



Michel Sidibé, executive director of UNAIDS, has been a longtime advocate of innovative ways to curb HIV/AIDS. Last year, he announced UNAIDS' "Treatment 2.0," a radical new approach to HIV treatment based on BC-CfE's groundbreaking Treatment as Prevention strategy.

UN recommends made-in-B.C. strategy to reshape global AIDS response

Secretary-General's report calls for linkage of treatment and prevention

Treatment as Prevention, the groundbreaking HIV treatment paradigm pioneered at the BC Centre for Excellence in HIV/AIDS (BC-CfE), has been endorsed by a recently released United Nations report. The report identifies Treatment as Prevention as a key strategy to halt the spread of HIV worldwide.

The report, released last month by Secretary-General Ban Ki-moon, outlines recommendations to help countries achieve universal access to HIV services and reach the goals of zero new HIV infections, discrimination, and AIDS-related deaths. Among its recommendations, the report calls for further integration of HIV prevention and treatment to effectively curb transmission.

"Emerging evidence of the important prevention benefits of antiretroviral therapy, which lowers viral load and thereby reduces the infectiousness of people living with HIV, merely underscores the need to link prevention and treatment efforts," the report states.

A compelling body of evidence assembled by BC-CfE director Dr. Julio Montaner and colleagues has demonstrated that dramatic decreases in HIV transmission are achieved by expanding access to highly active antiretroviral therapy (HAART) as part of a comprehensive approach to HIV prevention.

Drawing on this evidence, the UN report calls for the expansion of HIV treatment to 13 million people among six global targets for 2015. The report also targets:

- a 50 per cent reduction in sexual transmission of HIV and the complete prevention of new infections from injection drug use
- the elimination of mother-to-child HIV transmission
- a 50 per cent reduction in tuberculosis deaths among people living with HIV
- a 50 per cent reduction in the number of countries with HIV-related restrictions on entry, stay, and residence
- equal access to education for children orphaned and made vulnerable by AIDS

"The evidence is clear: HIV treatment is HIV prevention," said Dr. Montaner. "If we are to arrest the global spread of HIV and AIDS, we must fully commit ourselves to ensuring universal access to treatment for the millions in need. The recommendations contained in this report represent a vital step towards achieving this critical milestone."

The report, submitted in advance of the upcoming UN General Assembly High Level Meeting on AIDS, represents an important opportunity to evaluate achievements and gaps in the global AIDS response.

"Thirty years into the epidemic, it is imperative for us to re-energize the response today for success in the years ahead by embracing bold new approaches to HIV prevention," said Michel Sidibé, executive director of UNAIDS.

Treatment as Prevention has been endorsed previously by a broad range of international policy leaders, including the World Health Organization, the International AIDS Society, and UNAIDS.

In addition to its role in the global response to HIV, the Treatment as Prevention model has been instrumental in reducing new infections in B.C. A recent report by Provincial Health Officer Dr. Perry Kendall, based on key research findings by the BC-CfE, showed that new HIV infections fell by 52 per cent among injection drug users between 1996 and 2009 in response to a significant increase in HAART coverage.



» With Insite, taxpayer dollars are going to a crucial health-care facility that saves lives and reduces crime in the community. It's a much smarter investment to reduce harm than spending it on emergency rooms, policing and jails."

– Vancouver Mayor Gregor Robertson quoted on the recent *Lancet* study on Insite in *The Toronto Star*, April 17, 2011



Overdose deaths decline 35 per cent after Insite's opening

Illicit drug overdose deaths in Vancouver's Downtown Eastside declined dramatically after the establishment of Insite, North America's first supervised injection facility, according to a groundbreaking new study released by the Urban Health Research Initiative (UHRI), a program of the BC Centre for Excellence in HIV/AIDS (BC-CfE).

The study, published in *The Lancet*, is the first peer-reviewed study to assess the impact of supervised injection sites on overdose mortality. BC-CfE researchers found a 35 per cent reduction in overdose deaths in the immediate vicinity of Insite following its opening in September 2003. By contrast, overdose deaths in the rest of Vancouver declined only nine per cent over the same period. No overdose deaths have been recorded at Insite since the facility's opening.

"This study clearly demonstrates that supervised injection facilities such as Insite are saving lives and playing a vital role in reducing the harms associated with illicit drug use," said Dr. Julio Montaner, director of the BC-CfE and a co-author of the study.

The researchers reviewed nearly 300 case reports from the British Columbia Coroners Service documenting all illicit drug overdose deaths in Vancouver between January 1, 2001 and December 31, 2005. Deaths were sorted geographically into two categories: those occurring within 500 metres of Insite and those occurring elsewhere in the city. Overdose mortality rates were then calculated for each category in the periods before and after Insite's opening.



Dr. Thomas Kerr, co-director of UHRI, led *The Lancet* study about Insite's impact on overdose deaths.

"There is no question in my mind that the study results provide further proof that harm reduction initiatives such as supervised injection facilities save lives, and have a key role to play in delivering safe and effective public health programs," said Dr. Perry Kendall, B.C.'s provincial health officer.

Despite public support in British Columbia and Canada and backing from the City of Vancouver and B.C.'s provincial government, Insite has been consistently opposed by the Conservative federal government, which continues to try to shut down the facility.

"The reality is that if the Conservatives fail to change their approach to harm reduction and do not adopt evidence-based policies to public health, more people will die needlessly," said Dr. Thomas Kerr, co-director of UHRI and a senior author of the study.

HAARTbeats

Innovative test improves HIV treatment

HIV Tropism Testing now available for patients with undetectable viral load



Dr. Richard Harrigan (right) trains Keith McConnell, lab supervisor for the HIV Centre in the Bahamas on BC-CfE's innovative test to determine eligibility for the newest class of HIV drugs.

A breakthrough test developed by the BC Centre for Excellence in HIV/AIDS (BC-CfE) is improving HIV treatment by providing an innovative method for determining patient eligibility for the newest class of HIV drugs.

The new test uses HIV DNA for genetic sequencing to identify HIV-positive individuals who will respond to maraviroc, the first approved "CCR5 antagonist" drug.

"The assay will be useful for patients who might benefit from a CCR5 antagonist but have low or undetectable levels of viral RNA in their blood plasma and therefore cannot be tested using our current HIV V3 Genotyping Tropism Assay," said BC-CfE research laboratory director Dr. Richard Harrigan, who led development of the new test.

The quantity of viral RNA in plasma varies in response to antiretroviral therapy, while the amount of HIV DNA is more stable and usually more abundant.

Data suggesting the test's potential clinical utility were presented recently at the 18th Conference on Retroviruses and Opportunistic Infections (CROI) in Boston.

The DNA assay is suitable for patients with plasma viral loads of less than 500 copies/mL. The test requires whole blood, and as a result, plasma stored from previous HIV viral load testing cannot be used as it can for other antiviral drug resistance testing at the BC-CfE.

Instructions for sample collection, storage and shipping are included on the new assay requisition, available on the BC-CfE website. Turnaround time for results is expected to be similar to other drug resistance testing.

STOP HIV/AIDS

Point-of-care HIV testing will improve early diagnosis

Nearly one in four HIV-positive British Columbians are unaware of their infection – a reality that prevents hundreds from accessing appropriate treatment and support services. To overcome this challenge and strengthen the expansion of highly active antiretroviral therapy (HAART), the STOP HIV/AIDS pilot project is enhancing the accessibility of HIV testing in Vancouver and Prince George through the introduction of point-of-care testing.

Unlike conventional lab-based HIV testing, which requires several days to generate a result, point-of-care testing allows clients to know their HIV status in a matter of minutes. This turnaround is achieved through the use

of rapid HIV testing kits at a wide range of primary and community-based health care sites. Health care providers at these sites are trained to administer the tests and provide pre- and post-test counselling.

Under the STOP HIV/AIDS pilot project, point-of-care testing has been introduced at more than 30 sites in Vancouver, including Insite, various detox and addiction service providers, community health centres, single-room occupancy hotels, and the Vancouver Native Health youth clinic. In Prince George, testing has been expanded at the Central Interior Native Health Society and guidelines recommending broader testing have been endorsed by the Northern Health Medical Advisory Committee.

Beginning this month, we will run a monthly report on the STOP HIV/AIDS pilot project. Check out this space for news and updates as we continue to expand HIV treatment in B.C. and improve testing, linkage to care, and service delivery.

Research

Majority of public crack smokers favour supervised inhalation facility

A recent study by researchers at the BC Centre for Excellence in HIV/AIDS found that there is a high prevalence of public crack cocaine smoking in Vancouver. However, a majority of public crack smokers, especially those who had recent encounters with police, reported a willingness to use a supervised inhalation facility.

Researchers studied a sample of 623 Vancouver-based Canadians who smoke crack. They found that 61 per cent reported smoking crack in public locations in the last six months. The study also found that 71 per cent of study participants who smoked crack in public areas reported willingness to use a supervised inhalation facility. Factors associated with willingness included: female gender, engaging in risky pipe sharing, and having recent encounters with police (i.e., being stopped, searched or questioned).

The researchers believe these findings, published in *Substance Abuse Treatment, Prevention, and Policy*, suggest that supervised inhalation facilities offer a potential intervention to reduce street disorder and police encounters.

Drug use and risk behaviour vary with age

Older youth who use drugs are more likely to be male, of Aboriginal ancestry, have more significant depressive symptoms, have recently engaged in crack smoking, and have a recent history of injection drug use. In contrast, younger drug users are more likely to have engaged in recent binge alcohol use.

These were the findings of a recent study published in *Substance Use & Misuse* by researchers at the BC Centre for Excellence in HIV/AIDS.

The study recruited 559 street youth between 2005 and 2007 in Vancouver, Canada. Youth who used drugs and were under the age of 21 years were compared to their older counterparts who were over the age of 21 with regard to recent drug use and sexual practices.

Study authors concluded that the findings provide useful insights into critical "windows of opportunity" for interventions to prevent and reduce the harms of substance use.

What's New

Forefront Lecture Series

Date: Wednesday, May 4, noon to 1 p.m.

Location: Hurlburt Auditorium, St. Paul's Hospital

Speaker: Dr. Alex Kral, director, Urban Health Program, San Francisco, RTI International

Lecture: *Two Decades of Community-Based Research with Injection Drug Users in the San Francisco Bay Area*

Contact: Andrea Keesey at 604-682-2344 ext. 66357 or akeesey@cfenet.ubc.ca

A light lunch and refreshments will be served.

BC Centre for Excellence in HIV/AIDS

- > Improve the health of British Columbians with HIV through comprehensive research and treatment programs;
- > Develop cost-effective research and therapeutic protocols;
- > Provide educational support programs to health-care professionals;
- > Monitor the impact of HIV/AIDS on B.C. and conduct analyses of the effectiveness of HIV-related programs.

Physician Drug Hotline
1.800.665.7677

St. Paul's Hospital Pharmacy Hotline
1.888.551.6222

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