

# Querying Databases to Identify Documents on Knowledge Sharing Targeting Public Policies: Example of One Study

## Knowledge sharing and public policy series

November 2015

This briefing note is part of a series of documents focused on sharing knowledge in the context of public policy development. All of the documents in this series available to date may be found at [www.ncchpp.ca](http://www.ncchpp.ca) > Projects > Knowledge Sharing.

Within the context of carrying out a review of the literature on knowledge sharing targeting public policies,<sup>1</sup> we developed a search query designed to identify documents on this subject that are available in databases. We have deemed it useful to publish this query so that interested readers may draw upon it for inspiration or reproduce it in whole or in part for their own work. Therefore, we present below the complete search query using the syntaxes of the search interfaces consulted (OVID, EBSCO and ProQuest).

### Development of the query

#### ANALYSIS OF DESCRIPTORS

We took, as our starting point, ten documents on the subject of interest that were already in hand. We analyzed the descriptors (MeSH terms) under which these documents were indexed in the PubMed database.<sup>2</sup> Although these documents focused on the same subject, the MeSH terms assigned to them varied distinctly from one document to the next; moreover, some of the assigned MeSH terms bore little relevance to the subject. Knowledge sharing and public policy development are complex concepts with multiple facets, which may explain this inadequate classification. We concluded that a literature search based on descriptors would have limited value, and we abandoned this approach.

<sup>1</sup> For more information, see Morestin (2015).

<sup>2</sup> Descriptors are standardized terms specific to certain databases. When a document is integrated into these databases, it is assigned descriptors describing the main topics it discusses.

#### IDENTIFICATION OF KEYWORDS

We therefore decided to search by keywords in the titles and abstracts of documents. This approach requires expressing all concepts of interest in the form of keywords. It is necessary to be as comprehensive as possible so as to avoid missing relevant documents. This is a difficult task for a subject such as knowledge sharing, which is referred to by multiple terms and expressions (Graham et al., 2006). Expressing the numerous aspects of public policy development also represents a challenge.

Our process of reflection aimed at identifying as many synonyms and equivalent terms<sup>3</sup> as possible for each concept was informed by:

- Analysis of the MeSH terms, as described above;
- Analysis of the terms used in the ten documents mentioned previously;
- Two articles on knowledge-sharing terminology (Graham et al., 2006; McKibbin et al., 2010);
- A website providing an inventory of terms related to knowledge sharing (WhatisKT, 2012);
- Two search queries developed by librarians to identify literature on knowledge sharing (LaRocca, Yost, Dobbins, Ciliska, & Butt, 2012; Ontario Ministry of Health and Long-term care, 2012); and
- Consultation with a librarian.

#### APPLICATION IN DATABASES

Having compiled lists of keywords for the concepts of interest, we expressed these in the

<sup>3</sup> In English, since this is the language used to query the vast majority of databases.



syntax<sup>4</sup> of each of the interfaces we wished to query: OVID, EBSCO and ProQuest.<sup>5</sup>

We sought the advice of a librarian and conducted several trials (querying databases using our lists of keywords and analyzing the results), adjusting our queries so as to obtain as many relevant documents as possible, while reducing the number of irrelevant documents.

## The final query

The following five concepts were retained:

1. Knowledge sharing;
2. Influencing public policy;
3. Political actors involved in public policy development;
4. Knowledge producers and conveyors (researchers, experts, professionals, etc.);
5. Public policies that relate to health.

Table 1 presents these five concepts expressed as keywords using the respective syntaxes of the OVID, EBSCO and ProQuest interfaces, structured as necessary to search document titles and abstracts. Readers who so desire can copy and paste these queries as is into these interfaces. If the final impact that interests readers is not impact on health, or if it is tied to a more specific aspect of health, they can retain the first four queries and modify the fifth.

To apply the complete query, one must launch the five queries one after the other, and then unite them using the search history in the following manner: ((1 OR 2) AND 3 AND 5) OR (3 AND 4 AND 5)

which, formulated as concepts, signifies the following:  
 (knowledge sharing OR influencing public policy)  
 AND political actors AND public policies that relate to health  
 OR  
 political actors AND producers-conveyors AND  
 public policies that relate to health

<sup>4</sup> Use of parentheses, Boolean operators (AND/OR), quotation marks (to search for expressions), proximity operators (ADJ, N or NEAR depending on the interface, to locate words located near one another in the text), truncation and wildcard characters (for example: \*, # or ?, to identify different forms of a word).

<sup>5</sup> An interface hosts multiple databases and allows them to be searched simultaneously using a single query.

## An effective query?

Database queries inevitably return a certain portion of irrelevant results. This said, the total number of results obtained in response to our query and the proportion of these that were relevant to our literature review are of the same order of magnitude as those reported for other systematic reviews of subjects of equivalent complexity (for example: Dagenais et al., 2013; Hayes, Mann, Morgan, Kelly, & Weightman, 2012; Oliver, Innvaer, Lorenc, Woodman, & Thomas, 2014; Orton, Lloyd-Williams, Taylor-Robinson, O'Flaherty, & Capewell, 2011). Carrying out a literature review always entails a significant amount of sorting.

On the other hand, regardless of the effort that goes into their development, queries in a difficult to define subject area cannot be infallible. We found 66% of the documents ultimately selected for our literature review by querying databases, and 34% through other means (Morestin, 2015). A number of relevant documents would have been missed had we relied solely on our search query. We are not alone in having observed this limitation, and are reiterating here the advice of other authors (Bambra, 2011; Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004; Pawson, Greenhalgh, Harvey, & Walshe, 2005): for subjects that are difficult to sum up in a few agreed-upon keywords, the querying of databases should be supplemented by other strategies (for example: reviewing the bibliographies of previously identified documents, tracking citations, reviewing the tables of contents of select scientific journals, consulting experts as to documents they suggest for review...).

Our query nevertheless allowed us to locate two-thirds of the documents in our corpus, a satisfactory performance given the subject. There remains, of course, room for improvement, and we invite those who wish to work in this direction to share their results.

**Table 1 Search queries for the five concepts retained**

To copy and paste the queries, use the Word version of this table, available at: [http://www.ncchpp.ca/181/publications.ccnpps?id\\_article=1501](http://www.ncchpp.ca/181/publications.ccnpps?id_article=1501)

OVID	EBSCO	ProQuest
<p>1 ((data OR evidence OR information* OR knowledge OR research OR science*) ADJ2 (base*1 OR brokerage OR brokering OR communicat* OR diffusion OR disseminat* OR exchange* OR impact OR implement* OR inform* OR mobilis* OR mobiliz* OR orient* OR seek* OR share* OR sharing OR transfer* OR translat* OR transmission OR uptake OR utili?ation)) OR AB ((data OR evidence OR information* OR knowledge OR research OR science*) N2 (base# OR brokerage OR brokering OR communicat* OR diffusion OR disseminat* OR exchange* OR impact OR implement* OR inform* OR mobilis* OR mobiliz* OR orient* OR seek* OR share* OR sharing OR transfer* OR translat* OR transmission OR uptake OR utili?ation)).ti,ab.</p>	<p>TI ((data OR evidence OR information* OR knowledge OR research OR science*) N2 (base# OR brokerage OR brokering OR communicat* OR diffusion OR disseminat* OR exchange* OR impact OR implement* OR inform* OR mobilis* OR mobiliz* OR orient* OR seek* OR share* OR sharing OR transfer* OR translat* OR transmission OR uptake OR utili?ation)) OR AB ((data OR evidence OR information* OR knowledge OR research OR science*) N2 (base# OR brokerage OR brokering OR communicat* OR diffusion OR disseminat* OR exchange* OR impact OR implement* OR inform* OR mobilis* OR mobiliz* OR orient* OR seek* OR share* OR sharing OR transfer* OR translat* OR transmission OR uptake OR utili?ation))</p>	<p>ti((data OR evidence OR information* OR knowledge OR research OR science*) NEAR/2 (base[*1] OR brokerage OR brokering OR communicat* OR diffusion OR disseminat* OR exchange* OR impact OR implement* OR inform* OR mobilis* OR mobiliz* OR orient* OR seek* OR share* OR sharing OR transfer* OR translat* OR transmission OR uptake OR utili?ation)) OR ab((data OR evidence OR information* OR knowledge OR research OR science*) NEAR/2 (base[*1] OR brokerage OR brokering OR communicat* OR diffusion OR disseminat* OR exchange* OR impact OR implement* OR inform* OR mobilis* OR mobiliz* OR orient* OR seek* OR share* OR sharing OR transfer* OR translat* OR transmission OR uptake OR utili?ation))</p>
<p>2 ((influenc* OR advoca* OR advi*) ADJ3 (policy OR policies OR polit*)).ti,ab.</p>	<p>TI ((influenc* OR advoca* OR advi*) N3 (policy OR policies OR polit*)) OR AB ((influenc* OR advoca* OR advi*) N3 (policy OR policies OR polit*))</p>	<p>ti((influenc* OR advoca* OR advi*) NEAR/3 (policy OR policies OR polit*)) OR ab((influenc* OR advoca* OR advi*) NEAR/3 (policy OR policies OR polit*))</p>
<p>3 (policymak* OR policy-mak* OR government* OR politic* OR ministr* OR minister* OR parliament* OR mayor* OR bureaucrat# OR "civil servant*" OR "policy advis?r*" OR agenda* OR ((policy OR policies) ADJ1 (process* OR develop* OR chang* OR debat* OR decision* OR network* OR reform*))).ti,ab.</p>	<p>TI (policymak* OR policy-mak* OR government* OR politic* OR ministr* OR minister* OR parliament* OR mayor* OR bureaucrat# OR "civil servant*" OR "policy advis?r*" OR agenda* OR ((policy OR policies) N1 (process* OR develop* OR chang* OR debat* OR decision* OR network* OR reform*))) OR AB (policymak* OR policy-mak* OR government* OR politic* OR ministr* OR minister* OR parliament* OR mayor* OR bureaucrat# OR "civil servant*" OR "policy advis?r*" OR agenda* OR ((policy OR policies) N1 (process* OR develop* OR chang* OR debat* OR decision* OR network* OR reform*)))</p>	<p>ti(policymak* OR policy-mak* OR government* OR politic* OR ministr* OR minister* OR parliament* OR mayor* OR bureaucrat[*1] OR "civil servant*" OR "policy advis?r*" OR agenda* OR ((policy OR policies) NEAR/1 (process* OR develop* OR chang* OR debat* OR decision* OR network* OR reform*))) OR ab(policymak* OR policy-mak* OR government* OR politic* OR ministr* OR minister* OR parliament* OR mayor* OR bureaucrat[*1] OR "civil servant*" OR "policy advis?r*" OR agenda* OR ((policy OR policies) NEAR/1 (process* OR develop* OR chang* OR debat* OR decision* OR network* OR reform*)))</p>
<p>4 (researcher* or academic* or expert*1 or practitioner* or professional*1 or officer*).ti,ab.</p>	<p>TI (researcher* OR academic* OR expert# OR expert's OR practitioner* OR professional# OR professional's OR officer*) OR AB (researcher* OR academic* OR expert# OR expert's OR practitioner* OR professional# OR professional's OR officer*)</p>	<p>ti(researcher* OR academic* OR expert[*1] OR practitioner* OR professional[*1] OR officer*) OR ab(researcher* OR academic* OR expert[*1] OR practitioner* OR professional[*1] OR officer*)</p>
<p>5 ("healthy public polic*" OR "social policy" OR "social policies" OR ("public health" OR "health promotion" OR "population health" OR health OR healthcare OR health-care OR "health services") ADJ2 (policy OR policies OR regulation* OR law OR laws)).ti,ab.</p>	<p>TI ("healthy public polic*" OR "social policy" OR "social policies" OR ("public health" OR "health promotion" OR "population health" OR health OR healthcare OR health-care OR "health services") N2 (policy OR policies OR regulation* OR law OR laws)) OR AB ("healthy public polic*" OR "social policy" OR "social policies" OR ("public health" OR "health promotion" OR "population health" OR health OR healthcare OR health-care OR "health services") N2 (policy OR policies OR regulation* OR law OR laws))</p>	<p>ti("healthy public polic*" OR "social policy" OR "social policies" OR ("public health" OR "health promotion" OR "population health" OR health OR healthcare OR health-care OR "health services") NEAR/2 (policy OR policies OR regulation* OR law OR laws)) OR ab("healthy public polic*" OR "social policy" OR "social policies" OR ("public health" OR "health promotion" OR "population health" OR health OR healthcare OR health-care OR "health services") NEAR/2 (policy OR policies OR regulation* OR law OR laws))</p>

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**November 2015**

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**SUGGESTED CITATION**

Morestin, F. (2015). *Querying databases to identify documents on knowledge sharing targeting public policies: Example of one study*. Montréal, Québec: National Collaborating Centre for Healthy Public Policy.

**ACKNOWLEDGEMENTS**

The NCCHPP wishes to thank Vicky Tessier (Librarian at the Institut national de santé publique du Québec) for her help in developing the search query.

The National Collaborating Centre for Healthy Public Policy (NCCHPP) seeks to increase the expertise of public health actors across Canada in healthy public policy through the development, sharing and use of knowledge. The NCCHPP is one of six centres financed by the Public Health Agency of Canada. The six centres form a network across Canada, each hosted by a different institution and each focusing on a specific topic linked to public health. In addition to the Centres' individual contributions, the network of Collaborating Centres provides focal points for the exchange and common production of knowledge relating to these topics. The National Collaborating Centre for Healthy Public Policy is hosted by the Institut national de santé publique du Québec (INSPQ), a leading centre in public health in Canada.

Production of this document has been made possible through a financial contribution from the Public Health Agency of Canada through funding for the National Collaborating Centre for Healthy Public Policy (NCCHPP). The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.

Publication N°: XXXX

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