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# Research and Knowledge in Ontario Tobacco Control Networks

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## **Abstract**

**Objectives:** This study sought to better understand the role of research knowledge in Ontario tobacco control networks by asking: 1) How is research managed? 2) How is research evaluated? and 3) How is research utilized?

**Methods:** This is a secondary analysis of a qualitative study based on individual semi-structured interviews with 29 participants between January and May 2006. These participants were purposefully sampled from across four Ministries in the provincial government (n=7), non-government (n=15), and public health organizations (n=7). Interviews were transcribed verbatim and coded and analyzed using QSR N7 qualitative software. This study received ethics approval from The University of Western Ontario Health Research Ethics Board.

**Results:** There exists a dissonance between the preference for peer-reviewed, unbiased, non-partisan knowledge to support claims and the need for fast, “real-time” information on which to base tobacco-related policy decisions. Secondly, there is a great deal of tacit knowledge held by experts within the Ontario tobacco control community. The networks among government, non-government, and public health organizations are the structures through which tacit knowledge is exchanged. These networks are dynamic, fluid and shifting.

**Conclusion:** There exists a gap in the production and utilization of research knowledge for tobacco control policy. Tacit knowledge held by experts in Ontario tobacco control

networks is an integral means of managing and evaluating research knowledge. Finally, this study builds on Weiss' concept of tactical model of evidence use by highlighting the utilization of research to enhance one's credibility.

**Keywords:** public health, diffusion of innovation, information dissemination, information networks, tobacco

**Introduction:**

The health field has seen an explosion of network structures for varying purposes, including coordination of services <sup>(1)</sup>, caregiver involvement <sup>(2)</sup> and information sharing <sup>(3)(4)</sup>. In contrast to deliberately created networks, naturally occurring networks, such as the tobacco control community <sup>(5)</sup>, can also be identified. An assumption related to networks is that information is transmitted and received more effectively in a network than among unconnected organizations<sup>(6)</sup>.

The progress of Canada's tobacco control efforts is due in large part to the strong network of non-governmental organizations and governmental departments <sup>(7)</sup>. Further, the issue of tobacco control is associated with a substantial amount of research and shared causal ideas with which to inform advocacy efforts <sup>(8)</sup>. What is less clear, however, is how the tobacco control network utilizes the available research to advance the goal of reduced tobacco-attributed morbidity and mortality. This study sought to better understand the role of research knowledge in the Ontario tobacco control community by asking: 1) How is research managed; 2) How is research evaluated; and 3) How is research utilized?

**Methods:**

*Participants:* This is a secondary analysis of a qualitative study based on individual semi-structured interviews conducted between January and May 2006. A list of 13 key organizations and 29 individuals from government and non-governmental organizations in tobacco control in Ontario was developed through consultations with two experts in

the field. Potential respondents were sent a recruitment letter by email. Follow up telephone calls were made to each respondent within three days to schedule interviews. Non-response was recorded after two follow up phone calls.

These participants were purposefully sampled from four Ministries in the provincial government who have been recently involved with tobacco control issues (n=7; Directors at the higher end of the organizational hierarchy, and Policy Analysts at the lower end); non-government tobacco organizations with a provincial mandate (n=15); and individuals working in public health (n=7). Snowball sampling was also used, such that respondents were asked to suggest key individuals to be included in the study. Participants had to be in their positions at least six months to be eligible. Individuals who refused to participate might have had different experiences than those reflected by participants. A weakness of this method was that it relied on self-reported accounts of network interactions, which are subject to recall and social desirability bias.

### **Research Method:**

*Data Collection:* Telephone interviews were 45 minutes in length and digitally recorded.

This manuscript is based on a larger study about networks, of which knowledge management and utilization was a component. Here we report on the responses that related to questions about the organizations' use of research, and how research was evaluated and managed by networks. For example, questions included: "Tell me about the information networks that you and your organization are involved in." and "How do you access information from others?".

*Analysis:* Interviews were transcribed verbatim and analyzed using QSR N7. Two researchers coded transcripts independently. A third researcher then did a secondary analysis on the data, taking an in-depth look at transcript sections related to knowledge utilization. In this way, this manuscript is based on a secondary analysis as it focuses on the knowledge translation topic within the larger interviews. In order to address the research questions, the analysis consisted of a content analysis <sup>(9)</sup> pertaining to knowledge management and use. All transcripts were returned to participants, a form of member-checking, to ensure that their opinions were captured accurately <sup>(10)</sup>. The University of Western Ontario Health Research Ethics Review Board approved this study.

## **Findings:**

### *Research/Knowledge Management*

Interview data suggested that the tobacco control community within Ontario is a close-knit group in which several people have participated for many years. The longevity of actors enabled participants to build up a strong network of contacts. Knowledge was described as relatively fluid among actors.

... [T]he tobacco control community within Ontario is very tight-knit, very close. I think most of the players know each other... I think that from the people who are involved in tobacco control you learn quickly who to go to for what information.”

Participants who were relatively new in their role emphasized the wealth of “corporate memory” embodied in certain individuals; these individuals were viewed as key sources of knowledge for newcomers:

Myself, being reasonably new, I don't have the necessary corporate knowledge.

So what I tend to do is that I go through those who do, so either contact the OTN, which is the Ontario Tobacco-Free Network ... Those organizations and those individuals within them that have a fair amount of corporate knowledge or memory are a good source.

All of the participants described a broad variety of knowledge sources (see Table 1). The Ontario Tobacco Research Unit was universally recognized as a key player in disseminating research, and had become an obligatory passage point for knowledge.

Sources of knowledge changed over time depending on the degree of public acceptance of the tobacco control issue. For example, a participant from an NGO described the necessity of having support from peer-reviewed articles in journals when the harmfulness of tobacco was not yet widely accepted. S/he explained that this was now less important:

Well, journal research, peer-reviewed research ... That was more important a few years ago than it is now because it's widely accepted and the literature's strong enough ... but in the early years it was extremely important to have the entities like Lancet or JAMA or whoever, you know, any of the articles that produced



new findings that were peer-reviewed and accepted was extremely important to show how solid the scientific consensus was becoming.

It is also important to draw attention to the sources of information that were not mentioned by participants. For example, government participants were the only people to describe pro-tobacco groups as sources of knowledge (e.g., the Ontario Future Tobacco Growers Marketing Board, domestic manufacturers and export buyers). Participants from NGOs and Public Health did not mention any such pro-tobacco organizations.

A major challenge that government and NGO participants highlighted was the discord between the timeframe in which policy decisions and advocacy took place and the timeframe in which scientific research was produced.

I mean, advocacy works on a certain time continuum and academia works in another time continuum and the two are not synchronous. So trying to make sure that the critical work that's produced by academia over the years ...is fed into the policy system in a way that allows that information to have maximum impact at the right time, that's often a challenge...they operate on very different time continuums.

A government participant discussed the need for “real-time” information that could be applied to policy decision-making: “So it's *real time* information with preferred contacts who can advise about the effect on different sectors or groups or individuals...that is a

good deal of the type of information that affects policy development.” Another government participant explained that “real-time” information was often acquired through chance meetings:

Well a lot of it is in real-time. It’s not as much analysis of academic information as you might hope sometimes. There’s a lot, it’s like on the weekend I bumped into a colleague when I was taking my kids to their ballet class who is in the investment business...people who are engaged rely very heavily on real-time information and contacts, and the practice of policy is much like that.

As such, participants realized that they relied on both colloquial and empirical knowledge. This need for real-time information and the discord between the knowledge production and knowledge use timelines further necessitated a tight-knit tobacco control community in which available knowledge was fluid among multiple points of contact.

*Evaluating Research Knowledge:*

All of the participants recognized that certain sources of knowledge had greater claims to authority and credibility than others. Peer-reviewed scholarly research data were viewed as credible and rigorous. Many participants also described the need for knowledge to come from sources that were unbiased and at “arms length” from partisan groups. A government participant explained:

I tend to believe that what comes out of either the manufacturing sector or the NGO sector, I would probably want to have some corroboration of any of the information I got from either of those sources because they are clearly groups that have their conclusion drawn before the data is gathered.

NGO participants also favoured research that was unbiased. For them, what constituted a bias differed from government participants. NGOs specifically associated bias with tobacco industry-sponsored information. Research produced by industry scientists was perceived to be particularly suspect:

Let me give you an example, the so-called \*\*\* study...which alleged that there were all kinds of economic losses were being experienced by municipalities in Ontario as a result of the implementation of smoke-free. This was done by a guy named \*\*\*...The problem is he's been a long-time consultant to [tobacco company]; he's American. So to get background on him, we went to the Americans for Non-smokers' Rights who keep a registry of all these industry scientists.

When participants were unsure of how to evaluate research, there were several cues and tactics that were employed to assess the trustworthiness and validity of knowledge, including: consensus among experts, and looking for recognizable markers of authority (credentials, reputation of the source of data).

I think consensus around studies or information often develops fairly quickly and not to say that everyone necessarily agrees with everyone else but there, there seems to be a body of research out there that many concur with and/or researchers or principal investigators.

Participants also explained that experts were context-specific. This required network members to accumulate knowledge of whom the experts were in many different areas related to tobacco. A great deal of tacit knowledge was required in order to use these cues and tactics - this knowledge of who the experts were in each area and how to evaluate a piece of information was built up over years of experience. A public health participant explained:

I think my experience helps me. It's almost like sticking your finger out the window and figuring out which way the wind's coming from. It's not so tough for me because I have been in this position for so many years... I can quickly assess what is important and what is not, *and what information is missing more importantly...* But if I were someone who's had a year experience in this position, being in my role, it would be very challenging I think.

#### *Uses of Research:*

Uses of research varied among the three sets of participants. Government participants described using research for making policy decisions, evaluating initiatives they funded,

strategic planning, setting limits or recommendations, and enhancing their credibility with the media.

...the media are going to ask and the critics are going to say, well you know my restaurant profits are going to drop, so then... [we] look at the American experience, and then put together the sources for the information and it's something we could then take to the media and say 'Well in fact, here's what the latest research shows about what happened in other jurisdictions when legislation was brought in to go Smoke-Free'. So that enhances our credibility significantly.

NGOs reported using research to inform campaigns, evaluate their initiatives, and enhance credibility as an advocate. Weiss<sup>(11)</sup> pointed out that research can be used as a tactic for deflecting public criticism, enhancing prestige, and avoiding responsibility for unpopular policy. The use of research to boost credibility adds to Weiss's tactical model of research use.

Public health participants described using research to influence public policy, and to act as an advocate for changing attitudes and beliefs, and for new staff training.

## **DISCUSSION AND CONCLUSION**

This study is a secondary analysis of 29 qualitative interviews with participants working within the provincial government, NGOs, and Public Health around the issue of tobacco control. The main objective of this study was to better understand the management of

research, criteria on which research was evaluated, and uses of research in this network of tobacco control professionals.

As expected <sup>(12)</sup>, this study highlights the dissonance between the preference for peer-reviewed, unbiased, non-partisan research to support claims and the need for fast, “real-time” information on which to base tobacco-related policy decisions. Perhaps because of the different timelines on which research is produced and used, participants opened the discussion to consider the variety of knowledge types and sources that they drew upon. These findings provide initial empirical impetus to expand the discourse, as many have argued, around *research* dissemination and utilization to *knowledge* dissemination and utilization <sup>(13-16)</sup>.

Participants noted that their assessment of research and knowledge rested heavily with an assessment of the source of information. Other researchers have also demonstrated that a credible sender of information is critical for uptake of information <sup>(17)</sup>.

This study indicates that research and other knowledge play an important role within the tobacco control network in Ontario. Scientific knowledge is not always available to guide advocacy and program planning. Nutley et al. <sup>(18)</sup> found that “know-how, know-who, and know-why”, gleaned from tacit knowledge, are key to evidence-informed policy. Tacit knowledge gained through experience in a local context is needed to augment the available explicit (research) knowledge so that it is applicable for the local setting. The knowledge and expertise that network members have accumulated over the

years is tacit knowledge, and, as Landry <sup>(19)</sup> points out, these expert resources are currently undervalued in the field.

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**Table 1: Sources of Knowledge in Ontario Tobacco Control Networks**

<b>Government</b>	<b>Non-Governmental Organization</b>	<b>Public Health</b>
Ontario Tobacco Research Unit (OTRU)	OTRU	Association of Municipalities of Ontario (AMO)
Peer-reviewed journals	University-based academics	Ontario Campaign for Action on Tobacco
Ontario tobacco networks	International research	OTRU
Center for Disease Control	Federal and provincial government (Ministry of Health Promotion)	Media network
NGOs (e.g. Canadian Cancer Society, Heart and Stroke)	Canadian Counsel for Tobacco Control	Websites (e.g., tobacco.org)
Federal/ Provincial network	Ontario Campaign for Action on Tobacco	Peer-reviewed journals
Interministerial committee	Ontario tobacco free network	NGOs (e.g., Physicians for a Smoke Free Canada)
Public Health Units (PHRED)	Other NGOs (e.g., Canadian Cancer Society)	PTCC
University-based academics	Centre for Addictions and Mental Health	CAWG meeting
Informal contacts	CTCRI	Regional and community partners on TCANs
Other government ministries (e.g., Department of agriculture)	Smoking and health action foundation	Provincial and Federal government
Tobacco production/ manufacturing industries (e.g. Ontario future tobacco growers marketing board)	Media Network updates	
	OPC	

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