



Prevention Education Workers Training & Networking Session

March 1 & 2, 2011

Presentation delivered by Glen Bradford and Chuck Osborne

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British Columbia Persons With AIDS Society

Navigating a Positive Life:
A Self-management model to
prevent forward transmission of HIV.

Presenters:

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BCPWA's new Health Promotion Department uses a team approach to facilitate HIV self-management.

Health Promotion Department

3 Goals

Prevent forward transmission of HIV

Prevent disease progression

Promote the value of care and support

Self-management Framework

Education



Support

Treatment Information Program

Holistic Services

Peer Navigation Program

Prevention is divided into three subheadings:

1. Primary Prevention

(messaging to non-infected people
and not in our mandate)

2. Secondary Prevention →

3. Tertiary Prevention →

Goals

Prevent
forward
transmission
of HIV

Prevent
disease
progression

Promote the
value of care
and support

HIV Self-management

The ability to manage our own symptoms, treatment, lifestyle, behaviours, and emotional challenges that are associated with chronic or episodic HIV.

Peer Navigation Program...

- facilitates a series of one-to-one discussions designed to educate, support and empower “1st contact “ people.
- assesses needs and guides the process under which participants gain knowledge and skills about their physical and sexual health.
- addresses “Positive Prevention” in the context of the whole person and their lived experiences.
- creates a trusting entry point and easier access into ART and programs and services.

Peer Navigation Program Vision

Promote HIV as a manageable chronic illness by...

providing the
right information,

- Accurate
- Demystify
- Hopeful
- Realistic
- Non-clinical, accessible language
- Relevant to a person's experiences

for a targeted
group of people,

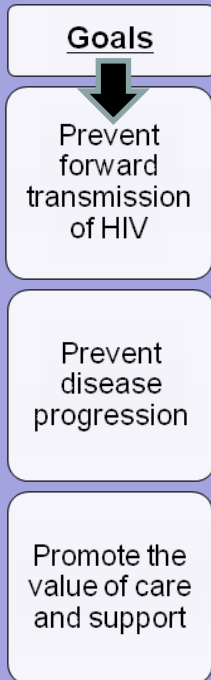
1st contacts

- Newly diagnosed with HIV
- Information naïve and “triggered” to learn

at the right time.

- Safer sex talk during a crisis point is ineffective, insensitive and can cause people to spiral away from care. (partner notification and safer sex)

Health Promotion Department



Self-management

Peer Navigation Program:

Content includes 7 base-line modules

Treatment Information

Disclosure Strategies

Prevent Forward HIV/STI Transmission

Preventing Disease Progression

New Realities

Navigating Self-care

Doctor Speak



Selected content from the 7 modules



Web RESOURCES

- BCPWA www.bcpwa.org
- CATIE www.catie.ca
- The Body www.thebody.com
- AIDS InfoNet www.aidsinfonet.org
- AIDS Map www.aidsmap.com
- Project Inform www.projectinform.org
- Medscape www.medscape.com


Shift Identities: Cohort #3:

After 2006, multiple studies now show that antiretroviral therapy has significantly changed the life expectancy of HIV positive individuals.

If a healthy 20 year old was infected in years 1993-95 there life expectancy was 9.1 yrs.

Barring unforeseen “other” health issues, current life expectancy for a newly diagnosed healthy person at age of 20 is approximately 50 years.

	1993-1995 (1 st cohort)	1996-1998 (2 nd cohort	1999-2001	2002-2004	2003-2005)
Life Expectancy At Age 20	9.1	11.9	16.1	23.6	49.4



More Proof:

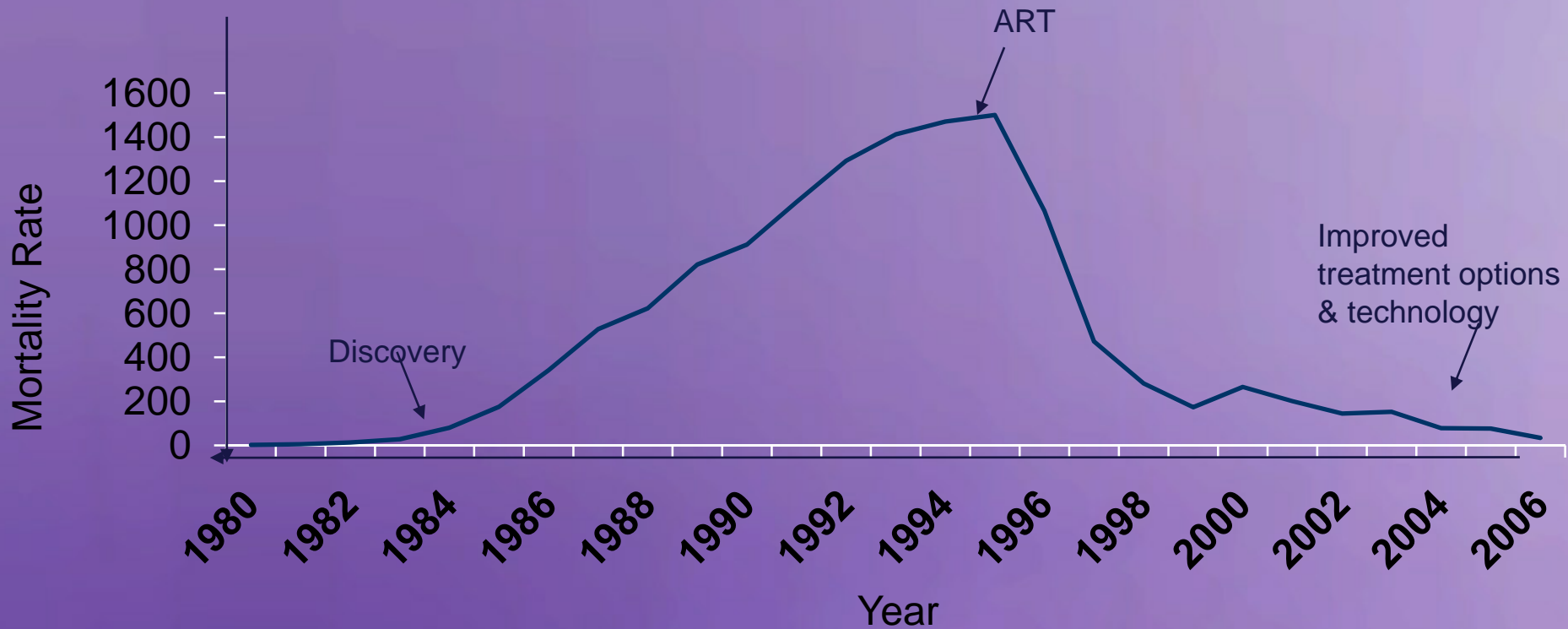
Multiple studies show that antiretroviral therapy has significantly changed the life expectancy of HIV positive individuals.

Health indicators stratified by sex and injecting drug use:

Being HIV+ and an intravenous drug user at the same time will have a marked effect on your life expectancy. Crystal meth will have a similar negative effect.

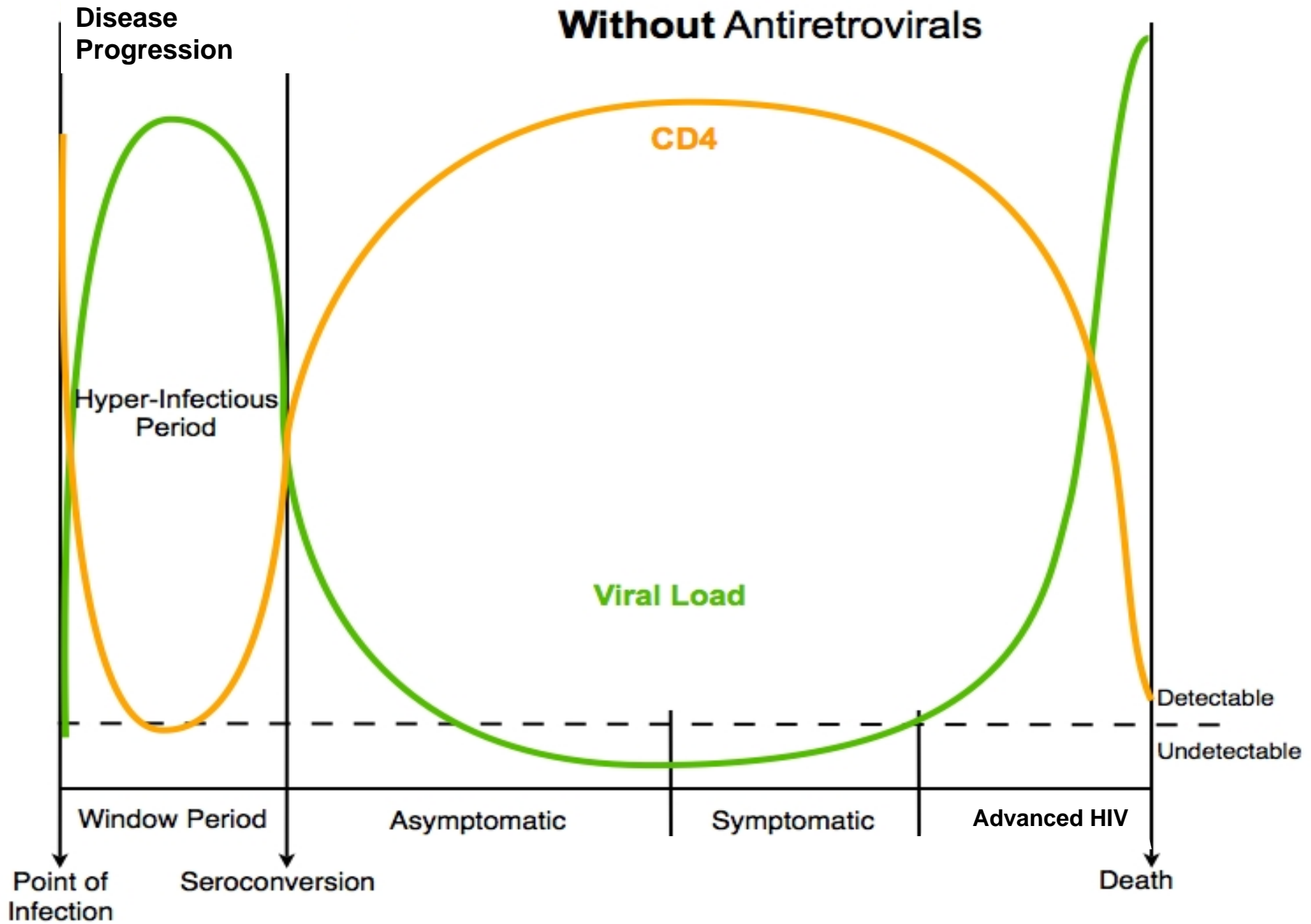
Life Expectancy	Men	Women	IDU or crystal meth use	Non-IDU or crystal meth use
Age 20	42.8	44.2	32.6	44.7
Age 35	31.7	32.5	23.4	33

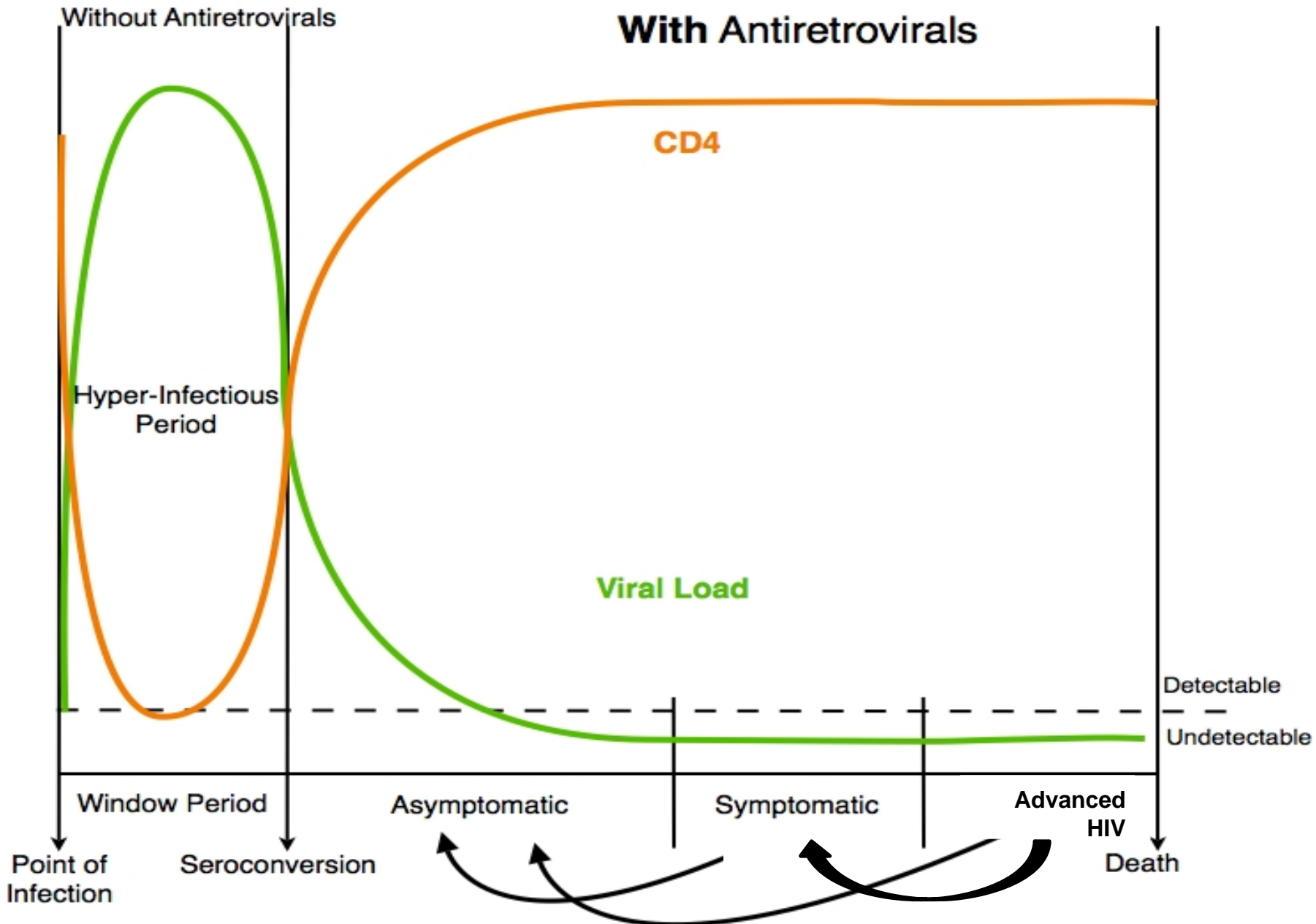
HIV Mortality Rates in Canada



Source: Public Health Agency of Canada. 'HIV and AIDS in Canada: Surveillance Report to December 31, 2006.' <<http://www.phac-aspc.gc.ca/aids-sida/publication/survreport/pdf/survrep1206.pdf>> p.59.

Without Antiretrovirals





The HIV Life Cycle

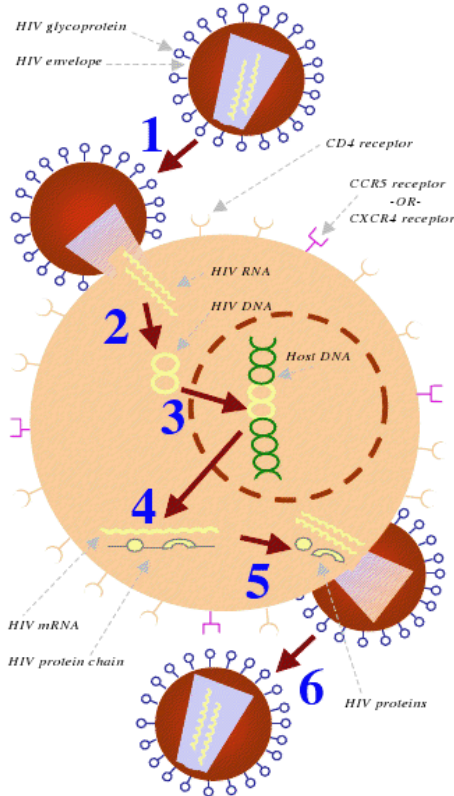
- 1 Binding and Fusion:** HIV begins its life cycle when it binds to a **CD4 receptor** and one of two **co-receptors** on the surface of a **CD4⁺ T-lymphocyte**. The virus then fuses with the host cell. After fusion, the virus releases RNA, its genetic material, into the host cell.
- 2 Reverse Transcription:** An HIV enzyme called reverse transcriptase converts the single-stranded HIV RNA to double-stranded HIV DNA.
- 3 Integration:** The newly formed HIV DNA enters the host cell's nucleus, where an HIV enzyme called integrase "hides" the HIV DNA within the host cell's own DNA. The integrated HIV DNA is called provirus. The provirus may remain inactive for several years, producing few or no new copies of HIV.
- 4 Transcription:** When the host cell receives a signal to become active, the provirus uses a host enzyme called RNA polymerase to create copies of the HIV genomic material, as well as shorter strands of RNA called messenger RNA (mRNA). The mRNA is used as a blueprint to make long chains of HIV proteins.
- 5 Assembly:** An HIV enzyme called protease cuts the long chains of HIV proteins into smaller individual proteins. As the smaller HIV proteins come together with copies of HIV's RNA genetic material, a new virus particle is assembled.
- 6 Budding:** The newly assembled virus pushes out ("buds") from the host cell. During budding, the new virus steals part of the cell's outer envelope. This envelope, which acts as a covering, is studded with protein/sugar combinations called HIV glycoproteins. These HIV glycoproteins are necessary for the virus to bind CD4 and co-receptors. The new copies of HIV can now move on to infect other cells.

Terms Used in This Fact Sheet:

CD4 receptor: A protein present on the outside of infection-fighting white blood cells. CD4 receptors allow HIV to bind to and enter cells.

Co-receptor: In addition to binding a CD4 receptor, HIV must also bind either a CCR5 or CXCR4 co-receptor protein to get into a cell.

T-lymphocyte: A type of white blood cell that detects and fights foreign invaders of the body.



For more information:

Contact your doctor or an *AIDSinfo* Health Information Specialist at 1-800-448-0440 or <http://aidsinfo.nih.gov>.

When to Start therapy in **treatment-naïve** individuals

(Handout of BC CfE HIV Therapeutic guidelines (note: shifting trends))

Primary HIV Infection	Defer Treatment
CD4 cells greater than 500	Defer Treatment
CD4 between 350 – 500 (depends on additional considerations)	Consider Treatment
CD4 below 350	Treat
Symptomatic HIV infection - refer to list of infection handout.	Treat

Considerations include...

- high viral load (> 100,000 copies/mL), rapid decline in CD4+
- Downward trend of CD4 count of (> 100+ cells/yr),
- high risk for cardiovascular disease,
- active hepatitis B or
- HepC virus co-infections, or



Blood Work

**A USEFUL TOOL FOR
MONITORING HIV**

**A PUBLICATION FROM
Project Inform
MAY 2007**

Potential Side Effects of HIV Infection and ARTs

- Weight Loss
 - Diarrhea
 - Nausea
 - Fatigue
 - Sleep Problems
 - Stress
-

Long-term effects

- Kidney Disease
- Cardiovascular Disease
- Bone Density loss

and strategies to mitigate or prevent the above.

By this point, participants have

- Developed emotional strategies
- Shifted identity
- Alleviated fears of death and illness but temper it with the potential long term effects of HIV and ART
- Explained the goals and benefits of ART
- Understand when to start ART
- ART Ready
- Established trust in 2-3 visits in order to move on to...

The disclosure discussion

Trying to decide who to tell about your new HIV status can be stressful and confusing. Try using the template below to help sort out your thoughts.

Who <u>won't</u> you tell?	Who <u>might</u> you tell?	Who <u>should</u> you tell ?	Who do you <u>have to</u> tell? Legal
Why?	Why?	Why?	Why?

Because we are peers we...

- Provide anecdotal tips on how to tell someone you are HIV+.
- Strategies to deal with rejection.

Who do you have to tell?

Legislators and courts in Canada have decided that you must disclose your status to someone when you engage in sexual activity or sharing needles that puts someone at **significant risk** for HIV transmission.

What constitutes significant risk for HIV transmission during sex?

It is no longer illegal to enter the United States as an HIV+ person.

Transmission Equation

HIV+ Body Fluid

(blood, semen & pre-cum, vaginal fluids, breast milk)

+

Entry Point to the Bloodstream

(cuts, tears, fissures, IV needles, receptor cells)

+

Risky Activity

(unprotected sex, sharing IV needles, unsafe body art, breast feeding)

=

**possibility of
HIV INFECTION**

Risk Activities

- Unprotected sex
- Breast feeding
- Needles (for injecting drugs or tattoos)

Other Risk Activities

- “rimming”, is a high risk for Hepatitis A, and parasites like giardia and ameba.
- HEP-C during sex

Personal Risk Assessment

- Not easy
- Memory is not always accurate

Harm reduction

- Condom use
- Use the terms **high, medium and low risk**
- **safer** sex.

Suggested strategies:

- Sero-sorting
- Strategic positioning
- Viral load monitoring
- STI testing

Don't share needles

- Needle Exchange
- Safe Injection Space

Because we are peers we can provide anecdotal tips on how to tell someone you are HIV+.

Navigating Self Care

- Holistic strategies

DON'T TAKE YOUR IMMUNE SYSTEM FOR GRANTED

Objectives of this module are to:

- utilize Self-care strategies to stay healthy,
- explore Complimentary or Alternative Medicines
- to prevent HIV disease progression and
- to prevent or respond to side effects of ARTs

DEPRESSION IN HIV

(not a module but part of the dynamic)

- Clinical depression is the most commonly observed mental health disorder among HIV-infected individuals (up to 20%)
- 4 out of 5 people (80%) from BC living with HIV/HepC are impacted by mental illness at sometime.
- **Increased number of Mental Illness'**
 - Reclusive Behavior
 - Anxiety Disorder
 - Mood Disorder
 - Negative Cognitive Disorder
 - Bi-polar Disorder
 - Personality Disorders
 - Adjustment Disorder

In Summary

- To be effective “Positive Prevention” should address the whole person in the context of their lived experiences.
- HIV+ people that spiral off the grid at point of diagnosis increase the likelihood of HIV transmission, disease progression and health care costs.
- HIV+ people are more likely to make healthy choices for themselves and others when given HIV information that is time sensitive, relatable, and relevant.
- Community based self-management programming compliments formal health care systems.