



ADVANCING BOYS' AND MEN'S HEALTH

OUTCOMES FROM 11 YEARS OF CIHR-IGH
FUNDED RESEARCH



Canadian Institutes
of Health Research

Instituts de recherche
en santé du Canada

Canada



In Canada, 3 in 4 deaths
caused by suicide are men.
Why?

Canadian Institutes of Health Research (CIHR)
Institute of Gender and Health (IGH)
Room 97, 160 Elgin Street
Address locator: 4809A
Ottawa, Ontario K1A 0W9
www.cihr-irsc.gc.ca

Also available on the Web in PDF and HTML formats
© Her Majesty the Queen in Right of Canada (2021)
Cat. No. MR4-101/2021E-PDF
ISBN 978-0-660-40996-2

SUGGESTED CITATION: Canadian Institutes of Health Research. Advancing Boys' and Men's Health: Outcomes from 11 years of CIHR-IGH Funded Research. Ottawa, ON: Canadian Institutes of Health Research; 2021.

TABLE OF CONTENTS

| | |
|-----------|---|
| 02 | WHY BOYS' AND MEN'S HEALTH? |
| 05 | WHAT DID WE FIND? |
| 06 | <i>Project Highlights</i> |
| 08 | <i>Mental Health and Wellness</i> |
| 10 | <i>Violence, Risk-taking and Resilience</i> |
| 12 | <i>HIV/AIDS and STBBI Prevention and Care</i> |
| 14 | <i>Fertility and Reproductive Health</i> |
| 16 | <i>Sport and Physical Activity</i> |
| 17 | <i>IGH Shared Project Outcomes</i> |
| 18 | THANK YOU TO OUR COMMUNITY PARTNERS |
| 19 | WHAT DID WE LEARN? |
| 20 | REFERENCES |
| 23 | APPENDICES |

WHY BOYS' AND MEN'S HEALTH?

While men fare better than women on many economic indicators such as earnings and employment progression¹, studies have shown that men face poorer outcomes in health and wellbeing across a range of key areas.



3 in 4

deaths caused by suicide in Canada are men².



Men experience higher mortality rates than women in many areas, including cardiovascular disease, diabetes, and accidents³.



4x

more men aged 25-44 have heart attacks than women of the same age⁴.



For many men, excessive consumption of alcohol is linked to masculinity. Over 23% of men in Canada reported heavy drinking, with the highest proportion among those aged 18-34⁵.



5.8%

of men in Canada reported childhood sexual abuse⁶.

Men are known to have a shorter average life expectancy at birth than women⁷.

MEN

80 YEARS

WOMEN

84 YEARS

3 FUNDING CYCLES

11 YEAR INITIATIVE

\$15M TOTAL INVESTMENT

THE BOYS' & MEN'S HEALTH INITIATIVE

Research on health challenges affecting boys and men has increased in recent years, but there are still existing barriers and gaps, particularly regarding research capacity for programs, interventions, and policy decision-making.

In 2007, the Canadian Institutes of Health Research (CIHR) Institute of Gender and Health (IGH) instigated the Boys' and Men's Health Initiative to address the urgent need for increased attention and research capacity in boys' and men's health. With an investment of over \$15M, the initiative spanned 11 years and comprised three funding cycles.

THE INITIATIVE COMPRISED THREE FUNDING CYCLES

SEED GRANT

OPERATING GRANT

TEAM GRANT

MAXIMUM FUNDING PER PROJECT EACH YEAR

\$100K

\$150K

\$300K

YEARS FUNDED

1 YR

4 YRS

5 YRS

2008 - 2009

2010/2011 - 2013/2014

2014/2015 - 2018/2019

NUMBER OF TEAMS FUNDED

9 TEAMS

7 TEAMS

8 TEAMS

OBJECTIVES

- | | | |
|---|--|--|
| <ol style="list-style-type: none"> 1 Fund quality research to understand health issues that affect boys and men. 2 Foster current research capacity in Canada by building interdisciplinary research teams and training opportunities. 3 Advance the use of a range of research methodologies. | <ol style="list-style-type: none"> 1 Provide further opportunities for Canadian researchers to examine boys' and men's health. 2 Increase our understanding of the unique gendered (psychological, social, cultural, and structural) and sexed (biological, hormonal, and genetic) factors that affect boys' and men's health. | <ol style="list-style-type: none"> 1 Stimulate and support collaborative research that contributes to new knowledge and innovative approaches for addressing key health challenges affecting boys and men. 2 Build research capacity and nurture the next generation of researchers. 3 Foster and support the ethical translation of knowledge through collaborations between researchers and knowledge users to contribute to programs, interventions, and evidence-informed policy decisions. |
|---|--|--|

A complete list of all the Principal Investigators and funded projects from each cycle can be found in [Appendices 1-3](#).



WHAT DID WE FIND?

Funded projects from the initiative covered a range of topics and addressed boys' and men's health throughout the lifecycle.



Mental
Health and
Wellness



Violence,
Risk-taking and
Resilience



HIV/AIDS and
STBBI Prevention
and Care



Fertility and
Reproductive
Health



Sports and
Physical
Activity

PROJECT HIGHLIGHTS



weSpeak: *Preventing HIV in heterosexual African, Caribbean and Black communities*

African, Caribbean and Black (ACB) communities in Ontario are disproportionately affected by HIV. Although ACB communities comprise less than 5% of the population in Ontario, they account for nearly 25% of all people living with HIV in the province⁸.

Josephine Wong's team created the [weSpeak](#)⁹ program to reduce HIV vulnerabilities and promote resilience among heterosexual ACB men in Ontario. The team developed factsheets, also known as [Real Talk Sessions](#)⁸, to highlight stories they heard from heterosexual Black men about their health and life experiences.

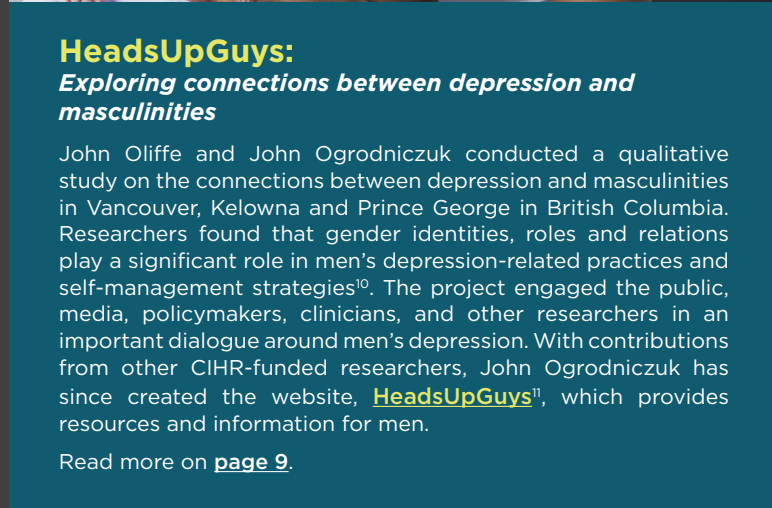
Read more on [page 13](#).



Engage: *HIV and STBBI prevention and interventions in gay, bisexual and other men who have sex with men*

[Engage](#)¹³ is one of the largest Canadian studies on HIV and STBBI prevention and interventions in gay, bisexual and other men who have sex with men (gbMSM). Trevor Hart's team conducted a national multi-site cross-sectional study in Vancouver, Toronto, and Montreal to examine factors that affect HIV and STBBI transmission among gbMSM and examine how these drivers vary across cities¹⁴. The team's research provides valuable insight into how men prevent, transmit and treat HIV and STBBI and the need for focused, city-specific efforts.

Read more on [page 12](#).



HeadsUpGuys: *Exploring connections between depression and masculinities*

John Oliffe and John Ogradniczuk conducted a qualitative study on the connections between depression and masculinities in Vancouver, Kelowna and Prince George in British Columbia. Researchers found that gender identities, roles and relations play a significant role in men's depression-related practices and self-management strategies¹⁰. The project engaged the public, media, policymakers, clinicians, and other researchers in an important dialogue around men's depression. With contributions from other CIHR-funded researchers, John Ogradniczuk has since created the website, [HeadsUpGuys](#)¹¹, which provides resources and information for men.

Read more on [page 9](#).



JoyPop: *Building resilience in male youth who have experienced sexual abuse*

A team led by Christine Wekerle completed several multi-level projects to increase health knowledge and improve services for male youth, including Indigenous youth, who have experienced childhood sexual abuse. The team developed an evidence-based app titled [JoyPop](#)¹⁵, which aims to enhance self-compassion, reduce trauma-related symptoms, and build resilience in youth. The app is currently being adapted to include Indigenous culturally relevant content and material on coping with COVID-19 lockdown conditions.

Read more on [page 11](#).



Men on the Move: *Promoting greater physical activity for older men*

Heather McKay's Shape the Path team developed a scalable, choice-based physical activity program (Men on the Move) that improved physical activity for men aged 60 years and older. With lessons learned from the program, the Shape the Path team gained support from the British Columbia Ministry of Health to implement [Choose to Move](#)¹², an evidence-based support program to promote greater physical activity among older adults in British Columbia.

Read more on [page 16](#).



Fathers' Lasting Influence: *Intergenerational transmission of environmental contaminants*

Janice Bailey's team aimed to determine how fathers' environmental exposures could be passed on to the next and subsequent generations of children.

Inuit populations have high body concentrations of environmental contaminants through air, water, soil, and food. These environmental influences could be a contributing factor to the major health disparity between Inuit populations and non-Inuit Canadians.

Read more on [page 14](#).

MENTAL HEALTH AND WELLNESS



Honestly, it was very tough to accept that I was dealing with depression, and the fear of being judged by people was eating me inside-out. But when I made my health my top priority, something changed inside me. Accepting the truth actually made me become a new person.

— YASH, on [HeadsUpGuys](#)™ —



Men tend to have poorer mental health knowledge and perceive higher mental health stigma than women, are less likely to use health services, and sometimes lack the knowledge needed to make informed choices about their mental health¹⁶. Fewer men than women are diagnosed with depression, although the lower reported rates may be due to the widespread use of generic diagnostic criteria that are not sensitive to depression in men, as well as men's reluctance to express concerns about their mental health or access professional healthcare services. Research also suggests that many men find it challenging to seek help because of culturally dominant masculine ideals and norms that emphasize and amplify men's need to be independent, suppress emotion, and minimize disclosures about their vulnerabilities¹⁰.



3 in 4 deaths caused by suicide in Canada are men¹⁷.



27% of men in Canada reported **worsening mental health** during the COVID-19 pandemic¹⁸.



Only **49%** of Canadian men reported **seeking help** to manage changes to their life due to COVID-19¹⁸.



29% of gay, bisexual, queer, trans, and Two-Spirit men in Canada reported **fair or poor mental health**¹⁹.

As part of the Boys' and Men's Health Initiative, researchers investigated connections between masculinities and mental health, including care-seeking behaviours. Researchers engaged community members, media, policymakers, and clinicians in critical dialogue around boys' and men's mental health to develop evidence-based resources.

IGH-led media campaign during Men's Health Week 2020

IGH led a media campaign during Men's Health Week, June 15-21, 2020, focusing on boys' and men's mental health during COVID-19. CIHR executed a media pitch that resulted in interviews of three CIHR-funded researchers, including a live CBC Television interview with John Oliffe on the impacts of COVID-19 and social isolation on men's mental health. Robert-Paul Juster was also interviewed by [Journal Métro](#)²⁰ on the difficulties of being a father during confinement during the pandemic (in French). During the week, IGH shared tools and resources related to mental health in its newsletter and over social media. To further disseminate its content, IGH collaborated with the Canadian Men's Health Foundation, Mental Health Commission of Canada, HeadsUpGuys, Men's Health Research Program at the University of British Columbia and the Ontario Centre of Excellence for Child and Youth Mental Health.

“These are repercussions that can linger. Not having a social network to support us is as bad as being a smoker in terms of health.”

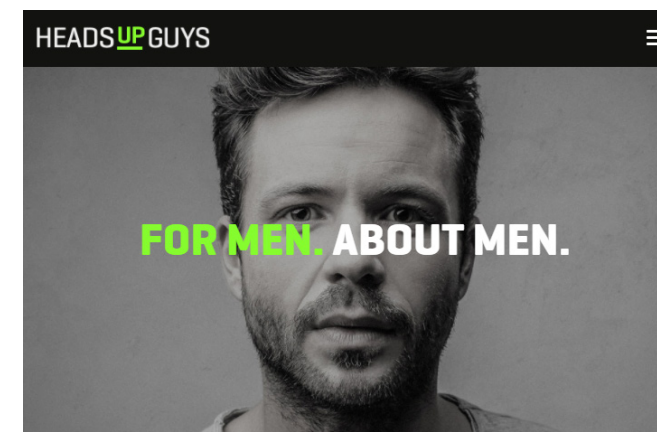
Robert-Paul Juster, CIHR-IGH Funded Researcher, in [Journal Métro](#)²⁰ (in French).



Masculine ideals can influence how men express and experience depression

John Oliffe and John Ogradniczuk conducted a qualitative study on the connections between depression and masculinities in Vancouver, Kelowna and Prince George in British Columbia. The project engaged the public, media, policymakers, clinicians, and other researchers in an important dialogue around men's depression. The study found that masculinities can act as a trigger for men's depression and that masculine ideals can influence how men express and experience depression. Researchers indicated that future research should focus on better locating and contextualizing men's depression, focusing on intersecting factors including immigration, ethnicity, age, and gender relations¹⁰.

SEED GRANT | \$100,000 | 2008 - 2009



With contributions from other CIHR-funded researchers, John Ogradniczuk has since created the website, [HeadsUpGuys](#)™, which provides mental health resources and information for men. The website plays an important role in destigmatizing men's experiences with depression and offers an anonymous way to seek help.

GoodHead: Mental health resource for gay, bisexual, queer and other men who have sex with men

[GoodHead](#)²¹ is a website for gay, bisexual, queer, questioning and other men who have sex with men to learn about the mental health issues affecting their communities and to help them locate mental health services in Ontario. The site was developed by Mark Gaspar, Jann Tamaro, and Julie Prud'homme as part of their IGH-funded activities from the LGBTQI2S Health and Wellness Trainee Award. Gaspar worked on the [Engage](#)¹³ mental health sub-study as part of his postdoctoral research.

GoodHead includes statistics, social theory and other research results that show that many common mental health challenges faced by sexual minority communities are due to systemic discrimination and structural factors. The website provides pragmatic advice for accessing health services and can be used by health service providers wanting to learn about these communities' unique mental health needs.



After the death of a friend: Young Men's grief and masculine identities

In 2013, Elizabeth Saewyc's team published *After the death of a friend: Young Men's grief and masculine identities*²² in Social Science & Medicine. Saewyc conducted a qualitative study on masculine identities and how young men grieve the death of a male friend. The study found that young men tend to express their grief as anger, emptiness, and sentimentality. Saewyc's work provides novel insights that can be used to guide counselling and support services for young men.

OPERATING GRANT | \$247,259 | 2009 - 2012

VIOLENCE, RISK-TAKING AND RESILIENCE




If we as a society cannot accept male emotional distress (and maybe the victims themselves cannot either), then what are we ready to listen to? The violence that ensues when these males act out instead?

— CHRISTINE WEKERLE, CIHR-IGH Funded Researcher, to [The Conversation](#)²² —




Men have unique experiences with violence and risk-taking, which intersect with various forms of social inequity to impact health. Factors like sexual orientation, racism and discrimination interact with gender to influence risk-taking practices.

 Adolescent boys and adult men **smoke more** than adolescent girls and women in Canada²³.


The **stigmatization and criminalization of substance use** is elevated in gay, bisexual, queer and racialized men, placing these populations at increased risk for negative health outcomes^{24,25}.



 **Accidents** are the 3rd leading cause of death for men in Canada³.

Although 1 in 8 men in Canada have experienced **unwanted sexual behaviour in public**²⁶, men's experiences with sexual violence are often stigmatized.



 5.8% of men in Canada reported **childhood sexual abuse**⁶.

Gay and bisexual men are 3x more likely to experience **unwanted sexual behaviours** compared to heterosexual men²⁶.



Age and sexual orientation are also amongst the greatest risk factors associated with experiences of sexual harassment and violence²⁶, highlighting the need for an intersectional approach to understanding boys' and men's experiences with sexual violence.

Community- and strengths-based interventions which promote resilience for men in all their diversity present key opportunities for addressing health inequities and encouraging positive health outcomes. Within the Boys' and Men's Health Initiative, researchers investigated men's experiences with violence and risk-taking, while also looking towards community-based solutions to promote positive health behaviours and resilience.

Substance use and mental health among gay, bisexual and other men who have sex with men

As part of the [Engage](#)¹³ study, Mark Gaspar and co-authors published [‘I was just doing what a normal gay man would do, right?: The biopolitics of substance use and the mental health of sexual minority men](#)²⁷. Drawing on 24 interviews conducted with gay, bisexual and other men who have sex with men (gbMSM) living in Toronto, the team found that participants described substance use as self-productive or self-destructive. Participants discussed taking substances positively, as a therapeutic mental health aid and negatively, as being detrimental to their mental wellbeing.

There is a need for harm reduction and substance services capable of addressing concerns for gbMSM. Rather than merely expanding upon existing service options, significant consultation with gbMSM who use substances as well as service providers working with this population are needed to innovatively improve upon the types of supports available in Canada.

TEAM GRANT | \$1,500,000 | 2014 - 2019



Living for the moment: Risk-taking after the death of a friend

Genevieve Creighton, John Oliffe, Eva McMillan, and Elizabeth Saewyc published [Living for the moment: men situating risk-taking after the death of a friend](#)²⁸ in *Sociology of Health & Illness*. Drawing on 22 interviews from a study of men, risk and grief, the team described how a risk-related tragedy shaped the participants' understandings and practices of risk-taking.

Risk-taking, as an expression of masculinity, was socially mediated and was understood and practiced in different ways in particular communities of practice. While the outcome of risk-taking behaviour can be destructive (injury and death), participants rejected the notion that risk-taking was entirely or necessarily negative. Continued reliance on risky practices following the death of a friend was predominantly expressed as 'living for the moment,' where caution and safety were framed as conservative practices that undermined and diluted the robustness ideally embodied by this group of young men.

“ I don't know when I'll be called out of this earth, so I want to make sure that at each hour, each moment is the best use of my time. So that was that in terms of my spending time, seizing the day, as some may say. ”

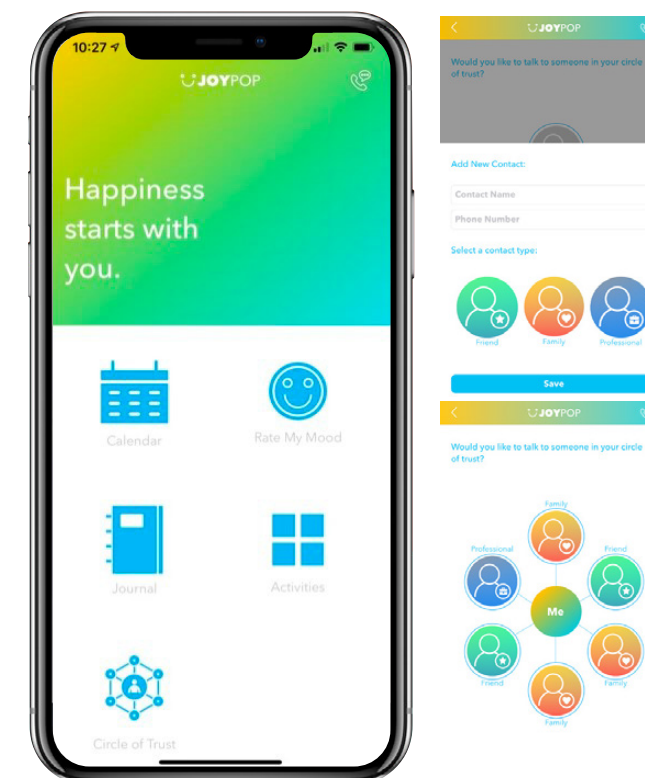
OPERATING GRANT | \$247,259 | 2010 - 2014

JoyPop app bolsters resilience among male youth who have childhood experiences of sexual abuse

The CIHRTeamSV, led by Christine Wekerle, completed several multi-level projects to increase health knowledge and improve services for male youth, including Indigenous youth, who have experienced childhood sexual abuse. The team built research-community partnerships involving youth and stakeholders, such as Indigenous communities and mental health non-governmental organizations.

The team developed an evidence-based app titled [JoyPop](#)¹⁵, which aims to enhance self-compassion, reduce trauma-related symptoms and build resilience in youth. Greater app usage was associated with positive changes in emotion regulation over time and reductions in depression, especially for youth who had experienced greater levels of childhood adversity/trauma²⁹. Participants felt the app helped increase their self-awareness and ability to manage their emotions²⁹. The app is currently being adapted to include Indigenous culturally relevant content and material on coping with COVID-19 lockdown conditions.

In addition, the team created [several videos](#) to inform the public on sexual abuse in boys.



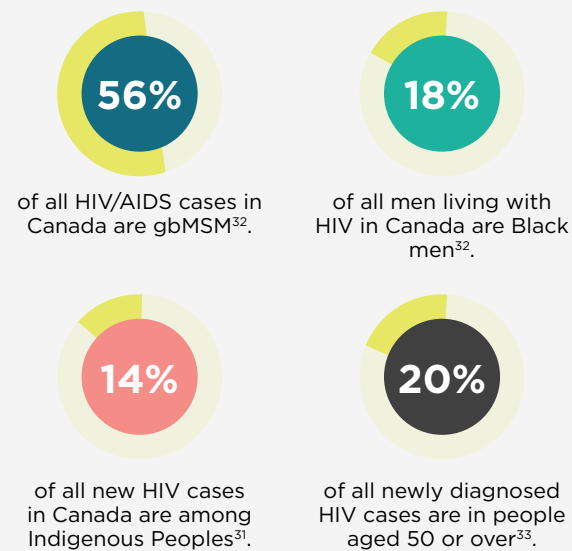
TEAM GRANT | \$1,495,070 | 2014 - 2019

HIV/AIDS AND STBBI PREVENTION AND CARE

“ (Speaking about the need for more effective HIV prevention programs) We have a lot of – what I like to call “pacifier programs” within our community that don’t address the circumstances that our Black men face. ... program. What’s the actual purpose? — **ADRIAN**, Black service provider, on [weSpeak](#) — ”

In Canada, rates of certain sexually transmitted and blood-borne infections (STBBI), including, but not limited to, human immunodeficiency virus (HIV), chlamydia, gonorrhea, syphilis, and human papillomavirus (HPV) are rising³⁰. In 2018, an estimated 62,050 people were living with HIV in Canada³¹.

3 IN 4 PEOPLE LIVING WITH HIV IN CANADA ARE MEN³¹.



As part of the Boys’ and Men’s Health Initiative, researchers centred the experiences of men in Canada to examine factors that affect HIV and STBBI prevention, transmission, and treatment.

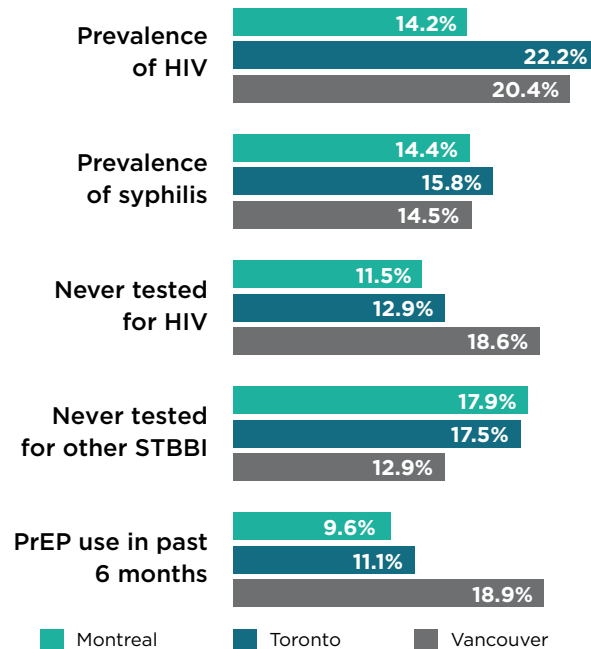
LET’S TALK TERMINOLOGY

- ACB**
African, Caribbean, and Black
- AIDS**
Acquired immunodeficiency syndrome
- gbMSM**
Gay, bisexual, and other men who have sex with men
- HIV**
Human immunodeficiency virus
- HPV**
Human papillomavirus
- PrEP**
Pre-Exposure Prophylaxis
- STBBI**
Sexually transmitted and blood-borne infection

Engage is one of the largest Canadian studies on HIV and STBBI prevention in gbMSM

Trevor Hart’s team conducted a national multi-site cross-sectional study in Montreal, Toronto, and Vancouver to examine factors that affect HIV and STBBI transmission among gbMSM and how these drivers vary across cities ([Engage](#)¹³). This study incorporated comprehensive STBBI screenings with full clinical follow-ups. The team found differences in HIV and STBBI prevalence and testing, as well as in the use of pre-exposure prophylaxis (PrEP) across cities¹⁴.

Prevalence of HIV and sexually transmitted and blood-borne infections, and related preventive and risk behaviours, among gbMSM in Montreal, Toronto and Vancouver¹⁴



The team found that gbMSM are disproportionately at risk for STBBI, especially HIV and syphilis. To reduce HIV transmission as per clinical guidelines, PrEP use among HIV-negative men should be significantly higher. The differences found across cities suggest the need for focused, city-specific efforts¹⁴.

The team’s research provides valuable insight into how men prevent, transmit and treat HIV and STBBI. Their work is also contributing to Canada’s HIV and STBBI prevention initiatives for gbMSM. The team has partnered with the Public Health Agency of Canada (PHAC) to share their tools and key indicators, which will be used as part of PHAC’s ongoing gbMSM HIV and sexual health surveillance activities.

TEAM GRANT | \$1,500,000 | 2014 - 2019

weSpeak program explores and reduces HIV vulnerabilities among ACB men

Josephine Wong’s team created [weSpeak](#)⁹, conducting focus groups and surveys to explore the experiences of ACB men and the determinants of HIV vulnerabilities and resilience. HIV research and programs have not been aligned with heterosexual ACB men’s needs and interests, and health agencies have been slow to meaningfully engage them⁹. The team hosted community events, workshops, health forums and conversation series to engage ACB heterosexual men in community HIV responses, programs, research and policy. Working with over 60 ACB men, the team used concept mapping to identify priorities for stakeholders to reduce vulnerabilities to HIV and stop HIV spread in Black communities:

- 1 Addressing racism as a determinant of HIV vulnerability
- 2 Policy change to address economic disparities experienced by ACB men
- 3 Access to culturally safe (gender, race, class) healthcare
- 4 Reducing HIV stigma (workplace and community)
- 5 Promoting HIV testing
- 6 Engaging faith communities to address HIV

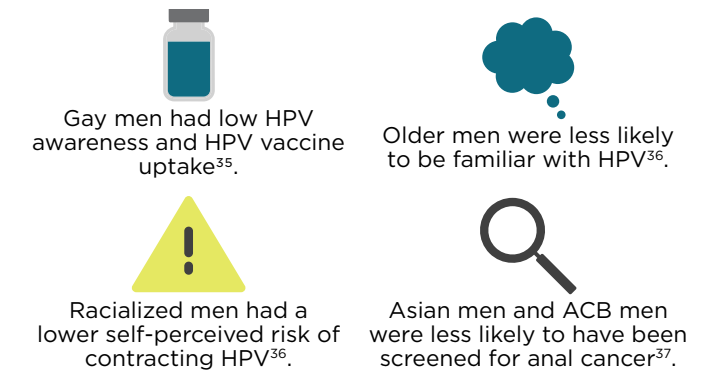


The team also established partnerships with settlement agencies for newcomers, mental health service providers and arts organizations to reach its community stakeholders who were not typically engaged in HIV prevention. In addition, the team conducted online outreach through a [website](#), [factsheets](#), [social media](#) and [newsletters](#). The team obtained additional funding from the Ontario HIV Treatment Network to turn the study results into a short film and four podcasts.

TEAM GRANT | \$1,499,925 | 2014 - 2019

The HPV-SAVE study addressed questions about HPV-related anal cancer in gbMSM living with HIV

Irving Salit’s [HPV-SAVE](#)³⁴ team brought together community and internationally recognized experts in HPV disease to better understand HPV-related anal cancer and pre-cancer in gbMSM, and to better define the optimal approach to HPV screening and management. The team conducted interviews with patients and service providers in Ontario and British Columbia and connected with community offices and clinics to invite men to be screened for anal cancer. They found:



The team raised awareness of the issue of anal cancer screening amongst community physicians and patients and provided physicians with the skills to continue anal cancer screening after the project was completed. In partnership with the Sex Information and Education Council of Canada, the team created a [factsheet on HPV, anal dysplasia and anal cancer](#)³⁸. Improving access and uptake of HPV vaccination requires addressing both financial barriers to access as well as increasing HPV health literacy levels, particularly by reframing the long-standing gendered associations of HPV.

TEAM GRANT | \$1,500,000 | 2014 - 2019

WHAT’S NEXT?

In 2019, the Government of Canada invested more than \$32M in STBBI research through CIHR. This investment supports six teams in the area of biomedical and clinical HIV/AIDS research and three centres focused on HIV/AIDS, hepatitis C and other STBBI population health and health services research. The Government of Canada published the [Pan-Canadian STBBI Framework for Action](#)³⁹ and the [Government of Canada five-year action plan on STBBI](#)³⁰, which detail the importance of a common approach to addressing key populations disproportionately affected by these infections.

FERTILITY AND REPRODUCTIVE HEALTH

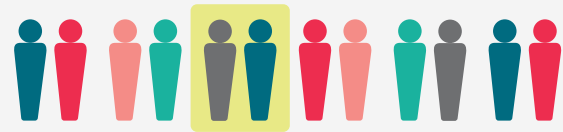


Infertility is a very isolating experience because if you are a couple who is going through this, you are out of sync with your peers. People want to have information. They want to compare their experiences to the experiences of other people to kind of see, 'is this normal?'

— **PHYLLIS ZELKOWITZ**, CIHR-IGH Funded Researcher, to [CBC News](#)⁴⁷ —



In Canada, 1 in 6 couples experience infertility, and this number has doubled over the past 40 years⁴⁰. One third of infertility cases can be attributed to factors that affect men, like low sperm count or poor sperm quality⁴⁰.



Risk factors for male infertility^{40, 41} include, but are not limited to:

- Sexually transmitted infections
- Hormonal imbalances
- Chronic illness
- Cancer treatment
- Substance use
- Exposure to pollutants

Research shows that men are less knowledgeable about their own fertility and reproductive health compared to women, and that more strategies are needed to increase awareness of men's fertility⁴². As part of the Boys' and Men's Health Initiative, researchers investigated the underlying causes of male infertility, and designed interventions for prevention and care.

Paternal age can impact children's health

While the health risks associated with women of advanced maternal age having children are well documented, the potential health risks associated with men of advanced paternal age fathering children are less understood. To address this gap in knowledge, Bernard Robaire's team performed high-resolution analyses of human sperm to identify the effects of aging on sperm quality and male fertility.



Using human sperm samples collected from men in Montreal and Ottawa, the team analysed the entire paternal genome and found that sperm from older men contained thousands of age-related DNA methylation alterations that were not present in the sperm from younger men. Surprisingly, these age-related changes in the sperm did not impact fertility, however, they were associated with a higher risk of neurodevelopmental disorders in children⁴³. These findings provide novel insight into the molecular changes that occur in sperm as men age, and the impact of these changes on child health. Together, these results will help men make informed decisions about becoming fathers, particularly later in life⁴⁴.

TEAM GRANT | \$1,494,120 | 2014 - 2019

Fathers' environmental exposures can be passed on for generations

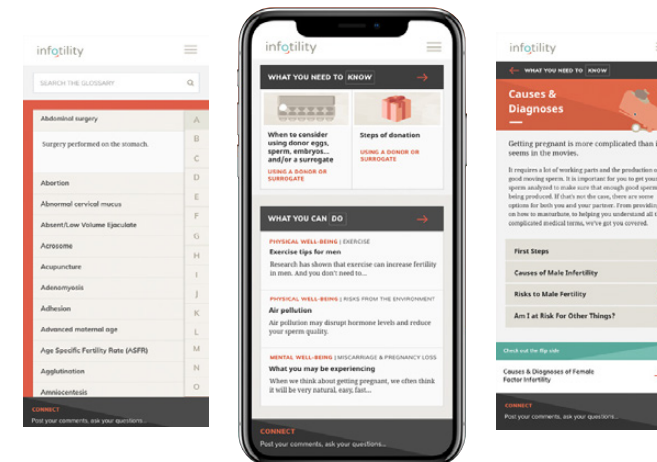
Janice Bailey's team aimed to determine how fathers' environmental exposures could be passed on to the next and subsequent generations of children. One way that fathers could transmit this environmental information is through the sperm epigenome—a group of DNA tags, which tell genes when to turn off or on.

To assess the effects of exposure to environmental contaminants on the sperm epigenome, the team examined sperm samples from Greenland Inuit and Indigenous South African men. Alterations in the sperm epigenome occurred at genes implicated in fertility and embryo development and were associated with poor population health outcomes such as increased stillbirths and neurodevelopmental delay. Inuit populations have high body concentrations of environmental contaminants through air, water, soil, and food. These environmental influences could be a contributing factor to the major health disparity between Inuit populations and non-Inuit Canadians.

TEAM GRANT | \$1,494,000 | 2014 - 2019

Do men need a crash course in fertility?

Phyllis Zelkowitz's team published the first, large-scale survey of Canadian men regarding their knowledge of male fertility. Men were only able to identify 51% of the risk factors and 45% of the health issues associated with male infertility⁴². The team also evaluated the quality of online information about male fertility⁴⁵ to inform the development of their own digital resource, [Infotility](#)⁴⁶.



BEFORE APP USE

50%
of men could name risk factors for male fertility.

AFTER APP USE

94%
of men could name risk factors for male fertility.



Zelkowitz's survey and app have been featured in [CBC News](#)⁴⁷ and the [Montreal Gazette](#)⁴⁸.

TEAM GRANT | \$1,265,478 | 2014 - 2019

In addition, IGH worked with Zelkowitz's team to create a [factsheet on men's knowledge of male fertility](#)⁴⁹. The factsheet has been shared through social media, newsletters and at health conferences across Canada.

SCIENCE FACT OR SCIENCE FICTION: DO MEN KNOW ENOUGH ABOUT THEIR OWN FERTILITY?

NOWHERE TO LEARN

About a third of the men surveyed reported fertility concerns and more than half expressed the desire to know more about their own fertility. "Unfortunately, we found that online resources tend to be inaccessible and overwhelming," says Zelkowitz. Her team reviewed the content of Canadian fertility clinic websites and North American websites related to fertility. The team also reviewed the top 20 Google results for the search "male fertility" and "male fertility preservation cancer" in Canada and worldwide. Most of the 85 websites reviewed did not meet readability, suitability and quality

ABOUT THE RESEARCH

Dr. Zelkowitz is a clinical psychologist and Research Director in the Department of Psychiatry at the Jewish General Hospital, an Associate Professor in the Department of Psychiatry and an Associate Member of the Departments of Psychology and Obstetrics and Gynecology at McGill University. She is a Senior Investigator at the Lady Davis Institute

Raising public awareness and normalizing discussion around male infertility

[Huffpost Quebec](#)⁵⁰ interviewed Janice Bailey and Bernard Robaire on male fertility (in French). Janice Bailey was also featured in [le Soleil](#)⁵¹ to discuss the impacts of fathers' alcohol consumption before conception on offspring health (in French).

HUFFPOST

Messieurs, vous aussi êtes de moins en moins fertiles avec l'âge

On parle souvent de l'horloge biologique des femmes, mais la moitié des problèmes de fertilité dans un couple serait attribuable à l'homme.

By Camille Laurin-Desjardins

06/14/2019 11:10am EDT



Papa et maman devraient s'abstenir de boire avant la conception de bébé

JEAN-BENOIT LEGAULT
La Presse canadienne

MONTREAL — Les futurs parents devraient cesser toute consommation d'alcool plusieurs mois avant la conception pour réduire le risque de cardiopathie congénitale du bébé, prévient une méta-analyse chinoise.



Unfortunately, like many researchers in the world, I think that [contaminant] exposure amongst our fathers and grandfathers can still affect fertility today.

Janice Bailey,

CIHR-IGH Funded Researcher in [Huffpost Quebec](#)⁵⁰ (in French).



SPORT AND PHYSICAL ACTIVITY

Regular physical activity improves overall physical and mental health and prevents chronic diseases, such as cancer, obesity, heart disease and type 2 diabetes⁵². Despite these benefits, many Canadians do not meet recommended physical activity guidelines⁵².

The effects of social identities, positions and processes such as racism, gender, class, and sexual orientation on sport and physical activity cannot be considered separately from each other^{53,54}.



Nearly **60%** of men in Canada aged 18 and older report doing **150 minutes of physical activity** per week⁵⁵.



47% of boys met the moderate-to-high physical activity recommendation, almost double that of girls at 25%⁵⁶.



Nearly half (**49%**) of White Canadians but only **38%** of Black Canadians and **34%** of South Asian Canadians registered moderate-to-high levels of physical activity⁵⁷.



More than **90%** of people in Canada older than 60 are sedentary for at least 8 hours a day⁵⁸.

As part of the Boys' and Men's Health Initiative, researchers investigated the impacts of sports and physical activity in the promotion of healthy lifestyles for boys and men.

Men on the Move: Promoting physical activity in older men

Heather McKay's Shape the Path team developed *Men on the Move (MotM)*, a scalable, choice-based physical activity and active transportation intervention for community-dwelling, low-activity men aged 60 years and older. The program incorporated education, consultation with coaches, goal setting and self-monitoring. Men who followed the 12-week *MotM* program were 3.3 times more likely to meet physical activity guidelines and continued to engage in more physical activity 12 weeks after the end of the program⁵⁹.

The team gained support from the British Columbia Ministry of Health to implement an evidence-based support program to promote greater physical activity among older adults in British Columbia. Using *MotM* as a roadmap, the team developed the *Choose to Move*⁶² program to help older adults integrate physical activity into their daily lives, in ways that fit their lifestyles.

"I feel like I've got energy again which is something I haven't had for a long time... it not only amazes me, it amazes my husband. He hasn't seen that in me for a long time."

Choose to Move Participant

The team partnered with the YMCA of Greater Vancouver and the British Columbia Parks and Recreation Association to deliver programs in a variety of communities across all British Columbia Health Authorities. The team also developed the holistic mobility index, *Mobility Over Varied Environments Scale (MOVES)*⁶⁰. This tool merges physical, transportation, cognitive and social elements to measure and compare mobility between individuals and groups over time. The tool can be used to compare the mobility of men from different regions of Canada and in urban versus rural settings.

TEAM GRANT | \$1,476,709 | 2014 - 2019

Benefit of sport opportunities for young men

In 2013, Nicholas Holt published *An ethnographic study of issues surrounding the provision of sport opportunities to young men from a western Canadian inner-city*⁶¹. Researchers found that sport provided young men with an outlet for overcoming boredom and releasing energy and aggression. While sport settings may encourage skill development and raise self-esteem and self-confidence, they may also trigger feelings of inadequacy in those who are less competitive and confident. The program also provided valuable opportunities for youth workers to build relationships with young men who were often distrustful of authority figures and social situations. The paper won the Research Paper of the Year award in the "Community" category from the Sport Information Resource Centre, signifying it was selected as the best Canadian sport-related research conducted in 2012-2013.

OPERATING GRANT | \$119,515 | 2010 - 2014

IGH SHARED

PROJECT OUTCOMES

THROUGHOUT THE INITIATIVE

To help disseminate the results of the grants, IGH shared project outcomes and knowledge translation activities from the researchers through social media and newsletters. IGH also initiated three media campaigns related to boys' and men's health. The first was done on International Men's Day, November 19, 2019. IGH created a fact sheet titled, *Things You Might Not Know About Men's*

Health, using fun facts and knowledge translation products from the team grant researchers. The factsheet was shared through social media, the CIHR and IGH newsletters and on the CIHR website. IGH community members shared the factsheet with their networks and it was included in a feature on the research of Christine Wekerle by Open Access Government.

Things You Might Not Know About Men's Health

Researchers funded by the CIHR - Institute of Gender and Health are addressing key challenges to improve boys' and men's health through the lifecycle. **Visit our website to learn more.**

BOYHOOD

"Boys don't cry" can be the hardest lesson to unlearn. Teaching boys to be tough can lead to emotional suppression. **Watch this video to learn more.**



1 in 20 boys experience sexual abuse. A new app, **JoyPop**, will help youth build resilience.

ADULTHOOD

What do **frequent cycling**, using a **cellphone** and wearing **tight pants** have in common?

They all negatively affect a man's fertility! **Learn more.**



HIV can be prevented.

Taking the HIV preventative medicine, PrEP, allows HIV-negative gay, bisexual and other men who have sex with men, to have almost no chance of becoming infected with HIV. **Learn more.**

30% of a man's overall health is determined by his genetics.

70% can be controlled through lifestyle choices.

ADOLESCENCE



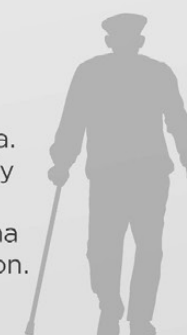
FATHERHOOD

Children of fathers over **50** years old have an increased risk of developing autism and schizophrenia.

Tick tock goes the biological clock!



Men account for **4/5** deaths by suicide in Canada. Men are less likely to seek support because of stigma around depression. **Learn more.**



GETTING OLDER...

The top **3** reasons why men have a shorter life expectancy than women are suicide, cardiovascular disease and motor vehicle accidents.



THANK YOU TO OUR COMMUNITY PARTNERS

IGH is very grateful to our community partners who have provided support to the Boys' and Men's Health Initiative.

External partners also provided funding for 5 years to specific team grant projects. The [Canadian Foundation for AIDS Research](#) contributed \$500K to a project focused on HIV prevention in gay and bisexual men. The [Ontario HIV Treatment Network](#) provided a total of \$2.25M to three different projects related to HIV and HPV. The [Public Health Agency of Canada](#) also contributed \$300K to a project to promote resilience among male youth who had experienced sexual violence.



In addition, IGH received funding from other CIHR Institutes and teams to supplement the team grant projects. The [CIHR-Institute of Aging](#) invested \$750K in a project targeting

the health and mobility of older men. The [CIHR-HIV/AIDS Research Initiative](#) provided \$1.5M in total for three different projects on HIV and HPV prevention. The [CIHR-Institute of Indigenous Peoples' Health](#) also contributed \$500K to a project on intergenerational transmission of the paternal environment in Inuit populations.

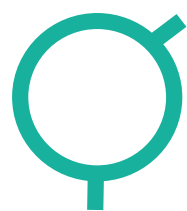


To extend its reach and maximize funding during the final phase of the initiative, Team Grants, IGH engaged numerous organizations and foundations doing work in the realm of boys' and men's health. For example, representatives from [Movember](#) and the [National Association of Friendships Circles](#) participated in a panel discussion during the first meeting of the Team Grant researchers, to share the work they were doing to improve boys' and men's health.

WHAT DID WE LEARN?

The 11-year Boys' and Men's Health Initiative represents a significant contribution to generating new knowledge, creating new programs and tools, and disseminating research findings to support boys' and men's health. The initiative demonstrates substantial progress in targeting research funding towards health issues that specifically impact boys and men. Knowledge mobilization activities from this initiative have also helped to open public dialogue on the impact of masculinities on boys' and men's health throughout the lifecycle. However, stigma remains around men's health and masculinities and more research still needs to be done.

Boys' and men's health is rooted in systemic and structural processes like racism, ableism, ageism, classism, discrimination, and stigma, and is shaped by social identities and positions like class, gender, geography, Indigeneity, race/ethnicity, sexual orientation, and additional intersecting factors. Projects in the Boys' and Men's Health Initiative have demonstrated that these factors are critical determinants of men's health. Future research which applies an intersectional approach to men's health research may further illuminate how intersecting social identity factors, positions and processes shape norms, attitudes, and practices in men's health.



REFERENCES

1. Statistics Canada. The Economic Well-being of Women in Canada. Published May 16, 2018. Accessed November 16, 2021. <https://www150.statcan.gc.ca/n1/pub/89-503-x/2015001/article/54930-eng.htm>
2. Statistics Canada. Deaths and age-specific mortality rates, by selected grouped causes. Published November 26, 2020. Accessed May 14, 2021. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310039201>
3. Statistics Canada. Leading causes of death, total population, by age group. Published November 26, 2020. Accessed November 12, 2021. <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310039401>
4. Public Health Agency of Canada. Heart disease in Canada: Highlights from the Canadian Chronic Disease Surveillance System, 2017. Published August 22, 2017. Accessed November 12, 2021. <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/heart-disease-canada-fact-sheet.html>
5. Statistics Canada. Heavy Drinking, 2018. Published June 25, 2019. Accessed November 12, 2021. <https://www150.statcan.gc.ca/n1/pub/82-625-x/2019001/article/00007-eng.htm>
6. Afifi TO, MacMillan HL, Boyle M, Taillieu T, Cheung K, Sareen J. Child abuse and mental disorders in Canada. *CMAJ*. 2014;186(9):E324-E332.
7. Statistics Canada. The Daily — Deaths, 2019. Published November 26, 2020. Accessed November 12, 2021. <https://www150.statcan.gc.ca/n1/daily-quotidien/201126/dq201126b-eng.htm>
8. weSpeak. Factsheets/Real Talk Sessions. Accessed November 9, 2021. <http://www.we-speak.ca/factsheets.html>
9. weSpeak | Exprimons-nous. Accessed November 9, 2021. <http://www.we-speak.ca/home.html>
10. Oliffe JL, Phillips MJ. Men, depression and masculinities: A review and recommendations. *Journal of Men's Health*. 2008;5(3):194-202.
11. HeadsUpGuys. Manage & Prevent Depression in Men. Accessed November 9, 2021. <https://headsupguys.org/>
12. Choose to Move. Seniors Health and Wellness | British Columbia. Accessed November 12, 2021. <https://www.choosetomove.ca/>
13. Engage | Advancing Gay and Bisexual Men's Sexual Health. Accessed November 9, 2021. <https://www.engage-men.ca/>
14. Hart TA, Moore DM, Noor SW, et al. Prevalence of HIV and sexually transmitted and blood-borne infections, and related preventive and risk behaviours, among gay, bisexual and other men who have sex with men in Montreal, Toronto and Vancouver: results from the Engage Study. *Can J Public Health*. Published online June 17, 2021. doi:10.17269/s41997-021-00546-z
15. JoyPop App. Resilience in Youth. Accessed November 12, 2021. <https://youthresilience.net/joy-pop-app>
16. Sagar-Ouriaghli I, Godfrey E, Bridge L, Meade L, Brown JSL. Improving Mental Health Service Utilization Among Men: A Systematic Review and Synthesis of Behavior Change Techniques Within Interventions Targeting Help-Seeking. *Am J Mens Health*. 2019;13(3):1557988319857009.
17. Public Health Agency of Canada. Suicide in Canada: Key Statistics (infographic). Published July 17, 2020. Accessed November 9, 2021. <https://www.canada.ca/en/public-health/services/publications/healthy-living/suicide-canada-key-statistics-infographic.html>
18. Movember Canada. Movember releases new study, encourages Canadians to check-in with men in their life during COVID-19 pandemic. Accessed November 9, 2021. <https://www.newswire.ca/news-releases/movember-releases-new-study-encourages-canadians-to-check-in-with-men-in-their-life-during-covid-19-pandemic-855616348.html>
19. Brennan DJ, Card KG, Collicot D, Jollimore J, Lachowsky NJ. How Might Social Distancing Impact Gay, Bisexual, Queer, Trans and Two-Spirit Men in Canada? *AIDS Behav*. 2020;24(9):2480-2482.
20. Martel É. Coronavirus: un impact sur les pères. *Journal Métro*. Accessed November 9, 2021. <https://journalmetro.com/local/la-chine-dorval/2475796/peres-en-detresse/>
21. Goodhead Website. Accessed November 9, 2021. <https://goodhead.ca/en>
22. Creighton G, Oliffe JL, Butterwick S, Saewyc E. After the death of a friend: young men's grief and masculine identities. *Soc Sci Med*. 2013;84:35-43.
23. Health Canada. Canadian Tobacco Alcohol and Drugs (CTADS) Survey: 2017 summary. Published October 30, 2018. Accessed November 12, 2021. <https://www.canada.ca/en/health-canada/services/canadian-alcohol-drugs-survey/2017-summary.html>
24. Card KG, Hart TA, Aranda JF, et al. Improving Substance Use Related Policies for Gay, Bisexual, and Queer Men. Community-Based Research Centre. Accessed November 12, 2021. https://www.cbrc.net/improving_substance_use_related_policies_for_gay_bisexual_and_queer_men
25. Khenti A. The Canadian war on drugs: structural violence and unequal treatment of Black Canadians. *Int J Drug Policy*. 2014;25(2):190-195.
26. Statistics Canada. Gender-based violence and unwanted sexual behaviour in Canada, 2018: Initial findings from the Survey of Safety in Public and Private Spaces. Published December 5, 2019. Accessed November 12, 2021. <https://www150.statcan.gc.ca/n1/pub/85-002-x/2019001/article/00017-eng.htm>
27. Gaspar M, Marshall Z, Adam BD, et al. 'I was just doing what a normal gay man would do, right?': The biopolitics of substance use and the mental health of sexual minority men. *Health (London)*. Published online February 25, 2021:1363459321996753.
28. Creighton GM, Oliffe JL, McMillan E, Saewyc EM. Living for the moment: men situating risk-taking after the death of a friend. *Sociology of Health & Illness*. 2015;37(3):355-369.
29. Mushquash AR, Pearson ES, Waddington K, et al. User Perspectives on a Resilience-Building App (JoyPop): Qualitative Study. *JMIR Mhealth Uhealth*. 2021;9(7):e28677.
30. Public Health Agency of Canada. Accelerating our response: Government of Canada five-year action plan on sexually transmitted and blood-borne infections. Published July 17, 2019. Accessed November 8, 2021. <https://www.canada.ca/en/public-health/services/reports-publications/accelerating-our-response-five-year-action-plan-sexually-transmitted-blood-borne-infections.html>
31. Public Health Agency of Canada. People living with HIV in Canada: infographic. Published December 1, 2020. Accessed November 9, 2021. <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/hiv-canada.html>
32. Public Health Agency of Canada. HIV in Canada—surveillance report, 2019, CCDR 47(1). Published January 29, 2021. Accessed November 9, 2021. <https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2021-47/issue-1-january-2021/hiv-surveillance-report-2019.html>
33. Haddad N, Robert A, Popovic N, et al. Newly diagnosed cases of HIV in those aged 50 years and older and those less than 50: 2008-2017. *Can Commun Dis Rep*. 2019;45(11):283-288.
34. HPV-SAVE. HPV-SAVE. Accessed November 9, 2021. <https://www.hpvsave.com/>
35. Grace D, Gaspar M, Paquette R, et al. HIV-positive gay men's knowledge and perceptions of Human Papillomavirus (HPV) and HPV vaccination: A qualitative study. *PLoS ONE*. 2018;13(11):e0207953.
36. Gillis JL, Grennan T, Grewal R, et al. Low human papillomavirus (HPV) knowledge related to low risk perception among men living with HIV: Implications for HPV-associated disease prevention. *Prev Med*. 2020;141:106274.
37. Gillis JL, Grennan T, Grewal R, et al. Racial Disparities in Anal Cancer Screening Among Men Living With HIV: Findings From a Clinical Cohort Study. *J Acquir Immune Defic Syndr*. 2020;84(3):295-303.
38. Salit IE, Paquette R. HPV, anal dysplasia and anal cancer. CATIE - Canada's source for HIV and hepatitis C information. Published 2016. Accessed November 9, 2021. <https://www.catie.ca/hpv-anal-dysplasia-and-anal-cancer>
39. Public Health Agency of Canada. Reducing the health impact of sexually transmitted and blood-borne infections in Canada by 2030: A pan-Canadian STBBI framework for action. Published June 29, 2018. Accessed November 8, 2021. <https://www.canada.ca/en/public-health/services/infectious-diseases/sexual-health-sexually-transmitted-infections/reports-publications/sexually-transmitted-blood-borne-infections-action-framework.html>
40. Public Health Agency of Canada. Fertility. Published October 18, 2012. Accessed November 10, 2021. <https://www.canada.ca/en/public-health/services/fertility/fertility.html>

41. Jurewicz J, Dziewirska E, Radwan M, Hanke W. Air pollution from natural and anthropic sources and male fertility. *Reprod Biol Endocrinol*. 2018;16(1):109.

42. Daumler D, Chan P, Lo KC, Takefman J, Zelkowitz P. Men's knowledge of their own fertility: a population-based survey examining the awareness of factors that are associated with male infertility. *Hum Reprod*. 2016;31(12):2781-2790.

43. Cao M, Shao X, Chan P, et al. High-resolution analyses of human sperm dynamic methylome reveal thousands of novel age-related epigenetic alterations. *Clinical Epigenetics*. 2020;12(1):192.

44. Selvaratnam JS, Robaire B. Effects of Aging and Oxidative Stress on Spermatozoa of Superoxide-Dismutase 1- and Catalase-Null Mice. *Biol Reprod*. 2016;95(3):60.

45. Robins S, Barr HJ, Idelson R, Lambert S, Zelkowitz P. Online Health Information Regarding Male Infertility: An Evaluation of Readability, Suitability, and Quality. *Interact J Med Res*. 2016;5(4):e25.

46. Infertility: An Educational and Supportive Infertility Treatment Companion App. Accessed November 10, 2021. <https://pivot.design/project/an-educational-and-supportive-infertility-treatment-companion-app/>

47. CBC News. Jewish General tests app for people struggling with infertility. CBC News. Published February 12, 2019. Accessed November 10, 2021. <https://www.cbc.ca/news/canada/montreal/jewish-general-app-1.5015524>

48. Schwartz S. Infertility can be an isolating affair, but this Montreal app might help. Montreal Gazette. Accessed November 12, 2021. <https://montrealgazette.com/health/infertility-can-be-an-isolating-affair-but-this-montreal-app-might-help>

49. Canadian Institutes of Health Research. Science Fact Science Fiction: Do men know enough about their own fertility? Published August 2, 2018. Accessed November 12, 2021. <https://cihr-irsc.gc.ca/e/51109.html>

50. Laurin-Desjardins C. Messieurs, vous aussi êtes de moins en moins fertiles avec l'âge. HuffPost. Published June 14, 2019. Accessed November 10, 2021. https://quebec.huffingtonpost.ca/entry/hom-mes-fertilite-age-environnement_qc_5d03a2ffe4b0985c419c4045

51. Legault JB. Papa et maman devraient s'abstenir de boire avant la conception de bébé. Le Soleil. Published October 4, 2019. Accessed November 10, 2021. <https://www.lesoleil.com/2019/10/04/papa-et-maman-devraient-sabstenir-de-boire-avant-la-conception-de-bebe-db9579d7a-3ca269a56abfdb21412094b>

52. Public Health Agency of Canada. A Common Vision for increasing physical activity and reducing sedentary living in Canada: Let's Get Moving. Published May 31, 2018. Accessed November 12, 2021. <https://www.canada.ca/en/public-health/services/publications/healthy-living/lets-get-moving.html>

53. Abichahine H, Veenstra G. Inter-categorical intersectionality and leisure-based physical activity in Canada. *Health Promotion International*. 2017;32(4):691-701.

54. Lim H, Jung E, Jodoin K, Du X, Airton L, Lee EY. Operationalization of intersectionality in physical activity and sport research: A systematic scoping review. *SSM - Population Health*. 2021;14:100808.

55. Statistics Canada. By the numbers - Men's Health. Published November 17, 2020. Accessed November 9, 2021. https://www.statcan.gc.ca/en/dai/smr08/2020/smr08_244

56. Roberts KC, Yao X, Carson V, Chaput JP, Janssen I, Tremblay MS. Meeting the Canadian 24-Hour Movement Guidelines for Children and Youth. *Health Rep*. 2017;28(10):3-7.

57. Bryan SN, Tremblay MS, Pérez CE, Arden CI, Katzmarzyk PT. Physical Activity and Ethnicity. *Can J Public Health*. 2006;97(4):271-276.

58. Dogra S, Clarke JM, Copeland JL. Prolonged sedentary time and physical fitness among Canadian men and women aged 60 to 69. Statistics Canada. Published February 15, 2017. Accessed November 10, 2021. <https://www150.statcan.gc.ca/n1/pub/82-003-x/2017002/article/14772-eng.htm>

59. Mackey DC, Perkins AD, Hong Tai K, Sims-Gould J, McKay HA. Men on the Move: A Randomized Controlled Feasibility Trial of a Scalable, Choice-Based, Physical Activity and Active Transportation Intervention for Older Men. *J Aging Phys Act*. 2019;27(4):489-502.

60. Hirsch JA, Winters M, Sims-Gould J, et al. Developing a comprehensive measure of mobility: mobility over varied environments scale (MOVES). *BMC Public Health*. 2017;17(1):513.

61. Holt NL, Scherer J, Koch J. An ethnographic study of issues surrounding the provision of sport opportunities to young men from a western Canadian inner-city. *Psychology of Sport and Exercise*. 2013;14(4):538-548.

Appendix 1: Table Summarizing the Funded Projects from the

Seed Grant

Priority research areas for the Seed Grant in Boys' and Men's Health included: access and equity for vulnerable populations, promoting positive health behaviors and preventing addictions; gender and chronic diseases (e.g., autoimmune disorders); gender and health across the lifespan; and gender and the environment.

The [Seed Grant](#) funded nine teams for up to \$100K each for one year in 2008-09. For more details on the projects funded from the Seed Grant in Boys' and Men's Health, please visit the CIHR [Canadian Research Information System](#) page.

The information is provided in the language in which it was submitted by the researcher.

| Principal Investigator | Institution | Project title | CIHR Funding |
|--|---|--|--------------|
| Emmanuel Bujold, Raymond D Lambert, Francine Lefebvre, Bruno Piedboeuf, Guy G Poirier, Yves Tremblay | Centre hospitalier de l'Université Laval | Gender differences and premature infants | \$100,000 |
| Lise Dubois | University of Ottawa | Social inequalities, health behaviors and obesity in childhood: A comparative analysis for boys and girls | \$100,000 |
| Kevin Arnold Hildebrand | University of Calgary | Primary elbow osteoarthritis: Transdisciplinary analysis of a predominantly male condition with a unique Phenotype | \$79,138 |
| Martin Lemay | Marie Enfant Hospital | TS and TV: Effect of television and video games on tics and other symptoms in Tourette syndrome | \$54,600 |
| Sai Ma | Vancouver Coastal Health Research Institute | Investigation of meiotic defects as an underlying cause of male factor infertility | \$100,000 |
| John Stanley Ogrodniczuk, John L Oliffe | University of British Columbia | Depression and masculinities: The perspectives of men and their partners | \$100,000 |
| Paul G Ritvo | York University | Mentoring and strength in impoverished young men | \$100,000 |
| Cara Tannenbaum | CIUSSS du Centre-Sud-de-l'Île-de-Montréal - Gériatrie | Men's priorities for healthy aging: A gender analysis | \$96,850 |
| Richard Joel Wassersug | Dalhousie University | Who needs help most and what is the best way to help them? Developing and evaluating a preemptive educational intervention to reduce the psychological distress of androgen deprivation therapy to prostate cancer patients and their partners | \$72,991 |

Appendix 2:
Table Summarizing the Funded Projects from the

Operating Grant

Priority research areas for the Operating Grant in Boys' and Men's Health included: the psychological, social, cultural and structural dimensions of violence and risk-taking; the neurological and biological basis of violence and risk-taking; boys' and men's self-care and access to health services; and mental health and illness in boys and men.

The [Operating Grant](#) funded seven teams for up to \$150K each per year for four years, from 2010-11 to 2013-14. For more details on the projects funded from the Operating Grant in Boys' and Men's Health, please visit the CIHR [Funding Decisions Database](#) page.

The information is provided in the language in which it was submitted by the researcher.

| Principal Investigator | Institution | Project title and link to abstract | CIHR Funding |
|--|---|---|--------------|
| Marie-Dominique Beaulieu | Centre hospitalier de l'Université de Montréal (CHUM) | Dépression chez les hommes: représentations de la maladie, autogestion et rétablissement | \$292,563 |
| Nicholas L Holt | University of Alberta | Sport Participation and Possibilities for Positive Development Among Urban Male Youth in Edmonton | \$119,515 |
| Sai Ma | University of British Columbia | Investigation of meiotic defects as an underlying cause of male factor infertility | \$600,000 |
| Heather A McKay | University of British Columbia | An investigation into risk-taking behaviour, bone microstructure and fracture between the sexes: What underpins fracture in boys compared to girls during growth? | \$596,772 |
| Makoto Nagano, Marie Achille, Peter T Chan | Research Institute of the McGill University Health Centre | Fertility care after cancer for boys and men: Exploring needs and concerns of fertility care and developing a novel fertility restoration strategy | \$297,200 |
| Elizabeth M Saewyc | University of British Columbia | Young men's responses to the accidental death of a friend | \$247,259 |
| Jean A Shoveller | University of British Columbia | Young Men and Sexually Transmitted Infections | \$71,102 |

Appendix 3:
Table Summarizing the Funded Projects from the

Team Grant

Priority research areas for the Team Grant in Boys' and Men's Health included: the trajectory of aging and multiple health challenges faced by older men; Indigenous boys' and men's health; HIV prevention and care for boys and men; engaging boys and men in the prevention of family violence; and healthy lifestyles and health promotion/communication for boys and men.

The [Team Grant](#) funded eight teams for up to \$300K

each per year for five years, from 2014-15 to 2018-19. Twenty-nine development grants of up to \$10K were also provided to successful applicants at the Letter of Intent stage. For more details on the projects funded from the Team Grant in Boys' and Men's Health, please visit the CIHR [Funding Decisions Database](#) page.

The information is provided in the language in which it was submitted by the researcher.

| Principal Investigator | Institution | Project title and link to abstract | CIHR and External Funding |
|------------------------|--|--|--|
| Janice Bailey | Université Laval | Father's lasting influence: Molecular foundations of intergenerational transmission of the paternal environment | \$994,000 Institute of Gender and Health \$500,000 Institute of Indigenous Peoples' Health |
| Trevor Hart | Ryerson University | HIV Prevention for Gay and Bisexual Men: A Multisite Study and Development of New HIV Prevention Interventions | \$500,000 CIHR - HIV/AIDS Research Initiative \$500,000 Canadian Foundation for AIDS Research \$500,000 Ontario HIV Treatment |
| Heather McKay | University of British Columbia | Shape the Path: Targeting the health and mobility of older men through key community partnerships | \$726,709 Institute of Gender and Health \$750,000 Institute of Aging |
| Bernard Robaire | McGill University | Impact of paternal age on the health of gametes: risk of potential adverse outcomes | \$1,494,120 Institute of Gender and Health |
| Irving E Salit | University Health Network | The HPV-SAVE Study Team: HPV Screening and Vaccine Evaluation in men who have sex with men | \$750,000 CIHR - HIV/AIDS Research Initiative \$750,000 Ontario HIV Treatment |
| Christine M Wekerle | McMaster University | Understanding health risks and promoting resilience in male youth with sexual violence experience | \$1,195,070 Institute of Gender and Health \$300,000 Public Health Agency of Canada |
| Josephine Wong | Ryerson University | Reducing HIV Vulnerabilities and Promoting Resilience Among Heterosexual Self-Identified African, Caribbean and Black Men in Ontario | \$250,000 CIHR - HIV/AIDS Research Initiative \$249,925 Institute of Gender and Health \$1,000,000 Ontario HIV Treatment |
| Phyllis Zelkowitz | CIUSSS de Centre-Ouest-de-l'Île-de-Montréal-Jewish General | Promoting Physical and Mental Health in Men Facing Fertility Issues | \$1,494,120 Institute of Gender and Health |

