An Evaluation of the Mongolian Red Cross Society's HIV/AIDS Response Program

Tia S. Farrell

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David Grembowski

Virginia Gonzales

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Abstract

An Evaluation of the Mongolian Red Cross Society's HIV/AIDS Response Program

Tia S. Farrell

Chair of the Supervisory Committee:
Professor David Grembowski
Department of Health Sciences

Specific Aims

The aim of this program evaluation is to determine whether Mongolian Red Cross Society's HIV/AIDS Response Program (HARP) increased HIV/AIDS prevention knowledge among youth aged 15-24 in targeted secondary schools and universities in Ulaanbaatar, Mongolia by the conclusion of the program period (1 July, 2008 to 30 June, 2011).

Setting

Although Mongolia presently has a low prevalence of HIV, with less than 0.01% of the population infected, it has been estimated that without concerted prevention efforts, between now and 2015 the country's HIV prevalence will double every two years (The Global Fund to Fight AIDS, Tuberculosis and Malaria, 2004). New HIV cases over the past two years have been mostly in youth and rates of transmission of STIs, already very high, continue to increase among youth in Mongolia. To date, most HIV prevention efforts in Mongolia have targeted most-at-risk populations; however, there is a great need for HIV awareness and prevention programs targeting the general population, specifically youth (Mongolian Red Cross Society, 2010).

Methods

A post-intervention survey was conducted at project end, 1 July-1 August, 2011, among 712 youth in targeted secondary schools and universities in three districts of Ulaanbaatar, Mongolia to evaluate the impact of the project. The impact of the program was assessed by a post-intervention survey of prevention knowledge, by comparing groups that were exposed to the intervention to groups that were not exposed. Knowledge was assessed through analysis of survey questions about modes of transmission of HIV/AIDS, methods of prevention, and rejection of common misconceptions. Program contribution to target group knowledge levels

was assessed through survey responses to the question, “Where do you receive information about HIV/AIDS?”

Results

In answer to evaluation Question 1, “What is the difference in HIV/AIDS knowledge between those who were exposed to the HARP intervention and those who were not among youth aged 15-24 in targeted secondary schools and universities in Ulaanbaatar, Mongolia?” results showed a strong positive program effect on identifying all four important modes of transmission of HIV, a week positive program effect on identifying ways of preventing HIV, and a weak negative program effect on rejecting common misconceptions about HIV. The exposed group tended to answer correctly significantly more often than the non-exposed group on identifying important modes of transmission and prevention methods; however, the trend was the opposite when it came to identifying common misconceptions. It appears that the program increased knowledge among the exposed group in identifying modes of transmission and to some extent, prevention methods; but had a negative program effect when it came to rejecting misconceptions.

Evaluation Question 2 was “To what extent is HARP the source of HIV/AIDS information among youth aged 15-24 in targeted schools and universities in Ulaanbaatar, Mongolia?” Sixteen percent of respondents directly credited Red Cross as a source of their knowledge about HIV/AIDS, and about 90% of respondents indicated sources of information of which Red Cross may be an indirect source.

Conclusions

The impact of the Mongolian Red Cross Society’s HIV/AIDS response program on HIV/AIDS knowledge among students in targeted secondary schools and universities in Ulaanbaatar, Mongolia ranged from strong positive program effects in some areas to weak negative program effects in other areas. The program appears to have increased knowledge in the exposed group in terms of correct identification of unsafe behaviors that increase risk of HIV acquisition, and to some extent in terms of identifying effective ways of preventing transmission. Why the exposed group incorrectly identified some safe behaviors as unsafe is unclear. Perhaps the intervention emphasized providing knowledge of unsafe behaviors, but did not explicitly explain that other behaviors were safe. Alternatively, Evaluation Question 1 or the format for soliciting or recording answers to Question 1 may have lacked clarity.

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Definitions of Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ARC	Australian Red Cross
CRG	Critical reference group
GA	Red Cross Red Crescent Global Alliance on HIV
HARP	Mongolian Red Cross HIV/AIDS Response Program
HIV	Human Immunodeficiency Virus
IEC	Information, education and communication
IFRC	International Federation of Red Cross and Red Crescent Societies
KAP	Knowledge, attitudes and practices
MARP	Most-at-risk population
MLCRB	Mid-level Red Cross branch
MOH	Ministry of Health
MRCS	Mongolian Red Cross Society
MSM	Men who have sex with men
NAF	Mongolian National AIDS Foundation
NCA	Mongolian National Committee on AIDS
NCCD	Mongolian National Center for Communicable Diseases
NGO	Non-government organization
PLHIV	People living with HIV/AIDS
S&D	Stigma and discrimination
STI	Sexually transmitted infection
SW	Sex worker
UNAIDS	Joint United Nations Program on HIV/AIDS
UW	University of Washington
VCT	Voluntary counseling and testing

Introduction

Although Mongolia presently has a low prevalence of Human Immunodeficiency Virus (HIV), with less than 0.1% of the population infected, the country is facing a rapid increase in new cases, with 92% of all cases identified between 2004-2009 and a 69% increase in two years between 2007 and 2009 (National Committee on HIV and AIDS, 2010). Currently there are a total of 106 registered cases in the country (National Center for Communicable Diseases, 2012); however, it is estimated that without prevention measures, 2,500 Mongolians will die of Acquired Immunodeficiency Syndrome (AIDS) by 2014. It is also estimated that without concerted prevention efforts, between now and 2015 the country's prevalence of HIV will double every 2 years (The Global Fund to Fight AIDS, Tuberculosis and Malaria, 2004).

Population growth has slowed somewhat, from 2.1% to 1.4%, but Mongolia is still a young country; 33% of the population is under the age of 15 years and 59% is under the age of 25 years (Government of Mongolia, 2010). This makes it all the more alarming that new HIV cases over the past two years have been mostly in youth and that rates of transmission of sexually transmitted infections (STIs), already very high, continue to increase among youth in Mongolia.

To date, most of the efforts coordinated by the Mongolian National AIDS Foundation (NAF), in cooperation with the Mongolian government's Ministry of Health as well as local and international NGOs, have been focused on most-at-risk populations (MARPs) such as men who have sex with men (MSM), sex workers (SW), and mobile/migrant populations in a few targeted areas. However, the Ministry of Health (MOH) has recently identified a high need for HIV awareness and prevention programs targeting the general population, specifically youth, which has not been sufficiently addressed by the Mongolian HIV sector (Mongolian Red Cross Society, 2010). In addition to lack of HIV prevention programs targeting the general population, there are a number of other risk factors that make Mongolia extremely vulnerable to the HIV epidemic.

First, high STI prevalence contributes to Mongolia's vulnerability to HIV. According to Mongolian national health statistics, STIs comprised 44% of all reported communicable diseases in 2009 (Ministry of Health, 2009). According to the Mongolian National Committee on AIDS, "The role of STI's in HIV risk [in Mongolia] is two-fold. The very behaviors that expose

persons to STI's are the same behaviors that create vulnerability to HIV infection. In addition, certain STI's are known to increase or be associated with increased risk to HIV infection" (National Committee on HIV and AIDS, 2010).

Secondly, knowledge of HIV/STI prevention remains limited among the general population, specifically youth. For example, according to the 2009 second generation national sentinel surveillance study, only 18.4% of women aged 15-24 and 22.3% of men aged 15-24 could correctly identify ways of preventing sexual transmission of HIV and reject major misconceptions about HIV transmission (Ministry of Health, 2009).

Next, prevalence of high-risk sexual behaviors among youth is high. About 43% of young men aged 15-24 and 24% of young women report having had multiple sex partners in the last 12 months. Approximately 81% of youth aged 15-24 had casual sex with non-regular non-commercial partners in the last 12 months (Ministry of Health, 2009).

Additionally, rates of condom use are low in Mongolia. Studies also have shown that thousands of young people develop the habit of having sexual intercourse without any protection (Mongolian Family Welfare Association, 2008). Although over 90% of people aged 14-25 know that using condoms is a way to prevent HIV infection, only 17% of young women and 29.4% of young men report consistent condom use during casual sex (Ministry of Health, 2009). While the cost of condoms is not a major barrier to condom use, many people, especially youth, are uncomfortable purchasing condoms. Especially in rural areas, living in very small communities creates concern in young people that condom purchases will be reported to family and friends. This lack of confidentiality contributes to low levels of condom use in the general population. Additionally, incorrect information about condoms affects young people's usage. A recent study showed that girls do not consider condoms to be a reliable protection against STIs and pregnancy, and consider condom usage risky (Mongolian Family Welfare Association, 2008).

The high rate of alcohol abuse in Mongolia is another risk factor for an increasing HIV epidemic in the country. Alcohol addiction was reported among 51% of adult men and 8% of adult women in 2002 (Mongolian National Program on Prevention & Control of Alcohol Abuse, 2002). Inexpensive and high-proof alcohol compounds the problem, making it easy for even the unemployed to become alcohol dependent (Tsevelmaa, 2012). Most commercial sex takes place after alcohol consumption, and alcohol is readily available to and affordable for young

people (Tsevelmaa, 2012). Additionally, having sex under the influence of alcohol reduces self-control, impairs decision-making abilities and increases unsafe sex practices (Witte, Batsukh, & Chang, 2010).

Increased mobility of population and trade and its geographical location among countries with growing HIV epidemics also puts Mongolia at risk. Statistics show that annual turnover of passengers traveling between China and Russia by land and air is nearly one million people. This high rate of mobility among the population is a risk factor both because mobile men have a higher rate of sex with sex workers (15%, compared to 12% among male STI clients; Ministry of Health, 2009), and because of the higher rates of HIV in the neighboring countries of Russia, China, and Kazakhstan (Office of Immigration, Naturalization and Foreign Citizens, 2011).

Finally, internal migration poses a large risk for a growing HIV/AIDS epidemic in Mongolia. As a former Soviet state, Mongolia's traditional nomadic herding society has recently converted to capitalism. As a result, former herding families leave the countryside to earn a living in the capital city of Ulaanbaatar, resulting in high rates of rural to urban migration of mostly poor, uneducated groups (Government of Mongolia, 2010). A large at-risk subset of this group is university students who come to Ulaanbaatar from the countryside. Due to lack of sexual and reproductive health and safer sex education targeting the general population, many rural secondary school students receive little to no education on these topics. This results in a large influx of students who arrive in the capital city with little or no HIV/AIDS prevention knowledge and high rates of high-risk behaviors (Mongolian Red Cross Society, 2010; Peace Corps/Mongolia, 2009).

Chapter 1: Program Description

Program Background

Mongolian Red Cross Society's HIV/AIDS Response Program (MRCS HARP) sought to address the gap in HIV/AIDS prevention programming targeting the general population in Mongolia. The goal of the HARP program was "To reduce vulnerability to HIV/AIDS and its impact in Mongolia" through four key objectives: 1) Prevention: to increase HIV and AIDS prevention awareness, knowledge and skills amongst target communities in order to reduce high risk behavior; 2) Care and support: to provide care and support to people living with HIV/AIDS; 3) Reducing stigma and discrimination: to sensitize media on HIV/AIDS and related issues; and 4) Capacity building: to strengthen HIV community and national society capacities to deliver and sustain scaled-up programs.

The Mongolian Red Cross Society is headquartered in Ulaanbaatar, Mongolia. MRCS has one of the largest working networks of any non-governmental organization in Mongolia, with 35 mid-level Red Cross branch (MLRCB) offices based in districts of Ulaanbaatar and in all 21 aimags (provinces) of Mongolia. The MLRCBs are divided into 902 primary-level branches at the local community level. MRCS programs are implemented by mid-level branch staff and the network of over 13,000 Red Cross volunteers nationwide. The MRCS HIV/AIDS Response Program was designed and managed by HARP staff at MRCS national headquarters and implemented by mid-level Red Cross branches. The program was implemented in 14 sites nationwide, covering approximately 70% of the population of Mongolia. Capacity building activities (Objective 4) targeted all 35 mid-level branches (Wheeler, 2011).

MRCS and Australian Red Cross have maintained a strong relationship since the year 2000, with most HARP activities aided by financial and/or technical support from ARC. In 2008 MRCS adopted the International Federation of Red Cross and Red Crescent Societies' HIV Global Alliance (GA) framework, reflecting the decision to scale-up activities and reach more of the target populations (do more, do better) (Red Cross Red Crescent Global Alliance on HIV, 2009). At that time Australian Red Cross agreed to support targeted aspects of a three-year program, designed with a new phase of activities under the framework of the GA's four standard objectives for HIV program design: prevention of HIV infection; expansion of care, support and treatment; reduction of stigma and discrimination; and capacity building (Wheeler, 2011).

Program Design

The HIV/AIDS Response Program was designed according to the International Federation of Red Cross and Red Crescent Societies HIV Global Alliance (GA) framework. As a program implementing the GA framework, this framework largely defined program activities, targets, populations and indicators of HARP. The program period was July 1, 2008 through June 30, 2011.

The first objective of the MRCS HARP was "To increase HIV and AIDS prevention awareness, knowledge and skills amongst target communities in order to reduce high risk behavior." HARP activities included designing and implementing peer education and community mobilization programs as well as designing and distributing information, education and communication (IEC) materials to target groups. Prevention activities targeted youth aged 15-24 in 14 communities nationwide. Communities were determined according to locations of Mid-Level Red Cross Branches (MLRCBs) with staff resources capable of implementing the interventions. According to Global Alliance guidelines for Mongolia, the GA indicator for prevention among youth is "70% of youth in targeted schools/universities both correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission." Targets for these activities were 4,350 youth reached through peer-led education sessions, and 3,000 IEC materials developed, tested for relevance and effectiveness among target groups, and distributed.

The second HARP objective was to contribute to improving the lives and health of People Living with HIV (PLHIV), also referred to as positive people. While this population numbered less than 100 in Mongolia, it was considered to be an important target group due to higher prevalence in the sub-population (National Committee on HIV and AIDS, 2010). The objective was "To improve the quality of care and support available to PHLIV," and the significant outputs for this objective were developing community support groups and networks and providing trainings based on community needs. The first GA indicator for this objective was to contribute to increased capacity of New Positive Life NGO. New Positive Life is an organization run by and for positive people which contributes to the response to HIV/AIDS in Mongolia through prevention work, the provision of care and support, advocacy, awareness-raising and a wide variety of other initiatives and activities (Nasanbat, 2008). The role of HARP was to increase New Positive Life's capacity to manage, implement and sustain activities. Program documents do not specify the amount of increase for this indicator. The other GA indicators were that 70

PLHIV benefit from New Positive Life and MRCS activities, and 35 PLHIV be provided with livelihood/income generation support. The targets identified by ARC for this objective were to reach 25 PLHIV with training, and to initiate two support activities for PLHIV (both based on identified needs). The target group for this objective was PLHIV in the capital city of Ulaanbaatar, as reached directly through MRCS as well as through MRCS support of New Positive Life NGO.

The third objective of the program was “Reducing stigma and discrimination: To sensitize media on HIV/AIDS and related issues.” The significant program activities for this objective were to work with Mongolian journalists to create and disseminate community mobilization and population based IEC materials. In HARP program design there are two targets for this activity. The first is to reach 100 journalists through stigma and discrimination related activities such as trainings, meetings, and competitions display improved knowledge and sensitivity towards HIV and related issues. The second target is an increase in both the number of newspaper articles on HIV and related issues, and the proportion written according to ethical standards. The program design document does not specify the amount of increase for this target. Global Alliance indicators for this target differ from program design, and are as follows: HIV ethics module formally incorporated into university curriculum, Improved attitudes among general population on HIV and related issues, Increase in both the number of newspaper articles on HIV and related issues, and the proportion written according to ethical standards, and 246 journalists reached through training, meetings and competitions.

The last objective of the HARP program was “To strengthen HIV community and national society capacities to deliver and sustain scaled-up programs.” This objective was not included in the original program design document; however, both Australian and Mongolian Red Cross National Societies agree that this was an oversight and the intention was to include the GA capacity-building objective in program design. Project documents do not list specific activities and targets for this objective, but there are defined GA targets. These include 210 MRCS staff having received capacity-building training through the HIV program, 80% achievement of targets within the program timeframe, and 100% coverage of the HIV Global Alliance.

Program Rationale

The HARP program was designed with a multi-pronged approach to be implemented over the time period 1 July, 2008 through 30 June, 2011. Target groups and activities were determined based on baseline needs assessment, stakeholder input, familiarity with the Mongolian HIV/AIDS context and best practices for HIV/AIDS work in Mongolia and internationally. The program was designed with complementary program approaches that sought to address the country's existing HIV epidemic and reduce vulnerability to further infections through four main objectives.

The first objective of prevention was addressed through education. For the reasons discussed above, general population youth, specifically secondary school and university students (typically aged 15-18 and 18-24, respectively), were selected as a target group for prevention education. Education activities included media messaging, peer education and distribution of IEC materials. Media messaging was designed to increase awareness among the whole population. Peer education and distribution of IEC materials were defined by the government of Mongolia as recommended strategies for scale-up of the national HIV response, with the rationale that these activities lead to increased prevention knowledge, thenceforth to safer sex behaviors, and thereby reduced rates of transmission of HIV among the target group (Government of Mongolia, 2008). Peer education was conducted in secondary schools and universities in the 14 project sites.

The second program objective, expanding care and support for PLHIV, targeted PLHIV directly in several ways. This included providing direct psychosocial support and material support such as donation of materials for income-generating activities, and conducting trainings such as positive prevention, life skills and nutrition for positive people. Additionally, the target group was reached through technical and financial support to New Positive Life NGO, with the rationale that capacity-building of PLHIV organizations increases sustainability of care and support activities.

For the third objective of reducing stigma and discrimination, the choice was made to focus on sensitizing journalists to HIV/AIDS issues. Radio, television and print journalists were educated about HIV/AIDS, trained to create accurate, non-fear inducing HIV/AIDS related messaging, and incentivized through contests to create such media messages. These education and training

activities were conducted throughout the length of the intervention, July 2008 through June 2011. The rationale for this approach is that these activities would raise awareness and knowledge among journalists, leading to increases in both the number of newspaper articles and television and radio spots on HIV and related issues, and the proportion created according to ethical standards. Program rationale posited that because most Mongolian people have access to some form of mass media, this would thereby contribute to improved attitudes among the general population toward HIV and related issues.

The fourth objective of capacity building was an inherent “enabling” aspect of all program activities for the previous programmatic objectives. In addition to training and support of branch staff implementation of activities for objectives 1-3, MRCS staff were given various forms of capacity building training, such as proposal-writing, project design and management, and report writing. Additionally MRCS provided technical support and partnership to other HIV/AIDS organizations in Mongolia to improve the overall HIV sector capacity in the Mongolian context.

This design seeks to ensure that the country’s vulnerability to HIV is reduced through addressing the issue simultaneously across multiple pathways and complementary project activities. Activities for separate objectives complement and strengthen those for the other objectives, thereby both increasing chances of program impact in each area, and ensuring that if one causal pathway does not yield significant change, the overall program may still be effective.

Program objectives, activities, targets, target populations and indicators are summarized in Table 1.

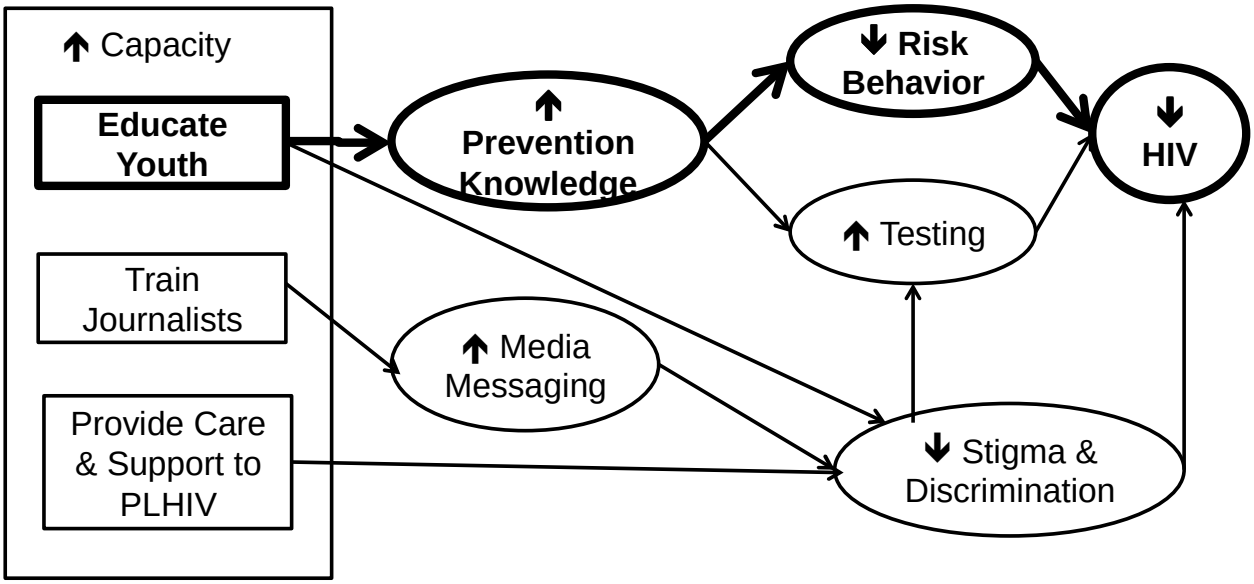
Table 1: Summary of HARP Activities, Targets and Indicators

Objective	Significant Activities	Activity Targets	Population	Performance Indicators
Objective 1: Prevention To increase HIV and AIDS prevention awareness, knowledge and skills amongst target communities in order to reduce high risk behavior	--Implement peer education and community mobilization --Create, disseminate Information, Education and Communication materials	-- 4,350 youth reached through peer led education sessions --3,000 IEC materials developed and tested, based on needs of different communities, and distributed	Youth aged 15-24 in 14 target communities	70% of youth in targeted schools/universities correctly identify ways of preventing sexual transmission of HIV and reject major misconceptions
				39,800 youth reached with peer education
				Peer educators display improved HIV knowledge, skills and attitudes
Objective 2: Expanding care & support To improve the quality of care and support available to PLHIV	--Develop community support groups and networks. --Provide trainings based on community needs.	--Two support activities for PLHIV initiated (based on community needs) --25 PLHIV reached (activities based on community needs)	PLHIV in Ulaanbaatar Mongolia	Positive Life has increased capacity to manage, implement, sustain activities
				70 PLHIV benefit from Positive Life and MRCS activities
				35 PLHIV provided with livelihood/ income generation support
Objective 3: Reducing stigma & discrimination To sensitize media on HIV/AIDS and related issues	Create and disseminate community mobilization and population based IEC materials	--100 TV journalists reached display improved knowledge and sensitivity towards HIV and related issues --Increase in number of newspaper articles on HIV and related issues, proportion meeting ethical standards	Television, radio and newspaper journalists	HIV ethics module formally incorporated into university curriculum
				Improved attitudes among general population on HIV and related issues
				Increase in number of newspaper articles on HIV/related issues, proportion meeting ethical standards
				246 journalists reached through training, meetings and competitions
Objective 4: Capacity-building To strengthen HIV community and national society capacities to deliver and sustain programs	Not specified	Not specified	Not specified	210 MRCS staff received capacity building training through HIV Program
				80% achievement of targets within timeframe
				100% coverage of HIV Global Alliance

Conceptual Model

A conceptual model for the HARP program is shown in Figure 1. Program Objective 1 was "To increase HIV and AIDS prevention awareness, knowledge and skills amongst the target communities in order to reduce high risk behavior," represented by the top causal pathway. The activity of educating youth is believed to increase prevention knowledge, thereby reducing risk behaviors and reducing HIV transmission. Program Objective 2, "To improve quality of care and support available to PLHIV," is represented by the bottom causal pathway. Providing care and support to PLHIV is believed to decrease stigma and discrimination, thereby decreasing Mongolia's vulnerability to the HIV epidemic. The program's third objective, "To sensitize media on HIV/AIDS and related issues," sought to increase the number and quality of media messages regarding HIV/AIDS, thereby reducing stigma and discrimination and, in turn, HIV transmission. The fourth objective sought to increase capacity of MRCS and other HIV/AIDS organizations. This objective was defined as an umbrella objective to increase effectiveness of other program objectives. In this model, HIV may be reduced through reducing risk behaviors, increasing testing, reducing stigma and discrimination, or multiple pathways functioning together; therefore, if one causal chain is ineffective, the program may still have a positive impact. This evaluation seeks to assess only one of these chains of causality, namely, the highlighted chain of educating youth to increase prevention knowledge, decrease high-risk behaviors, and reduce HIV risk.

Figure 1: Conceptual Model of MRCS HARP



Purpose and Evaluation Questions

The purpose of this evaluation is to provide an assessment of the knowledge component of program Objective 1 of the Mongolian Red Cross Society (MRCS) HIV/AIDS Response Program (HARP) for the 3-year project period July 1, 2008 to June 30, 2011. The objective to be assessed is "Prevention: To increase HIV and AIDS prevention awareness, knowledge, and skills amongst target communities in order to reduce high-risk behavior." As such, the evaluation focuses on the effect of the program on HIV prevention knowledge amongst youth, specifically, the levels of knowledge among students in targeted secondary schools and universities who participated in the program, compared to those who did not. The overall question to be answered through this evaluation is: What is the effect of the MRCS HARP program on HIV prevention knowledge among youth aged 15-24 in targeted schools in Ulaanbaatar, Mongolia?

To this end, the specific evaluation questions are as follows:

1. What is the difference in HIV/AIDS knowledge between those who were exposed to the HARP intervention and those who were not among youth aged 15-24 in targeted secondary schools and universities in Ulaanbaatar, Mongolia?
2. To what extent is HARP the source of HIV/AIDS information among youth aged 15-24 in targeted schools and universities in Ulaanbaatar, Mongolia?

Chapter 2: Methods

Study Design and Population

Study Design

The study design utilized for Question 1 of this evaluation was a post-test only comparison group design (Campbell & Stanley, 1963). HIV prevention knowledge was compared at project end for youth aged 15-24 who were exposed and non-exposed to HARP.

To answer evaluation Question 2, a post-intervention cross-sectional study design was utilized (Campbell & Stanley, 1963) to determine the prevalence of sources for HIV/AIDS information.

Population and Sampling

The target population for the HARP program was Mongolian youth aged 15-24. The target population for this evaluation was Mongolian youth aged 15-24 in targeted secondary schools and universities in Ulaanbaatar, Mongolia. A post-intervention survey was conducted among students of all targeted districts of Ulaanbaatar, Mongolia. At the district level, 100% of targeted districts were sampled. At the individual level, the project aimed to obtain 250 respondents from each of the three targeted districts, for a total of 750 respondents. Exact enrollment figures were not available from all schools, and it was estimated that approximately half of the target group were secondary school students and half college/university students. Samples from each district were to be equally divided with 125 from secondary schools and 125 from colleges/universities. Due to funding constraints and donor requirements, the post-intervention survey was conducted during a time of year when schools were not in session, thereby making the target population a hard to reach population. To reach students during this time, Red Cross Youth volunteers visited venues frequented by youth and utilized venue-based non-random quota sampling. Completed questionnaires collected by district and school type are shown in Table 2.

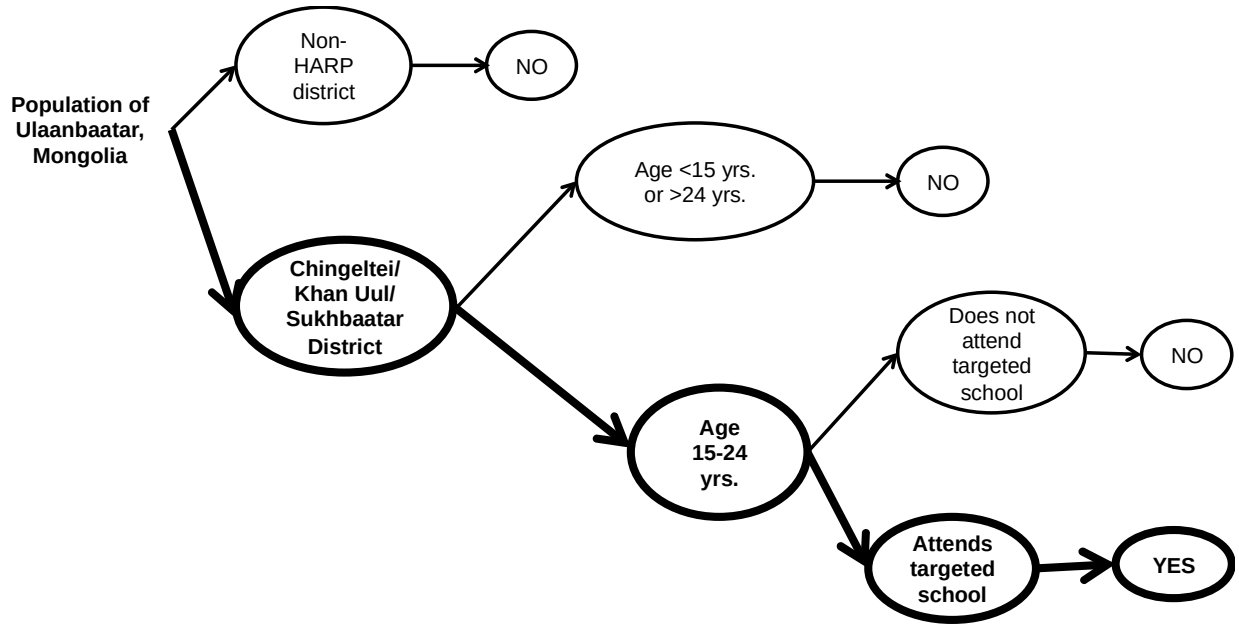
Table 2: Post-Intervention Survey Sampling

District	Number of Students Sampled		
	Secondary School	College/ University	TOTAL
Chingeltei	115	128	**243**
Khan Uul	123	126	**249**
Sukhbaatar	104	116	**220**
TOTAL	**342**	**370**	**712**

Inclusion/Exclusion Criteria

Out of the population of Ulaanbaatar, Mongolia, respondents were sampled from 100% of the districts targeted by the HARP program: Chingeltei, Khan Uul and Sukhbaatar. In each district, respondents were asked their age and excluded if not within the target age group of 15-24 years of age. Respondents were then asked the name of their school, and excluded if they were non-students or if their school was not targeted by the HARP education intervention. If an individual met all of the outlined inclusion criteria, the written questionnaire was given to the individual to complete. Figure 2 shows the sampling criteria utilized at the individual level for post-intervention survey administration.

Figure 2: Post-Intervention Survey Sampling Criteria



Measures and Data Sources

The source of data for the evaluation was a post-intervention survey conducted among youth in targeted secondary schools and universities in Ulaanbaatar, Mongolia (Appendices A-B). The post-intervention survey questionnaire was developed by the evaluation team and administered at project end. Questions were designed to mirror those used in a baseline survey that had been conducted prior to program implementation. The survey questionnaire tool was developed in English (Appendix A), and translated into Mongolian language by a professional translator (Appendix B). The questionnaire was back-translated to English by an independent translator. Original and back-translated English language questionnaires were discussed within the evaluation team and bilingual staff and edited to resolve differences. The survey questionnaire tool was tested by administering the questionnaire to approximately 10 youth aged 15-24, including Red Cross staff and volunteers, to confirm technical and conceptual accuracy. The questionnaire tool was then approved by MRCS and ARC for use in the evaluation.

To answer evaluation Question 1, "What is the difference in HIV/AIDS knowledge between those who were exposed to the HARP intervention and those who were not among youth aged 15-24 in targeted secondary schools and universities in Ulaanbaatar, Mongolia?" exposure to the intervention was characterized by the answer to the survey question, "Have you participated in HIV/AIDS related activities organized by Red Cross?" Participants who answered "Yes" to the question were categorized as exposed, while those answering "No" were categorized as non-exposed.

To assess HIV/AIDS knowledge, three survey questions were utilized. To examine knowledge of modes of transmission, the survey question used was "How are HIV/AIDS/STIs transmitted?" Correct transmission modes included "Unprotected sexual contact (without using a condom);" "Sharing used injection equipment;" "Mother-to-child transmission of HIV;" and "Using HIV infected blood and blood products." Common misconceptions listed in this question included "Kissing;" "Daily routine activities (sharing utensils, bathroom, toilet, utensils and bed linen);" and "Mosquito bites."

To assess knowledge of prevention methods, the question used was "In your opinion, what are the ways of preventing HIV/AIDS/STIs?" Correct answers included "Using a condom every time you have casual sex;" "Abstinence from casual sex;" and "Having one faithful and regular sex

partner who is not infected with HIV." Common misconceptions included in this question were "Washing or cleaning genital areas after sexual intercourse;" and "Ejaculation outside the vagina during sexual intercourse without using a condom." The final question used to assess HIV/AIDS knowledge was "Could a healthy-looking person be HIV-positive?" These data sources are summarized in Table 3.

TABLE 3: Post-Intervention Survey Questions

Question	Answer
How are HIV/AIDS/STIs transmitted?	Unprotected sexual contact (without using a condom)
	Sharing used injection equipment
	Mother-to-child transmission of HIV
	Using HIV infected blood and blood products
	Kissing [Misconception]
	Daily routine activities (sharing utensils, bathroom, toilet, utensils, bed linen) [Misconception]
	Mosquito bites [Misconception]
In your opinion, what are the ways of preventing HIV/AIDS/STIs?	Using a condom every time you have casual sex
	Abstinence from casual sex
	Having one faithful and regular sex partner who is not infected with HIV
	Washing or cleaning genital areas after sexual intercourse [Misconception]
	Ejaculation outside the vagina during sexual intercourse without using a condom [Misconception]
Could a healthy-looking person be HIV-positive?	

To answer evaluation Question 2, "To what extent is HARP the source of HIV/AIDS information among youth aged 15-24 in targeted schools and universities in Ulaanbaatar, Mongolia?" the survey question utilized was "Where do you obtain information on STI's/HIV/AIDS?" Respondents could indicate multiple answers, and possible sources included "Organization;" "Television;" "Radio;" "Newspapers, journals, magazines;" "Internet;" "Red Cross;" "Other organization;" "Hotline;" "Training;" "Promotional materials distributed;" "Health volunteers;" "Doctors and health workers;" and "Friends, relatives, others."

Data Collection

Following development and approval of the post-intervention survey questionnaire, a survey administration training was held at MRCS headquarters in Ulaanbaatar, Mongolia (see Appendix C for training agenda). The training was conducted by the student and HARP staff, and participants included staff and volunteers from the Red Cross branches of all targeted districts: Chingeltei, Khan Uul and Sukhbaatar districts of Ulaanbaatar city. Topics included sampling methods, inclusion/exclusion criteria, survey administration, and evaluation protocols. The post-intervention survey was administered by Red Cross Youth volunteers to secondary school and college/university students aged 15-25 from targeted schools in the three targeted city districts. Within each district, volunteers visited secondary schools, colleges, universities, independent dormitories and other locations allowing access to youth aged 15-25. Volunteers approached youth and first asked them to take part in a survey. Eligibility was assessed using inclusion/exclusion criteria. For eligible respondents, survey instructions were explained verbally as well as referencing the printed instructions on the questionnaire tool. The written survey questionnaire and a pen were then given to respondents, and returned to the volunteer when complete. Volunteers remained present to answer process questions. Any content questions were answered to the best of their knowledge by volunteers after collecting the completed survey. The survey was administered during the week of July 25-August 1, 2011. Technical support was provided by HARP staff, MLRCB staff, and the evaluation team.

Data Analysis

Data analysis was performed using SPSS statistical analysis software. For the survey questions analyzed to answer evaluation Question 1, “What is the difference in HIV/AIDS knowledge between those who were exposed to the HARP intervention and those who were not among youth aged 15-24 in targeted secondary schools and universities in Ulaanbaatar, Mongolia?” answers to each question were coded categorically as “correct” or “incorrect” and analyzed individually. Tests were run comparing exposed and non-exposed groups using Chi-square tests, and results were stratified by gender, district, and school type.

For evaluation Question 2, “To what extent is HARP the source of HIV/AIDS information among youth aged 15-24 in targeted schools and universities in Ulaanbaatar, Mongolia?” frequencies were computed of the responses to the question, “Where do you obtain information on STIs/HIV/AIDS?”

Chapter 3: Results

Basic Characteristics of Respondents

Basic characteristics of respondents are shown in Table 4. Mean age was 18.58 years. This was the same for exposed group, and 18.59 years for the non-exposed group. Gender was 49.3% male, 50.7% female among all post-intervention respondents. Among the exposed group, gender was 47.0% male and the non-exposed group was 49.9% male.

TABLE 4: Basic Characteristics of Respondents

	Total Respondents	Exposed Respondents	Non-Exposed Respondents
Age (mean, years)	18.58	18.58	18.59
Gender (% male)	49.3	47.0	49.9

Table 5 shows the distribution of respondents by district, and Table 6 shows distribution of respondents by school type. Each district contributed approximately one-third of respondents. Approximately half of the respondents were secondary school students and half were college/university students.

TABLE 5: Distribution of Respondents by District

District	Number of Respondents	% of Respondents
Chingeltei	243	34.1
Khan Uul	249	35.0
Sukhbaatar	220	30.9
Total	**712**	

TABLE 6: Distribution of Respondents by School Type

School type	Number of Respondents	% of Respondents
Secondary	342	48.0
College/University	326	52.0
Total	**712**	

Tables 7 and 8 show the distribution of exposure among all respondents and by district. Among all respondents, 21.2% were exposed to the intervention. Within each district, 17.7% of respondents in Chingeltei district were exposed, 25.3% in Khan Uul district, and 20.5% in Sukhbaatar.

TABLE 7: Exposure

Have you participated in HIV/AIDS activities organized by Red Cross?	Number of Respondents	% of Respondents
Yes	151	21.2
No	561	78.8
Total	**712**	

TABLE 8: Exposure by District

Have you participated in HIV/AIDS activities organized by Red Cross?	Number of Respondents	% of Respondents
Chingeltei		
Yes	43	17.7
No	200	82.3
Khan Uul		
Yes	63	25.3
No	186	74.7
Sukhbaatar		
Yes	45	20.5
No	175	79.5

Evaluation Question 1: HIV Knowledge: Modes of Transmission

In Table 9, the percent who answered correctly was significantly higher among those who acknowledged participation in the program than among those who denied exposure for identifying all important modes of HIV transmission: unprotected sexual contact, sharing used injection equipment, using HIV-infected blood and blood products ($p \leq .05$), and mother-to-child transmission of HIV ($p \leq .01$). The percentage who correctly identified kissing and mosquito bites as not risky was very high in both groups, showing non significant trends toward more frequent correct responses in the exposed group. Only for the question about daily routine activities posing a risk for HIV transmission did the exposed group significantly more often incorrectly identify these activities as risky.

Correct responses were more frequent in the exposed group for six of the seven questions, and statistically more frequent for all four truly risky behaviors. The exposed group was correct significantly less often than the unexposed group only for the question concerning routine activities; and only in one of the three districts, Sukhbaatar, did this difference remain

statistically significant. There were no significant differences in the percentages of respondents answering "I don't know" to the question, and males and females showed similar knowledge levels on modes of transmission. These results are shown in Table 9.

TABLE 9: Comparison of Scores: Modes of Transmission

Transmission Route	% Correct		
	Total	**Exposed**	**Non-Exposed**
Transmission Routes			
Unprotected sexual contact (without using a condom)	**80.6**	**86.9**	**79.0***
	M: 81.8	M: 89.7	M: 79.9
	F: 79.5	F: 84.4	F: 78.1
Sharing used injection equipment	**47.1**	**54.5**	**45.1***
	M: 48.1	M: 57.4	M: 45.8
	F: 46.1	F: 51.9	F: 44.4
Mother-to-child transmission of HIV	**32.3**	**44.1**	**29.2****
	M: 37.0++	M: 48.5	M: 34.1*+
	F: 27.8	F: 40.3	F: 24.4**
Using HIV-infected blood and blood products	**47.1**	**54.5**	**45.1***
	M: 49.6	M: 55.9	M: 48.0
	F: 44.7	F: 53.2	F: 42.3
Misconceptions			
Kissing	**92.9**	**95.7**	**92.1**
	M: 89.7++	M: 95.5	M: 88.2++
	F: 96.0	F: 95.8	F: 96.0
Daily routine activities (sharing utensils, bathroom, toilet, swimming pool and bed-linen)	**93.8**	**84.8**	**96.2****
	M: 93.8	M: 88.1	M: 95.3*
	F: 93.8	F: 81.7	F: 97.2**
Mosquito bites	**91.3**	**94.9**	**90.3**
	M: 87.9++	M: 92.5	M: 86.6++
	F: 94.7	F: 97.2	F: 94.0
Transmission Route	**Frequency (%)**		
	Total	**Exposed**	**Non-Exposed**
I don't know	**7.6**	**4.8**	**8.3**
	M: 5.9	M: 1.5	M: 7.0
	F: 9.3	F: 7.8	F: 9.7

* = Significant to .05 compared to exposed
** = Significant to .01 compared to exposed
+ = Significant to .05 compared to females

++ = Significant to .01 compared to females

When stratified by district, scores on the transmission question varied within each district. Most differences between the exposed and non-exposed groups were not statistically significant. Sukhbaatar district showed statistically significant differences between exposed and non-exposed groups on several questions, but the direction of significance was not consistent: the exposed group scored higher on identifying sharing used injection equipment ($p \leq .01$), mother-to-child transmission ($p \leq .01$), and infected blood and blood products ($p \leq .01$), but lower on rejecting daily routine activities as a transmission route ($p \leq .01$). Khan Uul respondents who were exposed to the program scored higher than the non-exposed group on identifying unprotected sexual contact ($p \leq .05$).

When comparing across districts, no clear trends emerged, and many of the scores showing statistically significant differences across districts showed higher significance in the non-exposed than the exposed group. The frequency of “I don’t know” answers was significantly lower in Khan Uul than the other two districts; however, this difference was only significant within the non-exposed group. Table 10 shows the comparison of scores by district for modes of transmission.

TABLE 10: Comparison of Scores by District: Modes of Transmission

Transmission Route	District	% Correct		
		Total	Exposed	Non-Exposed
Transmission Routes				
Unprotected sexual contact (without using a condom)	Chingeltei	79.3+	78.6+	79.5
	Khan Uul	86.9	95.0	84.2*^^
	Sukhbaatar	75.0++	83.7	72.8
Sharing used injection equipment	Chingeltei	53.2++	52.4+	53.3++
	Khan Uul	41.4	48.3	39.1
	Sukhbaatar	46.8	65.1	42.2**
Mother-to-child transmission of HIV	Chingeltei	28.7+^^	40.5^^	26.2^^
	Khan Uul	20.9^^	25.0^^	19.6^^
	Sukhbaatar	49.1	74.4	42.8**
Using HIV-infected blood and blood products	Chingeltei	46.0	40.5^^	47.2
	Khan Uul	42.6^	51.7^	39.7
	Sukhbaatar	53.2	72.1	48.6**
Misconceptions				
Kissing	Chingeltei	91.5	94.7	90.8
	Khan Uul	94.9	96.6	94.3
	Sukhbaatar	91.9	95.1	91.0
Daily routine activities (sharing utensils, bathroom, toilet, swimming pool, bed-linen)	Chingeltei	93.9+^	94.7^^	93.7++
	Khan Uul	98.3^^	96.6^^	98.9
	Sukhbaatar	88.3	58.5	96.2**
Mosquito bites	Chingeltei	91.5	94.7	90.8
	Khan Uul	92.8	93.2	92.6
	Sukhbaatar	89.3	97.6	87.2
Transmission Route	**District**	**Frequency (%)**		
		Total	**Exposed**	**Non-Exposed**
I don't know	Chingeltei	10.5++	9.5	10.8+
	Khan Uul	3.7^	1.7	4.3^
	Sukhbaatar	8.8	4.7	9.8

* = Significant to .05 compared to exposed

** = Significant to .01 compared to exposed

+ = Significant to .05 compared to Khan Uul district

++ = Significant to .01 compared to Khan Uul district

^ = Significant to .05 compared to Sukhbaatar district

^^ = Significant to .01 compared to Sukhbaatar district

Stratifying analysis of scores on modes of transmission by school type, secondary school students in the exposed group tended to score higher than the non-exposed group, with significantly higher scores on identifying unprotected sex ($p \leq .01$), sharing used injecting equipment ($p \leq .05$), and mother-to-child transmission ($p \leq .01$). However, exposed secondary students scored lower on rejecting daily routine activities than the non-exposed group ($p \leq .01$), and while scores were higher on rejecting mosquito bites as a mode of transmission, the difference was not statistically significant. The only other difference between exposed and non-exposed groups was among college students, among whom 55.1% of exposed identified sharing used injection equipment, compared to 38.4% of non-exposed ($p \leq .05$).

Across school type, there were significant differences between secondary schools and universities; however, these were almost exclusively among the non-exposed group. Table 11 outlines scores across school type.

TABLE 11: Comparison of Scores by School Type: Modes of Transmission

Transmission Route	School Type	% Correct		
		Total	Exposed	Non-Exposed
Transmission Routes				
Unprotected sexual contact (without using a condom)	Secondary	75.9^^	88.4	72.6**^^
	College	79.1	100.0	71.0*^
	University	85.7	82.8	86.4
Sharing used injection equipment	Secondary	41.9^^	55.1	38.4*^^
	College	39.5	33.3	41.9
	University	53.4	57.8	52.3
Mother-to-child transmission of HIV	Secondary	24.7^^	44.9	19.4**^^
	College	25.6	41.7	19.4^
	University	41.0	43.8	40.3
Using HIV-infected blood and blood products	Secondary	43.7+^	52.2	41.4^
	College	25.6^^	25.0^	25.8^^
	University	53.4	62.5	51.2
Misconceptions				
Kissing	Secondary	90.2^	95.5	88.7^^
	College	95.0	100.0	93.1
	University	95.3	95.0	95.4
Daily routine activities (sharing utensils, bathroom, toilet, swimming pool, bed-linen)	Secondary	93.1	76.1^	97.9**
	College	95.0	100.0	93.1
	University	94.3	91.7	95.0
Mosquito bites	Secondary	93.5^	97.0	92.5
	College	92.5	90.9	93.1
	University	88.9	93.3	87.8

Transmission Route	School Type	Frequency (%)		
		Total	Exposed	Non-Exposed
I don't know	Secondary	7.8	2.9	9.1
	College	7.0	8.3	6.5
	University	7.5	6.2	7.8

* = Significant to .05 compared to exposed
** = Significant to .01 compared to exposed
+ = Significant to .05 compared to colleges
++ = Significant to .01 compared to colleges
^ = Significant to .05 compared to universities
^^ = Significant to .01 compared to universities

Evaluation Question 1: HIV Knowledge: Prevention Methods

Responses to the prevention methods question continued the same trend of the exposed group identifying correct methods but failing to reject misconceptions. Those respondents reporting exposure to the intervention answered correctly more often than the non-exposed group on identifying all three correct prevention methods: using a condom, abstinence from casual sex, and having one faithful and regular sex partner who is not infected with HIV; however, the difference was statistically significant only for abstinence from casual sex ($p \leq .01$).

The exposed group was significantly less able than the non-exposed group to reject both of the major misconceptions: washing or cleaning genital areas after sexual intercourse ($p \leq .05$) and ejaculation outside the vagina during sex without a condom ($p \leq .01$), but the non-exposed group answered “I don’t know” to the question more than twice as often ($p \leq .05$). Males and females had the same level of knowledge of prevention methods. Table 12 shows the results of this question.

TABLE 12: Comparison of Scores: Prevention Methods

Prevention Method	% Correct		
	Total	**Exposed**	**Non-Exposed**
Prevention Methods			
Using a condom every time you have casual sex	**72.2**	**78.0**	**70.6**
	M: 74.6	M: 75.4	M: 74.4
	F: 69.9	F: 80.3	F: 66.9*
Abstinence from casual sex	**42.7**	**52.5**	**40.1****
	M: 42.2	M: 55.4	M: 38.9*
	F: 43.2	F: 50.0	F: 41.3
Having one faithful and regular sex partner who is not infected with HIV	**37.6**	**43.3**	**36.2**
	M: 36.4	M: 46.2	M: 34.0
	F: 38.8	F: 40.8	F: 38.3
Misconceptions			
Washing or cleaning genital areas after sexual intercourse	**81.1**	**75.0**	**82.9***
	M: 80.6	M: 74.2	M: 82.3
	F: 81.7	F: 75.7	F: 83.5
Ejaculation outside the vagina during sexual intercourse without using a condom	**92.1**	**86.4**	**93.7****
	M: 91.2	M: 90.3	M: 91.4
	F: 93.0	F: 82.9	F: 96.1**
Prevention Method	**Frequency (%)**		
	Total	**Exposed**	**Non-Exposed**
I don't know	**11.6**	**6.4**	**13.0***
	M: 10.1	M: 4.6	M: 11.5
	F: 13.0	F: 7.9	F: 14.5

* = Significant to .05

** = Significant to .01

In analysis of prevention methods by district, while Sukhbaatar district's scores were most often significantly different between exposed and non-exposed, variation in the direction of significance belies a consistent treatment effect. Across districts, Khan Uul respondents answered correctly significantly more often than Chingeltei district respondents on washing genitals and ejaculation outside the vagina ($p \leq .01$). They answered correctly significantly less often than Chingeltei on having one faithful and regular partner ($p \leq .01$); however, the difference was significant only among the non-exposed group.

Among the exposed groups, respondents in Sukhbaatar district who reported exposure to the program answered correctly significantly more often than those in Chingeltei district on washing or cleaning genital areas ($p \leq .01$) and ejaculation outside the vagina during sexual intercourse without a condom ($p \leq .05$). They answered correctly significantly more often than Khan Uul's exposed group on having one faithful and regular non-infected partner ($p \leq .01$), and more often than both Chingeltei and Khan Uul districts on abstinence from casual sex ($p \leq .01$ and $p \leq .05$, respectively). Table 13 outlines scores on prevention methods by district.

TABLE 13: Comparison of Scores by District: Prevention Methods

Prevention Method	District	% Correct		
		Total	Exposed	Non-Exposed
Prevention Methods				
Using a condom every time you have casual sex	Chingeltei	74.0	77.5	73.3
	Khan Uul	73.7	81.7	71.0
	Sukhbaatar	68.3	73.2	67.1
Abstinence from casual sex	Chingeltei	42.3	40.0^^	42.8
	Khan Uul	39.1	48.3^	36.1
	Sukhbaatar	47.5	70.7	41.6**
Having one faithful and regular sex partner who is not infected with HIV	Chingeltei	44.1++	45.0	43.9++
	Khan Uul	30.0^	30.0^^	30.1
	Sukhbaatar	39.6	61.0	34.2**
Misconceptions				
Washing or cleaning genital areas after sexual intercourse	Chingeltei	71.4++	44.4++^^	77.5**++
	Khan Uul	91.6^^	89.8	92.2^^
	Sukhbaatar	78.6	81.1	77.9
Ejaculation outside the vagina during sexual intercourse without using a condom	Chingeltei	86.7++	66.7++^	91.2**
	Khan Uul	96.4	96.6	96.4
	Sukhbaatar	92.5	89.2	93.4
Prevention Method	**District**	**Frequency (%)**		
		Total	**Exposed**	**Non-Exposed**
I don't know	Chingeltei	13.7+	10.0	14.4
	Khan Uul	7.4^	1.7	9.3*
	Sukhbaatar	14.4	9.8	15.5

* = Significant to .05 compared to exposed
** = Significant to .01 compared to exposed
+ = Significant to .05 compared to Khan Uul district
++ = Significant to .01 compared to Khan Uul district
^ = Significant to .05 compared to Sukhbaatar district
^^ = Significant to .01 compared to Sukhbaatar district

When examining scores on prevention methods by school type, there were only two statistically significant differences between exposed and non-exposed, and the direction of significance was inconsistent. Among college students, 100% of the exposed group identified condoms as a prevention method, compared to 63.3% of the non-exposed group ($p \leq .05$). Among university

students, the exposed group rejected ejaculation outside the vagina significantly less often than the non-exposed (85.2% v. 94.6%, p≤.05). Across school types, all but one of the significant differences in scores were in the non-exposed group, showing no consistent treatment effect. Results of prevention methods by school type are presented in Table 14.

TABLE 14: Comparison of Scores by School Type: Prevention Methods

Prevention Method	School Type	% Correct		
		Total	Exposed	Non-Exposed
Prevention Methods				
Using a condom every time you have casual sex	Secondary	66.1^^	69.7+	65.2^^
	College	73.8	100.0	63.3*
	University	78.2	82.5	77.1
Abstinence from casual sex	Secondary	37.9^^	51.5	34.4^^
	College	38.1	41.7	36.7
	University	48.4	55.6	46.5
Having one faithful and regular sex partner who is not infected with HIV	Secondary	37.3++	39.4	36.7++
	College	16.7^^	33.3	10.0^^
	University	40.9	49.2	38.8
Misconceptions				
Washing or cleaning genital areas after sexual intercourse	Secondary	83.6	79.7	84.7
	College	81.6	75.0	84.6
	University	78.7	70.5	81.0
Ejaculation outside the vagina during sexual intercourse without using a condom	Secondary	92.3	88.1	93.5
	College	86.8	83.3	88.5
	University	92.6	85.2	94.6*
Prevention Method	**School Type**	**Frequency (%)**		
		Total	**Exposed**	**Non-Exposed**
I don't know	Secondary	14.9^	10.6	16.0^
	College	9.5	0.0	13.3
	University	8.4	3.2	9.8

* = Significant to .05 compared to exposed
** = Significant to .01 compared to exposed
+ = Significant to .05 compared to colleges
++ = Significant to .01 compared to colleges
^ = Significant to .05 compared to universities
^^ = Significant to .01 compared to universities

Evaluation Question 1: Knowledge: "Could a healthy-looking person be HIV-positive?"

Overall, there was no significant difference between exposed and non-exposed groups' scores on the question "Could a healthy-looking person be HIV-positive." When analyzed by district, Khan Uul's exposed group answered correctly significantly more often than non-exposed group (51.7% v. 30.3%, p≤.01), but Sukhbaatar's exposed group answered correctly significantly less often than the exposed group (30.0% v. 54.7%, p≤.01). Comparing districts' scores, Sukhbaatar scored higher than Khan Uul overall, but the significance was not borne out when stratified by exposure. In analyzing scores by school type, university students scored higher than secondary students, but only among the non-exposed group. Tables 15-17 summarize these results.

TABLE 15: Comparison of Scores: "Could a healthy-looking person be HIV-positive?"

Question	% Correct		
	Total	**Intervention**	**Non-Intervention**
Could a healthy-looking person be HIV-positive?	**43.1**	**42.6**	**43.2**
	M: 41.8	M: 42.6	M: 41.6
	F: 44.2	F: 42.5	F: 44.7

* = Significant to .05
** = Significant to .01

TABLE 16: Comparison of Scores by District: "Could a healthy-looking person be HIV-positive?"

Question	District	% Correct		
		Total	**Exposed**	**Non-Exposed**
Could a healthy-looking person be HIV-positive?	Chingeltei	42.9	41.5	43.1
	Khan Uul	36.3^	51.7	30.3**
	Sukhbaatar	50.0	30.0	54.7**

* = Significant to .05 compared to exposed
** = Significant to .01 compared to exposed
+ = Significant to .05 compared to Khan Uul district
++ = Significant to .01 compared to Khan Uul district
^ = Significant to .05 compared to Sukhbaatar district
^^ = Significant to .01 compared to Sukhbaatar district

TABLE 17: Comparison of Scores by School Type: "Could a healthy-looking person be HIV-positive?"

Question	School Type	% Correct		
		Total	Exposed	Non-Exposed
Could a healthy-looking person be HIV-positive?	Secondary	35.8^^	34.3	36.2^^
	College	42.9	33.3	47.8
	University	50.2	53.2	49.4

* = Significant to .05 compared to exposed
** = Significant to .01 compared to exposed
+ = Significant to .05 compared to colleges
++ = Significant to .01 compared to colleges
^ = Significant to .05 compared to universities
^^ = Significant to .01 compared to universities

Summary: Evaluation Question 1: HIV Knowledge

Table 18 summarizes differences in scores on the knowledge questions of the post-intervention survey between those respondents who acknowledge experiences in the program and those who denied exposure. The exposed group answered correctly more often than the non-exposed group on nine out of thirteen knowledge questions, and five of these differences were statistically significant. The exposed group answered correctly less often than the non-exposed on four questions, three of which were statistically significant.

The exposed group answered correctly significantly more often than the non-exposed group on identifying all transmission routes: unprotected sexual contact, sharing used injection equipment, mother-to-child transmission, and using HIV-infected blood and blood products. The exposed group was also more often able to identify all prevention methods than the non-exposed, although the difference was significant only for abstinence from casual sex.

On rejecting misconceptions, the exposed group answered correctly significantly less often than the non-exposed on three misconception questions: daily routine activities, washing genitals, and ejaculation outside the vagina during unprotected sex. They also answered correctly less often to the question "Could a healthy-looking person be HIV-positive?" but this difference was not statistically significant. The exposed group answered correctly more often than the non-exposed on kissing and mosquito bites; however, these differences were not statistically significant.

TABLE 18: Overview of Findings: Evaluation Question 1

Category	Direction and Significance (Exposed v. Non-Exposed)
Transmission Routes	
Unprotected sex	(+)*
Used injection equipment	(+)*
Mother-to-child	(+)**
Infected blood/blood products	(+)*
Prevention Methods	
Condoms	(+)
Abstinence from casual sex	(+)**
One faithful HIV-negative partner	(+)
Misconceptions – Transmission Routes	
Kissing	(+)
Daily routine activities	(-)**
Mosquito bites	(+)
Misconceptions – Prevention Methods	
Washing/cleaning genitals	(-)*
Ejaculation outside vagina during sex without a condom	(-)**
Could a healthy-looking person be HIV+?	(-)

* = Significant to .05

** = Significant to .01

Evaluation Question 2: To what extent is HARP the source of HIV/AIDS information?

Table 19 summarizes the outcomes of the question, "Where do you obtain information on STIs/HIV/AIDS?" Only 16.2% of respondents directly indicated Red Cross as a source of information. However, several other line items list possible HARP activities, and respondents may or may not be aware of HARP as the source. These include television; radio; newspapers, journals, magazines; training; promotional materials; and health volunteers. Therefore, a minimum of 16.2% and up to 90.6% of respondents received HIVAIDS information through HARP activities.

TABLE 19: Evaluation Question 2: Sources of STI/HIV/AIDS Information

Source	Count	Percentage
Television*	513	72.3
Radio*	109	15.4
Newspapers, journals, magazines*	312	43.9
Internet	269	37.9
Red Cross	**115**	**16.2**
Other organization	11	1.5
Hotline	28	3.9
Training*	108	15.2
Promotional materials distributed*	156	22.0
Health volunteers*	63	8.9
Doctors and health workers	105	14.8
Friends, relatives and others	159	22.4
Do not obtain information	18	2.5
Other	4	0.6

* = Possible HARP activity

Chapter 4: Discussion of Results

In answer to evaluation Question 1, “What is the difference in HIV/AIDS knowledge between those who were exposed to the HARP intervention and those who were not among youth aged 15-24 in targeted secondary schools and universities in Ulaanbaatar, Mongolia?” 21.2% of respondents self-report having participated in Red Cross HIV/AIDS activities; a rate which remained roughly similar across the three targeted districts, as expected according to program design. The results of three knowledge questions showed a strong positive program effect on identifying all four important modes of transmission of HIV, a week positive program effect on identifying ways of preventing HIV, and a weak negative program effect on rejecting common misconceptions about HIV. The exposed group tended to answer correctly significantly more often than the non-exposed group on identifying important modes of transmission and prevention methods; however, the trend was the opposite when it came to identifying common misconceptions. It appears that the program increased knowledge among the exposed group in identifying modes of transmission and to some extent, prevention methods; but had a negative program effect when it came to rejecting misconceptions. The reversed direction of significance on positive questions versus negative questions is puzzling; perhaps the exposed group recognized phrases from education interventions such as “Daily routine activities,” “Washing or cleaning genitals,” or “Ejaculation outside the vagina” and circled these incorrect answers due to this recognition. These differences are unexplained by the existing data and may bear further inquiry.

Evaluation Question 2 was “To what extent is HARP the source of HIV/AIDS information among youth aged 15-24 in targeted schools and universities in Ulaanbaatar, Mongolia?” Sixteen percent of respondents directly credited Red Cross as a source of their knowledge about HIV/AIDS, and approximately 90% of respondents indicated sources of information for which Red Cross may partially or fully responsible.

There are several limitations to the post-intervention survey project due to donor requirements, accessibility of evaluation target groups, sampling methods and exposure categorization that may have an effect on these results. Due to the timing of project end 30 June, donor requirements for immediate evaluation of project outcomes necessitated that data collection take place during the summer months. In the Mongolian context, however, most students (both

secondary and college/university) leave the communities in which they attend school during this period of time. There may be differences between students who remain in the capital city during the summer and those who do not, which may have unknown effects on the representativeness of the sample. Additionally, their absence from the city makes students a hard to reach population during that time of year. Accessibility of the target group therefore presented a challenge to sampling of youth in project sites. Random sampling methods were not possible, and sampling was therefore accomplished through non-random, venue-based quota sampling. This sampling method may also have affected the representativeness of the sample of the post-intervention survey. Additionally, categorization of exposure may be a source of error in analysis of program effects. Exposure was categorized based on self-report answer of "Yes" or "No" to the question, "Have you participated in HIV/AIDS activities organized by Red Cross?" Responses to this question may have been subject to recall error due to the long program period (three years), as well as to miscategorization due to lack of awareness that particular activities are organized in part or in full by Red Cross.

An unexpected result yielded by the evaluation project revealed methodological challenges affecting evaluation design. A baseline knowledge, attitudes and practices survey had been conducted in 2008, prior to program implementation. This survey was conducted by a professional survey company hired for the project and was administered nationwide, rather than limited to the capital city as was the post-intervention survey. The initial design of this program evaluation project was to be a pre-test post-test non-equivalent comparison group design, comparing results of the baseline survey to results of the post-intervention survey; however, due to lack of documentation of sampling methods at baseline, analysis comparing the two surveys was not possible. This necessitated a change in study design to the post test-only non-equivalent comparison group design outlined in this paper. It is unclear whether this documentation of methods and sampling was not undertaken, if documentation was made but was not kept for the three years until project end, or if documentation was kept but was unavailable to the evaluation team at project end. This may be due to lack of communication or time lapse of several years between the baseline and post-intervention survey; in any case, this lack of clarity highlights a methodological problem which may be an unintended effect of external evaluation teams conducting monitoring and evaluation activities in developing countries.

Chapter 5: Conclusions and Recommendations

The impact of the Mongolian Red Cross Society's HIV/AIDS response program on HIV/AIDS knowledge among students in targeted secondary schools and universities in Ulaanbaatar, Mongolia ranged from strong positive program effects in some areas to weak negative program effects in other areas. Overall, the program appears to have had a positive effect on knowledge in the exposed group in terms of identifying correct modes of transmission and to some extent ways of prevention; however, the opposite direction of significance of results in rejecting misconceptions is puzzling.

Recommendations from this evaluation fall into two major areas: programmatic and methodological. Programmatically, it appears that the activities undertaken increased HIV/AIDS knowledge among the youth target group in terms of modes of transmission of HIV, and to some extent, of ways to prevent HIV; however, due to the incongruity of the exposed group appearing unable to reject common misconceptions about HIV/AIDS despite higher knowledge in other areas, it is recommended to undertake further assessment of level of knowledge of misconceptions in order to inform future programming decisions. Methodologically, it is recommended to increase focus on monitoring and evaluation systems and processes as the program moves forward.

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Appendix A: Post-Intervention Survey Questionnaire (English)

Survey to define STI/HIV/AIDS knowledge, attitudes and practices among youth

Mongolian Red Cross Society is conducting this survey for the purpose of defining the knowledge, attitudes and practices pertaining to STIs/HIV/AIDS among ***youth.*** *All information will be kept strictly confidential within the frame of the Law on Personal Secrecy (Privacy Law) and the Civil Code of Mongolia.*

After carefully reading the questions below, please either circle the number/s placed before the questions or write your answer in the spaces provided. ***Please do not write down your name or address since this questionnaire form shall be used for survey purposes only.*** *Good luck!*

Survey date: 2011
Name of the surveyor: .....
District where the survey is conducted.....
High School/University Name:.....

ONE. BACKGROUND INFORMATION

1. **Your age.....**
2. **Your gender** 1. Male 2. Female
3. **Are you a student at:**
   a) High school
   b) Vocational college (technical/vocational training school)
   c) University

4. **Have you participated in HIV/AIDS related activities organized by Red Cross?**
   1.Yes 2. No

5. **If yes, what year?** (Circle all that apply)
   a) 2008
   b) 2009
   c) 2010
   d) 2011
   e) Other (please specify) .....

6. **Where do you obtain information on STIs/HIV/AIDS?** (Circle all that apply)
   a) Television
   b) Radio
   c) Newspapers, journals, magazines
   d) Internet
   e) Red Cross
   f) Other organization (please specify).....
   g) Hotline
   h) Training
   i) Promotional materials distributed
   j) Health volunteers
   k) Doctors and health workers
   l) Friends, relatives and others
   m) Do not obtain information
   n) Other (please specify).....

7. **Whom do you want to obtain information on STIs/HIV/AIDS from?**
   a) Friends
   b) Boyfriend/girlfriend, spouse
   c) Professional doctors
   d) Volunteers, health assistance workers
   e) Peer advisors
   f) Local administrative staff
   g) NGO volunteers
   h) Other (please specify) .....

TWO. STI/HIV/AIDS KNOWLEDGE, ATTITUDES AND PRACTICES

8. **Please identify the STIs among the diseases written below.** (Circle all that apply)
   a) Syphilis
   b) Chlamydia
   c) HIV/AIDS
   d) Tuberculosis
   e) Gonorrhea
   f) Trichomoniasis
   g) Genital wart
   h) Hemorrhoids
   i) Hepatitis
   j) Kidney inflammation
   k) I don't know how to answer this question
   l) Others .....

9. **How are HIV and STIs transmitted?** (Circle all that apply)
   a) Kissing
   b) Unprotected sexual contact (without using a condom)
   c) Sharing used injection equipment
   d) Mother-to-child transmission of HIV
   e) Using HIV infected blood and blood products
   f) Daily routine activities (sharing utensils, bathroom, toilet, swimming pool and bed-linen)
   g) Mosquito bites
   h) I don't know how to answer this question.

10. What symptoms can occur in case of STIs? (Circle all that apply)

a) Blisters and sores in or around the genital area
b) Warts and herpes in or around the genital area
c) Pain during sexual intercourse
d) Itching, rash, bumps, or discomfort in the genital area
e) Body rashes
f) Headache
g) Pus like discharge from the vagina/penis
h) Pyuria/urine thickness
i) Pain when urinating
j) Dehydration
k) Fever
l) Genital odor
m) Could be asymptomatic
n) Other (please specify) .....
o) I don't know how to answer this question.

11. What should a person do if he/she has any of the above symptoms?

a) Tell my closest friend
b) Would not do anything or take any measure
c) Curing on my own/self-treatment
d) Taking strong antibiotics by buying them from drugstore without doctor's prescription
e) Approaching a traditional medicine doctor and undergoing traditional treatment
f) Approaching a professional doctor and undergoing treatment as recommended by the doctor
g) I don't know how to answer this question

12. Please mark your comment on the following issues? *(please mark with a tick (√))*

No		**Yes**	**No**	**Don't know**
1.	Would it decrease risk of spreading HIV if someone has one faithful and regular sex partner who is not infected with HIV?			
2.	Would it decrease risk of spreading HIV if someone uses a condom during sexual intercourse?			
3.	Could a healthy-looking person be HIV-positive?			
4.	Can someone get HIV from a mosquito bite?			
5.	Can someone get HIV by sharing food with a HIV infected person or by doing other daily routine activities with the HIV infected person?			

13. **In your opinion, what are the ways of preventing HIV/AIDS/STIs?** (Circle all that apply)
    a) Using a condom every time you have casual sex
    b) Washing or cleaning genital areas after sexual intercourse
    c) Abstinence from casual sex
    d) Having one faithful and regular sex partner who is not infected with HIV
    e) Ejaculation outside vagina during sexual intercourse without using a condom
    f) I don't know how to answer this question.
    g) Other (please specify) .....

14. **In your opinion, would it be difficult or normal to do the following activities?**
    (Please rate how difficult or normal each activity would be by circling the number under your answer)

A. Study in the same room with a student who is HIV positive

Extremely Difficult	Very Difficult	Somewhat Difficult	Mostly Normal	Completely Normal
1	2	3	4	5

B. Share a toilet with a student who is HIV positive

Extremely Difficult	Very Difficult	Somewhat Difficult	Mostly Normal	Completely Normal
1	2	3	4	5

C. Eat together with a student who is HIV positive

Extremely Difficult	Very Difficult	Somewhat Difficult	Mostly Normal	Completely Normal
1	2	3	4	5

15. **In your opinion, is it normal or not normal for a person to be gay?**
    (Please rate how normal or not normal by circling the number under your answer)

Extremely Abnormal	Very Abnormal	Somewhat Abnormal	Mostly Normal	Completely Normal
1	2	3	4	5

Thank you very much for your time and participation in our survey!

Appendix B: Post-Intervention Survey Questionnaire (Mongolian)

Залуучуудын БЗДХ/ХДХВ/ДОХ-ын талаарх мэдлэг, хандлага, дадлыг тодорхойлох судалгаа

*Энэхүү судалгааг **залуучуудын** БЗДХ/ХДХВ/ДОХ-ын талаарх мэдлэг, хандлага, дадлын түвшинг тодорхойлох зорилгоор Монголын Улаан Загалмайн нийгэмлэгээс явуулж байна. Судалгааны багийн гишүүд Монгол Улсын Хувийн нууцын тухай хууль, Иргэний хуулийн хүрээнд Таны өгсөн мэдээллийн нууцлалыг чандлан хадгалах болно. **ТА** доорх асуултуудыг сайтар уншиж танилцаад, хариултын өмнөх тоог дугуйлах буюу өгөгдсөн зайнд хариултаа бичээрэй. **Анкет нь зөвхөн судалгааны зориулалтаар ашиглагдах тул та нэр хаягаа бичих шаардлагагүй. Танд баярлалаа!***

Судалгаа авсан огноо: 2011 оны..... - р сарын ..... өдөр
Судалгаа авсан дүүрэг .....
Судлаачийн нэр: .....
Дунд/Их дээд сургуулийн нэр .....

НЭГ. СУУРЬ МЭДЭЭЛЭЛ

1. **Таны нас .....**
2. **Таны хүйс** 1. Эрэгтэй 2. Эмэгтэй
3. **Та хаана сурдаг вэ?**
    1. Дунд сургууль
    2. Тусгай дунд (техник мэргэжлийн сургууль)
    3. Их дээд сургууль

4. **Та Монголын Улаан Загалмайн Нийгэмлэгээс зохион байгуулсан ХДХВ/ДОХ-ын талаарх үйл ажиллагаанд оролцож байсан уу?**
    1. Тийм 2. Үгүй

5. **Хэрэв тийм бол, хэдэн онд оролцсон бэ?** (нэгээс илүү хариулт байж болно)
    1. 2008
    2. 2009
    3. 2010
    4. 2011
    5. Бусад (тодруулж бичнэ үү) .....

6. **ХДХВ/ДОХ/БЗДХ-ын талаарх мэдээллийг ямар эх сурвалжаас авдаг вэ?** (нэгээс илүү хариулт байж болно)
   1. Байгууллагаас (байгууллагын нэрийг бичнэ үү) .....
   2. Телевиз
   3. Радио
   4. Сонин, сэтгүүлээс
   5. Интернэт
   6. МУЗН-ийн үйл ажиллагаанаас
   7. Зөвлөгөө өгөх утас
   8. Сургалтаас
   9. Тараагдсан сурталчилгааны материалаас
   10. Эрүүл мэндийн сайн дурын ажилтанаас
   11. Эмч, эмнэлэгийн ажилтанаас
   12. Найз нөхөд, хамаатан садан болон бусад
   13. Мэдээлэл авдаггүй
   14. Бусад (тодруулж бичнэ үү): .....

7. **БЗДХ/ХДХВ/ДОХ-ын талаарх мэдээллийг та хэнээс авахыг хүсч байна уу?**
   1. Найз нөхдөөсөө
   2. Найз залуу/охин, эхнэр нөхрөөсөө
   3. Мэргэжлийн эмч нараас
   4. Сайн дурын идэвхтэн, ЭМ-ийн туслах ажилтнуудаас
   5. Үе тэнгийн зөвлөгч нараас
   6. Орон нутгийн удирдах хүмүүсээс
   7. ТББ-ын идэвхтэнүүдээс
   8. Бусад (тодруулж бичнэ үү): .....

ХОЁР. БЗДХ/ХДХВ/ДОХ-ЫН ТАЛААРХ МЭДЛЭГ ХАНДЛАГА ДАДАЛ

8. **Та дараах өвчнүүдээс БЗДХ-ыг нэрлэнэ үү?** (нэгээс илүү хариулт байж болно)
   1. Тэмбүү
   2. Хламид
   3. ХДХВ/ДОХ
   4. Сүрьеэ
   5. Заг хүйтэн
   6. Трихомониаз
   7. Бэлгийн үү
   8. Шамбарам
   9. Халдварт шар
   10. Бөөрний үрэвсэл
   11. Хариулж мэдэхгүй байна
   12. Бусад: .....

9. **Таны бодлоор БЗДХ/ХДХВ нь хүнд хэрхэн дамжин халдварладаг вэ?** (нэгээс илүү хариулт байж болно)
   1. Үнсэлцэхэд
   2. Хамгаалалтгүй бэлгийн хавьтлаар (бэлгэвч хэрэглэхгүй байх)
   3. Хэрэглэсэн зүү тариурыг дамжуулан хэрэглэхэд
   4. Халдвартай эхээс хүүхдэд
   5. Халдвартай цус болон цусан бүтээгдэхүүн сэлбүүлэхэд
   6. Ахуйн замаар (аяга таваг, сав суулга, ариун цэврийн өрөө болон жорлон, бассейн, цагаан хэрэглэл гэх мэтийг хамт хэрэглэхэд)
   7. Шумууланд хазуулахад
   8. Мэдэхгүй байна

10. БЗДХ-аар өвчилсөн тохиолдолд ямар шинж тэмдэг илрэх вэ? (нэгээс илүү хариулт байж болно)

1. Бэлэг эрхтний орчим яр шарх цэврүү гарах
2. Бэлэг эрхтний орчим үү ургацаг гарах
3. Бэлгийн хавьтлын үед өвдөх
4. Бэлэг эрхтэн орчмоор загтнах, хавдах, улайх,
5. Бие дээгүүр тууралт гарах
6. Толгой өвдөх
7. Шээсний сүв үтрээнээс идээрхэг ялгадас гарах
8. Шээс өтгөрнө
9. Шээхэд хөндүүрлэн өвдөнө
10. Шингэн алдах
11. Халуурах
12. Эвгүй үнэр үнэртэх
13. Шинж тэмдэг илрэхгүй байж болно
14. Бусад (тодруулна уу): .....
15. Мэдэхгүй байна

11. Дээрх шинж тэмдэг илэрсэн тохиолдолд та ямар арга хэмжээ авах вэ?

1. Дотно найздаа хэлнэ
2. Ямар ч арга хэмжээ авахгүй, зүгээр орхино
3. Өөрөө өөрийгөө эмчилнэ
4. Хүчтэй антибиотикыг эмийн сангаас худалдан авч хэрэглэнэ
5. Уламжлалт эмчилгээ/ардын эмчид хандаж ардын эмчилгээ хийлгэнэ
6. Мэргэжлийн эмчид хандаж түүний зааврын дагуу эмчилгээ хийлгэнэ
7. Мэдэхгүй байна

12. Та доорх зүйлүүдийн талаар саналаа тэмдэглэнэ үү? *(√тэмдгээр тэмдэглэнэ үү)*

		Тийм	**Үгүй**	**Мэдэхгүй**
1.	ХДХВ-ийн халдваргүй, үнэнч нэг хавьтагчтай байх нь ХДХВ-ийн халдвар тархах эрсдэлийг бууруулах уу?			
2.	Бэлгэвч хэрэглэх нь ХДХВ-ийн халдвар тархах эрсдлийг бууруулах уу?			
3.	Гаднаас нь харахад эрүүл хүн ХДХВ-ийн халдвартай байж болох уу?			
4.	Шумууланд хазуулаад ХДХВ-ийн халдвар авах боломжтой юу?			
5.	ХДХВ-ийн халдвар ахуйн замаар (аяга таваг, сав суулга, ариун цэврийн өрөө болон жорлон, бассейн, цагаан хэрэглэл гэх мэтийг хамтран хэрэглэснээр) тархах боломжтой юу?			

13. **Таны бодлоор БЗДХ/ХДХВ/ДОХ-оос урьдчилан сэргийлэх ямар аргууд байдаг вэ?** (нэгээс илүү хариулт байж болно)
    1. Тохиолдлын бэлгийн хавьталд орох бүртээ тогтмол бэлгэвч хэрэглэх
    2. Бэлгийн хавьтлын дараа бэлэг эрхтнээ угааж, дотуур цэвэрлэгээ хийх
    3. Тохиолдлын бэлгийн хавьтлыг тэвчих
    4. ХДХВ-ын халдваргүй, үнэнч, байнгын нэг бэлгийн хавьтагчтай байх
    5. Бэлгэвчгүй бэлгийн хавьталд орох үедээ дур ханалтыг үтрээний гадна тавих
    6. Мэдэхгүй байна
    7. Бусад (тодруулна уу): .....

14. **Таны бодлоор дараах зүйлийг хийхэд таньд хэцүү эсвэл хэвийн байх уу?** (Өөрийн хариултын доорх тоог дугуйлан тухайн үйлдлийг хийхэд таньд хэр их хэцүү буюу хэвийн байхыг тэмдэглэнэ үү)

D. ХДХВ-ын халдвартай оюутан/сурагчтай нэг өрөөнд хичээл давтах

Маш их хэцүү	Хэцүү	Бага зэрэг хэцүү	Ихэвчлэн хэвийн	Зүв зүгээр, хэвийн
1	2	3	4	5

Б. ХДХВ-ын халдвартай оюутан/сурагчтай нэг ариун цэврийн хамтран хэрэглэх

Маш их хэцүү	Хэцүү	Бага зэрэг хэцүү	Ихэвчлэн хэвий	Зүв зүгээр, хэвийн
1	2	3	4	5

В. ХДХВ-ын халдвартай оюутан/сурагчтай хамт хоол идэх

Маш их хэцүү	Хэцүү	Бага зэрэг хэцүү	Ихэвчлэн хэвийн	Зүв зүгээр, хэвийн
1	2	3	4	5

15. **Таны бодлоор гей/ижил хүйстэн байх нь хэвийн эсвэл хэвийн бус үзэгдэл үү?** (Өөрийн хариултын доорх тоог дугуйлан хэр их хэвийн болон хэвийн бус үзэгдэл болохыг тэмдэглэнэ үү)

Дээд зэргийн гаж үзэгдэл	Гаж үзэгдэл	Бага зэрэг гаж	Ихэвчлэн хэвийн	Зүв зүгээр, хэвийн үзэгдэл
1	2	3	4	5

Цаг заваа гарган манай судалгаанд оролцсонд маш их баярлалаа!

Appendix C: Post-Intervention Survey Questionnaire (English, from Mongolian)

Knowledge, Attitude and Practice Study
on STI/HIV/AIDS among youth

*Mongolian Red Cross Society is conducting this study with the aim to determine the level of knowledge, attitude and practice on STI/HIV/AIDS among **youth**. The study team will ensure the full confidentiality of your information according to the Law on Keeping Private Secrets and Law on Citizens. Please carefully read the questions below and circle the number in front or write your answer in the given space. **The questionnaire will be used for the study purpose only; therefore you do not need to write your name and address. Thank you!***

Date of the interview: 2001 ..... month ..... day
Interviewer's Name: .....
Study District: .....
Name of University/Institute: .....

ONE. BASIC INFORMATION

1. **Your age .....**
2. **Your sex** 1. Male 2. Female

3. **Where do you study?**
   1. Secondary/high school
   2. Vocational Training School
   3. University/Institute

4. **Have you ever participated in HIV/AIDS related activities conducted by Mongolian Red Cross Society?**
   1. Yes 2. No

5. **If yes, when was it?** (could give more than one answers)
   1. 2008
   2. 2009
   3. 2010
   4. 2011
   5. Others (please clarify) .....

6. **Where do you get information related to HIV/AIDS/STI from?** (could give more than one answers)
    1. From the organization (please write name of your organization) .....
    2. TV
    3. Radio
    4. Newspapers, journals
    5. Internet
    6. Activities conducted by Mongolian Red Cross Society
    7. Hotline
    8. Training
    9. Information materials distributed
    10. Health volunteers
    11. Doctors and hospital staff
    12. Friends, relatives and others
    13. Do not get information
    14. Others (please clarify): .....

7. **From whom do you want to get information on STI/HIV/AIDS?**
    1. Friends
    2. Boy/girlfriend, wife/husband
    3. Specialists (doctors)
    4. Volunteers, health support staff
    5. Peer counselors
    6. Local administrators
    7. NGO activitists
    8. Others (please clarify): .....

TWO. KNOWLEDGE, ATTITUDE AND PRACTICE ON STI/HIV/AIDS

8. **Please name STIs from the following diseases?** (could give more than one answers)
    1. Syphilis
    2. Chlamidia
    3. HIV/AIDS
    4. Tb
    5. Gonorrhea
    6. Trichomoniasis
    7. Genital condiloma
    8. Gemorrhea
    9. Hepatitis
    10. Pyelonefritis
    11. Could not answer
    12. Others: .....

9. **In your opinion, how does STI/HIV infection transmit?** (could give more than one answers)
    1. Kissing
    2. Unprotected sex (without using a condom)
    3. Using the used needles and syringes
    4. From an infected mother to a child
    5. Infected blood and blood transfusion
    6. Casual contacts (when share cups, plates, bowl, bath room, toilet, swimming pool and bed sheets)
    7. Mosquito bites
    8. Do not know

10. What are symptoms of STIs? (could be more than one answers)

1. Wart, wound and vesicles near the external genital organs
2. Condiloma and papilloma near the external genital organs
3. Hurting during a sexual intercourse
4. Itch, swelling and redness near the external genital organs
5. Rash
6. Headache
7. Pyogenos excretion from the opening of urethra and vagina
8. Thicker urine
9. Hurting during urinating
10. Loss of liquids
11. Fever
12. Unpleasant smell
13. Symptoms may not disappear
14. Others (please clarify): .....
15. Do not know

11. What will you do if you notice the above symptoms?

1. Tell to a closer friend
2. Do nothing, let it stay
3. Do self treatment
4. Buy stronger antibiotics from a pharmacy and use it
5. See a Doctor of Traditional Medicine/traditional healer and get treatment
6. See a Specialist doctor and get treatment as per a Doctor's instruction
7. Do not know

12. Please note down your opinion about the following? *(√please tick)*

#		**Yes**	**No**	**Do not know**
1.	If you have one faithful partner without HIV infection, will it reduce risks of spread of HIV infection?			
2.	Will the use of condoms reduce risks of spread of HIV infection?			
3.	Could a normally looking person has got the HIV infection?			
4.	Is it possible to get HIV infection from mosquito bites?			
5.	Is it possible to spread HIV infection through casual contacts (when share cups, plates, bowl, bath room, toilet, swimming pool and bed sheets)?			

13. In your opinion, what are the ways to prevent from STI/HIV/AIDS? (could give more than one answers)

1. Use condoms everytime when having casual sex
2. Washing the external genital organs and douching after sex
3. Abstein from casual sex
4. Have one faithful and regular sexual partner without HIV infection
5. Ejeculate outside the vagina when having sex without condoms
6. Do not know
7. Others (please clarify): .....

14. In your opinion, would be difficult or usual to do the following?
(Please circle the number below your answer indicating whether it would be very difficult or usual)

E. To study in a room together with a student who has got HIV infection

Very difficult	Difficult	Little difficult	Mostly usual	Usual, normal
1	2	3	4	5

Б. To share toilet with a student who has got HIV infection

Very difficult	Difficult	Little difficult	Mostly usual	Usual, normal
1	2	3	4	5

B. To have lunch together with a student who has got HIV infection

Very difficult	Difficult	Little difficult	Mostly usual	Usual, normal
1	2	3	4	5

15. In your opinion, is it normal to be a gay/homosexual?
(Please circle the number below your answer indicating how normal is it)

Extremely unusual phenomenon	Unusual phenomenon	Little bit unusual phenomenon	Mostly usual	Usual, very normal
1	2	3	4	5

Thank you very much for taking your time to participate in the study!

Appendix D: Survey Administration Training Agenda (English)

AGENDA
YOUTH Volunteer Training: Evaluation Survey Administration

I. Introduction to final evaluation, survey **5 min.**
II. Guidelines for survey administration **20 min.**

A. Survey distribution:
   A. Each district must collect surveys from a total of **125 university students** and **125 secondary school students**
   B. Each volunteer will be assigned **2-3 schools/universities**
   C. Volunteers SIGN UP for schools

B. Timeline:
   A. 29 July-1 August: photocopy surveys in MLRCB office (or HARP HQ for Sukhbaatar district)
   B. 1-4 August: administer survey to target group
   C. 5 August: return completed surveys

C. Process/Steps:
   A. Find a RANDOM SAMPLE of students/pupils aged 15-24 in your assigned school/university
   B. Confirm with each person: "Are you a student at XX school/university?"
      i. If the answer is "Yes," continue
      ii. If the answer is "No," DO NOT give the survey
   C. Confirm that each person is NOT a Red Cross HIV/AIDS peer educator: "Are you a Red Cross HIV/AIDS peer educator?"
      i. If the answer is "Yes," DO NOT give the survey
      ii. If the answer is "No," continue → give the survey

D. Rules:
   A. Please give surveys ONLY to students/pupils of the schools on the list
   B. Please give surveys ONLY to youth who are NOT HIV/AIDS peer educators (i.e. only give to general population youth)
   C. Please do not assist with choosing the answers to the survey questions
   D. One survey per person
   E. Surveys are CONFIDENTIAL
   F. Each survey should be filled out correctly and as completely as possible
   G. Please do not comment or correct respondent as they fill out the survey
   H. If respondents have questions about survey content, please collect the completed survey BEFORE answering the question
   I. Please do not change any answers on the completed surveys
   J. Please **RETURN ALL COMPLETED SURVEYS TO YOUR MLRCB OFFICE NO LATER THAN 16.00 FRIDAY, 5 AUGUST**

E. Survey details **20 min.**
   A. Instructions for respondents
   B. Survey questions

F. Question & Answer
10 min.

Appendix D: Survey Administration Training Agenda (Mongolian)

ХӨТӨЛБӨР
ЗАЛУУЧУУДЫН сайн дурын ажилчдын сургалт:
Үнэлгээний судалгааны ажлын зохион байгуулалт

I. Эцсийн үнэлгээ, судалгааг танилцуулах 5 мин.

II. Судалгааны ажлыг зохион байгуулах удирдамж 20 мин.

А. Судалгааны материалыг тараах:
- D. Дүүрэг бүр нийт **125 их дээд сургуулийн оюутан** болон **125 дунд сургуулийн сурагчдаас** судалгааг авч цуглуулна
- Б. Сайн дурын ажилтан тус бүр нь **2-3 их дээд/дунд сургуулийг** хариуцан ажиллана
- В. Сайн дурын ажилчид нь их дээд/дунд сургуулуудыг сонгон авч гарын үсгээ зурна

Б. Цаг хугацаа:
- А. 7 сарын 29 - 8 сарын1: МУЗН-ийн төв оффис (болон Сүхбаатар дүүргийн ХДХВ/ДОХ-ын хөтөлбөрийн төв байран) дээр ирж судалгааны материалыг санондож олшруулах
- Б. 8 сарын 1- 4: Судалгааг зорилтот бүлгийн гишүүдээс авах
- **В. 8 сарын 5: Бөглөсөн судалгааны материалыг буцааж өгөх**

G. Үйл явц/үе шат:
- А. Өөрийн хариуцаж авсан дунд/их дээд сургуулийн оюутан/сурагчдыг САНАМСАРГҮЙ ТҮҮВЭРЛЭН олох
- Б. Тухайн хүнээс дараах асуултыг лавлан асууна: “Та .....дунд/их сургуулийн оюутан/сурагч мөн үү?” хэмээн лавлаж асууна
  - **i.** Хэрэв хариулт нь “Тийм” бол цааш үргэлжлүүлнэ
  - **ii. Хэрэв хариулт нь “Үгүй” бол судалгааны материалыг ӨГӨХ ХЭРЭГГҮЙ**
- В. Тухайн хүн нь Улаан загалмайн ХДХВ/ДОХ-ын үе тэнгийн сургагч мөн эсэхийг лавлан асууна: “Улаан загалмайн ХДХВ/ДОХ-ын үе тэнгийн сургагч мөн үү?”
  - **i. Хэрэв хариулт нь “Тийм” бол судалгааны материалыг ӨГӨХ ХЭРЭГГҮЙ**
  - ii. Хэрэв хариулт нь “Үгүй” гэсэн бол цааш үргэжлүүлнэ → судалгааны хуудсыг өг

Г. Заавар:
- А. Судалгааны материалыг ЗӨВХӨН жагсаалтанд буй сургуулийн оюутан сурагчдад өгнө үү
- Б. Судалгааны материалыг Улаан загалмайн ХДХВ/ДОХ-ын үе тэнгийн сургагч нарт БУС харин ЗӨВХӨН энгийн залуучуудад өгнө үү (нийт хүн амын залуучуудын төлөөлөл)

В. Судалгааны хуудсыг бөглөж хариултаа сонгоход нь туслалцаа үзүүлж болохгүй
Г. Нэг хүнээс нэг л удаа судалгаа авна
Д. Судалгааны материал нь НУУЦ байх ёстой
Е. Судалгааны материал бүрийг аль болох зөв, гүйцэт бөглүүлэх ёстой
Ё. Судалгааны хуудсыг бөглөж байх явцад нь хариултыг нь засах болон өөрийн санал бодлыг тухайн судалгаа өгч байгаа хүнд хэлэх зэрэг үйлдлийг гаргаж болохгүй
Ж. Хэрэв судалгаанд оролцогчид судалгааны агуулгатай холбоотой асуулт асуувал асуултанд нь хариулахаасаа ӨМНӨ судалгааны материалаа хураан авна уу
З. Бөглөсөн судалгааны материалууд дээрх хариултыг өөрчилж болохгүй
И. **БӨГЛӨСӨН СУДАЛГААНЫ МАТЕРИАЛУУДЫГ 8 сарын 5-ны өдрийн 4 ЦАГААС ӨМНӨ ӨӨРИЙН ДШУЗХ-НЫ БАЙРАНД АВЧ ИРЖ ӨГНӨ ҮҮ!**

Д. Судалгааны ажилтай холбоотой нэмэлт дэлгэрэнгүй 20 мин.

А. Судалгаанд оролцогчдод өгөх зааварчилгаа
Б. Судалгааны асуултууд

Е. Асуулт & хариулт 10 мин.