Gender-sensitive approaches to cancer prevention: Promising directions for promoting health

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Overview

Sex and gender → health
Gender matters → cancer prevention
Opportunities for cancer prevention among men

http://tinyurl.com/nwg3gw4t
SEX AND GENDER – what’s the difference?
SEX = biological construct

- Hormones, genes, anatomy, physiology, etc.

- Affects trajectories, prevalence, treatment of conditions & diseases
GENDER = social construct

- Multi-dimensional
- Culturally specific, temporal
- Linked to power; economic and social status
Gender Roles

Behavioral norms applied to males and females
Defines dress, posture, talk, occupation, opportunity, access to space, food and money
Reflects the level of gender (in)equity in a society

https://farm4.staticflickr.com/3326/3250757541_e313e6a6b3_o_d.jpg
MASCUINITIES

FEMININITIES

Gender Identity

http://tinyurl.com/p9u6qwu

http://tinyurl.com/ptsuhdg
Every cell is sexed

Everybody is gendered
Gender and Health?

- Exposure, risk or vulnerability
- Nature, severity or frequency of health problems
- Perceptions of symptoms
- Health-seeking behaviour
- Access to health services

Integrating Gender Perspectives in the work of WHO, WHO Gender Policy, 2002
Men’s health and gender

Masculinities and gender roles affect men’s health behaviours

http://upload.wikimedia.org/wikipedia/commons/9/9d/Tattoo_withchild.jpg
Cancer prevention + gender
Imagine a world with less cancer
THE NUMBERS

NEW CANCER CASES PER YEAR IN CANADA

2005: 155,000
2015: 196,000 (29% increase)
2030: 277,000 (41% increase)

Canadian Cancer Statistics 2015
FIGURE 7.3 Current and projected distribution of new cancer cases, by sex and age, Canada, 2003–07 and 2028–32

Analysis by: Surveillance and Epidemiology Division, CCDP, Public Health Agency of Canada
Data sources: Canadian Cancer Registry and National Cancer Incidence Reporting System databases at Statistics Canada

Canadian Cancer Statistics 2015
FIGURE 2.1 Age-standardized incidence and mortality rates for all cancers combined, by sex, Canada, 1985–2014

Rate (per 100,000)

- Males: Incidence (blue), Mortality (dark gray)
- Females: Incidence (green), Mortality (light gray)

Note: Rates are age-standardized to the 1991 Canadian population. Actual incidence data were available to 2010. Actual data for mortality were available to 2009. Dashed lines represent estimated rates.

Analysis by: Chronic Disease Surveillance and Monitoring Division, CCDCP, Public Health Agency of Canada

US: Cancer risks and being a man

- Men diagnosed with nonsex specific cancer - 50% higher
- Men have worse oncological outcomes for nonsex specific cancers
- Men have 12.6% higher death rate for the same cancer (after controlling for higher male incidence)
- Men engage in behaviours that put them at risk for cancer

50% cancers can be prevented
REDUCING THE NUMBERS

NURSES IN CANCER CARE ➔ OPPORTUNITIES
Smoking - responsible for ¼ of cancer deaths worldwide

Healthy lifestyle – can prevent 1/3 of the 12 major cancers worldwide

Reducing alcohol – risk of cancer increases with amount consumed

So if we focused on men....

Need for new approaches to:

- smoking cessation
- healthy eating
- physical activity
Smoke like a man

http://commons.wikimedia.org/wiki/File:Man_smoking_a_cigar.jpg
Masculine identities and smoking
Rates of smoking higher among men

Chart 2
Percentage who smoke daily or occasionally, by age group and sex, household population aged 12 or older, Canada, 2011

Source: Canadian Community Health Survey, 2011.

People typically begin smoking during their teenage years, so the percentage of Canadians who have not started smoking by age 20 is an indicator of future smoking rates. In 2011, 52.4% of Canadians aged 20 to 24 had never smoked, about the same as in 2009, though an increase from 45.8% in 2008 (Chart 3).

http://www.statcan.gc.ca/pub/82-625-x/2012001/article/11668-eng.htm
Men use the web for health information, yet only 30% of QuitNow users are men.
Designing Smoking Cessation Resources for MEN

Phase 1: Consultations with Men Website Development

Phase 2:
- Usability Testing

Phase 3:
- Pilot Testing (6 months)
- Website Revisions

Phase 4:
- Launch (January 2015)
Consultations with Men

- **Main Motivations for Quitting**
  - Health and fitness
  - Money
  - Family

- **Preferred Messaging**
  - Personal and relatable
  - Positively framed
  - Strong masculine tone
  - Action oriented
  - Humorous

- **Interactive and Engaging Content**
  - Friendly competition
  - Connect with peers “who know what it’s like”

56 men from 4 locations in BC participated in the groups
Design principles
1st online smoking cessation resource designed for men
HOW MUCH CASH AM I BLOWING ON SMOKING?

I've spent $10.00 per pack
Smoke 5 cigarettes a day
For 7 years

5 cigarettes a day for 7 years costs:

$6,387.50
$912.50 a year
$75.00 a month
$2.50 a day

I'M THINKING MAN CAVE

www.QuitNowMen.ca
TACTICS

- Getting started
- Surviving quit day
- Staying on track
- Quick Tips
- Try our Quizzes
- Quitting Videos

TOOLS

Alright, it’s time to suit up and get ready. Pick the tools that are right for you.

+ Patches, gum and more
+ Will Power
+ Call or Text
+ Expert chat
Interactive Video Drama

Drama-based approach to influence behaviour.

Theoretical underpinnings: Social theory on gender norms, masculinity, cognitive learning, behaviour change

Lohan et al. (2014)
Interactive Video Drama

Meet Nick

Morning routine

Out with the guys

Stressed out

On the road to work

I need a break

On track

www.QuitNowMen.ca
Meet Nick

If I were Nick, how would I feel on the first day of a quit?

A. I feel confident. I know what I need to do and I know how to do it!
B. I'm prepared. I've tried to quit before but I'm ready now.
C. I'm really worried about being able to do this.
D. I'm hesitant. I've made the decision to quit, but...

If I were Nick, what tactic would I choose?

A. Go cold turkey (no help)
B. Use the patches and gum (Nicotine Replacement Therapy)
C. Ask a doctor about prescription medication
D. Talk to a quit coach at 1-877-486-2223 (toll free)
E. Check out the QuitNow.ca website
F. Ask a buddy for support
QuitNow Men: Does it Work?

CAN I GET SOME BACKUP HERE? GET STRATEGY AND INSPIRATION FROM GUYS THAT GET IT.

JUST SAYING

LEARN FROM EXPERIENCE

Tune into the forum

Read shared stories

Phase 3
Pilot Testing
(3 and 6 months)

Phase 4
Launch
(Jan 2015)
Website Satisfaction

- Satisfied: 64%
- Neither satisfied nor dissatisfied: 32%
- Dissatisfied: 4%
Smoking Behaviour

Since using the QuitNowMen website have you tried to reduce or quit smoking?

- Quit for 24 hours or longer, 66
- Did not Quit, 9
- Reduced, 6
- Did not Reduce, 3
My Quit Centre

Tools & Resources

Helping Others Quit

My Community

Don't quit alone.

QuitNow is a free and comprehensive program designed to help you quit smoking and remain smoke-free. Connect with peers, create personalized quit plans, track your status and savings, seek expert help and much more!

Phone

Friendly, confidential, and toll-free support: 1-877-455-2233.

For Healthcare Providers

Visit our new men's website

Need a quit coach?

Tobacco Free Tuesdays

QuitNowMen.ca
QuitNow Men

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Canadian Cancer Society (Grant #701615)
BC Lung Association
LEVERAGE UNTAPPED OPPORTUNITIES TO ENGAGE MEN in QUITTING SMOKING

- LIFE TRANSITIONS
- CANCER SCREENING
- CANCER TREATMENT/ FOLLOW-UP
Dads in Gear

Smoking cessation program for new dads

www.dadsingear.ok.ubc.ca
LEVERAGE UNTAPPED OPPORTUNITIES TO ENGAGE MEN in QUITTING SMOKING

- LIFE TRANSITIONS
- CANCER SCREENING
- CANCER TREATMENT/ FOLLOW-UP
Cancer Prevention:
Men’s physical activity and health eating

http://goo.gl/ZUGQ5T
Men and physical activity

Canadian men are more physically active than women

BUT the majority (83%) are not meeting Canada's Physical Activity Guidelines

Colley et al., 2011

http://pixabay.com/static/uploads/photo/2014/03/18/20/21/man-290186_640.jpg
The numbers on physical activity.....

Chart 1
Average daily minutes of moderate-to-vigorous physical activity by age group

Description

‡ reference category
* significantly different from estimate for women (p<0.05)
‡ significantly different from estimate for reference category (p<0.05)

Source: Canadian Health Measures Survey, 2007 to 2009

http://www.statcan.gc.ca/pub/82-625-x/2011001/article/11552-eng.htm
Real Men Don’t Eat Quiche

A Guidebook to All That Is Truly Masculine

Bruce Feirstein
Illustrated by Lee Lorenz

Man Food
The numbers on healthy eating ...

<table>
<thead>
<tr>
<th>Daily fruit and vegetable intake (portion)<em>,</em>**</th>
<th>Mean</th>
<th>SD</th>
<th>Min–max(^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole population</td>
<td>3.98</td>
<td>2.34</td>
<td>0–21.2</td>
</tr>
<tr>
<td>By gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men (n = 22,162)</td>
<td>3.47</td>
<td>2.20</td>
<td>0–19.5</td>
</tr>
<tr>
<td>Women (n = 27,241)</td>
<td>4.39</td>
<td>2.37</td>
<td>0–20.1</td>
</tr>
<tr>
<td>By Census Metropolitan Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calgary (n = 4038)</td>
<td>3.93</td>
<td>2.40</td>
<td>0–14.9</td>
</tr>
<tr>
<td>Montreal (n = 12,309)</td>
<td>4.14</td>
<td>2.54</td>
<td>0–18.7</td>
</tr>
<tr>
<td>Ottawa (n = 5589)</td>
<td>4.03</td>
<td>2.41</td>
<td>0–16.3</td>
</tr>
<tr>
<td>Toronto (n = 17,290)</td>
<td>3.86</td>
<td>2.25</td>
<td>0–20.1</td>
</tr>
<tr>
<td>Vancouver (n = 10,177)</td>
<td>3.98</td>
<td>2.34</td>
<td>0–16.3</td>
</tr>
</tbody>
</table>

\(^a\) Due to restrictions on the dissemination of CCHS data imposed by the provider Statistics Canada, maximum values are the averaged maximum values of the fifteen individuals with the highest fruit and vegetable intake.

* Gender-differences significant at \(P < 0.001\).

** CMA-differences significant at \(P < 0.001\).
Trends in Canadian men’s weight

Twells et al., 2014
Average daily minutes of moderate-to-vigorous physical activity by BMI category

<table>
<thead>
<tr>
<th>Body mass index (BMI) category</th>
<th>Minutes per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthy weight †</td>
<td>35*</td>
</tr>
<tr>
<td>Overweight</td>
<td>26‡</td>
</tr>
<tr>
<td>Obese</td>
<td>19‡</td>
</tr>
</tbody>
</table>

† reference category
* significantly different from estimate for women (p<0.05)
‡ significantly different from estimate for reference category (p<0.05)


http://www.statcan.gc.ca/pub/82-625-x/2011001/article/11552-eng.htm
Modelling the impact of compliance with dietary recommendations on cancer and cardiovascular disease mortality in Canada

M. Bélanger, M. Poirier, J. Jbilou, P. Scarborough

Table 3 – Estimated number of deaths averted or delayed by cause if Canadian men and women adhered to dietary guidelines (2004). *

<table>
<thead>
<tr>
<th>Cause of death</th>
<th>Number of deaths averted or delayed (95% credible interval)</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular disease</td>
<td></td>
<td>15 029</td>
<td>(12 004, 17 338)</td>
<td>9682</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td></td>
<td>12 631</td>
<td>(9 572, 14 764)</td>
<td>7 285</td>
</tr>
<tr>
<td>Stroke</td>
<td></td>
<td>2001</td>
<td>(1 249, 2 672)</td>
<td>2 219</td>
</tr>
<tr>
<td>Heart failure</td>
<td></td>
<td>145</td>
<td>(117, 176)</td>
<td>70</td>
</tr>
<tr>
<td>Aortic aneurysm</td>
<td></td>
<td>88</td>
<td>(68, 110)</td>
<td>18</td>
</tr>
<tr>
<td>Pulmonary embolism</td>
<td></td>
<td>11</td>
<td>(5, 18)</td>
<td>5</td>
</tr>
<tr>
<td>Rheumatic heart disease</td>
<td></td>
<td>6</td>
<td>(2, 9)</td>
<td>4</td>
</tr>
<tr>
<td>Hypertensive disease</td>
<td></td>
<td>147</td>
<td>(126, 167)</td>
<td>81</td>
</tr>
<tr>
<td>Cancer</td>
<td></td>
<td>3 970</td>
<td>(2 782, 4 964)</td>
<td>1 859</td>
</tr>
<tr>
<td>Mouth, larynx and pharynx</td>
<td></td>
<td>635</td>
<td>(557, 669)</td>
<td>306</td>
</tr>
<tr>
<td>Oesophageal</td>
<td></td>
<td>991</td>
<td>(717, 1 073)</td>
<td>305</td>
</tr>
<tr>
<td>Stomach</td>
<td></td>
<td>411</td>
<td>(96, 639)</td>
<td>147</td>
</tr>
<tr>
<td>Lung</td>
<td></td>
<td>1 933</td>
<td>(774, 2 923)</td>
<td>1 101</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18 999</td>
<td>(15 824, 21 490)</td>
<td>11 541</td>
</tr>
</tbody>
</table>

* Estimates are based on 2004 Canadian Mortality data and on dietary data from the Canadian Community Health Survey, Cycle 2.2 (2004).
Gender-related influences ..... 

Lack of information available for men

Men receive less advice from doctors (than women) about changing lifestyle behaviours (Courteny, 2000)

Canadian men less aware of physical activity resources and when given these are less likely to read them (Plotnikoff et al. 2011)

Partners in innovation
Workplace wellness program successfully engaged women; FEW men participated
Male-dominated workplaces typically focus on safety and worker compensation issues
opportunities for workplace wellness

Percentage of men in 4 workplaces in Northern BC interested in learning about wellness topics

- Healthy eating: 91%
- Managing stress: 87%
- Being physically active: 86%
- Quitting or reducing smoking tobacco products: 65%
- Minimizing exposure to the sun and UV radiation: 57%
- Reducing alcohol consumption: 34%
Phase 1  Gathering evidence and men’s preferences

- Situation assessment
- Review of the literature
- Consultation groups with men

Phase 2  Program design and implementation

- Design new evidence-based approach to fit context
- Engage workplaces /employers
- Launch workplace program: POWERPLAY

Phase 3  Monitoring and evaluation (pilot test)

- Data collection and analysis
- Using findings to refine approach
- Preparing program for further use
Consultation Groups

1. Explore barriers / facilitators to men’s physical activity and healthy eating
2. Explore potential models of program delivery
3. Obtain feedback idea posters

Social connections (family, friends, colleagues) play a major roll in determining men’s health behaviours

Workplace environment can both promote and deter health behaviours depending on the culture
Messages from men for men

**GIVE ME ONE GOOD REASON...**
**TO EAT WELL AND BE ACTIVE**

- Work harder
- Sleep better
- Live longer
- Be stronger
- Stay healthy
- Prevent disease
- Keep up with the kids

To find out more about how to be healthy at work, home, and play, visit www.healthcanada.gc.ca
Making and testing an idea

• **Target** - men working and living in Northern British Columbia

• **Gender-sensitive program**
  • Masculine look and feel
  • Man-friendly language and imagery

• **Suite of resources**
  • 2 healthy living challenges
  • 12 toolbox tips
  • 10 informational handouts
  • Facebook

• **Implementation support**
  • Employer consultation
  • Workplace capacity assessment
  • Workplace team leader support
  • Environmental and policy recommendations

• October 2014 to March 2015
Weekly Toolbox Tips

- Employee/team leader goals
- Implementation tips for team leaders
- Suggested resources
- Call to action
In 4 workplaces, with employers and employees
POWERPLAY outcomes

Engaged in regular physical activity by dose

- Baseline: 61.9%
- Low Dose: 63.0%
- High Dose: 79.6%
Self-rated eating habits from poor to excellent

POWERPLAY outcomes

Baseline: 3.02
Low/No Dose: 3.00
High Dose: 3.37
POWERPLAY outcomes

Servings of fruits and vegetables consumed in a day

- Baseline: 3.32
- Low/No Dose: 3.76
- High Dose: 3.80
I would recommend the program to other men

POWERPLAY outcomes

POWERPLAY outcomes
The POWERPLAY Team

- **Sonia Lamont**, PI (BCCA)
- **Theresa Healy** (Northern Health)
- **Margaret Jones-Bricker** (CCS)
- **Steven Johnson** (Athabasca University)
- **Sherri Tillotson** (Northern Health)
- **John Oliffe** (UBC)
- **Joan Bottorff** (UBC, Okanagan)
- **Kerensa Medhurst** (CCS)
- **Megan Klitch** (CCS)
- **Sally Errey** (BCCA)
- **Holly Christian** (Northern Health)
- **Doreen Bond** (Northern Health)
- **Cherisse Seaton** (UBC, Okanagan)
- **Paul Sharp** (UBC, Okanagan)
- **Sean Stolp** (UBC, Okanagan)

**Worksite collaborators:**
- Excel Transportation Inc.
- Lomak Bulk Carriers Corp.
- Ridley Terminals Inc. Coal Terminal
- City of Terrace

- **Funding:** Canadian Cancer Society Research Institute (grant #701259-00)
- **For more information:** [http://harmonization.ok.ubc.ca/](http://harmonization.ok.ubc.ca/)
Men + cancer prevention

- Engage men where they work and live
- Listen to men for direction (recognize diversity)
- Men-centred design (reflect masculinities and men’s interests)

Bottorff et al. (in review).

https://goo.gl/uJE6sO
ONE SIZE DOESN’T FIT ALL......
THE PAY OFF

More complete understanding of health behaviour.
Enhance effectiveness of cancer prevention efforts for men and women.
Reduce health inequalities; better health for all.
The mission of ISNCC is to maximize the role of nurses to reduce the global burden of cancer.
Think about gender in cancer prevention.....
THANK YOU

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Investigative Team Members

Collaborative partners
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Northern Health, BC Cancer Agency

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Project websites:
www.itag.ubc.ca
www.harmonization.ok.ubc.ca
www.facet.ubc.ca
www.dadsingear.ok.ubc.ca
www.smokefreemen.ok.ubc.ca