



BC-CfE awarded the 2020 Doctors of BC's Excellence in Health Promotion Award

The BC Centre for Excellence in HIV/AIDS (BC-CfE) is the winner of the 2020 Doctors of BC's Excellence in Health Promotion Award – Non-Profit category.

Dr. Ian Gillespie, Chair on the Council on Health Promotion, said, "We felt that the BC-CfE's **Treatment as Prevention® (TasP®)** initiative exemplifies Excellence in Health Promotion by advocating for widespread HIV testing and providing access to free HIV treatment for all medically eligible HIV-positive individuals."

Doctors of BC is a voluntary association of 14,000 physicians, residents and medical students working together to, "promote a social, economic, and political climate in which members can provide British Columbians with the highest standard of health care."

On the awards, the organization says, "These awards are presented annually by Doctors of BC to recognize and celebrate those who work tirelessly and passionately on meaningful initiatives. They are individuals, non-profit organizations, and corporations in our communities that work to make our province a healthier, safer place to live. They devote time and energy to ensuring vulnerable populations have access to the health care they need, the isolated are engaged in community events, and the young actively participate in health promotion initiatives, among many others."

Furthermore, "successful nominees must have demonstrated a concern for health and safety through specific actions or initiatives. These actions must show ingenuity and creativity, and have resulted in change with the potential for positive, long-term improvement."

In its summary of why the BC-CfE was chosen for the award, the Doctors of BC wrote, "A world leader in HIV/AIDS research and prevention, The BC-CfE has a track record of almost three decades spent dedicated to the health and safety of British Columbians. The organization's

globally recognized **TasP®** to End the AIDS Epidemic in BC and Beyond strategy advocates for widespread HIV testing and facilitates access to free medical treatment for thousands of eligible individuals in BC. **TasP®** has exceeded its target goals and seen a dramatic decrease in HIV diagnoses and AIDS morbidity and mortality."

BC-CfE leadership, some of whom have worked in the field of HIV/AIDS since its very earliest days, stress how the Centre has played a pivotal role in shaping not only BC's HIV/AIDS control strategy, but the world's, with its 90-90-90 Target standing out as a shining example.



After publicizing and formally introducing **TasP®** in the *Lancet* in 2006, the BC-CfE's 90-90-90 Target was eventually adopted by the United Nations organization responsible for HIV/AIDS, UNAIDS. When originally set, 90-90-90 would have seen 90% of all people living with HIV knowing their HIV status, 90% of all those diagnosed put on sustained antiretroviral therapy (ART), and 90% of all people on ART achieving viral suppression, a state where they cannot transmit HIV, by the year 2020.

While this ambitious goal was unmet in much of the world, it was met here in BC. Dr. Julio Montaner, the BC-CfE's Executive Director and Physician-in-Chief announced the stunning accomplishment on last year's World AIDS Day in

a joint press conference with BC's Health Minister Adrian Dix and Providence Health Care's President and CEO Fiona Dalton.

Thanks to the work of the BC-CfE and the support of its governmental partners, BC not only met its 90-90-90 goals, but surpassed this target resulting in even further reductions in HIV/AIDS related morbidity and mortality as well as HIV transmission.

In 2018, the Centre added publicly funded pre-exposure prophylaxis (PrEP) to its **TasP®** strategy, specifically targeting men who have sex with men (MSM) at high risk for HIV infection. Having enrolled about 5,000 high risk MSM clients on PrEP, the number of HIV diagnoses in MSM residing in BC dropped by more than 30%.

As BC endures two ongoing pandemics, COVID-19 and the opioid overdose crisis, the BC-CfE continues to advance HIV/AIDS control through **TasP®** and PrEP as well as expanding services within Vancouver's Downtown Eastside with its Hope to Health Research and Innovation Centre. This Centre recently secured multi-year funding from Ottawa, BC's Ministry of Health, Vancouver Coastal Health, and generous philanthropic donors to pursue work focused on HIV, hepatitis C virus, mental health, and addictions.

Doctors of BC bestow their awards on "Any individuals or group, non-profit, or corporation that has demonstrated a concern for health and safety through specific actions and/or initiatives that exemplify creativity and initiative to improve and protect the health and safety of British Columbians, and/or have results bringing about measurable change with the potential for positive, long-term improvement."

As Dr. Gillespie said, "We consider The BC Centre for Excellence in HIV/AIDS a very deserving recipient of the award, please accept my congratulations on this exceptional achievement."



» "This award from the Doctors of BC is an affirmation of the decades of our commitment to excellence by all members of the BC-CfE family. Receiving the award in health promotion is a testament to the powers of our guiding strategy of **Treatment as Prevention®** and its adoption globally."

— BC-CfE Senior Director of Operations, Rick Moynour

Opioid crisis is driving mortality among under-served people living with HIV in BC

» The BC-CfE's Dr. Kate Salters, a research scientist with the Centre's Epidemiology and Population Health program, along with BC-CfE Senior Scientist Dr. Robert Hogg, recently published research investigating mortality among under-served people living with HIV in BC.

We learn in this paper, titled "*The opioid crisis is driving mortality among under-served people living with HIV in British Columbia, Canada*", that overdose was the leading cause of death within a cohort of people living with HIV.

Here in BC, universal and free access to antiretroviral therapy (ART) is offered to people living with HIV (PLWH). This strategy, based on the **Treatment as Prevention**® concept pioneered by the BC-CfE, has led to a dramatic reduction in mortality among PLWH in BC, with HIV now often framed as a manageable chronic illness. Dr. Salters' study illuminates the persistent threat the poisoned drug crisis poses to the health and longevity of under-served PLWH in BC.



BC-CfE Research Scientist Dr. Kate Salters

Dr. Salters' team examined data from PLWH across BC who were enrolled in the Longitudinal Investigation into Supportive and Ancillary health services (LISA) study. This study included 1000 PLWH aged 19 years or older across BC who completed a cross-sectional survey on their HIV-care experiences and healthcare engagement between 2007 and 2010. The LISA cohort largely represents communities that face unique barriers to care and remain under-served, including women, people living under the poverty line, and people who use drugs.

By June of 2017 more than 20% of LISA participants had died and the majority of deaths, just over 27%, were attributed to drug-related complications or overdoses. Researchers observed elevated odds of death among PLWH who smoked tobacco, were older, indicated heavy alcohol consumption, and/or reported unstable housing.

These deaths occurred despite a significant increase in harm-reduction services and increased access to opioid agonist therapies, signalling the extent of the poisoned drug supply.

Crucially, data captured in this analysis is representative of only the first 14 months of the provincial public health emergency. Now, five years into BC's public health emergency due to opioid overdoses, deaths are higher than ever with an average of five overdose deaths each day in BC, according to the BC Coroners Service. And many believe 2021 will be worse than 2020, which was the deadliest year ever for overdose deaths with 1,716 lives lost.

With this trajectory, Dr. Salters' team expects the number of deaths attributed to overdose will continue to rise and disproportionately impact PLWH. As Dr. Salters said, "This analysis highlights the grave impacts the overdose crisis is having on some of the most vulnerable populations of PLWH in the province, greatly thwarting our public health efforts to improve the survival and quality of life for PLWH. It's important to remember HIV doesn't exist in a vacuum. In order to truly support the health and longevity of PLWH, we need to acknowledge the

real challenges we face today, which means addressing unmet primary health care needs and the devastating drug poisoning crisis that has continued for more than five years now."

Dr. Salters' research concludes by promoting expansion of integrated low-barrier primary care, harm-reduction, and safer drug supply. All of these services are available at the BC-CfE's Hope to Health Research and Innovation Centre in Vancouver's Downtown Eastside where Dr. Salters and her team are based. A further priority area highlighted by this research is the gender disparities observed in decreased life expectancy and overdose mortality among self-identifying women, highlighting a need for women-only and gender diverse-inclusive harm reduction initiatives.

COVID-19 RESEARCH

BC-CfE research explores antibody response to COVID-19 vaccine among LTC residents

» The BC-CfE's Laboratory Director Dr. Zabrina Brumme alongside Dr. Mark Brockman of Simon Fraser University and Dr. Marc Romney of Providence Health Care and UBC co-led research which found that a single dose of the Pfizer-BioNTech COVID-19 vaccine produces a much weaker antibody response in long-term care (LTC) residents than it does in younger healthy adults.

The finding comes after analyzing blood samples collected in late 2020 and early 2021 from residents of LTC and assisted living homes in Metro Vancouver, as well as staff at Providence Health Care.

The pre-print findings have yet to be peer-reviewed, but nonetheless they do raise questions about the timing of the second dose of vaccine for elderly adults.

"Our results indicate that, after one dose of the Pfizer COVID-19 vaccine, elderly people do not generate as robust of an antibody response compared to adults of younger age" says Dr. Brumme. "The vaccine responses in elderly people were also not as functional as those in younger individuals". Dr. Romney Medical Leader for Medical Microbiology and Virology at St. Paul's Hospital, Providence Health Care and associate Professor at UBC, added "It will be important to assess whether this observation extends to older persons living in the community as this may inform the optimal timing of the second dose for this population."

Dr. Brumme's team drew blood samples from 12 LTC residents and 18 healthcare workers before and after the first vaccine dose. The pre-vaccine timepoint provided a baseline against which the team could measure changes after participants received their first vaccine dose.

The team found that not only did the LTC residents produce lower levels of antibodies than staff members after the first dose, but also the antibodies LTC residents did produce were less adept at blocking the SARS-CoV-2 virus from binding to its target cells.

"The study is one of the first to assess immune response to COVID-19 vaccines in this vulnerable population in Canada," says Dr. Tim Evans, executive director of the COVID-19 Immunity Task Force, which funded the study.

"The findings correspond with results from other countries that suggest the immune response to mRNA COVID-19 vaccines, as measured by these parameters, is less robust among older people, compared to younger persons. Fortunately, post-first dose infections leading to serious disease are exceedingly rare: real-world clinical evidence from Canada and the U.K. shows that older persons, in LTC or in the community, are well-protected for many weeks by a single dose of an mRNA vaccine. Nevertheless, these findings are a reminder that there may be limits to how long we can stretch the time between doses for seniors and other segments of the population. Close post-vaccine surveillance, as is being done in many jurisdictions in Canada, is essential, and research correlating laboratory tests with clinical outcomes is needed."

At the present time, says Dr. Brockman, the study team "is assessing the strength and function of COVID-19 vaccine responses following two doses of vaccine in their study population" and hopes to have data soon.

The BC-CfE has also recently initiated a study to look at the magnitude and duration of COVID-19 vaccine immune responses in individuals living with HIV, in context of BC's mass COVID-19 vaccine rollout that is currently in process.

Dr. Julio Montaner featured in Knowledge Network series



CHANGEMAKER

DR. JULIO MONTANER
Physician, professor
and researcher

The BC-CfE's Executive Director and Physician-in-Chief Dr. Julio Montaner was recently featured in a new documentary series titled *Changemakers*.

According to the Knowledge Network, the series "Explores BC's culture of innovation by profiling leading-edge thinkers, entrepreneurs, artists, educators and activists who are working to create a better world."

The episode featuring Dr. Montaner premiered on April 1st and is now available for free streaming at [Knowledge.ca](https://www.knowledgenetwork.ca).

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 BC 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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