Breaking Barriers

HIV/AIDS and the Dental Patient
Approximately 4,553 people in AB live with HIV/AIDS
(Public Health Agency of Canada Surveillance Report to Dec. 31/2006)

Approximately 58,000 people living with HIV/AIDS in Canada and 27% do not even know it
(Public Health Agency of Canada Surveillance Report to Dec. 31/2006)

In 2006, 218 new HIV infections were reported in Alberta (Alberta Health and Wellness 2007)

Every 2 hours, someone in Canada is infected with HIV (Canadian Public Health Association 2007)

Globally, an estimated 33.2 million people living with HIV and 25 million people have died since the pandemic began
(UNAIDS Epidemic Update Dec. 2007)
People living with HIV/AIDS are having serious problems accessing oral health care services in Alberta.

Difficulties Accessing Medical and Dental Services: Alberta’s Positive Voice Conference Survey
AIDS Calgary, 2005

19% of people in a community-based study reported being refused treatment by a dentist or dental hygienist due to their HIV status.

15% in this study also found it difficult to find a dentist willing to take them as a patient due to their HIV status.

38% in this study also reported having to actively search for a dentist for a month or more.

42% in this study felt uncomfortable or believed they were treated badly when receiving health care because of their HIV status.
For most Albertan’s, going to the dentist is as common place as eating breakfast every morning. Unfortunately for many, obtaining the proper oral health care they need is not as easy, especially for those living with HIV/AIDS. Many are faced with fear of discrimination and therefore, do not attend to their regular oral health as they should.

Proper and essential oral health care is necessary for people living with HIV/AIDS because they can suffer numerous unique oral conditions associated with this disease.

It is our responsibility as professionals to provide people living with HIV/AIDS the essential services they need. The entire dental team must share this perception as we all play a key role in health promotion and good oral health.

The Alberta Dental Association and College has produced this handbook to help build knowledge and skills required to provide an empathetic environment for the personal, social and health challenges faced by many individuals living with HIV/AIDS as well as any other communicable disease. I would like to take this time to extend a very special thank you to AIDS Calgary for their committed partnership in this project. We have been proud to be a dedicated community partner.

Dr. J.I. (Jonathan) Skuba
President

The ADA+C would like to thanks the following organizations for their generous contributions to the making of this publication:

AIDS Calgary - Ms. Jessica Leech - Team Leader, Community Strategies.

www.HIVdent.org - oral manifestation pictures - pages 19 - 25

Dr. David I. Resenstein - Oral Health and HIV - Common Oral Conditions - San Francisco Aids Foundation - pages 18 - 26

Dr. Trey Petty - Infection Prevention and Control in the Dental Office: An opportunity to improve safety and compliance - Canadian Dental Association - Infection Control - pages 27 - 31
# Table of Contents

1. Program Overview................................................................................................................. 6

2. HIV / AIDS Primer.............................................................................................................. 7
   - HIV
   - AIDS
   - Basic Transmission
   - Occupational Risk

3. Care guidelines for people living with HIV......................................................................... 10
   - Appropriate Dental Care
   - Creating a Safe Environment
   - Guidelines for Excellent Service Provision

4. Oral manifestations of HIV.................................................................................................. 14
   - Common Oral Conditions
   - Conditions Found More Often in People with HIV

5. Infection Control Procedures.............................................................................................. 23

6. Discussion of Stigma and Discrimination ........................................................................... 27
   - Stigma & Discrimination
   - Homophobia
   - Disclosure & Confidentiality

7. Human Rights - The Law and Ethical Responsibility........................................................... 29

8. Resources for the Health Professional.................................................................................. 33

9. The Alberta Community Council on HIV (ACCH)............................................................... 34
Program Overview

The purpose of this publication is to provide dentists and other oral health care practitioners with practical advice for initiating and maintaining a high standard of HIV oral health care for their patients.

We may have thought that the AIDS issues were at the top of everyone’s mind in the 80’s, but they are just as prominent, if not more so, today.

As you graduated from University with a degree in Dentistry, you took on an ethical responsibility to provide oral health care to those in need.

This publication was produced to:

- Provide an understanding of HIV/AIDS, stigma, discrimination, homophobia, human rights law, ADA+C Code of Ethics and the roles and responsibilities of oral health care providers.
- Increase the capacity to work effectively with diverse populations including those living with HIV / AIDS.
- Outline the best practices to improve the response to the unique needs of these diverse populations and to ensure their access to optimal oral health care.
In providing dental care, dentists face the challenge of providing optimum care and respect for patients while minimizing any health and safety risks for themselves and others. In the case of caring for patients living with HIV, this can be a challenge fraught with many questions and concerns. The following section provides an overview of HIV transmission and some useful information regarding occupational risk.

**What does HIV stand for?**

- **Human:** found in humans
- **Immunodeficiency:** a weakness in your immune system (specifically an attack on helper T cells of the immune system)
- **Virus:** ultramicroscopic infectious agent that replicates itself only within cells of living hosts

- Diagnosed by an HIV-antibody test

**What does AIDS stand for?**

- **Acquired:** condition is not inherited – you acquire (get) it at some point in your life
- **Immune Deficiency:** weakness in your immune system
- **Syndrome:** a combination of symptoms indicating a certain disease

- (In Canada) AIDS is diagnosed when a person shows one or more opportunistic infections or cancers

**Are HIV and AIDS the same thing?**

- AIDS is a condition caused by HIV.
- Many people infected with HIV live with the virus for many years or decades.
- An AIDS diagnosis occurs when a person’s immune system becomes compromised, and a person has been diagnosed with one or more opportunistic infections.

**HIV can be transmitted through the following body fluids:**

- Blood
- Semen
- Vaginal fluid
- Breast milk
You cannot pass HIV infection with:

- Saliva
- Tears
- Urine
- Mosquitoes
- Toilet Seats
- Kissing
- Hugging

Risk

Occupational risk of transmission

Significant exposure to HIV occurs when a type of body fluid capable of transmitting the virus comes into contact with:

- tissue under the skin (e.g. needle stick or cut) = approx. 0.3% (1 in 300)
- mucous membranes (e.g. splash to the eyes, nose or mouth) = approx. 0.1% (1 in 1000)
- intact skin (e.g. splash on forearm) = less than 0.1% (less than 1 in 1000). A small amount of blood on intact skin probably poses no risk at all; there have been no documented cases of HIV transmission this way. Risk may be higher if skin is damaged (e.g. recent cut), if the contact involves a large area of skin, or if the contact is prolonged.

Occupational Risk of Transmission

“the risk of transmission in the dental office (from provider to patient, patient to provider or patient to patient) is so low as to be virtually undetectable”

American Dental Association AIDS Update 2003  www.ada.org
Center for Disease Control: Bloodborne Pathogens – Occupational Exposure
http://www.cdc.gov/OralHealth/infectioncontrol/faq/bloodborne_exposures.htm#3

A Common Form of Human Rights Violation is a Dentist refusing to take on a new patient due to their HIV status.
**Myth:**

HIV and AIDS are the same thing

**Fact:**

To this day, many people still see HIV and AIDS as the same thing. HIV is a virus, the human immunodeficiency virus. AIDS is Acquired Immune Deficiency Syndrome and HIV is the contributing cause of AIDS.

**Myth:**

Latex material has tiny holes that allow HIV to enter

**Fact:**

The HIV virus cannot infiltrate anywhere on its own and is limited to certain organs containing bodily fluids. HIV has no chance of crossing the latex confines. It is essential to be aware that latex can tear which would be the means of travel for the Virus.

**Myth:**

HIV is a death sentence

**Fact:**

Although there is no way to remove this virus from the body, if caught in the early stages there are proven effective ways of treating this virus. The use of antiretroviral drugs (ARV’s) are used to curb HIV infection in the body to stop the development of AIDS.

**Myth:**

A pregnant woman with HIV cannot have children without infecting them

**Fact:**

Pregnant women that have not received treatment have a transmission rate of 20-30%. If women are receiving treatment with antiviral drugs and bottle feed their babies, this rate can be reduced to 1%.
The Alberta Dental Association and College works to ensure that the oral health of Albertans is advanced through safe, available, affordable, quality and ethical dental services. In order to provide the best services possible for people living with HIV, dentists must understand their role within a broader care team of health professionals working with the patient and must work to ensure that they are providing a welcoming, respectful environment for their patients. The following section provides an overview of appropriate care for patients living with HIV, strategies for developing a safe and empathetic environment for patients, Guidelines for Excellence in Service Provision for People Living with HIV and some recommendations for ways dentists can work to improve their dental practices.

**Recommendations for Alberta Dentists**

- Create long-term sustainable changes to your practice to improve access to dental services for people living with HIV/AIDS in Alberta.
- Create a Policy statement on Treatment of Patients Living with HIV/AIDS in your practice.
- Educate yourself and others in your practice about human rights and the ADA+C Code of Ethics.

**Appropriate Dental Care**

90% of people living with HIV develop at least one oral condition. It is often the dentist who will be the first to identify an oral manifestation of HIV, even in patients who are not known to be HIV positive*

- Dentist provides routine dental care, including cleaning, fillings, etc. and watches for oral manifestations of HIV.
- Dentist consults with patient’s doctor or specialist dentist when concerns arise (e.g. concern regarding drug interaction).
- Dentist is aware that when a person is severely or profoundly medically compromised (e.g. severe renal dysfunction, respiratory depression, altered states of consciousness) they should refer patients to a multidisciplinary hospital setting (e.g. Foothills Dental Clinic) or another dentist with specialized equipment and extensive experience treating PLWHA.
- Dentist may recommend that patient visits specialist clinic once a year for check up.

Examples include: oral candidiasis, gingivitis and periodontal disease, hairy leukoplakia, kaposi’s sarcoma (KS) *

---

*HIV and Oral Health Care and Confidentiality, Canadian Health Network website, 2005
Take the time to build a safe and empathetic environment

1) Hold a staff meeting focused on developing a compassionate and safe environment for people living with HIV to access services:

- Designate a facilitator to lead the office through a discussion of HIV in the workplace, this facilitator will prepare in advance to carry out the following activities.
- Call a staff meeting, let staff know that at the meeting you will be discussing how your office can better address HIV in your practice.
- Begin the meeting by discussing that HIV is a challenging issue for dental providers, not just technically, but also emotionally. Explain that what you want to do today is to have an open discussion about people’s concerns around HIV/AIDS. This means that people need to feel safe and to feel like they are free to discuss their feelings on this difficult issue.
- Set the tone for the discussion by setting ground rules. Ask the group what they think the rules for this discussion should be. Include rules like: 1) No judgment- don’t judge the way people feel, 2) Allow others to express themselves without interrupting, 3) Respect each other, etc.
- Write these two words on a white board or a large piece of paper on the wall: Concerns/ Fears
- Ask people to brainstorm some of their concerns and fears regarding providing dental care to people living with HIV. Write these concerns and fears on the whiteboard/ paper.
- If people are hesitant to talk, the facilitator can get the ball rolling by discussing some of their own fears/ concerns (e.g. concern about getting a needle stick, not being sure about the best sterilization techniques for a specific piece of equipment, not liking to provide dental care to people who don’t take care of their teeth well, not knowing what to talk to them about, not wanting to offend them, being worried about infections or drug interactions, etc.)
- Try to get some discussion going. If the discussion is too superficial, delve deeper by asking people why they have a certain concern or fear, or by asking people what their experiences providing care to people living with HIV have been so far.
- After some discussion, look at the responses and summarize them. This could include comments like, “This group seems quite comfortable with serving people living with HIV, but it seems like there are a few things people would like to learn more about”, or, “This group seems to have a lot of concerns about serving this group, so it may be a good idea to create a strategy to help us address these concerns”.
- Leave the initial brainstorm on the whiteboard or wall, and write two new words on the whiteboard/ paper: Overcoming fears, finding solutions.
- Start going through the list of concerns/fears and, for each one, ask the group: “What could we do in our office to overcome this fear or find a solution to address this concern”.
- Write the responses on the whiteboard/ paper. If people are not sure how to address a certain concern, write that down too.
- In the end, this list may include things like having a staff information session on HIV transmission, having a consultant come in to review the office sterilization system, having a staff in-service on barriers to good dental hygiene and how a provider can help patients work with limited resources to maintain their dental care or inviting a person living with HIV to visit the office and talk to the staff about their experience living with HIV, contacting an HIV doctor to discuss possible infection and drug interaction issues, etc.
- After some discussion, look at the responses and summarize them. Identify which solutions people would like to see implemented. Identify who will follow up to ensure that these items are addressed and create a time-line in which the items will be followed up. If appropriate, set another meeting date for follow up.
2) Hold a staff meeting and invite a person living with HIV to speak to your office.

AIDS Service Organizations in Alberta may be able to assist you in setting up a session with a speaker who is living with HIV who can share their unique experience and story with your staff. This is an excellent opportunity to learn about the challenges people living with HIV face in their lives, to ask questions that you would not normally ask a patient in your dental office, and to build awareness and respect for people living with HIV through getting to know someone as a person.

3) Hold a staff meeting and invite a representative from your local AIDS Service Organization to provide a session on HIV/AIDS for your staff.

Let them know in advance what you would like them to cover, or if there are any specific questions you would like them to address. This can be an excellent opportunity to refresh staff on basic HIV/AIDS transmission, discuss occupational risks of exposure, and discuss other care issues for patients living with HIV/AIDS.


Guidelines for Excellence in Service Provision for People Living with HIV
(adapted from the General Dental Council Standards for Dental Professionals)

Guidelines for Excellence in Service Provision for People Living with HIV
(adapted from the General Dental Council Standards for Dental Professionals)

1) Put patients’ interests first and act to protect them.
   • Work to overcome any fears or concerns you may have in order to provide your patients living with HIV with the best care possible
   • If you feel like someone in your office is not being respectful towards a patient, pull them aside to discuss the problem
   • Consider the challenges your patients may be facing, and try to find ways to help them overcome those challenges. For example, many people living with HIV are living on very low incomes, so providing them with an extra toothbrush, floss and toothpaste may help them better maintain their dental hygiene between visits. Similarly, many people living with HIV are on income support programs like AISH or CPP-D that provide limited dental coverage. So, taking the time to discuss which dental options cost the least but offer the best quality could help reduce the financial burden they will need to bare.
   • Take patient complaints seriously and respect their right to make a complaint if they feel that the service they have received is not adequate or respectful. Respond to those complaints appropriately. Understand that many people living with HIV have had negative experiences in the dental office, and may be more sensitive to the way they are treated as a result.
2) **Respect patients’ dignity and choices.**
   - Treat all of your patients with dignity and respect
   - Even if you don’t agree with the choices your patient has made (e.g. drug use, smoking etc.), respect their right to make decisions for themselves and do not treat them badly because of their choices.
   - Recognize the right of each individual to make decisions regarding their bodies, their care, and their priorities and discuss any treatment decisions with the individual before proceeding to deliver care.
   - Treat patients equally and in line with Alberta Human Rights law. Do not discriminate against any person on the basis of physical/mental disability (including HIV status, Hepatitis C status, drug and alcohol addiction), gender (including transgendered/transsexual people), sexual orientation, family status, marital status, source of income (including AISH and other benefits programs) race, colour, ancestry, place of origin, religious beliefs or age.
   - Create an office space that is welcoming and inclusive of diversity. Decorate with posters and provide reading materials that reflect the diversity of the people you serve, including ethnicity, sexual orientation, gender, socio-economic status and disability. Including a poster or pamphlet to raise awareness about HIV and to reduce stigma will help encourage your patients to feel safe about disclosing their HIV status. Contact your local AIDS Service Organization to request materials.

3) **Protect the confidentiality of patients’ information.**
   - Due to the stigma attached to HIV status, many people living with HIV do not even share their HIV status with their friends and family. Any information on HIV status shared with a dental professional must be kept confidential and used only for the purpose for which it was given.
   - Within the dental office, extra care should be taken in discussing the individual’s HIV status to ensure that other staff and patients are not able to eavesdrop on confidential conversations in open concept spaces. If it is necessary to discuss information related to the patient’s HIV status, the conversation should take place in a private and confidential location, like a closed office or examination room.
   - All patient information collected should be kept in a secure location (e.g. a locked filing cabinet) in order to prevent accidental disclosure or unauthorized access to confidential files.
   - If it is necessary to share patient information with a health professional outside of the dental office, the patient should be asked to provide their written consent.
   - Ensure that intake forms in dental offices are specify that information collected will be kept confidential and will not be used to screen people as patients, but instead, will be used to ensure superior care tailored to their specific needs, and appropriate referrals when necessary.

4) **Co-operate with other members of the dental team and other healthcare colleagues in the interests of patients.**
   - Referrals to other health care professionals should be made when appropriate. For example, if the care the patient requires falls outside of your knowledge, professional competence or physical abilities, the patient should be referred to a specialist. However, for routine care and care that falls within your competence, you should provide the patient with care, even if it requires extra work on your part to consult with their primary care physician or other member of their health team. Due to the limited number of HIV dental specialists, long waiting lists for specialized dental care, limited geographical availability of such specialized care and the limited financial resources of many people living with HIV to afford travel to these locations, every effort should be made to provide care within their local dental practitioner’s office.
   - Dentists should work with other health care providers to monitor HIV progression and treatment failure. For example, if a patient who has been on anti-retroviral treatment suddenly develops an oral manifestation of HIV, the dentist should consult with the patient and, provided they consent, with their primary care physician to address the health issue as a team.
No treatment of any oral health problem should be avoided simply because a person is HIV positive. Reports early in the AIDS epidemic suggested that procedures such as root canals should not be performed in people with HIV. There were also suggestions that dental treatment should be postponed for anyone with a CD4 cell count below 200 cells/mm³. Though these reports were inaccurate, their impact continues to be felt; some textbooks with recent publication dates still contain these misstatements.

All procedures and devices — including periodontal surgery, endodontics (root canals), orthodontics (braces and retainers), implants, bleaching, and bridges — can be safely and effectively provided regardless of immune status. As always, one should weigh the cost and time of the service against the expected benefits.

**Common Oral Conditions**

While we recommend that all people seek routine care to prevent oral health problems from developing, this is particularly important for those living with HIV. One rationale for this preventive measure is that individuals with a compromised immune system need to avoid bacterial infections. The two major oral health conditions, dental caries and periodontal disease, are both caused by bacteria and may be exacerbated by other factors.

**Caries and Dry Mouth**

Dental decay, or caries, is a common problem in the general population, and having a few carious lesions (cavities) is not unusual. These are typically prevented by the use of fluoride and good oral hygiene, including regular brushing and flossing of the teeth and gums.

Some medications used by people with HIV — and even HIV itself — may cause decreased salivary flow, or dry mouth, which is known to contribute to rampant caries. These lesions frequently develop at the cervical region of the tooth, where the crown meets the root. The tooth surface in this area consists of a bony substance called cementum, not enamel, and is more likely to decay at a faster rate. This can lead to infection of the soft tissue inside the tooth and the formation of an abscess.
It is important to receive care at an early stage of this disease in order to avoid abscesses. Treatment includes the use of techniques such as “scoop and fill,” in which the bulk of the decayed material is scooped out — usually without anesthesia, using hand instruments — and replaced with a temporary filling that contains fluoride to inhibit further decay. The filling material of choice is glass ionomer. This treatment requires a dentist, who can restore each tooth in a traditional manner after the scoop and fill process. Infections of the pulp of the tooth should be treated with an antibiotic, preferably penicillin.

Anti-HIV drugs such as indinavir (Crixivan) and ddI (didanosine, Videx) may cause dry mouth. Other medications associated with the condition include interferon alpha (used to treat chronic hepatitis B and C) as well as some antidepressants, antihypertensives, antihistamines, antipsychotics, and diuretics. This does not mean that any person taking one or more of these drugs will have dry mouth followed by rampant caries, although people taking these medications should be aware that this could occur.

Fortunately, symptoms of dry mouth can be treated using simple measures. Artificial saliva products can be effective in people who have active tooth decay resulting in part from drug-related dry mouth. The frequency with which these products must be used may be unrealistic, however; it may be preferable to use sugar-free citrus candies such as lemon drops, which also stimulate saliva production.

It should be noted that small cavities can quickly become large cavities and abscesses, so early intervention and treatment is advisable.

**Periodontal Disease**

Periodontal disease is a chronic inflammatory process involving specific bacteria and affecting the tissue and bone supporting the teeth. While periodontal disease can occur in anyone regardless of HIV status, one particularly severe form (necrotizing ulcerative periodontitis) and a related condition (linear gingival erythema) appear to be unique to those with compromised immune systems.

The gingival (gum) condition originally known as HIV-gingivitis, and now called linear gingival erythema (LGE), consists of a red band-like lesion along the gumline. LGE may be painful and bleed, and may progress to periodontal disease (see NUP, below). LGE is sometimes mistaken for ordinary gingivitis (inflammation of the gums), which usually is not painful and does not lead to periodontal disease. People diagnosed with LGE should be given an antimicrobial mouth rinse such as chlorhexidine (Peridex) until a visit to a dentist or periodontist (a specialist in gum disease and related conditions) can be arranged. In severe cases, a systemic antibiotic may be used, though only for one week at most.
Necrotizing ulcerative periodontitis (NUP), which previously was called HIV-periodontitis, is a condition associated with rapid soft tissue and bone loss, including exposure of the bone; rapid deterioration of tooth attachment; and the premature loss of teeth. Bleeding and severe pain may be present. Palliative treatment (i.e., to mitigate symptoms) includes antimicrobial mouth rinses, systemic antibiotic medication, and pain medication when necessary.

Periodontal disease may go unnoticed until the tissues supporting the teeth are so damaged as to cause the loss of a tooth. Treatments include local debridement (excision of dead tissue) as well as surgical procedures and/or antibiotic medication.

Periodontal conditions should be treated without regard to HIV status. Treatment success may not be dependant upon whether or not a person is HIV positive, although some clinicians report that response to conventional therapy may be poorer in those with HIV. Preventing the premature loss of teeth due to periodontal disease is important for everyone. Like dental caries, periodontal disease is best treated at an early stage, again supporting the recommendation for routine dental examinations every six months. Notably, some research has shown smoking to be a risk factor in the development of periodontal disease.

**Human Papillomavirus**

Human papillomavirus (HPV), the virus associated with genital and other warts, is one of the most common sexually transmitted infections. HPV-associated lesions frequently occur in the oral cavity, including the lip and sides of the tongue. They are usually raised, dull white and fleshy, smooth or rough, and may have a cauliflower-like appearance. HPV lesions tend to be more serious and more difficult to treat in HIV-positive people. A few reports also suggest that these oral lesions may be more prevalent, or the number of lesions greater, in people with HIV.

HPV lesions can be removed by surgery or other methods, such as electrocautery (burning with an electric current). The lesions usually recur, so removal should be limited to lesions that either are large enough to interfere with function, or are aesthetically displeasing. Prevention of HPV lesions includes safe oral sexual practices. Because HPV can be transmitted through receptive oral intercourse, unprotected oral sex should be avoided if one partner has HPV. Infection with HPV, including HPV type 16 (HPV-16), leads to an increased risk of cervical and anal cancer. HPV-16 has also been associated with oral cancers (e.g., of the mouth and throat), particularly in combination with tobacco or alcohol use.
Conditions Found More Often in People With HIV
The following conditions are more prevalent and can have serious consequences in HIV-positive individuals, particularly those with CD4 cell counts of 500 cells/mm^3 or below. In general, the risk increases as the CD4 cell count falls.

Oral Candidiasis
Oral candidiasis (broadly known as thrush) is a relatively frequent problem for people who are HIV positive. This condition is usually associated with the Candida albicans fungus, and may take several different forms. Because Candida infection is a sign of immune dysfunction, it should be reported immediately to a medical provider.

Pseudomembranous candidiasis is by far the most common form of oral candidiasis. This condition is characterized by small, generally white patches in any part in the mouth. These patches can be easily wiped off and may be mistaken for materia alba (food particles). Sometimes there is bleeding or an erythematous (reddish) area under the white patch, and the lesion may be associated with a burning sensation or pain. People with candidiasis often notice changes in taste perception, which may make food undesirable. Oral cultures can be taken for diagnosis; however, if an HIV-positive individual has had a previous Candida infection, it is prudent to start treatment without waiting for a culture.

There are several other less common varieties of candidiasis. One form is called angular cheilitis when it occurs at the corners of the mouth. This condition is easily mistaken for chapped lips. Topical antifungal treatment should be started without waiting for an appointment with a dentist or physician since angular cheilitis, like other forms of oral thrush, often recurs.

Erythematous candidiasis usually appears on the tongue or hard palate (the bony portion of the roof of the mouth). Lesions have a red appearance and cannot be wiped off. Atrophic candidiasis usually appears on the tongue. Both of these conditions can cause changes in taste perception and/or pain and a burning sensation.

All forms of candidiasis should be treated promptly. Treatment includes antifungal medications such as topical nystatin or systemic fluconazole (Diflucan). Resistant oral thrush may indicate a concurrent infection in the air sinuses alongside the nose, which may require further treatment.

Again, candidiasis is more likely to occur in individuals who have low CD4 cell counts. Dry mouth is another contributing factor. Individuals with a history of candidiasis should have
antifungal medication available in the likely event that the infection recurs, particularly if immune suppression does not improve.

**Aphthous Stomatitis**

Aphthous stomatitis (canker sores) is a common condition regardless of HIV status. In HIV-positive individuals the ulcers, or sores, may be slow to heal, and aphthous ulcers minor are more likely to become aphthous ulcers major. The difference between the two relates to ulcer size (major ulcers are over 1 cm, or 0.4 inches, in diameter) and the severity of the condition. The cause of these noncontagious lesions is not known.

Aphthous ulcers are generally shallow, crater-like lesions with a raised, red border surrounding a gray, central pseudomembrane. In HIV-positive individuals these lesions may be found on keratinized (hardened) tissue such as the hard palate.

Aphthous ulcers are left to heal on their own in people with competent immune systems. However, untreated lesions may become painful, quite large, and prone to secondary infection in those with immune dysfunction. People with wasting syndrome or general debilitation may have great difficulty as these lesions may cause severe pain and decrease their ability to consume food comfortably. Accordingly, people with HIV require care for any aphthous lesions, regardless of size, to prevent them from expanding and causing potentially serious problems.

Treatment consists of a steroid medication, most frequently a topical ointment such as triamcinolone (Kenalog) or fluocinonide (Lidex) mixed with Orabase ointment. A dexamethasone liquid rinse may also be used. Some cases may require a systemic steroid such as prednisone, although the risks of systemic steroid use should be considered. Thalidomide has recently been approved in the U.S. for the treatment of aphthous ulcers, but is not commonly used because of its sedative effect.

Recurrent aphthous lesions may be mistaken for herpes simplex especially if they occur on keratinized tissue. A reliable medical history is a good method for determining the condition, since individuals with either lesion typically will have had previous episodes and often do not have both diseases.
Herpes Simplex

Oral herpes simplex is a viral condition associated with herpes simplex virus type 1 (HSV-1). It is characterized by the eruption of serum-filled vesicles, or blisters (sometimes referred to as “cold sores” or “fever blisters”) on the face, lips, or mouth. (Herpes simplex virus type 2 [HSV-2] causes similar blisters in the genital or anal region.) These lesions often start with prodromal (early) symptoms of malaise, fever, and a general feeling of illness, which can be masked in people who are already ill. There also may be itching or tingling sensations. Vesicles usually form within 24 hours and rupture shortly thereafter, forming a scab. Herpes outbreaks typically resolve without treatment within two weeks in individuals with competent immune systems.

As with aphthous ulcers, herpes simplex lesions may be larger, more painful, and more prone to secondary infection in HIV-positive individuals. Again, these lesions can exacerbate problems in people with wasting syndrome by causing pain and decreasing their ability to eat comfortably.

Palliative treatment should be provided to those with compromised immune systems. This normally involves using a systemic antiviral medication such as acyclovir (Zovirax), famciclovir (Famvir), or valacyclovir (Valtrex). In some cases, a systemic drug also may be used to suppress the recurrence of herpes lesions. Topical medications usually do not work as well as systemic medications for this condition.
Conditions Found Primarily in People With HIV

The following conditions are seen most often in people with advanced HIV disease. As with other conditions, the risk increases as CD4 cell counts decrease.

**Oral Hairy Leukoplakia**

Hairy leukoplakia appears as white patches, nearly always on the lateral border (outside edges) of the tongue. These lesions usually have an irregular surface and may have hair-like projections. While this condition may resemble thrush, hairy leukoplakia lesions cannot be wiped off, unlike the lesions of thrush.

Hairy leukoplakia is thought to be caused by the Epstein-Barr virus (also associated with infectious mononucleosis). Since this condition is rarely seen unless the CD4 cell count is low, it is less common in areas where combination anti-HIV therapy is readily available.

Hairy leukoplakia is a benign condition that resolves on its own. Inasmuch as it causes no symptoms, including discomfort or changes in taste perception, there is no need for treatment. For aesthetic purposes it may be treated off-label with agents. Individuals with HIV can protect themselves not only with routine examinations, but also by brushing and flossing regularly such as tretinoin (Retin-A) or podophyllin.

**Opportunistic Tumors**

Several opportunistic tumors (cancers or neoplasms) are associated with HIV infection. Kaposi’s sarcoma (KS) and non-Hodgkin’s lymphoma (NHL) occur most frequently and may manifest in the oral cavity. Both of these conditions are seen when immune suppression is severe and an individual has an AIDS diagnosis (a CD4 cell count below 200 cells/mm³).

KS is the most common neoplasm in people with HIV. It is a malignancy of the endothelial lining of blood vessels and is associated with a herpesvirus known as HHV-8. KS appears clinically as flat or raised, usually reddish or purplish lesions that do not blanch (whiten) with pressure. Lesions often enlarge rapidly and may become exophytic (grow outward).
Palliative treatment for oral KS is rarely required unless the lesion enlarges and interferes with chewing or talking. In such cases, interventions include systemic doxorubicin (Doxil) or paclitaxel (Taxol), localized chemotherapy, and surgery; injections of vinblastine (Velban) appear effective in some studies. Large, multiple lesions may be treated with radiation therapy. People with KS who start antiretroviral therapy for the first time may see their lesions resolve without further treatment.

NHL in the oral cavity is most often a soft, tumor-like mass that may enlarge rapidly. Biopsy is required for diagnosis, and treatment consists of radiation and/or chemotherapy. Until treatment can be implemented, palliative care is usually not required.

**Conclusion**

HIV-positive people should be encouraged to receive dental examinations every six months, preferably by a provider who is familiar with conditions associated with decreased immune function. Some conditions, such as thrush, may be mistaken for materia alba, which is the result of poor oral hygiene. Other conditions that might be allowed to run their course without medication in individuals with competent immune systems — such as aphthous ulcers — should be treated in people with HIV. Again, most oral problems, such as dental caries and periodontal disease, are the result of bacterial infections.

Individuals with HIV can protect themselves not only with routine examinations, but also by brushing and flossing regularly, as well as by not smoking and limiting alcohol intake. Smoking and alcohol use are strongly associated with oral cancers, which are relatively common and have a poor prognosis compared with other types of cancer. As always, lifestyle changes may reduce the need to fight off or treat preventable diseases.
Oral HIV Treatments

<table>
<thead>
<tr>
<th>Condition</th>
<th>Problem</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caries</td>
<td></td>
<td>Techniques such as “scoop and fill” and temporary filling; tooth restoration</td>
</tr>
<tr>
<td></td>
<td>Dry mouth (xerostomia)</td>
<td>Sugar-free citrus candies; artificial saliva products</td>
</tr>
<tr>
<td></td>
<td>Abscess/infection of the tooth pulp</td>
<td>Antibiotic, preferably penicillin</td>
</tr>
<tr>
<td>Periodontal disease</td>
<td>Linear gingival erythema (LGE)</td>
<td>Antimicrobial mouth rinse such as chlorhexidine (Peridex); in severe cases, a systemic antibiotic</td>
</tr>
<tr>
<td></td>
<td>Necrotizing ulcerative periodontitis (NUP)</td>
<td><strong>Palliative therapy:</strong> antimicrobial mouth rinse, systemic antibiotic medication, pain medication <strong>Treatment:</strong> debridement (professional cleaning), surgical procedures, antibiotic medication</td>
</tr>
<tr>
<td>Human papillomavirus (HPV) lesions</td>
<td></td>
<td>Surgery; electrocautery; others</td>
</tr>
<tr>
<td>Oral candidiasis</td>
<td><em>Pseudomembranous</em> candidiasis, angular cheilitis, erythematous candidiasis, atrophic candidiasis</td>
<td>Topical nystatin; systemic fluconazole (Diflucan)</td>
</tr>
<tr>
<td>Aphthous stomatitis</td>
<td></td>
<td>Triamcinolone (Kenalog) ointment or fluocinonide (Lidex) mixed with Orabase; dexamethasone rinse; systemic prednisone; thalidomide</td>
</tr>
<tr>
<td>Oral herpes simplex</td>
<td></td>
<td>Systemic acyclovir (Zovirax), famciclovir (Famvir), or valacyclovir (Valtrex)</td>
</tr>
<tr>
<td>Oral hairy leukoplaikia</td>
<td></td>
<td>None — will resolve on its own</td>
</tr>
<tr>
<td>Opportunistic tumors</td>
<td></td>
<td>Kaposis’s sarcoma (KS) <strong>Systemic</strong> doxorubicin (Doxil) or paclitaxel (Taxol); vinblastine (Velban); localized chemotherapy; surgery; radiation therapy</td>
</tr>
<tr>
<td>Non-Hodgkin’s lymphoma (NHL)</td>
<td></td>
<td>Radiation and/or chemotherapy</td>
</tr>
</tbody>
</table>

Selected Sources

The basic principles of infection prevention and control in the dental setting is designed to prevent or reduce the potential for infectious disease transmission from patient to DHCP, from DHCP to patient and from patient to patient.

Medical histories and symptomology, whether written or verbal, physical examinations and laboratory tests may not always reveal the presence of an infectious process, disease, carrier state or pre-symptomatic phases of disease in an individual. Thus, the same infection prevention and control protocols should be used for all patients, regardless of known or suspected infectious status.

This concept is known as **Standard Precautions** or **Routine Practices**.

All DHCP should understand that comprehensive consistency in the implementation and practice of these recommendations helps to ensure a safe work environment and a safe treatment environment for their patients.

**Ethical Considerations**

Dentists in Canada have a professional duty to cause no harm to their patients, and to provide a safe working environment for the other DHCP in their practice. Due to the biologic nature of the oral cavity, as well as the nature of dental and oral health care, transmission of infectious diseases before, during or after dental and oral health care is possible.

As professionals with a unique body of knowledge and skills rendered by their educational preparation and license to practice, dentists recognize a moral and ethical requirement to provide necessary dental treatment to all members of the public without discrimination. Accordingly, dentists and all DHCP must not refuse to treat a patient on the grounds of the patient’s infectious state.

**Hand Hygiene**

Hand hygiene is often the weak-link in an effective infection prevention and control program. The purpose of hand hygiene is to reduce the quantity and diversity of the transient microorganisms found on the surface of the hands, versus the resident microorganisms found in the deep skin layers.
Protective Equipment

Personal Protective Equipment protects the skin of the hands and arms from exposure to splashing or spraying of blood, saliva or other body fluids, and also from introducing the surface flora into deeper tissues by traumatic and environmental injury.

Appropriate work-practice controls will minimize the spread of droplets, spatter, spray and aerosol.

Primary personal protective equipment would include gloves, masks, protective eye-wear and protective clothing.

Gloves

Gloves are worn to protect the skin of the DHCP’s hands from contamination. Gloves do not replace the need for proper hand hygiene, as gloves may contain small, unapparent holes or can be torn during patient treatment or hands may become contaminated during removal.

Gloves are designed as single-use disposable items. Thus, gloves should be used for only one patient, and then discarded. Gloves should be removed, hand hygiene performed, and then new gloves reapplied between patients, or whenever the gloves are torn or punctured.

Double-gloving may be utilized for some specific procedures, which may involve the handling of multiple sharp metal instruments or during longer procedures. However, double-gloving, if utilized, should be procedure specific, not patient specific. Double-gloving may affect manual dexterity and tactile sensitivity.

Masks

The respiratory mucosa of a DHCP should be protected from contact with potentially contaminated material by the wearing of a mask during a dental procedure which produces aerosol. DHCP should wear a surgical mask that covers the nose and mouth during dental procedures whenever splashes, sprays or spatter of blood, saliva, other body fluids, or water contaminated with blood, saliva or other body fluids may be produced.

The mask should be changed whenever it becomes contaminated or wet. This would occur between patients whenever a handpiece, ultrasonic scaler or endodontic instrument was used, or if a splash, spray or spatter was created by an air-water syringe, or any other instrument or equipment.
**Protective Eye-wear**

DHCP should wear protective eye-wear that covers the eyes during dental procedures whenever splashes, sprays or spatter of blood, saliva, other body fluids, or water contaminated with blood, saliva or other body fluids may be produced.

Protective eye-wear for the DHCP and patient should be cleaned and disinfected after use, at least between patients, or whenever the eye-wear becomes visibly contaminated.

An eye-wash station should be available in the office or practice, to aid in managing any chemical or body fluid splashes, sprays or spills into the eyes of a DHCP or patient. All DHCP staff should be orientated as to the location, function and indications for use of the eye-wash station.

**Protective Clothing**

The skin on the arms and chest of a DHCP should be protected from contact with potentially contaminated material by the wearing of protective clothing during any dental procedure where splash or spray are anticipated. Long-sleeve protective clothing, extending to the wrists, is ideal for this purpose. Short-sleeve protective clothing is acceptable, as long as there are no breaks in the skin integrity on the arms of the DHCP. If the arms are not protected, hand hygiene protocols should extend up the arms, past the wrists towards the elbows.

Protective clothing includes gowns and lab-coats, and is meant to be worn over regular clinic clothing, such as uniforms, scrubs or street clothing.

The protective clothing should be changed at least daily, or if it becomes visibly soiled or significantly contaminated, and as soon as feasible if penetrated by blood or other potentially infectious fluids.

**Sterilization and Disinfection of Patient Care Items**

Patient-care items, such as dental instruments, hand-pieces, devices and equipment, can be categorized as critical, semi-critical, or non-critical, depending on the potential risk for infection associated with their intended use. This categorization is based on a modified Spaulding classification developed by the U.S. Centers for Disease Control and Prevention.

- **Critical items** are used to penetrate soft tissue or bone. Critical patient care items have the greatest risk of transmitting infection and should be sterilized by heat.
- **Semi-critical items** are those items that only touch mucous membranes or non-intact skin and have a lower risk of transmission. As the majority of semi-critical patient care items in dentistry are heat-tolerant, all semi-critical items should be sterilized by using heat. If a semi-critical item is heat-sensitive, it should be disinfected with high-level...
disinfection. **Non-critical items** contact only intact skin, which serves as an effective barrier to microorganisms. Non-critical patient care items pose the least risk of transmission of infection. In the majority of cases, cleaning, or if contaminated by blood, saliva or other body fluid, cleaning followed by disinfection is adequate. Cleaning or disinfection of some non-critical items may be difficult or may damage the surfaces. In those instances, the use of disposable barriers to protect these surfaces may be a preferred alternative.

**Environmental Infection Control**

Environmental surfaces in the dental operatory that do not contact the patient directly are not a direct risk to patient safety. These surfaces (e.g., light handles, drawer knobs), however, can become contaminated during patient care, and then act as a reservoir for microbial contamination. Transmission of this type occurs primarily though DHCP hand contact, or by touching the environmental surface with a contaminated instrument. Microorganisms can then be transferred to other instruments or to the hands, nose, mouth or eyes of DHCP or patients.

Proper hand hygiene and the wearing of PPE is an essential part in minimizing such potential transferal. Surface protection, however, using either barrier protection or cleaning and disinfection, also protects against microbial transfer from environmental surfaces.

Environmental surfaces typically need to be cleaned only. However, whenever an environmental surface is known or is suspected to be contaminated with blood, saliva, other bodily fluids or water containing any bodily fluid, then the environmental surface should be cleaned and then disinfected.
Stigma and Discrimination in Dentistry

The following section is reprinted with permission from AIDS Calgary from AIDS Calgary’s Breaking Barriers: HIV/AIDS, Homophobia and Oral Health Care, Unpublished Power Point Presentation, 2007

Although it may seem surprising, even today people living with HIV experience tremendous stigma due to their HIV status. According to UNAIDS, the “stigma and discrimination associated with HIV and AIDS are the greatest barriers to preventing further infections, providing adequate care, support and treatment and alleviating impact.” (UNAIDS. A Conceptual Framework and Basis for Action: HIV/AIDS Stigma and Discrimination, World AIDS Campaign 2003-2003, June 2002.) This section provides an overview of stigma and discrimination as it relates to HIV, homophobia and some specifics on disclosure of HIV status.

Stigma

A quality that is seen to mark a person as different or “bad.”

Common qualities that mark people as different or bad:

- Social status (e.g. poverty)
- Behaviors (e.g. crime, drug use, sex work)
- Sexual Orientation (e.g. MSM - men having sex with men)
- Gender (e.g. transgender)
- Ethnicity (e.g. Aboriginal people)
- Disability (e.g. a person in a wheel chair)
- HIV status/ Hep C status

Why are People Living With HIV / AIDS (PLWHA’s) often Stigmatized?

- HIV/AIDS is associated with sex and drug use, both are taboo
- People may see their behaviors as bad/wrong (e.g. sex outside of marriage, homosexuality)
- View that HIV is the person’s own fault
- People living with HIV may be members of other marginalized groups (e.g. MSM, Aboriginal)
- Fear of HIV and of “catching” it
- Ignorance (e.g. about how HIV is transmitted)
- HIV has no cure and is associated with death

What does stigmatization do?

- It labels and stereotypes people
- It devalues people
- It dehumanizes people
What happens when people are stigmatized?
- People who are seen as different begin to be treated differently.
- People experience discrimination.

Discrimination

Direct Discrimination
- People are treated differently and in a negative way due to their membership in a stigmatized group.
- For example: A dentist refuses to treat a person living with HIV.

Indirect Discrimination
- People are treated the same as everyone else, but it has a negative and different impact on them because their difference is not being respected or accommodated.
- For example: A dentists office is not wheel chair accessible.

Homophobia
- “Homophobia refers to a variety of negative attitudes that arise from the fear or dislike of homosexuality”*
- Reactions can include violence, ostracism, jokes, discomfort, stereotyping of people who are suspected to be gay, or attempts to “convert” homosexuals into heterosexuals*
- “Heterosexism reflects a structurally or culturally held belief that heterosexuality is superior or more natural than homosexuality”*
- Homosexuality and Bisexuality are normal variations in sexuality.
  Because of socialization in a heterosexist culture, we must examine our biases, obtain accurate info, and increase our comfort levels to work effectively with this population.
- Systemic Oppression
  LGBTT community faces systemic discrimination (through homophobia and heterosexism) in Canadian society.

Disclosure
- Disclosure refers to sharing information about one’s HIV status with others
- Information regarding a person’s HIV status is highly sensitive
- Where and when a person needs to disclose is governed by privacy legislation and criminal law
- Patients do not have to disclose HIV status to their dentist; they can leave the box on the intake form blank
- There are many benefits to disclosing, including receiving better oral heath care
- People weigh the risks versus the rewards, and often do not disclose due to fear of discrimination
- If a patient is undergoing “exposure prone invasive procedures” there may be a legal duty to disclose

* HIV /AIDS and Homophobia, ICAD 2004
There are a number of laws and policies that govern how dental services should be provided to members of the public. Specifically, Canadian human rights law, Albertan human rights law and the Alberta Dental Association and College Code of Ethics all outline the professional responsibilities of dentists towards their patients and prohibit discrimination against people based on specific characteristics, like HIV status. This section provides an overview of the legal and policy guidelines all dentists should be aware of and following in their practice.

**Human Rights Law**

**Canadian Human Rights Law**
- Canadian Charter of Rights and Freedoms
- The Canadian Human Rights Act
- The Canadian Human Rights Commission

**Canadian Charter of Rights and Freedoms, 1982**

“Every individual is equal before and under the law and has the right to equal protection and benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability” (Section 15 [1])

(Note: sexual orientation has been included in the Charter by the Supreme Court)

**Alberta Human Rights Law**
- The Human Rights, Citizenship and Multiculturalism Act
- The Alberta Human Rights Commission

**Alberta Human Rights, Citizenship and Multiculturalism Act**

- Protects people from discrimination by private companies, businesses, organizations and other individuals.
- Under this act, people experiencing discrimination can file a complaint with the Alberta Human Rights and Citizenship Commission.
Discrimination is Prohibited in Alberta based on these Grounds:

- Race
- Age (not always covered)
- Colour
- Source of Income
- Ancestry
- Place of Origin
- Family Status
- Marital Status
- Religious Beliefs
- Physical Disability
- Mental Disability
- Sexual Orientation
- Gender (including transsexual and transgender)

Notes on the Protected Grounds:

- HIV/ Hep C are physical disabilities
- Alcohol and drug addiction is a physical/ mental disability
- Source of income refers to legal income including disability benefits and social assistance
- Sexual orientation is a protected ground even though it is not listed in the provincial legislation (a Supreme Court decision)

Protected Grounds Include:

- People who are living with HIV/AIDS
- People perceived to be living with HIV/AIDS, whether they are or not
- People who associate with people who are living with HIV/AIDS

Discrimination is Prohibited in Alberta in these Areas:

- Public services (health care, including dentistry, restaurants, hair cuts, etc.)
- Housing
- Employment practices (Hiring and Accommodation)
- Job advertisements and applications
- Public statements, publications, signs.
- Membership in trade unions and other occupational organizations.

What does not count as a human rights violation?

- You are not protected from discrimination in personal relationships by partners, friends, or family unless this discrimination happens in a protected sphere of activity (e.g. at work).
- This treatment can be unfair, but it is not against the law unless it is violent or threatening.
- If it is violent or threatening, it may be considered a criminal offence or a “hate crime”
- Insurance companies are allowed to discriminate through refusing to insure people
- Discrimination is allowable when there is a bona fide occupational requirement

Human Rights Check List - There must be:

- Protected ground (e.g. gender, disability)
- Sphere or activity that is covered by the law (e.g. employment, health services)
- “Discrimination” (unfair treatment)
- No exclusions within the law applicable to the problem at hand (e.g. no bona fide occupational requirement)
Common Forms of Human Rights Violations

• Dentists refusing to take on new patients due to their HIV status, sexual orientation or country of origin

• Dentists abandoning the care of long term patients due to their HIV status

• Breaches of confidentiality

• Use of extra protective precautions

Duty to Accommodate

• Not only must dentists not discriminate, they must accommodate the individual needs of people with disabilities

• They must take reasonable steps to accommodate, up to the point of “undue hardship”

• Within reason, a dentist may need to educate themselves or consult with other professionals in order to provide adequate treatment to their patient (e.g. call their doctor to discuss possible drug interactions with HIV meds)


Code of Ethics

Alberta Dental Association and College Code of Ethics

Article A7: Confidentiality and Release of Patient Information
Patient information, verbally, written or electronically acquired and kept by the dentist, shall be kept in strict confidence except as required by law or as authorized by the patient. The information in dental records or reports must be released to the patient or to whomever the patient directs, including other professionals and dental plan carriers, when authorized by the patient. This obligation exists regardless of the state of the patient’s account. An authorization by a patient allowing a dentist to provide information to a dental plan carrier or another third party is acceptable. A separate authorization is not required for each release of information provided the information is shared for the purposes described in the authorization and the authorization allows the release of information on an ongoing basis.

Article A10: Provision of Care
A dentist shall not discriminate against or refuse to treat patients in a manner that is contrary to applicable human rights laws. This include, but is not limited to, refusal to treat a patient based on HIV/AIDS or Hepatitis status or any other condition defined as a disability by human rights legislation. Other than in an emergency situation, a dentist has the right to refuse to accept an individual as a patient.

Article A11: Arrangements for Continuity of Care
A dentist having undertaken the care of a patient shall not discontinue that care without first having given sufficient notice of that intention to the patient, and shall endeavor to arrange for continuity of care with another dentist. Where there has been a breakdown in the relationship between the dentist and the patient, the dentist has an obligation to transfer appropriate records to the care provider who will be assuming the ongoing care of the patient. In the event of referrals, both referring and consulting dentists should ensure the patient understands the importance of continuity of care with either or both of the respective dentists.
A dentist who has provided dental care, especially care that is of an extensive or invasive nature, has the obligation to provide direct availability for the patient to contact the care provider “after hours”. This “on call” or “after hours” obligation, if transferred to other professionals, must be done so with a formal agreement established through direct personal contact between the parties sharing this obligation. This transference must also be communicated to the patients receiving such care. Failure to do so breaches the dentist’s obligations to provide continuity of care.
Resources for the Health Professionals

HIVDENT
www.hivdent.org
This coalition of health care professionals is committed to assuring access to high quality oral health care services for people living with HIV disease. This site disseminates state-of-the-art treatment information and includes extensive information on the oral aspects of HIV disease.

www.thebodypro.com
This site is a great resource for health professionals.

Canadian Health Network
www.canadian-health-network.ca
The Canadian Health Network (CHN) is a national, bilingual health promotion program found on the Web at www.canadian-health-network.ca. The CHN’s goal is to help Canadians find the information they’re looking for on how to stay healthy and prevent disease. This network of health information providers includes the Public Health Agency of Canada, Health Canada and national and provincial/territorial non-profit organizations, as well as universities, hospitals, libraries and community organizations.

Centers for Disease Control and Prevention (CDC)
www.cdc.gov
CDC serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States. The CDC website has extensive information related to HIV/AIDS disease, treatment and prevention.

The AIDS Education and Training Centers (AETC)
www.aidsetc.org
The National Resource Center is a web-based HIV/AIDS training resource that supports the training needs of the regional AETCs through coordination of HIV/AIDS training materials, rapid dissemination of late-breaking advances in treatment and changes in treatment guidelines, along with critical review of available patient education materials.

AIDS Calgary
www.aidscalgary.org
Through their range of programs and services, they help those at risk make healthy choices and reduce the harm associated with HIV and AIDS. They also provide referrals to other service providers, and are actively involved in local, provincial, national and international organizations that are also addressing the issues surrounding HIV/AIDS.

HIV Edmonton
www.hivedmonton.com
HIV Edmonton has been providing support, community education, advocacy, prevention and harm reduction education to the Edmonton community for twenty-one years. They are a community-based, not-for-profit organization that works to reduce HIV/AIDS related stigma and discrimination. Working collaboratively with many community partners they use evidence-based research and remain ahead of the curve on the latest HIV/AIDS information.
**The Alberta Community Council**

The Alberta Community Council on HIV (ACCH) is a community-based partnership of 13 non-profit, community based HIV organizations.

ACCH members come together to present a unified provincial voice on common HIV related issues. Members of the ACCH provide a blend of programs and services in the areas of health promotion, harm reduction and prevention, including: education, needle exchange, care & support, and housing assistance. ACCH Members are present in all nine Alberta Health Regions.

**ACCH Vision:** *All individuals and communities in Alberta will have the ability, capacity and desire to eliminate the harm caused by HIV.*

**AIDS Service Organizations in Alberta**

<table>
<thead>
<tr>
<th>Area</th>
<th>Organization</th>
<th>Phone Number</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lethbridge and Area (Chinook Health Region)</td>
<td>Lethbridge HIV Connection</td>
<td>403-328-8186</td>
<td><a href="http://www.lethbridgehiv.com">www.lethbridgehiv.com</a></td>
</tr>
<tr>
<td>Medicine Hat and Area (Palliser Health Region)</td>
<td>HIV Society of Southeastern Alberta</td>
<td>403-527-5882</td>
<td></td>
</tr>
<tr>
<td>Calgary and Area (Calgary Health Region)</td>
<td>AIDS Calgary Awareness Association</td>
<td>403-508-2500</td>
<td><a href="http://www.aidscalgary.org">www.aidscalgary.org</a></td>
</tr>
<tr>
<td></td>
<td>Safeworks</td>
<td>403-944-7099</td>
<td></td>
</tr>
<tr>
<td>Banff and Area (Calgary Health Region)</td>
<td>AIDS Bow Valley</td>
<td>403-762-0690</td>
<td><a href="http://www.aidsbowvalley.com">www.aidsbowvalley.com</a></td>
</tr>
<tr>
<td>Central Alberta (David Thompson Health Region)</td>
<td>Central Alberta AIDS Network Society</td>
<td>403-346-8858</td>
<td></td>
</tr>
<tr>
<td>Edmonton and Area (Capital and East Central Health Regions)</td>
<td>HIV Edmonton</td>
<td>780-488-5742</td>
<td><a href="http://www.hivedmonton.com">www.hivedmonton.com</a></td>
</tr>
<tr>
<td>Edmonton and Area (Capital Health Region)</td>
<td>Streetworks</td>
<td>780-423-3122 ext. 210/211</td>
<td><a href="http://www.streetworks.ca">www.streetworks.ca</a></td>
</tr>
<tr>
<td>Jasper and Area (Aspen Health Region)</td>
<td>HIV West Yellowhead</td>
<td>780-852-5274</td>
<td><a href="http://www.hivwestyellowhead.com">www.hivwestyellowhead.com</a></td>
</tr>
<tr>
<td>Grande Prairie and Area (Peace Country Health Region)</td>
<td>HIV North Society</td>
<td>780-538-3388</td>
<td><a href="http://www.hivnorth.org">www.hivnorth.org</a></td>
</tr>
<tr>
<td>Fort MacMurray and Area (Northern Lights Health Region)</td>
<td>Wood Buffalo HIV &amp; AIDS Society</td>
<td>780-743-9200</td>
<td></td>
</tr>
<tr>
<td>Southern Alberta</td>
<td>The SHARP Foundation</td>
<td>403-272-2912</td>
<td><a href="http://www.thesharpfoundation.com">www.thesharpfoundation.com</a></td>
</tr>
<tr>
<td>Northern Alberta</td>
<td>Kairos House (Catholic Social Services)</td>
<td>780-701 9478</td>
<td><a href="http://www.catholicsocialservices.ab.ca">www.catholicsocialservices.ab.ca</a></td>
</tr>
</tbody>
</table>