Sex, gender and harm reduction responses to cannabis, tobacco and opioids

Lorraine Greaves, PhD & Natalie Hemsing, MA, Centre of Excellence for Women's Health



Disclosure & Funder Statement

- We have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.
- This project is funded by the CIHR, Institute for Gender and Health, Impact of Gender on Knowledge Translation Interventions Grants Program



Outline

- Sex, gender & harm reduction- applying an SGBA+
- Overview of a project in progress
- Examples of harm reduction and:
 - Electronic nicotine delivery systems (ENDS)
 - Opioids
 - Cannabis
- Gender transformative harm reduction?
- Implications



Harm Reduction, Sex & Gender

- Harm reduction is acknowledged as a critically important part of a continuum of responses to substance use
- Historically, the substance use field has focused on <u>risks</u> and individual behavior change, and
- Substance use field has been gender blind, and lacking analysis of the impact of culture and other social determinants of health on harm reduction



Taking sex and gender into account

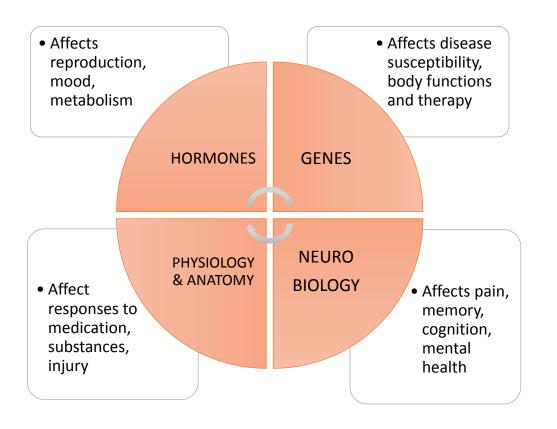


How do Sex and Gender matter in substance use?

- I. Mechanisms differences in biological responses to drugs
- II. Consequences and Impacts socioeconomic and legal consequences of drug problems: employment, poverty, homelessness, gang activities, drug trafficking, sexual assault, domestic violence
- III.Prevention Issues differences in pathways, risk and protective factors, progression, transition and maintenance
- IV.Treatment Issues differences in access, readiness, retention, and outcomes
- V. Reproduction/ Fertility / Parenting different roles, biological concerns, social stigma, child custody



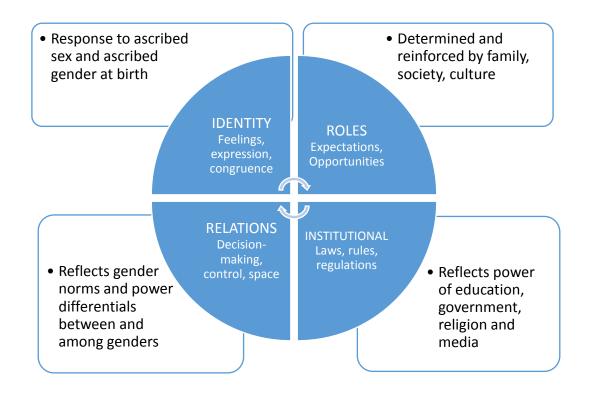
Sex-related factors determine the effects of substances, dependence, intoxication....



Sex exists on a continuum and components may change (or be changed) over time

Sex and gender interact iteratively, and with experiences and environments

Gender-related factors affect patterns of substance use, responses and access to treatment...



Gender exists on a continuum & is cultural and temporal

It has components that intersect and interact with sexual orientation, race, ethnicity, religion, culture, age, SES, nationality...

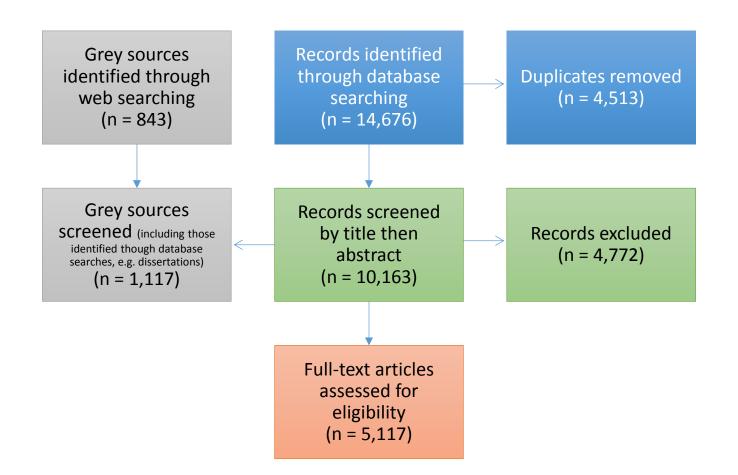
Scoping & Systematic Review Questions

- Q1) How do sex and gender related factors impact:
- a) patterns of use;
- b) health effects of;
- c) and prevention/ treatment/ or harm reduction outcomes for opioid, alcohol, tobacco (including e-cigarette use) and cannabis use?

Q2) What harm reduction, health promotion/ prevention and treatment interventions and programs are available that include sex, gender and gender transformative elements and how effective are these in addressing opioid, alcohol, tobacco and cannabis use?



Review: flow diagram





Articles found to date on harm reduction for cannabis, opioids and tobacco/ ENDS

Number of articles for all review questions and levels of intervention (prevention, harm reduction & treatment):

- Cannabis n= 142
- Tobacco n= 867
- Opioids n= 253

Q1C: How do sex and gender related factors impact harm reduction outcomes?

- Cannabis n= 1
- Tobacco n= 27
- Opioids n= 2

Q2: Harm reduction interventions that include sex, gender and/or gender transformative elements

- Cannabis n= 0
- Tobacco n= 5
- Opioids n= 4



Many deficiencies in sex & gender measurement, analysis & reporting

- 1. Does not:
 - 1. measure
 - 2. report
 - 3. analyze sex/gender
- 2. Indicates sex or gender of sample, but does not report results by gender group
- 3. Provides minimal data about sex and gender differences
 - 1. one table without significant analysis
 - 2. one line in the discussion, etc.
- 4. Conflates sex and gender
- 5. Conflates sexual orientation and gender



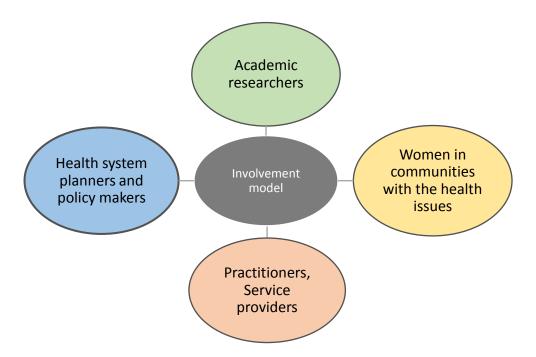
Next steps

- Complete full paper screening
- Screen new searches
- Data extraction
- Quality assessment (Q2 only)
- Feminist quality appraisal (Q2 only)
- Narrative synthesis



Table 1. Feminist Quality Appraisal Tool. Morgan, T., Author and year Williams, L. A., & Q.... Stated purpose/aim of paper Sex and gender differentiated? Gott, M. (2017). A Study design · Has the reason for focusing on gend Different genders in study? **Feminist Quality** Consider how the study has conceptualised gender. What definition Has a working definition of gender t Gendered power dynamics considered? of gender is used, if at all? What is informing the use of gender? Has 'gender' and 'sex' been successfu **Appraisal Tool:** If gender is mediated through anoth Femininity and masculinity considered? exposing gender how it interacts with gender ideals? Structural conditions considered? Have multiple genders, e.g. women/ bias and gender Other identity forming factors considered? · If not, is the reason sufficient for not Are there any other major theories o Have women been consulted on the problem? inequities in or undermine gender within the stu-Solution changes the existing order?.... health Data collection and analysis Collection Consider whether the methodology and methods employed to col- Has the data collection process taken into consideration the socio/cultural and particular gendered contexts of the particiresearch. Critical lect and analysis data have taken into account the social context of pants' surroundings? Public the data collected and the efficacy of these methods in capturing · In quantitative, qualitative and mixed-method studies, has the author been self-reflexive about how their own gender and gendered considerations. Consider also the subjectivity of the ideas of gender may have impacted their methodology? Health, 27(2), 263researcher collecting the data. Has the author taken into consideration different genders tendencies to respond and disclosure differently? · Has the study been written in a way that demonstrates awareness of the gendered power dynamics that exist between 274. interviewer and interviewee and have the researchers considered how to accommodate this? · Have other non-identity factors that are socially attached to gender identity been included in order to acknowledge the complexity of gender? Analysis Has gender been used as a category of analysis or has gender simply been one variable that has been analysed? Have qualitative methods allowed for the participants to communicate the complexity of their gendered experiences? If multiple genders have been included in the sample, has data been sex-desegregated? Have multi-level models been employed to see whether societal factors have an important role in causing differences? Have relevant subset analyses been applied? Have sensitivity analysis and heterogeneity been considered? How is gender contextualised in study's discussion? Has gender been characterised as a social construct? Awareness of how gendered behaviours stem from norms embed- Have gender norms been acknowledged as a feature of the structural conditions of a particular society? ded in particular societies. These norms can be conformed to and Have any particular formations of femininity and masculinity in the context of the study been identified? contested within individuals' experiences. These norms may also Have normative ideas of gender been acknowledged as unstable, and with the potential to change over time? intersect with other identity-forming features e.g. age and race. Have other identity-forming factors that contribute to how people perceive themselves and are perceived in society considered, such as race, ethnicity, sexuality, age, physical ability? Effective recommendations for change? Who is the target (both direct and indirect) of the proposed policy, program or project? Who will benefit? Who will lose? Have women been consulted on the 'problem' the intervention is to solve? How have they been involved in development of Effective prescriptions are made to challenge and change disparities on an individual and direct, as well as on a societal level. the 'solution'? Does the intervention challenge the existing gender division of labour, tasks, responsibilities and opportunities? Have specific ways been proposed for encouraging and enabling women to participate in the policy/program/project, despite their traditionally more domestic location and subordinate position? · Has the long-term impact in regard to women's increased ability to take charge of their own lives, and to take collective action to solve problems, been considered?

Centre of Excellence for Women's Health Involvement Model: 1997- present





Tobacco harm reduction using Electronic Nicotine Delivery Systems (ENDS)



Gender & patterns of use: e-cigarettes

Kong et al 2017 (review of 652 studies/ 2.5% reported gender)	Men and boys report higher rates of e-cigarette use compared to women and girls [1] Boys purchase on line; girls acquire via social sources Girls less likely to know the nicotine content of their e-cigarettes Need sub group analysis: SES, sexual minority groups, ethno/racial groups
Dai et al 2017; Emory et al 2015; Johnson et al 2016	Lesbian and bisexual girls and women report higher use of e-cigarettes (and other tobacco products) than heterosexual girls, women and men, and gay and bisexual men [2-4]
Lanza et al 2017	Both men and women engaging in risky alcohol use and cigarette smoking had a higher likelihood of endorsing e-cigarette use [5] 1/3 e-cig users were not tobacco users
Bauhoff et al 2017	Women who are current smokers were more likely than former smokers, to have learned about e-cigarettes from advertising, and believe that e-cigarettes help smokers quit [6]

Sex related factors: e-cigarettes and tobacco cessation		
Dawkins et al 2012	Both nicotine and placebo e-cigarettes reduced the desire to smoke and withdrawal symptoms in males but not females [7]	
Grace et al	Females rated e-cigarettes more highly than males: satisfaction predicted later reductions in	

smoking; potential for effective NRT delivery, especially for women [8] 2015 Piñeiro et Men more likely to report initiating e-cigarette use to quit smoking due to health concerns; women more likely to report initiation based on recommendations from family and friends al 2016

Pang et al

phase and amidst acute PMS [10]

2017

Men report greater use of e-cigarette use related to positive reinforcement (enjoyment); women reported continued use for negative reinforcement (to manage stress, negative mood) [9]

> "Affective PMS" associated with greater number of smoking cessation aids used in past quit attempts, including increased use of e-cigarettes; reflects difficulty of cessation during luteal

E-cigarettes & pregnancy: controversial



- Coalition of UK health organizations <u>endorsed</u> use of ENDS as a substitute for smoking in pregnancy
- (WHO 2016): "the evidence is sufficient to warn children and adolescents, pregnant women, and women of reproductive age <u>against</u> ENDS use and nicotine"
 - "Foetal and adolescent nicotine exposure may have long-term consequences for brain development, potentially leading to learning and anxiety disorders"
- US study: 13% of pregnant women reported ever use of e-cigarettes
 - older, more likely a current smoker, and perceived e-cigs as less harmful, more fashionable and helpful for cessation [11]
 - identified interest in e-cigarettes as a harm reduction strategy, but reported postpartum relapse to traditional cigarettes [12]

World Health Organisation, 2016. Electronic nicotine delivery systems and Electronic Non-Nicotine Delivery Systems (ENDS/ENNDS)

Harm reduction: Opioids



Gender & Opioids

- Men are more likely to [13]:
 - escalate their opioid medication doses & ingest non-orally
 - use non-prescribed or illegally obtained opioids (e.g. fentanyl)
 - use alone & die from opioid overdose
- Women are more likely to [14]:
 - begin prescription opioid misuse via a prescription
 - report greater pain despite chronic opioid therapy
 - use prescription opioids to cope with trauma & negative emotions
- In a US study, n= 155 transgender adults, 23.9% reported non-medical prescription painkiller use [15]



Opioids: gender and stigma & harm reduction services

Cooper et al 2017	Australian sample in treatment for prescription opioid dependence: women report greater perceived stigma [16]
Kerr et al 2017	Sample of people who inject drugs in London, Canada, women expressed less interest in the use of supervised injection sites; women may experience greater stigma and more barriers to services [17]
Smye et al 2011	Women receiving MMT in Vancouver, BC frequently cited challenges linked to the "intersectionality of disadvantages" including impact of gendered stigma in accessing MMT [18]
Earnshaw et al 2013	US study - women accessing MMT identified unique experiences of stigma, including: being perceived as a prostitute, or as a "poor mother" [19]

Harm reduction: Cannabis



Cannabis & sex and gender-related factors

- Men who use cannabis are more likely to report dependence or severe dependence on cannabis than women [20]
- Boys use cannabis at higher rates, but gender gap among youth may be narrowing [21]
- Women who are pregnant or who are mothers and use cannabis report experiencing stigma, fear of judgment [22]



Cannabis, pregnancy & parenting: harm reduction issues

- Some women report using cannabis as a substitute for more harmful substances during pregnancy & parenting
- Qualitative study: parental cannabis use, perceptions of benefits and harm, and harm reduction strategies [23]
 - Parents reported no adverse impacts on parenting
 - Yet, children's awareness of use and access occurred earlier than parents thought
 - Harm reduction strategies parents used: being discreet, using less potent strains, prioritizing family & work, not mixing with tobacco





Some resources on reproduction

SOGC Position Statement: Marijuana Use during Pregnancy

Cannabis (marijuana) is the most commonly used illicit drug among pregnant women. Legalization of cannabis in Canada may reinforce the reputation of cannabis being a harmless drug and result in an increase of use among pregnant women.

Evidence-based data has shown that cannabis use during pregnancy can adversely affect the growth and development of the baby, and lead to long-term learning and behavioural consequences. There have

ng that cannabis use during pregnancy raises addition to the adverse health consequences smoking. Pregnancy is a critical time for the used by cannabis exposure can be life-long.

May 9th, 2017

or contemplating pregnancy should abstain

erse health effects of cannabis use during emplating pregnancy nancy be encouraged to discontinue cannabis

gly discouraged during pregnancy, in favor of turing pregnancy. se during lactation and breastfeeding. annabis on pregnancy and lactation.

lable to ensure that those who are pregnant or osed by cannabis.

Cannabis Use During Pregnancy

Effects of Cannabis Use during Pregnancy

The Canadian government plans to legalize cannabis by July 1, 2018. With the impending legalization of cannabis, it is important to note that the legal use of cannabis does not necessarily make it safe. There is no known safe amount of cannabis use

Currently, there is limited Canadian data about the prevalence of cannabis use during pregnancy. Cannabis use among women in Canada is on the rise, with approximately 11% of women of childbearing age reporting cannabis use in the past year according to Health Canada (2013), Cannabis use is higher among younger women; 29,7% of women age 20-24 years report past year use. It is estimated that about 5% of pregnant women use illicit drugs during pregnancy, though it is not known what percentage use cannabis

Research on cannabis use during pregnancy demonstrates some potential negative outcomes associated with heavy use (one or more joints per day). Cannabis use during

- Affect the ability to become pregnant as a result of changes in the menstrual cycle for women and lower sperm count and poorer sperm quality in men
- Increase the risk of preterm birth
- Lead to lower birth weight of the baby
- Be associated with longer-term developmental effects in children. adolescents, and adults including decreases in memory function, attention, and reasoning and problem solving skills, and increases in hyperactive behaviour and future substance use

It is important to note that most of the current research evidence presents findings of studies where cannabis use was administered by smoking. Little is known about exposure through other routes of use. Current evidence is also limited by: reliance on self-report, the presence of cofounding factors, and small samples of women who use cannabis prenatally. While more research is needed, both in quantity and quality, it is prudent to advise pregnant women and women of childbearing age of the potential long-term adverse developmental and behavioural effects associated with cannabis use during pregnancy.

For more information about cannabis use during pregnancy, please visit: http://www.beststart.org/resources/ alc_reduction/RisksOfCannabis_A30-E.pdf or https://www.canada.ca/en/health-canada/sen/ces/substanceabuse/controlled-illegal-drugs/health-risks-of-maniuana-use.html

For more information about the Canada FASD Research Network, including other policy documents about FASD and substance use during pregnancy, please visit: www.canfasd.ca

best start meilleur départ



behaviour. These studies include Ottawa Prenabil Prospective Study (OPPS: Fried, 1995, 2002)

 Material Health Practices and Child Development (MHPCO) Study (Day, Leech, & Goldschmidt, 2012; Day et al., 1991)

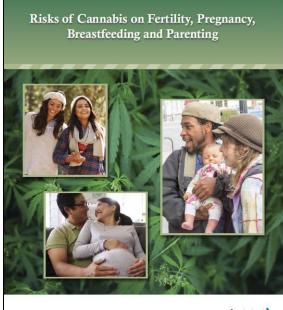
connective insolvetoal colour studies that

evaluated the outcomes of cannebis use during

Generation R Study (El Marroun et al., 2009)

The results of these studies, and their comperisons across groups, need to be interpreted with caution, as the tetrahydroincreased over the past few decades. Furthermore, the available research findings on number of factors. This research demonstrates an association, but not causality; confounding and economic factors, may influence outcomes. For example, cannable is often used with other drugs, such as alcohol and tobacco, both of which have regalive effects on pregnancy and the health of the fetus. In associated with heavy, prolonged use. Clearly there is a critical need for further research addressing the potential long-term consequences associated with cannabls us during pregnancy

While no pattern of congenital anomalies has been linked to cannabis use by pregnant alcohol use during pregnancy. Developing clinical guidelines for health care professionals on discussing the health effects of cannabls fo women and pregnant women will be important and these need to be linked to discussions on the effects of alcohol, tobacco, opioids, and other substances.



by/par health nexus santé

Harm reduction: gender and routes of administration (ROA)

- Russell et al (2018) scoping review on ROA & health effects [24]:
 - Greatest harm: smoking cannabis, vaping cannabis concentrates ("dabbing")
 - Least harm: vaping natural cannabis (plant material), edibles

- Vaping, smoking, using cannabis concentrates more common among males [25-27]
- Edible use more common among females [27, 28]

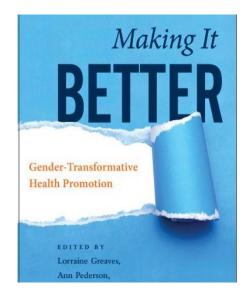


Raising the bar in harm reduction initiatives: Gender transformative approaches



What would gender transformative harm reduction look like?

Improves health and reduces gender inequity at the same time





Principles for practitioners doing tobacco reduction with women in the reproductive years

Described in the 2014 *Tobacco Free Futures Guidelines.* Alberta Health Services

Women Centred

Respect women's context, pressures and goals when delivering care

Trauma Informed

Recognize that experiences of trauma and violence are strongly associated with smoking

Principles for Practice

Harm Reducing

Support women to improve their overall health by reducing tobacco use, improving nutrition, escaping violence, facing stigma, etc

Equity Informed

Help women address barriers to health such as poverty, low literacy and inadequate support



Sisterspace, Vancouver

- Women-only harm reduction for women who inject drugs
 - Welcomes trans women, genderqueer women, & non binary femmeidentified people
- Staff and peer-supported injection room
- Safe opportunity for health education, access to treatment, health services, housing support, legal advocacy...social networks





Gender Exploitative

Perpetuates gender inequalities

(eg. exploits stereotypes such as beauty or responsibility for others to encourage cessation)

Gender Accommodating

Acknowledges but does not address or try to change gender inequalities

(eg. provides genderspecific programming to provide safety or child care)

Gender Transformative

Addresses causes of gender based inequalities & works to transform harmful gender roles, norms, relations

(eg. focus on empowerment of women and others exposed to GBVexploited by pimps, drug dealers, street doctors etc)

GOAL= GENDER EQUITY

Current opportunities for considering gender

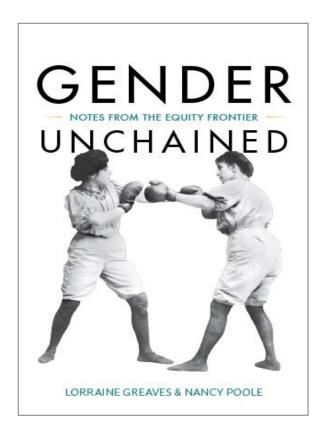
- Opioid Strategy needs to address:
 - Pregnancy, parenting, child welfare and access to treatment
 - Stigma reduction, (higher for women and mothers)
 - Higher use of opioids and other drugs by men: link to masculinities
- New Tobacco and Vaping Products Act (received Royal Assent May, 2018)
 - Assess sex and gender differences in effectiveness of e-cigarettes in tobacco reduction and cessation
 - Assess gendered issues in prevention of uptake of vaping
 - Long term studies of impact of vaping on sex specific patterns of lung disease
- Cannabis regulatory frameworks (municipal, provincial, federal)
 - Prevention messages for youth and advice for parents need gendering
 - Impaired driving campaigns and gender
 - Reproduction, fertility and pregnancy (for males *and* females)



Summary & Conclusions

- Lack of sex/ gender lens in harm reduction intervention literature
- ENDS
 - framed as harm reduction for tobacco
 - lack of sex/ gender lens
- Opioids
 - examples of gender informed harm reduction responses but lack of evaluation in academic literature
 - gender differences and stigma in accessing and responding to treatment
- Cannabis
 - lack of gender informed harm reduction approaches in academic literature
 - route of administration (ROA) as harm reduction; need to consider gendered patterns of use
- Gender transformative harm reduction approaches are needed for all substances





Available at www.genderunchained.com, the FriesenPress bookstore, Amazon, Chapters Indigo, Barnes & Noble, and most major online retailers (\$20)



Sex and Gender Health Canada-CIHR Initiative on Cannabis

- Signature Initiative (CLRB and CPAB): Applying a Gender-based Lens to Cannabis Risk Perceptions, Public Education and Awareness
- Raising awareness of the risks and harms of cannabis use is critical to the
 effective implementation of a new legislative and regulatory framework for
 the legalization and regulation of cannabis. The Government of Canada is
 committed to ensuring the integration of a sex and gender-based
 perspective in developing and delivering an evidence-informed cannabis
 public education and awareness campaign. Early work has been undertaken
 to assess available data and public opinion research to better understand
 gender differences in cannabis use and risk perceptions among Canadians.
- CLRB and CPAB will be able to draw on the expertise of an external research expert to advance work on the adoption of a gender-based lens in developing, testing and delivering cannabis public education and awareness activities, and in formulating targeted, gender-sensitive messages for key population sub-groups such as pregnant women and LGBTQ2 individuals that may require special focus. The research expert will also help interpret results from the Canadian Cannabis Survey, from a sex and gender-based lens.



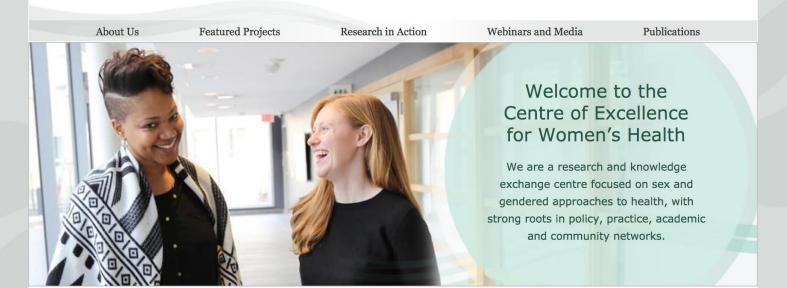
SGBA initiative - vaping

- Healthy Environments and Consumer Safety Branch (HECSB)
- Signature Initiative: Implementing a New Framework for Vaping Products in Canada. Canadian vaping data are currently being collected via the 2017 Canadian Tobacco, Alcohol and Drugs Survey and the 2016-17 Canadian Student Tobacco, Alcohol and Drugs Survey. All results will be reported by sex and age group. New and expanded vaping indicators are under development and will be aligned with international best practices, including the inclusion of the newly developed questions on both sex and gender being implemented by Statistics Canada.
- The newly created Health Canada Science Advisory Board on Vaping Products includes a member from the scientific community with expertise in sex and gender issues to ensure these are considered when evaluating scientific evidence.

















What the one and periods! Twent totales with talescent uses?

An expension factors of the the temporary to proper to be the participations, principalities (State and Arriva related the scores norm, organistic per specialitie. Met unding printed, patrolical six advantables represent the property

tarine and independent developing the behavior recogniti

- Selection Code was transcript to a Supported and influence obtained contacts Name that is noticed under the spin rise to be
- mining he beinging the box bed permiss made talls already as more buy it have placed light to be-
- hips present an regio but, to already better party our
- the case of the latest terms and the section and resident and resident and resident making and harver to updating being perdecontractions. market in the business make
- Name and otherwise recipied application and the
- Franks and realising are highly command of limit class and THE USE THE PROPERTY WAS A SHOULD SHARE THE PROPERTY OF THE PARTY.
- tripries are been often construct the setting could have a
- Rendered Information community and international and broken for written der
- strength and incoming for their construction and the formation of the property of the contract of the contract
- Transfer Colonic, and lost contract and future concerning. realized with column stone on nation become a representative coming.

Marie Service

the state of the s gentle bes, and safe has been rate to appropriate the seanti-visualizaçãos, final por aproprios foi constiturio reported and no beautiful market and reference



Sex. Gender and Tobacco

Evaporation of Garidar Transfermative Indiamani Continut

product, chi militago primergitti ginder nome see Militaren dipunte e erinnen di televing laboro con bios with properties productions. Very leasenful. A citaling fraction in company, and outcome about a company and

made of feath processing a property of Additional for some countries present persons of a reader of territories and an arrangement

married hard it disagging politics. Digitally can in changing inches winds about nationals yas and Specialists in the set of the second second set. affecting land person design

telephy procured an horse spin part is taken

- People beliefer approximent technical



wheth principles a society bright of their egabation in provide for recreations on a furth-printing and restrict one of canada became audition one (1991, but the Dide. We represe the advantage of the beautiful committee and a low in 2017 each states plus the Osteron Wichardon had begatered

the effection to prove many task some and two, but emphism of the hour democracy? There is also employed That the product has in controlly one in comments among abelian ext. 2. Since charges in hapticities and the increasing property of carrying doors is used by conducativity and At their worker and below our bed conference on afficial and property to column, as seed in our and another difference in

Received on Laboratory and to effects a province becomes minor regards an increase related Minore to consider our and health offects. For reconsider

- Stee previous Bark to an complex to Coronic, and proprovinces of complete one is court, thesis, among their property to belong \$100mm, \$40000.
- There are not difference or the residualism of carrotto, tips no differentiasa de resolvir mare, and has discriberate.
- Complete to produce from a disputation to manage year fraction from -mater binates to school autobio-cold-After address of the sign and provide the second department.
- of natural descriptions on benefits from science. Walls and female duty trainer differences in terms if
- inguition official and with disserting regions. The indiano regarding considerup and restaurants an arrange among major, while other speaker, respect an production with representational production for the bonds. Considerate has been proported with decreased pain.

generating process, but trys it incomes.

Sex, Gender and Cannabis

- Then are informers in counterpart of environments on: wisher hear smoothed with decreased that resorted to describes a consistence in females led and in modes.
- . The explanar regioning the effects of spreadings theirs description, proprietly undownship a trained while some militerar nagonis-ser in her hannful then belongs as attached. after referent squares regardered by a property boots. markets of female, for size, and loss faging
- . Their art on administrative control particular administraspends on daing proprietion and prepriets.

White parenties recognize on two and preside differences in equality, gurve the evidence street, it means promote more in the health effects and the specific benefits of semigraproposed by the National Applications of Spierces; Engineering and Mindrove DSCS provides Seemed pro-brid provide analysis of afforts; this is bugst-violentials of the poster allegeous-andre

New Administration of the Contract of Misson Remalmans, tractally installed and malmaterial in procincial. spears and toke subjects in physical research; and motion that is helpful families also let to product a michael makes B. Further reports complex up, option de difference essentation with homelos loss and transferre is precious inform constitutions, and a substitution of the bed on any money offering innovaneous, and bresh harmonise may provides introduced

The Traums, thendery flutetance Use project will guide the further integration of traums informed, gender informed and gender transformation practices into coledance one personation, health practicition, resistance, burns reduction and policy in Canada in 2017-05.

Submercon.



and provide the first of the first first country, and provide the same that man familia an abasin more the more; frames prome printed in the condition advantage and dealer described particular accessories, suprings perhaps very less on settled approximate for benefit, the lock image one business. trace representatively are pure provide byte dress. and are give format one lights travely from the decision. The fire particular party for heapter-day on the facility of teachighe entry time (Militari ferres) (MI) ⁴ s/Arisisubs. No employing of that his most because on the and \$100 ft. The private from all parent businessings and depart, they to, trupes donor retire forth, of national capilly men. For which his explain flator manifelants policins their providence benefit to a depote an applicable of the distance. PROPERTY.

and the facility forms to design the bit sent rather to belong and to be for the party to the party. The party NO. AND THE PARTY THE THE WARRANT STREET, WHEN THE PARTY TO STREET, THE PARTY THE PART report description of white property select A last opport Partie of the Control of States and States a traper of leader formation or part constantly may be used the same and the same of the same and the same of proper here to become the order of the color an improve after the second of the second of

- Marine Commission of the Party AND DESCRIPTION OF STREET
- Text to be a position of the comment THE CONTRACTOR STREET
- promise and the later of the la BOTO NOT THE OWNER OF THE OWNER.
- THE CONTROL OF STREET PRINT THE PERSONS
- The same of the sa
- Control of the last of the las



Sex. Gender and Opioids

Account of the American American State of the Control of the American State of the Control of th A partition, state and forest parties and an Assaulae Autor transports - god participa," All to sold by the perfection control and it registers before the control of processing a series, and programme in

Proposed Street for adjust according to believe to the state Exclusively parish, resigned to other basis of alternative and their source are treed only as although a processor. specific excense filter; in input a received specif, but the alone inglise him of tribbleshin bearing T. Staubing and ordere are the control with figure pass of from the control and were a all already from a profit in the same region and the "A force." influence coher pri test, ma province i tomo it musi NAME OF ADDRESS OF TAXABLE PARTY.

printed on committee of printed and printed an extension of the committee the production of the tracked principles should not show Companies with a fugit of tights of the companies. promipried paid replication per light and have reported trioning temporale public recognition agends used the Morrow served haddronic and bribanium the train it.

too patroles inch relation on the faction and increase of our relation instrugent and he harhodonner excluding stylente-March Carry Development Specialist Colonial Committee propriety face relative; restrict and point

- *Topic of our would be reported. THE RESERVE OF THE PERSON OF T
- DOLLER WAY TO SHARE THE
- THE RESERVE OF THE PROPERTY OF THE REAL PROPERTY AND ADDRESS OF THE PARTY O





References

- 1. Kong, G., Kuguru, K. E., & Krishnan-Sarin, S. (2017). Gender Differences in US Adolescent E-Cigarette Use. Current Addiction Reports, 1-9.
- 2. Dai, H., & Hao, J. (2017). Electronic cigarette and marijuana use among youth in the United States. Addictive behaviors, 66, 48-54.
- 3. Emory, K., Kim, Y., Buchting, F., Vera, L., Huang, J., & Emery, S. L. (2015). Intragroup variance in lesbian, gay, and bisexual tobacco use behaviors: evidence that subgroups matter, notably bisexual women. *Nicotine & Tobacco Research*, 18(6), 1494-1501.
- 4. Johnson, S. E., Holder-Hayes, E., Tessman, G. K., King, B. A., Alexander, T., & Zhao, X. (2016). Tobacco Product Use Among Sexual Minority Adults: Findings From the 2012–2013 National Adult Tobacco Survey. *American journal of preventive medicine*, 50(4), e91-e100.
- 5. Lanza, S. T., Russell, M. A., & Braymiller, J. L. (2017). Emergence of electronic cigarette use in US adolescents and the link to traditional cigarette use. *Addictive behaviors*, 67, 38-43.
- 6. Bauhoff, S., Montero, A., & Scharf, D. (2017). Perceptions of e-cigarettes: a comparison of adult smokers and non-smokers in a Mechanical Turk sample. *The American journal of drug and alcohol abuse*, *43*(3), 311-323.
- 7. Dawkins, L., Turner, J., Hasna, S., & Soar, K. (2012). The electronic-cigarette: effects on desire to smoke, withdrawal symptoms and cognition. *Addictive behaviors*, *37*(8), 970-973.
- 8. Grace, R. C., Kivell, B. M., & Laugesen, M. (2015). Gender differences in satisfaction ratings for nicotine electronic cigarettes by first-time users. *Addictive behaviors*, 50, 140-143.
- 9. Piñeiro, B., Correa, J. B., Simmons, V. N., Harrell, P. T., Menzie, N. S., Unrod, M., ... & Brandon, T. H. (2016). Gender differences in use and expectancies of e-cigarettes: online survey results. *Addictive behaviors*, *52*, 91-97.
- 10. Pang, R. D., Andrabi, N., & Leventhal, A. M. (2017). Premenstrual symptoms and factors implicated in smoking cessation among woman smokers. *Experimental and clinical psychopharmacology*, 25(4), 235.
- 11. Mark, K., Farquhar, B., Chisolm, M. S., Coleman-Cowger, V. H., & Terplan, M. (2015). Knowledge, attitudes, and practice of electronic cigarette use among pregnant women. *Journal of addiction medicine*, *9*(4), 266-272.
- 12. Fallin, A., Miller, A., Assef, S., & Ashford, K. (2016). Perceptions of electronic cigarettes among Medicaid-eligible pregnant and postpartum women. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 45(3), 320-325.
- 13. Gladstone, E. J., K. Smolina and S. G. Morgan. 2015. "Trends and sex differences in prescription opioid deaths in British Columbia, Canada." *Injury prevention*: injuryprev-2015-041604.
- 14. Hemsing, N., L. Greaves, N. Poole and R. Schmidt. 2016. "Misuse of prescription opioid medication among women: a scoping review." Pain research and management 2016.
- 15. Benotsch, Eric G., et al. "Non-medical use of prescription drugs, polysubstance use, and mental health in transgender adults." *Drug & Alcohol Dependence* 132.1 (2013): 391-394.



References

- 16. Cooper, S., et al., Perceived stigma and social support in treatment for pharmaceutical opioid dependence. Drug and Alcohol Review, 2017.
- 17. Kerr, T., et al., Supervised injection facilities in Canada: past, present, and future. Harm Reduction Journal, 2017. 14(1): p. 28-37.
- 18. Smye, V., et al., Harm reduction, methadone maintenance treatment and the root causes of health and social inequities: An intersectional lens in the Canadian context. Harm reduction journal, 2011. 8(1): p. 17-26.
- 19. Earnshaw, V., L. Smith, and M. Copenhaver, Drug addiction stigma in the context of methadone maintenance therapy: an investigation into understudied sources of stigma. International journal of mental health and addiction, 2013. 11(1): p. 110-122.
- 20. National Academies of Sciences, Engineering and Medicine, *The health effects of cannabis and cannabinoids: The current state of evidence and recommendations for research.* 2017, The National Academies Press: Washington, DC.
- 21. Johnson, R.M., et al., Past 15-year trends in adolescent marijuana use: Differences by race/ethnicity and sex. Drug and alcohol dependence, 2015. 155: p. 8-15.
- 22. Latuskie, K. A., Andrews, N. C., Motz, M., Leibson, T., Austin, Z., Ito, S., & Pepler, D. J. (2018). Reasons for substance use continuation and discontinuation during pregnancy: A qualitative study. Women and Birth.
- 23. Donoghue, K. J. (2015). Perceived harms and benefits of parental cannabis use, and parents' reports regarding harm-reduction strategies. Retrieved from http://ro.ecu.edu.au/theses/1592
- 24. Russell, C., S. Rueda, R. Room, M. Tyndall and B. Fischer (2018). "Routes of administration for cannabis use basic prevalence and related health outcomes: A scoping review and synthesis." International Journal of Drug Policy 52: 87-96.
- 25. Cranford, J. A., K. M. Bohnert, B. E. Perron, C. Bourque and M. Ilgen (2016). "Prevalence and correlates of " Vaping " as a route of cannabis administration in medical cannabis patients." Drug & Alcohol Dependence **169**: 41-47.
- 26. Lee, D. C., B. S. Crosier, J. T. Borodovsky, J. D. Sargent and A. J. Budney (2016). "Online survey characterizing vaporizer use among cannabis users." Drug & Alcohol Dependence 159: 227-233.
- 27. Carrie, C., M. L. K. and S. Michelle (2016). "Sex Differences in Cannabis Use and Effects: A Cross-Sectional Survey of Cannabis Users." Cannabis and Cannabinoid Research 1(1): 166-175.
- 28. Friese, B., M. D. Slater and R. S. Battle (2017). "Use of marijuana edibles by adolescents in California." The journal of primary prevention 38(3): 279-294.

