October 4, 2004

To: Board of Health

From: Dr. David McKeown, Medical Officer of Health

Subject: Strategies to Address the Increase in Sexually Transmitted Infections in Toronto

Purpose:

The purpose of this report is to update the Board of Health on current, planned and proposed strategies to address the rising rates of sexually transmitted infections in Toronto and the associated impact of these strategies.

Financial Implications and Impact Statement:

The additional resource implications of the proposed strategies presented in this report will be included in the 2005 Toronto Public Health (TPH) Operating Budget request and Community Partnership and Investment Program submissions and reports which will be presented to the Board of Health at the November 22, 2004 meeting.

The Chief Financial Officer and Treasurer has reviewed this report and concurs with the financial impact statement.

Recommendations:

It is recommended that:

(1) the Medical Officer of Health include funds for enhancements to all components of sexual health programming to decrease Sexually Transmitted Infections, as outlined in this report, in the 2005 Toronto Public Health Operating Budget submission;

(2) the Medical Officer of Health include funds for enhancements required for AIDS Prevention Grants in the 2005 Community Partnership & Investment Program Operating Budget submission;

(3) the Board of Health request the Ministry of Education to require that school boards fully implement the comprehensive sexual health curriculum;

(4) the Board of Health request Toronto's four local school boards to fully implement the comprehensive sexual health curriculum; and

(5) the appropriate officials take the necessary action to give effect thereto.

Background:

In May 2004, the Board of Health adopted the report "Communicable Diseases in Toronto 2002 and Trends 1992 to 2002" which provided baseline incidence rates and trends of reportable diseases in Toronto over an 11- year period. The report illustrates clearly the upward trend in incidence rates of most sexually transmitted infections (STIs) in Toronto. At that meeting, the Board of Health requested that the Medical Officer of Health report on strategies to address the rising rates of sexually transmitted infections in Toronto.

Comments:

Trends in Sexually Transmitted Infections in Toronto:

This report focuses on those diseases caused by infectious agents that are found in body fluids where transmission occurs primarily from person to person through sexual contact or through other means of direct entry into the blood system, such as needle use or transfusions. These include HIV/AIDS, chlamydia, gonorrhea, hepatitis B and syphilis. Incidence rates for most of these diseases were decreasing from the early 1990's until 1997 to 1999 when rates started to increase and are still steadily increasing. Please see Appendix A for a summary of data presented on these diseases in "Communicable Diseases in Toronto 2002 and Trends 1992 to 2002" including updates with 2003 data.

Toronto is currently experiencing a syphilis outbreak with 195 reported cases in 2002 up from 19 in 1998. This prompted a Board of Health report that was adopted on February 23, 2004. The vast majority of cases are male, aged 35 to 44 years and at least 74% are men who have sex with men. The most common risk factor is not using a condom. Adding to the complexity of this outbreak, one-third of reported syphilis infections in 2003 were co-infected with HIV. Recent data confirms that the outbreak continues with 321 reported cases in 2003.

Other large Canadian and international urban centres are also experiencing increases in sexually transmitted infections (MMWR, 2002; PHLS, 2001; Glass, 1999; Health Canada, 2002; Health Canada, 2003; WHO, 2001).

Factors that Contribute to the Rising Rates of Sexually Transmitted Infections:

Many factors contribute to the reported rates of STIs. It is therefore difficult to identify a specific explanation for the increase in STIs over the last several years. It is known however, that reasons

include quality and frequency of sexual health education, access to health care, changes in STI testing technologies and policies and cultural norms regarding birth control and monogamy. Two recent studies have shed light on factors affecting STI risk in two important groups – youth and gay men.

Health Canada funded the 2003 national study "Canadian Youth, Sexual Health and HIV/AIDS Study-Factors influencing knowledge, attitudes and behaviours" as a follow-up study to research conducted in 1989. This study surveyed over 11,000 youth in grades 7, 9 and 11 from across Canada. Findings show that about three-quarters of students reported using a condom the last time they had vaginal intercourse and that the proportion of students engaging in sexual activities is similar to the 1989 study. However, in general, students' sexual health knowledge levels have decreased sharply since 1989. The study confirms that students rate school as an important source of sexual health information. However the majority of students surveyed had received 2 hours or less of education on HIV/AIDS over the past 2 years. In fact in the past 2 years, approximately 18% of students had not received any HIV/AIDS education and approximately 12% of students had not received any education on human sexuality, birth control or puberty.

Adam's 2003 study "Renewing HIV Prevention for Gay and Bisexual Men" provides rich qualitative data on non-condom use among high risk men and men in couples. The report confirms that the men in this study are very knowledgeable about STI prevention, are aware of public health messages and are in fact sophisticated calculators of risk. The complexities of non-condom use are explored and a number of themes emerge. Adam reports that norms and assumptions around condom use are changing; men have different interpretations of what it means in terms of HIV status when a man uses or does not use a condom. For some men, using a condom connotes being HIV positive while others interpret this to mean the person does not have HIV. Situations are highlighted where men's health may be at risk. This report provides a number of recommendations, including revamping prevention programs to reflect the complexities of non-condom use and to address the needs of men moving to Canada from different cultures.

Toronto Public Health Sexual Health Program in Schools:

Between 1988 and 1996, sexual health promotion programming in Toronto middle and high schools was enhanced. The programming consisted of, but was not limited to, developing curriculum support resources; responding to teacher requests for information (consultation); teaching, co-facilitating, and role modelling in classrooms; providing teacher workshops and in-services; training and support of peer educators; mounting of displays; special programming such as All-School HIV/AIDS assemblies and safe prom events ("Party in the Right Spirit"); and one to one counselling and referral. Puberty education in grades five and six has always been the building block for future sexual health education. At one time, the majority of public health nurses in the former City of Toronto provided these classes and worked with middle and high school students on specific strategies for risk reduction.

Since the mid-1990s, sexual health promotion programming in schools has waned, due to a complex interplay of funding, education sector, and public health sector factors. Some of these include:

a) Between 1995 and 1999 100% provincial funding for sexual health was eliminated and then restored to 50%. This had a direct and significant negative effect on sexual health promotion activities and staffing levels.
b) The amalgamation of school boards and amalgamation of public health units resulted in organizational challenges in the harmonizing of programs and services.
c) The education sector increasingly requested classroom teaching to be the domain of their teaching staff. Public health handed over the resources and much of the teaching of grades five and six puberty classes to teachers and focused on Train-the Trainer teacher in-service programming.
d) The new Health and Physical Education Curriculum documents were released (grades 1-8 in 1998, 9-10 in 1999, 11 in 2000), stipulating the sexual health topic areas to be covered by teachers, while a concurrent reduction in professional development days occurred. This resulted in reduced opportunities for public health or the school boards to provide training to teachers.
e) The priorities in the education sector shifted to literacy, math and technology, with reduced emphasis on health education. As a result of changes to the overall curriculum, the number of compulsory credits increased, thereby decreasing the number of opportunities for students to select health and physical education courses. Now, only one grade nine health and physical education credit is required for graduation.

Since the Toronto Board of Health adoption of the Comprehensive School Health model as the framework for the delivery of school health services in the City of Toronto in 2000, TPH has succeeded in strengthening its collaboration with school boards. Materials have been designed in collaboration with Toronto District School Board (TDSB) staff to clarify their teachers' roles as well as to ensure the materials are teacher-friendly and consistent with curriculum expectations. The TDSB is again looking to Toronto Public Health for expertise, to increase teachers' knowledge and skills.

A sexual health program redesign was completed in 2003 to improve, coordinate and harmonize programs and services across the city. The redesign clearly linked determinants of health to all areas of sexual health and recommended a comprehensive approach to risk reduction. Recommendations included multi-faceted approaches to reach youth in schools, and in those settings which reach marginalized youth or youth who are not in school. However, there were no new funds available for implementation.

Current and Proposed Strategies to Address the Increase in Sexually Transmitted Infections:

TPH has a provincial mandate to promote healthy sexuality and to reduce the incidence of and complications from STIs. Addressing the increase in STIs is a complex task requiring a multi-strategy approach and involving many stakeholders. To create the most effective program, TPH concentrates on health promotion and disease prevention at the population health level as well as providing individual case management and treatment. TPH's sexual health program is comprehensive and multifaceted. However, enhancements are needed to address increasing rates of STIs.

STI Case Management:

This program works with health care providers to verify the diagnosis of an STI, and ensure adequate treatment and follow-up for clients and/or partners. Clients who have tested positive for a reportable STI, are counselled and educated about treatment, modes of transmission and prevention of future infections. The number of cases managed in this program has increased from 5800 in 1997 to 9100 in 2003. The program is not able to meet the Ministry of Health and Long-term Care program standard of responding to 60% of STI cases within 48 hours. Three per cent of chlamydia and gonorrhea cases are still incomplete after 6 weeks of notification, 12% of syphilis cases are incomplete after 3 months and 7% of HIV/AIDS cases are incomplete after 6 months. In addition, the program cannot do partner notification for 75% of STD cases reported to TPH.

As a result of this delayed response time to new cases of STIs, people who are infected with a STI will remain untreated for a longer period of time, continuing to spread the infection in the community. Delayed response time to STI cases can also result in increased morbidity of untreated cases, resulting in more admissions to hospitals. The STI Case Management program requires additional funding to speed up response time to new STI cases resulting in faster treatment, and more effective partner follow-up and case finding. The STI Case Management program also needs to be able to develop and implement initiatives to more effectively address the current syphilis outbreak and the increasing number of HIV cases.

TPH Sexual Health Clinics and Contracted Clinics:

This program increases access to sexual health services for persons who experience barriers to accessing health services, such as youth, immigrants and refugees and those living in poverty. From 2000 to 2003, the sexual health clinic program underwent a redesign such that clinics are located in accessible, high need areas with a multidisciplinary team of highly trained staff. Currently there are 5 clinics staffed and run by TPH, one TPH satellite clinic, two clinics run in partnership with existing Community Health Centres and three clinics that are contracted by TPH to provide service. The clinics provide STI testing and treatment, birth control counseling, low cost contraception, pregnancy testing and counseling to women up to 25 years and men up to 29 years and at risk persons. In 2003, 50,660 clinic visits were provided across the city. This represents a 24% increase in client visits since 2000 with no additional resources to meet this increased demand. This has resulted in increased waiting time for those clinics that book appointments (up to three weeks) and in 150 clients being turned away from drop-in clinics for the first 6 months of 2004. Additional resources would allow the clinic program to increase the number of clients seen and reduce the waiting time for STI testing and treatment. Clinics would also be able to respond more effectively to the syphilis outbreak by increasing access to screening for high-risk clients.

Sexual Health Promotion – Public Education:

Sexual Health Promotion provides a range of services encompassing education, consultation, community capacity building, advocacy and outreach based on community need. This includes

ensuring the provision of effective and accessible sexual health and STI services through assessment of community needs, health promotion and health protection.

TPH has undertaken many social marketing campaigns as part of a multi-strategy approach to sexual health promotion. Social marketing campaigns have slowed considerably since amalgamation in 1998 and none have been launched since 2001. Creating social marketing campaigns became more challenging as reduced social marketing funds had to be stretched across the amalgamated city. Additional funds would support a three to five year social marketing campaign involving community partners, to prevent the spread of chlamydia and gonorrhea in youth age 15-24.

As well, a Women's Health Committee will be formed with TPH staff and appropriate community partners to address health concerns of women and their families from countries where HIV is endemic. The development of culturally appropriate social marketing campaigns targeting populations from endemic countries is complex and will need to address issues of racism, homophobia, stigma and settlement.

Sexual Health Promotion – Schools:

The most common STIs, chlamydia and gonorrhea, occur predominantly in youth 15 to 24 years old. Interventions to address the rising rates of these infections must be targeted to young people, particularly in schools. Through Sexual Health Educators, the Sexual Health Promotion program currently supports about 350 schools, provides about 500 group sessions annually at community locations such as drop-in centres and youth shelters, provides about 200 sessions annually to parent/caregiver groups and provides about 200 sessions annually to peer leaders in diverse ethno-racial communities in the City of Toronto. Increased funding would allow sexual health staff to expand their sexual health and STI education work with local schools, school boards, and the community, through education, consultation, community capacity building, advocacy and outreach.

More specifically, increased resources would facilitate sexual health staff in keeping teachers up to date on new trends, providing new teaching lesson plans and materials on new issues, providing support regarding specialized areas (e.g. ESL, special needs) and mentoring new teachers. This would help build partnerships and keep healthy sexuality on the school agenda. Staff will also advocate to the Ministry of Education to increase teacher training in sexual health education and to increase provincial resources to enable effective collaboration with Health Units.

Sexual Health Program Supplies:

Each year approximately 3 million male condoms, 20,000 female condoms and 300,000 packets of lubricant are distributed through community agencies to clients free of charge. This program is currently funded by the City of Toronto through the regular cost sharing arrangement with the province. However, historically condoms were 100% funded by the Ministry of Health and Long-Term Care until provincial downloading in 2000 when this funding was no longer available.

In 2002 the program introduced female condoms after the successful evaluation of the TPH Female Condom Pilot Project. The Board of Health adopted the report "Female Condom Pilot Project" on September 23, 2002. Since that time the results have been presented at several local, national and international conferences. Every organization providing female condoms must attend a TPH training session. Service provider training has been evaluated and is provided by TPH staff as the need arises. Distribution of female condoms has been incorporated into the condom distribution program and is on going.

Programs that distribute free condoms increase condom use and are a cost effective method for reducing HIV in communities with high incidence rates (Creese, Alban, & Guiness, 2002; Bedimo, Pinkerton, Cohen, Gray & Farley, 2002). Poverty and social inequalities are associated with increased risk of STIs. TPH data indicates that areas with high poverty also tend to have high rates of STIs (Toronto Public Health, 2001; Hardwick and Patychuk, 1999). TPH's condom program distributes condoms free of charge to high need populations, which increases condom use and decreases the chance of STI transmission and unplanned pregnancy. Currently the Condom Distribution Program can only meet 75 % of identified community needs. Since 2002 agencies have experienced an annual shortfall of about a million male condoms, 40,000 female condoms and 250,000 packages of lubricant. As a result, clients may take sexual risks if they do not have ready access or the necessary funds to purchase safer sex supplies. An increase in the TPH condom and lubricant budget is required to increase the availability of safer sex supplies provided to community agencies, public health offices and clinics. TPH will explore the potential for reinstating 100% provincial funding for a province-wide condom distribution program.

AIDS Prevention Grants:

This program funds projects that provide strategic and targeted initiatives to influence behaviours and situations that put people at risk of acquiring HIV, thereby reducing HIV transmission. The priority populations include: men who have sex with men (MSM), injection drug users (IDU), communities representative of countries where HIV is endemic, women and youth. In 2004, with an average grant size of $26,741, City Council approved funding for 51 projects. During this period, 19 projects targeted people from countries where HIV is endemic. Epidemiological data from 2003 revealed that the risk category with the highest increases for both men and women are people who have lived or traveled in countries where HIV is endemic. An enhancement through the 2005 Community Partnership & Investment Program is required to support community-based groups to increase and enhance HIV/AIDS/STI prevention education initiatives for populations across Toronto from countries where HIV is endemic. Particular emphasis will be placed on collaborative and partnership initiatives that target heterosexual women and men who have sex with men from these countries. Approximately five additional projects would be funded outside of the downtown core and in high need and under-served neighbourhoods.

Funding for Community Partners:

The City has purchase of service agreements with three community agencies, initiated almost 15 years ago, to deliver sexual health services reaching specific high risk and hard to reach populations. The AIDS Committee of Toronto (ACT) receives $273,492 to provide outreach,

education, evaluation and community-based research to men who have sex with men. Planned Parenthood of Toronto receives $117,708 in funding to provide volunteer counseling services at the Bay Centre for Birth Control, teen peer counseling by phone and internet and outreach at schools through The House. In addition, the City has a $50,000 agreement with The Sex Information and Education Council of Canada (SIECCAN), administered by TPH and 100% funded by the Ministry of Health and Long Term Care, to provide research services throughout the province. These programs reach several priority populations identified through epidemiological data, including youth and men who have sex with men. However, as the AIDS epidemic shifts, people from countries where HIV is endemic, in particular women from Africa, are not being adequately reached through the current services. Additional funds are required to fund a community organization that can focus on outreach, education, evaluation and research activities for women from Africa. Continuation and expansion of service agreement contracts with the province and/or community agencies is essential to the provision of service for these programs. They build on existing service infrastructure in the community, facilitate community partnerships, support continuity of service to clients, and create service efficiencies. In addition, Toronto Public Health will advocate to Health Canada for resources to more fully determine and then address the STI/HIV issues of Toronto populations from endemic countries.

Program Evaluation:

Toronto Public Health evaluates key components of the sexual health program to support programs in meeting their objectives. TPH is currently developing and implementing a needs assessment for the Sexual Health Clinic program to be completed in 2005. Currently, there are not sufficient resources to fully evaluate other key components of the sexual health program due to a limited evaluation budget of $40,000 annually that is shared between many divisional programs. Additional resources are required to ensure that quality evaluation of the sexual health program is conducted thus enabling TPH to implement the most effective and efficient services to reduce the incidence of STIs in Toronto. If additional funding were received, a full evaluation of one major component of the Sexual Health program per year could be implemented.

XVI International AIDS Conference:

In August 2006, Toronto will host the XVI International AIDS Conference that is expected to draw up to 30,000 delegates from around the world. The City of Toronto is a key supporter of the 2006 Conference and promoted the City and the AIDS Prevention Grants Program at the 2004 International AIDS Conference in Bangkok. The 2006 International AIDS Conference will emphasize the theme of HIV/AIDS and women, with a focus on women from countries where HIV is endemic. Additional funds are needed so that community organizations that receive AIDS Prevention funding can be contracted to provide specific services in preparation for and during the conference. An enhancement would be used to support all funded projects to participate in skill building opportunities, contribute to panel/workshop planning, host conference events and showcase community based HIV/AIDS/STI initiatives. Without this additional support, agencies would be unable to participate fully and contribute to this important event while continuing to provide service to the community.

Gay Men's Health Committee:

This committee was established to recommend health programming for gay men in Toronto. Health topics include HIV/AIDS, syphilis, hepatitis, and other STIs as well as broader health concerns such as mental health, addictions and housing. The work of this committee has focused primarily on syphilis and several tasks have been completed including communication with Toronto physicians and health centres, street and bathhouse outreach and an internal communication strategy. This committee will continue to monitor syphilis rates and work with TPH staff and community agencies to control the syphilis outbreak. Further street and bathhouse outreach is planned as well as interventions that target Internet sites where men meet sexual partners. This committee will also be looking at broader health issues and will be sponsoring a speaker series on gay men's health, in partnership with community agencies and hospitals, and an anti-homophobia social marketing initiative.

The Works:

The mandate of this program is to decrease the spread of communicable diseases, including STIs, in drug users and sex trade workers, using a harm reduction approach. This program provides service in all areas of the city through a van, a fixed site, street outreach and through contracts with 28 community agencies. The Works offers safer drug use and safer sex supplies to prevent transmission of blood borne and sexually transmitted infections; education about safer sex and safer drug use; vaccination for hepatitis A and B, influenza and tetanus; testing for hepatitis, syphilis and HIV which promotes early identification and treatment; methadone treatment and assistance accessing a variety of health and social services. Ongoing funding of the methadone treatment program is required to continue this important service.

The AIDS and Sexual Health Information Line:

This is a province-wide, 100% provincially funded, anonymous counselling line that offers service in 18 languages. Counsellors assist callers with a variety of concerns including HIV prevention and testing, STI information, clinic referrals, birth control and relationship issues. The line receives about 40,000 calls annually from across the province. Service is available seven days a week.

Conclusions:

The last several years are showing increases in most sexually transmitted infections after years of steady decreases. There are many contributing factors. A number of province-wide and local factors have weakened sexual health programs in Toronto, particularly in schools. Youth are less knowledgeable about sexual health than they were in the 1980's. The majority of students have received two hours or less of education on HIV/AIDS over the past two years. Norms around condom use among men who have sex with men are complex and changing. Toronto data shows that having lived or traveled in countries where HIV is endemic, is the fastest growing risk category for new HIV cases.

TPH's sexual health program is comprehensive and multifaceted but requires enhancement to address increasing rates of STIs. Both short-term and longer-term sustainable strategies must be implemented, with the commitment and collaboration of all key stakeholders including the Ministry of Health and Long-Term Care, the Ministry of Education, the four local school boards, Toronto Public Health and the community.

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List of Attachments:

Appendix A: Summary of STI data from "Communicable Diseases in Toronto 2002 and Trends 1992 to 2002" including updates with 2003 data

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Appendix A

Summary of STI data from "Communicable Diseases in Toronto 2002 and Trends 1992 to 2002" including updates with 2003 data.

The incidence of HIV in Toronto was the highest in 1992 with 963 infections reported. The numbers of infections decreased consistently to a low of 407 infections in 1998 and since then have been climbing steadily to 574 infections reported in 2003. The most affected ages are 30 to 39 year olds. In 2002, 77% of the HIV reports were for males. The most commonly reported risk factor for males was having sex with men and for females was living or traveling in an HIV/AIDS endemic country. The incidence of AIDS has decreased steadily from 456 cases in 1993 to 82 cases in 2003. In terms of pediatric cases, reported AIDS cases in children 10 years or younger has ranged from 4 to 11 since 1992. The most recent data available show 5 such cases in 2002.

Chlamydia is the most commonly reported STI in Toronto. Reported new infections reported decreased from 4332 cases in 1992 to 3906 cases in 1997 and then increased back to 6292 cases in 2003. The most affected ages are 15 to 24 year olds. The incidence rate for females is 1.5 times that for males and the most common risk factor is not using a condom.

Reported new infections of gonorrhea decreased from 2595 cases in 1992 to 1191 cases in 1997 and subsequently have increased steadily again to 1852 cases in 2003. The most affected ages are 15 to 24 year olds. Males have higher rates of gonorrhea than females and the most common risk factor is not using a condom.

Reported new infections of hepatitis B decreased from 135 cases in 1993 to just 24 cases in 1999 and subsequently have increased again to 52 cases in 2003. The most affected age groups are 20 to 24 and 30 to 34 year olds and the most common risk factors were travel to a hepatitis endemic area and sexual contact with a confirmed case. Male rates for this disease exceeded female rates for all age groups.

Syphilis was on a dramatic decline with 173 cases in 1992 down to only 19 cases in 1998. However a recent outbreak has occurred with 195 cases in 2002 and 321 cases in 2003. The vast majority of cases are male, aged 35 to 44 years and at least 74% are men who have sex with men. The most common risk factor is not using a condom. Adding to the complexity of this outbreak, one-third of reported syphilis infections in 2003 were co-infected with HIV.