January 17, 2018

Addendum to Public Health Approach to HIV Case Management by the Council of Ontario Medical Officers of Health HIV Working Group. Full report follows.

The level at which public health action would be prioritized and considered should be based on a material risk of transmission that is associated with viral loads greater than 200 copies/ml rather than the 40 copies/ml as stipulated in the original document. This change is consistent with new evidence and recent statements from a number of organizations that have come out since the document was finalized that have identified sustained viral loads below 200 copies/ml as having a negligible risk of transmission.

The relevant studies and statements have been summarized below.

PARTNER Study

No phylogenetically linked transmissions occurred in heterosexual serodiscordant couples reporting over 36000 condomless sex acts and in homosexual serodiscordant couples reporting over 22000 condomless sex acts when the HIV positive partner had viral loads less than 200 copies/ml

http://www.partner-study.org/publication/sexual-activity-without-condoms-and

Opposites Attract Study

No transmission occurred between serodiscordant homosexual couples with over 12000 reports acts of unprotected anal sex when the HIV positive person was undetectable (defined as viral load < 200 copies/ml)


The CDC released a public letter on September 27, 2017 indicating the following:

Scientific advances have shown that antiretroviral therapy (ART) preserves the health of people living with HIV. We also have strong evidence of the prevention effectiveness of ART. When ART results in viral suppression, defined as less than 200 copies/ml or undetectable levels, it prevents sexual HIV transmission. Across three different studies, including thousands of couples and many thousand acts of sex without a condom or pre-exposure prophylaxis (PrEP), no HIV transmissions to an HIV-negative partner were observed when the HIV-positive person was virally suppressed. This means that people who take ART daily as prescribed and achieve and maintain an undetectable viral load have effectively no risk of sexually transmitting the virus to an HIV-negative partner.

The Council of Chief Medical Officers of Health released a statement on November 30, 2017 indicating the following:

Across studies to date, there have been no confirmed cases of sexually transmitted HIV to an HIV-negative partner when the HIV-positive partner was continuously on antiretroviral therapy (ART) with sustained viral suppression. We have known for some time that ART is critical for maintaining and improving the health of a person living with HIV. It has also become evident that when a person living with HIV is on ART, takes their medications consistently as prescribed and maintains a confirmed suppressed viral load, there is effectively no risk of their passing the infection on to their sex partners.


The Department of Justice released a Report on the Criminality of HIV non-disclosure on December 1, 2017 that stated the following:

Current research shows that sexual activity (with or without a condom) with a person living with HIV who is taking treatment as prescribed and has maintained a suppressed viral load (i.e., under 200 copies of HIV per ml of blood) poses a negligible risk of transmission. Across studies to date, there have been no confirmed cases of sexually transmitted HIV to an HIV-negative partner when the HIV-positive partner was continuously on antiretroviral therapy with sustained viral suppression.


The Ontario Attorney General Yasir Naqvi and Minister of Health and Long-term Care Eric Hoskins, issued the following joint statement on December 1, 2017:

The federal government released its report on the Criminal Justice System’s Response to Non-Disclosure of HIV, which includes the Public Health Agency of Canada’s scientific analysis on the sexual risk of HIV transmission. The scientific conclusions reflect the growing body of evidence that shows that there is no realistic possibility of transmission of HIV if a person is on antiretroviral therapy and has maintained a suppressed viral load for six months. Ontario endorses the scientific analysis included in the federal report and will review the report’s policy recommendations...Therefore in light of the overwhelming scientific consensus for cases where an individual has a suppressed viral load for six months, Ontario’s Crown Prosecutors will no longer be proceeding with criminal prosecutions.
Public Health Approach to HIV case management

Council of Ontario Medical Officers of Health (COMOH) HIV Workgroup

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Scientific and technical support provided by Public Health Ontario

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BACKGROUND

In Ontario, HIV is reportable as the agent that causes AIDS, a reportable disease under the regulations of the *Health Protection and Promotion Act* (HPPA). Consequently, all new HIV infections must be reported to local public health authorities. Public health follow-up is undertaken to ensure that an individual with HIV receives appropriate counselling and medical care for their own health and to reduce the risk of transmission to others in the community.

Individuals with HIV are living longer with life expectancies close to that of the general population due to the success of antiretroviral therapy (ART). By controlling the virus and maintaining the immune system, ART prevents progression to AIDS and significantly decreases the risk of transmission. The World Health Organization (WHO) recently released new recommendations surrounding the initiation of ART due to the documented successes associated with initiation irrespective of initial CD4 counts, based on evidence demonstrating the improved clinical outcomes among individuals with early ART initiation. This is an expansion from previous WHO recommendations where the early initiation of ART focussed on individuals living with HIV who were co-infected with TB, HBV or in serodiscordant partnerships.

Increasing the number of individuals with HIV on treatment can have a population benefit beyond the benefit to the individual and is commonly referred to as “treatment as prevention”. British Columbia, as part of the British Columbia Centre for Excellence’s Treatment as Prevention® strategy, has expanded testing and access to treatment. This has been associated with a 52% reduction in HIV incidence between 1996 and 2009 when HAART was first introduced. Other factors that may have contributed to the decline in BC include harm reduction programs including needle exchange and supervised injection. Ontario has seen a decline over the 10 year period from 2006-2015 in the number of new HIV diagnoses, with 1,104 HIV cases being diagnosed in 2006 vs. 842 in 2015, a 24% decrease. However, there has been a slight increase in new HIV diagnoses from 2013 to 2015, with the case count increasing from 798 cases in 2013 to 842 in 2015. These temporal changes have been not been uniform when analyzed by sex. Women have experience a 49% decrease in new HIV diagnoses from 2006-2015 (318 to 162 cases); whereas men have only experienced a 13% decrease (779 to 676 cases) over this time period, with a stable case count over the four recent years from 2012-2015.

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A recent review of the evidence for treatment as prevention in MSM showed that
treatment as prevention has its greatest impact when used in combination with other
prevention strategies that address issues of compliance with care and medication
usage, timely detection and treatment of STIs, and attention to other health issues\textsuperscript{3}.
The authors identified four factors that influenced HIV transmission in this context
including (1) replication dynamics and ART penetration vary across different body
compartments, (2) induction of local HIV replication in the genital tract by STIs, (3)
access to health care, and (4) compensatory increase in unprotected sex.

**Risks of transmission**

A number of articles and guidelines have been published in recent years outlining the
evidence about the risk of transmission taking into account the type of sexual activity,
compliance with ART use, viral load, condom use, and the presence of co-infections
with other STIs or BBIs. A summary of 2 key Canadian documents and an international
longitudinal study involving MSM serodiscordant couples is outlined below as the
evidence regarding the risk of transmission has informed the development of the
recommendations included in this document.

_The Canadian Consensus Statement on HIV and its Transmission in the Context of
Criminal Law_\textsuperscript{4} was written by 6 experts in the field and endorsed by 73 colleagues
across Canada. The intent of the document was to promote an evidence-informed
application of the law relating to criminal charges for individuals living with HIV. It is
important to note that although this statement indicated it was based on a review of the
literature as of December 2013, there was no methodology outlined nor was a
comprehensive review of the literature presented in the statement.

The statement identified 3 factors associated with sexual transmission of HIV, including
(1) type of sexual act, (2) condom use, and (3) ART use and viral load.

**Type of sex:** Oral sex has a significantly lower possibility of transmission than
vaginal or anal intercourse, and anal intercourse has a higher possibility of
transmission than vaginal intercourse. The risk of transmission during oral sex is
negligible, regardless of condom or ART use.

**Condom use:** When used correctly and no breakage occurs, condoms are close
to 100\% effective at stopping the transmission of HIV. Condom use does not add
meaningful additional benefit for vaginal sex above ART with individuals with
undetectable viral loads, i.e. below 40 copies/ml. More data are needed to make

\textsuperscript{3} O’Byrne P and MacPherson P. HIV treatment as prevention in men who have sex with men: examining the
evidence. CMAJ. 2016 Feb 16; 188(3):198-203.

\textsuperscript{4} Loutfy M, Tyndall M, Baril JG, Montaner JS, Kaul R, Hankins C. Canadian consensus statement on HIV and its
a definitive opinion about the risk of transmission for anal sex with individuals on ART with undetectable viral loads but the estimated risk is likely negligible.

**ART use and viral load:** Being on effective antiretroviral therapy dramatically reduces the possibility that an infected individual will transmit HIV to the level of a negligible risk when the viral load is undetectable i.e. below 40 copies/ml for vaginal intercourse and likely so for anal-penile contact.

The authors noted that presence of an untreated STI, especially an ulcerative STI, in either partner has been associated with an increase in the possibility of HIV transmission but that the use of condoms and/or ART would prevent this transmission. The authors also noted that clinical studies to date have not shown a conclusive correlation between an increase in the possibility of transmission and the presence of a STI in individuals who are on effective ART. Two important limitations with the statement, in addition to the methodology weaknesses identified above, are the fact that the statement primarily looked at evidence relating to the risk of single exposures so did not reflect the risk of ongoing/multiple exposures and the majority of longitudinal studies were in heterosexual couples that also encouraged risk reduction strategies including treatment adherence, condom use and regular STI testing.

The Institut National De Santé Publique Du Québec published an *Expert Consensus on Viral Load and Risk of HIV transmission*\(^5\) that was based on a literature review on the risk of HIV transmission in oral, vaginal and anal sex in the presence of an undetectable viral load. An undetectable viral load is defined as being achieved when the number of viral copies is below 40 copies/ml and is maintained for a period of at least 6 months as shown by 2 consecutive viral load tests. This paper was methodologically stronger than the consensus statement and presented a detailed overview of the study findings.

The main findings from the literature review included:

- There is a strong correlation between viral load in plasma and viral load in genital and rectal secretions however the viral load may be present in greater concentrations in genital and rectal secretions even when the viral load is undetectable in plasma.

- Viral load can fluctuate as a result of co-infections with another STI or BBI, the type of ART used, treatment adherence, the emergence of viral resistance, and the stage of HIV infection.

- International studies to date have been concluded almost exclusively in heterosexual couples.

The Expert Consensus concluded that the transmission risk during condomless vaginal intercourse is reduced from “high” to “negligible or very low” only when all of the following conditions are met:

- Viral load is undetectable by laboratory methods currently in use in Quebec and remains undetectable for at least six months (in response to ART), as measured by two consecutive viral load tests;
- Adherence to treatment at a rate of 95% or higher;
- The person living with HIV is in a stable and exclusive relationship with their partner;
- Neither of the partners has another STBBI;
- Both partners receive intensive medical care (every three or four months) that includes viral load measurement for the PLWH, screening for STBBIs in both partners, and HIV testing for the HIV-negative partner;
- Both partners receive regular and appropriate counselling.

According to the expert review of the literature, mathematical and theoretical assessments, as well as epidemiological data, support the position that the risk associated with oral sex and insertive and receptive anal sex may also reach the risk level of “negligible or very low” only if the aforementioned conditions are met. The requirements above were based on the studies that have been done today primarily in heterosexual couples that also encouraged risk reduction strategies including treatment adherence, condom use and regular STI testing as previously noted.

The PARTNER study, an international observational study among serodiscordant couples in which the HIV positive individual was taking ART with suppressed viral loads but without condom use, showed no cases of within couple transmission of HIV over a median follow up of 1.3 years. This study importantly included both heterosexual and MSM couples. Longer term follow up is needed to provide more precise estimates of risk due to the wide confidence intervals and short couple years accrued in the study, appreciable levels of risk cannot be excluded particularly for anal sex and when considered from a cumulative risk over several years.

Due to the limitations in the data presented particularly as it relates to cumulative exposures, the impact of STIs and additional risk reduction strategies such as treatment adherence, condom use and regular STI testing, the approach outlined below continues to recommend condom use and disclosure for all individuals living with HIV regardless

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of their viral load. Additionally the estimated risk of negligible is not zero and the seriousness of the HIV was also an important consideration for this recommendation. Legal measures though would not be recommended in individuals with undetectable viral loads who do not use condoms or disclose their status as this would not meet the criteria for reasonable and probable grounds of transmission required in a legal order based on current evidence despite the above limitations.

**CASE MANAGEMENT**

Based on the discussion of best practices in the literature presented above, Public Health case management is outlined in the following sections.

**Principles:**
- starting ART early has benefit to both the individual and the community
- ART that eliminates or reduces viral load is the most effective means of preventing transmission
- working collaboratively with health and community service partners is an integral part of public health’s HIV case management
- any intervention should be least intrusive to most intrusive as appropriate
- more coercive measures should be adopted only after less coercive alternatives have been unsuccessful
- any coercive public health measures should carry full due process protections with clear policies and procedures to ensure transparency

**Best practices for all cases**

All HIV positive cases must receive comprehensive post-test counselling as per the Guidelines for HIV Counselling and Testing, MOHLTC, 2008. Key components of counselling include:
- Benefits of treatment and linkage to care
- Transmission of HIV
- Disclosure to all sexual and drug equipment sharing contacts
- Practicing safe sex and drug use
- Barriers to compliance with risk reduction behaviours and medication
- Partner notification
- Appraisal of criminal prosecutions with referral to HALCO for more detailed legal advice

It is difficult and may sometimes be counterproductive to attempt to address all prevention issues comprehensively at the first contact with the client in the context of client-centred post-test counselling. Coming to terms with a positive test may be complex and traumatic, and cases are more likely to establish a co-operative relationship with a provider who is able to understand these concerns and to ensure adequate follow-up, rather than to attempt to deal with all issues at one post-test counselling session. Local public health agencies should consider the most effective
mix of directly providing counselling and support services, ensuring training and resources of health care providers to provide these services, and working with community-based agencies to provide these services. This mix is likely to vary according to the specific context in which each local public health agency works and the other resources available. Working effectively with health care providers responsible for the long term clinical management of HIV cases is likely to be particularly important, since they will have the opportunities to do repeated screening for behavioural and clinical risks (e.g., other STIs) and can refer cases needing further behavioural counselling or partner notification services to public health when necessary.

Disclosure by the case to their sexual or drug equipment-sharing partners prior to any sexual or drug-sharing activity allows partners to make an informed choice about engaging in those activities and to take measures to decrease risk of transmission. Protected sexual contact still poses a negligible but non-zero risk of HIV transmission due to condom failure and inconsistent condom usage, and therefore, informed consent is still necessary. Disclosure would also be recommended, but not required in a legal order, for individuals taking ART with undetectable viral loads due to potential fluctuations in viral loads due to issues with adherence to treatment, emergence of viral resistance, stage of HIV infection and co-infection with other STIs or BBIs as identified above.

For the reasons outlined above, individuals on treatment with undetectable viral loads would therefore also still be recommended, but not required in a legal order, to use condoms in addition to disclosing their status. In cases where a long-term or current partner chooses to not use condoms, public health would ensure the partner has made an informed decision to do so where feasible. The risk of transmission would also increase with multiple partners because the additional risk of acquiring additional STIs particularly in some subpopulations of the MSM community with a high burden of non HIV STIs.

Contacts of individuals with HIV are identified and advised of the need for medical assessment. Guarding the confidentiality of the HIV positive individual and contacts is an essential component of public health practice and is legislated in Section 39 of the HPPA. Exceptions to this legislated requirement may occur when there is a clear ongoing risk to public health and safety and there are no other reasonable alternatives to preserve confidentiality. An example may be an individual with HIV who continues to deny his or her status to the current partner.

Assessing HIV positive individuals with respect to the HIV cascade of care

In addition to the best practices for all cases, additional measures may be included in case management based on the assessment of their specific risk factors and based on the factors outlined in the HIV cascade of care.
The cascade of care framework, while more frequently used to assess populations and their movement through the sequential steps of the cascade, can also be used to assess and to address a number of factors relevant to HIV cases. The International Association of Providers of AIDS care (IAPAC) has developed comprehensive guidelines for optimizing the HIV continuum with an aim to increase testing coverage, linkage to care, treatment coverage, engagement and retention in care and viral suppression.\textsuperscript{7}

Thomas Frieden and colleagues\textsuperscript{8} have renewed the call for applying public health principles to the management of HIV for a number of reasons. This would involve undertaking the core interventions for HIV that are done for the control of other communicable diseases including prompt diagnosis, systematic partner notification and accountability for treatment of all patients. The greatest loss of patients in the continuum of care occurs between diagnosis and engagement in medical care. It is estimated that more than 90% of transmission currently comes from people with diagnosed infection who are not retained in care (69%) and people whose infection has not been diagnosed (23%). Jurisdictions that have implemented public health principles in managing HIV have seen decreases in new infections. San Francisco has seen a decrease in reported new infections between 2006 and 2014 with increased rates of testing, partner notification, linkage or re-engagement in care and treatment and pre-exposure prophylaxis. The New York City Health Department provides individual-level support to link patients to treatment and reengages patient who are not receiving care to reintiate ART and has seen the number of new reported infections decrease by 32% between 2006 and 2013.

The application of the cascade of care is based on the assessment of the following 4 factors:

1. **Access to care**

While circumstances can vary widely across HIV cases, cases that have not been linked to care, either primary or specialist, could well benefit from public health support and interventions to ensure that the client is linked with experienced care providers. A number of health and socio-economic factors may render linkage difficult, as individuals who are infected with HIV may also be facing many other challenges which may include:

- stigma
- discrimination
- fear of rejection

\textsuperscript{7} International Advisory Panel on HIV Care Continuum Optimization. IAPAC Guidelines for Optimizing the HIV Care Continuum for Adults and Adolescents. J Int Assoc Provid AIDS Care. 2015 Nov-Dec; 14 Supp 1:S2-S34.

• financial pressures
• unstable housing
• mental health issues
• substance abuse or misuse
• violence
• cultural pressures

These factors may be barriers to establishing and regularly attending HIV clinical care services as well as being fully compliant with public health requirements related to disclosure, safer sex and drug equipment use practices and the naming of sexual or drug equipment contacts. Public health staff should work with individuals with HIV and other health care providers to address the identified barriers as much as possible.

(2) **Retention in care**

The above factors may affect the client’s ability to remain in care, and should be important considerations in the ongoing management and support of the client. Co-ordination and reinforcement of ongoing counselling, behavioural and treatment measures among clinical care providers, social and mental health services and public health can contribute to the attainment of both ongoing health outcomes as well as reductions in the risk of transmission of HIV.

(3) **Receipt of and adherence to ART**

Guidelines are increasingly recommending early initiation of ART for HIV infection, irrespective of initial parameters such as CD4 counts or other measures of immune system function, recommendations facilitated by treatment regimens that are simpler to follow and associated with reduced side effects. Adherence to ART is essential to reductions in viral loads, which not only has health benefits for the individual but reduces the risk of transmission. While promotion of adherence is largely a function of clinical care providers, public health staff can support this treatment objective by being familiar with and seeking to address the myriad factors that can impact on adherence to treatment.

(4) **Maintenance of sustained virological response**

Documentation and maintenance of this key treatment objective is very important from both the perspectives of the client’s health and transmission reduction (although it does not obviate the need for safer sex practices, given risks of other STIs or the potential for infection with another HIV genotype). In appropriate circumstances, co-ordination with clinical care providers can ensure that ongoing maintenance of undetectable viral loads is being achieved and factors (health, social, economic, legal, etc.) that may impact on long-term treatment adherence are being identified and addressed.
Managing cases according to risk

Note that the definition of an undetectable viral load used throughout this document is defined as being achieved when the number of viral copies is below 40 copies/ml and is maintained for a period of at least 6 months as shown by 2 consecutive viral load tests.

To focus public health resources where impact would be the highest, it is helpful to classify HIV cases into 4 groups so that further management of cases is based on their risk as outlined below:

1. HIV positive individuals who are not currently accessing care for their HIV diagnosis
   Local public health agencies should work with individuals in this group to link them to medical care at the time of the initial diagnosis. Follow up should be determined locally based on available resources for those individuals whose diagnosis was in the past but public health has not previously had this discussion with the individual. If the individual declines referral to medical care, a risk assessment should determine further public health intervention including legal measures as outlined below in the step wise approach to require linkage to care if there is evidence of risk to others. If any complaints or concerns were to arise, a viral load would help direct further action.

   In addition, local public health agencies could work with community organizations to increase the awareness about the importance of HIV positive individuals' accessing care and treatment. At the provincial level, collaboration with the AIDS Bureau on communication campaigns could also help to achieve the goal of having HIV positive individuals accessing care as early as possible, thereby decreasing risks of transmission to others.

2. HIV positive individuals who are accessing care but have detectable viral loads i.e. viral loads > 40 copies/ml
   This group of individuals with HIV presents a potential risk to the community and therefore justifies focusing public health efforts. Local public health agencies should work collaboratively with individuals in this group and HIV care providers to identify barriers to achieving undetectable viral loads and depending on local capacity may also actively work to address the barriers. Local public health agencies would follow the stepwise approach outlined below if ongoing concerns about risk occurred.

3. HIV positive individuals who are accessing care and have undetectable viral loads i.e. viral loads < 40 copies/ml
   HIV positive individuals in this group will be on ART and achieving undetectable viral loads although the test will not be reportable to public health. If any new information came to light that would trigger reassessment, further action should be assessed on a case by case basis following the stepwise approach as outlined below.
(4) HIV positive individuals who are not aware of their HIV status

Although this is an important group that contributes to our ability to effectively control HIV, this is outside the scope of case management but should be an important focus of sexual health/STI prevention programs.

**Step wise approach to public health intervention**

**Re-Counselling HIV Positive Individuals Potentially Exposing Others to Infection**

Appropriately trained public health professionals are skilled in counselling, information exchange and application of the *Health Protection and Promotion Act*. Ensuring that individuals with HIV understand how to minimize risk to others and their responsibilities to others is the first step. Providing assistance with disclosure or identifying appropriate community resources is also important. See Appendix 1 for a counselling checklist.

**Consultation with MOH or AMOH**

Public health may receive reports from health care providers or members of the public regarding individuals infected with HIV who are exhibiting unsafe sexual or drug use equipment sharing behaviours. Cases in which HIV individuals are putting other at risk are difficult and require comprehensive public health follow up and intervention to reach compliance with public health recommendations to reduce risk to others. Anonymous reports may trigger a discussion with the individual with HIV to raise the identified concerns and to provide an opportunity to re-enforce public health requirements, but without further information or confirmation, would not provide enough grounds to pursue further legal action but could trigger more intense follow up.

Consultation would occur in situations when the individual with HIV:

- is refusing counselling
- is refusing to name sexual or drug use equipment sharing contacts (this would not apply in cases in which the identity of partners are not known)
- is denying they are infected with HIV
- is engaging in penetrative (vaginal or anal) sex or drug use equipment sharing without disclosure
- tests positive for a STI or BBI
- is pregnant or named as the father of a pregnancy
- is pregnant and not complying with ART
- has deliberately donated blood, sperm, organs or breast milk
- is continuing to breastfeed
- is refusing to make appropriate changes in behaviour and continues to put others at risk
• Identification of issues that would prevent the individual with complying with requirements e.g. concerns regarding addictions, mental health, incapacity

Possible public health interventions could include one or more of:
• linkage to care – mental health, addictions, primary care, HIV care
• assistance with achieving adherence to ART
• assistance with securing stable housing or applying for OW or ODSP
• collaborating with social work to address concerns regarding violence or abuse
• linking with community agencies for support including, but not limited to, local AIDS organizations, Children’s Aid Society
• a case conference with the primary care health care provider, other health care professionals, counsellors, or others in HIV prevention, in consultation with the AMOH.
• providing one on one nursing support including short term Directly Observed Therapy in collaboration with health care providers in exceptional cases

Often, by providing support to cases and addressing these challenging issues, the need for more coercive measures is eliminated. Ensuring that all relevant health care providers are aware of the concerns and are able to identify barriers and assist the individual with compliance is helpful in managing difficult cases. When these measures fail, a section 22 order must be considered.

Section 22s and other legal measures (applicable to Categories 1 and 2 as outlined above)

In cases in which the infected individual is not compliant with measures to reduce the risk of transmission to others, the Medical Officer of Health is empowered to order compliance under Section 22 of the HPPA to ensure that the risk of transmission of infection is minimized. When deciding to issue an order, factors such as the HIV status of partners, viral load values, co-infection with other STIs or BBIs, and the type of sexual activity in question may also be taken into consideration as has been discussed in previous sections.

The criteria required for issuing a Section 22 Order are as follows:
• Evidence of HIV infection i.e. a report of HIV or AIDS with adequate identifying information; AND
• Evidence of detectable viral loads (>40 copies/ml) or viral load unknown; AND
• Evidence of continued potential exposure of others to HIV; AND
• Reasonable non-coercive means to decrease or eliminate the risk of HIV infection to others have been implemented and have not been effective. An exception to this criterion would be situations of imminent risk or significant egregious risk. An example of this could be an individual with high viral loads not practicing risk reduction strategies and/or not disclosing with multiple partners.
Under Section 22 of the HPPA, MOHs have the legislative authority to issue a written order requiring a person to take or to refrain from taking actions with respect to a communicable disease. In the case of HIV, which is not curable, the order usually involves ordering the person to change their behaviour to reduce or to eliminate the risk to others or to require the individual to name their partners for the purpose of contact tracing.

All actions relating to the investigation should be documented with notation of the date(s), type of contact (i.e. telephone call, person-to-person, or letter), the cases’ and partners’ responses and the signature of the STI program staff involved in the follow-up. Any situation in which a Section 22 order is being considered must be brought to the attention of the Program Manager who will review the file with the MOH or AMOH to make the decision to issue the order.

The order should contain (see Appendix 2 for a sample order):

- The full name (ensure correct spelling) and address of the individual to whom the order is being issued
- State the reason(s) why the order is being issued
- Identify the source(s) of the information (i.e. laboratory report, report from attending physician). Note: An order should **not name** a specific individual as the source of the information (i.e. the name of a person who has named a contact)
- Be worded to identify clearly what is expected of the client, which could include requirements to:
  - Attend medical appointments and comply with recommended treatment and advice
  - Have viral load testing a minimum of every 6 months
  - Report the results of viral load testing to the local public health agency
  - Have regular testing for STIs and BBIs
  - Wear condoms for vaginal and anal sex
  - Inform oral, vaginal and anal sex partners verbally
  - Not to share injection equipment
  - Not to donate blood, plasma, organs, sperm or tissue
  - Provide partner names to date and comply with ongoing requests in the future
  - Ongoing counselling as needed
- State the required time frame for response (usually client is requested to contact PHN within five working days)

**Serving of the Order**
A section 22 order is sufficiently given, served or delivered
a. if delivered personally
or
b. if sent by ordinary mail addressed to the person to whom it is to be given served or delivered at the person’s last known address.
A copy of the signed order shall be made prior to delivery for inclusion in the case's file. The program staff member who served the order must document on the last page of the order (File Copy) details of when date and time, how, and by whom the order was served. This information should also be documented on the progress notes of the client's STI record.

When an order is mailed by ordinary mail, an order shall be deemed to be given, served or delivered on the 7th day after the day of mailing. An order can also be delivered by a bailiff if the individual is difficult to find or if there any concerns about safety.

Appeal Process:
- The order takes effect on the date it has been served, regardless of whether there is an appeal by the individual to whom the order is directed
- The Section 22 Order must inform the client that he or she has the right to a hearing before the Health Services Appeal and Review Board in accordance with Section 44 of the Health Protection and Promotion Act
- The client may request a hearing by the Health Protection Appeal Board (HPAB) by written notice to the MOH within 15 days after the order is issued

Section 22 Orders are not time-limited and there is no mechanism prescribed by the HPPA to require a review of the continuing relevance or necessity of a Section 22 Order (other than provision for an appeal, if desired by the person to whom the order is issued). With most communicable diseases, there are generally clear endpoints for the duration of the order (e.g. the risk of disease transmission no longer exists once the person is no longer infectious either as the result of treatment or the passage of time). In the case of HIV, a person cannot be rendered non-infectious permanently with 100% assurance. Rather, the endpoint of a Section 22 Order against a person with HIV would be the adoption of behaviours that minimize or eliminate the risk of disease transmission to others. Local public health agencies should develop a policy to follow up cases after orders are issued to ensure that compliance is achieved within the specified time period for those items in the order that have a time frame attached (e.g. naming contacts or attending counselling). Viral load testing can be used as an ongoing tool to monitor compliance at a minimum frequency of every 3 months and no longer than 6 months. A process for follow-up at regular intervals over a time period specific to each particular case should be in place when the order is issued. A process should also be in place to track and to monitor orders issued.

Persons who continue to be non-compliant may be prosecuted under the HPPA. Although any person who fails to obey an order made under the HPPA may be fined up to $5000 for every day that the offence continues, this option is not useful as it will not achieve public health goals. A section 102 order (application for a court order) is the preferred option and it may be sought upholding the original Section 22 order primarily only in cases with detectable viral loads (i.e. >40 copies/ml). A section 102 order is prepared by legal counsel and consists of a formal request to a provincial judge to uphold the requirements of a Section 22 with supporting affidavits that show the evidence of risk to the community and public health actions to date.
An iPHIS alert should be created for all clients who have Section 22 or 102 order served with the distribution group for STI. This documentation will ensure that, if a client moves to another health unit, that local public health agency will be aware that there is a Section 22 or 102 Order for this client. In addition, if the AMOH or MOH who issued the initial order becomes aware that the individual is moving to another health unit, they should contact the AMOH or MOH where the client is moving to ensure that any further action can be taken if needed. **Note:** To protect the client’s confidentiality program staff will ensure that the distribution group is only for STD.

Local public health agencies may request notification of potential criminal prosecutions to allow public health to work with HIV individuals who have contact with the criminal system, to ensure that they have the appropriate counselling and support to decrease risks of transmission within the community and to undertake additional public health action as required. This action will also identify other persons who may be at risk within the community to allow comprehensive counselling and testing. Public health does not share any information with the police, other than that requested under sub poena, and would not report any cases to them.

**Expert panel**

It is recommended that the Chief Medical Officer of Health, in collaboration with the Council of Ontario Medical Officers of Health, strike a Community of Practice to provide consultation for difficult HIV cases. The COP would consist of public health experts including experienced A/MOHs and technical advice from Public Health Ontario in the areas of laboratory medicine, infectious disease and epidemiology. This panel would be able to provide consultation and advice to MOHs dealing with difficult cases, particularly in jurisdictions with few HIV cases.
Appendix 1: Re-counselling checklist

This counselling session will include:

a) An explanation of:
   □ The role of public health staff i.e. providing education to reduce the spread of infection and their responsibility for partner notification.
   □ The Health Protection and Promotion Act (HPPA) in reference to controlling the spread of infection and protecting the public.
   □ Why health unit has concern for client not using transmission reduction methods i.e. evidence from health care provider, lab report, Children's Aid Society, etc.
   □ The importance of self-protection including discussion of the negative impact of repeat infections on client’s health (HIV status), risk of transmission, health of partner and legal implications.
   □ Instruction to the client to inform all current and future sexual partners of their HIV+ status prior to penetrative (anal, oral or vaginal sex) sexual activities and to use condoms for anal and vaginal sex. Discuss barriers and strategies to consistent condom use as appropriate. Discuss the importance of achieving an undetectable viral load. In particular; that an undetectable viral load does not mean the absence or cure of HIV infection or that there is no risk of transmission to sexual or drug equipment sharing partner. It should be emphasized that disclosure of HIV positive status to all sexual and drug equipment sharing partners must continue despite an undetectable viral load.
   □ The importance of adhering to ART – for their own health and to decrease the risk of transmission to others including the fetus if pregnant
   □ Discussion of legal climate i.e. our actions and concerns are from a public health perspective, however clients also need to be aware of the potential legal considerations. The Supreme Court of Canada addressed the issue of HIV disclosure with the Cuerrier decision in 1998 and more recently with the Mabior decision in 2012. Clients should be referred to the HIV/AIDS Legal Clinic of Ontario (HALCO) (416)-340-7790 or 1-888-705-8889 (Toll-Free) for information or advice pertaining to HIV disclosure and the criminal law.

b) An assessment of:
   □ The case’s current knowledge of HIV or other STIs including what it is, how it is transmitted and how to reduce risk of transmission i.e. safer sex and safe needle use.
   □ Linkage to HIV care and understanding of the benefits and importance of compliance with ART
   □ The case’s actual compliance with ART
   □ The barriers and solutions to being compliant with ART
   □ The case’s actual use of safer methods i.e. understanding how to use a condom, understanding not to share needles or ‘works’, knowing not to donate blood, semen, organs or breast milk and not to breastfeed.
   □ The barriers and solutions to using safer methods i.e. alcohol and drug use, nature of relationships, behaviour surrounding risk taking, community programs and resources, etc.
- The case’s mental health status.
- The risk level of the behaviour, the frequency of the risk behaviour, the vulnerability of the persons at risk for HIV transmission. Behaviours should be placed in risk categories.
- The vulnerability of the person at risk of HIV transmission (i.e. a child or minor under the age of 18)
- The vulnerability of the HIV person if there is disclosure (i.e. domestic violence, inmates in jail)
- The response of the HIV positive person to the intervention by public health
- Awareness of needle exchange sites.
- Awareness of other infant feeding methods and where to obtain assistance. STI case manager will refer the pregnant, newly delivered HIV positive mother, or both, to relevant public health prenatal programs and specialist referral for follow-up.
- Linkage to appropriate local agencies

c) An exploration of strategies for behaviour change:
- Discuss with client the requirement to and strategies for informing potential partners of their HIV + status.
- Discuss with case regarding how to negotiate transmission reduction strategies.
- Provide assistance in developing strategies to effect behaviour change as indicated by case.
- Assess personal resources and needs, and refer as indicated.
- Discuss appropriate use of condoms or provide condom demonstration.
- Assess compliance with ART and discuss strategies to enhance adherence to ART

d) Partner Notification:
- Discuss with case their requirement and approach to disclosing HIV status and the need to have informed consent from future partners.
- Offer assistance in confidentially contacting past sexual and needle sharing partners.
- Explain local public health agencies have accountability for ensuring partners are notified.
- Offer support to case who wishes to inform his or her past partners.
- Assess case’s understanding of the impact on self or others of continued unsafe practices.
- Counselling should also include information and support for protecting a regular partner or spouse. This could involve referral for medical advice about conceiving a child or use of pre-exposure prophylaxis, etc.
- Notify Canadian Blood Services in case of blood donation or other donation services if sperm or organs were donated. Send letter to Canadian Blood Services or other donation service and keep a copy in the file.
e) An explanation of the legal considerations of continued evidence or complaints of spreading HIV for individuals who fall into Category 1 or 2 as outlined above as necessary depending on the circumstances:

- Explain Section 22 order and other potential legal considerations.
Appendix 2: Sample Section 22 order for HIV

ORDER

made pursuant to Section 22 of the Health Protection and Promotion Act, R.S.O. 1990, c.H.7

[insert date]

TO: [insert client name]
   [insert client address]

I, [insert physician’s name], Associate Medical Officer of Health for the [insert health unit name], order you to take the following action:

For men:

1. Abstain from any sexual activity that involves penile penetration into the vagina or anus of another person or penile penetration into your anus by another person, unless the following conditions are met:

   a) Inform your partner verbally prior to penetrative sexual activity that you are infected with Human Immunodeficiency Virus (HIV), the causative agent of AIDS; and

   b) Wear a latex condom on your penis from onset of erection up to and including the completion of sexual activity if you are the penetrative partner and/or ensure your partner wears a latex condom on his penis from onset of erection up to and including the completion of sexual activity if he is the penetrative partner.

2. Abstain from any sexual activity that involves penile penetration into the mouth of another person or penile penetration into your mouth by another person, unless the following condition is met:

   a) Inform your partner(s) verbally prior to penetrative sexual activity that you are infected with Human Immunodeficiency Virus (HIV), the causative agent of AIDS.

For women:

1. Abstain from any sexual activity that involves penile penetration into your vagina or anus by another person, unless the following conditions are met:

   a) Inform your partner verbally prior to penetrative sexual activity that you are infected with Human Immunodeficiency Virus (HIV), the causative agent of AIDS; and
b) Ensure your partner wears a latex condom on his penis from onset of erection up to and including the completion of sexual activity.

2. Abstain from any sexual activity that involves penile penetration into your mouth by another person, unless the following condition is met:

   a) Inform your current and any future partner verbally prior to penetrative sexual activity that you are infected with Human Immunodeficiency Virus (HIV), the causative agent of AIDS.

For both men and women:

3. Do not provide to any other individual, equipment or other material, such as needles or syringes, which you have used to inject drugs or other substances, or which you have used to penetrate your skin;

4. Do not donate blood, plasma, organs, sperm or tissue;

5. Continue to attend [insert health care provider’s name] and comply with recommended treatment and advice including attendance at scheduled medical appointments in connection with your HIV diagnosis;

6. Complete HIV viral load testing at a minimum frequency of every 3 months and no longer than 6 months or when requested.

7. Provide to the public health nurse [insert first name], at [insert phone number] within 5 working days of receipt of this order the names and last known addresses of any partners with whom you have had unprotected penetrative sexual activity since [insert date].

THE REASONS for this ORDER are that:

1. I received a report pursuant to Section 29 of the Health Promotion and Protection Act indicating that you are infected with Human Immunodeficiency Virus (HIV) the agent of a communicable disease, namely Acquired Immune Deficiency Syndrome (AIDS), Laboratory report number [insert lab number], testing date [insert date] reported to [insert health unit name] on [insert date].

2. On [insert date] the public health nurse, [insert first name] advised you of the importance of partner notification and the need for names of partners who might be at risk of having been exposed to HIV. [Insert name] requested that you provide her with the names and addresses of partners who might be at risk of having been exposed to HIV.

3. On [insert date] you refused to provide [insert health unit name] with the name and address of your sexual partner.
4. On [insert date] your health care provider [insert provider’s name] reported to [insert health unit name] that you refused to provide him with the name and address of your sexual partner.

5. HIV is spread to other persons by unprotected sexual activity and can result in serious illness and/or death. Notification of sexual partners of their possible exposure to HIV is essential.

I am of the opinion, on reasonable and probable grounds that:

a. a communicable disease exists or may exist or there is an immediate risk of an outbreak of a communicable disease in the health unit served by me;

b. the communicable disease presents a risk to the health of persons in the health unit served by me; and

c. the requirements specified in this order are necessary in order to decrease or eliminate the risk to health presented by the communicable disease.

NOTICE

TAKE NOTICE THAT you are entitled to a hearing by the Health Services Appeal and Review Board if you deliver to me and to the Health Services Appeal and Review Board, Health Boards Secretariat, 151 Bloor Street West, 9th Floor, Toronto, Ontario, M5S 2T5, notice in writing, requesting a hearing within 15 days after service of this Order.

AND TAKE FURTHER NOTICE THAT although a hearing may be requested this Order takes effect when it is served upon you.

FAILURE to comply with this Order is an offence for which you may be liable, on conviction, to a fine of not more than $5,000.00 for every day or part of each day on which the offence occurs or continues.

[insert signature]
Associate Medical Officer of Health

Served upon:

Time [insert time] on [insert date]

Hand delivered by [insert name]