



PROJECT NEWS

June 2015

Responding to a Growing Need for E-Cigarette Research in Ontario



Welcome to the third in our series of four newsletters from OTRU's Research on E-Cigarettes (RECIG) Project! We are happy to be sharing information about our activities and progress. Our first newsletter discussed the growing popularity of e-cigarette use in Ontario and the need for research. Our second newsletter gave an overview of the RECIG study components and presented some initial findings. This newsletter

provides an update on our social media analysis, knowledge synthesis, adult longitudinal study and youth and young adult survey.

Additional background information on the RECIG project can be found online in the OTRU Update publication: [Research on the Use and Impact of Electronic Cigarettes](#), the first Project News publication: [Introduction to RECIG](#):

[Research on E-Cigarettes](#) and the second Project News publication: [RECIG Project Update: Responding to a Growing Need for E-Cigarette Research in Ontario](#).

Youth and Young Adult Survey

Will e-cigarette use lead to an increase in youth uptake of smoking? This question concerns many in public health. To help shed light on this concern, the RECIG team has recently completed a survey of 345 youth and young Ontario adults aged 15-29 who had smoked at least one puff from an e-cigarette.

Participants were:

- 59% young adults aged 21-29; 41% youth aged 15-20
- 57% female
- 58% had high school or less education
- 32% daily smokers, 14% occasional smokers, 23% former smokers and 30% never smokers

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Among those who identified as smokers (including those smoking daily, occasionally, and less than monthly but who did not quit):

- 42% rated themselves as very addicted to tobacco cigarettes, 44% as somewhat addicted, and only 14% as not at all addicted
- 85% tried to quit smoking tobacco cigarettes at least once in the last 12 months, only 15% did not make any attempt to quit
- Only 13% were not confident that e-cigarettes would help them to quit tobacco cigarettes
- 43% used e-cigarettes in the past 30 days
- 75% of tobacco smokers used e-cigarettes first to reduce or quit tobacco cigarettes
- 82% found that e-cigarettes were successful at cutting down tobacco use
- 65% decreased their tobacco use during their peak use of e-cigarettes; 7% reported increased cravings

Reasons for e-cigarette use include:

- Curiosity (66%)
- Desire to reduce or quit smoking (50%)
- Perception that e-cigarettes were a healthier alternative (38%)

Electronic Cigarettes and Smoking Cessation on Twitter

People are increasingly turning to the Internet for information about e-cigarettes.^{1,2} E-cigarette advertising has exploded on social media networks like Twitter, Facebook and Instagram.³ In assessing the impact of e-cigarette use, it is important for public health researchers and policy makers to identify the sources and characteristics of online communications about e-cigarettes and smoking cessation as many people say they use e-cigarettes to aid cessation. As part of our RECIG study, we investigated the topic of e-cigarettes on Twitter to:

- Provide a high-level overview of the volume and composition of Twitter activity around the topic of e-cigarettes and smoking cessation
- Examine Twitter user characteristics and associated message themes and attitudes
- Explore roles and relationships between different user types, including strategies (and their effectiveness) used to reach and engage with other users
- Provide an 'industry-free' picture of this Twitter landscape

Our team analyzed a sample of 300 high-authority tweets. High authority tweets come from users with the broadest reach within the social network. This method⁴ was intended to capture tweets from the most popular 5% of Twitter users, who are estimated to generate up to 75% of activity.⁵ Results of the complete sample show that:

- 79% of tweets were *pro* e-cigarettes as smoking cessation aids
- Affective message content was divided equally between positive (46%) and neutral (47%)
- 45% of tweets were generated by *industry/related* users (e-cigarette vendors/manufacturers and their employees)
- 32% were produced by Twitter accounts belonging to *press/media* (news organizations and blogs) and *public figures* (celebrities and



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prominent personalities from business, politics, and Internet)

- 10% originated from *fake accounts* (bots and industry fronts passing off as regular users)
- 11% were *personal users* (private individuals) although many of these showed evidence of marketing activity and were therefore labelled *personal users with industry ties*
- 2% of tweets originated from *healthcare* (organizations and professionals) and *public health* (governmental and non-governmental organizations)

We found that nearly all high-authority Twitter users, including press/media, public figures, and private individuals, express predominantly positive attitudes about e-cigarettes and smoking cessation. The exceptions were governmental and non-governmental organizations with a mandate in public health, and those in healthcare, who lacked consensus about the effectiveness of e-cigarettes as cessation aids. Public health/healthcare Twitter users contributed only marginally to the conversation on e-cigarettes and smoking cessation, and were among the least likely to make effective use of hashtags. These findings underline the need for reliable evidence and more effective public health communication strategies to counter the high volume of unverified claims by both industry and non-industry users on Twitter.

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A Brief Update on Other Study Components

Knowledge Synthesis

In our last newsletter, we presented preliminary results of our analysis of peer-reviewed and grey literature investigating the effectiveness of e-cigarettes as a smoking cessation aid. The first phase of our knowledge synthesis on the effectiveness of e-cigarettes as a smoking cessation aid is now complete.

Our team has submitted a manuscript on our findings and we are continuing to gather new literature for the second phase of the literature synthesis (expected in early 2016). In addition, we are continuing to synthesize evidence about the prevalence of e-cigarette use, health effects of e-cigarette use, and the relationship between the use of e-cigarettes and uptake of cigarette smoking. Our next newsletter will contain an update on the health effects of e-cigarette use.

Monitoring Trends of E-Cigarette Use: Longitudinal Panel Follow-Up Survey

In our second newsletter, we presented some preliminary results from the baseline Adult Longitudinal Panel survey. The project team is now preparing to launch the six-month follow-up survey. Together with the results from the baseline survey, the follow-up survey results may provide guidance to policy-makers on the effectiveness of e-cigarettes as a smoking cessation tool and their ability to act as a gateway to tobacco and other substance use.



Invitation to Propose Additional Research Questions

This grant provides the opportunity for Applied Health Research Questions (AHRQ). An AHRQ is a question posed by a health system policy maker or provider (Knowledge User) in the interest of obtaining research evidence to inform planning, policy, and/or program development that will benefit the broader Ontario health system. Knowledge Users are invited to submit a Knowledge Request to Research Providers with the goal of identifying research gaps and opportunities for knowledge generation.



As a Research Provider, OTRU invites you to submit your knowledge needs for the development of policies, programs, and public education about e-cigarettes. Based on the nature of your request, there are three types of responses we, as Research Providers, can provide: a *rapid response*, a *research report* or *technical brief*, or a *research project*. We are excited about this opportunity to contribute to your work on this critical issue!

For more information about initiating an AHRQ request, contact:

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The Ontario Tobacco Research Unit (OTRU) is recognized as a Canadian leader in tobacco control research, monitoring and evaluation, teaching and training and as a respected source of science based information on tobacco control.

The views expressed in this newsletter are the views of the Ontario Tobacco Research Unit and do not necessarily reflect those of the Province of Ontario.

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