

inside
▶▶▶

05▷ FIGHTING WORDS

The Poverty Olympics in Vancouver in early February weren't all fun and games.

06▷ ACCOLAIDS

Awards gala honours outstanding achievements in the BC AIDS movement.

08▷ THE POSITIVE GATHERING

A report on the third Positive Gathering, which took place at the end of March.

14▷ THE BURMA STORIES

Part three in a series of personal accounts of PWAs in Southeast Asia.

15▷ PREVENTION

The legalities of disclosure in intimate relationships.

40▷ LAST BLAST

Denise Becker has a heart-to-heart conversation with her inner voice.

features



🕒 **09 UNTESTED, UNDIAGNOSED, UNTREATED**

If prospects are so much better, why is HIV diagnosis in BC getting worse? Different population groups require targeted strategies.

🕒 **20 NEW GENERATION OF AIDS DRUGS**

An overview of current AIDS drugs and new drugs on the horizon for treatment-experienced patients.

17▷ OPPORTUNISTIC INFECTIONS

- ▶ There are dangerous strains of tuberculosis that are resistant to antibiotics.
- ▶ Candidiasis is one of the most common opportunistic infections among PWAs.

24▷ SIDE EFFECTS

Osteoporosis and osteopenia continue to be a problem—but you can do something about them.

26▷ ANTIRETROVIRALS

Researchers present controversial findings on abacavir at the CROI conference.

28▷ LET'S GET CLINICAL

The latest news and trials at the Canadian HIV Trials Network.

29▷ NUTRITION

Two great recipes if you have metabolic syndrome.

30▷ COMPLEMENTARY THERAPIES

Non-prescription things you can do if you suffer from insomnia.

32▷ ADHERENCE

Different approaches to the challenge of sticking to your medication regime.

34▷ STRAIGHT FROM THE SOURCE

Among PWAs in BC receiving antiretrovirals, 86 percent have undetectable viral loads.

36▷ SIMPLY POSITIVE

Our easy-to-read pages on HIV treatment and care.

treatment
information



living is published by the British Columbia Persons With AIDS Society. This publication may report on experimental and alternative therapies, but the Society does not recommend any particular therapy. Opinions expressed are those of the individual authors and not necessarily those of the Society.



The British Columbia Persons With AIDS Society seeks to empower persons living with HIV disease and AIDS through mutual support and collective action. The Society has over 4400 HIV+ members.

living⊕ editorial board

Wayne Campbell – chair, Michael Connidis, Philip Dawson, Sam Friedman, Rob Gair, Neil Self, Derek Thaczuk, Glyn Townson

Managing editor Jeff Rotin

Design / production Britt Permien

Copyediting Alexandra Wilson

Contributing writers

Denise Becker, Autumn Chilcote, Jennifer Chung, Melissa Davis, Kristin DeGirolamo, Treena Hansen, Dr. Marianne Harris, Sean Hosein, Terry Howard, Helena Jedrejowski, Diana Johansen, R. Paul Kerston, Lena Koshbin, Michael Kwag, Alix Mathias, Thiha Maung Maung, Thomas McLeod, Carley Taylor, Hywel Tuscano

Photography Britt Permien

Director of communications & education

Adam Reibin

Director of treatment information & advocacy

Adriaan de Vries

Treatment information coordinator

Zoran Stjepanovic

Director of positive prevention

Elgin Lim

Subscriptions / distribution

Ryan Kyle, Joe LeBlanc

Funding for *living⊕* is provided by the BC Gaming Policy & Enforcement Branch and by subscription and donations.

living⊕ magazine

1107 Seymour St., 2nd Floor
Vancouver BC V6B 5S8

TEL 604.893.2206 FAX 604.893.2251

EMAIL living@bcpwa.org

BCPWA ONLINE www.bcpwa.org

© 2008 *living⊕*

Permission to reproduce:

All *living⊕* articles are copyrighted. Non-commercial reproduction is welcomed. For permission to reprint articles, either in part or in whole, please email living@bcpwa.org



think ⊕

opinion & editorial . . .

Unacceptable

by Glyn Townson

In one of the most prosperous countries of the world, where our healthcare system is celebrated and our social policies supposedly represent human rights and equality, it's unacceptable that 40 percent of people dying from AIDS have never received treatment.

That statistic was recently released by the BC Centre for Excellence in HIV/AIDS (BCCfE), which is proposing a new program called STOP AIDS. The BCCfE's argument is that by going to communities and populations where HIV is epidemic, and providing testing and treatment along with other services, we can curb the horrendous affects of the virus.

Feature stories in the next two issues of *living⊕* will discuss various population groups that aren't receiving adequate HIV testing and treatment. The articles will examine cultural and economic barriers, stigma, access to services, and more. However, the overriding issue is that people in BC are dying of AIDS without accessing free treatment.

How did we, as a province, get ourselves into a situation where whole populations of people with HIV are going untested, untreated, and undiagnosed? It's unfortunate, though not surprising, that those who are unable to access HIV testing and treatment are also the most marginalized members of our communities.

Some can't afford safe housing and don't know when they'll have their next meal, so sticking to complicated and unforgiving medication regimes is impossible. Others simply can't find culturally-appropriate services in their

first language. People battling addictions need adequate supports before they get treated, but massive wait lists for detox and treatment centres keep them on the streets, at risk of spreading the virus to others. The fear of stigma and discrimination prevents many people from getting tested, especially when they don't have a doctor they trust.

All these barriers reveal that not only do we need life-saving HIV/AIDS medications; we also need the social supports to ensure treatment is accessible to everyone.

These social supports must include affordable housing, basic food security, harm reduction programs, drug rehabilitation services with aftercare, and culturally-appropriate programs—all determinants of health. Ensuring such supports will be a huge undertaking, but the HIV/AIDS movement in BC has never let the complexity of a task stand in our way.

In the next two issues, you'll read about some of the challenges to accessing testing and treatment. You'll hear about how some individuals and organizations are breaking down barriers. We hope you'll agree that it's completely unacceptable to have such a large portion of HIV-positive people going untested, undiagnosed, and untreated. ⊕



Glyn Townson is the chair of BCPWA.



REALITYBITES

News from home & around the world



The dangers of eHealth

BCPWA has joined with the BC Civil Liberties Association, the BC Freedom of Information and Privacy Association, and the BC Coalition of People with Disabilities to warn British Columbians about the danger posed by the provincial government's new eHealth legislation. Bill 24 will allow the provincial government to create massive electronic databanks of citizens' personal health information and to override citizens' rights to privacy and to doctor/patient confidentiality.

The Bill gives government sweeping powers to access and utilize private and confidential medical information gathered from a variety of sources, including community health clinics, women's clinics, pharmacies, medical labs, hospitals, and other public health bodies.

The four community groups are calling for Bill 24 to be redrafted with the right of patient consent and control enshrined, with only strictly limited exceptions for emergencies and audits. The groups also say that sensitive health information should never leave Canada without express consent and that citizens should have an absolute right to prevent their health information from being used for research purposes.

Study reaffirms that HIV replication is harmful

Uncontrolled HIV replication is associated with a higher risk of serious illness and death, even when the CD4 cell count is above the currently recommended threshold for starting treatment—350 cells/mm³—according to a new analysis of the SMART study of structured treatment interruption published in the April 15th edition of the *Journal of Infectious Diseases*.

In addition, the analysis showed that the greater risk of serious illness and death in the treatment interruption group was also associated with a greater period spent living with a CD4 cell count below 350 cells/mm³.

Taken together, say the authors, the findings “support consideration of initiating ART before even moderate levels of immunodeficiency develop,” although they recommend that a large randomized trial still needs to be conducted to answer the question of when is the optimal time to start antiretroviral treatment.

Source: aidsmap.com

Over two million children worldwide with HIV/AIDS

More than two million children worldwide were living with HIV/AIDS in 2007, according to a joint report released by UNICEF, UNAIDS, and the World Health Organization.

According to the report—titled “Children and AIDS”—most children living with HIV/AIDS acquired the virus through mother-to-child transmission (MTCT). The report also found that 290,000 children under age 15 died last year of AIDS-related causes and that 12.1 million children in sub-Saharan Africa lost one or both parents to HIV/AIDS. In addition, the report found that young people ages 15 to 24 account for 40 percent of new HIV cases among people older than 15.

The report highlighted four strategic areas of focus to address HIV/AIDS among children: prevention of MTCT; pediatric treatment of HIV; prevention among adolescents and young people; and protecting and supporting children affected by the virus.

Although the number of HIV-positive pregnant women receiving antiretrovirals

to prevent MTCT increased by 60 percent from 2005 to 2006, only 23 percent of women in need receive such services.

Source: kaisernetwork.org

Renewed calls for in-prison needle exchange programs

Up to 15 percent of incarcerated drug users report injecting heroin and cocaine while behind bars, according to one of two new studies that say Canadian prisons are contributing to the spread of the virus that causes AIDS.

The findings are so worrisome, the researchers at the BC Centre for Excellence in HIV/AIDS, who conducted the studies, have renewed calls for in-prison needle exchanges to reduce the risk of dirty syringes spreading HIV and hepatitis C infections, which are common among inmates.

The drug users in the studies were incarcerated in BC correctional facilities. But the researchers suspect syringe sharing is common in jails across Canada. They say the findings underline the “urgent need” to expand harm-reduction programs in Canada’s municipal, provincial, and federal correctional institutions.

Source: Canwest News Service

Street kids using crystal meth at “alarming” rate

Injection drug use is on the rise among street youth in Vancouver, fuelled by alarming rates of crystal methamphetamine use, a new study has found. The federally-funded study, written by medical researchers with the BC Centre for Excellence in HIV/AIDS, found that crystal meth users surveyed were four times more likely to inject drugs, compared to drug users who didn't use crystal meth.



REALITYBITES

News from home & around the world



It's the first time a large-scale survey of crystal meth use among street youth has been undertaken in Canada. And researchers were shocked by some of its findings, particularly around the sheer prevalence of the drug.

About 75 percent of participating street youth reported crystal meth use—a number that one of the study authors described as “highly alarming.” By comparison, only about 15 per cent of addicts on Vancouver’s drug-hardened Downtown Eastside reported crystal meth use.

Source: *The Vancouver Sun*

New HIV/AIDS vaccine phase 1 trial begins

A phase 1 clinical trial to test a novel HIV/AIDS vaccine has begun at Brigham and Women’s Hospital (BWH) in Boston. The new vaccine aims to overcome the problem of pre-existing immunity to common vaccine vectors, which is thought to be a major problem in the developing world.

“This study will involve 48 healthy volunteers who will receive either two or three immunizations and who will be followed to assess the safety and immunogenicity of the vaccine,” says Lindsey R. Baden, MD, assistant professor of medicine at BWH and Harvard Medical School and protocol chair for the study.

The vaccine consists of a replication-incompetent, recombinant adenovirus serotype 26 (rAd26) vector encoding an HIV-1 envelope gene.

Source: *Medical News Today*

Tenofovir may suppresses HIV in semen, says study

Tenofovir (Viread) rapidly suppresses HIV in semen and could help prevent the sexual transmission of HIV, according to a small study published in the *Journal of Acquired Immune Deficiency Syndromes*.

Investigators at the University of North Carolina designed a small study involving nine HIV-positive men to measure concentrations of tenofovir in the genital tract after the first and then multiple doses, and to see the effect of the drug on viral load in both the blood and semen.

After the first dose, concentrations of tenofovir in semen were 4.4-fold higher than those in blood. After subsequent doses, tenofovir maintained a higher concentration in semen than in plasma, this concentration being 5.1-fold higher at the end of the study.

Source: *aidsmap.com*

Menopause and CAM study

A former BCPWA staffer is conducting a study on menopause and complementary therapies and is looking for participants. Carole Lunny is a student in the Masters of Health Studies program at Athabasca University. Her study, “Use of Complementary and Alternative Medicines for Menopause Symptoms in Women With or Without HIV,” looks at how women use complementary and alternative medicine to relieve menopause symptoms. The study has been approved by the Athabasca Research Ethics Board.

Lunny is seeking HIV-positive or HIV-negative women between the ages of 40 to 60 to participate. To access the study, go to www.surveymonkey.com/s.aspx?sm=1LMRRO6siAL_2bWhvc108oAQ_3d_3d.

If you have any comments or questions, email carolelunny@gmail.com. ☺



Thanks to the Rhinestone Phoenix Charity Foundation's donation of \$1,700, Polli & Esther's Closet was able to purchase socks and underwear to distribute to PWAs in need. Pictured (l to r): Dominic Baril, Polli & Esther's team leader; Philip Dawson, BCPWA board of directors and Polli & Esther's team member; Richard Harrison, BCPWA member services coordinator.

FIGHTING WORDS



Not all fun and games

The Poverty Olympics drew attention to the BC government's failure to focus on important social issues

by R. Paul Kerston

Homelessness is rampant in Vancouver, as evidenced by an attempted count of homeless people in March. The estimate was approximately 2,600 people living on the streets. So while people in need of government assistance continue to face hurdles, the BC provincial government throws peanuts at these problems and heaps of money on infrastructure improvements—like the Canada Line and the Sea-to-Sky Highway—to make us look classy for the 2010 Olympics. People in Vancouver's Downtown Eastside and elsewhere have been fighting back. In early February, several groups banded together to mock this mess with the first annual Poverty Olympics.

Originating at the Carnegie Community Action Project (CCAP), and sponsored by them and Raise the Rates, the Downtown Eastside Neighbourhood House, Streams of Justice, the Vancouver Area Network of Drug Users, and BCPWA, the Poverty Olympics had an important point to make about the need for social housing and improved welfare policies.

"While it's going to be fun, we do have a serious message," said organizer Wendy Pedersen of CCAP. "The world needs to know that Vancouver and BC have world-class poverty and homelessness."

The event sought to generate public interest and subsequent political action. Public funds aren't being spent on these problems. If media interest was any indication, the message was heard.

Mocking official Olympic mascots, the Poverty Olympics featured Chewy the Rat, Creepy the Cockroach, and Itchy the Bedbug leading a parade that culminated with lighting a huge "torch"—to the roaring applause of hundreds gathered in the Carnegie Centre's theatre on February 3. Competing with the Super Bowl, this well-attended, media-covered event demonstrated the dedication this community has in securing necessary social housing and eliminating welfare barriers.

As with the 2010 event, these Olympics featured games, including the poverty line high jump and the welfare hurdles. In the high jump, contestants tried to clear arbitrarily-set levels

of income that don't even reflect such well-established standards as the low-income cutoff set by Statistics Canada. Folks in this "competition" showed that job loss and injury prevented them from reaching the high bar set by our government for their performance. People are forced to spend more of their income on basic needs than is considered healthy. Likewise, the welfare hurdles illustrated that people are required to have basic computer literacy and documentation, which many just don't have.

BCPWA staged two skits in the event. The broad jump over a bedbug-infested mattress had volunteers moving from bed to bed—as with many on our streets—while attempting to avoid the many "bedbugs" that got stuck to them.

The second skit, The Buy-athlon, exposed the folly of our government spending billions on airport and highway improvements, plus disruptive and business-threatening SkyTrain construction, all the while ignoring an ever-growing local population with life-threatening needs. Contestants fired nerf-guns at targets labelled with mega projects the government is spending huge sums on, while not showing compassion for community needs. The song "We're in the Money" played while mascots threw fake money around, much as our politicians do.

With BC's healthy financial condition, government priorities are questioned. With cries of "shame!" and "like we go to the airport!" ringing out, the audience hopes our government hears their desperation. People will not give up fighting for basic housing and income assistance improvements. ☺

R. Paul Kerston is BCPWA's treatment outreach coordinator and community representation and engagement (CRE) coordinator.





On Sunday, April 13, the 7th annual AccolAIDS awards gala took place in the elegant Pacific Ballroom at the Fairmont Hotel in Vancouver. This recognition and fundraising event honoured outstanding achievements of individuals and organizations working in the BC AIDS movement. Here are the winners.

SOCIAL/POLITICAL/COMMUNITY ACTION

Gary Dalton

Dalton began working for ANKORS East Kootenay in 1999 and celebrates every day. Last year, Gary spoke to over 2,600 people over a region covering 28,000 kilometres.

ANKORS has given Dalton the opportunity to participate in many changes that come with addressing HIV/AIDS issues in rural BC—from helping the Golden Women's Centre expand ANKORS' efforts to raise awareness of sexually-exploited youth to seeing family centres throughout the region address needle disposal and sexual orientation issues. He has helped local Options clinics explore HIV testing and East Kootenay Addiction Services extend their youth outreach program and pilot needle exchange. Dalton also collaborates with Healing Our Spirit, Pacific AIDS Network, BCPWA, YouthCO, CATIE, and others who come to the region. His aim is to make the East Kootenays a safe place for all.

ABOVE AND BEYOND

Doreen Littlejohn

Littlejohn has been the nurse coordinator of the Positive Outlook

Program at the Vancouver Native Health Society since 1997, and has a private nurse counselling practice with Chaldecott Medical Clinic.

Littlejohn is passionate about making a difference in the lives of those who have no voice. Her dream of nursing in developing countries was unexpectedly realized in her own backyard. People living in Vancouver's Downtown Eastside are often homeless, poor, infected with HIV and hepatitis C, drug addicted, mentally ill, and far too often die on the streets. Health authorities fund direct services adequately but ignore those most in need—the urban Aboriginal population.

Littlejohn has been given the greatest honour from her staff: the Ojibway name "kanatamgate," which means "one who fights for the rights of others."

PHILANTHROPY

Ken Coolen

From a very early age, Coolen's natural tendency for philanthropy was evident. At age six, he put on his first fundraiser for a local camp for underprivileged children. In school and university, Coolen fundraised and did outreach work for UNICEF, senior's homes, and Alateen.

Since moving to Vancouver 20 years ago, Coolen has been involved in many organizations — including Dogwood Monarchist Society, Vancouver Pride Society, and BCPWA, to name a few. He credits his success to being someone who can bring people

together to accomplish a task. He is blessed with loving, supportive parents as well as a collection of amazing individuals he is lucky to call friends. They say it takes a village to raise a child. Coolen is grateful to have his own “village” of talented and caring friends and family who are always there to help pick up the cause.

KEVIN BROWN PWA HERO AWARD

Michael Yoder

Yoder started as a Helpline volunteer with AIDS Vancouver Island in 1986 and began a strange journey where talking about sex all the time was normal. He worked as the Helpline coordinator, volunteer coordinator, board member of the Victoria Persons With AIDS Society, and as the education coordinator for Victoria AIDS Resource and Community Service Society (VARCS). After his partner died, Yoder took on the role of executive director of VARCS. He also sat on the Canadian AIDS Society board of directors for six years as the HIV-positive representative for the Pacific Region.

Yoder believes imagination is essential and that playing with what we do, no matter how serious it might seem, is the only way we can move forward and flourish as people living with HIV—or as people, period.

HEALTH PROMOTION AND HARM REDUCTION

Samantha Mohan

Mohan has worked tirelessly for the past 15 years in Chilliwack and the Eastern Fraser Valley to stop the spread of HIV/AIDS, helping some of society’s most neglected members, particularly injection drug users and survival sex trade workers.

Since 1993, she has operated the only openly-advertised community-based needle exchange program between Surrey and Kamloops. She has faced vehement opposition and open harassment by the community at large. In spite of the significant resistance, her caring heart and optimistic personality have helped her build a strong network of support for harm reduction services in the Fraser Valley region and beyond.

Those who come into contact with Mohan find her compassion unwavering, her integrity unflinching, and her sense of humanity profoundly touching.

SCIENCE/RESEARCH/TECHNOLOGY

Community-Based Research Centre Society

The Community-Based Research Centre is a non-profit charitable organization using research to guide community action on HIV prevention, treatment, and care.

The CBRC provides grounded leadership around gay men’s health issues in a number of ways. They author and creatively research the sexual health risks and needs of gay men and men who have sex with men in their annual Sex Now survey. Totally Outright is their annual sexual health leadership course for young gay men. And The Summit, BC’s annual gay men’s health conference, brings together individuals and organizations working in the field of gay men’s sexual health and wellness.

The CBRC provides evidence-based preventive health information in the community, and is a lifeline to many in a context where HIV prevention is critically under-resourced.

MEDIA AWARD

First Story on CTV

Now in its 10th year of production, First Story is a half-hour current events and information series that discusses BC First Nations arts, culture, and social justice issues. All producers who work directly on the show are of First Nations heritage. The series often features HIV/AIDS related content, covering everything from safe injection sites to personal stories of First Nations people living with HIV.

First Story is dedicated to campaigning for the rights of HIV-positive persons and has provided a tremendous opportunity for creating continued awareness about HIV/AIDS in First Nations communities.

INNOVATIVE PROGRAMS AND SERVICES

(tie) The John Ruedy Immunodeficiency Clinic—Providence Health Care

The John Ruedy Immunodeficiency Clinic (IDC) at St. Paul’s Hospital in Vancouver opened in the late 1980s. Dr. John Ruedy was instrumental in leading this initiative, and visits to the clinic have grown from 4,000 in 2002 to 12,000 in 2007. Two main goals of the IDC are to improve access to HIV primary and specialized care, and to enhance competence in HIV care among health care providers in the community. Services are comprehensive, interdisciplinary, flexible, and patient-centred.

The IDC provides health services that respond to a rapidly growing and diverse population, including the needs of people with multi-drug resistance, intolerance to antiretrovirals, or with multiple diagnoses such as hepatitis, mental health issues, or addictions. Many IDC patients previously lacked access to HIV care.

INNOVATIVE PROGRAMS AND SERVICES

(tie) The MAKKA Project

The MAKKA Project is a community-based partnership between the BC Centre for Excellence in HIV/AIDS and Women’s Information Safe Haven (WISH) Drop-In Centre Society. Through participatory research, the project examines the HIV prevention and treatment needs of women who struggle daily with poverty and addictions and engage in survival sex work.

MAKKA began in 2005 as a response to concerns by sex workers, services providers, and researchers of the significant health-related harms and underrepresentation of women accessing health and HIV services. Researchers are current and former survival sex workers. MAKKA is also piloting and evaluating peer-driven intervention strategies to increase access to HIV care and treatment. Weekly peer support workshops, peer-to-peer advocacy, and peer outreach have helped to provide a safe space for HIV-positive women to seek treatment and care resources. ☺



Sharing and learning

The theme of the third Positive Gathering was living positively in an HIV-negative world

by Julia Smith

From March 28 to 30, nearly 200 HIV-positive individuals came together for the third Positive Gathering. The event, held at the Plaza 500 Hotel in Vancouver, was an opportunity for people living with HIV/AIDS from around the province to share experiences, participate in workshops, and have some fun.

The theme of this year's gathering was living positively in an HIV-negative world. In his opening address, the chair of the Positive Gathering Partners Committee, Ken Buchanan, noted, "From discussing disclosure issues and body image to exploring intimacy and aging challenges, our hope is that every participant will leave the gathering better able to live with, understand, and respond to the HIV-positive experience."

In his keynote address, Michael Yoder, executive director of Victoria AIDS Resource and Community Services Society, challenged participants to take the theme of the conference to heart. He said that the world we live in is often a negative space, no matter what your HIV status is, and that it's a great challenge to maintain a positive outlook in the face of discrimination and stigma. To get the positive energy at the conference flowing, he engaged participants in a humorous drama game, and then had them "infect the room with love" by plastering the walls with post-it notes listing all the things they love. The

answers ranged from pets, to favourite foods, to sexual practices.

The tone was well set for the highly energetic and successful conference that followed. The 32 workshops ranged in topics from new treatments, to body mapping, to maintaining a healthy sex life. In each workshop, participants were engaged and active. The gala dinner on Saturday topped off the event with a fabulous meal. Denise Becker, the guest speaker, shared a riveting and inspiring story of her personal journey living with HIV.

The next morning, the Pacific AIDS Network (PAN) sponsored a networking breakfast in order to introduce participants to PAN and promote further collaboration among AIDS service organizations. Networking was further promoted at the Aboriginal and the women's caucuses.

While each forum had the common theme that living in an HIV-negative world is difficult because of the stigma, discrimination, and fear attached to HIV/AIDS, the weekend empowered participants to move beyond these negative influences by building on the new friendships and the mutual support developed at the gathering. On the final morning it was apparent that participants would take the joy and learning they had gained over the weekend with them to share with their communities around the province.

"It was a truly unique opportunity to have so many HIV-positive people from BC all together," says Glyn Townson, chair of BCPWA. "We've come together to share common and individual experiences with each other. I'm sure this will strengthen the HIV/AIDS movement in the province."

The Positive Gathering, the only event of its kind in Canada, was organized by 10 AIDS service organizations: ANKORS, Asian Society for the Prevention of AIDS (ASIA), BCPWA, Downtown Eastside Consumers Board, Friends for Life, Pacific AIDS Network, Positive Living Fraser Valley, Positive Living North, Wings Housing Society and YouthCO AIDS Society. For nearly a year, representatives from the above organizations met to discuss conference content, organize logistics, volunteer services, and much more.

"After months of work, the Partners Committee can finally sit back and celebrate a successful conference," said Buchanan, after it was over, "and start planning for the next Positive Gathering!"



Julia Smith
is BCPWA's former
director of communications.



Untested, undiagnosed, and untreated

If prospects are so much better, why is HIV diagnosis getting worse? Different population groups require targeted strategies

by Derek Thaczuk

In the early days of AIDS, with next to nothing in the way of treatments or hope, avoiding an HIV test made a strange kind of sense. “Why learn I’m going to die,” many people reasoned, “if I can’t do anything about it?” Yet today, when it’s far better to know your status—and sooner rather than later—shocking numbers of HIV-positive people remain untested, undiagnosed, and untreated.

Reasons for testing abound: a late diagnosis equals greater immune damage, lower CD4 counts, and a higher risk of life-threatening opportunistic infections. People with low CD4

nadir (lowest-ever counts) respond less well to treatment, have slower immune gains and a greater long-term risk of cancers, as well as heart, liver, and kidney disease. An earlier diagnosis means more time to process the shock and make treatment decisions calmly and strategically, rather than in crisis mode. And those who are aware of their HIV status are less likely to pass it on to others.

Despite all this, one-quarter of all HIV-positive Canadians may be unaware that they’re infected. The Public Health Agency of Canada estimates that, at the end of 2005, 16,000

Cover Story

Canadians had HIV without knowing it. That's nearly 40 percent on top of the 42,000 living with confirmed diagnoses—which accords with the 40 percent of BC's AIDS cases who have never received treatment (see the op/ed on page 2).

One-quarter of all HIV-positive Canadians may be unaware that they're infected. The Public Health Agency of Canada estimates that, at the end of 2005, 16,000 Canadians had HIV without knowing it.

Studies are showing that more people than ever don't find out they're positive until late in the course of their infection—not just in North America, but worldwide. Numbers of such late testers, or late presenters—people who already have an AIDS-defining illness at the time of HIV diagnosis, or develop one within a year—have increased from around 20 percent in the early 1990s, to anywhere between 35 and 60 percent more recently, depending on where they live.

If prospects are so much better, why is diagnosis getting worse?

Researchers and experts “don't yet understand all the reasons,” says Sandra Schwarcz MD, physician with San Francisco Public Health and researcher on late-diagnosis issues. “We've gathered data telling us who is likely to test late, but we don't yet fully understand why.” Descriptive studies, largely conducted in the US and Europe, have found that immigrants and women are often the least likely to be tested, while injection drug users

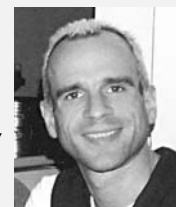
(IDUs) and men who have sex with men—groups heavily targeted by HIV awareness programs—“are very much in line to be offered and encouraged to test.”

Yet research into people's actual motives is surprisingly scant, especially here in Canada. Perceived risk is doubtless one of the largest factors: for many, AIDS is still somebody else's disease, and those who don't see themselves at risk are unlikely to seek testing. Even those who want to be tested may find themselves discouraged by healthcare gatekeepers who don't see them as being at risk. Anecdotes abound from women and others whose doctors say, “Why would you need an HIV test?”

And, despite treatment advances, fear still looms large: many people still believe HIV is a death sentence. Even awareness of all the new treatments may not translate to the courage to look your own status in the face—especially for those who don't think they can access such care themselves. People in highly-targeted risk groups such as gay men or IDUs are just as prone to be in denial, or afraid to find out, says Schwarcz, or “they may be in a risk group but don't think their individual behaviour is risky.”

Ultimately, the reasons people go untested may be nearly as varied as the people themselves. In this and the next issue of *living* ⊕, we'll examine many of the populations where people still find themselves untested and untreated. Of course, HIV testing can't be forced on anyone. But people deserve the chance to make a fully informed decision about whether or not to be tested—and they deserve to know that testing helps.

Derek Thaczuk has worked in information and support services within the HIV community for over a decade and is now a freelance writer and editor.



Women

by **Helenka Jedrzejowski**

Women represent one quarter of new HIV infections in Canada. Each woman's reality presents different and complex barriers to HIV prevention, testing, diagnosis, and treatment. What can be done?

Sonia Marino, support programs supervisor at AIDS Vancouver, has been working with HIV-positive women for over two decades. She emphasizes that in the face of rising rates of HIV infection in women, it's important for community-based organizations to work together to create an environment where women feel safe coming forward to be tested or to ask for help and support.

Marino notes that in recent years a growing number of people have turned to the criminal justice system to help protect them-

selves from being infected by someone living with HIV—a trend which is counter-productive in that criminal proceedings don't protect anyone. She notes that in BC, women are facing aggravated sexual assault charges for not revealing their HIV status. “My fear is that this will create yet another barrier to getting tested and more women will be put behind bars,” she says. “Criminalization only serves to vilify people living with HIV while increasing the risk of incarceration for women who already experience poverty, violence, racism, and a host of other barriers to revealing their HIV status.”

“We've worked hard to raise public awareness of the issues that increase women's vulnerability to HIV,” she says. “Now it's vital that we help the public understand that these same

vulnerabilities can also make it difficult for women to reveal their HIV status.” She applauds recent efforts by Vancouver General Hospital’s Sexual Assault Response Team and hopes that other women’s organizations will support efforts to stop the criminalization of HIV. Marino believes that our best strategy for women to protect themselves from HIV is in educating one another.

Mandip Kharod has been an HIV/AIDS prevention and awareness educator with AIDS Vancouver for over two years and she would like to see HIV more thoroughly included within women-specific services at the community level. Kharod says that one of the biggest barriers to HIV diagnosis and testing remains the lack of knowledge around what she calls HIV basics. “People often don’t have a basic understanding of what HIV risk entails. People don’t know that testing is free and that there are places other than their family doctor’s office where testing is available confidentially.”

Kharod adds that there continues to be a great degree of stigma and discrimination attached to HIV—to the point where many women would rather not know their status. What’s required is more general awareness about HIV within the population and among women. “There is also a great demand for making culturally appropriate and language specific services and information readily accessible,” she says. “We’ve got to reach women and make it as easy as possible for them to reach out to us as well.”

AIDS Vancouver’s online library of over 300 books and videos, as well as brochures and fact sheets on HIV-related issues specific to women, can be found at <http://aidsvan.andornot.com>.

Also, www.pwn-wave.ca, a website hosted by Positive Women’s Network, offers information for women living with HIV and care providers. Or, contact them toll-free at 1.866.692.3000 for answers to questions about women and HIV.

Helenka Jedrzejowski is an HIV/AIDS prevention and awareness educator at AIDS Vancouver.



Prisoners

by Terry Howard

In prison, injection drug use is the primary mode of HIV and hepatitis C transmission. Tattooing and high-risk sexual practices are also prevalent. Because there are no needle exchanges in prison, a harm reduction approach is particularly important.

Harm reduction is a useful and effective way to prevent the transmission of blood-borne viruses such as HIV/AIDS and hepatitis C. Many prisoners aren’t aware of the harm reduction tools that are available to them, nor are they aware of techniques they can use to prevent transmission. Due to these factors, BCPWA’s Prison Outreach Program (POP) has been actively educating prisoners about harm reduction through workshops and health information fairs.

POP provides individual support, counselling, education on HIV testing and treatment, advocacy regarding health issues, as well as pre- and post-release planning to reduce recidivism. Support services are provided both in person, through outreach visits, and by telephone in provincial and federal prisons in BC.

POP delivers educational workshops on topics like current treatment information, harm reduction methods, safe-injection practices, needle exchange options, safer tattooing, and the community resources that are available upon release. Advocacy is provided free of charge to inmates having difficulty accessing adequate health care, harm reduction materials, or needing help with welfare or disability claims, housing, and support on the outside.

Compliance to HIV medications while incarcerated is often sporadic and difficult to maintain, even with the assistance of POP. Testing for HIV in this high-risk setting is voluntary, but

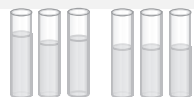
underutilized due to the stigma associated with status disclosure in both male and female prisons.

To understand and address the issues related to sporadic compliance and lack of voluntary HIV testing within prisons, POP conducted a research project known as Breaking the Cycle in 2005. A significant number of prisoners with HIV/AIDS, a proportion of whom are injection drug users, leave prison and reenter a cycle of poverty with limited access to healthcare resources. They continue with their drug use, rejoin criminal activity networks, and quickly return to the corrections system, cycling in and out in a pattern that restricts their ability to access continuous, effective health care. The research revealed that the biggest contributor to recidivism was the lack of access to community resources immediately upon release.

Breaking the Cycle was driven by evidence that involvement in participatory action research may allow stigmatized community members to become consumers—not passive subjects—of research and begin to engage in evidence-based advocacy and health promotion. In this way, Breaking the Cycle was a successful combination of popular education, community-based research, and community health service development. The outcome was dissemination of peer-driven information on HIV services available in the community, and solid evidence to inform release-planning programming for prisoners living with HIV/AIDS.

Terry Howard, MSc PPH, is the coordinator of the Prison Outreach Program at BCPWA.

Cover Story



Rural communities

by Thomas McLeod

Living in a rural community in the West Kootenays is not without its attractions. The mountain air is fresh and clean. The seasons are distinct and people are concerned about one another. But these charms add to the obstacles facing our community of untested, untreated, and undiagnosed HIV-positive people. The mountains become impassable, the winter snow makes transportation dangerous and sometimes impossible, and everyone knows your business.

The issues surrounding HIV/AIDS testing in rural areas are diverse and vary from community to community. Some issues are universal, like stigma; some are specific, like mountain passes. Doctors are scarce in rural communities. You can access testing through public health, although your community may not have a fixed site, so this might require travel; or testing is only held once a month. Information about testing opportunities is unclear and difficult to find.

Homelessness is also a problem. It makes it difficult to find at-risk people, plus testing is a lower priority than things like shelter or food. Even when we are able to test people, we can't find them again to deliver their results.

Most testing happens in smaller urban centres like Nelson, yet transportation in and out these locations is inconvenient, expensive, difficult to arrange, or non-existent. That makes it difficult for healthcare workers to be in these locations as well. They become tied to strict and inflexible schedules that exacerbate existing obstacles.

Public health facilities are sterile, unwelcoming, and intimidating. They are also close to or even attached to law enforcement agencies, which in itself is often enough to keep people away.

Once diagnosed, it's difficult to find a doctor for a complex

care patient. People have to travel to Vancouver or Kelowna.

People in rural communities also fear being outed. They may know the nurse who is doing the testing. They may be men who have sex with men (MSMs) who are conventionally or unconventionally married and don't want their partners to know. A lot of people are current or former drug users and they feel harassed by an indifferent and uncaring system. And, due to a lack of public awareness perhaps more common in rural communities, some resist testing in the belief that when you find out you're HIV-positive, you just get sick.

To address some of these obstacles, we're building partnerships within the community so we can offer testing in familiar, low-threshold environments. Because we're often hindered by the rigidity of bureaucratic schedules, we need to be creative about how we respond in a situation.

For example, we create testing opportunities by operating a mobile needle exchange, a fixed-site needle exchange, as well as needle exchanges in collaboration with other groups. We take needle exchange and testing information to public events and raves such as GBLTTQ pride dances, the GBLTTQ pride parade, as well as the Shambhala Music Festival, and other similar events. We establish trusted relationships in unofficial and unattended outdoor injection sites where street-involved people shoot up.

Any realistic and thoughtful approach to helping untested, undiagnosed, and untreated PWAs needs to involve a serious thrust to decriminalize drug use, so that we can then treat it as the serious health issue—and risk factor for HIV—that it is.

Thomas McLeod is on the board of directors of ANKORS in Nelson, BC.



Men who have sex with men

by Michael Kwag

Amidst reports of increases in HIV infections, data from 1,533 gay men and other men who have sex with men (MSM) who completed the Sex Now 2007 online survey are providing researchers and front-line workers with some important insights into BC's gay culture. In a reversal of previous trends, gay men under 30 are at greater risk of infection than their older counterparts. In fact, the heightened risk of infection among gay men collectively may be driven in part by shifts in the sexual norms of youth.

The Sex Now survey has been a critical source of research on gay men in BC since 2002, enabling observations of sexual

health trends over a five-year period. Dr. Terry Trussler recently reported that after a period of relative stability between 2002 and 2006, the percentage of men reporting sex that could transmit HIV has increased from 25 percent in 2002 to 37 percent in 2007. Among men under 30, that proportion was 42 percent.

In addition, the percentage of all men in the survey who had never taken an HIV test increased from 11 percent in 2002 to 17 percent in 2007. Among men under 30, 31 percent said they had never taken an HIV test versus 12 percent of men over 30. The data suggests we may have lost important ground in educating and supporting our youth.

Given these realities, community-based researchers and front-line workers have been working to provide youth with innovative and culturally relevant interventions. Since its pilot in 2004, Totally Outright has taken the lead in providing gay youth with sexual health training and meaningful opportunities to get involved and demonstrate leadership. Organized annually by the Community-Based Research Centre (CBRC) and its partners, Totally Outright offers a comprehensive 40-hour workshop program delivered by local gay men working in gay health. In addition to providing the sex education that most gay men missed while growing up, the program aims to empower youth with the tools and skills to become agents of peer and community action.

Connecting with gay youth on education programs is a challenge and requires more than a postcard or advertisement. Sex Now 2007 suggests that younger gay men seem to be less involved in community life than men over 30, and less than

one-third were familiar with the major HIV service organizations in the city. Through Totally Outright, we learned that a planned peer outreach strategy is an important component to success. Employing a peer recruiter who can access and relate to various social networks is critical in reaching the diversity of young gay men.

Despite the ongoing success of Totally Outright, the impact of a small program on the aggregate prevention needs of local gay youth is too limited for the scope of the issue. Delivered once a year on a shoestring budget, the course represents a community effort to train and support youth. If we are to support the sexual health of a new generation of gay men youth, innovative initiatives such as Totally Outright need to be part of gay culture.

Michael Kwag is a research assistant and coordinator of *Totally Outright* for the Community-Based Research Centre in Vancouver.



Youth

by Hywel Tuscano

In the area of sexual health and prevention education, it can be a feat for any youth to simply raise their hand and ask a question in a classroom or to walk into the doors of an organization. Doing so involves choosing to fill a gap in their knowledge, to seek community and support, and/or to consider their own health and that of their peers.

While running at the pace of adolescence, many youth don't give thought to their long-term health, but rather to the issues and changes within their day-to-day lives. Part of their identity formation is learning how their own sexuality fits into their lives and taking cues from their mentors and the information around them. Understanding the role of sexuality in their life and identity is further complicated if youth are HIV-positive and must negotiate how that fits into the rest of the picture.

There's a lot of white noise out there for youth these days. With multiple messages about a range of issues on the landscape, it's difficult for them to choose their battles, and figure out what information is reliable, who to listen to, and how to get involved.

This complexity is compounded by the lack of effective education curriculum around sexual health. From myth busting to basic education, it's all too common for educators to be asked questions from misconceptions about the availability of a vaccine for HIV to basic anatomy.

YouthCO's peer-based approaches are especially important when acknowledging that dialogue around sex and substances may be completely absent for youth or outside of their experience.

Sixty-two percent of youth surveyed through the Canadian Association of Adolescent Health face barriers to getting answers to their questions around sexual health, including their own discomfort in talking about it.

Peer facilitation and support creates a safe space to address all questions and concerns as valid issues. We can never be sure where youth have received their information. Peer education is effective in engaging youth where they're at, and with an ear for their own language, values, and social norms.

Hearing from peers that sex and HIV testing are healthy human activities opens a dialogue where youth can begin thinking of their own health and, hopefully, extend that message to their peers.

As a youth-driven organization, YouthCO works to engage youth in participating in outreach programs and providing resources for their own peer groups. Providing opportunities for meaningful work in peer-based programs, as opposed to token involvement, involves direct input from youth and allows them to steer the vision and direction of their own programs.

The ideal approach would be standard peer-based sexual health curriculum in schools. Funding, space, and resources for relevant arts-based and multimedia projects for youth is limited, yet these kinds of projects have been the best tools for youth engagement in recent years and could be applied to sexual health education. ⊕

Hywel Tuscano is the volunteer engagement coordinator at YouthCO AIDS Society.

The Burma stories, part 3

A former doctor in Burma recorded the experiences of PWAs in Burma and illegal migrant workers in Thailand. Here's another one of their stories *by Thiha Maung Maung*

"I was as a boatman when I was in Burma. Though I enjoyed daily security, my earnings were too little to save any money. My friends told me I could make more money in Thailand, so I moved across the border illegally and became a migrant worker.

I was only 23 years old that time. I had skills as a fisherman, so I found work catching snails. I worked, ate, and slept with seven other men on the same boat. All the others were regular drug users and our boss sometimes gave us drugs to help us work harder. I became interested in the habits of my friends. Eventually, I decided to try for myself. Before I knew it, I liked injecting heroin so much I couldn't live without it.

All the money I acquired on the boat was spent on heroin and I couldn't save a cent. It was at this time that the Thai government issued a ban on snail fishing as part of an environmental protection initiative. As a result, I had to find another job.

I was hired as a cattle herder. My boss let me live in back of his house and provided me with meals and a good salary. I ran errands for my boss and always helped out around his house. He was very happy with my work. He would tell me, "If you ever go away, I will miss you so much I won't be able to eat."

One year later, I had frequent fevers, and they were coupled with a severe loss of appetite. It was at the local clinic that I learned I had tuberculosis. I started treatment for the disease and began to regain my appetite.

Though I had begun to eat again, my general condition did not improve greatly, even after six months of treatment. I went back to clinic and got an HIV test. I tested positive. I was not worried about the personal effects of the disease, but about the ways it would affect my ability to work. As I had feared, I began to slow down and take on fewer responsibilities. I refused to take a salary but worked for room and board instead.

Eventually, I could no longer work at all. I left my boss' home and moved into a small hut in a field. The hut was owned by my boss and used as a lookout point to watch the field during harvesting. Though I was very sick, I had to fetch water from far away. I had no caregiver, so I cooked and cleaned for myself. Every day was a struggle just to subsist.

I was alone and I could not work. My boss, who had once been a friend to me, would visit and blame me for my condition. He would say, "are you so rich, you don't have to work?" He treated me as if I had chosen to live such a difficult life. He treated me as if I was worthless.

My life now is full of pain and boredom. My only form of entertainment is taking showers by the well. Nobody will come near me and I will not go meet other people because my whole body is covered in skin infections. I am living in my own world.

These days, I cannot cook rice on my own so I buy small snacks from nearby vendors. I always worry that my boss will send me away from his hut and I will have nowhere to go.

I often dream of joining my father and mother and having loved ones to care for me. In this dream, I am in my native village and I am no longer alone. My state of delirium allows these dreams to seem as real as life but when my fevers break, I remember that my parents left a long time ago and, once again, I am alone.

The fevers come all the time and my body always aches. I have lost all sight in my right eye. My joints feel brittle and sore and I cannot sleep. Even swallowing a drop of water is too painful. I wish for drugs to ease my pain but they are not a possibility because they are too expensive and the disease is too advanced. Instead, I long to die. For me, it is harder to live than die." ☺

Thiha Maung Maung is a volunteer with BCPWA's Treatment Information and Advocacy Department.

**BCPWA
Advocacy
gets
results!**

The BCPWA Society's Advocacy Program continues to work hard to secure funds and benefits for our members.

The income secured for December 2007 and January 2008 is:

- **\$30,000** in debt forgiveness.
- **\$5,881** in housing, health benefits, dental and long-term disability benefits.
- **\$500** in monthly nutritional supplement benefits.
- **\$2,250** in ongoing monthly nutritional supplement benefit for children

Kiss and tell

The legalities of disclosure in intimate relationships

by Autumn Chilcote

There are many personal issues surrounding disclosing your HIV-positive status to a partner, whether you're in a short- or long-term relationship. Will he/she still want to be with me? Will our sex-life change? Beyond the emotional concerns, disclosure in relationships may have legal implications.

In Canada, non-disclosure of your HIV-positive status to a sexual partner is considered a means of obtaining fraudulent consent to sex, and is prosecuted under criminal law as aggravated assault. In legal terms, aggravated assault is defined as endangering the life of another individual, and the penalty can be imprisonment. This means that before engaging in a significant-risk sexual activity that may result in transmission of HIV, you must tell your sexual partner that you're HIV-positive.

The first major prosecution in Canada of non-disclosure leading to HIV occurred in 1998, and since then the Crown has prosecuted many new cases. In British Columbia, the longest sentence for non-disclosure of HIV status has been 25 years (*R. v. Nduwayo*, 2006). The individual in this case shared sexual relations with multiple partners without disclosing status, resulting in infection. In a recent ongoing case, an individual was also charged with two counts of first-degree murder because two of his sexual partners died as a result of infection (*R. v. Aziga*).

What the future holds

With increased availability and use of long-term therapies for HIV-positive individuals, advocates are now looking to the future of the legalities of disclosure in relationships. Most healthcare providers feel that a person with HIV disease can live a long and relatively healthy life with proper treatment, which could affect a charge that stems from "endangering the life of another individual." Future issues will also likely focus on re-infection for individuals that have a positive status that are re-infected by their sexual partner.

Furthermore, the Canadian HIV/AIDS Legal Network argues that, rather than preventing HIV transmission, the criminalization of HIV instead reinforces the stigma attached to HIV-positive individuals and potentially creates a higher risk by driving people away from support services that will educate on positive prevention. The Legal Network also argues that court prosecution of high-risk behaviours undermines an individual's personal responsibility for his/her own sexual health; therefore they call for public health interventions rather than criminal legal proceedings.

Avoiding prosecution

So if you're HIV-positive, what can you do to protect yourself from prosecution? You can protect others from infection and yourself from re-infection. In court, protective activities such as the use of a condom have in the past protected HIV-positive individuals from aggravated assault charges, as the use of a condom implies that care has been taken to protect the sexual partner.

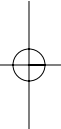
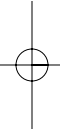
Historically, those who have shown that their partner would have shared sexual activity regardless of HIV-positive status have also been successful at avoiding an aggravated assault charge. Otherwise, it's "no exposure without disclosure."

The bottom line: to minimize your risk of prosecution, notify your sexual partners of your HIV-positive status and use a condom for all sexual contact. Be aware and involved in local advocacy efforts to de-stigmatize HIV/AIDS, and support the rights and privacy of all HIV-positive individuals. ☺

Autumn Chilcote is a volunteer in BCPWA's Prevention Department.

Inform yourself

For more information, visit the Canadian HIV/AIDS Legal Network website at www.aidslaw.ca.



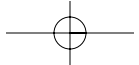
Are you HIV-positive?
www.bcpwa.org



**British Columbia
Persons With AIDS Society**

- living ⊕ Magazine**
- Fundraising Events**
- Treatment Information**
- Support Services**
- Volunteer Opportunities**
- Advocacy Services**
- Positive Prevention**
- Prison Outreach**

604.893.2200



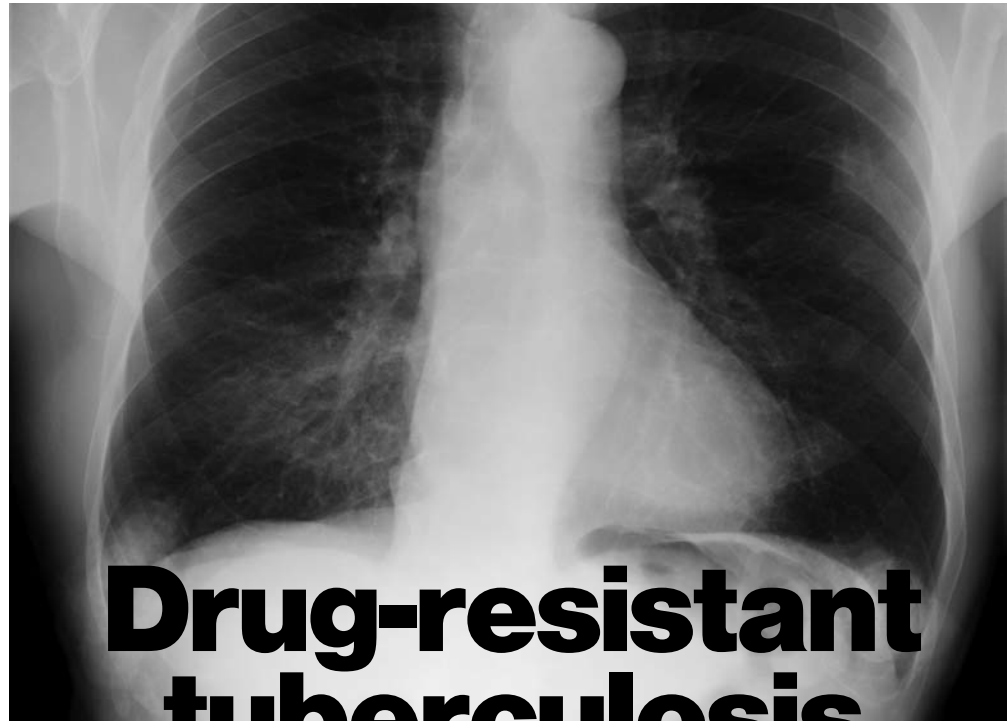


treatment. information

TREATMENT INFORMATION PROGRAM MANDATE & DISCLAIMER

In accordance with our mandate to provide support activities and facilities for members for the purpose of self-help and self-care, the BCPWA Society operates a Treatment Information Program to make available to members up-to-date research and information on treatments, therapies, tests, clinical trials, and medical models associated with AIDS and HIV-related conditions. The intent of this project is to make available to members information they can access as they choose to become knowledgeable partners with their physicians and medical care team in making decisions to promote their health.

The Treatment Information Program endeavours to provide all research and information to members without judgment or prejudice. The program does not recommend, advocate, or endorse the use of any particular treatment or therapy provided as information. The Board, staff, and volunteers of the BCPWA Society do not accept the risk of, or the responsibility for, damages, costs, or consequences of any kind which may arise or result from the use of information disseminated through this program. Persons using the information provided do so by their own decisions and hold the Society's Board, staff, and volunteers harmless. Accepting information from this program is deemed to be accepting the terms of this disclaimer.



Drug-resistant tuberculosis can be deadly

by Lena Khoshbin

Tuberculosis (TB) is an infectious disease caused by *Mycobacterium tuberculosis*, a bacteria that infects the lungs. With disease progression, it can spread to joints and the central nervous system. While TB has been largely controlled in Canada, it remains a very serious, often deadly disease in many developing countries. And although the bacilli Calmette-Guerin (BCG) vaccine, developed in France in 1980, is commonly used in countries with a high prevalence of childhood TB, it's considered to be effective only in 50 percent of cases.

There are two different types of TB: active TB and latent TB. In active TB, the immune system actively fights the bacteria. Individuals with active TB can pass the disease on to any-

one they come into contact with. Latent TB occurs when the immune system successfully fights the TB bacteria and prevents the occurrence of the disease. Individuals infected with latent TB don't pass the disease on to others. The presence of other illnesses, such as HIV, triggers the conversion of latent TB to active TB. There is an 800 times greater chance of developing active TB when infected with HIV.

Resistant mutations of tuberculosis develop when individuals are treated with inappropriate drugs, when they fail to complete the prescribed course of therapy, and/or they fail to consume all of the medications prescribed. Furthermore, the protracted treatment period—up to 24 months, compared to

six to 12 months for regular TB—as well as the adverse effects of the drugs on the gastrointestinal tract contributes to a high rate of non-compliance among TB-affected individuals.

When a strain of tuberculosis bacteria is resistant to two or more first-line antibiotic drugs, it's called multi-drug-resistant TB or MDR-TB. When it's resistant to three or more second-line antibiotics, it's classified as extremely drug-resistant TB, or XDR-TB. Both are dangerous forms of the disease.

There have been numerous reported cases of MDR-TB. Affected individuals are treated with as many as 30 tablets plus an injection per day; it's critical that all medications are taken and that the prescribed course of treatment—initial hospitalization and then up to 24 months of treatment—is strictly observed.

Recently, XDR-TB, which can be deadly, has been spreading from South Africa to other countries. It has been spotted in countries such as the US, Canada, France, Ireland, Israel, Italy, Sweden, the former Soviet Union, and elsewhere. The number of affected individuals in industrialized nations increased from 3 to 11 percent between 2000 and 2004. There's no cure for this severe form of TB, as the two most powerful drugs presently available fail to effectively treat it.

Worldwide, but particularly within developing countries, tuberculosis is the most common cause of death among people living with AIDS, killing one in every three patients. A more rapid spread of the microbe from the lungs to other parts of the body is present among HIV-positive individuals co-infected

with TB. This more aggressive disease progression may be attributed to compromised immunity and lower CD4 counts among people infected with HIV.

Since the symptoms of tuberculosis—fever, weight loss, severe and persistent cough (especially if accompanied by blood), night sweats, and loss of appetite—can be confused with other illnesses, a TB skin test is necessary to ensure a correct diagnosis. Also, a chest x-ray is recommended to assess the extent of lung damage. Some physicians also conduct a sputum test of the fluid or blood from the lung.

The usual course of treatment for TB includes the antimicrobial drug isoniazid (INH). If the disease is active, this medication is often prescribed in combination with other drugs, including rifampin, pyrazinamide, and ethambutol. This course of treatment is generally effective for HIV-positive individuals provided INH and rifampin are also present. However PWAs being treated for TB should be closely monitored for drug toxicities, drug-drug interactions, and paradoxical interactions.

If you've come into contact with someone who has TB, see a doctor so that antibiotics can be prescribed as soon as possible. It's also important to take all medications prescribed and complete the course of treatment in order to prevent drug-resistant tuberculosis. ⊕

Lena Khoshbin is a volunteer with BCPWA's treatment information program.

New viral load test in BC

by *Dr. Marianne Harris*

You may have noticed that your viral load test result looks different. This is because the virology laboratory has changed to a newer assay using more advanced technology.

For the past several years, the assay used could measure plasma viral load accurately between 50 and 100,000 copies/mL. The problem with this was that a lot could be happening above 100,000 copies/mL that we wouldn't be able to measure. For example, if your viral load was 10 million copies/mL and dropped down to 110,000 copies/mL after you started treatment, this would be an excellent response of almost $2 \log_{10}$.

However, we would not be able to pick up this drop because both test results would just read “higher than 100,000 copies/mL.”

The new test has a range from 40 to 10 million copies/mL, meaning that we get a lot more information on high viral loads. Also, at the lower end, for viral loads between 41 and 49 copies/mL, we will now get a number instead of “lower than 50 copies/mL.”

However, an issue with both the old and the new assays is that they are less accurate at the lower end of the range, meaning that there can be more variability in the test results when the viral load gets

down close to 40 or 50 copies/mL. So your viral load may have been less than 50 copies/mL before, but now comes back at 60 copies/mL. This isn't really a change but is due to the test being less accurate at very low viral loads (as compared to moderate or high viral loads).

Your doctor may want to repeat your viral load test to make sure the results remain low, confirming that your treatment is still working. ⊕

Dr. Marianne Harris is a family doctor with the AIDS Research Program at St. Paul's Hospital in Vancouver.

Yeast of burden

Candidiasis, or thrush, can be a pesky—and potentially life-threatening—problem for PWAs

by Carley Taylor

Thrush, or candidiasis, is one of the most common opportunistic infections affecting people living with HIV/AIDS. It's an infection caused by the overgrowth of a common type of yeast, or fungus, called *Candida*. This yeast is found in most people's bodies and is normally harmless, controlled by beneficial bacteria and the immune system. However, if those beneficial bacteria are killed by antibiotics or if your immune system is weakened, the candida fungus can multiply, creating yeast infections in your mouth, vagina, throat and/or esophagus, or on the skin.

When thrush occurs in your mouth, it causes curd-like white patches, especially on your tongue and inner cheeks. It can also spread to your esophagus, which is known as esophagitis; this can cause chest pain and may make swallowing difficult or painful. Cutaneous candidiasis, affecting the skin, can happen on almost any skin surface on your body, but usually occurs in warm, moist, creased areas such as armpits and groin. Symptoms include patches of red, moist, weepy skin. Symptoms of a vaginal yeast infection may include vaginal itchiness, burning, redness, and a thick vaginal discharge.

The more damaged your immune system is, the more frequently you're likely to get infections.

The more damaged your immune system is, the more frequently you're likely to get infections. If your immune system is severely compromised, usually with a CD4 cell count of less than 200, the *Candida* fungi can spread to the bloodstream. Known as deep candidiasis, it can cause a wide range of symptoms, from fever to shock and potentially life-threatening illnesses such as multiple organ failure.

Thrush in the mouth, skin, and vagina can usually be diagnosed by a physical examination. If the diagnosis is uncertain, your doctor may scrape a sample of the overgrowth to be examined in a laboratory. Esophagitis is diagnosed during an examination called an endoscopy, a procedure that allows doctors to examine the interior of your throat and take a biopsy. Deep candidiasis is usually diagnosed through a blood sample.

Treatment for cases affecting the mouth or throat usually consists of swishing a liquid medication or taking a lozenge

that dissolves in your mouth. For more severe cases, an oral medication may be prescribed. Skin infections can be effectively treated with a variety of antifungal powders and creams. The affected area must be kept clean and dry and protected from chafing.

Vaginal yeast infections can be treated with antifungal cream or a suppository. Alternately, a single-dose oral treatment can be used. Many vaginal creams and suppositories can weaken condoms and diaphragms, which can increase the risk of pregnancy and HIV transmission.

Deep candidiasis is usually treated intravenously. Quick diagnosis and treatment is important to stop the infection from spreading to the major organs.

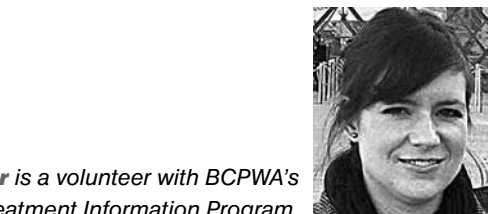
If you have HIV/AIDS, thrush can be more resistant to treatment and may return after you've finished treatment. Therefore, the best strategy is to avoid an outbreak of candidiasis by strengthening your immune system through antiretroviral medications. Several natural therapies also may be helpful:

- ▷ Eliminate or reduce sugary foods that yeasts thrive on
- ▷ Eat garlic, due to its anti-fungal and anti-bacterial properties.

However, garlic can interfere with protease inhibitors

- ▷ Eat yogurt, which contains acidophilus, or taking an acidophilus supplement to help rebalance your body's natural bacteria levels
- ▷ Take gamma-linoleic acid (GLA) and biotin supplements, which seem to slow the spread of *Candida*

Although natural therapies can help keep *Candida* in check, call your doctor whenever you notice symptoms of candidiasis. ⊕



Carley Taylor is a volunteer with BCPWA's Treatment Information Program.

Feature Story

Keeping one step ahead

**The new
generation of
AIDS drugs for
treatment-
experienced
PWAs**

by Kristin DeGirolamo

Have the treatment-experienced become the new treatment-naïve? Thanks to highly active antiretroviral therapy (HAART), people infected with HIV are living longer. For those whose treatment options have been exhausted due to side effects and emerging strains of HIV resistant to antiretrovirals (ARVs), new options are desperately needed.

Entry (or fusion) inhibitors and integrase inhibitors are new classes of ARVs currently being prescribed only for those who are treatment-experienced. These people have become the vanguard of HAART, the new treatment-naïve. There are also second generation ARVs which are more powerful and simplify drug regimens.

Enfuvirtide was first on the market

Of the new class of entry inhibitors, enfuvirtide (Fuzeon, T-20), approved by Health Canada in July 2003, has been on the market the longest. Unlike drugs from the other classes of ARVs, enfuvirtide stops the virus before it gets into the CD4 cell. It binds to the gp41 protein on HIV, blocking it from attaching to CCR5/CXCR4 cytokine receptors on CD4 cells.

Enfuvirtide is given by injection rather than orally, which eliminates dietary restrictions and reduces the number of drug interactions. In trials, enfuvirtide alone lowered the viral load in treatment-naïve people by 30 to 90 percent. However, it works best when given in combination with at least

two other drugs that suppress the virus. HIV can become resistant to enfuvirtide, even in combination with other drugs, if undetectable levels are not achieved and sustained. It isn't yet approved for people who are treatment-naïve.

Most often used in salvage therapy, taking enfuvirtide is more complicated than just popping pills. It's injected twice daily just below the skin using a hypodermic needle like the ones used to inject insulin. It must be done correctly if the drug is to be effective; with training, most people can inject themselves.

The most common side effect of enfuvirtide is injection site reaction, which appears as redness, swelling, bumps, or hardened skin, and may be painful or uncomfortable. Talk with a healthcare provider about any side effects you may experience while taking this or any other drug.

Maraviroc is unique in targeting human proteins

Maraviroc (Celsentri, or Selzentry in the US) is an entry inhibitor. Approved in Canada in September 2007, this is the only drug in the ARV arsenal that targets human proteins rather than HIV proteins. Maraviroc binds to the CCR5 receptor on the CD4 cell. It effectively suppresses the CCR5-tropic HIV by blocking its gp41 protein from attaching to the CCR5 receptor protein. Maraviroc is prescribed along with the best combination of other ARVs. There are some limitations to the use of this new drug due to HIV tropes that use another receptor, CXCR4, to attach to the CD4.

Maraviroc is presently approved only for people who are treatment-experienced. Before starting on this drug, you need a tropism assay—a costly laboratory test—to confirm that only CCR5-tropic HIV is present. If either the CXCR4-tropic or CCR5/CXCR4-dual tropic HIV is present, neither will be suppressed by maraviroc and HIV disease progression could accelerate. The most common reason for treatment failure with maraviroc was viral mutation from CCR5-tropic to CXCR4-tropic HIV.

While there are no other medications that shouldn't be used with maraviroc, there are some drug interactions that require dosage changes. Other ARVs interact with this drug and cause either an increase or a decrease in the activity of the CYP3A liver enzyme that breaks down maraviroc. Depending on the drug combinations in your regimen, correctly dosing maraviroc could be problematic. Due to the level of drug interactions with this drug, it's all the more important that you inform your doctor or pharmacist about any other treatments such as prescription drugs, over-the-counter remedies, or alternate and complimentary medicines you may be taking.

The side effects noted by treatment-experienced people during maraviroc trials were a line-up of the usual suspects: cough, fever, colds, rash, muscle and joint pain, stomach pain, and dizziness. There have also been concerns about serious liver problems, liver toxicity, cardiovascular events and heart attacks, as well as a theoretical increased risk of infections and cancer.

Raltegravir is the first integrase inhibitor

Raltegravir (Isentress) was FDA-approved in Canada in November 2007 and is the newest approved drug for treatment-experienced PWAs. It's the first integrase inhibitor. Integrase is an HIV enzyme that combines the DNA of the virus with the DNA of the CD4 cell, turning the CD4 cell into an HIV production plant. When integrase is inhibited, the CD4 cell is protected from a hostile takeover by HIV. People with viral loads less than 100,000 copies/ml and CD4 counts over 200 cells/uL had the best response to raltegravir.

People who received raltegravir had similar side effects to those who received the placebo. Some side effects could be attributed to other ARVs in the optimized background therapy that all people received.

Regardless of treatment regimen, at least one mild side effect was experienced by 83 percent of the people. The most common problems were diarrhea, nausea, and headaches. Raltegravir hasn't been tested in children under the age of 16, nor has it been tested in pregnant women.

There are some drug interactions between raltegravir and other ARVs. When taken with atazanavir (Reyataz) or ritonavir (Norvir), blood levels of raltegravir may go up or down respectively and dosages may need adjusting. Of all effective ARVs developed to date, raltegravir seems to be the most benign in terms of side effects.

Treatment-experienced PWAs have become the vanguard of HAART, the new treatment-naïve.

Reformulating existing drugs

Besides new drug classes to fight HIV, existing drugs are being reformulated to simplify drug regimens by reducing the number of pills and how often they're taken and eliminating dietary restrictions. Atripla is a combination of three drugs—tenofovir (Viread), emtricitabine (Embriva), and efavirenz (Sustiva)—in one pill taken once a day. It's the first complete HAART of its kind and is offered to treatment-naïve people who have wild type HIV. It's also the first drug or drug combination that has been developed through the collaborative efforts of two pharmaceutical companies. This combination pill was approved in Canada in October 2007.

Some of the side effects of Atripla are nausea, vomiting, and muscle pain, which can be symptoms of lactic acidosis. Jaundice, another potential side effect, will appear as light-coloured stools, dark urine, and a yellowing in the whites of the eyes. Other common side effects in clinical trials were headache and dizziness. If you experience these or other side effects, seek medical attention.

Feature Story

Atripla does have dietary restrictions and must be taken on an empty stomach. Taking it at bedtime is advised so that you can sleep through the peak of side effects. If you're also on muscle relaxants, antidepressants, or pain medications, or any medication that can cause drowsiness, speak to your pharmacist before starting Atripla because it, too, can also cause drowsiness.

The new generation of protease inhibitors

Darunavir (Prezista) is a new generation of protease inhibitors (PIs) with a different resistance profile, and is effective against HIV resistant to other PIs. Darunavir was approved by Health Canada in August 2006 only for those treatment-experienced people whose HIV has become resistant to PIs and other ARVs. It must be used with low-dose ritonavir, called boosting, as part of a HAART regimen.

The current formulation is taken twice a day with food. A once-daily formulation has been approved in the US, and is being studied in treatment naïve people. Don't use St. John's wort, certain anticonvulsants, antihistamines, sedatives, and some PIs when taking darunavir.

The development of new drugs and drug combinations may enable us to better control HIV and make ARVs easier to take, but adherence is still critical if the drugs are to remain effective.

Tipranavir (Aptivus) is another second-generation PI that's effective against PI-resistant HIV. It was approved by Health Canada in August 2006, but only for treatment-experienced people. It's boosted with ritonavir and taken twice a day with food.

The drug interaction profile for tipranavir is similar to darunavir. Tipranavir is a sulfa-containing drug and people with known sulfa allergies may have an allergic reaction to it.

The general side effects of both darunavir and tipranavir are similar, the most common being stomach upset, vomiting, diarrhea, headache, and fatigue. Serious side effects such as bleeding in the brain and liver damage are rare. If you're co-infected with hepatitis B and/or C, you must be well monitored as you're at greater risk of liver-related side effects.

If you're taking either of these new PIs and experiences extreme fatigue, a loss of appetite, or yellowing of your skin, seek medical care.

Rilpivirine is a promising new nuke

Rilpivirine (TMC-278) is a second-generation non-nucleoside reverse transcriptase inhibitor (NNRTI) being tested in HAART regimens in a once-a-day dosage but it isn't available yet in Canada or the US. Like the new PIs, it's hoped that rilpivirine will be useful in treating HIV resistance to other NNRTIs. Study results are very promising, with people on rilpivirine achieving a viral load reduction comparable to efavirenz after 48 weeks, but without the risk of central nervous system side effects.

It's not just new ARVs that are of note in the ever-changing world of HAART. Determining the optimal time to start treatment may be as critical as the treatment itself. Starting treatment with higher CD4 counts has been associated with slower disease progression. A Spanish study followed almost 7,000 people over a period of six years. All participants started a triple ARV combination and were assigned to one of three groups, depending on their CD4 counts: either under 200 cells/uL, between 200-350 cells/uL, or over 350 cells/uL. The over 350 cells/uL group remained healthier due to slower HIV disease progression.

In some settings people who recently seroconverted or who were undergoing seroconversion have been started on HAART regardless of CD4 count. Starting treatment earlier may also have some down sides, and long-term exposure to some ARVs can result in chronic and more severe side effects.

The development of new drugs and drug combinations may enable us to better control HIV and make ARVs easier to take, but adherence is still critical if the drugs are to remain effective. New methods of delivering ARVs, such as implants or long lasting injections, may reduce the adherence requirements of HAART. Such advances may also improve treatment availability; if people only require treatment every month rather than once or twice a day, even the existing infrastructure will be able to support more people living with HIV around the world.

For all new medications, there is no long-term data available and long-term side effects and benefits will be discovered over time. If you're considering new treatment options, speak to your healthcare provider or pharmacist, or talk with a peer treatment counsellor in the Treatment Information Program (TIP) at BCPWA. ☉

***Kristin DeGirolamo** is a volunteer with BCPWA's Treatment Information Program and a pharmacy student at the University of British Columbia.*

LOON LAKE CAMP

June 23–26, 2008
September 2–5, 2008

HEALING RETREATS FOR HIV+ PEOPLE

**MEET NEW FRIENDS.
LEARN MORE ABOUT YOURSELF.**

- **Healthy meals**
- **Rustic camp setting**
- **Small group work**
- **Rock climbing**
- **Nature hikes**
- **Art projects**
- **Swimming**
- **Massage**

**Cut off for registration:
Friday, May 30, 2008**

**To book an interview
call 604.893.2200
or 1.800.994.2437 x 200**



The bare bones

There's plenty you can do to decrease your risk of osteoporosis and osteopenia

by *Diana Johansen*

Osteoporosis continues to be a problem among people with HIV—and it's not just happening among older PWAs. So what can you do about it?

Osteoporosis literally means "porous bones." This occurs when bones lose an excessive amount of minerals, especially calcium, and become less dense. The bones look the same but are weaker and more brittle, making them easier to break. Osteoporosis is painless unless there is a fracture. Osteopenia is an earlier form of the disease, where bone density is lost but not usually enough to increase the fracture risk.

All about bone strength and density

Bones that make up your skeleton are living tissues composed of minerals, protein, collagen, and bone cells held together in a strong matrix. Bones break down and are rebuilt constantly in a process called remodelling. Calcium and other minerals are released into the bloodstream; most of the calcium is used to aid in remodelling. This process is dependent on hormones, vitamin D, and calcium.

Bone remodelling is a dynamic process that changes throughout your life cycle. For adolescents and young adults, minerals are added to bones until peak bone mass density (BMD) is achieved at about 30 years. BMD is stable until about 35 years and then minerals are gradually lost over the rest of your life. Normally, healthy adults lose about 0.5-1.0 percent of bone mineral density per year. This is accelerated for women after menopause and for older men after about 75 years.

Bone strength depends on the concentration of minerals and the integrity of the matrix. Current technology allows us to measure BMD with a DEXA scan, which is a special type of X-ray. The results of the DEXA produce a T-score, which is interpreted using the World Health Organization standards:

- ▷ Normal: T-score greater than -1.0
- ▷ Osteopenia: T-score of -1.0 to -2.5
- ▷ Osteoporosis: T-score of -2.5 or lower
- ▷ Severe osteoporosis: T-score of -2.5 or lower with a fracture

PWAs and osteoporosis

About 10 years ago, doctors treating people with HIV noticed that some younger males had developed osteoporosis. Later research subsequently found that people with HIV are at increased risk of developing osteoporosis or at least osteopenia. Some studies have shown that up to 40-50 percent of PWAs have osteopenia. Some theories for this phenomenon include the negative effects of mitochondrial toxicity, high levels of pro-inflammatory cytokines like TNF-alpha, and abnormal calcium or vitamin D metabolism. There is still no consensus about whether HIV or anti-retroviral therapy is to blame.

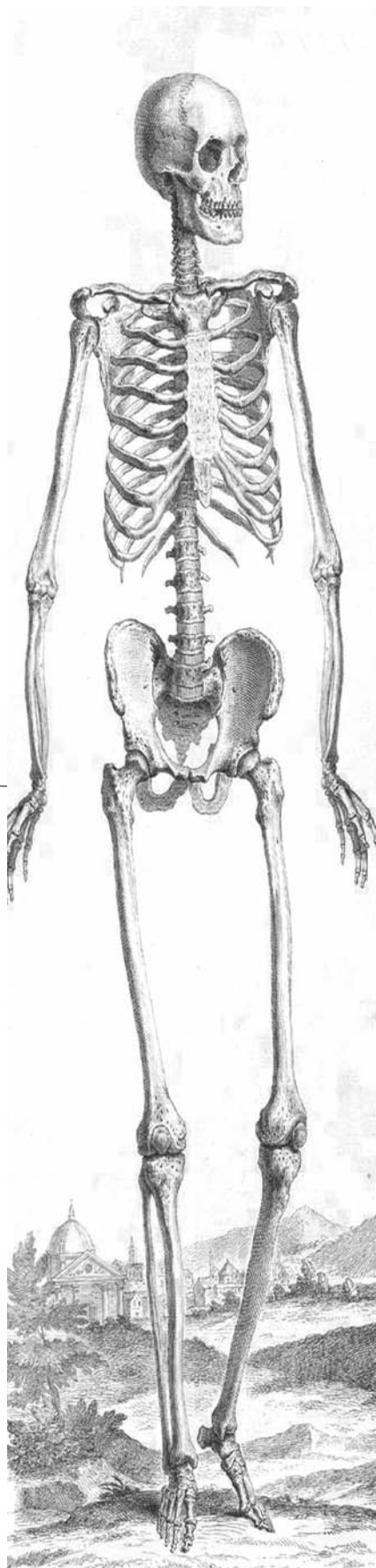
There are many factors besides HIV infection or antiretroviral therapy that increase your risk for osteoporosis. These include: aging; female gender; family history; being underweight; prolonged periods of bed rest; malnutrition; low intakes or malabsorption of calcium, vitamin D, and protein; low levels of hormones like testosterone and estrogen. Other medications, especially steroids, also cause a loss of bone density. These factors influence how much peak bone mass can be developed in adolescence and then how fast it is lost throughout your life cycle.

Nutrition and lifestyle choices

There are numerous things you can do to protect your bones. Stay well nourished, because eating well ensures you get a supply of all the nutrients needed for bones. Protein is especially important. Achieve and maintain a healthy body weight.

Build muscle to improve strength and balance. This is especially important if you already have thinning bones, because falling is the most common cause of fractures. Get weight-bearing exercise to stimulate the bones to take up more minerals. Activities like running, skipping rope, dancing, and walking are excellent for building bone mass.

Eat lots of fruits and vegetables, which provide beneficial nutrients like potassium and folic acid, and are alkaline; researchers



believe an acidic environment causes minerals to be leached out of bone. Dairy products are neutral foods, whereas meats and grains are acidic. If you eat dairy and meats, balance them with increased fruits and vegetables.

Isoflavones are a type of phytoestrogen found in soybeans that may protect bone in women during menopause. The long-term health risks of taking isoflavone pills haven't been studied enough. For now, it's better to get isoflavones in soy foods like soy milk cheese or yogurt, tofu, soy nuts, and veggie meats.

In addition, recent studies have indicated that drinking one or two glasses of beer or wine a day appears to improve bone density. Tea drinking has also been found to improve bone density in older women. By contrast, eating chocolate daily was found to decrease bone density in older women.

Get your vitamins and minerals

Calcium is critical for bone health. If you get enough calcium, calcium doesn't need to be released from bone to build up blood levels, and there is more available to increase bone density. If you're HIV-positive, you need 1000 to 1500 mg of elemental calcium. The best dietary sources of calcium are dairy products and fortified beverages and foods (soy, rice, potato beverage, orange juice, and tofu). Because the requirements are so high, most people also need to take supplements. When buying supplements, read the labels carefully to figure out how much is elemental. To increase absorption, take calcium in smaller doses twice a day with food.

Vitamin D is necessary to absorb calcium and maintain serum calcium levels. It can be made in your skin from direct exposure to sunlight (without sunscreen) or found in some foods like milk, fortified milk alternatives, margarine, and fatty fish. However, food and sunshine sources aren't considered very reliable. Many experts now recommend that adults should take a 1000 IU supplement per day. Be sure the vitamin D from all supplements doesn't exceed 2000 IU.

Phosphorus and magnesium are the other two main minerals in bone. Most people get enough phosphorus in their diet so it's rarely a problem. There is a lack of consensus as to whether magnesium supplements are necessary with calcium supplements. If you have low serum magnesium, add magnesium supplements. High doses of magnesium will aggravate diarrhea, but will help constipation. The upper tolerable limit is 350 mg from supplements.

Zinc studies in animals showed that zinc increases bone density, especially in conjunction with estrogen or vitamin D. In humans, low serum zinc levels have been associated with osteoporosis. However, zinc supplementation in HIV infection is controversial so the total daily dose should not exceed 40 mg from supplements, which is the upper tolerable limit.

Among vitamins, vitamin K is critical to make osteocalcin, one of the bone proteins, and may be important in maintaining calcium balance. Vitamin C is important in the synthesis of collagen, another bone protein. It has the additional benefit as

an antioxidant if you smoke, because it scavenges free radicals that can damage bone. Vitamin A in large doses is detrimental to bone. Make sure your supplements have less than 5000 IU. Cod or halibut liver oil and large amounts of liver can also provide too much vitamin A.

Boron, copper, silicon, manganese, and iron are required in very small amounts and shouldn't be supplemented separately. Choose a multivitamin-mineral that contains these nutrients.

Finally, fluoride is rapidly deposited in bone and does increase bone density but not strength. For this reason, it isn't used to treat bone loss.

About 10 years ago, doctors treating people with HIV noticed that some younger males had developed osteoporosis. Some studies have shown that up to 40-50 percent of PWAs have osteopenia.

Cut out the detrimental stuff

Alcohol in large amounts is detrimental to bone. Heavy drinkers have low bone density due to malnutrition, malabsorption, liver disease, and toxicity to osteoblasts (new bone cells). People who are intoxicated are also more likely to fall and break a bone.

Caffeine increases urine calcium losses and decreases calcium absorption. Having coffee or tea with two ounces of milk (not Creamo) can offset the negative effect of caffeine. Smokers have low bone density because smoking increases free radicals, which then increase bone turnover. And salt also increases calcium losses in the urine, so go easy on the salt shaker.

Overall, low bone density is a complex problem that isn't caused by any single factor. It's probably a combination of genetics, nutrition, lifestyle, chronic disease, and medications. Given these risks, you may want to talk to your doctor about having a bone density test. This test is covered by health insurance in BC for people living with HIV. Canada has guidelines for the treatment of osteoporosis.

For more information on prevention or treatment of osteopenia or osteoporosis, see a registered dietitian. In BC, for more information on calcium supplements, call Dial-a-Dietitian at 604.732.9191 or 1.800.667.3438. ☎



Diana Johansen, RD, is the dietitian at Oak Tree Clinic in Vancouver. She specializes in HIV.

Antiretrovirals

Controversial findings on abacavir

Researchers present findings at the Conference on Retroviruses and Opportunistic Infections

by Sean Hosein



Abacavir (Ziagen) is a commonly used anti-HIV drug that belongs to a family of medicines called nucleoside analogues, or simply nukes. It's found in Kivexa (abacavir + lamivudine) and Trizivir (abacavir + lamivudine + zidovudine).

A drawback of some nukes is that they can cause the fatty layer just under the skin (subcutaneous fat) to waste away, a process called lipoatrophy. Abacavir alone or in combination with lamivudine isn't associated with fat wasting. Indeed, abacavir users may even experience an increase in the fat content of their limbs.

In several clinical trials, abacavir has been found to be an effective part of combination therapy, lowering viral loads and raising CD4 counts.

The use of abacavir is, however, associated with the possibility of a hypersensitivity reaction occurring in up to eight percent of people who take the drug. However, in many high-income countries today, a simple blood test is now available that can predict the likelihood of such a reaction. Potential abacavir users can have this test performed *before* they start using the drug. Armed with this screening tool, doctors can now prescribe the drug to their patients who have a negative test result, knowing that the chance of a hypersensitivity reaction occurring during abacavir therapy is very, very low.

Unexpected results from Danish study

At the Conference on Retroviruses and Opportunistic Infections (CROI) in February, researchers from Copenhagen, Denmark, presented findings from their database called DAD. According to the research team, they unexpectedly found that recent use of abacavir, and to a less extent didanosine (ddI, Videx EC), was linked to an increased risk of heart attacks.

Because of abacavir's good safety record, many researchers were puzzled by these findings. Initially, so was the DAD study team. So the DAD team reviewed their findings just to be sure.

DAD collects information from 212 HIV clinics in Australia, Europe, and the US. Health-related information from over 33,000 participants is stored in DAD's database. From time to time, DAD's scientists query the database to try and answer research questions.

Focus on heart attacks

Out of 33,347 HIV-positive people, heart attacks occurred in 517 as of February 2008. The distribution of heart attacks among people using certain medications was as follows: 124 people were either using didanosine or had recently stopped using didanosine (within the past six months); 192 people were either using abacavir or had recently stopped using abacavir; 237 people had been using highly active antiretroviral therapy (HAART) but not abacavir or didanosine and still developed a heart attack. Bear in mind, though, that the overall proportion of people in the study who had a heart attack was relatively low—only 1.6 percent.

HIV-positive people who had recently used abacavir or didanosine and at risk for heart attacks were more likely to be male, 50 years old or over, have diabetes, have higher than normal blood pressure, and higher than normal levels of lipids (cholesterol and triglycerides) in their blood.

This profile is striking and bears notice because the DAD team declared that "patients with a high underlying cardiovascular risk" seemed to be more likely to have a heart attack. The study also indicated that exposure to abacavir was not linked to the development of other forms of cardiovascular disease such as stroke. As well, the risk of a heart attack in recent abacavir users was double what would normally be expected, while discontinuing abacavir or didanosine reduced the risk of developing a heart attack. There was no link, however, between CD4 counts, viral load, and heart attacks.

The findings from the DAD study are startling and now require additional investigation to confirm, understand, and explain the results. Researchers are puzzled by the findings because abacavir has been in use in high-income countries for over a decade yet it's never been associated with heart attacks.

HIV infection appears to increase inflammation, both directly and indirectly. Proteins produced by HIV-infected cells appear to damage heart muscles, and HIV itself can infect blood vessels. These all complicate the mystery of abacavir's potential role in heart attacks reported by DAD.

Further exploration is necessary

The DAD study is an observational study. These types of studies are useful for finding associations but can't prove cause and effect. Still, the findings are startling and potentially disturbing. The results from DAD's analysis should incite a number of actions. First, regulatory agencies need to review their databases, checking for reports of abacavir and didanosine-related side effects, particularly looking at heart attacks and related issues.

As well, other databases held by hospitals and research agencies such as the BC Centre for Excellence in HIV need to be queried about heart attacks among HIV-positive people and if there was any link with abacavir or didanosine. Scientists need to conduct experiments on heart cells in their laboratories, noting any effects that abacavir or didanosine might have on such cells. Experiments should also be done with other anti-HIV agents and heart cells. Research cardiologists need to be made part of the investigating team to try to resolve the issue of abacavir/didanosine and heart attacks.

GlaxoSmithKline, the manufacturer of abacavir, has begun checking its own databases of abacavir-related adverse effects. Preliminary results from a review of 15,000 reports has not found any link between abacavir and heart attacks.

Still plenty of unanswered questions

Clinics that have sent data to DAD need to review cases of heart attacks among abacavir and didanosine users to try to better understand how these or other drugs might have played a role in the DAD results. In reviewing medical records, there are some issues that are worth pursuing. Were any people who had heart attacks taking drugs—called statins—to lower cholesterol? These drugs also have anti-inflammatory activity and their use can reduce the risk of a heart attack.

Also, what proportion of the people using abacavir who experienced heart attacks had undergone abacavir hypersensitivity screening? What were the results of such screening?

These questions are important because as we mentioned earlier, abacavir can cause hypersensitivity reactions in a small proportion of people.

Hypersensitivity reactions can occur with many drugs. In the case of some anti-cancer drugs, the severe inflammation

associated with a hypersensitivity reaction can lead to a heart attack. It's plausible that a severe hypersensitivity reaction in an HIV-positive person at high risk for cardiovascular disease might have led to a heart attack. So it may be worth investigating clinic records to find out if abacavir hypersensitivity screening was done for patients who experienced a heart attack in the DAD study.

In addition, the short-term use of abacavir was linked to an increased risk of a heart attack. Clinics need to review their data to find out why abacavir was used only in the short term. Specifically, why were some patients given abacavir? Were these patients at high risk for heart attacks before they received abacavir?

Abacavir is a widely used drug and certainly not every HIV person taking it had a heart attack. This is something that also needs investigating. ⊕

Thanks to Richard Lalonde, MD, and Marek Smejja MD, PhD, for helpful conversations as well as their review in writing this article.

Things to know if you're taking abacavir

For the average healthy, HIV-positive person taking abacavir, there's probably little risk in continuing to do so. However, if you're HIV-positive and have one or more of the following characteristics and take abacavir, you should speak to your doctor:

- ▷ Smoke tobacco
- ▷ Are 50 years of age or older
- ▷ Have higher than normal levels of lipids in their blood
- ▷ Have a close family member who has a history of heart attacks or cardiovascular disease
- ▷ Have cardiovascular disease
- ▷ Have diabetes

If you fit this profile, depending on the outcome of your discussion with your doctor, it might be useful for you to first lower your risk for cardiovascular disease. For example, you can seek help, support, and instructions for quitting smoking, begin an exercise program, and/or take lipid-lowering therapy.

If you have moderate to high risk for cardiovascular disease, in addition to the above steps, and in consultation with your physician, discontinuing abacavir is also an option.

Sean Hosein is the science and medicine editor at the Canadian AIDS Treatment Information Exchange (CATIE) in Toronto.



Updates from the Canadian HIV Trials Network



3TC or no 3TC? That is the unanswered question

by Jennifer Chung

Balancing good science with the latest developments in treatment is a challenge commonly faced by clinicians in the fast-paced world of HIV clinical research. When Canadian HIV Trials Network (CTN) researchers Drs. Marianne Harris and Julio Montaner at St. Paul's Hospital began enrolling participants for a study comparing the effects of 3TC (lamivudine, Epivir) or no 3TC in HIV with 3TC resistance (CTN 189) in 2004, there were rumblings about fixed-dose combination drugs containing 3TC. Their fast arrival spelled the premature end to the study, resulting in a scientific question that may go unanswered.

Previous studies have shown some evidence that continuing treatment with 3TC, despite the presence of resistance, may have a positive antiviral effect. CTN 189 aimed to determine whether continuing 3TC is beneficial in HIV-positive people who have already shown resistance to this drug. Participants were randomly assigned to continue with 3TC 150 mg daily or 300 mg once daily as part of their current therapy, or discontinue 3TC while remaining on the rest of their current drug regimen. When fixed-dose combination drugs like Combivir (AZT and 3TC) and Kivexa (abacavir and 3TC) became available, recruitment reached a standstill and the study eventually closed due to low enrolment numbers.

"The issues with this study were timing and the onset of the fixed-dose combination regimen," says Dr. Harris. "For example, if someone taking Combivir were randomized to discontinue 3TC, they'd actually end up on more pills. So it made the study really unattractive to potential participants."

Dr. Harris explains that it is not uncommon for a trial to close due to breakthroughs in treatment research because it can take several years for a research idea to develop into an enrolling study. In some instances, the question the study is asking may no longer be relevant or of interest to the scientific community by the time it is ready to enroll.

"The key to making sure we are conducting scientifically sound clinical trials with the latest research is to ensure the protocol and informed consent are up-to-date based on new information if the study is going to be in the patient's best interest," says Dr. Harris. "It's not ethical to put people in a study where they're not getting standard of care or better."

While new fixed-dose combination drugs have helped reduce the pill burden in some anti-HIV regimens, Sam Friedman, a former apprentice of the CTN's Community Advisory Committee and current BC representative for the Canadian Treatment Action Council, says there is still interest among PWAs in participating in treatment trials. "If people want to make a difference, clinical trials are a way to help move science forward," he says. ☺



Jennifer Chung is the information and communications coordinator at the Canadian HIV Trials Network in Vancouver.

Trials enrolling in BC

- CTN 233** — Pharmacokinetics of antiretroviral therapy (ARV) in HIV-positive women
BC sites: BC Children's and Women's Health Centre, Vancouver; St. Paul's Hospital, Vancouver; Downtown Infectious Diseases Clinic (DIDC), Vancouver
- CTN 218** — Effect of rosuvastatin (Crestor) on blood vessels
BC sites: St. Paul's Hospital, Vancouver
- CTN 222** — Canadian Co-infection Cohort
BC sites: Downtown Infectious Diseases Clinic, Vancouver; St. Paul's Hospital, Vancouver

- CTN 214** — Effect of a One-Year Course of HAART in Acute/Early HIV
BC sites: DIDC, Vancouver; Cool Aid Community Health Centre, Victoria
- CTN 194** — Peg-Interferon and Citalopram in Co-infection (PICCO)
BC sites: St. Paul's Hospital, Vancouver; DIDC, Vancouver

For more information about these trials and other CTN studies, please visit www.hivnet.ubc.ca or call 1.800.661.4664

Have a heart

If you have metabolic syndrome, here are two lip-smacking recipes for a healthy heart *by Treena Hansen*



Metabolic syndrome, syndrome x, insulin resistance syndrome—these are names often used interchangeably to describe a group of conditions that puts people at risk for type 2 diabetes and heart disease. The conditions include abdominal obesity, insulin resistance, dyslipidemia, and hypertension. If you have three of the above risk factors, you likely have metabolic syndrome. And it's important to be aware of this condition, because antiretroviral therapy, and in particular the protease inhibitors, has been associated with metabolic abnormalities.

In previous issues of *living*⊕, we've addressed the nutrition recommendations for metabolic syndrome. See "The bitter truth," issue 37, July/Aug 2005, which highlighted ways to manage blood sugars by eating every four to six hours, balancing meals, increasing your fibre and fluids, and exercise. See also "Nutrition for a happy heart," issue 47, March/April 2007, which highlights ways to lower your risk of heart disease by decreasing saturated fat, increasing heart healthy fats, reducing salt intake, and increasing exercise.

Here are two simple recipes that take into consideration heart healthy fats, high fibre, and low salt. Bon appetit!

Black bean salad

- 1 cup dried black beans
- 2 cups corn (fresh or frozen)
- 2-3 garlic cloves, finely minced
- 1/2 cup red onion, well minced
- 1 medium red bell pepper
- 1 minced carrot
- 1/2 cup (less if desired) extra virgin olive oil
- 1/2 cup lime juice—or to taste
- 2-3 tsp cumin seeds (whole)
- 1/2 cup each of fresh cilantro, parsley, and minced basil—or to taste

To reduce the salt in this recipe, use dried black beans and fresh or frozen corn instead of canned.

Directions:

- ▷ For dried beans: soak the beans for at least 4 hours, or overnight. Drain off any excess soaking water, place the soaked beans in a soup pot, and cover with fresh water. Bring beans just to a boil, then cover and turn the heat way down. Cook beans on a very slow simmer, with no agitation in the water, until the beans are tender (1¼ - 1½ hrs). Check to make sure there is enough water; add more as necessary. When the beans are cooked, drain well and rise in cold water. (If you choose not to use dried beans, substitute recipe with one can of black

beans. Rinse thoroughly under cold water to wash off as much salt as possible.)

- ▷ In a large bowl combine beans, corn, garlic, red onion, bell pepper, carrot, olive oil, and lime juice.
- ▷ Roast cumin seed in a cast-iron skillet over medium heat for several minutes.
- ▷ Add to the salad along with the cilantro, parsley, and basil.
- ▷ Add black pepper to taste.

From *Still Life With Menu*, by Mollie Katzen.

Low sodium vegetable stock

- 2 large onions, peeled and quartered
- 3 large carrots; cut into chunks
- 2 - 3 stalks celery; cut into chunks
- 4 - 5 cloves whole garlic, peeled
- 10 cups water
- 2 tbsp white wine vinegar
- 1/4 tsp salt
- 1 tsp soy sauce (tamari)
- 1 bouquet garni*

optional: parsnips, fresh fennel, bell peppers, mushrooms, corn

*Use cheesecloth and kitchen string to make a bundle containing

2 tbsp fresh parsley and/or peppercorns, fresh thyme, and 1 bay leaf

Directions:

- ▷ Add the vegetables and the bouquet garni to a large pot. Pour in the water and wine and bring to a boil.
- ▷ Reduce heat to simmer and cook uncovered for 45 to 60 minutes. Skim off any residue floating on the top. Taste the stock after 45 minutes. If you feel the vegetables have given all they can, strain and discard them.
- ▷ Return the hot stock to the pot over low heat. Stir in vinegar, and simmer for 5 minutes, then season with the remaining ingredients.

From *The Bold Vegetarian Chef*, by Ken Charney.

For further information, contact a registered dietitian who can work with you to develop a plan to address your specific needs that support your HIV medication regimens and side effects. ⊕

Treena Hansen is a registered dietitian and a certified diabetes educator who works at the Diabetes Centre at St. Paul's Hospital in Vancouver. She is a member of Vancouver Dietitians in AIDS Care.



Complementary Therapies

Your dream ticket

Non-prescription things you can do to achieve that elusive good night's sleep when you have insomnia

by **Alix Mathias**



You've been tossing and turning in bed for weeks. Worried about the loss of sleep affecting your already stressed immune system, just the thought of approaching night fills you with dread. You don't want to take more pills, but what other options are there? Plenty. A mix of alternative therapies, self-care, and self-knowledge may be your ticket to a good night's sleep.

Let's face it, if you go to your doctor, you'll likely get another prescription added to your regime. Just what you need. North Americans spend over \$4.5 billion a year for sleep medications. Yet research shows that sleeping pills don't greatly improve the quality or length or quality of sleep—on average, they'll give you only 11.4 additional minutes of sleep.

Effectiveness may be the least of your problems when it comes to sleeping pills. Daniel Kripke, a medical doctor and sleep researcher at the University of California in San Diego, has found that regular use of sleeping pills significantly impacts mortality rates. He compares taking sleeping pills 30 times or more a month to the risk of smoking a pack of cigarettes a day. Sleeping pills appear unsafe in any amount, he writes in his online book, *The Dark Side of Sleeping Pills*.

Kripke believes we're being misled about the existence of a sleep disorder epidemic and the amount of sleep we actually need, thus causing unnecessary anxiety and overmedication. He led a six-year study involving a million people in the U.S. age 30 to 102 and found that people who slept only six to seven hours a night lived longer than those who got eight hours of sleep.

Of course, the need for sleep varies from person to person, and you may require more sleep in times of deep

healing. Whether you prefer six or eight hours, a deep, restful sleep is key to maintaining health. A full night's rest can give you everything from a bounce in your step to a good hair day.

Coping to minimize the effect of sleep loss

If pills aren't the answer, what can you do to achieve that deep sleep? First, find ways to cope with your insomnia. That means doing whatever you can do to minimize the effect of sleep loss. To maintain health and sanity during a period of chronic insomnia, intensify all efforts at self-care. Help your body and mind by being as good to yourself as you can. Whatever you normally need for balance—water, fresh air, peace and quiet, meditation—now you need more. Resist the temptation to use stimulants such as coffee to get you through the day or alcohol to help you relax at night.

Don't let your mind psyche you out! Use affirmations to tell yourself that you're okay. You may be getting more sleep than you realize. Even small amounts of micro-sleep are beneficial to your body. Resist the temptation to work or watch television when you can't sleep. Lying quietly, resting the body in a dark room, and keeping the mind calm with deep breathing can leave you feeling quite rested for days, even weeks in a row without a full night's sleep.

Alternative therapies

In addition to self-care strategies, there are countless alternative and natural healing approaches to insomnia. Educate yourself, but use the Internet wisely. What's the conventional approach?

Does it work? Who stands to benefit the most—you or the manufacturer? What alternative therapies are being used successfully?

Let's be truthful. Wellness can be a lot of work. A naturopathic doctor isn't going to give you the latest magic bullet. Alternative medicine requires active participation in your own health and taking responsibility for your choices. It usually requires giving up some of your favourite habits.

On the bright side, alternative medicine offers long-term change and doesn't require enduring a lifetime of horrible side effects. Better yet, there are positive spin-offs. If you start meditating to address insomnia, you'll likely increase your immune function and be more relaxed and productive during waking hours.

Research shows that sleeping pills don't greatly improve the quality or length or quality of sleep—on average, they'll give you only 11.4 additional minutes of sleep.

Among natural remedies, the most common supplements taken for sleep disorders include melatonin, valerian, and lemon balm. There's very little research on natural and herbal remedies and even less on herb-drug interactions. Kava is the most hotly debated natural supplement used to promote relaxation. It may be toxic to the liver, although some research has shown that it's still less toxic than most prescription sleep aids.

Taking sleep aids, herbal or prescription, for the rest of your life isn't the answer. Herbs and supplements can be used to help you through short periods of sleeplessness.

Curing your insomnia

While sleep aids are a short-term remedy, ultimately you want to get to the root cause of the insomnia and restore restful sleep.

It's generally accepted in both conventional and alternative medicine that the most common physiological cause of insomnia is a hormone imbalance resulting in decreased sleep hormones (melatonin and serotonin) and increased stress hormones (cortisol and ACTH). But the root cause of this is stress. Needless to say, people living with a life-threatening illness generally experience higher levels of stress for countless reasons—from the shock of diagnosis to the loss of income, relationships, and health.

The first step in curing insomnia is to take an honest look at your lifestyle and environment to assess it for stressors and

sleep disruptors. Explore your relationship to stress. Are you prone to excessive worry? Do you overreact to life's challenges? Do you work too much—including volunteer work and/or caregiving? Enhance your self-care and seek out activities that help you relax.

Direct sleep disruptors include caffeine, recreational drugs, alcohol, and excessive television and computer use. Get outside during the day to feed your body fresh air and expose your eyes to natural light. Spending eight to 16 hours a day looking at the artificial light of your computer or television can disrupt the production of melatonin. Your body needs to sense darkness to start producing sleep hormones. Unplug and turn down the lights earlier in the evening and rediscover books and the fine art of conversation.

That artificial light of your monitor isn't the only problem with your computer. Electromagnetic radiation (EMR) from your wireless connection in your (and your neighbour's) computer, cell phone, and other electronic equipment has been shown to decrease melatonin levels and thus create sleep disorders in both animals and people. This isn't good news, because no matter how much chamomile tea you drink, without good levels of melatonin, your sleep will be disturbed. There's a burgeoning range of new products, available mostly on the Internet, that act as personal EMR protective devices. As always, thoroughly research the effectiveness of these products before purchasing one.

As with any illness or life challenge, insomnia can be an opportunity for learning. Let it show you what you no longer have energy for. The experience could end up helping you say goodbye to some unhealthy habits, roles, and relationships. It might also inspire you to get more involved in your community. The EMR and insomnia connection is a potent reminder that electronically accessed community can't replace human contact; we're all connected in our pursuit of wellness. At the end of the day, a good night's sleep can't be created in isolation from the world you live in. ⊕



***Alix Mathias** recently completed four years as the wellness services manager at the Vancouver Friends For Life Society and is currently seeking a more unplugged life in the Okanagan.*

More information about herbal remedies

The Canadian AIDS Treatment Information Exchange website, www.catie.ca, has excellent, easy-to-read articles on the use of herbal remedies for HIV-positive people. Also, your pharmacist may know more than your doctor about herb-drug interactions.

Adherence

Sticking with it

Different approaches to the challenge of antiretroviral medication adherence

by *Melissa Davis*

Since the introduction of antiretroviral therapy (ART) in the mid-1990s, life expectancy and quality of life for PWAs has increased and improved dramatically, and the classification of HIV infection has shifted from a critical life-threatening disease to a treatable, more manageable chronic illness.

Still, longevity and health for PWAs depend largely on the effectiveness of treatment. And treatment efficacy—measured by stable CD4 cell counts, low viral loads, and control of opportunistic infections—is closely associated with treatment adherence. Studies indicate that at least a 95 percent adherence to antiretroviral regimens is optimal to effectively manage HIV disease progression. One study showed a 21 percent reduction in disease progression in a cohort where ART adherence had been increased by only 10 percent.

For Junine Toy, a clinical pharmacist at St. Paul's hospital's Immunodeficiency Clinic (IDC), counselling PWAs about treatment adherence is a vital component of her work. She meets with people from across BC who are referred to the clinic by their family physicians for HIV therapy assessment: some are newly diagnosed and initiating ART, others are experiencing challenging side effects from their medications, and still others are failing their current regimens.

Empowering patients

"I believe that it's critical to explain the benefits of adherence to therapy and the consequences of non-adherence," Junine says. "It may sound scary, but non-adherence may lead to irreversible loss of treatment options. My philosophy is to empower the patient with the knowledge to succeed with therapy."

Success on ART depends on multiple factors, says Junine. From a clinical and pharmacological perspective, access to primary and HIV-specific medical care, the relationship between clinician and patient, the availability of medications, and the tolerability of the prescribed regimen are all predictors of adherence success or failure. With respect to the specific regimen, pill burden, dosing frequency, food or storage requirements, convenience, toxicity, and drug interaction profile all influence treatment adherence. Practical and circumstantial considerations include the individual's lifestyle and habits, mental readiness to begin treatment, and level of knowledge about ART.

At the IDC, treatment plans are tailored to the individual. "I learn about each patient's lifestyle, including work, sleep, and meal schedules and discuss with them how to incorporate the medication regimen into their days. We try to simplify the regimen to the fewest number of pills and dosing times," Junine says.

"If I'm going to a restaurant, I carry my meds in a discreet looking little candy tin with a flip-top lid."

"Before I take my meds, I always double-check all the pills in my hand to make sure everything's there."

"When I travel, I take my ARVs in labelled bottles from the pharmacy. I also bring a few empty pillboxes. At the hotel, I sort all the meds I'll need, and keep one on my nightstand beside my room key and wallet."

"I'm on a twice a day regimen: pills every 12 hours. For me, food equals ARVs. So, meals and meds are at 8AM and 8PM."

"I pre-package my meds into small plastic re-sealable bags that I label for each day of the week and AM or PM. Labeling helps me keep track so I don't miss a dose or double-dose."

"I was always forgetting my evening dose of ARVs until I programmed my cell phone alarm clock feature. Works like a charm!"

Challenges in the Downtown Eastside

For HIV-positive residents in Vancouver's Downtown Eastside (DTES), antiretroviral adherence is further complicated by such factors as poverty, homelessness, poor living conditions or unstable housing, drug and alcohol addiction, mental illness, and a variety of other health issues. The DTES population tends to be largely street entrenched or otherwise transient, with frequently movement between hospitals, correctional institutions, detox facilities, and recovery homes.

The Vancouver Coastal Health Authority's Maximally Assisted Therapy (MAT) program, a 24/7 service at the Downtown Community Health Centre, emerged in response to the unique health and treatment-specific challenges faced by PWAs in the DTES. Through its multidisciplinary approach, this program has been designed to minimize barriers to ART access and adherence.

Arleen Thio Pogue and Fleur Sussman are clinical pharmacists from the Outpatient Pharmacy at St. Paul's Hospital, and have been working with the MAT program since 2000. In addition to counselling and supporting individuals on the more typical access and adherence issues faced by PWAs, a significant part of their work involves helping their patients address ancillary issues.

"People living in the DTES typically face multiple and complex challenges," Fleur says. "It can be especially difficult to maintain adherence to ART under these conditions."

Dealing with other critical issues first

The goal, according to Fleur, is to stabilize the individual as much as possible before initiating their antiretroviral treatment. Sometimes this means helping people find affordable housing, assisting them in resolving financial or court-related issues, and addressing other more urgent health-related matters first. Often, the MAT program pharmacists will work with other agencies and healthcare professionals—housing organizations, mental health professionals, AIDS service organizations, addictions counsellors, and others—to optimize the individual's health.

Once these more critical issues are addressed, Fleur explains, patients are in a better position to consider ART. They are also much more likely to adhere to their treatment regimen. ⊕

Note: All "sticky notes" are adherence suggestions from PWAs.

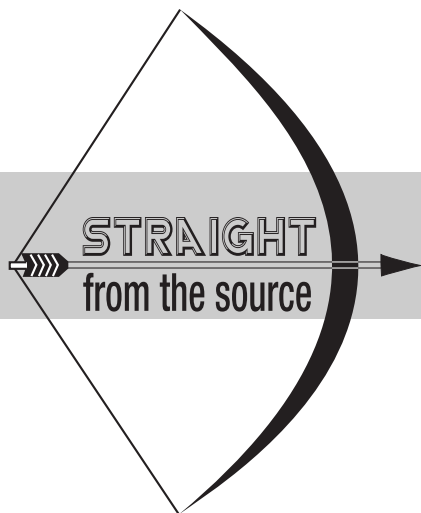


Melissa Davis is a communications specialist who volunteers for BCPWA.

"I always carry one dose of ARVs in a small pill box, and keep them in the front pocket of my pants. The sound of the pills rattling around when I walk reminds me to take them."

"I keep a pillbox with all my meds near the front door—on the same shelf where I keep my keys, wallet, and cell phone. I never forget to take them with me when I leave the house."

"I use a large weekly pill container with separate compartments for mornings, afternoons, and evenings. Now I only sort my pills once a week."



what's new in research

Some good news from the BC Centre for Excellence lab

by Dr. Marianne Harris

Many advances have been made in highly active antiretroviral therapy (HAART) over the last 10 years, including the availability of more effective regimens that are easier to take with fewer pills, fewer daily doses, and fewer side effects. As a result, we know that HAART is working well for individuals.

Dr. Richard Harrigan and his colleagues explored the BC Centre for Excellence in HIV/AIDS (BCCfE) laboratory database to see whether this benefit could be demonstrated at a population level. The questions they set out to answer were: What proportion of people on HAART in BC have undetectable viral load? How many people in BC on HAART have developed resistance to one or more drug classes? How have these proportions changed over time? The findings were presented at the Conference on Retroviruses and Opportunistic Infections in Boston last February.

The striking increase in the number of individuals on treatment with undetectable viral loads and the remarkable decline in rates of drug resistance speak to the effectiveness of current HAART regimens.

In 2000, 65 percent of the approximately 3,300 individuals receiving antiretrovirals through the BCCfE Drug Treatment Program had a viral load of less than 50 copies/mL. This proportion has increased as a straight line over time, and in 2007, of 4,341 people receiving antiretrovirals in the province, 86 percent have undetectable viral loads.

If this promising trend were to continue at the same rate, by 2010, 100 percent of antiviral recipients in the province could have undetectable viral loads. Similar increases have also been observed in CD4 cell counts over time among individuals accessing antiretroviral therapy.

To look at changes in resistance patterns, the investigators examined 21,300 resistance tests conducted on 5,216 individuals between July 1996 and September 2007. They considered resistance to 3TC (lamivudine, Epivir) or FTC (emtricitabine, Emtriva), other nucleoside reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs), and protease inhibitors (PIs) as four separate categories.

In 2007, there were 71 cases of resistance to 3TC or FTC, 71 cases of resistance to NRTIs, 92 cases of resistance to NNRTIs, and 36 cases of resistance to PIs, among approximately 4,300 individuals in the Drug Treatment Program. This translates to an observed rate of resistant HIV of between 0.8 percent to 2 percent, depending on the specific drug category.

In comparison, in 2000 the rates of resistance to the same drug classes were between 7 and 15 percent. Looking at it another way, in 2007 only 8 new cases of PI resistance arose and 30 new cases for the other categories put together. In contrast, in 1999 there were more than 100 new cases of PI resistance, and over 200 new cases of resistance for each of 3TC or FTC, NRTIs, and NNRTIs.

The striking increase in the number of individuals on treatment with undetectable viral loads and the remarkable decline in rates of drug resistance speak to the effectiveness of current HAART regimens. Dr. Harrigan and his colleagues concluded that over 90 percent of treated people in BC now have either suppressed viral load or drug-susceptible virus on their last resistance test. The widespread availability of HAART through the Drug Treatment Program in BC has decreased the overall levels of HIV within the population without increasing levels of drug-resistant virus. ⊕

Dr. Marianne Harris is a family doctor with the AIDS Research Program at St. Paul's Hospital in Vancouver.



Volunteering at BCPWA

Profile of two volunteers:

Brie and Janna Grey-Noble



"Janna and Brie's leadership have made the AIDS Walk for Life not only possible, but fabulous! When there's an occasion to celebrate, a fundraising event to dress up for, or where there's sleeves to be rolled up, you can find either sister ready to bring their time and talent."

Dena Ellery and Kat Biondi
BCPWA Fund Development staff

Volunteer history

Brie: I started out as a walker in the AIDS Walk for Life and over the years I've volunteered on the route, done on-site fundraising, and organized the children's tent. I've also helped out in the office and at the walk launch parties.

Janna: I've done on-site fundraising, children's tent, and organized the food tent. I also worked as the Walk volunteer coordinator in 2005.

Started at BCPWA

Brie: 1992

Janna: 1996

Why pick BCPWA?

Brie: It's allowed me to be active in my community. HIV/AIDS affects everybody and, to me, it's a community issue as well as a global issue.

Janna: I have people in my life that are HIV-positive, so the cause is close to me. The Walk is an important community event and I'm grateful to be a part of it.

Rating BCPWA

Brie: BCPWA provides a vital service to people living with HIV/AIDS, as well as their family members and friends.

Janna: 10 out of 10!

BCPWA's strongest point

Brie: Its presence in the community.

Janna: Its continued community involvement, and its ongoing efforts to create greater awareness and knowledge of the issues surrounding HIV and AIDS.

Favourite memory at BCPWA

Brie: I have so many great memories!

Janna: One year, Brie and I volunteered alongside our parents. It was wonderful to have our family all together working towards the same goal.

Future vision for BCPWA

We both hope to continue volunteering with BCPWA for as long as possible. And to be there while the Walk grows and evolves, and watch the fundraising goals be met and exceeded.

SIMPLY POSITIVE

An easy-to-read page on HIV treatment and care.

At BCPWA we want to ensure that HIV related information is accessible to everyone, regardless of reading ability. So the easy-to-read page aims to explain HIV as simply as the ABCs.

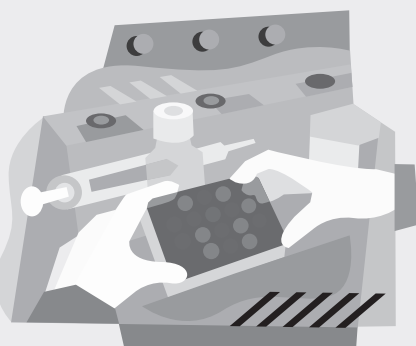


HIV Viral Load & CD4 cells



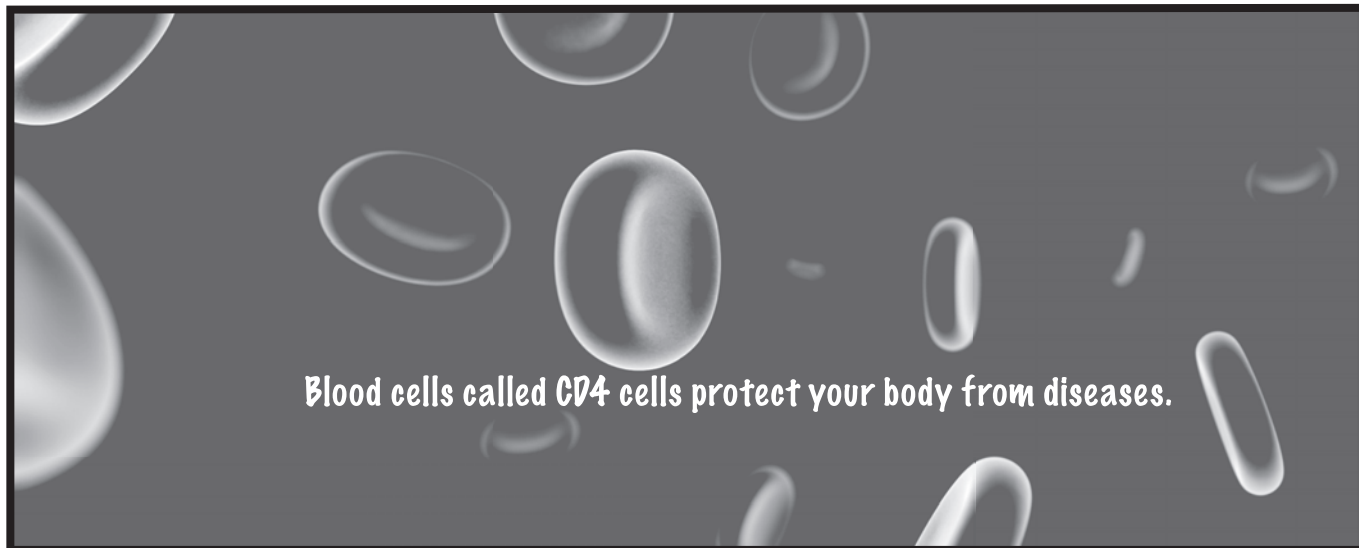
HIV destroys your body's protection from other diseases.

The viral load test shows how much HIV is in your blood.



The best viral load is less than 50, or "undetectable", which means a very small amount of virus is in your blood. It does not mean that HIV is gone or that you are cured.

Even with a low viral load, the HIV in your body still does damage.



Blood cells called CD4 cells protect your body from diseases.

A blood test measures your CD4 cells.



Healthy people have between 500 and 1300 CD4 cells per mL (millilitre of blood).

HIV attacks CD4 cells and uses them to make more HIV. CD4 cells fight back, but with a high HIV viral load, CD4 counts fall.



When your CD4 count falls below 200, your body's protection is very weak and you can't fight off other diseases.

HIV medications slow down HIV so that your body can keep protecting you from illness.



HIV medications, taken correctly, can lower your viral load and increase CD4 counts.

Doctors usually suggest starting HIV medications when your CD4 count falls below 350.



TREATMENT INFORMATION PROGRAM

1107 Seymour Street, 2nd Floor
Vancouver, BC V6B 5S8

† 604.893.2243 † 604.893.2239 e treatment@bcpwa.org
1.800.994.2437 f 604.893.2251 www.bcpwa.org

where to find help

If you're looking for help or information on HIV/AIDS, the following list is a starting point.

A Loving Spoonful

Suite 100 – 1300 Richards St,
Vancouver, BC V6B 3G6
604.682.6325
e clients@alovingspoonful.org
www.alovingspoonful.org

AIDS Memorial Vancouver

205 – 636 West Broadway,
Vancouver BC V5Z 1G2
604.216.7031 or 1.866.626.3700
e info@aidsmemorial.ca www.aidsmemorial.ca

AIDS Society of Kamloops

P.O. Box 1064, 437 Lansdowne St,
Kamloops, BC V2C 6H2
t 250.372.7585 or 1.800.661.7541
e ask@telus.net

AIDS Vancouver

1107 Seymour St, Vancouver BC V6B 5S8
t 604.893.2201 e av@aidsvancouver.org
www.aidsvancouver.bc.ca

AIDS Vancouver Island (Victoria)

1601 Blanshard St, Victoria, BC V8W 2J5
t 250.384.2366 or 1.800.665.2437
e info@avi.org www.avi.org

AIDS Vancouver Island

(Cowichan Valley Mobile Needle Exchange)
t 250.701.3667

AIDS Vancouver Island (Campbell River)

t 250.830.0787 or 1.877.650.8787

AIDS Vancouver Island (Port Hardy)

t 250.949.0432

AIDS Vancouver Island (Nanaimo)

t 250.753.2437

AIDS Vancouver Island (Courtenay)

t 250.338.7400 or 1.877.311.7400

ANKORS (Nelson)

101 Baker St, Nelson, BC V1L 4H1
t 250.505.5506 or 1.800.421.AIDS
f 250.505.5507 e info@ankors.bc.ca
http://kics.bc.ca/~ankors/

ANKORS (Cranbrook)

205 – 14th Ave N Cranbrook,
BC V1C 3W3
250.426.3383 or 1.800.421.AIDS
f 250.426.3221 e gary@ankors.bc.ca
http://kics.bc.ca/~ankors/

Asian Society for the Intervention of AIDS (ASIA)

210 – 119 West Pender St,
Vancouver, BC V6B 1S5
t 604.669.5567 f 604.669.7756
e asia@asia.bc.ca www.asia.bc.ca

BC Persons With AIDS Society

1107 Seymour St, Vancouver BC V6B 5S8
604.893.2200 or 1.800.994.2437
e info@bcpwa.org www.bcpwa.org

Dr Peter Centre

1100 Comox St,
Vancouver, BC V6E 1K5
t 604.608.1874 f 604.608.4259
e info@drpetercentre.ca
www.drpetercentre.ca

Friends for Life Society

1459 Barclay St, Vancouver, BC V6G 1J6
t 604.682.5992 f 604.682.3592
e info@friendsforlife.ca
www.friendsforlife.ca

Healing Our Spirit

3144 Dollarton Highway,
North Vancouver, BC V7H 1B3
t 604.879.8884 or 1.866.745.8884
e info@healingourspirit.org
www.healingourspirit.org

Living Positive Resource Centre Okanagan

101–266 Lawrence Ave.,
Kelowna, BC V1Y 6L3
t 250.862.2437 or 1.800.616.2437
e info@lprc.ca
www.livingpositive.ca

McLaren Housing Society

200 – 649 Helmcken St,
Vancouver, BC V6B 5R1
t 604.669.4090 f 604.669.4092
e mclarenhousing@telus.net
www.mclarenhousing.com

Okanagan Aboriginal AIDS Society

101 – 266 Lawrence Ave.,
Kelowna, BC V1Y 6L3
t 250.862.2481 or 1.800.616.2437
e info@oaas.ca www.oaas.ca

Outreach Prince Rupert

300 3rd Ave. West
Prince Rupert, BC V8J 1L4
t 250.627.8823
f 250.624.7591
e aidspr@rapidnet.net

Pacific AIDS Network c/o AIDS Vancouver Island (Victoria)

1601 Blanchard St.,
Victoria V8W 2J5
t 250.881.5663 f 250.920.4221
e erikages@pan.ca www.pan.ca

Positive Living North

1–1563 2nd Ave,
Prince George, BC V2L 3B8
t 250.562.1172 f 250.562.3317
e info@positivelivingnorth.ca
www.positivelivingnorth.ca

Positive Living North West

Box 4368 Smithers, BC V0J 2N0
3862 F Broadway, Smithers BC
t 250.877.0042 or 1.866.877.0042
e plnw@bulkeley.net

Positive Women's Network

614 – 1033 Davie St, Vancouver, BC V6E 1M7
t 604.692.3000 or 1.866.692.3001
e pwn@pwn.bc.ca www.pwn.bc.ca

Purpose Society HIV/AIDS program

40 Begbie Street
New Westminster, BC V3M 3L9
t 604.526.2522 f 604.526.6546

Red Road HIV/AIDS Network Society

804 – 100 Park Royal South,
W. Vancouver, BC V7T 1A2
t 604.913.3332 or 1.800.336.9726
e info@red-road.org www.red-road.org

Vancouver Native Health Society

441 East Hastings St, Vancouver, BC V6G 1B4
t 604.254.9949
e vnhs@shaw.ca

Victoria AIDS Resource & Community Service Society

1284 F Gladstone Ave, Victoria, BC V8T 1G6
t 250.388.6620 f 250.388.7011
e varcs@islandnet.com
www.varcs.org/varcs./varcs.nsf

Victoria Persons With AIDS Society

#330-1105 Pandora St., Victoria BC V8V 3P9
t 250.382.7927 f 250.382.3232
e support@vpwas.com www.vpwas.com

Wings Housing Society

12 – 1041 Comox St, Vancouver, BC V6E 1K1
t 604.899.5405 f 604.899.5410
e info@wingshousing.bc.ca
www.wingshousing.bc.ca

YouthCO AIDS Society

205 – 1104 Hornby St.,
Vancouver BC V6Z 1V8
t 604.688.1441 f 1.877.968.8426
e information@youthco.org
www.youthco.org

**For more comprehensive listings of
HIV/AIDS organizations and services please
visit BCPWA's website at www.bcpwa.org
and click on "Links and Services" under the
"Empower Yourself" drop-down menu.**

Upcoming BCPWA Society Board Meetings:

Date	Time	Location	Reports to be presented
May 7, 2008	1:00	Board Room	Director of TIAD
May 21, 2008	1:00	Board Room	Written Executive Director Report / Executive Committee Financial Statements — March
June 4, 2008	1:00	Board Room	Standing Committees / Quarterly Department Reports — 4th Quarter/Year End
June 18, 2008	1:00	Board Room	Written Executive Director Report / Director of Communications
July 2, 2008	1:00	Board Room	Executive Committee
July 16, 2008	1:00	Board Room	Written Executive Director Report / Standing Committees Financial Statements — April

BCPWA Society is located at 1107 Seymour St., 2nd Floor, Vancouver.

For more information, contact: Alexandra Regier, office manager Direct: 604.893.2292 Email: alexr@bcpwa.org

BCPWA Standing Committees and Subcommittees

If you are a member of the BC Persons With AIDS Society, you can get involved and help make crucial decisions by joining a committee. To become a voting member on a committee, please attend three consecutive meetings. For more information on meeting dates and times, please see the contact information on the right column for the respective committee that you are interested in.

Board & Volunteer Development

Contact: Marc Seguin

☎ 604.893.2298 ✉ marcs@bcpwa.org

Community Representation & Engagement

Contact: Paul Kerston

☎ 604.646.5309 ✉ paulk@bcpwa.org

Education & Communications

Contact: Adam Reibin

☎ 604.893.2209 ✉ adamr@bcpwa.org

IT Committee

Contact: Ruth Marzetti

☎ 604.646.5328 ✉ ruthm@bcpwa.org

living⊕ Magazine

Contact: Jeff Rotin

☎ 604.893.2206 ✉ jeffr@bcpwa.org

Positive Gathering Committee

Contact: Stephen Macdonald

☎ 604.893.2290 ✉ stephenm@bcpwa.org

Prevention

Contact: Elgin Lim

☎ 604.893.2225 ✉ elginl@bcpwa.org

Support Services

Contact: Jackie Haywood

☎ 604.893.2259 ✉ jackieh@bcpwa.org

Treatment Information & Advocacy

Contact: Adriaan de Vries

☎ 604.893.2284 ✉ adriaand@bcpwa.org

Yes! I want to receive living⊕ magazine

Name _____

Address _____ City _____

Province/State _____ Country _____ Postal/Zip Code _____

Phone _____ E-mail _____

I have enclosed my cheque of \$_____ for living⊕

- \$25 within Canada \$50 (Canadian \$) International
please send _____ subscription(s)
- BC ASOs & Healthcare providers by donation: Minimum \$6 per annual subscription
please send _____ subscription(s)
- Please send BCPWA Membership form (membership includes free subscription)
- Enclosed is my donation of \$_____ for living⊕

*Annual subscription includes 6 issues

Cheque payable to BCPWA



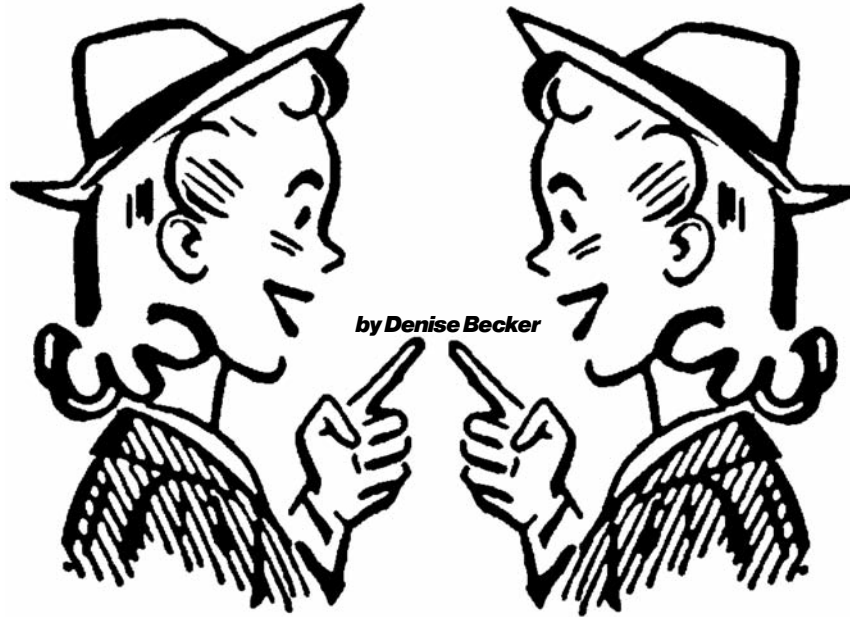
living⊕

1107 Seymour Street
2nd Floor
Vancouver BC
Canada V6B 5S8

For more information visit
www.bcpwa.org
e-mail to living@bcpwa.org
or call 604.893.2206

Leggo, my ego

Having a heart-to-heart conversation with my inner voice



For some time now, I've been aware of an incessant chatter in my head. At first, I thought the nattering was between the devil on one shoulder and the angel on the other: "I really shouldn't do that." "But it feels so good!" "But it's going to make me sick." "I'll deal with that later."

Ever been in that situation?

Finally, I can now name it and claim it, thanks to a guy named Eckhart Tolle who wrote a best-selling book called *A New Earth*. It turns out there's a madness in my mind (I know, some people are saying, "it's taken this long for you to discover that?"). However, the previous statement actually came from my ego. It was making a derogatory statement. Sound complicated? I almost drove myself crazy the other day trying to understand it, but here's what I've come up with so far.

When I grab my pillbox in the morning, or maybe I'm just thinking, "I should take my HIV pills because it's time," a little voice in my head might reply, "I'll do it later." Or it might say, "What's the point?" or even, "Who cares?" When I hear that little voice in my head, then *bingo*—I just heard my ego and my ego is being a "victim ego" because it's learned through the years that this works for me on some level. I'm not sure *how* it's working, but it's easier for me to be a victim than to fight it.

Once I understood that I had let my inner voice prevail for years, I realized I had to get rid of it. Easier said than done. Suddenly, I found the voice was all over the place: "I look fat." "My nose is too long." "I'm like this because I had terrible parents." I was constantly fighting that inner voice. It seemed

Once I understood that I had let my inner voice prevail for years, I realized I had to get rid of it. Easier said than done.

like I was going crazy. Or was that my inner voice telling me I was going crazy? Aaaahhh!

A friend told me eventually the ego would go away and I wouldn't have this internal chatter once I recognized the ego when it spoke to me. I was upset, sad, disappointed. I didn't want my friend, the ego, to go away. I liked

to talk to it when I was lonely or just to have a conversation. "Oh no," I was told, "that's the ego not wanting you to get rid of it."

Finally, I decided to have a down-to-earth conversation with my ego and it went something like this:

"Ego, stop telling me bad things, just let me be who I am. I don't mind chatting but can we make it a bit more positive? How about a pat on the back now and then? How about letting me know you're proud of me?"

"Okay," said my ego, "but you have to catch me when I'm saying something bad and turn it around."

Now my ego and I have a great time. We go to movies, talk about the movie and what we liked about it. We get creative and even cook a meal now and then. I really love my ego. We have a whole new relationship and I think it's starting to love me, too. ☺

Denise Becker is a board member of the Canadian HIV/AIDS Legal Network and the founder of the Hummingbird Kids Society.

She lives in Kelowna.

