A Developmental Evaluation of the Break-it Off Social Media Campaign

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**VISION**
Transforming the health of populations in Canada and around the world.

**MISSION**
The Propel Centre for Population Health Impact is a collaborative enterprise that conducts solution-oriented research, evaluation and knowledge exchange to accelerate improvements in the health of populations.
Presentation Overview

- Background & Rationale
  - Smoking prevalence
  - Growing social media usage
  - Developmental Evaluation
- Evaluation Questions
- Methods
- Results
- Next Steps
The purpose of this funding initiative is to develop innovative tobacco cessation programs and programs that prevent people from taking up smoking by supporting studies of tobacco interventions and processes that utilize social media.
**Social media** (SM) is defined as conversations and interaction between people online through highly accessible and scalable web-based technologies.

**Journal Articles with “Social Networks” in Title from 1990 to 2010**

Source: Web of Science
Young adults (19-29) have the highest rate of smoking in Canada – 24.4% use Tobacco (CCHS, 2010)

75% of young adults in Canada are socially networked – Facebook, twitter, etc.

Social media tools are immensely popular, yet not well studied in terms of population health impact

Evidence to-date suggest wide reach, low barriers to use, and portability mean great potential for population level impact

Developmental evaluation well-suited given the emergent and dynamic state of social media
Step 1: Listen
Interact with CCS to identify their needs and wants and build a shared understanding of the context, objectives, challenges and opportunities associated with SM.

Step 2: Plan
Involve the user community via focus groups to incrementally define and develop the SM intervention plan.

Step 3: Do
Flowing from CCS needs and user input, implement the plan and finalize the evaluation research framework (data collection methods) to support it.

Step 4: Study
Collect data to assess implementation progress and outcomes and regularly report to CCS on results to inform decision-making.

Step 5: Act
In collaboration with CCS, synthesis and translation of knowledge into publication, programming and/or future evaluation research.

Social Media presents challenges. It is a rapidly evolving platform and requires evaluation methods that are responsive to emergent complexity. Developmental Evaluation (DE) is well suited for studying this complex, dynamic phenomenon in practice.
In partnership, the effectiveness of the SM strategy in accelerating the impact of Smokers’ Helpline/Online was assessed using a *mixed-methods* approach to data collection. The proposed evaluation questions were:

- **Question #1** – How was the SM campaign developed and implemented?
- **Question #2** – How will the SM campaign change population reach?
- **Question #3** – How will the SM campaign change quitting success?
- **Question #4** – Does the social network influence the outcome quitting?
Proposed Methods - Question #1: Social Media Campaign Performance

Measures:

- Ongoing monitoring of performance using Reach, Exposure, Engagement and Insights metrics.*
- Young adult input on challenges to quitting, potential solutions, use of social media, and campaign feedback.

Data collection:

- Minutes of meetings, SHL/SHO administrative data, and web analytic data collected.
- 12 young adult smoker focus group sessions (Ontario, Manitoba and New Brunswick) - 6 before the launch of the SM campaign and 6 after (2 completed to-date).

Analysis:

- Grounded Theory - Constant comparison method for qualitative focus group data.
- Descriptive quantitative analysis.

Proposed Methods - Question #2: Population Reach

**Target population:** English and French speaking smoking adults 19-29 years of age (Ontario, New Brunswick, Nova Scotia, Prince Edward Island, Manitoba, Saskatchewan).

**Measures:**
- Quitline Reach - proportion of eligible smokers in the target population who register for SHL/SHO - reach into the young adult smoking population is currently estimated to be just 0.05%.

**Data Collection and Analysis:**
- SHL/SHO administrative data on registrants and annual Canadian Tobacco Use Monitoring survey.
- Reach prior to the SM campaign launch (Jan - Mar 2011) and after (Jan - Mar 2012).

\[ \text{Reach} \times \text{Effectiveness} = \text{Impact} \]

<table>
<thead>
<tr>
<th>In a population of 4.8 million smokers</th>
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<tbody>
<tr>
<td>% reached</td>
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<tr>
<td>Highest 2009</td>
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<td>Double</td>
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<td>CDC</td>
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</table>
Proposed Methods - Question #3: Quitting Success

Design:
➢ Quasi-experimental pre-post samples design.

Measures:
➢ Quit Success - seven-day and 30-day quit rates, quit attempts, reduction in smoking.

Data collection:
➢ Voluntary online registration and follow-up email survey questionnaire of SHL, SM only users and non-users in the target population called three months after initial contact.

Analysis:
➢ Logistic regression where quit success is the dependent variable and the independent variables are group membership, demographics, service utilization, etc.
Question #3: Quasi-Experimental Design

Legend:
SHL = Smokers’ Helpline (telephone quitline)
SM = Social Media Campaign for Young Adults

X = Intervention
O = Observation
N = No randomization

In the diagram:
- SHL = X
- SM = X
- O₁
- O₃
- O₄
- N N N N

Legend:
SHL = Smokers’ Helpline (telephone quitline)
SM = Social Media Campaign for Young Adults
Proposed Methods - Question #4: Social Networking

Measures:
- Web-analytic data on SM site activity such as number of users, user type, posts, tweets, etc.
- Online survey to measure smoking status, demographics, behaviours, relationships, strength of relationships, etc.

Data Collection:
- Three months after the SM launch, participants were recruited from the Social Campaign site.
- Web-analytics are being utilized for SNA.
- Online survey is being administered.

Analysis:
- Nodexl is being used to determine centrality and density of the networks and to create network graphs.
ROUND I focus group results:

**Barriers to quitting/triggers**
- Friends who smoke
- Socializing and drinking
- Routines that include smoking
- Stress

**Solutions**
- Change routines
- Replace with healthy habits
- Support of friends

**Reactions to Break it Off**
- Visually appealing
- Liked the “break-up” metaphor
- Interactive elements important
- App was well-received

“I think that one major factor in quitting smoking is to just know that you’re not alone ... a lot of friends of mine quit smoking all at the same time.”

“I really like the tracking system where you could see if you did slip up, why you slipped up and then be able to go back and look at your record of how you were progressing or not progressing.”

“... it’s kind of a clever idea, the whole breaking off a relationship thing, and I think a lot of people will relate to that.”
ROUND II focus group results:

- Two focus groups conducted to date (June 2012)
- Site and app were easy to use, visually appealing, and suitable for audience
- App was used more than the website
- Using app to track progress and triggers was helpful
- Mixed perceptions on SHL
- Sharing quit status on Facebook can create a supportive environment

“I posted and I got a lot of good feedback on it so that helped me support-wise to know that a lot of people actually did care whether I quit smoking.”

“The app helped me realize what my triggers were...so then I could stop them before they even happened and just kind of focus on something else or keep myself busy just to get past that initial craving and then I was fine.”

“The app helped me stay focused, to see the number of days smoke-free rise every day was key for me.”
What are people talking about? (Twitter, Facebook and SHO Forum)
Results - SM Performance: Insights

PRELIMINARY FINDINGS

User satisfaction (follow-up survey n = 31)

- Most or almost all needs were met – 61.3% (19/31)
- Very or mostly satisfied with the service - 72.4% (21/29)
- Would use the service again (Yes, definitely or Yes, I think so) – 80.0% (24/30)
- Would recommend the service to a friend (Yes, definitely or Yes, I think so) – 79.3% (23/29)
Results - SM Performance: Reach

Number of people reached through the micro-site and level of activity

- 37,325 unique visitors
- 44,172 visits
- 107,600 page views
- 2.44 pages per visit on average
- 3,937 installations of the Break It Off smartphone app
Did web traffic increase over time?

The campaign was launched on Jan. 12, 2012 and remained fairly constant until funding for promotion ran out at the end of March. Spikes in traffic can be attributed to promotional activities such as the home page takeover of the Weather Network.

- Visits per day
Results - SM Performance: Reach

Where are users geographically located?

The following cities provided the most visits:

- Toronto* - 8,363
- Saskatoon* - 3,764
- Regina* - 3,096
- Ottawa* - 2,288
- Winnipeg - 1,400
- Hamilton* - 1,229

*Provinces with expanded promotional BIO campaigns
Results - SM Performance: Reach

Where are people being referred from?

- The campaign used online banner ads on sites such as Microsoft, Yahoo and Facebook and did homepage takeovers on The Weather Network. Ads were also used on campaign themed (dating) sites such as Plenty of Fish and OK Cupid.
- Mobile banner ads were also used with The Weather Network Mobile, Cineplex Mobile, The Score Mobile, etc.
- The most unpaid referrals came through Facebook (2,042).
Are people being exposed to the resources?

- The Ugly Truth: 3,959
- Get It Over With: 3,969
- Smartphone App: 4,065
- Break-up videos: 5,785
- Break-up methods: 9,810

Page views (Jan 12 to Mar 31, 2012)

- 2,208 new Facebook page likes ([www.facebook/smokershelpline](http://www.facebook/smokershelpline)) since January 2012
Results - SM Performance: Engagement

How engaged are people with the content?

- Average time on site - 1 min. 43 seconds
- 15.6% of visits were from returning visitors
- 319 out of 37,325 people used the site’s relationship change feature to “Break up with smoking” on Facebook
- 20 videos were uploaded to the World’s Biggest Break-up section of the site.
  - Videos received 1,545 views.
- 62 comments were made on the site’s Quit Methods pages
## Results - SM Performance: Engagement

<table>
<thead>
<tr>
<th>Smartphone App</th>
<th>SHL Facebook Page</th>
<th>Twitter</th>
<th>SHO</th>
<th>SHL</th>
</tr>
</thead>
<tbody>
<tr>
<td>3937 installations</td>
<td>• 12 posts related to BIO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virtual trophies shared on FB 71 times</td>
<td>• 125 likes</td>
<td>• 529 tweets by 183 tweeters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 69 comments</td>
<td>• 124 by SHL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 15 shares</td>
<td>• 331 with links</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 276 referred from BIO</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• 28 became registered SHO users</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>• 18 forum posts by 15 individuals</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• 21 people gave quit coach their digits and 10 were reached</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• 3 SHL users heard through BIO (1 young adult)</td>
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</tr>
</tbody>
</table>
## Themes on Twitter: Promotion of Smoke-free lifestyle

<table>
<thead>
<tr>
<th>Retweeted by</th>
<th># Followers</th>
<th>Tweet</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://twitter.com/cattoyoriginal">http://twitter.com/cattoyoriginal</a></td>
<td>636</td>
<td>RT @SmokersHelpline &quot;We can still be friends. Wait - no we can't.&quot; Things you say to #BreakItOff with #smoking. <a href="http://www.breakitoff.ca">www.breakitoff.ca</a></td>
</tr>
<tr>
<td><a href="http://twitter.com/tazzywazzyfrazz">http://twitter.com/tazzywazzyfrazz</a></td>
<td>924</td>
<td>RT @BJMuntain RT @jointhefight_sk: #BreakItOff website guides smokers through the stages of ending an unhealthy tobacco relationship. <a href="http://t.co/iuFfgw0K">http://t.co/iuFfgw0K</a></td>
</tr>
<tr>
<td><a href="http://twitter.com/goolsofjewels">http://twitter.com/goolsofjewels</a></td>
<td>239</td>
<td>RT @cancersociety: Dear cigarette today I quit you for good. But you don’t have to do it alone let us help #BreakItOff <a href="http://t.co/vMc8Zgl9">http://t.co/vMc8Zgl9</a></td>
</tr>
<tr>
<td><a href="http://twitter.com/smokershelpline">http://twitter.com/smokershelpline</a></td>
<td>1513</td>
<td>RT @OPHsmokefree: You chose to #breakitoff. Don’t let smoking come crawling back. Be ready to stand your ground <a href="http://t.co/yLm7uaG2">http://t.co/yLm7uaG2</a></td>
</tr>
<tr>
<td><a href="http://twitter.com/winnipegnews">http://twitter.com/winnipegnews</a></td>
<td>14072</td>
<td>Smokers encouraged to break it off - Winnipeg Free Press <a href="http://t.co/aAijtriO">http://t.co/aAijtriO</a></td>
</tr>
</tbody>
</table>
Themes on Twitter: Connecting quitters

- @phjoshua A good friend of mine is trying to quit. I mentioned the #BreakItOff app to her - how does it help? Mostly just counting cigs & $?  
- @VAinTO it does a good job of tracking achievements & giving reassurance at all times - also coaches you can call for help! #BreakItOff  
- @phjoshua Awesome! I'm definitely going to encourage her to download it. Good luck - sounds like you are making great progress! #BreakItOff

<table>
<thead>
<tr>
<th><a href="http://twitter.com/flashpunk">http://twitter.com/flashpunk</a></th>
<th>@phjoshua that's cray cray! Do you know @a_mandolin? I saw her tweet the #BreakItOff hash tag today</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://twitter.com/a_mandolin">http://twitter.com/a_mandolin</a></td>
<td>@phjoshua day 1. 5 or so dumped. Also ran 1/2 a mile. Strong is the new skinny cigarettes are last year's accessory. #breakitoff</td>
</tr>
<tr>
<td><a href="http://twitter.com/phjoshua">http://twitter.com/phjoshua</a></td>
<td>RT @a_mandolin Had 2 social drinks at a pub and walked home. I beat my cravings. I am proud. #breakitoff</td>
</tr>
<tr>
<td>URL</td>
<td>Tweet</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><a href="http://twitter.com/parent">http://twitter.com/parent</a></td>
<td>Starting day three smoke free. Doing remarkably well. #BreakItOff</td>
</tr>
<tr>
<td><a href="http://twitter.com/child">http://twitter.com/child</a></td>
<td>Good for you! That's impressive! RT @parent: Starting day three smoke free. Doing remarkably well. #BreakItOff</td>
</tr>
<tr>
<td><a href="http://twitter.com/teacher">http://twitter.com/teacher</a></td>
<td>Good luck! We are all behind you! RT @parent: Starting day three smoke free. Doing remarkably well. #BreakItOff</td>
</tr>
<tr>
<td><a href="http://twitter.com/student">http://twitter.com/student</a></td>
<td>I don't often do this but #ff to @student and @parent - love &amp; support to two good peeps trying hard to #BreakitOff.</td>
</tr>
<tr>
<td><a href="http://twitter.com/teacher2">http://twitter.com/teacher2</a></td>
<td>@parent: I'm so happy for you - you're gonna love it! #BreakItOff</td>
</tr>
<tr>
<td><a href="http://twitter.com/student2">http://twitter.com/student2</a></td>
<td>@parent: I'm on day 28. It's not easy but you can do it!! #positivereinforcement #BreakItOff</td>
</tr>
</tbody>
</table>
Results - Smokers’ Helpline Reach

SHL Reach to Young Adults Age 19-29

<table>
<thead>
<tr>
<th>TIME PERIOD</th>
<th>REACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before BIO (Jan to Mar 2011)</td>
<td>0.05%</td>
</tr>
<tr>
<td>During BIO (Jan to Mar 2012)</td>
<td>0.09%</td>
</tr>
</tbody>
</table>

SHL - Number of callers who “heard about SHL from Break it Off” (Jan – Mar 2012)

- 21 people used the “give your digits to a quit coach” option on the BIO website and 10 of them connected with a quit coach
- 3 persons called into SHL and reported that they heard about SHL through BIO
## Results - Quitting Success

### PRELIMINARY FINDINGS

<table>
<thead>
<tr>
<th>Group</th>
<th>7-Day Quit Rate</th>
<th>30-day Quit Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smokers’ Helpline</td>
<td>26.5% (36/136)</td>
<td>23.5% (32/136)</td>
</tr>
<tr>
<td>Non-users</td>
<td>25.7% (36/140)</td>
<td>15.0% (21/140)</td>
</tr>
<tr>
<td>Break it Off Users</td>
<td>34.8% (8/23)*</td>
<td>21.7% (5/23)*</td>
</tr>
</tbody>
</table>

*Use caution in interpretation due to small sample size*
### PRELIMINARY FINDINGS

<table>
<thead>
<tr>
<th>Group</th>
<th>Average Confidence&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Cut down</th>
<th>Set Quit Date</th>
<th>Quit Attempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smokers’ Helpline</td>
<td>6.0 (n=92)</td>
<td>79.8% (91/114)</td>
<td>62.9% (73/116)</td>
<td>78.6% (92/117)</td>
</tr>
<tr>
<td>Non-users</td>
<td>6.6 (n=109)</td>
<td>59.5% (69/116)</td>
<td>19.3% (23/119)</td>
<td>41.9% (49/117)</td>
</tr>
<tr>
<td>BIO users</td>
<td>6.8 (n=17)</td>
<td>94.1% (16/17)</td>
<td>73.3% (11/15)</td>
<td>85.7% (12/14)</td>
</tr>
</tbody>
</table>

<sup>1</sup>Confidence in quitting on a scale of 1 to 10 where 10 is very confident
PRELIMINARY FINDINGS  (from follow-up survey)

How would you describe the number of online relationships that you made through the Break It Off campaign?  n=31

Strength of BIO relationships n=31
- Very strong – 6 (35.3%)
- Mostly strong – 2 (11.8%)
- Somewhat strong – 4 (23.5%)
- Not strong at all – 5 (29.4%)

Importance of BIO relationships n=31
- Very important – 5 (29.4%)
- Moderately important – 5 (29.4%)
- Somewhat important – 7 (41.2%)
**PRELIMINARY FINDINGS**

**BIO Relationship dynamics**

Number (percent) agreeing that any of your quit buddies:

- Discuss quitting smoking with you – 13 (76.5%)
- Discourage you from smoking in certain situations/places – 9 (52.9%)
- Ask you how things were going regarding your smoking – 15 (88.2%)
- Ask you what they could do to help you quit – 10 (58.8%)
- Suggest ways of coping with your stress and cravings – 12 (70.6%)
- Praise or encourage you for your efforts to quit – 13 (76.5%)
- Express concern about your health – 10 (58.8%)
- Show patience with your emotional ups and downs – 11 (64.7%)
Results - Social Networking

**YouTube – BreakItOff.ca**

- Pictures or nodes in the network represent posted videos.
- Lines or edges represent shared tags – e.g. BreakItOff.
- Each video was viewed an average of 40 times (range 14-99)
  - 60 Hours Smoke Free - #BreakItOff
  - Day 4 - Good Morning, Bad Craving #BreakItOff
  - Joshua Murray in... The Last Cigarette #BreakItOff
  - 9 Days Smoke Free With #BreakItOff - Super Bowl Sunday!
  - Day 15 Smoke Free - Go Habs Go #BreakItOff
  - 11 Days And I’m On A Roll! #BreakItOff
  - 28 Days Later... Smoke Free With #BreakItOff
  - Day 22 - Science Says The Addiction Is Done! #BreakItOff
  - 10 Days And 3 Secrets! #BreakItOff
  - Day 14... 2 Weeks Smoke Free With #BreakItOff
  - Smoke Free Night 4 - That Sucked! #BreakItOff
Reflections on Developmental Evaluation

Challenges

Time constraints
- Delay in funding
- Request for last minute change to campaign concept

Data Collection
- Identifying and building metrics into program design
- Recruitment of participants for follow-up
Reflections on Developmental Evaluation

Critical success factors

- Having the right people involved
- Partnership, open dialogue, relationships
- Expertise in social media
- Goal congruence
- Adaptable and agile
- Innovative nature was appealing
- Enthusiasm for the project
Lessons Learned & Next Steps

Developmental evaluation:
- A challenging learning experience
- Data - not as easy to gather using traditional techniques
- Flexibility and adaptation are key
- It’s about relationships

Next steps:
Following the Developmental Evaluation approach:
- Complete Round 2 focus groups
- Finish recruitment and carry-out the remaining BIO follow-up surveys
- Conduct social network analysis
- Publish and use the findings
- Continue the developmental collaboration
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Over to you!
The Propel Centre for Population Health Impact™ is a partnership between the Canadian Cancer Society and the University of Waterloo (UW).