



B.C. Health Minister Margaret MacDiarmid and Dr. Julio Montaner, Director of the BC Centre for Excellence in HIV/AIDS

Provincial government eyes Treatment as Prevention to fight viral hepatitis

Application of BC-CfE's HIV model could deliver a hepatitis-free generation to our province and be applied to other high burden diseases

The Treatment as Prevention™ approach to fighting HIV has been so successful in British Columbia, the provincial government plans to implement a similar approach to combatting viral hepatitis.

Health Minister Margaret MacDiarmid announced a \$1.5-million fund to explore ways to better address epidemics of both hepatitis B and C in British Columbia, including the plan to apply the successful Treatment as Prevention™ model pioneered by the BC Centre for Excellence in HIV/AIDS (BC-CfE) to these diseases.

Viral hepatitis affects thousands of British Columbians, many of whom are unaware they even have the disease. The BC Centre for Disease Control estimates that 80,000 British Columbians are living with hepatitis C, and 60,000 are living with hepatitis B.

"We are committed to working to improve the health of all British Columbians and their families who may be affected by viral hepatitis," said Minister MacDiarmid. "While treatment and disease management of hepatitis B and hepatitis C is important, it is also critical to improve awareness, education and knowledge about the disease and how it can spread, particularly among our more vulnerable groups."

In applying the successful HIV Treatment as Prevention™

model, work will focus on: determining vulnerable individuals; identifying the best ways to prevent new infections; how to engage those at risk or living with the diseases in testing, treatment and support; and, assess how improved reach and effectiveness of new antiviral treatments could impact those living with the viruses, and ultimately change the course of the hepatitis epidemics.

"With the support of the B.C. government, we have led the way in the fight against HIV/AIDS. Now, we hope to do the same with viral hepatitis," said Dr. Julio Montaner, Director of the BC-CfE. "What we have done for HIV can and should be done for other high burden diseases like hepatitis. We can take the infrastructure we have developed under STOP HIV/AIDS and apply it so we can deliver a hepatitis-free generation to our province."

The Canadian Liver Foundation estimates up to 60,000 British Columbians are infected with hepatitis B and up to 100,000 with hepatitis C. The province has the third-highest rate in Canada of chronic hepatitis B infection, according to the foundation.

Both hepatitis B and C are viruses that infect the liver and can lead to permanent liver damage, including liver cancer and liver failure. Hepatitis B and C are often referred to as "silent" diseases because often no symptoms appear until the infected person's liver is severely damaged – a process that can sometimes take decades.

Hepatitis B is primarily spread through intimate contact with an infected person. Most adults who get hepatitis B recover. However, it can become a long-term, chronic disease that can damage a person's liver over time. Chronic illness is especially common among those who were exposed to the hepatitis B virus at birth and did not receive a vaccine.

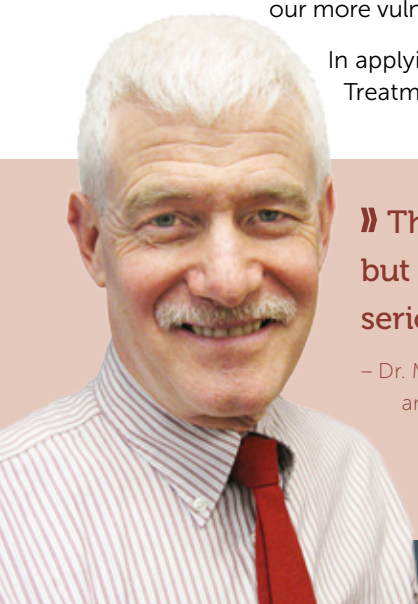
There are treatments available for hepatitis B that can reduce the amount of virus circulating in the body and decrease the damage to the liver. Regular check-ups are key to determine which individuals will benefit the most from treatment.

Hepatitis C is primarily spread through direct contact with an infected person's blood. There is no vaccine for hepatitis C. Some people who are infected completely recover from the virus after a short-term, acute illness. However, many become chronically infected and their liver can be damaged, as with hepatitis B. There are treatments available that can cure many who are chronically infected.

This project will be funded through the St. Paul's Hospital Foundation. The province also provided an additional \$400,000 grant to the S.U.C.C.E.S.S. Society that will help improve awareness of hepatitis B, and provide prevention, treatment and self-management education among immigrant communities.

» These illnesses are manageable – especially when diagnosed early – but if they are not caught and are left to develop for years, they can cause serious illness, including death."

– Dr. Mel Krajden, medical director, hepatitis services, at BC Centre for Disease Control and professor of pathology and laboratory medicine at UBC





Late initiation of treatment underlines need for expanded HIV testing

Despite recent improvement, HIV treatment is still being started late in Canada, reveals BC Centre for Excellence in HIV/AIDS (BC-CfE) research presented at the 22nd annual Canadian Association for HIV Research Conference (CAHR) in Vancouver.

The BC-CfE study investigated the timing of initiation of highly active antiretroviral therapy (HAART) from 2000-2010 among 7,638 participants from the Canadian Observational Cohort (CANOC). The research showed many HIV-positive individuals were initiating HAART at lower CD4 counts (cells of the immune system affected by HIV) than recommended in current HIV treatment guidelines.

The findings reinforce the need for expanded HIV testing in Canada as part of the Treatment as Prevention™ strategy. This BC-CfE-pioneered strategy involves widespread HIV testing and immediate provision of anti-HIV drugs to medically eligible people with HIV. Timely initiation of

HAART significantly decreases morbidity and mortality, as well as HIV transmission.

"This study demonstrates the need for expanded HIV testing initiatives and improved linkage to care," said Dr. Robert Hogg, CANOC Principal Investigator and Director of the Epidemiology and Population Health Program at the BC-CfE. "Although improving over the study period, CD4 counts remain below treatment guidelines."

CANOC is Canada's largest HIV cohort and includes individuals from B.C., Ontario and Quebec. Funded by the Canadian Institutes of Health Research (CIHR) and the CIHR Canadian HIV Trials Network (CTN242), CANOC is a collaboration of national researchers, students, and community investigators, including researchers from the BC-CfE. The collaboration integrates registered treatment information from eight cohort databases across the three provinces.

Gender inequity in quality of care, access to HIV treatment

There is gender inequity in quality of care, as well as barriers undermining women's access to HIV treatment, according to two studies presented by BC Centre for Excellence in HIV/AIDS (BC-CfE) researchers at the Canadian Association for HIV Research Conference (CAHR).

The first study investigated and measured the quality of initial HIV care by gender using six indicators of non-compliance with BC-CfE treatment-initiation guidelines, and examined factors associated with poorer quality of care. The study found significant gender inequities in receipt of recommended care during the first year on antiretroviral therapy and women face barriers to accessing high-quality HIV treatment and care.

The study followed 3,875 adult participants initiating antiretroviral treatment in British Columbia from 2000-2010. Study results showed 43% of women (and 36% of men) did not undergo HIV drug resistance testing before treatment initiation as recommended in the BC-CfE guidelines. Furthermore, 17% of women initiated treatment on a non-recommended antiretroviral

therapy regimen, compared to 9% of men. In addition, 52% of women, compared to 44% of men, did not achieve HIV viral suppression within six months, which can lead to poorer health and increased risk of HIV transmission. Overall, the study found women were 25% more likely than men to experience sub-optimal care, which is known to dramatically increase risk of morbidity and mortality.

The second study investigated the uptake of women's health-care services among harder-to-reach HIV-positive B.C. women and the factors associated with utilizing this care. Among the 231 women studied, 77% reported regularly utilizing women-specific health care. Women who did not utilize women-specific health care were likely to be lower income (less than \$15,000 per year) and use illicit drugs. Geographical setting and lower trust in health providers were also associated with a lack of uptake.

The study concluded there is a need to integrate women's health care with HIV-specific care that acknowledges women's social and structural barriers to care.

Incarceration significantly increases risk of HIV transmission

Incarceration has a significant impact on HIV transmission and access to HIV treatment, reveals two studies presented by BC Centre for Excellence in HIV/AIDS (BC-CfE) researchers at the Canadian Association for HIV Research Conference (CAHR).

The first study investigated the risk posed by incarceration on the spread of HIV infection. This large-scale and long-term study analyzed the incarceration and HIV treatment histories of 657 people who use injection drugs and who were found to be HIV-positive between May 1996 and March 2012. It found people who were incarcerated had, on average, a 54% greater chance of having a detectable amount of HIV in their bloodstream. The study also found those with unsuppressed viral loads were more likely to share used needles if they had been incarcerated.

The second study investigated the prevalence and factors related to a history of incarceration, along with factors

associated with non-suppression of viral loads among a group of harder-to-reach people living with HIV/AIDS in B.C. The study found individuals who have a history of incarceration may face more complex health challenges and additional barriers to treatment after being released from correctional facilities.

One thousand participants from the LISA cohort (The Longitudinal Investigation into Supportive and Ancillary Health Services) were investigated. The cohort includes women, aboriginal persons and injection drug users. Findings showed 476 (52%) individuals reported a history of incarceration, with 55 reporting being incarcerated in the previous six months. Individuals with a history of incarceration who did not achieve HIV viral suppression were more likely to be younger, female, have accessed the emergency room within the past three months and reported worsening health conditions compared to 12 months prior.



Dr. Hogg honoured for career achievement

Dr. Robert Hogg has been awarded the Confederation of University Faculty Associations of BC (CUFA BC) 2013 Paz Buttedahl Career Achievement Award.

The CUFA BC Career Achievement Award is awarded to outstanding faculty members at B.C.'s public universities who use their research and scholarly work to benefit the general public.

Dr. Hogg is the Director of the Epidemiology and Population Health Program at the BC Centre for Excellence in HIV/AIDS (BC-CfE) and a Professor in the Faculty of Health Sciences at Simon Fraser University. He was recognized for helping to save and improve the lives of vulnerable and marginalized populations through his HIV/AIDS research.

Dr. Hogg is the principal investigator of the Canadian Observational Cohort (CANOC) and the Longitudinal Investigation into Supportive and Ancillary Health Services (LISA) Project. His research primarily focuses on population health with an emphasis on HIV/AIDS, antiretroviral therapy, epidemiology, and public health, especially in high-risk and marginalized populations.

Dr. Hogg was also recently named incoming President of the Canadian Association of HIV Research (CAHR).

Dr. Wood recognized for advancement of scientific knowledge

Dr. Evan Wood has received the 2013 Mission and Research Award from Providence Health Care Research Institute (PHCRI).

The award recognizes scientists who uphold the core principles of patient-centred care while contributing to the advancement of scientific knowledge at the highest level.

Dr. Wood is co-director of the Urban Health Research Initiative (UHRI) at the BC Centre for Excellence in HIV/AIDS (BC-CfE) and holds a Canadian Research Chair in Inner City Medicine at the University of British Columbia (UBC). In addition, he is the founder of the International Centre for Science in Drug Policy and is an internal medicine physician at St. Paul's Hospital specializing in inner city medicine.

His focus on using research to inform policies that improve the health and well being of street-involved youth and illicit drug users has significantly impacted some of Vancouver's most vulnerable people.

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
1.888.511.6222

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