysis phase of the project began.

Data Analysis

Frequencies and percentages were calculated for each variable in the MYRBS.

Additionally, chi-square analyses were performed to compare gender differences in the residential school sample as well as between the public school and residential school samples. Both the MDOE data analysis procedures and the data analysis procedures used for this study were determined by chi-square analyses using the .05 level of significance.

Findings on Effective Data Collection Processes

As data collection commenced, it became clear that extensive adaptation of the Massachusetts Department of Education YRBS protocols was necessary for this special needs high-risk youth population; however, developing and implementing these data collection systems was an extremely time consuming and labor intensive task. Much of the time in Phase I of the project was spent ensuring that the data collection system was appropriate for and tailored to the target population. Other project tasks were postponed in order to ensure proper implementation of this component of the work. Time and money spent on travel, back-up staffing and materials acquisition had all been underestimated. Fortunately, the funders were more concerned with overall project effectiveness and allowing the research process to define the next steps than about adhering to projected goals and objectives. The funders approved many changes along the way.

Limitations of the Survey Instrument for this Population

At times the survey instrument proved to be problematic for this population. The following limitations of the YRBS should be noted:

- The amount and level of reading was often too difficult for these students. They found some of the questions confusing, such as the ones on chewing tobacco and snuff. Questions asking students whether or not they have used chewing tobacco and/or snuff in the past thirty days, on school property or at all, contained a number of brand names which most of them did not recognize and which worked to distract them from the question. Student were also confused by wordy answer choices, such as the ones found in the chew and snuff questions. These students' difficulty with such questions calls attention to the need for an adjusted version of the survey for students with learning disabilities.
- The number of possible responses for each question confused some of the students. This confusion was reflected in inconsistent answers. For example, there were students who answered that they had never smoked regularly in their life (regular smoking is defined by smoking at least one cigarette every day for 30 days) but then stated that they had smoked every day in the last 30 days.
- The limited race and ethnicity options also confused many survey participants. It is therefore recommended that the answer key on race and ethnicity be expanded to encompass the inclusion of a full range of cultural backgrounds.
- Youth were disturbed by a question that asked them to report the number of times

they had sex with a same-sex partner. This question was intended to identify risky sexual behavior and the potential number of gay, lesbian, and bisexual youth. Despite the uneasiness that students expressed, I recommend keeping this question. However, interpretation of the answers to this question must take into consideration the fact that engaging in same-sex sexual behavior cannot be necessarily equated with a person's identification with a particular sexual orientation. I also recommend adding a direct question about sexual orientation so that the data could be more accurately cross-analyzed to assess the risk-taking behavior of youth of diverse sexual orientations.

- Question topics triggered emotional response and memories. Some youth opted not to take the survey because they feared becoming upset by the questions. Others reported having an enlightening experience after the survey. These youth said they were either amazed or concerned about their histories of risk-taking behavior, including tobacco use. They claimed the survey helped them think about how much they have changed or intend to change their lifestyles while in the program.
- Some youth do not know the meaning of certain terms and/or had no prior exposure to these terms. For example, some of the youth did not know the meaning of "freebase cocaine" or of "withdrawal" as a method of birth control, but because they read about them in the survey, they became curious. The survey experience inadvertently put staff in a position where they needed to be prepared to answer questions on topics such as these.

- Some demographic questions did not apply to youth, and other questions did not adequately encompass the diversity of the population. Questions regarding grade-level did not apply because youth in special education schools often are not in graded classrooms. Issues surrounding the lack of diversity representation in the race and ethnicity questions led to more than 13% of these youth being uncertain of how to answer these questions.
- Almost all youth expressed concern about documenting an age of a first sexual experience, without also explaining if that experience was voluntary or not. Modifications to this survey could include a range of questions on voluntary and involuntary sexual activity and could also include questions about childhood sexual abuse and date rape.
- Questions referring to participation in certain behaviors within the last 30 days measure the student's behavior only while they are in the program. Therefore, whenever administering the YRBS with this population, some accommodation must be made to account for this problem. If the survey could be altered specifically for the purposes of administration to ED/LD/BD youth in residential treatment centers, "30 Day" questions could be changed to indicate desire or likelihood to participate in certain behaviors if they were not in a residential setting. In addition, questions could be added which refer to behaviors youth participated in before their admission into residential treatment programs or youths' intentions to participate in risk-taking behaviors when they are out of the program.

- Nutrition and exercise questions generally measure the extent of program services rather than the student's conscious decision about these activities. For the most part, what the students eat on any given day is completely controlled by the institution. For this and many other reasons the findings on this range of questions proved to be invalid and are not reported here.
- Students did not understand the idea of "comprehensive health." Due to their limited exposure to health information, they did not see how nutrition and exercise are related to sexual behavior and substance use.

Staffing

The workscope of this project required constant oversight and the additional help of three part-time research assistants.

All the preparations for the on site administration of the survey - securing rewards, mailing letters, photocopying and collating student survey kits - were completed by myself and the research assistants recruited from Harvard University.

In addition, the research assistants were trained and hired to administer the adapted version of the MYRBS with accompanying survey procedures over a one month period. Training included information about the population, residential settings, behavior management and testing procedures. At least one, and often two, research assistants spent an average of five hours at each site administering the survey. To ensure classroom safety and strict adherence to behavior management protocols, two assistants were used at those sites where the class sizes were large. Two assistants

were also used to reach as many students as possible on a given day by running two administrations in two different classrooms at once. Because many of the sites were a great distance apart from one another, there was a significant amount of travel time involved in the administration process.

By the time the survey administration was completed, the data analysis procedures were been established. The research assistants performed data entry, which I then checked and analyzed for this dissertation.

CHAPTER IV: Findings

Both the public health and child welfare literature describe the complexity and interrelatedness of numerous variables that influence risk-taking behavior in children, adolescents and adults. Public health practitioners, known for their work in epidemiology (Albino & Tedesco, 1987), have extensive experience in tracking adolescent risk-taking behavior. However, because these researchers tend to be concerned with the community at-large, they have rarely included youth in out-of home placement in their trend studies. It is therefore the purpose of this study to: (1) address the prevalence of risk-taking behavior among youth who currently reside in residential treatment in Massachusetts; (2) compare the prevalence of risk-taking behavior among public and residential school youth; and (3) determine whether there were significant gender differences in the risk-taking behavior of girls and boys in residential treatment.

This chapter will present a brief overview of the literature on prevalence of risk-taking behavior of youth in general as well as youth in residential treatment. Additionally, a review of the findings of a study of 300 youth in residential treatment will be compared to a review of the findings of a study of 3050 youth in public school. The data on residential students' risk-taking behavior will also be cross-analyzed by gender.

Demographic Characteristics of Residential School Students

We will begin with a review of the demographic information, followed by an overview of general onset of risk-taking behavior and culminating in a detailed analysis of the prevalence of six categories of risk-taking behavior.

Gender

As of June 20, 1994, three hundred (300) ED/LD/BD youth had responded to the MYRBS under the special administration conditions. One hundred thirty-nine boys (46.3%) and one hundred sixty-one girls (53.9%) participated in this study. This gender distribution is similar to that of the public school samples, which was 49.2% boys and 50.8% girls (chi-square=.906, df=1, p=.341).

Age

The age range of participants surveyed was: eleven (3.7%) students were age 12 or under, twenty-six (8.7%) students were age 13, forty-seven (15.7%) students were age 14, seventy-two (24.0%) students were age 15, seventy-four (24.7%) students were age 16, fifty-six (18.7%) students were age 17, and fourteen (4.7%) students were age 18 plus.

The mean age of residential school youth was 15.3 years of age (standard deviation=2.7), slightly lower than the mean age of public school youth, 16.0 (standard deviation=0.8). A chi-square analysis of the age distributions of the two samples indicated that they are significantly different (chi-square=296.732, df=6, p=.000), with public school youth tending to be older than residential school youth. The following table outlines the age distribution of both samples.

Table 1: Age Distribution of Youth in Public and Residential Schools

Age	Public School	Residential School
12 years old or younger	0.2%	3.7%
13 years old	0.2%	8.7%
14 years old	11.2%	15.7%
15 years old	26.6%	24.0%
16 years old	25.0%	24.7%
17 years old	22.0%	18.7%
18 years old or older	14.7%	4.7%

The finding that the residential school sample is significantly younger than the public school sample indicates that the comparison of the two populations is a conservative test of the hypothesis that residential youth display a higher incidence of risk-taking behavior than public school youth. Because youth tend to demonstrate a higher incidence of risk-taking behavior as they age (Tinsley, 1995), any finding that the residential population has a higher incidence of risk-taking behaviors than public school youth would be particularly strong given the significant difference in age between the two populations.

Race and Ethnicity

In answer to a question about their race and ethnicity, one hundred sixty-two (55.0%) of the youth identified themselves as White-not Hispanic. Forty-five (15.0%) identified themselves as Black-not Hispanic. Thirty-four (11.0%) identified themselves as Hispanic. Nine (3.0%) identified themselves as Asian or Pacific Islander and eight (3.0%) more as Native American or Alaskan Native. Finally, thirty-nine (13.0%) identified themselves as "Other." An unexpectedly large percentage of the students characterized themselves as "Other" because they were of mixed racial and/or ethnic origin or because they lived in foster or adoptive homes with new family who are a different ethnicity/race than themselves. These students answered "Other" because they

could not fill in two or more races/ethnicities to answer the question. Three responses are not included in these calculations because subjects did not directly answer the question but wrote that they identify as more than one race and specifically noted their races.

Although the data were analyzed by gender and partially by age, the data were not cross-analyzed by race or ethnicity because many of the survey participants expressed concern and confusion about the way the race and ethnicity question was phrased. Haitian youth, for example, said that they did not feel that “black” adequately described their heritage and race. Biracial youth were unwilling to choose one race/ethnic background over another. Youth who were adopted or living with foster parents who are different races than the youth found it limiting to describe their heritage and family composition with the range of options available in the answer key.

For the purposes of this report, it should be noted that the reported race/ethnicity breakdown probably does not truly represent the population. Another more extensive study would be required to determine the role of race/ethnicity in these youngsters’ risk-taking activities. Nonetheless, Tables 3a and 3b offer a comparative review of the demographic characteristics of culturally diverse youth in public and residential schools.

A chi-square analysis of the racial/ethnic configurations of the two samples indicates a significant difference between the samples (chi-square=186.180, df=3, p=.000). The public school sample tended to have more students reporting their ethnicity as “White” and fewer students reporting their ethnicity as “Black,” “Hispanic,” or “Other.” This finding supports claims from previous studies that suggest minority youth tend to be

disproportionately represented in out-of-home settings referrals (Curtis et al., 1996).

Tables 2a and 2b: Demographic Characteristics of the Massachusetts 1993 YRBS Public School Sample

Sex	Number	Percent
Male	1501	49.2
Female	1549	50.7
No Answer	4	0.1
Total	3054	100.1**

Race	Number	Percent
White	2306	75.6
Black	122	4.0
Hispanic	109	3.6
Other*	147	4.8
No Answer	366	12.0
Total	3050	100.0

*Includes Asian, Pacific Islander, Native American, and other race/ethnicities.

**Error due to rounding.

Tables 3a and 3b: Demographic Characteristics of the Special Administration Sample

Sex	Number	Percent
Male	139	46.3
Female	161	53.9
No Answer		
Total	300	100.2**

Race	Number	Percent
White	162	54.0
Black	45	15.0
Hispanic	34	11.3
Other*	56	18.7
No Answer	3	1.0
Total	300	100.0

*Includes Asian, Pacific Islander, Native American, and other race/ethnicities.

**Error due to rounding.

According to Curtis et al. (1996), "although the greatest number of children entering and leaving out-of-home care are white, black children are over-represented in relation to their numbers in the general population." A comparative analysis of public school and residential school MYRBS participants confirms that this trend hold true for youth in residential care in Massachusetts. In the public school MYRBS sample, 4% of the participants identified as Black. By contrast, in the residential school sample, 15% identified as Black. According to Goerge, Wulczyn, and Hardin (1993), in all of the five states they studied, white children have relatively shorter durations of care than all other racial/ethnic groups. This information suggests that there are marked differences in the referral and treatment processes for minority youth in the child welfare system. There clearly is a need to determine the influences that impact these placement and treatment planning decisions. A better understanding of these youngsters' risk behavior and health education needs would be helpful. However, it was determined that such an investigation would need to explore a multitude of currently unavailable variables and that such a study was clearly beyond the scope of this dissertation.

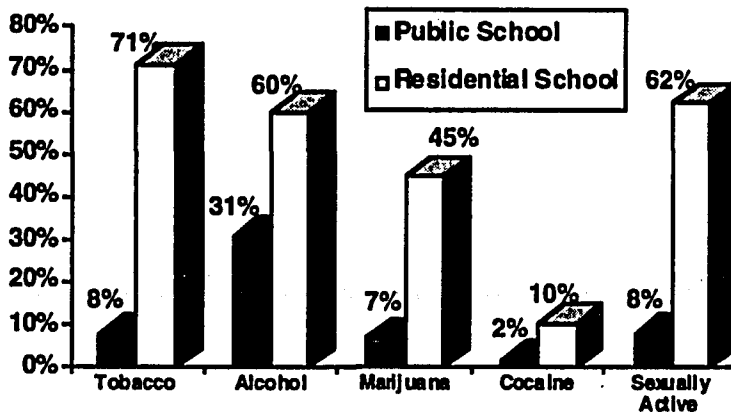
Therefore it was determined that these data could not be adequately and properly analyzed by race and that a thorough study of cultural diversity, risk, and residential youth would need to be conducted at a later date. However, the findings regarding the limitations of the instrument answer key with regard to this issue have led to the decision to modify the answer key for future scheduled survey implementations in order to more accurately capture information on risk-taking behavior of residential school youth from diverse cultural backgrounds. It is hoped that in the near future a separate paper will be published on this topic using data from a later phase of the Making Smoking History in Residential Schools Initiative.

The Onset of Risk-Taking Behaviors among Youth Currently Served by Residential Treatment Centers

Overall, the age of onset of a range of risk-taking behaviors among these ED/LD/BD youth is striking. Fifty-four (18.0%) of the subjects smoked their first cigarette before the age of nine; sixty-five (21.7%) of these youth had their first alcoholic beverage before the age of nine; sixty-one (20.3%) of these girls and boys first tried marijuana before the age of nine; sixty-nine (23.0%) had sexual intercourse before the age of nine and two hundred fifty-three (84.3%) reported having had sexual intercourse by the age of seventeen. Furthermore, residential youth began their risk-taking behaviors very early: before the age of thirteen, 71% had begun to use tobacco, 60% had begun to drink alcohol, 45% had begun to use marijuana, 10% had used cocaine, and 62% were sexually active. These young people, therefore, entered residential treatment with a substantial history of risk-taking behavior.

The data from this study reveal significant differences between public school and residential school youth on all dimensions of risk-taking. In fact, residential youth use tobacco three times more frequently and regularly than their peers in public school. Residential youth's experience with injectable drugs is approximately five times that of their public school peers. Residential youth also reported a pregnancy rate five times that of public school youth and approximately double the rate of violence and harm from violence compared to public school peers. In addition, residential students reported significantly higher rates of suicidal thought, planning, and attempts.

Table 4: Percentage of Youth Participating in Risk-Taking Behavior Before Age 13: Residential v. Public School Youth



The following sections of this chapter offer more detailed pictures of the comparative prevalence rates of risk-taking behavior within the domains of tobacco use, alcohol and other drug use, sexual activity, and injury-related behaviors.

Tobacco Use

The 1994 Massachusetts Department of Education report entitled “Massachusetts 1993 Youth Risk Behavior Survey Results,” suggests that the general problem of adolescent tobacco use is clear and well-documented. According to The Centers for Disease Control (1994), three million youth in America smoke. They were reported as consuming a total of one billion cigarettes within a twelve month period and spending \$1.3 billion per year on their habit. The results of a 1991 nationwide Youth Risk Behavior Survey (YRBS) revealed that 70.1% of high school students had tried cigarettes (Coalition on Smoking OR Health, 1993). Approximately 90% of adult smokers in America begin smoking before they were twenty years old. This means that of the approximately 45 million adult smokers in the U.S., 40.7 million began smoking before they were twenty. These kinds of statistics have prompted the MDPH to set the

reduction of the onset and incidence of adolescent smoking as a public health priority in the hopes that this would lead to a decrease in the numbers of adult smokers.

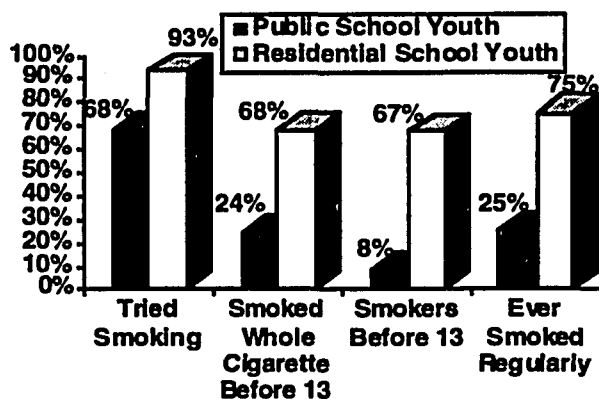
Smoking Behavior of Youth in Residential Treatment

Few research studies have been conducted on tobacco use among emotionally disturbed, learning disabled, and behaviorally disordered youth (ED/LD/BD) in residential and day treatment centers. An extensive search of the literature revealed only six such studies. Most of the authors agree that multiply diagnosed ED/LD/BD youth are more at risk to begin and/or continue smoking than other youth (Boyle et al., 1991 & 1993; Fidler et al., 1992; Garrison et al., 1993; Kutcher et al., 1992; Leone et al., 1988). Leone et al. (1988) note that special needs youth use controlled substances more than their peers. Fidler et al. (1992) studied youth who were not multiply diagnosed. They noted that emotionally disturbed and behaviorally disordered youth are more likely than learning disabled youth to smoke and that ED/LD/BD youth smoke more than their peers. Boyle et al. (1991) also found a correlation between a particular psychiatric diagnosis and the relative risk of tobacco use. They found that the link between conduct disorder and substance use is stronger than that between emotional disorders and substance use.

There are clearly differences between the smoking behavior of public school youth and the smoking behavior of ED/LD/BD youth in residential schools. Ninety-three percent of residential youth had tried smoking, compared to 68% of public school youth; 68% of residential youth had smoked an entire cigarette before age 13, compared to 24% of public school youth; and 67% of residential youth were regular smokers before age 13, compared to 8% of public school youth. The most striking difference, however, was

that 75% of residential students reported that they had regularly smoked cigarettes while only 25% of their public school peers claimed to have smoked regularly (chi square=328.159; df=1, p=.000).

Table 5: Smoking Behavior of Public School and ED/LD/BD Youth



All differences in the lifetime smoking behavior of residential and public school students this study were statistically significant.

The following table offers a statistical comparison by percentage of tobacco use behaviors in residential and public schools*:

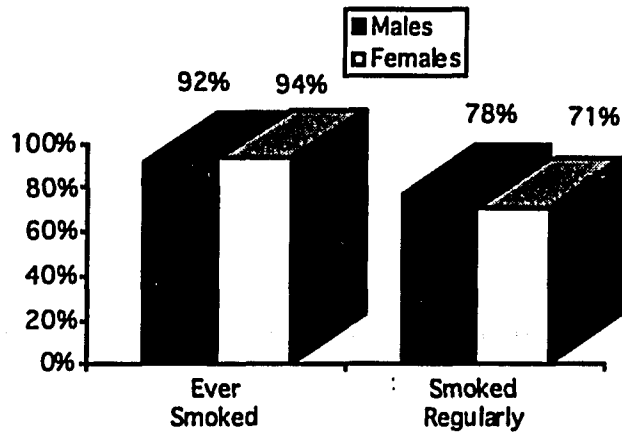
**Table 6: Tobacco Use Behaviors
A Comparison Between Residential and Public Schools**

Behavior	Percent of Residential Youth	Percent of Public School Youth	Pearson chi-square (df=1), p value
Ever tried smoking cigarettes	93%	68%	81.664, p<.000
Ever smoked cigarettes regularly	75%	25%	328.159, p<.000
Smoked a whole cigarette before age 13	78%	24%	388.124, p<.000
Smoked regularly before age 13	67%	8%	825.399, p<.000
Tried to quit smoking in the last six months	36%	18%	56.132, p<.000
Smoked a cigarette in the last six months	73%	30%	225.538, p<.000
Smoked regularly in the last 30 days	49%	12%	288.332, p<.000
Smoked on school property in the last 30 days	52%	18%	190.024, p<.000
Used chewing tobacco in the last 30 days	16%	9%	15.290, p<.000
Used chewing tobacco on school property in the last 30 days	9%	5%	8.525, p<.004

Gender Differences in Smoking Behavior

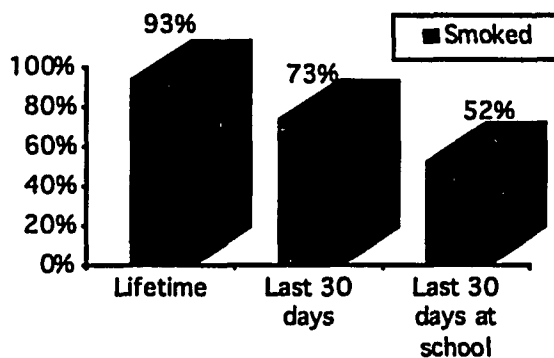
Among the general population of teenagers, it was found that girls were more likely than boys to smoke (Waldron, Lyle, & Brandon, 1991; Faulkner, 1993). A study of residential students did not bear out this finding. In this study, one hundred thirty-one (71.1%) girls and 109 (78.4%) boys from residential schools claimed that they have smoked regularly. However, in both residential and public schools, boys used chewing tobacco more than girls.

*This table is adapted from the Massachusetts 1993 Youth Risk Behavior Survey Results. (Faulkner, A. *Massachusetts 1993 YRBS Report*, p. 10)

Table 7: Gender Differences in Smoking Behavior

Smoking Behavior Trends for Youth in Residential Treatment

Residential youth reported that their smoking behavior patterns are dramatically different in “the last thirty days” and in “the last thirty days at school.” Youth in the most staff secure and structured setting, day school, report smoking the least. The 1994 survey of residential school youth revealed that 93% of youth had tried smoking during their lifetime. The number of youth who had smoked in the past thirty days decreased to 73%, and only 52% of youth had smoked at school in the past thirty days.

Table 8: Smoking Behavior Trends of Youth in Residential Treatment

This finding has implications for practice and suggests that as external influences on youth behavior increase, risk-taking behavior decreases. If this is true, prevention programs should focus on helping youth internalize life-affirming decision-making skills with regard to risk-taking behavior so that they could make these decisions independently in unsupervised settings. Additionally, this suggests that when youth are discharged from residential treatment centers, they will benefit from continued support and guidance through community-based comprehensive health education, prevention, and intervention programs. It is also noteworthy that in this study more of the public schools than the residential facilities had policies in place that limited smoking. The differences in policy might also account for some of the difference found in whether youth smoked on and off school grounds.

Clearly, there is a striking difference between the smoking behavior of public school youth and youth in residential schools. This difference has attracted the attention of individuals, organizations and government agencies concerned with the welfare of children and has prompted policy makers and others to begin to take action. And yet, while attention to this problem is certainly now more than it has been in the past, no comprehensive solution has been found.

It is important to note that ED/LD/BD youth often undergo treatment for risk-taking behaviors such as violence and suicide. In many cases, such behaviors are a reaction to sexual, physical, and emotional abuse. Low self-esteem, poor refusal skills and a lack of assertiveness may leave some ED/LD/BD youth vulnerable to other risk-taking behaviors such as smoking.

It may also be inferred that because tobacco is a gateway drug, the early onset of smoking might also lead to early and persistent use of other drugs. It is noteworthy that youth who smoke are fifteen times more likely than youth who do not smoke to start using narcotic drugs (MDOE, 1994). It would therefore seem to follow that these youngsters would also be vulnerable to other drug use, particularly when you consider that 18% of respondents reported they began smoking prior to the age of nine and 78% reported that they had smoked a whole cigarette by the age of thirteen.

Alcohol, Marijuana, Cocaine and Other Drug Use

Substance abuse treatment and relapse prevention models are the focal point of the literature on adolescents in residential treatment and substance abuse. The adolescent substance abuse treatment literature does address the importance of community resources, including public health resources, as a part of a strong after-care and relapse prevention program (Anderson, 1988; Godley et al., 1994; Morehouse, 1992; Schinke et al., 1991; Vik, Grizzle, & Brown, 1992). It is important to note that if the search is expanded to include foster children, the literature reveals a plethora of information on alcohol and drug-affected infants and toddlers and their families.

Morehouse (1992) studied the impact of student assistance programs on youth in residential treatment. She found that many youth were children of alcohol and substance abusers. She also discovered that many youth had active substance abuse problems and that these youngsters were at risk of becoming involved in other risk-taking behaviors. Clapper et al. (1995) found that early onset of alcohol use, in particular the number of times an individual is intoxicated before his/her sixteenth birthday, is the best indicator of adult substance dependence. Other relevant predictors

include histories of fighting and arrests. Most youth from residential schools who participated in this MYRBS study reported having engaged in all of these predictive risk-taking behaviors. Clapper et al. (1995) and Morehouse (1992) recommend preventive interventions to offset drug abuse problems later in the lives of these young people. Morehouse (1992) found that participation in her student assistance program reduced these adolescents' risks of drug abuse, school failure, and failure to develop independent living skills.

Friedman, Strunin, and Hingson (1993) studied 101 multi-problem adolescents in substance abuse rehabilitation programs and found that these youth predicted that, if faced with a positive HIV antibody test result, they would engage in a variety of risk-taking activities. Eighty-three percent of the youth studied said that if found to be HIV positive, they would be less likely to continue substance abuse treatment, and 64 to 62% would be more likely to continue drug and alcohol use. Sixty percent said that they would be less likely to continue school. These findings support the hypothesis that preventive interventions for youth in treatment settings must address topics and issues that extend beyond the scope of the problems that lead them to seek treatment. Clearly, there is a need to provide HIV prevention and counseling for these youth.

Alcohol Use

According to the Massachusetts Department of Education (1994):

Alcohol is a leading factor in approximately half of all homicides, suicides, and motor vehicle crashes (Perrine et al., 1988), which are the leading causes of death and disability among young people (U.S. Department of Health and Human Services, 1990). Heavy drinking among youth has been linked conclusively to physical fights, destroyed property, academic and job problems, and trouble with law enforcement authorities (Public Health Service, 1991). Approximately 100,000 American deaths each year are attributable to the misuse of alcohol (U.S. Department of Health and Human Services, 1990).

The following section of this paper will describe the self-reports of public school and residential school youth as related to alcohol use. In addition, gender differences in alcohol use will be described. Recommendations for incorporating alcohol use prevention interventions into child welfare settings will also be described.

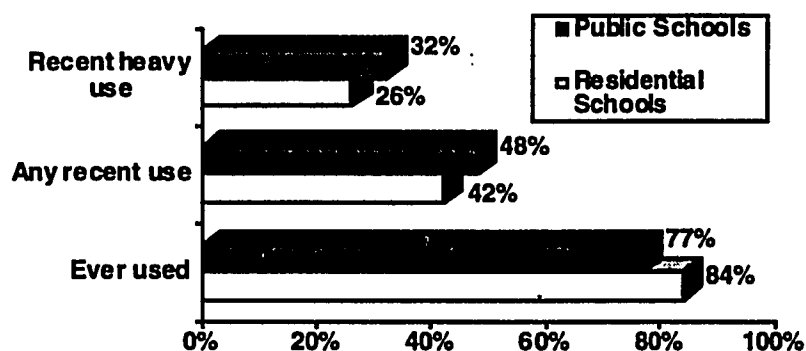
Alcohol Use of Public School and Residential School Youth

In general, there were significant differences between the alcohol use patterns of residential and public school youth. (See Table 9: Alcohol Use of Public School v. Residential School Youth.) Overall, lifetime alcohol use of youth in residential schools was significantly higher than that of their public school peers, but recent public school youth alcohol use tended to be higher than that of residential youth. Eighty-four percent (84%) of residential school youth reported lifetime alcohol use experience compared to 77% of their public school peers (chi-square=10.37, df=1, p=.001). Conversely, 26% of the residential youth who completed the 1994 Special Administration YRBS reported recent heavy alcohol use. This figure is significantly lower than the 32% of public school youth who reported recent heavy alcohol use on the 1993 standard YRBS (chi-square=3.83, df=1, p=.05). Public school youth also showed a higher recent use of alcohol overall (chi-square=2.98, df=1, p=.08), though this difference did not reach a level of statistical significance.

It may be possible that youth in residential schools use alcohol less frequently than youth in public schools because the staff in residential schools monitor behavior 24 hours a day unless youth are on off-grounds passes. However, no conclusive evidence in support of this hypothesis is available. The similarity of alcohol use patterns here is interesting and raises questions about the role and culture of alcohol use in the

development and lifestyles of adolescents in Massachusetts. Whereas youth in residential treatment report statistically different risk-taking behavior on all domains, with the exception of alcohol use, this suggests that alcohol use and all its dangerous side effects are quite common for many teens, regardless of where they live or their mental health status. Nonetheless, the finding still strongly suggests that all youth, including youth in residential treatment centers, can benefit from involvement in effective alcohol use education and prevention programs. It can also be inferred that residential youth have a disproportionately higher need for these comprehensive health education and prevention programs because it is likely that many of their family members use or abuse alcohol (Morehouse, 1992; Pecora, Whittaker, & Maluccio, 1992), and it has been determined that youth from families affected by alcohol use are more vulnerable to alcoholism later in their lives.

Table 9: Alcohol Use of Public School v. Residential School Youth



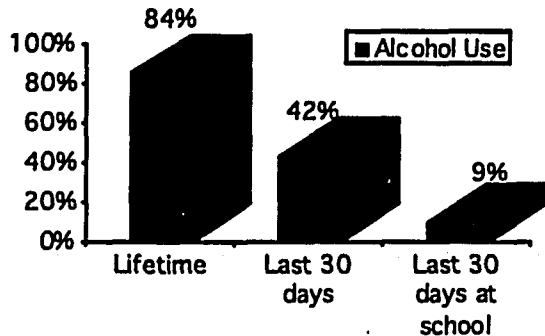
Gender Differences in Alcohol Use

The results of the 1994 MYRBS indicate that there were no statistically significant differences in alcohol use between boys and girls from residential schools. In the past 30 days, 44% of girls and 40% of boys had consumed alcohol on one or two days. Only 4% of girls and 1% of boys had consumed five or more drinks in a row on one to

five occasions in the past 30 days. Three percent of girls and 3% of boys had consumed five or more drinks on 20 or more days in the past 30 days. Boys tended to consume alcohol at school more frequently than girls; however, this difference was only approaching significance (chi-square=11.407, p=.077).

Alcohol Use Trends of Youth in Residential Treatment

The 1994 survey revealed that 84% of youth had used alcohol during their lifetime. Forty-two percent of these youth reported having used alcohol in the past 30 days and only 9% used alcohol at school in the past thirty days. It appears that these youth used alcohol less frequently when they are institutionalized. Residential youth reported a 50% decrease in alcohol use while in residential treatment centers and a 90% decrease while in residential treatment school programs. This finding also suggests that as external influences on youth risk-taking behavior increase, risk-taking behavior decreases. Again, this suggests that comprehensive health education and prevention programs for these ED/LD/BD youth should focus on helping youth internalize life-affirming decision-making skills with regard to risk-taking behavior. In addition, youth discharged from residential treatment centers could benefit from continued support and guidance from through community-based comprehensive health education, prevention, and intervention programs.

Table 10: Alcohol Use Trends of Youth in Residential Treatment

Finally, it is noteworthy that alcohol use is not permitted in the residential facilities or the residential schools. Therefore, it is unlikely that the difference between alcohol use “in the last thirty days” and “in the last thirty days on school grounds” can be accounted for by policy differences. It is possible that time of day and the way youth choose to use leisure time may have affected these outcomes. Further study would be required to determine the actual influences on this alcohol use pattern.

Lifetime Marijuana, Cocaine and Other Drug Use

According to the Massachusetts Department of Education (1994):

The abuse of drugs other than alcohol and tobacco is associated with injuries, early unwanted pregnancy, school failure, delinquency, and the transmission of sexually transmitted diseases including human immunodeficiency virus (HIV) infection (Public Health Service, 1990). As many as one in four American adolescents is estimated to be at very high risk for the consequence of alcohol and other drug problems (Dryfoos, 1987). Illicit drug use among high school students and other young adults is higher in the United States than in any other industrialized nation (Johnston, et al., 1989).

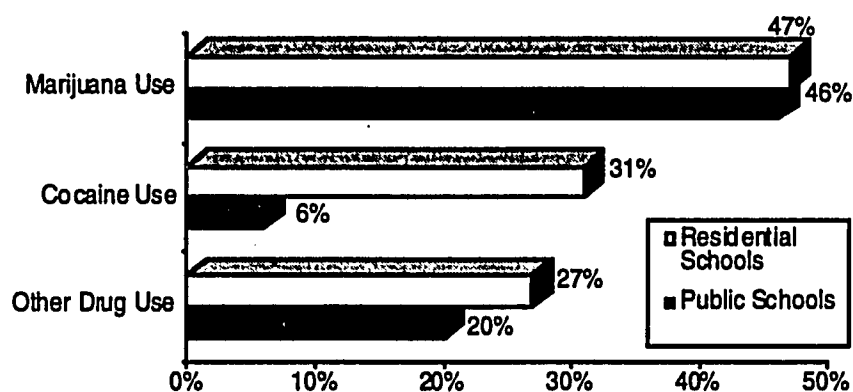
This section will compare the self-reports of youth in public schools and residential schools regarding their drug use. In addition, gender differences in drug use will be explored. Recommendations for incorporating drug use interventions into child welfare

settings will be offered.

Drug Use of Public School and Residential School Youth

For the purposes of this study, the term “other drugs” was defined as “other drugs include LSD, PCP, ecstasy, mushrooms, speed, ice, heroin, or pills.” For each of these categories of drug use, residential youth reported more lifetime “other drug” use than did public school youth. Twenty-seven percent (27%) of residential youth compared to 20% of public school youth reported having ever used other drugs. Thirty-one percent (31%) of residential youth compared to 6% of public school youth reported having ever used cocaine. Interestingly, marijuana use among these two populations was almost identical; 47% of residential youth and 46% of public school youth reported having ever used marijuana.

Table 11: Lifetime Marijuana, Cocaine and Other Drug Use



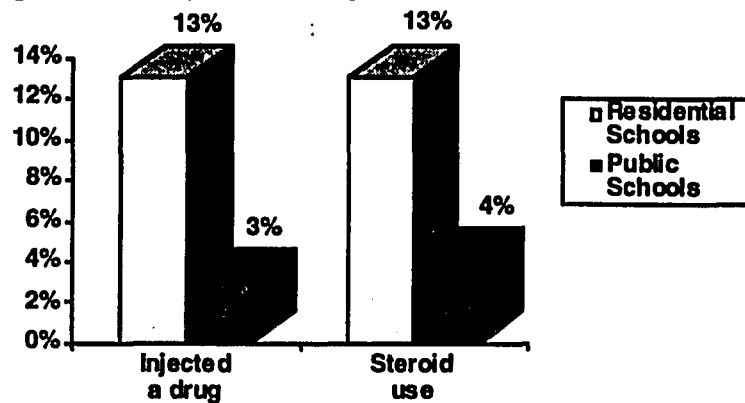
Injectable drug use and drug trafficking findings merited special attention here.

Injectable Drug Use

Despite the similarities reported above, statistically different lifetime drug use behavior

patterns were identified for injection drug use (chi-square=74.498, df=1, p<.000) and steroid use (chi-square=49.652, df=1, p<.000). Residential youth's experience with injectable drugs is approximately four times that of their public school peers. The differences in steroid use are almost as great. Intravenous drug use is associated with HIV risk; this finding suggests that residential youth, because of their higher rates of intravenous drug use, are more at-risk of HIV infection than their public school peers.

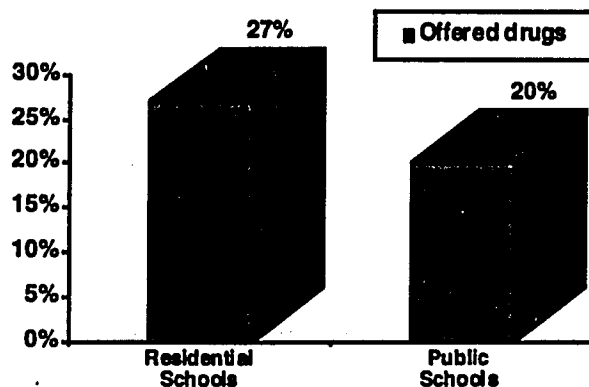
Table 12: Comparison of Injectable Drug Use Patterns



Drug Trafficking on School Grounds

It is also noteworthy that residential youth reported having been offered drugs on school grounds more often than youth who attend public school. Twenty seven percent (27%) of residential youth compared to 20% of public school youth claimed they had been offered drugs at school in the past year. Unfortunately, this study did not examine who offered the drugs to these youth; what kinds of drugs they were offering; or how the drugs were secretly brought on school premises. All of these questions merit further study.

Table 13: Offered Drugs at School in the last 12 months



Gender Differences in Drug Use Among Those in Residential Treatment

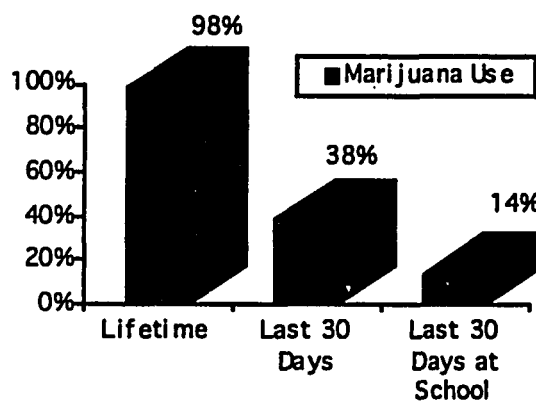
For all drug use, other than marijuana, girls in residential treatment in this study reported higher drug use rates than boys. Girls had used cocaine significantly more frequently than had boys (chi-square=13.339, $p=.020$). Girls also tended to have a higher lifetime use of crack (chi-square=17.774, $p=.003$). Gender differences in the frequency of lifetime LSD use were also approaching significance, with girls demonstrating a higher frequency of use than boys (chi-square=9.688, $p=.085$).

On the other hand, the results of the 1994 YRBS found that boys smoked marijuana at school significantly more often than did girls (chi-square=11.491, $p=.042$). While 91.3% of residential school girls had never smoked marijuana at school, 86.3% of residential school boys had abstained from smoking the drug while at school. Comparable gender difference data on public school students' drug use was not publicly available.

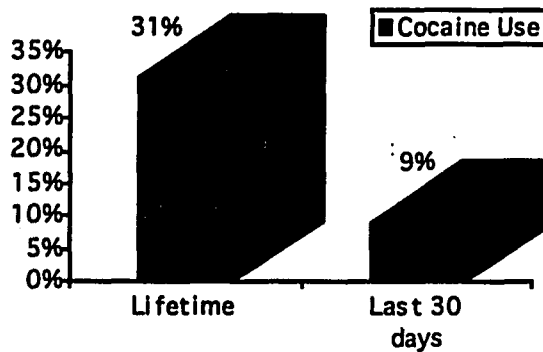
***Implications for Drug Use Prevention among Residential Youth:
Marijuana and Cocaine Use Trends of Youth in Residential Treatment***

Ninety-eight percent (98%) of residential school youth indicated that they had smoked marijuana. Thirty-eight percent (38%) of youth had smoked marijuana within the past 30 days, and 14% had reported smoking marijuana at school during the past 30 days.

Table 14: Marijuana Use Trends of Youth in Residential Treatment



Thirty-one percent (31%) of residential school youth reported that they had used cocaine in their lifetime. By contrast, 9% of youth reported that they had used cocaine within the past 30 days.

Table 15: Cocaine Use Trends of Youth in Residential Treatment

Conclusions about Drug Use

Once again, as with tobacco and alcohol use, lower residential youth drug use while in restrictive settings suggests that as external influences on youth behavior increase, risk-taking behavior decreases. Comprehensive health education and drug use prevention programs could help youth to internalize their life-affirming decision-making skills with regard to drug use. Nonetheless, because residential youth have active histories and social networks that support drug use, they may require more intensive community-based substance abuse prevention programs than their public school peers. Modified student assistance programs (Morehouse, 1994; Suby, 1991; Anderson, 1988) have proven to be successful in helping recovering youth transition from residential treatment centers to their families, neighborhoods, and schools.

Higher drug use patterns among residential school girls also suggests that substance abuse prevention programs for these youth should be gender-specific. However, before developing gender-specific programs one must examine the different factors that influence male and female drug use. This study did not examine those causal links, and

very few studies have.

Sexual Risk-Taking Behavior

According to the Massachusetts Department of Education (1993):

The Massachusetts Youth Risk behavior survey measures sexual behaviors related to unintended pregnancy and sexually transmitted diseases including HIV infection. The MYRBS measures the prevalence of sexual activity, the number and sex of sexual partners, age at first intercourse, the use of condoms and other contraceptives. Early sexual activity is associated with unintended pregnancy and sexual transmitted diseases (STDs), including HIV infection. The number and sex of sexual partners and age at first intercourse also associated with STDs. Alcohol and drug use may serve as predisposing factors for initiation of sexual activity and unprotected sexual intercourse (Hofferth and Hayes, 1987).

The MYRBS also measures some of the outcomes of sexual activity, including unwanted pregnancy and STDs. More than one million adolescent women in the United States get pregnant each year; three quarters of adolescent pregnancies occur among young people who are not using contraception. Nearly half of pregnant adolescents give birth and approximately 400,000 obtain abortions (Hofferth and Hayes, 1987). The rate of teen childbearing in the U.S. has increased every year since 1986 (Child Trends Inc., 1994). The U.S. has the highest rates of adolescent pregnancy, abortion, and childbearing in the Western industrialized world (Hofferth and Hayes, 1987).

Sexually transmitted diseases contribute to excess illness, mortality, and health care costs among adolescents, young adults, and newborns. Young women bear a large burden of the consequences of STDs, including pelvic inflammatory disease, infertility, ectopic pregnancy, and cervical cancer. Two thirds of the 12 million STD infections each year are acquired by persons under 25 years old. The three most common STDs in Massachusetts are gonorrhea, chlamydia, and syphilis, though a total of nine different STDs are reportable by law (Massachusetts Department of Public Health, 1993). In 1992, 2,939 cases of chlamydia, 705 cases of gonorrhea, and 60 cases of syphilis were reported for Massachusetts youth ages 10 to 19 (Massachusetts Department of Public Health, 1993).

This section will compare the self-reported sexual histories of youth in public and residential schools. It will also examine gender differences in sexual history and offer recommendations for the incorporation of sex education and sexual abuse prevention

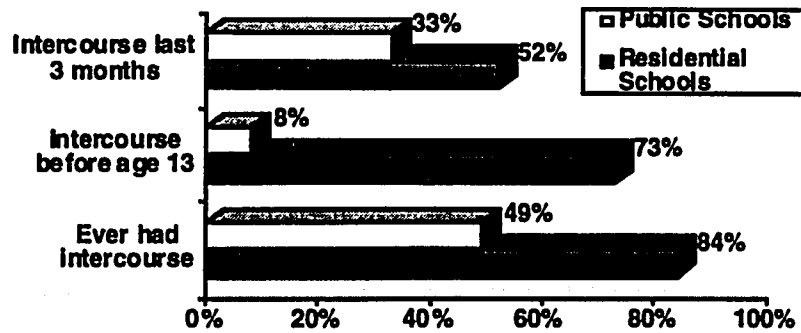
programs for child welfare settings.

Sexual History of Public School and Residential School Youth

Twenty-three percent (23%) of residential youth, as compared to no public school youth, reported having had sex before the age of nine (chi-square=716.253, df=1, p=.000). Seventy-three percent (73%) of residential youth, as compared to 8% of public school youth, reported having had sex before they were 13 years of age (chi-square=968.859, df=1, p=.000). Over the course of their lifetimes, 84% residential youth, as compared to 49% of public school youth, claimed they had had sex (chi-square=133.858, df=1, p=.000).

Due to the nature of the survey question, it is impossible to determine whether residential youth's early onset of sexual experience can be attributed in part to sexual abuse. It is noteworthy that several residential youth suggested that the survey instrument was flawed because it did not ask about incidents of sexual abuse. Other risk-taking behaviors have been associated with early onset of sexual behavior among youth in the general population (Pecora, Whittaker, & Maluccio, 1992; Edelman, 1994; Tower, 1989) (see Table 16 for a comparison of public school and residential school students' sexual risk-taking).

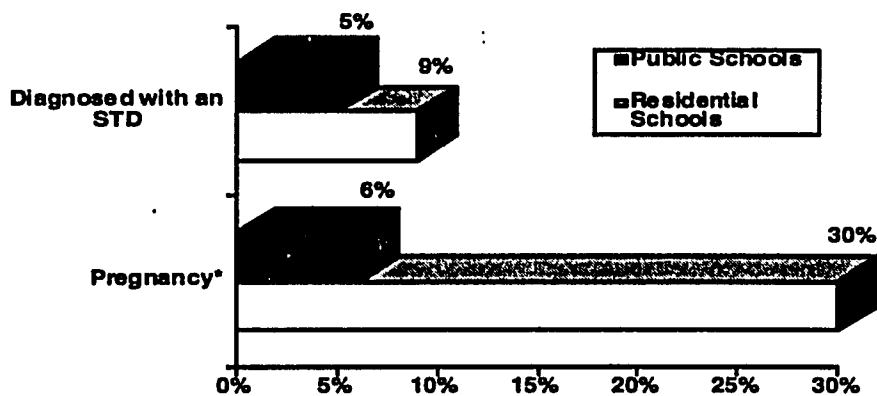
Table 16: Sexual Activity



A Comparison of Pregnancy and STD Histories

Residential youth reported causing pregnancy or becoming pregnant at five times the rate of public school youth (chi-square=210.183, df=1, p<.000). They also reported histories of having contracted sexually transmitted diseases at double the rate of their public school peers (chi-square=8.711, df=1, p<.003). Residential youth were more than three times more likely to have had four or more sexual partners than their public school peers.

Table 17: Prevalence of Pregnancy and STDs



*Either became pregnant or was responsible for pregnancy.

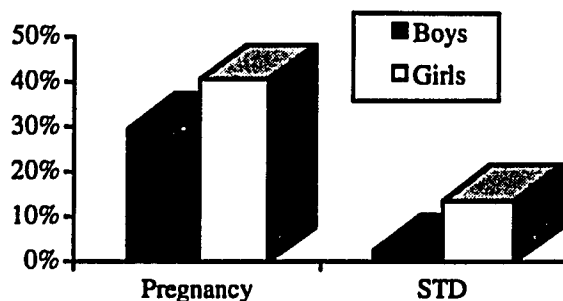
The incidence rates of pregnancy, infection and multiple sex partners all indicate a statistically higher rate of unprotected sex among residential youth. Unprotected sex with multiple partners is also associated with HIV risk; therefore, it is possible that residential youth who report this activity are at higher risk of HIV infection than their public school peers.

Gender Difference in Sexual Activity

Over one-fifth of residential youth reported having had sexual intercourse before the age of nine. Thirty-one percent (31%) of girls and 23% of boys reported having had sex before this age, and by age seventeen, 86% of girls and 82% of boys reported having had sexual intercourse. Overall gender differences in age of first intercourse were not significant (chi-square=5.541, df=1, p=.353). Additionally, the 8% difference in the onset of sexual activity before the age of nine, which might suggest that significantly more girls than boys had been victims of childhood sexual abuse or exploitation, was not significant (chi-square=2.42, df=1, p=.119).

Consequences of Unprotected Sex

As a result of unprotected sexual activity, residential school girls and their partners in this study were more likely to engage in sexual behavior leading to pregnancy than boys and the boys' partners (chi-square=13.198, p=.004). These girls also reported being more likely to have been diagnosed with a sexually-transmitted disease than did boys (chi-square=11.074, p=.001), with 13.8% of girls and 2.9% of boys reporting having been diagnosed with an STD. In all of these situations, these youngsters placed themselves at risk of HIV infection.

Table 18: Gender Differences in Sexual Activity

Overall Trends in Sexual Activity of Youth in Residential Treatment

In general, participants in this study report extremely early onset of sexual behavior and strikingly high rates of pregnancy and sexually transmitted diseases. These findings suggest a need for early intervention in the prevention of sexual abuse, pregnancy, HIV and STDs for this population. Their continued need for sexuality education, family planning, and sexual health services is also evident. Girls' disproportionate risk with regard to sexual activity suggests a need for gender-specific comprehensive health education and prevention services.

Injury-Related Behaviors

For the purposes of this paper, injury-related behaviors are defined as violence-related and suicide-related behaviors. According to the Massachusetts Department of Education (1994):

In the United States, homicide is the second leading cause of death among youth age 15 to 24 and is the leading cause of death among black youth (National Center for Health Statistics, 1990). The vast majority of homicide victims in the U.S. are killed with a weapon such as a gun, knife, or club. Physical fighting often precedes fatal violence among young persons (Luckenbill, 1977).

Suicide is the third leading cause of death among youth age 15 to 24 (National Center for Health Statistics, 1990), and the suicide rate in this age group has tripled since 1950 (U.S. Department of Health and Human Services, 1990). Firearms are

involved in 60 percent of adolescent and young adult suicides in the U.S. (U.S. Department of Health and Human Services, 1990).

The residential treatment literature on violence or injury-related behavior focuses on therapeutic control of violent behavior (Davis & Boster, 1992; Federn, 1989; Grellong, 1987). Generally, the authors describe methods of violence containment and explore causes of violence that can inform preventive interventions to stop youth from becoming aggressive when they are agitated. The orientation of these articles is psychological, not health education or prevention focused. There is no discussion of linkages between violence and other health risk behaviors or how youth can generalize lessons learned in violence de-escalation programs about decision-making to other situations. Violence perpetrated on the self is the final risk-taking behavior explored in this section of the literature review. Two articles on residential youth and suicide were identified (Reis & Resnik, 1984; Teare & Authier, 1994). The articles address the relationship between different levels of suicide risk and recommended treatment interventions. Agency-based data on the number of youth exhibiting suicidal tendencies are referenced only in respect to program selection, not in terms of identifying population trends. An additional article on a research study conducted in Massachusetts with 110 youngsters revealed that “events requiring contact with a children’s protective agency”, such as out-of-home placement, “may have a causal impact on adolescent suicidal behavior.” This study utilized record linkages between hospital emergency rooms and the Department of Social Services’ child abuse and neglect records to investigate the relationship between suicidal behavior and DSS involvement.

The following section of this chapter will describe the self reports of public school and residential school youth with regard to their violence-related and suicide-related

behaviors. Gender differences in violence-related and suicide-related behaviors among both populations are noted and both groups' violence-related and suicide-related risk-taking behaviors are compared to the national norms noted above. Recommendations for incorporating violence and suicide prevention interventions in child welfare settings are outlined.

Violence-Related Behaviors of Public School and Residential School Youth

The MYRBS measures violence-related behavior such as weapon carrying and physical fighting. Residential youth were almost seven times more likely to have been injured in a fight in the past year than public school youth (chi-square=253.822, df=1, p<.000). They were also almost two times more likely to have participated in a fight than their public school peers (chi-square=120.201, df=1, p<.000). Residential students claimed they did not attend school because of their fear about safety in the school three times more often than public school students (chi-square=49.611, df=1, p<.000). Given that most schools in this study are on a residential campus, the findings may have implications with regard to general program safety and safety in the world. Additional study is required to determine why youth feel so unsafe in residential schools in Massachusetts. However, some child welfare researchers have documented evidence of the perils of institutional abuse (Mallon, 1992; Bloom, 1993 & 1994) which may be operative here.

Table 19: Violence Related Behaviors: Public School v. Residential Youth

	Res.School All	Pub.School All	Res.School Boys	Pub.School Boys	Res.School Girls	Pub.School Girls
N=	300	3050	139	1501	161	1549
Past 30 Days:						
Carried a Weapon	34%	20%	37%	32%	31%	8%
Carried a Weapon at School	14%	10%	19%	15%	10%	5%
Carried a Gun	16%	6%	20%	11%	11%	1%
Did Not go to School because Felt Unsafe	15%	5%	14%	6%	15%	5%
Past 12 Months:						
Threatened or Injured with Weapon at School	17%	9%	22%	12%	13%	6%
Belongings Stolen or Damaged at School	34%	28%	30%	31%	37%	24%
Physical Fight	75%	42%	76%	51%	74%	32%
Physical Fight at School	44%	15%	46%	22%	43%	8%
Injured in Fight and Treated by Doctor or Nurse	27%	4%	32%	5%	23%	3%

Residential Youth and Gender Differences in Violence-Related Behavior

Recent trends indicate an increase in the number of girls becoming involved in violent acts. According to the U.S. Justice Department, arrest rates for girls under 18 increased 63% during 1988-1992 compared to a 43% increase for male juveniles (New York Times Magazine, 1995). Between 1985-89, arrest rates for violent crimes increased 32.3% faster for girls than for boys. Girls' arrest rates for murder and non-negligent manslaughter increased 18.9% and their arrest rates for aggravated assault increased 35.9% (FBI, 1990).

Girls who commit these violent acts may be referred to residential centers. The increase in the number of girls involved in violent behavior may be influencing the nature and gender balance of aggressive youth in treatment today.

Carlson (1991) studied 101 boys and girls, ages 13-18, in residential and youth shelter programs, to find out if there were differences in the risk-taking behaviors of boys and girls who had histories of physical abuse. She measured well-being, attitudes toward violence, substance abuse and running away, and found that boys tended to react to stress with violence and girls tended to be more prone to running away.

Mennen and Meadow (1993) studied the relationship between sexual abuse history and level of severity of symptoms in emotionally disturbed girls. They suggest that girls who have histories of sexual abuse have poorer self esteem, higher levels of anxiety and more depression than girls who have not been abused. Thus, depression and anxiety could prompt suicidal behaviors. Practitioners have reported that in recent years, girls in residential treatment increasingly appeared to display violent behavior in ways that were similar to boys in residential treatment. This study partially explored that question.

Gender Differences in Violence Related Behaviors

Gender differences identified in this study among youth in residential treatment and between youth in residential treatment and youngsters in the public school with regard to violence were noteworthy. As hypothesized, girls in residential treatment reported similar violence-related experiences to their male counterparts. By contrast, girls in public school reported experiencing less violence than boys.

For example, male adolescents in the public school sample were significantly more likely to report being in any kind of a physical fight in the last 12 months (chi-square=113.595, df=1, $p<.000$) than their female public school peers. However, no statistically significant difference appeared to exist between the rate of girls' and boys' violence on residential school grounds (chi-square= 6.621. $p=.469$).

Trends of Violence Related Behaviors of Youth in Residential Treatment Centers

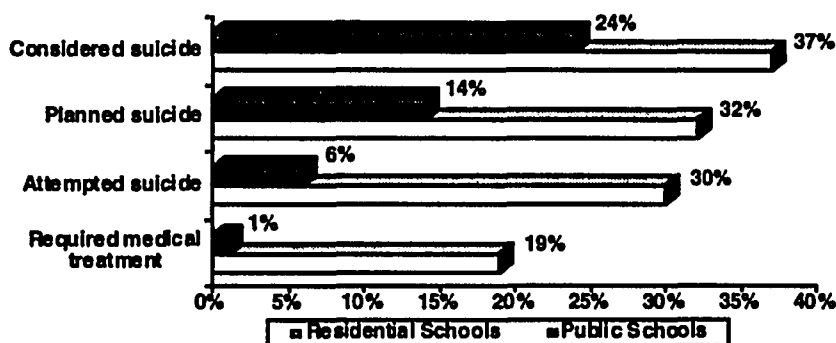
Youth in residential treatment centers exhibit and have histories of violent behavior that far exceed adolescent norms. In fact, they are often removed from their homes because of this behavior. They could benefit from violence prevention and education programs; however, a more intensive emphasis on a violence-free lifestyle is required for these youngsters. Additionally, the violence preventive intervention of choice must take into consideration the multiple causes and stimuli these youth experience that lead to their aggressive behavior including anger from victimization, neuro-biological or chemically-induced tantrums, etc. The ideal content of violence prevention activities for these youth requires additional study; however, there is no doubt that child welfare violence control activities could be productively integrated into public health programs that focus on building violence-free values, cultures, and societies. Finally, although girls in residential treatment centers exhibit similar rates of violent behavior, we must be careful not to assume that their violent behavior is similarly motivated or corrected. The sudden shift of increased female violence suggests that something new and different is influencing girls' violence. Therefore, it is recommended that violence prevention programs for

youth in residential centers place a special emphasis on gender differences in attitudes, beliefs, and violent behavior.

Suicidal Thought and Behavior of Public School and Residential School Youth

The MYRBS measures self-reports of attempted suicide and the seriousness of attempts. Residential students reported significantly higher rates of suicidal thought, planning and attempts than their public school peers. Thirty-seven percent (37%) of residential youth compared to 24% of public school youth reported that they had considered suicide (chi-square=24.512, df=1, $p<.0000$); 32% of residential youth compared to 14% of public school youth claimed they had planned a suicide attempt (chi-square=67.171, df=1, $p<.000$); and 30% of residential youth compared to 6% of public school youth had actually attempted suicide (chi-square=210.183, df=1, $p<.000$). Nearly ten times more residential youth than public school youth claimed that they had required medical intervention because of suicide attempts (chi-square=345.345, df=1, $p<.000$). This last finding suggests that residential youth had made more physically threatening attempts to kill themselves than did their public school peers.

Table 20: Suicidal Behaviors of Public School v. Residential School Youth



Gender Differences in Suicidal Thought and Behavior

Comparison of boys and girls in residential schools revealed many significant gender differences in suicidal thought and behavior, with girls being significantly more at risk than boys. Girls were significantly more likely than boys to have seriously considered suicide during the past 12 months (chi-square=10.372, df=1, p=.001). Girls were also significantly more likely than boys to have planned suicide during the past 12 months (chi-square=13.201, df=1, p=.000). Girls also reported a significantly higher frequency of suicide attempts than did boys (chi-square=18.191, df=1, p=.001). Ten percent (10%) of girls, compared to 2.9% of boys, had attempted suicide six or more times in the past twelve months.

Clearly, youth in this study are vulnerable to suicidal thoughts and attempts; however, girls are even more at risk than boys. Comprehensive gender-specific suicide prevention programs are called for. Residential treatment centers historically have been used to prevent youth from hurting themselves or others. As with violence prevention, the activities to prevent suicide must be called into question. For example, in a more comprehensive approach, youth in residential treatment centers would be taught how to identify community based self-help and support groups, suicide hotlines and other means of support in the neighborhoods to which they return after treatment.

Summary of the Major Findings

As of June 20, 1994, three hundred (300) ED/LD/BD youth had responded to the MYRBS under the special administration conditions. One hundred thirty-nine boys (46.3%) and one hundred sixty-one girls (53.9%) participated in this study. This gender distribution is similar to that of the public school samples, which was 49.2% boys and 50.8% girls (chi-square=.906, df=1, p=.341).

The mean age of residential school youth was 15.3 years of age (standard deviation=2.7), slightly lower than the mean age of public school youth, 16.0 (standard deviation=0.8). The finding that the residential school sample is significantly younger than the public school sample indicates that the comparison of the two populations is a conservative test of the hypothesis that residential youth display a higher incidence of risk-taking behavior than public school youth. Because youth tend to demonstrate a higher incidence of risk-taking behavior as they age (Tinsley, 1995), any finding that the residential population has a higher incidence of risk-taking behaviors than public school youth would be particularly strong given the significant difference in age between the two populations.

In answer to a question about their race and ethnicity, one hundred sixty-two (55.0%) of the youth identified themselves as White-not Hispanic. Forty-five (15.0%) identified themselves as Black-not Hispanic. Thirty-four (11.0%) identified themselves as Hispanic. Nine (3.0%) identified themselves as Asian or Pacific Islander and eight (3.0%) more as Native American or Alaskan Native. Finally, thirty-nine (13.0%) identified themselves as "Other." An unexpectedly large percentage of the students characterized themselves as "Other" because they were of mixed racial and/or ethnic

origin. These students answered "Other" because they could not fill in two or more races/ethnicity's to answer the question. Three responses are not included in these calculations because subjects did not directly answer the question but wrote that they identify as more than one race and specifically noted their races. Overall, minority youth were overrepresented in residential treatment centers compared to their representation in public schools.

Overall, the age of onset of a range of risk-taking behaviors among these ED/LD/BD youth is striking. Fifty-four (18.0%) of the subjects smoked their first cigarette before the age of nine; sixty-five (21.7%) of these youth had their first alcoholic beverage before the age of nine; sixty-one (20.3%) of these girls and boys first tried marijuana before the age of nine; sixty-nine (23.0%) had sexual intercourse before the age of nine and two hundred fifty-three (84.3%) reported having had sexual intercourse by the age of seventeen. Furthermore, residential youth began their risk-taking behaviors very early: before the age of thirteen, 71% had begun to use tobacco, 60% had begun to drink alcohol, 45% had begun to use marijuana, 10% had used cocaine, and 62% were sexually active. These young people, therefore, entered residential treatment with a substantial history of risk-taking behavior.

The data from this study reveal significant differences between public school and residential school youth on all dimensions of risk-taking. In fact, residential youth use tobacco three times more frequently and regularly than their peers in public school. Residential youth's experience with injectable drugs is approximately five times that of their public school peers. Residential youth also reported a pregnancy rate five times that of public school youth and approximately double the rate of violence and harm from violence compared to public school peers. In addition, residential students

reported significantly higher rates of suicidal thought, planning, and attempts.

Tobacco Use

There are clearly differences between the smoking behavior of public school youth and the smoking behavior of ED/LD/BD youth in residential schools. The most striking difference, however, was that 75% of residential students reported that they had regularly smoked cigarettes while only 25% of their public school peers claimed to have smoked regularly (chi square=328.159; df=1, p=.000).

Residential youth reported that their smoking behavior patterns are dramatically different in “the last thirty days” and in “the last thirty days at school.” This finding has implications for practice and suggests that as external influences on youth behavior increase, risk-taking behavior decreases. If this is true, prevention programs should focus on helping youth internalize life-affirming decision-making skills with regard to risk-taking behavior so that they could make these decisions independently in unsupervised settings. Additionally, this suggests that when youth are discharged from residential treatment centers, they will benefit from continued support and guidance through community-based comprehensive health education, prevention, and intervention programs. It is also noteworthy that in this study more of the public schools than the residential facilities had policies in place that limited smoking. The differences in policy might also account for some of the difference found in whether youth smoked on and off school grounds.

Alcohol Use

In general, there were significant differences between the alcohol use patterns of residential and public school youth. Overall, lifetime alcohol use of youth in residential

schools was significantly higher than that of their public school peers, but recent public school youth alcohol use tended to be higher than that of residential youth. Eighty-four percent (84%) of residential school youth reported lifetime alcohol use experience compared to 77% of their public school peers (chi-square=10.37; df=1, p=.001). It may be possible that youth in residential schools use alcohol less frequently than youth in public schools because the staff in residential schools monitor behavior 24 hours a day unless youth are on off-grounds passes. However, no conclusive evidence in support of this hypothesis is available. The similarity of alcohol use patterns here is interesting and raises questions about the role and culture of alcohol use in the development and lifestyles of adolescents in Massachusetts. Whereas youth in residential treatment report statistically different risk-taking behavior on all domains, with the exception of alcohol use, this suggests that alcohol use and all its dangerous side effects are quite common for many teens, regardless of where they live or their mental health status. Nonetheless, the finding still strongly suggests that all youth, including youth in residential treatment centers, can benefit from involvement in effective alcohol use education and prevention programs.

It can also be inferred that residential youth have a disproportionately higher need for these comprehensive health education and prevention programs because it is likely that many of their family members use or abuse alcohol (Pecora, Whittaker, & Maluccio, 1992), and it has been determined that youth from families affected by alcohol use are more vulnerable to alcoholism later in their lives. It is also noteworthy that residential youth reported a 50% decrease in alcohol use while in residential treatment centers and a 90% decrease while in residential treatment school programs.

Drug Use

For the purposes of this study, the term “other drugs” was defined as “other drugs include LSD, PCP, ecstasy, mushrooms, speed, ice, heroin, or pills.” For each of these categories of drug use, residential youth reported more lifetime “other drug” use than did public school youth. Twenty-seven percent (27%) of residential youth compared to 20% of public school youth reported having ever used other drugs. Thirty-one percent (31%) of residential youth compared to 6% of public school youth reported having ever used cocaine. Interestingly, marijuana use among these two populations was almost identical; 47% of residential youth and 46% of public school youth reported having ever used marijuana.

Injectable Drug Use

Residential youth’s experience with injectable drugs is approximately four times that of their public school peers. The differences in steroid use are almost as great. Intravenous drug use is associated with HIV risk; this finding suggests that residential youth, because of their higher rates of intravenous drug use, are more at-risk of HIV infection than their public school peers.

Drug Related Issues

Once again, as with tobacco and alcohol use, lower residential youth drug use while in restrictive settings suggests that as external influences on youth behavior increase, risk-taking behavior decreases. Nonetheless, because residential youth have active histories and social networks that support drug use, they may require more intensive community-based substance abuse prevention programs than their public school peers. Modified student assistance programs (Morehouse, 1994; Suby, 1991; Anderson, 1988) have proven to be successful in helping recovering youth transition from

residential treatment centers to their families, neighborhoods, and schools.

Drug Trafficking

It is also noteworthy that residential youth reported having been offered drugs on school grounds more often than youth who attend public school. Twenty seven percent (27%) of residential youth compared to 20% of public school youth claimed they had been offered drugs at school in the past year. Unfortunately, this study did not examine who offered the drugs to these youth; what kinds of drugs they were offering; or how the drugs were secretly brought on school premises. All of these questions merit further study.

Sexual Behavior

Twenty-three percent (23%) of residential youth, as compared to no public school youth, reported having had sex before the age of nine (chi-square=716.253, df=1, p=.000). Seventy-three percent (73%) of residential youth, as compared to 8% of public school youth, reported having had sex before they were 13 years of age (chi-square=968.859, df=1, p=.000). Over the course of their lifetimes, 84% residential youth, as compared to 49% of public school youth, claimed they had had sex (chi-square=133.858, df=1, p=.000).

Due to the nature of the survey question, it is impossible to determine whether residential youth's early onset of sexual experience can be attributed in part to sexual abuse. It is noteworthy that several residential youth suggested that the survey instrument was flawed because it did not ask about the incidence of sexual abuse.

Teen Pregnancy, STDs, and HIV - Consequences of Unprotected Sex

Residential youth reported causing pregnancy or becoming pregnant at five times the rate of public school youth (chi-square=210.183, df=1, p<.000). They also reported histories of having contracted sexually transmitted diseases at double the rate of their public school peers (chi-square=8.711, df=1, p<.003). Residential youth were more than three times more likely to have had four or more sexual partners than their public school peers.

The incidence rates of pregnancy, infection and multiple sex partners all indicate a statistically higher rate of unprotected sex among residential youth. Unprotected sex with multiple partners is also associated with HIV risk; therefore, it is possible that residential youth who report this activity are at higher risk of HIV infection than their public school peers.

Violence

The MYRBS measures violence-related behavior such as weapon carrying and physical fighting. Residential youth were almost seven times more likely to have been injured in a fight in the past year than public school youth (chi-square=253.822, df=1, p<.000). They were also almost two times more likely to have participated in a fight than their public school peers (chi-square=120.201, df=1, p<.000). Residential students claimed they did not attend school because of their fear about safety in the school three times more often than public school students (chi-square=49.611, df=1, p<.000). Given that most schools in this study are on a residential campus, the findings may have implications with regard to general program safety and safety in the world. Additional study is required to determine why youth feel so unsafe in residential schools in Massachusetts. However, some child welfare researchers have documented evidence

of the perils of institutional abuse (Mallon, 1992; Bloom, 1993 & 1994) that may be operative here.

Suicidal Gesturing

The MYRBS measures self-reports of attempted suicide and the seriousness of attempts. Residential students reported significantly higher rates of suicidal thought, planning and attempts than their public school peers. Thirty-seven percent (37%) of residential youth compared to 24% of public school youth reported that they had considered suicide (chi-square=24.512, df=1, $p<.0000$); 32% of residential youth compared to 14% of public school youth claimed they had planned a suicide attempt (chi-square=67.171, df=1, $p<.000$); and 30% of residential youth compared to 6% of public school youth had actually attempted suicide (chi-square=210.183, df=1, $p<.000$). Nearly ten times more residential youth than public school youth claimed that they had required medical intervention because of suicide attempts (chi-square=345.345, df=1, $p<.000$). This last finding suggests that residential youth had made more physically threatening attempts to kill themselves than did their public school peers.

Gender Differences

This dissertation sought to examine the unique prevention and treatment needs of high-risk girls. The following findings emerged from this study.

Gender Differences in Smoking Behavior

Among the general population of teenagers, it was found that girls were more likely than boys to smoke (Waldron, Lyle, & Brandon, 1991; Faulkner, 1993). A study of residential students did not bear out this finding. In this study, 131 (71.1%) girls and

109 (78.4%) boys from residential schools claimed that they had smoked regularly. However, in both residential and public schools, boys used chewing tobacco more than girls.

Gender Differences in Alcohol Use

The results of the 1994 MYRBS indicate that there were no statistically significant differences in alcohol use between boys and girls from residential schools. In the past 30 days, 44% of girls and 40% of boys had consumed alcohol on one or two days.

Gender Differences in Drug Use

For all drug use, other than marijuana, girls in residential treatment in this study reported higher drug use rates than boys. Higher drug use patterns among residential school girls also suggests that substance abuse prevention programs for these youth should be gender-specific. However, before developing gender-specific programs one must examine the different factors that influence male and female drug use. This study did not examine those causal links.

Gender Differences in Sexual Activity and Consequences of Unprotected Sex

Over one-fifth of residential youth reported having had sexual intercourse before the age of nine. Thirty-one percent (31%) of girls and 23% of boys reported having had sex before this age, and by age seventeen, 86% of girls and 82% of boys reported having had sexual intercourse. Overall gender differences in age of first intercourse were not significant (chi-square=5.541, df=1, p=.353). Additionally, the 8% difference in the onset of sexual activity before the age of nine, which might suggest that significantly more girls than boys had been victims of childhood sexual abuse or exploitation, was not significant (chi-square=2.42, df=1, p=.119). As a result of

unprotected sexual activity, residential school girls and their partners in this study were more likely to engage in sexual behavior leading to pregnancy than boys and the boys' partners (chi-square=13.198, $p=.004$). These girls also reported being more likely to have been diagnosed with a sexually-transmitted disease than did boys (chi-square=11.074, $p=.001$), with 13.8% of girls and 2.9% of boys reporting having been diagnosed with an STD.

Gender Differences in Violence Related Behaviors

Gender differences identified in this study among youth in residential treatment and between youth in residential treatment and youngsters in the public school with regard to violence were noteworthy. Girls in residential treatment reported similar violence-related experiences to their male counterparts. By contrast, girls in public school reported experiencing less violence than boys.

For example, male adolescents in the public school sample were significantly more likely to report being in any kind of a physical fight in the last 12 months (chi-square=113.595, $df=1$, $p<.000$) than their female public school peers. However, no statistically significant difference appeared to exist between the rate of girls' and boys' violence on residential school grounds (chi-square= 6.621. $p=.469$).

Gender Differences in Suicidal Gesturing

Comparison of boys and girls in residential schools revealed many significant gender differences in suicidal thought and behavior, with girls being significantly more at-risk than boys. Girls were significantly more likely than boys to have seriously considered suicide during the past 12 months (chi-square=10.372, $df=1$, $p=.001$). Girls were also significantly more likely than boys to have planned suicide during the past 12 months

(chi-square=13.201, df=1, p=.000). Girls also reported a significantly higher frequency of suicide attempts than did boys (chi-square=18.191, df=1, p=.001). Ten percent (10%) of girls, compared to 2.9% of boys, had attempted suicide six or more times in the past twelve months.

Clearly, youth in this study are vulnerable to suicidal thoughts and attempts; however, girls are even more at risk than boys. Comprehensive gender-specific suicide prevention programs are called for. Residential treatment centers historically have been used to prevent youth from hurting themselves or others. As with violence prevention, the activities to prevent suicide must be called into question. For example, in a more comprehensive approach, youth in residential treatment centers would be taught how to identify community based self-help and support groups, suicide hotlines and other means of support in the neighborhoods to which they return after treatment.

The purpose of this study was to: (1) assess the prevalence of risk-taking behavior among youth who currently reside in residential treatment in Massachusetts; (2) compare the prevalence of risk-taking behavior among youth in public schools and residential treatment centers using a standardized instrument; and (3) determine whether there were significant gender differences in the risk-taking behavior of youth in residential treatment.

This dissertation examines the ways that the Massachusetts foster care system and other human services systems support or fall short of supporting the comprehensive health education and prevention needs of youth in residential treatment, with respect to policy, structure of the systems and the characteristics of the population.

In the next and final chapter, you will learn about the policies and systems structures that influence services development for the at-risk youth described in this chapter of the dissertation.

CHAPTER V: Policy And Practice Issues Affecting Comprehensive Health Education And Prevention Services Development And Services Delivery For Children In Out-Of-Home Care

This dissertation suggests that categorical funding streams and boundaries between the child welfare, education and public health systems have allowed each agency to transfer blame and responsibility for the comprehensive health education and prevention needs of this population to the other. It has been hypothesized that this misunderstanding has resulted in none of these agencies accepting the financial obligation to provide comprehensive health education and prevention services for children in child welfare residential settings. The resulting lack of responsiveness has contributed to the perpetuation of a critical service gap for high-risk youth and their families. It should be noted that all of these agencies are calling for better services coordination to address the needs of high-risk, high service-utilizing populations. None of these agencies wants the service gap to continue to exist, yet a lack of adequate funding prevents all of them from offering new initiatives that could meet the comprehensive health education and prevention needs of youth in residential care.

Further complicating these circumstances is the fact that more children and families are experiencing more problems than ever before. Many children are being referred for out-of-home placement at unprecedented rates (Curtis, Boyd, Leopold, & Petit, 1996, Goerge, Wulczyn, & Hardin, 1993; CDF, 1996). Therefore, the number of children who are experiencing the comprehensive health education and prevention service gap is also increasing rapidly.

The final chapter of this dissertation will cover the history of how risk-taking behavior of youth referred for residential treatment in Massachusetts (and throughout the country) has become a social problem. This chapter includes a review of Massachusetts policy makers' and decision makers' perspectives of the social problem and their legal mandates and obligations to address the social problem.

Recommendations for new child and family services delivery system policies and practice guidelines with regard to the integration of comprehensive health education and prevention interventions for these youth and their families are also offered. Anticipated case management and clinical practice implications of these policy recommendations are outlined. In essence, this chapter offers an advanced generalist approach (macro-to-micro systems) to the social problem of risk-taking behavior of youth in residential treatment. This study analyzes new data and reviews current policy trends to make a case for systems reform in child and family services. The uses of this information and the method of moving the decision makers toward the intended goals have already been discussed, however, this dissertation will close with a call for social workers to act ethically, quickly and responsibly with any information they may garner that supports the improvement of systems of care and support for vulnerable children and families.

Why is Youth Risk-Taking Behavior a Problem?

As the literature suggests, researchers have uncovered strong relationships between several adolescent risk-taking behaviors and negative health outcomes for the young people who engage in the risky acts. For example, there is mounting evidence of causal links between tobacco use, other risk-taking behaviors, and cancer (MDPH, 1991; Coalition on Smoking OR Health, 1993). Early onset of tobacco use has also

been linked with later willingness to use illegal substances on a regular basis (Coalition on Smoking OR Health , 1993). In addition, researchers have identified youth with mental health problems as being more vulnerable than their peers who do not have mental health problems to make poor decisions about risk-taking. Hein (1989 & 1990) and Stiffman et al. (1989) found that lack of ability to assess riskiness, histories of poor self-esteem, histories of abuse and post-traumatic syndrome make youth more susceptible to behaviors that could lead to HIV infection. Therefore, the social and economic costs to society of not addressing the predictive health needs of youth in out-of-home care—by offering appropriate preventive interventions while they are in these treatment centers—could be tremendous. As the comprehensive health and mental health needs of these youngsters go unattended, the likelihood that they will end up in jail or in some other publicly subsidized institution also increases (Pecora et al., 1990; Edelman, 1994), thereby creating yet an additional social burden.

Youth in out-of-home care present a host of personal, familial, social, emotional, academic, physical, economic and situational problems that require intensive and comprehensive attention (MDSS, 1996; Curtis, Boyd, Leopold, & Petit, 1996; AACRC; 1995). Creating a multifaceted service delivery to fully meet their needs is costly. Today most government agencies, including the Massachusetts Departments of Social Services, Public Health and Education, have felt financially incapable of meeting these youngsters' needs in a comprehensive way. Each year approximately 1,800 of the 13,500 children in the care of the Massachusetts Department of Social Services receive residential care services at a total cost of \$85,000,000 (MDSS, 1996). MDSS spends approximately 80% of its operating budget on services for these youth, though they represent less than 20% of the total population of young people and families for whom the department provides services. Recently, in an attempt to contain the costs

and improve the quality of these out-of home care services, MDSS launched a pilot managed child welfare services initiative, the first of its kind in the country (MDSS, 1996). However, MDSS is not alone. In their concern about rising costs, national child welfare systems specialists have reported that most child welfare commissioners in the country are seriously considering taking drastic steps to reorganize the system of care for seriously emotionally disturbed youth because of the rising costs and incidence of out-of-home placement (Curtis, Boyd, Leopold, & Petit, 1996; APWA, 1996; Webman, 1994 & 1995; Ekstrom, 1995; Cole 1995). Recommendations for these drastic changes include reorganizing the system of care by increasing preventive interventions. It is hoped that the availability of preventive interventions will improve client outcomes, reduce recidivism (MDSS, 1996) and strengthen the capacity of the youth and families to negotiate the world of opportunities, avoid dangerous risks and make more-life-affirming decisions (MDSS, 1996; ODCFS, 1995).

These trends are a reaction to social, political, and economic forces that have increasingly expressed a need to find policy and practice solutions for these youngsters' multi-faceted problems and the complex dilemma they create for society (Gingrich, 1994; Eminhiser, Barker, & DeWoody, 1995). Therefore, according to Cartwright (1977), their public outcry alone would classify youth risk-taking behavior of this magnitude as a social problem. The next section of this paper will explain why risk-taking behaviors of adolescents in general and youth in residential treatment centers in particular, can be classified as a social problem. The identification of these youngsters' risk-taking behaviors as a social problem brings them into the policy arena.

What Makes Youth Risk-Taking Behavior a Social Problem?

Organizations also have publicly called these youth's behavior a social problem. The identification of youth in need of residential placement is in and of itself society's judgment about the intensity of these youngsters presenting social and emotional problems. It is also a significant statement by society about the social problems these youth are likely to create if they are not institutionalized. With the public trust in mind, social workers decide that these youth exhibit and create social problems of a magnitude that merits residential treatment.

Recently, the Massachusetts Department of Education acknowledged this social problem by awarding a non-profit child welfare agency the opportunity to open the first statewide comprehensive health library in the country dedicated to providing technical assistance materials and support to child welfare specialists interested in promoting preventive interventions for child welfare services recipients. Similarly, the Massachusetts Department of Public Health publicly recognized the smoking problem of ED/LD/BD youth in residential treatment by funding the "Making Smoking History in Residential Schools" initiative, a three-year research-based demonstration project aimed at reducing smoking and other risk-taking behaviors of ED/LD/BD youth in select residential schools throughout Massachusetts.

Funding for these projects was awarded to the Concord-Assabet Family and Adolescent Services (CAFAS). Their applications to MDOE and MDPH marked the first public effort on the part of a group of collaborating child welfare agencies to acknowledge and together ask for cross-systems help to address the problem of residential youth smoking and other risk-taking behaviors. CAFAS is a nationally recognized child welfare agency and an active member of several national associations that set standards

for child welfare practice. The agency's actions with regard to prioritizing the comprehensive health education and prevention needs of youth in child welfare settings has been noted by all of the organizations and external publics with whom the agency interfaces.

Now underway, the project has collected testimony from students, parents, staff and other residential agencies throughout the Commonwealth corroborating that there was a need to find a solution to the problem of residential youth's risk-taking behavior (CAFAS, 1994; Szerlag, 1996).

According to Manning (1987), C. Wright Mills states that social problems are defined by size, responsibility, and values. As the size of a problem increases, e.g. from an individual to a significant portion of the public, a problem becomes a social problem. In addition, when blame for a problem moves from the individual to society in general, perhaps as a result of changes in social structure, a problem again becomes a social problem. Finally, when a problem challenges societal values, it also becomes a social problem.

According to this definition, the risk-taking behaviors of youth who currently are served by residential and day treatment programs is a social problem. Not only are more youth engaging in risk-taking behaviors, but the impact of their risk-taking behavior affects their community. A student's risk-taking behavior no longer is a purely individual issue; it concerns many others. For example, the findings of this study revealed that residential youth fear physical threats of peers in the facility who exhibit violent risk-taking behavior. Additionally, preliminary findings from the "Making Smoking History in Residential Schools Initiative" show that some

adolescents and staff in residential care facilities are very concerned about exposure to the environmental tobacco smoke created by peers who engage in the risk-taking behavior of smoking.

The outcomes of these youth's risk-taking behaviors are relevant to tax-payers' concerns because it is the tax payers who are forced to absorb the cost of health care, institutionalization and community violence prevention that the presence of these behaviors necessitates. Unaddressed, the problems and the costs of rectifying them increase exponentially. For example, several studies suggest that youth smoking is associated with other, potentially more-dangerous risk-taking behavior, including drug and alcohol use and violence (Boyle & Offord, 1991; Boyle et al., 1993; Fidler et al., 1990). Given that youth smoking alone was reported to occur three times more often among youth in residential treatment than among their public school peers could be interpreted as a sign of further trouble and a greater need for future public assistance. These youngsters' potential to become involved in increasingly dangerous activities indirectly puts the student's local and global community's well-being at risk.

Awareness of the issue of youth risk-taking behaviors has been heightened by the trend calling for child and family services systems' reorganization, based on improving and creating lasting positive outcomes in the overall well-being of young people, their families and their communities (Casey, 1994, Hechinger, 1992). The federal government became involved with landmark legislation geared to reorganize the system having been passed (Omnibus Reconciliation Act, 1993) and debated (block grant proposals, etc.).

Risk-taking behavior of youth in residential and day treatment facilities also satisfies the second of Mills' criteria. Blame for the problem has shifted from the individual student who makes the choice to engage in risk-taking behavior to various other parties, including the tobacco and alcohol industries and underground drug rings and gangs for tempting youth into lives of degradation and disaster. The responsibility also falls on the residential schools and the state Department of Social Services for not adequately protecting youth from exposure to abuse and illegal activities or substances. Further exacerbating this problem is the fact that youth role models, such as peers or family members, also play a role in influencing youth risk-taking behavior. Therefore, family and friends are often blamed for the youngsters actions. The fact that some of the behavior the youth report is not voluntary, such as sex before the age of nine, suggests that other members of society are to blame for these youth's early exposure to trouble and perhaps for their continued risk-taking activity, which is a reaction to the early abuses.

Finally, youth risk-taking behavior has challenged the values of society and can therefore be defined as a social problem. These youngsters' behavior challenges societal values of children as pure and innocent symbols of good, an image shattered by alcohol and other drug use, sexual promiscuity, suicide attempts and repeated violent acts. Society is in fact so appalled by these behaviors that it condones the costs of institutions to keep these youth from creating any negative contagion in society and among other youth.

Heightened awareness of the economic, political, and social costs of these youngsters' risk-taking behaviors has caused this problem to elevate to the level of a social problem meriting ongoing public policy and intervention.

Risk-Taking Behavior of Youth in Residential Treatment

is a “Wicked” Problem

I posit to you that ED/LD/BD youth risk-taking behavior qualifies as a wicked problem. Rittel and Weber’s (1977) criteria for a wicked problem is one where no “true” solution to the problem exists, only solutions that can be judged as good or bad, depending upon the ideological viewpoint of the judge. For example, some agency administrators endorse a lenient smoking policy on the grounds that smoking is the lowest priority in a set of targeted clinical issues ED/LD/BD youth need to address. Others believe a strict no smoking policy must be imposed to teach ED/LD/BD youth self-control and model health behavior. Both rationales offer clinically viable explanations of the problem and understandable solutions. Neither is true or false, only good or bad in the perspective of others.

Another aspect of a wicked problem is that “it is difficult to determine the consequences of any proposed solution.” Any “solution” will have a number of consequences, some of which are unpredictable. The findings of this dissertation suggest that because these youngsters’ risk-taking behavior went unaddressed at an early age, the behaviors escalated to the point that the youth required placement in an institution. A wicked problem is also a symptom of other problems. Mechanic (1991) has noted that “efforts to identify personality types that are generally predictive of risk-taking behaviors have been disappointing.” The problem of ED/LD/BD youth smoking has been associated with a host of symptoms of other problems, such as low self-esteem, self-destructive tendencies, inadequate educational supports, and inadequate role models. However, the relative effect of each of these factors is not predictive for any one individual. Rittel

and Weber (1977) explain that once the wicked problem is “solved,” other problems will be revealed. In the next section of this chapter, we will examine MDOE, MDPH and MDSS policies and practices and how they address and fall short of resolving the problem of adolescent risk-taking behavior among youth in residential care. An example of a DOE attempt to create equal access for youth in residential care to comprehensive health services offered under Drug-Free School dollars illustrates the cyclical nature of problem resolution inherent to this wicked problem.

Lastly, it is argued that this wicked problem could be “resolved,” not “solved,” as Rittel and Weber (1977) suggest. The resolution could come about through the availability of adequate funds and policy directives that support the integration of comprehensive health education and prevention interventions in child welfare services.

A Comparison of the Missions, Policies and Practices of the Massachusetts Departments of Public Health, Education, and Social Services in the State of Massachusetts with Regard to Preventive Interventions for Youth in Child Welfare Residential Treatment Programs

The next section of this dissertation will explore the role of funders and state governmental agencies in identifying and addressing this wicked problem.

The Massachusetts Department of Education (MDOE)

MDOE policies on the rights of special education students and MDOE guidelines for comprehensive health education program development are relevant to this study.

***MDOE Practice Guidelines for the
Development of Comprehensive Health Education and Prevention
Programs***

The Centers for Disease Control defines a comprehensive school health program as encompassing eight critical elements:

- (1) health education
- (2) health services
- (3) social and physical environment
- (4) staff wellness
- (5) community involvement
- (6) food services
- (7) counseling and guidance
- (8) and physical education.

All of the aforementioned components are interrelated. To be effective in a residential treatment center, comprehensive health education programs would have to be integrated into all therapeutic milieu and educational programs.

The Rights of Special Needs Students

All youth who participated in this study were classified as special education students.

In Massachusetts, appropriate educational services for special needs students are defined under the provisions of Chapter 766 of the Act of 1972: The Comprehensive Special Education Law and the Individuals with Disabilities Education Act (IDEA), 20 U.S.C. 1401 et seq, the 20 year-old federal special education law that "sets education policy for the nation's 5.4 million children with disabilities." Because these children are disabled, they are also protected by the Americans with Disabilities Act (ADA). The ADA, Chapter 766 and IDEA define the rights of youngsters with disabilities. Under Chapter 766 and IDEA, all students are entitled to and must have an individualized educational plan (IEP). IEP's are developed by a team of professionals and the child's guardian. In order to develop the IEP, this team reviews the findings of educational and psychological tests, the child's physical and family history, and other relevant

assessments. The child's parent(s) or appointed guardian(s) are responsible for giving permission for evaluations, for advocating for the needs of the child at all levels of the educational process, for participating as a member of the special education team, for accepting or rejecting a child's IEP, and for receiving copies of all educational records.

Special Education Students' Rights and Their Entitlement to Comprehensive Health Education

Savvy advocates can use the IEP as an opportunity to incorporate comprehensive health education services into the scope of services the child is required to access. Shepherds of the child's rights may also try to invoke the child's rights to equal access to services and programs available to the general public as prescribed under the ADA provisions. One could argue that, since comprehensive health education services are available to young people in public schools, special needs students should have the right to equally access these services.

Drug-Free Schools: MDOE Efforts to Offer Special Education Students Comprehensive Health Education Parity

However, attempts to create parity for special education and public school students have proven that the creation of equal access is not the only obstacle to the attainment of appropriate comprehensive health education services for special education students in residential treatment and/or Chapter 766 school programs. These attempts resulted in the finding that achieving equal access to a service or product does not automatically ensure the quality or usefulness of that service or product. It was found that special education students not only need equal access to comprehensive health education services but also need a specially tailored and fully funded program that may actually exceed the per capita costs assigned to public school students' health education experiences. Unfortunately, equal access laws do not guarantee students the right to effective services. Advocates striving to create parity and lasting outcomes for these

youth must work hard to find a way to achieve these ends. For example, MDOE has remained committed to taking on this challenge. There is much to be learned by tracing the story of its efforts.

In 1989, the MDOE changed its guidelines for the administration of "Drug Free Schools Funds." They required all public school districts applying for the funds to demonstrate that they had contacted local special education and private schools and had a plan for providing the students in those schools with equal access to Drug-Free Schools funds. Because it was taken at face value, this new directive quickly became an administrative nightmare.

Drug-Free Schools funds are distributed on a per capita basis. So, when the MDOE required that schools demonstrate the involvement of private schools, they lowered the per capita funding for all students, to incorporate those students who had been disregarded in the past. This resulted in special education schools with student enrollments of 10-50 students receiving between \$40-\$200 to implement a Drug-Free Schools program. By comparison, the public schools with enrollment of 1000 or more would receive \$4000-plus to implement Drug-Free Schools programs. Therefore, this attempt to create equal access resulted in the continuation of significant disparities between the availability of services for special education and public school students.

In response to the counter-productive effect of the new policy, the DOE changed the regulation again. The second version of the regulation required school districts to develop a plan for incorporating local special education schools and students in their Drug-Free Schools program and defined incorporation broadly, including such things

as cross-training of teachers, sharing of materials, etc. Today, the language reads as follows:

“Provide the opportunity for participation on an equitable basis in the special education services and other benefits of the grant programs to private school children, teachers, and other educational personnel, after timely and meaningful consultation with private school officials.”

The DOE made the first attempts in the state to address these inequities, and it continues to tackle the problem by adding special education-friendly language in all its relevant programs. For example, in 1993 the DOE administered some of the Tobacco Tax fund through two programs: the Health Protection Grant and the Comprehensive Health Libraries Program. In the Health Protection Act, which is administered similarly to the Drug Free Schools funds, DOE required school districts to:

“Address how the district will reach students with special needs and cultural and linguistic minorities...and to expand linkages to community agencies to address the comprehensive health needs...of underserved populations.”

Comprehensive Health Education Libraries: The Creation of the First Special Education Library

The ultimate test of DOE's dedication to this issue came in 1993 when a non-profit child welfare agency, Concord-Assabet Family and Adolescent Services, submitted a proposal to create a statewide, rather than a school district-based, library under the libraries grant proposal. This proposal suggested the need for a statewide library dedicated to adapting and disseminating mainstream comprehensive health education and prevention literature and materials to special education schools. DOE not only funded the project, but it actually expanded the pool of dollars originally allotted to the entire initiative in order to add the new and additional library to MDOE's resources.

Smoke-Free Schools Policy: 766 Not Required to Comply

In 1994, MDOE mandated that all public schools had to go smoke-free. Under this mandate, no adult or child is allowed to smoke on the grounds of a public school. Because many special education schools are operated by private non-profit agencies, they were not subject to the public schools mandate. The only way special education schools could be made subject to a non-smoking mandate would be if the OFC, the licensing body for child welfare settings, were to make this a license condition. The trials and tribulations of the MDOE show that equal access does not create true availability of quality services, and that policy makers' commitment to the issue and their willingness to try new ways to improve the situation will be critical factors in acquiring comprehensive health education and prevention services for special education students. It also points out that special education students require advocates both in and outside the government to be diligent about this issue.

***Comprehensive Health Education for All:
A Call for a Statewide Cross Systems Mandate***

Currently, the Massachusetts Department of Education (MDOE) issues recommendations and guidelines to all localities in support of comprehensive health education. There is, however, no mandate for it. In Massachusetts, mandates must be fully funded by the state. To date, the Massachusetts Departments of Education, Public Health (MDPH), Social Services (MDSS), Mental Health (MDMH) and Youth Services (MDYS) have not had the money to mandate comprehensive health education. The MDOE, in particular, has been very vocal about its support for comprehensive health education and has offered incentives for communities to move in that direction. MDOE officials have said they would welcome the opportunity to mandate comprehensive

health education. Other departments have been less vocal about this issue, although none has opposed the concept of adopting comprehensive health education.

Most school districts offer some health education, however limited. Ironically, almost none of the institutions serving the Commonwealth's most at-risk youth offer any health education or prevention programming. A statewide study of 101 private Chapter 766-approved special education schools and licensed residential treatment centers conducted by this writer, in 1992, revealed this was primarily caused by the lack of line item funding for this activity in their budgets. Agency staff also reported feeling overwhelmed by the complexity of the problems they are charged with addressing, particularly with the limited resources they are given with which to perform the task. They felt it would be impossible to find the time, energy and resources to add another complex item to their agendas. Despite these feelings, all of them claimed their clients had a dire need for comprehensive health education, but unfortunately, they could not envision a way to provide it. A statewide mandate that would encompass the contracting requirements of private Chapter 766 schools would help to alleviate this problem. This mandate and its financial support should involve the coordination of resources with agencies such as the Department of Public Health and Social Services. Next we will look at the role MDPH can play in the provision of comprehensive health education and prevention for youth in residential care and child welfare.

Massachusetts Department of Public Health

The mission and legislative mandate of the MDPH is to "maintain, protect and improve the health and well-being of the people." This mission has been at the core of its efforts for the past 150 years. Today, MDPH purchases approximately \$130 million worth of services through more than 1,000 contracts with a variety of provider agencies.

The Bureau of Family and Community Health uses state and federal funding to protect and improve the health status of Massachusetts children, adolescents, families, and other adults, with special focus on low-income groups and cultural and linguistic minorities. One major goal of the Bureau is the promotion of high quality, comprehensive, community-based, family-centered systems of care throughout the Commonwealth. A second major goal of the Bureau is facilitation, in collaboration with other Bureaus within the department, of the development of a comprehensive public health prevention initiative, addressing a range of family and community health issues, including chronic disease prevention, injury and violence prevention, nutritional health, teen pregnancy prevention, alcohol, tobacco and other drugs, and HIV/AIDS.

Increasingly, the philosophical focus of MDPH's education, prevention and services is "shifting away from a fragmented, disease-oriented model of health education and health care toward a delivery system that emphasizes primary care and preventive services" (MDPH, 1993b).

To this end, the Bureau has adopted principles for a system of care to assist in the establishment of programs which will assure high, quality standards of service provision. These principles call for a system of care that:

- is community and consumer-based,
- is family-centered,
- is coordinated,
- is continuous,
- is comprehensive,
- is accessible,
- is prevention-oriented,
- provides individualized service,
- has a non-smoking environment,
- utilizes peer support, and
- uses a non-categorical approach.

An MDPH-funded program of particular relevance to this study is the state-wide prevention centers system. The purpose of this regional prevention center network is “to work with communities to transfer knowledge and skills that enhance community capacity to develop, enhance and/or sustain local comprehensive primary prevention” (MDPH, 1993). The Prevention Center system is a joint endeavor between the Bureaus of Substance Abuse, Family and Community Health, and AIDS.

Prevention Centers and Their Interface With Child Welfare

The prevention centers disseminate information free of charge to community residents and operate train-the-trainer programs and educational seminars in neighborhoods throughout their region. Their operating budgets exceed \$400,000 per year. By contrast, as previously cited, the statewide library for special education, a mini prevention center, is funded at \$63,000 per year. Although the opening of this new special education and child welfare prevention library was a landmark achievement, it was not funded at a rate comparable with general public prevention centers and therefore could not begin to provide comparable services.

Theoretically, the general public prevention centers themselves could attempt to train the residential youth’s caregivers in preventive intervention methods. However, there are several obstacles that they would have to overcome in order to take on that task including:

- Prevention centers are held accountable for the degree to which they penetrate the geographic region they are funded to cover with primary prevention messages. This activity would mark a departure from the geographic community focus to a

population-centered focus and therefore performance measures would have to be adjusted to include this new activity.

- The prevention centers would require additional staff to meet the overflow of referrals they would receive if they took on this new clientele.
- The new staff would have to be trained on the unique needs of youth in residential care and the circumstances of the settings in which they reside. Furthermore, the new prevention center staff should have some experience working the “direct line” in residential centers prior to taking on this new residential health educator specialist role. This kind of background would be optimal for establishing trusting relationships with residential care center staff. If the prevention center staff do not win the trust of the residential treatment center staff, they will not be successful in engaging these staff in train-the-trainer programs or in using the resources of the prevention center.
- Materials purchased by prevention centers would have to be adapted to meet the needs of the special education population. Both the type of materials purchased and the development of adaptive appendices to general public literature would be required.

Since the MDOE funded the new statewide comprehensive health education library for special education and child welfare prevention, DPH prevention center staffs have become more acquainted with the residential school population and the needs of youth and families served by residential agencies. Because this statewide library now exists, the program director has been invited to participate in the prevention center network

leadership meetings. This special education/child welfare prevention specialist has been successful in maximizing opportunities at these meetings to develop a cross system fertilization of knowledge and resource sharing. This is a start toward a better coordinated system that will provide increased access to prevention services for youth in child welfare settings.

Successful Child Welfare and Public Health Prevention Pilot Programs

It is noteworthy that more than five years ago one prevention center embarked on a joint venture with a private non-profit child welfare resource center to adapt its HIV-prevention curriculum for a pilot project in a residential school. The upshot of the project was that the prevention center permanently adapted its curriculum to include the modifications that were made for the “sake of the child welfare population.” They incorporated the edits permanently and without reference to the need to adapt the curriculum because they found that the modifications simply made the curriculum more fun and interesting, particularly because they employed more multimedia techniques and relied less on lengthy didactic pieces. Prevention center staff assigned to the project spent three times the amount of time they normally would have implementing the program in public schools. This was in part the effect of the attention span of the youth and in part a reflection of the training needs of the prevention staff assigned to the project. As described in the literature review, because this was a well funded pilot program, it was very effective. Replication of this effort would require the same level of funding and those resources have not been available since the completion of the first program.

Similarly, the new Tobacco Tax-funded research-based demonstration project, which provided data for this dissertation, is already proving to be a great success (Szerlag,

1996). The joint child welfare/public health effort has resulted in residential schools adopting smoke-free policies and developing enticing smoke free activities to compete with previously popular smoking breaks and smoking recreation rooms. In addition, this program has prompted one school to develop an annual health fair and another to set up a new nutrition and physical education program. After having been trained by prevention center staff, as part of the community services integration efforts of this project, all the participating agencies are now in the midst of setting up peer leader programs to protect teen health in residential schools.

Massachusetts Department of Social Services

The Massachusetts Department of Social Services, the child welfare service agency in the state of Massachusetts, was established by Chapter 522 of the Act of 1978. The primary mission of the MDSS is to protect children who are at risk of being abused or neglected in a family setting. The MDSS seeks to ensure that each child has a safe, nurturing, permanent home. Additionally, it provides a range of preventative services to support and strengthen families with children at risk of abuse or neglect.

The MDSS claims to be “committed to excellence”. The guiding principles supporting this commitment and mission are:

- All people who come in contact with the Department will be treated with respect and dignity
- MDSS staff will be professional, caring and competent while assuring the delivery of high quality services;
- MDSS staff, foster parents and services will reflect the cultural, ethnic and linguistic diversity of clients.

MDSS administers and funds the following range of services:

- Alternative Lockup Program
- Adoption
- Battered Women
- Comprehensive Emergency Services :
- Child Care
- Family Preservation Child Care Support Services
- Commonworks Central School
- Commonworks Staff Secure Diagnostic, Time Out, and Intensive Treatment
- Commonworks Clinical Advocate Services
- Commonworks Specialized Foster Care Services
- Family Skill Building
- Therapeutic Family Intervention
- Service Integration/Access
- Preventive Care
- Family Unification Network
- Respite Exchange
- FRN 1-3 766 Residential Programs
- FRN-4 Non-766 Group Home
- FRN-5 Residential Diagnostic Service
- FRN-6 Family Based Treatment Services
- FRN-7 Family Reunification Networks
- FSN-1 Family Skill Building
- FSN-2 Therapeutic Family Intervention
- FSN-3 Service Integration/Access
- FSN-4 Family Stabilization Networks
- Family Support Services
- Parents Anonymous
- Family Visitation Center
- Guardianship Subsidy
- Case Management & Placement
- Hotline
- Parental Stress Line
- Individual Services
- Parent Aide Management
- Partnership Agency Services - Case Management
- Family Resources
- Transition To Independent Living (Residential, Family-Based, Non-placement)
- Out/After School
- Day Camping
- Residential Camping
- Emergency Shelter
- THS - Therapeutic Services
- THS- Counseling To Families
- THS - Sexual Abuse
- THS - Young Parents
- School Counseling Young Parents
- Commonworks Independent Living
- Transitional Living Young Parents/Residential
- Transitional Living - Homeless Families

Noteworthy Operational Definitions of Certain MDSS Programs

Three of MDSS's service models appear applicable to the subject matter of this paper: service integration/access, 766 residential programs and preventive services. A closer look at the operational definitions of these programs quickly demonstrates the different perspectives of the MDSS, MDOE and MDPH with regard to the nature of prevention and services integration efforts.

Service Integration/Access

Service Integration/Access includes those concrete services designed to facilitate the delivery of other services to the family. These may include mediation, interpretation, supervision of visits between parents and children in placement. (MDSS, 1996)

Service integration here refers to case management and the provision of wrap around services delivery, with the goal of keeping children in the community rather than placing them in out-of-home care settings. Service integration is described as an activity that is worth engaging in only for the purpose of achieving the child welfare goal of permanency. There is no discussion of the factors that influence successful family preservation and permanence. The relationship or health-related risk factors and risk reduction activities to successful permanency planning is not addressed at all.

Preventive Care

Preventive Care includes those services which provide brief (45 days or less) care to children in response to crises or other severe stresses in the home which may, if unaddressed, result in longer term placement of the child. These services may include respite care and shelter services (MDSS, 1996).

Note that MDSS's definition of preventive care does not cover or detail preventive health-related services such as drug use or violence prevention. There is no discussion of the factors that influence successful family preservation and permanence. The relationship of risk reduction activities to successful permanency planning is not addressed at all.

FRN 1-3 766 Residential Programs

FRN 1-3 services are geared toward children/adolescents who require the continued structure and supervision of a residential treatment program and require special needs educational services on site. The target length of service is one year unless a child/adolescent is mentally or physically handicapped (MDSS, 1996).

MDSS Goals for Out-of-Home Care

The broad goal of MDSS out-of-home service programs, such as FRN 1-3 766 is:

The achievement, as quickly as possible, of permanency for children by unifying or reunifying them with their families, relatives, guardians or adoptive families, or, for those children for whom permanency with a family is not possible, preparing them to live independently in the community. For this latter group of young people, of particular concern to the Department is the development of support systems in the community for youth without available families or relationships comparable to those experienced with relatives. Allied to these goals are the operating principles that youth should be maintained and educated in environments that are least restrictive and stable, i.e., that they live in the most family-like settings possible, attend community public schools whenever possible and receive services in a manner that promotes stability, growth and development (MDSS, 1996).

The Department of Social Services continues to struggle with the need to move children out of costly institutional placements. Recently, the Department released an RFP for one third of the residential business in the state, 39 million dollars worth of services. This managed care child welfare system was designed to prevent costly and inappropriate use of residential treatment services and to promote community reintegration efforts. The predefined outcomes of these new residential contracts can be reframed to encompass a need for preventive interventions as part of the treatment and aftercare process.

The Department has identified the following outcomes for a subset of residential treatment center programs:

- meet treatment planning goals in a timely fashion
- youth discharged will not re-enter the network
- families will experience improved family functioning
- youth will achieve educational goals as identified in IEP's
- youth will demonstrate regular school attendance
- youth will exhibit increased competency in life skills.

These desired outcomes are not operationally defined and therefore they do not detail the appropriate means to employ to reach these ends.

Similar to the IEP strategy discussed earlier, savvy advocates could argue that comprehensive health education and prevention services are needed to achieve these outcomes. For example, child advocates could seek to include comprehensive health education and prevention services in the child's treatment plan so that these services would be required to be delivered to the youngster "in a timely manner." Additionally, one could more easily make the case that "life skills" include refusal skills and the development of an ability to make life-affirming decisions about risky behavior. Therefore, it could be argued on these grounds that comprehensive family-centered, youth-focused preventive interventions are a necessary set of services to achieve the goals of "youth exhibiting increased competency in life skills" and "families experiencing improved family functioning."

Although this innovative pilot program emphasizes collaboration, in the three volume RFP there is one sentence that refers to a suggestion that providers should establish a working relationship with DPH programs. Furthermore, the RFP calls for significant but somewhat random attention to certain health-related risk-taking behaviors. The RFP required that certain populations would be guaranteed and protected under this new managed child welfare system—sex offender programs and teen pregnancy services and prevention programs. Unfortunately, these two priority areas were determined by social and political pressure and not informed by trend data that could identify the need for these programs. The teen pregnancy prevention push is stimulated by the availability of new state funds for such programs. This issue has become a priority because it is related to the Governor's welfare reform efforts, not because of the

pregnancy-related risk issues of youth in out-of-home treatment. The adolescent sex offender priority is simply a matter of ensuring public safety.

A year ago, when the department first announced the plan for this new system, the priority areas were different. They were gay and lesbian youth, linguistic minority youth, and adolescent sex offenders in residential treatment. To date, no new programs have been funded to address the problems of gay and lesbian youth or linguistic minorities in residential treatment, but when the new program announcement was released these issues were no longer prioritized, or so it seems on the political radar screen. Rather than suggesting the creation of discrete programs for linguistic minorities, the MDSS promulgated a requirement that staffing patterns reflect the cultural diversity of the population served.

The only prevention program required under the new system is HIV-prevention and there were no new funds earmarked to ensure the deliver of staff training or client services on this topic. The new system does suggest that foster parent training and child care worker training could include topics such as substance abuse, teen pregnancy, HIV, sex abuse, and violence prevention. However, none of these topics are mandated, and no minimum hours or training on these topics are defined. Nonetheless, this managed care pilot program does allow providers flexibility in the use of funds they receive for service provision. It can be argued that because the Department has collapsed some of the categorical lines, providers have increased flexibility and new capability to prioritize spending in a different way. Therefore, the priorities of the provider come into question. It is hoped that the findings of this dissertation will move these providers who may have wavered on this issue and others

who have been supportive of prevention to take a risk on reconfiguring service delivery and staff training to include preventive intervention programming.

However, providers may also be swayed by the MDSS interpretation of services integration, which is focused on the integration of types of child welfare services and does not detail methods or purposes of coordination across categorical systems. Similarly, prevention services are discussed in terms of the MDSS mission and focus, the prevention of child abuse, and do not encompass the prevention of other health risks.

Another avenue for MDSS clients to pursue is through joint case planning activities of MDSS/MDOE. MDSS regularly interfaces with MDOE over cost sharing residential treatment services for youth. MDSS case managers can attempt to secure comprehensive health education services for youth by advocating their inclusion in the child's IEP. Similarly, the youth's educational liaison may suggest that these services be incorporated into the child's treatment plan and permanency plan. With respect to innovative violence prevention, new MDPH/MDSS partnership agreements are noteworthy. MDPH has just recently transferred the responsibility of delivering domestic violence shelter services for women and their children to the MDSS. Minimal cross systems training took place at the time of the transfer. MDSS case managers should become more aware of MDPH programs so that they could include referrals to these services as part of the child's case plan. Similarly, MDPH staff can benefit from the expensive and free training MDSS provides for all public employees and contractors in the Commonwealth on topics such as child abuse and post traumatic stress syndrome. This kind of cross system training would stimulate cross system solutions for troubled children and families in and out of residential care.

Finally, all children and youth in the care and custody of the state child welfare system are protected by the permanency planning provisions (PL96-272) of the Adoption Assistance and Child Welfare Act of 1980 and the Multi-Ethnic Placement Act. These regulations require states to ensure that youth removed from home will be successfully returned to family or adoptive parents quickly, and that services provided to those youngsters and their families will be delivered in a culturally sensitive manner.

Weissbourd (1996) and others have found that strong families and positive parent-child relationships contribute significantly to the resilience of youth and families. It could be argued that family-centered comprehensive health education and preventive interventions are a critical factor in helping to strengthen families, plagued by such problems as histories of substance abuse and violence, and ultimately to ensure permanence for the youth. Therefore, the MDSS could seek to require and fund an assessment of the family's comprehensive health education and prevention service needs and the delivery of identified needed interventions as part of the youth's permanency plan. Similarly, adhering to the terms of the Multi-Ethnic Placement Act, MDSS should require that those services are tailored to meet the cultural needs of each youth and his/her family.

Toward Integration: What MDPH, MDOE and MDSS Have to Offer One Another

These departments all clearly have a vested interest in ensuring that the Commonwealth's children are given the chance to lead productive and healthy lives. All departments are stretched for resources and each have areas of expertise the other could benefit from. Youth who have been high utilizers of these systems services tend to have been the recipient of all the systems at one time or another. Better services

coordination for these children and their families is likely to mainstream service delivery in the most clinically appropriate and cost-effective manner possible. Ironically, precedent for this type of coordination was set long ago.

The Historical Context of Prevention and Child Welfare

In their article "Public Health and Community Wellness," Albino and Tedesco (1987) describe the historical relationship between public health and child welfare. They describe the birth of the Children's Bureau in 1912 as an outgrowth of the Public Health Movement (which unto itself gave rise to such efforts as the Clean Milk Campaign, Childhood Immunization programs and Child Labor laws). It is interesting to note that the field of public health, according to Albino and Tedesco, laid claim to the ecological perspective of service delivery in the early 1900s, significantly earlier than social work (although today, social workers pride themselves in the fact that the ecological perspective sets their profession apart from others). The point of departure for public health practitioners came when they developed expertise as "modern scientists" (Sutherland, 1980). They became enamored with the idea of collecting and disseminating data on public and community conditions and interventions which benefited the greater good of society at large. It almost seems that social workers became the "practice masters" and public health specialists "the data and research masters," of a service delivery schema they once shared. This paper calls for the re-union of the two fields, and the inclusion of others, to sort out the tangled web of risk constellations facing many people in America.

Practice and Conceptual Issues

There are many case management and clinical practice implications to consider when entertaining the notion of integrating preventive interventions into the child welfare service delivery systems. It is noteworthy that all of the governmental departments claimed that they aspired to create an integrated, community-based, family-centered, culturally competent, and child-focused array of services. All departments seek to deliver some form of prevention services. Yet each department has developed a different definition of the terms community-based and prevention. It has been hypothesized that there will be a need to develop a common language between these systems definitions or interpretations of the concepts of “community-based services” and “prevention services”. Once these terms are clarified, practice models will also need to be integrated. Practice models that lend themselves to this integration are reviewed here. They include the public health prevention model called the “six domains of influence model” and the social work service delivery model called the “ecological model”. Finally, considerations for additional research activities in determining the comprehensive health education and prevention service needs of youth in residential treatment will be reviewed here.

Toward Common Language: Prevention and Community-Based Family-Centered Services

Primary, Secondary, and Tertiary Prevention Models vs. Preventive Interventions for Child Welfare Clients

There are many discrepancies found in the professional literature of social work, public health and public policy, in the use of the terms primary, secondary and tertiary prevention and intervention. Primary prevention has been defined as the act of reducing incidence of a problem or disorder (Leitenberg, 1987; Katz, 1980; and Lorian,

1990), across a broad population of people (McMurty, 1985; Smith and Kutzner, 1989) who were otherwise healthy prior to the intervention (Katz, 1980; Sameroff and Fiese, 1990). Secondary prevention has been defined as the act of: (1) reducing the duration of a disease or disorder (Katz, 1980; Leitenberg, 1987), (2) reducing the prevalence of a disease, problem or disorder (Pecora, et al., 1992; Lorian, 1990; Leitenberg, 1987), (3) preventing the present condition from becoming worse (Katz, 1980, Lederman, 1991; Leitenberg, 1987; Sameroff and Fiese, 1990; Smith and Kutzner, 1989; McMurty, 1985; Nichols, 1991), and (4) preventing the cost of other problems which are likely to emerge as a result of the incidence of the presenting problem (Jason, 1993; Katz, 1980, Lederman, 1987; Pellegrini, 1985; Smith and Kutzner, 1989). Secondary prevention targets a population at-risk of a given problem or set of problems (Gonzalez-Ramos, 1990, Katz, 1980; Kowal, 1989; McMurty, 1985; Pellegrini, 1985; Pecora et al., 1992; Schorfheide, 1991). Researchers and practitioners seem to agree that tertiary prevention targets pre-existing problems and focuses on reducing the amount of impairment from a given problem, disease or disorder (Katz, 1980; Lovens, 1975; Sameroff and Fiese, 1990). Tertiary prevention is commonly equated with the terms treatment and rehabilitation.

Many of the youngsters seen in the child welfare system show up time and time again in different programs for different reasons. Some of this recidivism may be a result of the fact that too many programs design tertiary or secondary interventions that are presenting problem oriented and miss the opportunity to offset the development of the problem that later causes the child to be re-admitted to a different program for a different reason.

Leitenberg (1987) articulated the dilemma of overlapping agendas between the applications of primary and secondary interventions in child welfare and juvenile justice settings as follows:

The distinction between primary prevention and secondary prevention can get terribly confused in the delinquency prevention area. For example, many family intervention programs involve referred children who are already exhibiting visible problems assumed to be linked to later delinquency, for example, aggression, stealing, and noncompliance. Since parent training or family therapy is introduced after the child has begun to demonstrate problem behavior, this would normally be considered an example of secondary prevention. However, if the explicit goal of the parent training program is to prevent subsequent delinquency when it has not yet occurred, then it could be considered primary prevention. Nevertheless, it should be understood that programs put into place after a delinquent act has been committed, for example diversion programs, are not considered primary prevention because delinquency has already occurred. (Leitenberg, 1987)

Lorian proposes a process oriented way of interpreting the terms:

Rather than emphasizing the theoretical distinctions between primary (i.e. incidence focused) and secondary (i.e. prevalence focused) preventive efforts, we propose that their overlapping value for emotional and behavioral disorders be appreciated. We further propose that they be understood and operationalized within the transactional perspective....Central to these challenges is the need to understand that the target of preventive efforts is the *processes* that lead to disordered states rather than the states themselves. (Lorian, 1990)

Felner and Silverman (1989) support the transactional analysis model offered by Lorian and add a developmental lens and introduce new terminology, the phrase "preventive intervention."

Within this model, a preventive intervention involves systematically altering the processes related to: 1) the development of adaptation and well being and 2) the evolution of dysfunction. The goals, quite clearly, enhance the former processes and reduce the latter processes that are experienced by children and adolescents....Such a dynamic transactional-ecological perspective emphasizes that dynamic transactions between individuals and environmental factors lead to health or disorder, and specifying a "path" is not an outcome we should seek. Rather specifying ways of understanding the relevant processes are of paramount importance. (Felner and Silverman, 1989)

Preventive Interventions Work Well With an Ecological Practice Perspective

There are several benefits to the notion of adopting the use term “preventive intervention” to describe prevention efforts for child welfare populations. First, the term lends itself to a more inclusive, action-oriented process which better accommodates the needs of the child welfare system. This term eliminates the complicated task of distinguishing between primary, secondary and tertiary services. Furthermore, the developmental and ecological perspectives inherent to the preventive intervention model are more akin to the ecological/systems models taught in schools of social work to would-be child welfare practitioners (Hartman and Laird, 1985; Germain, 1979). In an ecological view, Germain (1979) notes, “practice is directed toward improving the transactions between people and environments in order to enhance adaptive capacities and improve environments for all those who function in them.” It is therefore recommended that child welfare professionals integrate the “preventive intervention” framework into their daily practice and organizational constructs.

Categorical Systems’ Meanings of Family-Centered and Community-Based Services

Findings from this study show that public health prevention and education is primary prevention focused and targeted at residents of geographic communities (MDPH, July 1993; MTCP, August 1993; MDPH, May 1993; MDPH/MDOE, 1993). For the purposes of defining the service area in two multi-program requests for proposals announcements, the MDPH (1993) used the following definition: “A service area is: The geographic area from which a provider intends to draw most its clients.”

In general, MDSS and MDOE use regional, district, and neighborhood-based eligibility criteria for almost all programs and services. Specialized services targeting discrete and limited populations such as residential treatment centers and ED/LD/BD youth are not the focus of most prevention programs.

In order to be sensitive to the unique needs of youth in residential care, it will be imperative for the Departments of Education and Public Health to expand their service innovation activities to encompass therapeutic communities and population based communities. Similarly, DSS should require residential providers to act as community liaisons for youth and their families. These liaisons would help families to identify the community resources they need to prevent the onset or re-occurrence of any kind of dangerous risk-taking behavior. Once a common understanding about the goal of preventive interventions is developed and the target community identified and prioritized, a paradigm for service delivery would be required. Next we will review the recommended preventive intervention framework and offer recommendations for its adaptation to communities of youth who have been served by residential treatment centers.

A Common Practice Model: The Six Domains of Influence as They Relate to Child Welfare Populations and Settings

According to the Center for Substance Abuse Prevention,

Research has not yet provided conclusive evidence to explain why some youth engage in ATOD use while others do not. However, research has identified a number of conditions and experiences that appear to be correlated with the use of ATOD among children and youth. These correlates, or risk factors, for ATOD use can be organized according to six major life areas or “domains”—the individual, family, school, peer group, neighborhood/community, and society. Each domain represents an important sphere of influence in the lives of children

and youth. In each of the domains, conditions and experiences that appear to protect youth from initiating drug use can also be identified.

This framework for contextualizing risk-taking behavior and protective factors in a child's life is consistent with the ecological model and therefore easily transferable to social work practice. However, three adaptations will be necessary for this framework to apply to residential child welfare practice: (1) the concept of community must be expanded to include the therapeutic community, and the neighborhood surrounding the therapeutic community, as well as the neighborhood the child comes from or will return to upon discharge, (2) the concept of family must be expanded to include kin care, foster parents and residential treatment center staff, and (3) the term preventive intervention must be adapted to describe the range of educational and prevention services these youth and their families require. (See Appendix E for an example of the application of this adapted CSAP framework to child welfare practice.) The implementation of such a model is now being tested in the intervention phase of the Making Smoking History in Residential Schools project. Methods of measuring the impact of the practice model are discussed next.

Conceptual Foundations for Research: A Model for Measuring the Effectiveness of Preventive Interventions in Child Welfare Settings

Finally, a conceptual model for more in-depth study of risk taking behaviors of youth in residential treatment was identified. Tinsley (1995) calls this model the behavioral decision-making model. This framework compliments the ecological perspective and the CSAP six domains theory by incorporating the personality and environmental perspectives of risk-taking. Tinsley explains, "decision making studies (especially those emerging from multi-attribute utility theory) include assessment of how individuals get information from their environment about various alternative behaviors

and how they process and weight such information to select one behavior over another.” Tinsley used a two dimensional research design to test the decision making behavior concept: measures of the independent variable in her study included children’s self reports on the various influences on their risk-taking behaviors and measures of the dependent variable (health behavior) included self reports of frequencies of health behaviors. Tinsley combines the results of these measures to create a composite picture of the factors affecting youth risk-taking behavior and the actions they take are given their exposure to these circumstances. This theoretical framework for research on risk-taking behavior is recommended. It is also entirely consistent with the design developed to measure the impact of the Making Smoking History in Residential Schools program and the one used to measure the efficacy of the Morehouse’s Residential Student Assistance Substance Abuse Prevention program.

Numerous research questions have been raised as a result of this study, including a need to examine: (1) risk and resilience issues of youth in residential treatment centers from diverse cultural backgrounds; (2) effective preventive interventions for youth in residential treatment centers; (3) effective preventive interventions for girls in residential treatment centers, and (4) the effectiveness of coordinated systems of care for seriously emotionally disturbed youth with significant comprehensive health education, prevention and treatment needs. Fortunately, the dissertation typically marks the beginning of academic research efforts. Therefore, there will be ample time and enthusiasm to invest in the continued investigation of these issues. In the pages that follow, I will summarize this study and offer recommendations for services coordination for youth and their families in the child welfare system in Massachusetts.

Conclusions

Combs-Orme et al. (1991) developed a model of studying health care utilization that can be applied to this study. They believe that utilization is a product of three factors: health care policy, the structure of the system, and characteristics of the population.

Characteristics of the population were examined through the secondary analysis of information collected about residential and public school students risk taking behavior. This study found significant differences in the risk-taking behavior of youth in residential treatment and youth in public schools; youth in residential schools used tobacco, drugs, and alcohol earlier and more frequently than their public school peers and they also engaged in sexual activity, violence and suicidal gesturing earlier and more frequently than young people in public school. Their early onset of sexual behavior, 23% having had sex before the age of nine and 73% before the age of thirteen suggests that many of these youth were victims of sexual abuse. Consequences of these youth's extraordinarily high risk-taking behavior included equally disproportionate rates of pregnancy, sexually transmitted diseases and injuries that required medical treatment.

As hypothesized, this study confirmed the existence of significant differences in the risk-taking behaviors of boys and girls in residential treatment and demonstrated that the girls were at higher risk. Female participants in this study engaged in more self injurious risk-taking behavior than boys with respect to all types of drug use except marijuana, suicidal gesturing, and unprotected sexual intercourse. Girls and boys in residential treatment also reported similar rates of violent behavior. Lastly, girls experienced more negative consequences (pregnancy, sexually transmitted disease, and injuries that required medical attention) of their risk-taking behavior than did boys in

residential centers. This finding suggests that there is a serious need to develop gender specific prevention programming for these young at-risk girls.

One interpretation of these findings is that children in out-of-home care have a serious need for comprehensive health interventions. It also could be inferred that these youngsters had these needs long before they were placed in out-of-home care and that early intervention and education with these young people and their families is called for (Woodruff, 1995; Kowal, et al., 1989). The findings also suggest that as external controls are increased, the youth's risk-taking behavior decreases. These external controls do not naturally exist in their lives. Therefore, these youngsters require additional help at various times in their lives to learn to internalize life-affirming decision making skills. Weissbourd (1996) has recommended that cities might offer two check-in points, for example at 9 and 15 years of age, when a teacher or other involved adult would conduct a simple assessment designed to uncover social and emotional difficulties. Conceptually, I agree that this would be helpful; however, based on the findings of this study, the population involved in this study would have required a "check-in" much earlier and probably much more frequently than less at-risk children.

With regard to the structure of systems, this dissertation suggests that categorical funding streams and boundaries between the child welfare, education and public health systems have allowed each agency to transfer blame and responsibility for the comprehensive health education and prevention needs of this population to the other. This study confirmed the hypothesis that this misunderstanding has resulted in none of these agencies accepting the financial obligation to provide comprehensive health education and prevention services for children in child welfare residential settings. The resulting lack of responsiveness has contributed to the perpetuation of a critical service

gap for high-risk youth and their families. It should be noted that all of these agencies are calling for better services coordination to address the needs of high-risk, high service-utilizing populations. None of these agencies wants the service gap to continue to exist, yet a lack of adequate funding prevents all of them from offering new initiatives that could meet the comprehensive health education and prevention needs of youth in residential care.

Therefore, the primary reasons youth in residential care do not use preventive services is that they do not have access to those services and the services they do have access to are not tailored to meet their unique needs. Further complicating these circumstances is the fact that more children and families are experiencing more problems than ever before. Many children are being referred for out-of-home placement at unprecedented rates (Curtis, Boyd, Leopold, & Petit, 1996, Goerge, Wulczyn, & Hardin, 1993; CDF, 1996). Therefore, the number of children who are experiencing the comprehensive health education and prevention service gap is also increasing rapidly. It was hoped that the findings could be used to persuade policy makers to allocate new and additional funds for prevention and education programming for youngsters in residential treatment and their caregivers.

One way to assure that comprehensive health education and prevention services are made available to youth and their families in the child welfare system is to develop more integrated (multiple intervention strategies within one service package) and coordinated (drawing on resources across categorical lines to enhance services available to clients) models of service delivery. Numerous theorists and researchers support the development of coordinated service delivery systems (England & Cole, 1992; Pecora,

Whittaker & Maluccio, 1992; Illback & Neill, 1995; Stroul, 1993; Morehouse, 1994; Anderson, 1988).

Policies, regulations, and funding allocations examined for the purposes of this study proved to have a major impact on the nature of governmental agency and provider organization spending and investment patterns. Program developers and evaluators believe that the challenges of service coordination can and will be overcome when government regulations that limit the blending of categorical funds are removed and service providers are mobilized in an effort to improve systems of care for troubled children and their families (England and Cole, 1992; Stroul, 1993). Blended funding pilot programs have been met with mixed successes. These blended funding projects have improved the quality of services for the target population and contained the cost of services delivery at the same time (Stroul, 1993; England and Cole, 1992; Shore & Cohen, 1990; Morehouse, 1993; Kowal et al., 1989; Woodruff, 1995). However, because they are pilot programs, the funders only provide time limited start-up demonstration funding. Once this funding ends, attempts to continue or replicate the programs at the same service level often are not possible. The state and provider agencies responsible for developing services to meet the comprehensive health education and prevention needs of these youth claim they do not have the resources to address these critical services gaps. Creative financing mechanisms and services coordination strategies are called for to alleviate the dilemma.

The inadequacy of funding for child and family services is a long-standing reality (Sidel, 1986; Edelman, 1994). Thus, a case can be made that until there are adequate funds for child and family services, best practices, such as the integration of

comprehensive health education and prevention programming in child welfare residential treatment centers, will not be implemented.

The Massachusetts Department of Social Services has recently asked residential providers to develop a system of care for troubled children and their families and given them one charge: To "act as if the children of the Commonwealth are indeed our own." If the young people in this study were indeed my own I would feel obligated to provide them with comprehensive preventive services and to "teach them the lessons that would promote love and competence." This is because I believe in a saying a friend of mine once shared with me: "A hundred years from now it will not matter what my bank account was, the sort of house I lived in or the kind of care I drove...but the world may be different because I was important in the life of a child." As a social worker committed to continuous systems improvement, I also hold out hope based on the insights of Margaret Mead, who said, "Never doubt that a small group of thoughtful committed citizens can change the world; indeed it is the only thing that ever does."

Therefore, based on the findings revealed in this study and the value structure from which I operate, I must conclude that investment in preventive services for these youth in residential treatment centers is an investment in their future and in society's future as well. The following recommendations have been developed in response to the findings of this study. New funding will be required to assure their success. It is hoped that the information revealed here will influence funders, providers and consumers to do what they can to improve systems of care for troubled children and their families.

Recommendations for the State and Society

1. Develop comprehensive health education and prevention programs that cover CSAP's six domains and expand the community domain to include three types of community. The Center for Substance Abuse Prevention has promulgated standards for a holistic approach to prevention that can be readily amended to meet the complex needs of youth in out-of-home care. CSAP has said that prevention services should be planned and integrated across six key domains: individual, peer group, school, family, community, and society. A comprehensive approach to risk reduction and prevention for youth in residential treatment should incorporate a broader definition of community than the one suggested by CSAP, which is that community is the geographic where a person resides. This broader definition of community should account for the three primary communities the youth lives in which include: (1) the therapeutic community or therapeutic milieu, (2) the neighborhood surrounding the therapeutic community, and (3) the neighborhood the child comes from or will return to upon discharge. Preventive interventions could begin on the grounds of the treatment community and be extended through referral to services in the neighborhood surrounding the treatment community and later to referrals to the child's community of origin or relocation. Essentially, the services should follow the child from institutionalization to the stage of successful community reintegration and supported life development. (See Appendix E.)

2. Similarly, a broader definition of family must be employed to include kin, foster parents, child care workers and significant other adults who influence these vulnerable youth (Fidler, 1992).

3. Ensure that residential youth receive the same quality of comprehensive health education services as their public school peers. Quality of the comprehensive health education and prevention program should be measured by the outcome of the service not the dollars invested per capita. This is an important concept. The call here is not for equal funding allocation on a per capita basis, it is for equitable intensity of services and educational programming.
4. Fund and support cross systems training of child welfare education and public health professionals. Cross systems training is an essential first step toward system integration.
5. Ensure that the funding of services follows the needs of the youth and that the needs of the youth are not tailored to meet the needs of the funding source or services delivery system.

Recommendations for State Agencies

Massachusetts Department of Education

1. Continue to try to find better ways to incorporate special education youth in MDOE's comprehensive health education plan and drug free schools initiatives.
2. Sponsor teacher trainings on comprehensive health education topics that can be open to staff at local residential treatment centers. These trainings should include information about best practices for meeting the unique learning needs of special education students.

3. Require residential treatment centers to submit comprehensive health education plans in all IEP's.
4. Continue and expand funding for the statewide special education-focused prevention library.
 - Work with MDSS and MDPH to make the statewide library a full capacity prevention center.
5. Work with DSS/OCF to require residential treatment centers to go smoke-free.

Massachusetts Department of Public Health

1. Continue to fund joint child welfare/MDPH pilot programs for youth and their families in residential treatment centers.
2. Expand prevention center capacity to respond to residential centers' needs—either co-fund expansion of the statewide special education comprehensive health education library or fund additional full-time employees, particularly special education trained prevention specialists, to staff local prevention centers.
3. Train prevention center staff on the risk-taking behavior trends and service needs of youth in residential treatment centers and the youngsters in the child welfare system.
4. Expand the holdings of prevention center libraries to include special education and child welfare funding materials.

5. Continue to invite child welfare leaders to prevention center and community health network meetings.
6. Include youth in residential treatment centers in your statewide epidemiological trend studies and peer leadership outreach efforts.
7. Require that all newly-developed MDPH prevention materials are reviewed and edited by special education experts.

Massachusetts Department of Social Services

1. Require and fund residential treatment centers to train workers on comprehensive health education and prevention needs of youth in care and their families.
2. Require residential program administrators to meet with prevention center directors and Drug Free Schools administrators at least two times per year.
3. Require residential agencies to submit foster care reviews, treatment plans, permanency plans, and IEPs that detail the comprehensive health education and prevention services and aftercare plan for all youth in their care.
4. Work with MDPH to enhance MDSS teen pregnancy and violence prevention efforts. Train MDPH staff on child abuse and neglect and post-traumatic stress.

5. Contract with treatment providers for preventive services outcomes such as: (1) the client will remain drug free six months post-discharge, (2) the client will not become pregnant, HIV-infected, or develop STDs within 12 months of discharge.
6. Ensure that all services, including preventive interventions, are delivered in a culturally and linguistically sensitive manner.
7. Continue to work with MDOE to meet the special education needs of youth in your care. Partner with MDOE and MDPH to expand the holdings of prevention center libraries to include a full range of child welfare and special education materials.

Recommendations to Residential Schools

1. Develop incremental plans to transition to a smoke-free policy.
2. Develop violence discrimination and HIV prevention policies.
3. Develop policies requiring teachers, milieu workers and clinician/case managers to develop prevention goals for each youth's IEP, treatment plan and permanency plan.
4. Train teachers, counselors, clinicians, case managers, nurses, psychologists and family workers on preventive intervention for alcohol use, substance abuse, violence, suicidal behavior and sexual risk-taking behaviors.

5. **Train staff on the management of client-to-client abuse or client/staff abuse incidents.**
6. **Train staff on gender differences in risk-taking behavior and gender-specific comprehensive health education and prevention intervention programs.**
7. **Train staff on the unique health education needs of gay, lesbian, and bisexual youth.**
8. **Build a multimedia comprehensive health library of information for youth and families. Encourage staff to use the statewide special education and child welfare comprehensive health education library and the local prevention library.**
9. **Require teachers to demonstrate an attempt to integrate comprehensive health education information across curriculum areas and repeatedly over the course of a youth's stay in care.**
10. **Encourage staff to start peer leadership programs and other community service programs where youth address comprehensive health education issues.**
11. **Advocate for funds to support programs that address the comprehensive health education and prevention needs of youth and families in your care.**

Recommendations for Youth and Families

1. Know and advocate for your rights to equal access, due process, and a permanency plan.
2. Try whenever possible to secure access to prevention services you require by insisting that those services are incorporated into treatment or individualized educational plans.
3. Report all incidences of discrimination, institutional abuse, or neglect.
4. Look beyond the child welfare system to find services and programs you and your family will enjoy participating in. Local parks, health departments and arts departments may offer a program that will help you lead a happy life.
5. Believe in yourself and know that your caregivers believe in you, too. Try to remember this at times when navigating the system of “care” seems untenable. Remember—it takes a village of family, friends, and caretakers to raise a child, and you are not alone; there are many people who care and are willing to support you and your family.

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APPENDIX A

Public School MYRBS: The Research Design and Methodology

In 1993 MDOE employed the following sampling methods for administering the MYRBS to 3000 public school students.

All regular public schools containing grades 9-12 were included in the sampling frame. Private and parochial schools were excluded. Schools were selected systematically with a probability proportional to enrollment size using a random start. Additionally a random selection of classrooms was made. Test times were controlled. Student participation was both voluntary and anonymous. Therefore schools were not required to obtain parental consent to administer the survey.

The Standard Public School Administrations Procedures

Survey administration dates and contact persons were selected by the school principal. MDOE staff administered the survey and classroom teachers were permitted to remain in the classroom but were asked not to circulate the room. Those students who chose not to participate were asked to sit quietly and read. No talking was permitted. Completed questionnaires were deposited by students in a manila envelope and the envelope was sealed by the survey administrator before leaving the classroom to demonstrate the safeguarding of students' confidential information.

APPENDIX B



The Commonwealth of Massachusetts Department of Education

1385 Hancock Street, Quincy, Massachusetts 02169-5183

1993 YOUTH RISK BEHAVIOR SURVEY

This survey is about health behavior. It has been developed so you can tell us what *you* do that may affect your health. The information you give will be used to develop better health education programs for young people like yourself.

DO NOT write your name on this survey *or* the answer sheet. The answers you give will be kept *private*. No one will know what you write. Answer the questions based on what you really do.

Completing the survey is voluntary. Whether or not you answer the questions will not affect your grade in this class.

The questions that ask about your background will only be used to describe the types of students completing this survey. The information will not be used to find out your name. *No names will ever be reported.*

Place all your answers on the answer sheet. Fill in the circles completely. Make sure to answer every question. When you are finished, follow the instructions of the person giving you the survey.

THANK YOU VERY MUCH FOR YOUR HELP

INSTRUCTIONS: Read each question carefully. Fill in the circle on your answer sheet that matches the letter of your answer. CHOOSE THE ONE BEST ANSWER FOR EACH QUESTION.

1. How old are you?
 - a. 12 years old or younger
 - b. 13 years old
 - c. 14 years old
 - d. 15 years old
 - e. 16 years old
 - f. 17 years old
 - g. 18 years old or older

2. What is your sex?
 - a. Female
 - b. Male

3. In what grade are you?
 - a. 9th grade
 - b. 10th grade
 - c. 11th grade
 - d. 12th grade
 - e. Ungraded or other

4. How do you describe yourself?
 - a. White - not Hispanic
 - b. Black - not Hispanic
 - c. Hispanic
 - d. Asian or Pacific Islander
 - e. Native American or Alaskan Native
 - f. Other

5. Compared to other students in your class, what kind of student would you say you are?
 - a. One of the best
 - b. Far above the middle
 - c. A little above the middle
 - d. In the middle
 - e. A little below the middle
 - f. Far below the middle
 - g. Near the bottom

6. How often do you wear a seat belt when riding in a car driven by someone else?
 - a. Never
 - b. Rarely
 - c. Sometimes
 - d. Most of the time
 - e. Always

7. During the past 12 months, how many times did you ride a motorcycle?
 - a. 0 times
 - b. 1 to 10 times
 - c. 11 to 20 times
 - d. 21 to 39 times
 - e. 40 or more times

8. When you rode a motorcycle during the past 12 months, how often did you wear a helmet?
 - a. I did not ride a motorcycle during the past 12 months
 - b. Never wore a helmet
 - c. Rarely wore a helmet
 - d. Sometimes wore a helmet
 - e. Most of the time wore a helmet
 - f. Always wore a helmet

9. During the past 12 months, how many times did you ride a bicycle?
 - a. 0 times
 - b. 1 to 10 times
 - c. 11 to 20 times
 - d. 21 to 39 times
 - e. 40 or more times

10. When you rode a bicycle during the past 12 months, how often did you wear a helmet?

- a. I did not ride a bicycle during the past 12 months
- b. Never wore a helmet
- c. Rarely wore a helmet
- d. Sometimes wore a helmet
- e. Most of the time wore a helmet
- f. Always wore a helmet

11. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or more times

12. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or more times

13. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?

- a. 0 days
- b. 1 day
- c. 2 or 3 days
- d. 4 or 5 days
- e. 6 or more days

14. During the past 30 days, on how many days did you carry a gun?

- a. 0 days
- b. 1 day
- c. 2 or 3 days
- d. 4 or 5 days
- e. 6 or more days

15. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

- a. 0 days
- b. 1 day
- c. 2 or 3 days
- d. 4 or 5 days
- e. 6 or more days

16. During the past 30 days, how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?

- a. 0 days
- b. 1 day
- c. 2 or 3 days
- d. 4 or 5 days
- e. 6 or more days

17. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or 7 times
- f. 8 or 9 times
- g. 10 or 11 times
- h. 12 or more times

18. During the past 12 months, how many times has someone stolen or deliberately damaged your property such as your car, clothing, or books on school property?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or 7 times
- f. 8 or 9 times
- g. 10 or 11 times
- h. 12 or more times

19. During the past 12 months, how many times were you in a physical fight?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or 7 times
- f. 8 or 9 times
- g. 10 or 11 times
- h. 12 or more times

20. The last time you were in a physical fight, with whom did you fight?

- a. I have never been in a physical fight
- b. A total stranger
- c. A friend or someone I know
- d. A boyfriend, girlfriend, or date
- e. A parent, brother, sister, or other family member
- f. Someone not listed above
- g. More than one of the persons listed above

21. During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or more times

22. During the past 12 months, how many times were you in a physical fight on school property?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or 7 times
- f. 8 or 9 times
- g. 10 or 11 times
- h. 12 or more times

23. During the past 12 months, when you went swimming in places such as a pool, lake, or ocean, how often was an adult or a lifeguard watching you?

- a. I did not go swimming during the past 12 months
- b. Never
- c. Rarely
- d. Sometimes
- e. Most of the time
- f. Always

Sometimes people feel so depressed and hopeless about the future that they may consider attempting suicide, that is, taking some action to end their own life.

24. During the past 12 months, did you ever seriously consider attempting suicide?

- a. Yes
- b. No

25. During the past 12 months, did you make a plan about how you would attempt suicide?

- a. Yes
- b. No

26. During the past 12 months, how many times did you actually attempt suicide?

- a. 0 times
- b. 1 time
- c. 2 or 3 times
- d. 4 or 5 times
- e. 6 or more times

27. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

- a. I did not attempt suicide during the past 12 months
- b. Yes
- c. No

The next ten questions ask about tobacco use.

28. Have you ever tried cigarette smoking, even one or two puffs?

- a. Yes
- b. No

29. How old were you when you smoked a whole cigarette for the first time?

- a. I have never smoked a whole cigarette
- b. Less than 9 years old
- c. 9 or 10 years old
- d. 11 or 12 years old
- e. 13 or 14 years old
- f. 15 or 16 years old
- g. 17 or more years old

30. Have you ever smoked cigarettes regularly, that is, at least one cigarette every day for 30 days?

- a. Yes
- b. No

31. How old were you when you first started smoking cigarettes regularly (at least one cigarette every day for 30 days)?

- a. I have never smoked cigarettes regularly
- b. Less than 9 years old
- c. 9 or 10 years old
- d. 11 or 12 years old
- e. 13 or 14 years old
- f. 15 or 16 years old
- g. 17 or more years old

32. During the past 30 days, on how many days did you smoke cigarettes?

- a. 0 days
- b. 1 or 2 days
- c. 3 to 5 days
- d. 6 to 9 days
- e. 10 to 19 days
- f. 20 to 29 days
- g. All 30 days

33. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

- a. I did not smoke cigarettes during the past 30 days
- b. Less than 1 cigarette per day
- c. 1 cigarette per day
- d. 2 to 5 cigarettes per day
- e. 6 to 10 cigarettes per day
- f. 11 to 20 cigarettes per day
- g. More than 20 cigarettes per day

34. During the past 30 days, on how many days did you smoke cigarettes on school property?

- a. 0 days
- b. 1 or 2 days
- c. 3 to 5 days
- d. 6 to 9 days
- e. 10 to 19 days
- f. 20 to 29 days
- g. All 30 days

35. During the past 6 months, did you try to quit smoking cigarettes?

- a. I did not smoke cigarettes during the past 6 months
- b. Yes
- c. No

36. During the past 30 days, did you use chewing tobacco, such as Redman, Levi Garrett, or Beechnut, or snuff, such as Skoal, Skoal Bandits, or Copenhagen?

- a. No, I did not use chewing tobacco or snuff during the past 30 days
- b. Yes, chewing tobacco only
- c. Yes, snuff only
- d. Yes, both chewing tobacco and snuff

37. During the past 30 days, did you use chewing tobacco, such as Redman, Levi Garrett, or Beechnut, or snuff, such as Skoal, Skoal Bandits, or Copenhagen on school property?

- a. No, I did not use chewing tobacco or snuff on school property
- b. Yes, chewing tobacco only
- c. Yes, snuff only
- d. Yes, both chewing tobacco and snuff

The next five questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

38. How old were you when you had your first drink of alcohol other than a few sips?

- a. I have never had a drink of alcohol other than a few sips
- b. Less than 9 years old
- c. 9 or 10 years old
- d. 11 or 12 years old
- e. 13 or 14 years old
- f. 15 or 16 years old
- g. 17 or more years old

39. During your life, on how many days have you had at least one drink of alcohol?

- a. 0 days
- b. 1 or 2 days
- c. 3 to 9 days
- d. 10 to 19 days
- e. 20 to 39 days
- f. 40 to 99 days
- g. 100 or more days

40. During the past 30 days, on how many days did you have at least one drink of alcohol?

- a. 0 days
- b. 1 or 2 days
- c. 3 to 5 days
- d. 6 to 9 days
- e. 10 to 19 days
- f. 20 to 29 days
- g. All 30 days

41. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

- a. 0 days
- b. 1 day
- c. 2 days
- d. 3 to 5 days
- e. 6 to 9 days
- f. 10 to 19 days
- g. 20 or more days

42. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?

- a. 0 days
- b. 1 or 2 days
- c. 3 to 5 days
- d. 6 to 9 days
- e. 10 to 19 days
- f. 20 to 29 days
- g. All 30 days

The next four questions ask about the use of marijuana, which is also called grass or pot.

43. How old were you when you tried marijuana for the first time?

- a. I have never tried marijuana
- b. Less than 9 years old
- c. 9 or 10 years old
- d. 11 or 12 years old
- e. 13 or 14 years old
- f. 15 or 16 years old
- g. 17 or more years old

44. During your life, how many times have you used marijuana?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 to 99 times
- g. 100 or more times

45. During the past 30 days, how many times did you use marijuana?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 or more times

46. During the past 30 days, how many times did you use marijuana on school property?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 or more times

The next eight questions ask about cocaine and other drugs.

47. How old were you when you tried any form of cocaine, including powder, crack, or freebase, for the first time?

- a. I have never tried cocaine
- b. Less than 9 years old
- c. 9 or 10 years old
- d. 11 or 12 years old
- e. 13 or 14 years old
- f. 15 or 16 years old
- g. 17 or more years old

48. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 or more times

49. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 or more times

50. During your life, how many times have you used the crack or freebase forms of cocaine?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 or more times

51. During your life, how many times have you used any other type of illegal drug, such as LSD, PCP, ecstasy, mushrooms, speed, ice, heroin, or pills without a doctor's prescription?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 or more times

52. During your life, how many times have you taken steroid pills or shots without a doctor's prescription?

- a. 0 times
- b. 1 or 2 times
- c. 3 to 9 times
- d. 10 to 19 times
- e. 20 to 39 times
- f. 40 or more times

53. During your life, have you ever injected (shot up) any illegal drug?

- a. Yes
- b. No

54. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

- a. Yes
- b. No

The next five questions ask about AIDS/HIV education and information.

55. Have you ever been taught about AIDS/HIV infection in school?

- a. Yes
- b. No
- c. Not sure

56. In school, have you received instruction on how to prevent AIDS/HIV infection?

- a. Yes
- b. No
- c. Not sure

57. In school, have you received a presentation by someone with AIDS/HIV infection?

- a. Yes
- b. No
- c. Not sure

58. In school, have you been taught how to use a condom ?

- a. Yes
- b. No
- c. Not sure

59. Have you ever talked about AIDS/HIV infection with your parents or other adults in your family?

- a. Yes
- b. No
- c. Not sure

The next eleven questions ask about sexual behavior.

60. Have you ever had sexual intercourse?

- a. Yes
- b. No

61. How old were you when you had sexual intercourse for the first time?

- a. I have never had sexual intercourse
- b. Less than 12 years old
- c. 12 years old
- d. 13 years old
- e. 14 years old
- f. 15 years old
- g. 16 years old
- h. 17 or more years old

62. During your life, with how many people have you had sexual intercourse?

- a. I have never had sexual intercourse
- b. 1 person
- c. 2 people
- d. 3 people
- e. 4 people
- f. 5 people
- g. 6 or more people

63. During the past 3 months, with how many people did you have sexual intercourse?

- a. I have never had sexual intercourse
- b. I have had sexual intercourse, but not during the past 3 months
- c. 1 person
- d. 2 people
- e. 3 people
- f. 4 people
- g. 5 people
- h. 6 or more people

64. The person(s) with whom you have had sexual contact is (are)

- a. female(s)
- b. male(s)
- c. female(s) and male(s)
- d. I have not had sexual contact with anyone.

65. Did you drink alcohol or use drugs before you had sexual intercourse the last time?

- a. I have never had sexual intercourse
- b. Yes
- c. No

66. The last time you had sexual intercourse, did you or your partner use a condom?

- a. I have never had sexual intercourse
- b. Yes
- c. No

67. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy? (Select only one response.)

- a. I have never had sexual intercourse
- b. No method was used to prevent pregnancy
- c. Birth control pills
- d. Condoms
- e. Withdrawal
- f. Some other method
- g. Not sure

68. If condoms were available in all of the following places, to which one place would you be most likely to go if you wanted to obtain condoms?

- a. I do not want to obtain condoms.
- b. School nurse or counselor.
- c. Vending machine in school restroom.
- d. Vending machine in restrooms in other places in my community.
- e. Local pharmacy or convenience store.
- f. Local health clinic or family planning clinic.
- g. My parents or other adults in my family.
- h. None of the above.

69. How many times have you been pregnant or gotten someone pregnant?

- a. 0 times
- b. 1 time
- c. 2 or more times
- d. Not sure

70. Have you ever been told by a doctor or nurse that you have a sexually transmitted disease such as genital herpes, genital warts, chlamydia, syphilis, gonorrhea, AIDS, or HIV infection?

- a. Yes
- b. No

The next four questions ask about body weight.

71. How do you think of yourself?

- a. Very underweight
- b. Slightly underweight
- c. About the right weight
- d. Slightly overweight
- e. Very overweight

72. Which of the following are you trying to do?

- a. Lose weight
- b. Gain weight
- c. Stay the same weight
- d. I am not trying to do anything about my weight

73. During the past 7 days, which one of the following did you do to lose weight or to keep from gaining weight?

- a. I did not try to lose weight or keep from gaining weight
- b. I dieted
- c. I exercised
- d. I exercised and dieted
- e. I used some other method, but I did not exercise or diet

74. During the past 7 days, which one of the following did you do to lose weight or to keep from gaining weight?

- a. I did not try to lose weight or keep from gaining weight
- b. I made myself vomit
- c. I took diet pills
- d. I made myself vomit and took diet pills
- e. I used some other method, but I did not vomit or take diet pills

The next seven questions ask about food you ate yesterday. Think about all meals and snacks you ate yesterday from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.

75. Yesterday, did you eat fruit?

- a. No
- b. Yes, once only
- c. Yes, twice or more

76. Yesterday, did you drink fruit juice?

- a. No
- b. Yes, once only
- c. Yes, twice or more

77. Yesterday, did you eat green salad?

- a. No
- b. Yes, once only
- c. Yes, twice or more

78. Yesterday, did you eat cooked vegetables?

- a. No
- b. Yes, once only
- c. Yes, twice or more

79. Yesterday, did you eat hamburger, hot dogs, or sausage?

- a. No
- b. Yes, once only
- c. Yes, twice or more

80. Yesterday, did you eat french fries or potato chips?

- a. No
- b. Yes, once only
- c. Yes, twice or more

81. Yesterday, did you eat cookies, doughnuts, pie, or cake?

- a. No
- b. Yes, once only
- c. Yes, twice or more

The next eight questions ask about physical activity.

82. On how many of the past 7 days did you exercise or participate in sports activities for at least 20 minutes that made you sweat and breathe hard, such as basketball, jogging, fast dancing, swimming laps, tennis, fast bicycling, or similar aerobic activities?

- a. 0 days
- b. 1 day
- c. 2 days
- d. 3 days
- e. 4 days
- f. 5 days
- g. 6 days
- h. 7 days

83. On how many of the past 7 days did you do stretching exercises, such as toe touching, knee bending, or leg stretching?

- a. 0 days
- b. 1 day
- c. 2 days
- d. 3 days
- e. 4 days
- f. 5 days
- g. 6 days
- h. 7 days

84. On how many of the past 7 days did you do exercises to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?

- a. 0 days
- b. 1 day
- c. 2 days
- d. 3 days
- e. 4 days
- f. 5 days
- g. 6 days
- h. 7 days

85. On how many of the past 7 days did you walk or bicycle for at least 30 minutes at a time? (include walking or bicycling to or from school.)

- a. 0 days
- b. 1 day
- c. 2 days
- d. 3 days
- e. 4 days
- f. 5 days
- g. 6 days
- h. 7 days

86. In an average week when you are in school, on how many days do you go to physical education (PE) classes?

- a. 0 days
- b. 1 day
- c. 2 days
- d. 3 days
- e. 4 days
- f. 5 days

87. During an average physical education (PE) class, how many minutes do you spend actually exercising or playing sports?

- a. I do not take PE
- b. Less than 10 minutes
- c. 10 to 20 minutes
- d. 21 to 30 minutes
- e. More than 30 minutes

88. During the past 12 months, on how many sports teams run by your school, did you play? (Do not include PE classes.)

- a. 0 teams
- b. 1 team
- c. 2 teams
- d. 3 or more teams

89. During the past 12 months, on how many sports teams run by organizations outside of your school, did you play?

- a. 0 teams
- b. 1 team
- c. 2 teams
- d. 3 or more teams

APPENDIX C

May 12, 1994

Dear Colleague:

Hello, I am a consultant hired by Concord-Assabet Adolescent Services to manage the tobacco initiative your agency has agreed to participate in. Thank you for agreeing to spend one hour of your time to meet with me today. I am here to conduct what is called a focus group interview. A focus group is an informal group discussion guided by a selected set of topics. It is not a place where those thoughts are necessarily refined into an action plan, though it is possible that solutions to problems could be generated from the group discussion.

The purpose of this focus group interview is to talk about smoking and the role it plays in the lives of the staff and clients in this agency. We will also be talking about smoking policies and how they affect the lives of staff and clients here.

This interview is part of a research project funded by the Massachusetts Department of Public Health. The purpose of the research project is three fold: (1) to find out the incidence rate of smoking among youth in residential treatment centers (2) to measure the effect of a smoking prevention program on the incidence rate and (3) to examine the impact of smoking policies on residential treatment services and agency life.

This interview focuses on the third portion of the study. Therefore, we will discuss your thoughts about smoking and smoking policies. The study will take place over the next year and a half and will involve at least three and possibly four interviews like this one. The interviews will be conducted now, in September, 1994 and in May, 1995. It is possible that a fourth interview will be added in January, 1995.

Our discussion here today will be completely anonymous. Summary reports on this focus group will not identify any individuals or even the name of the participating school in connection with any specific element of feedback. MDPH does know which schools are participating and understands that final reports and press releases will not identify schools or individuals.

Thank you once again for taking the time to participate in this study.

Sincerely,

Dorothy M. Webman, M.S.W.
Tobacco Control Initiative Project Director
Concord-Assabet Adolescent Services

APPENDIX D

Dear Student:

Thank you for participating in this survey. Before we begin, I want to make sure you understand some things about this survey.

First, I want to let you know that the survey is completely anonymous. Do not put your name anywhere on this survey. This means no one but you will know how you answered the questions. I won't know how you answered and even your teacher won't know how you answered.

Second, there are no right or wrong answers to these questions, only honest ones. Please answer as truthfully as you can.

Third, there is no talking or moving about while the survey is going on. If you have any questions, please raise your hand and I will come help you.

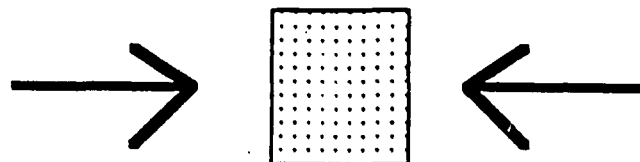
Fourth, there are a number of instruction you will need to follow in order to take the survey:

- 1) Each of you will receive a question booklet and a pencil.*

- 2) *I will be reading the questions out-loud as you read along to yourself.*
- 3) *Do not go ahead of the question I am reading.*
- 4) *Choose only one answer for each question. Circle the answer in the booklet.*
- 5) *Do not make any marks anywhere else on the booklet.*
- 6) *This survey will last the entire class. When you are finished, close your booklet and wait quietly until everyone has completed the last question.*

****** You will receive a small gift at the end of the survey period for your participation.******

If you have any question about the instructions, please raise your hand to ask me. If you understand all of this information, and agree to follow the rules and instructions, please put a "X" in this box.



APPENDIX E

A Successful Proposal to Replicate/Adapt Morehouse's Residential Student Assistance Program

1. Identification and Recruitment

Students will be identified for program participation in six ways:

- a. Universal Substance Use Intake
- b. Self Referral
- c. Peer Referral
- d. Treatment Conference Referral
- e. Staff Referral
- f. Mandatory Referral

- a. **Universal Substance Use Intake Assessment** Each facility participating in Concord-Assabet's proposed SAP has in place procedures for assessing a new resident at the time of intake.

SAC's ask residents for a detailed history of their substance use including information on the quantity, frequency, duration, pattern and impact of alcohol and drug use, reactions of others, and attempts to control, limit or stop use. Any history of mixing drugs, blackouts, physical and psychological withdrawal symptoms, involvement in drug dealing and gambling will also be addressed.

During the assessment phase, the SAC will determine whether a parent or parental figure is an alcoholic or substance abuser.

If, during the initial assessment period, the adolescent perceives that a parent is having a problem with alcohol or other drugs, h/she will be treated as a COA or COSA. The Student Assistance Counselor will use the following five step procedure (Morehouse, 1994).

Individual Domain

Individual Counseling

If the teen is both a COA/COSA and a substance abuser, some of the issues surrounding being a child of an alcoholic/substance abuser will be addressed in the preliminary sessions with the counselor.

"Significant Other Adult" and Family Domain

Training and Counseling for Significant Other Adults

Literature bears out that substance abuse behavior of family members *and* other adults significant to the young person affect his/her use attitudes toward and use of alcohol and other drugs (Fiedler, 1992). In fact, it also indicates that ATOD use among adults who live with youth, but who are not their parents have greater influence on youth ATOD use than does parental use. In residential treatment, direct care workers often live with and work with the adolescent 24 hours per day, seven days per week. Their

attitudes and behaviors about ATOD use then are critical to the attitude of the youth they serve. Dr. Albert Trieschman emphasized the importance of the direct care worker on the lives of RTC residents in this internationally renowned book - *The Other 23 Hours*.

Concord-Assabet's SAP project will offer the following interventions for such staff:

1. SAC's and staff at the residential facilities will have regular training offered to them to affect their own attitudes toward ATOD use.
2. Access to an Employee Assistance Program, offered through Concord Family Service, a human services agency whose EAP has been part of a national model, will be available to residential staff to increase their unfavorable attitudes toward the use of alcohol, tobacco, and other substances; to identify those employees who are most at risk; and to counsel those who use alcohol and other substances.
3. Where applicable, a smoking cessation group for staff will also be made available.

Training Family Workers and Offering Family Therapy Referrals

Concord-Assabet's residential and outpatient clinicians are recognized statewide for their experience in family work. Not all, but some of the participating agencies have family workers on staff. In order to maximize resources, the SAC's will be expected to either:

1. Train or facilitate access to training for family workers at participating agencies on intervention strategies for families with substance abuse issues, or
2. Work with willing families who have significant substance abuse issues to help them gain access to a family worker with substance abuse expertise.

Additionally, SAC's will offer the following groups which have enough families available for participation at RTC's:

Sibling Groups - for siblings of teens in RTC's. These groups will focus on the issues being a COA/COSA, including education, prevention, and intervention if necessary. The sibling groups will also address the problems and concerns associated with having a sibling who has been placed in a RTC.

Parent Groups - will be divided into two types, for parents who are users and those who are not. In the case of parents who are themselves using alcohol or other drugs, the group will focus on

An Individual Approach to Family Work

Concord-Assabet recognizes that, in some cases, traditional family work may not be an option due to family members who are absent, incarcerated, unwilling to participate, or are themselves undergoing alcohol or drug rehabilitation.

To this end, individual counseling sessions will employ Monica McGoldrick's theory of family work with only one member present. Using this technique, the Student Assistance will work to help the resident see his/her attitudes and use of drugs and alcohol in the context of his/her family history dynamics.

School Domain

Prevention/Education Series

The Student Assistance will also conduct small, structured, leader-directed discussion groups. They will combine didactic as well as experiential approaches. Groups will encompass 8 - 10 residents so that the residents can benefit from small group discussions as well as role play opportunities. Each Prevention/Education series will offer 6 - 8 group sessions. The groups will focus on education regarding substance abuse, including factors that lead to high-risk attitudes, as well as building the skills to deal with them. Topics will include:

Peer Domain

Group Counseling

Resident Peer Leaders Task Force

As part of Concord-Assabet's proposed implementation of the SAP project, the Student Assistance will also establish an Adolescent Resident Task Force as is consistent with the SAS SAP project.

Youth leaders will be selected who have successfully altered their positive attitudes toward alcohol and drug use and/or changed their behaviors. These youth will serve as leaders who can mentor the other residents.

1. Groups will be held during the school day and times will be rotated so that students will not repeatedly miss the same class. However, residents will be removed from class to attend the group.
2. Groups will be held after school, after dinner, or on weekends at the same time each week. Residents will be pulled from their residences and/or recreational activities in order to attend groups.
3. Groups will be held after school, after dinner, or on weekends for residents of the same residence.

Concord-Assabet's SAP program will encompass five different types of group counseling. A resident may go from one group to another and/or may participate in group as well as individual counseling sessions.

COA/COSA Groups - for adolescents who have alcohol or other drug-abusing parents, and who do not themselves use alcohol or other drugs.

Abuser Groups - for adolescents who know that they have a problem with alcohol or other drugs, want to deal with the problems, and want to improve their functioning.

Abuser/COA/COSA Groups - for adolescents who are abusing alcohol or other drugs and who have alcoholic or drug abusing parents.

Alcohol and Other Drug Assessment and Education Groups - for youth who are engaging in high-risk behaviors, have begun to use ATOD but are denying the negative consequences of their use.

Parent, Peer, Partying - for teens who acknowledge problems with parents, adults, and/or peers but who don't view their own use of alcohol and other drugs as a problem.

Tobacco Cessation Groups - for teens who are smoking or using drugs.

Community/Neighborhood Domain

Concord-Assabet's proposed SAP project will focus its community work in three different 'communities' of the youth:

1. the therapeutic community, (RTC)
2. the neighborhoods and communities surrounding the (RTC), and
3. the neighborhoods and communities from which the youth are referred to RTC.

12 step programs will be accessed in both #2 and #3 community domains.

Therapeutic Community

The population of the therapeutic community of RTCs typically includes residents from many different geographic communities. It is not unusual for a facility serving 50 youth to have residents from 35 neighboring towns, some of them as far as 20 miles from the site.

The Concord-Assabet SAP project seeks to affect the therapeutic community or residential treatment center primarily.

Neighborhoods & Communities Surrounding the RTC

SAC's will interact with the community surrounding the residential facility to reduce the sale of alcohol, other drugs, and tobacco to minors. They will also participate in relevant community task forces and act a liaison to the community.

Neighborhoods and Communities from which the Youth are Referred to the Therapeutic Community

The SAC's will work with case managers, family workers, and individual therapists to assure that the adolescents participating in the SAP program have adequate resources in their home community to support an ATOD-free lifestyle.

12 Step Programs

When appropriate, SAC's will encourage adolescents to attend 12-step meetings in both neighborhoods surrounding the residence and the home neighborhoods of the residents. This will not only help the teen in the RTC, but it will also

acquaint the youth with a resource that will be available in his/her community upon his/her return.

Society and Other Domain

The Society domain will be integrated into all interventions in the other domains. In addition, project staff will plan special events, in which collaborating agencies participate to impact the Society domain.

For example, residents may elect to participate in a letter writing campaign to tobacco industry executives and government officials to create a drug and smoke free zone in the community. With technical assistance, they might also develop an MTV "Free Your Mind" video on drug consumption and substance abuse prevention.

The SAP project staff will also run a Department of Social Services, Department of Youth Services, Department of Mental Health, Department of Education, Department of Public Health, and Chief Executive Officers summit on substance use and the policies and practices of residential treatment centers. The Project Administrator will offer seminars annually on the project's findings.