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METHOD FOR SYNTHESIZING KNOWLEDGE ABOUT PUBLIC POLICIES

REPORT | SEPTEMBER 2010

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ABOUT THE NATIONAL COLLABORATING CENTRE FOR HEALTHY PUBLIC POLICY

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.

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INTRODUCTION

Intended readership

This document is intended for public health actors who, given their role as health promoters, are interested in how public policy can act as a lever for action that affects population health and its determinants. More specifically, this document seeks to meet the needs of public health actors acting as expert advisors to decision makers during the promotion, adoption, and implementation of public policies. Fulfilling this role requires them to synthesize knowledge about how effective public policies are at promoting health (including how effective they are in a given context) and about the issues surrounding the implementation of these policies.

Objective

The objective of this document is to propose a knowledge synthesis method that is applicable to public policies and takes into account not only data linked to their effectiveness, but also data on issues related to their implementation, with the aim of identifying the policies that are most likely to succeed in the specific context in which their implementation is being considered.

Overview

The proposed knowledge synthesis method draws inspiration from political science, policy analysis, literature on evidence-informed decision making in public health, literature on evaluation, and theoretical developments related to deliberative processes. Having integrated these various foundational elements, the proposed methodological approach:

- applies an analytical framework that takes into consideration not only the effectiveness of public policies, but also their unintended effects, their effects on equity, and the issues related to their implementation (cost, feasibility, and acceptability); and
- considers a range of quantitative and qualitative data from scientific and non-scientific sources.

Our knowledge synthesis method includes four steps.

The first involves compiling an inventory of public policies that could address the targeted health problem, and choosing the policy on which the knowledge synthesis will focus.

The second step is devoted to making explicit the intervention logic (logic model), that is, the sequence of effects expected to link the policy under study to the targeted problem.

The third step, carried out through means of a literature review, involves synthesizing data on the effects of this policy in contexts in which it has already been implemented (effectiveness, unintended effects, effects related to equity) and on the issues related to its implementation (cost, feasibility, acceptability).

Finally, the fourth step aims at enriching and contextualizing the data drawn from the literature, through deliberative processes that bring together actors concerned by the targeted health problem and working within the context in which implementation of the policy

is being considered. The aim of the deliberative processes is to have these actors discuss the data drawn from the literature, enrich analysis of the data with their own knowledge, and assess the extent to which the data apply to their own context.

To illustrate the use of this method and to verify its relevance, our team tested it by applying it to a public policy option aimed at addressing obesity. Because of this case study, some of the methodological references used refer to obesity; nevertheless, they are equally applicable to public policies concerned with other issues.

Note: because the production of knowledge syntheses on public policies is still a relatively uncharted area of endeavour and due to the complexity of the subject, our approach should be considered indicative rather than prescriptive. Thus, persons using our method may choose to apply only certain steps and/or to adapt other steps as they see fit, based on the issues at play in their own contexts. Indeed, each step, taken separately, constitutes an interesting tool. This variability does not imply the sacrifice of methodological rigour: it is important to be as explicit and as transparent as possible about the methodological decisions one makes, so that the results (in terms of the knowledge gathered and synthesized) can be assessed with reference to the method that produced them.

This document begins by describing the analytical framework proposed for examining the various dimensions of public policies. Next, it specifies the types and sources of data to be considered in a synthesis of knowledge about a public policy. Finally, it describes the proposed synthesis method, step by step, in sufficient detail to allow public health practitioners to apply it.

Alongside this document, we are publishing a "sister" document that will describe the application of our knowledge synthesis method to public policies in the area of nutrition labelling on food packaging and in restaurants (Morestin et al., in press). The reader is invited to consult this document for a concrete example of the type of knowledge synthesis that can be produced using the method proposed here.

1 FRAMEWORK FOR ANALYZING PUBLIC POLICIES

The knowledge synthesis method that we are proposing applies to public policies. In this context, the National Collaborating Centre for Healthy Public Policy defines "public policy" as,

> An action or group of strategic actions carried out by a public authority with the aim of attenuating or promoting particular phenomena occurring in the population. A public authority here refers to a legislative, executive or judicial authority belonging to or derived from a federal, provincial, regional or municipal public administration. The public authority may act alone or in partnership with other public and/or private organizations. The action or group of actions may concern the whole population or one or several of its constituent sub-groups. (National Collaborating Centre for Healthy Public Policy, 2010).

What factors should be considered when assessing the likelihood that a public policy will succeed?

Effectiveness is generally considered to be the principal indicator of the success of a policy (Salamon, 2002). In the field of health, in particular, the movement toward evidence-based decision making places emphasis on the effectiveness of the options being considered. This movement has its counterpart in the field of public policy, where various governments have made it their purpose to analyze policies and programs to see "what works." It is very clear that decision makers expect to be presented with data on the effectiveness of interventions (McQueen, 2007).

However, it does not suffice to examine the effectiveness of a public policy. As many authors have shown, it is also necessary to take into account the context in which a policy will be adopted and implemented (Banta, 2003; Potter & Harries, 2006; Salamon, 2002; Rychetnik et al., 2002). In reality, the implementation context has an impact on the results observed: the same policy implemented in two different contexts will not necessarily produce the same results (Pawson, 2006; Rychetnik et al., 2002). Moreover, information about contextual factors is indispensable to forming judgements about whether a policy implemented among a given population will be applicable to others (McNeil & Flynn, 2006; Rychetnik et al., 2002). Finally, decision makers are influenced by considerations that go beyond effectiveness (Peters, 2002; Hood, 2007), and which must be taken into account in the information they are provided: syntheses that present evidence in a manner that is divorced from the realities of policy implementation are of little use to decision makers (Jewell & Bero, 2008).

Therefore, many groups that are recognized for their expertise in the area of knowledge synthesis go beyond the use of data on effectiveness. For example, the Task Force on Community Preventive Services affiliated with the Centers for Disease Control and Prevention in the United States includes, in its systematic reviews, not only data about the effectiveness of the interventions studied, but also data on their applicability to other populations, on their economic impact, and on observed obstacles to their implementation (Briss et al., 2000). As for the Cochrane Public Health Review Group, it plans, beginning in 2009, to conduct a series of systematic reviews that will extract from primary studies not only data on effectiveness, but also other information that meets the needs of decision makers, such as data about context, the implementation process, equity, the views of stakeholders, cost, and sustainability (Waters, 2009).

Thus, like many authors (Pineault & Daveluy, 1986; Dobrow et al., 2006; Petticrew & Roberts, 2006; Heller, 2005; McNeil & Flynn, 2006), we are proposing a two-pronged analytical approach, which takes into consideration, on the one hand, dimensions related to the *effects* of public policies and, on the other hand, dimensions related to their *implementation* – while at the same time recognizing, naturally, that the two categories are interconnected.

In defining the policy dimensions to be studied, we drew on Salamon's analytical framework, derived from the traditions of policy analysis and political science (Salamon, 2002), and on a related analytical framework that was developed with reference to policies aimed at addressing obesity (Swinburn et al., 2005) and applied to such policies (Victorian Government Department of Human Services, 2006), but which is a generic framework that can be used to study other public policies. We are proposing the following six dimensions for analysis:

Table 1   Dimensions for analyzing public policies

Effects	*Effectiveness*	What effects does the policy under study have on the targeted problem?
	Unintended effects	What are the unintended effects of the policy?
	Equity	What are the effects on different groups?
Implementation	*Cost*	What are the financial costs of the policy?
	Feasibility	Is the policy technically feasible?
	Acceptability	Do the relevant stakeholders view the policy as acceptable?

Effectiveness, unintended effects and equity relate to the *effects* produced by public policies. Cost, feasibility, and acceptability relate to the *implementation* of policies. A seventh element brought forward by some authors (Swinburn et al., 2005; Victorian Government Department of Human Services, 2006; Waters, 2009) is sustainability, but this was not included as a separate dimension for analysis because it cuts across the other six dimensions. Concretely, in terms of the sustainability analysis, one must gather data on whether and how adopted public policies remained active and maintained their effects over the long term; these data on sustainability are to be attached to the corresponding analytical dimension.

Because we are considering policies from a public health perspective, our analytical framework focuses on "technical" effects: the effects *on health* obtained by means of the public policy under study. Cost and feasibility are also considered in technical terms. However, in addition, our approach takes into account political issues (political motivations, effects and "costs") related to the promotion, adoption and implementation of public policies. These elements are addressed, in particular, under the dimensions of "Unintended effects" and "Acceptability."

The elements that should be considered under each dimension are specified below.

1.1   DIMENSIONS RELATED TO THE EFFECTS OF PUBLIC POLICIES

1.1.1   Effectiveness

The first element used to assess the success of a public policy is its effectiveness or, in other words, the degree to which it has achieved its objectives (Salamon, 2002; Potvin et al., 2008): there may, however, be an *absence* of effects, or even *negative* effects that will aggravate the targeted problem. We choose to consider these neutral or negative effects under the "Effectiveness" dimension, along with positive effects, because they are measured against the objective being pursued by the policy under study. On the other hand, all other effects (positive or negative) that are produced by the policy, but that do not relate to the objective pursued, are classified under "Unintended effects" (see below).

The analysis of effectiveness comes up against a problem. It is often very difficult to judge the ultimate effectiveness of public policies (Salamon, 2002; Banta, 2003; Potter & Harries, 2006). This difficulty is compounded by the fact that analysts are frequently confronted with a lack of literature on the links between policies and their ultimate effect on the health problem they target.

In response to these issues, our method opens analysis to other types of data on effectiveness: those focused on the link between a public policy and its intermediate effects and on the link between these intermediate effects and the ultimate effect on the targeted problem. To identify these data on effectiveness, it is first necessary to deconstruct the chain of effects expected to link the policy under study to the targeted problem. This process has been borrowed from program evaluation methods, in which (with terminology varying from one author to another) many authors suggest detailing the chain of effects, or intervention logic, and representing it graphically in the form of a logic model as shown below (Champagne et al., 2009b; Weiss, 1998).

| Public policy | → | Intermediate effect on the determinants of causes | → | Intermediate effect on causes of the problem | → | Ultimate effect on the problem |
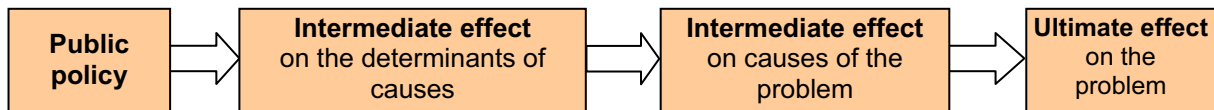
Figure 1   Generic logic model

Construction of the logic model of the policy being studied is the second step in the knowledge synthesis method we are proposing and we will return to it later.

Analysis of the empirical data on the effectiveness of the intermediate links in the chain of effects is particularly relevant in public health, which is concerned with the determinants of health: measuring the effect of an intervention on a determinant (an intermediate effect) can be as important as measuring the (ultimate) effect on the health problem targeted (McNeil & Flynn, 2006). Conversely, it is often unnecessary to gather data on the relationship between the problem targeted and its most proximal determinants: for example, between food intake/energy expenditure and obesity; or between smoking and lung cancer. Generally, this link has already been solidly established in the literature, a brief reference to which suffices

(Banta, 2003; Briss et al., 2000; Champagne et al., 2009a); the main interest is in determining what factors, further upstream, a public policy seeks to influence.

When analyzing the effectiveness of a public policy, it is always useful to examine whether its intervention logic, as represented by its logic model, is plausible. Plain common sense allows for an initial assessment; ideally, the opinions of experts either confirming or invalidating the intervention logic should be gathered (from the literature or through direct consultations). Solid logic points to the *potential* effectiveness of a policy; this effectiveness may or may not be achieved, depending on the context and the quality of the implementation (Weiss, 1998). It is necessary to differentiate between these two levels of success or failure, by comparing the plausibility of the intervention logic with the empirical data on the level of effectiveness achieved by the public policy under study (Rychetnik et al., 2002); while at the same time taking into account the data on how the implementation context influenced the policy's effectiveness (Rychetnik et al., 2002; Pawson & Tilley, 1997). Finally, in cases where there are no empirical data on the effectiveness of a policy, certain authors hold that the plausibility of its intervention logic, in itself, constitutes evidence of effectiveness (Swinburn et al., 2005; Haby et al., 2006).

Examples of Key Questions: Effectiveness

- Is the intervention logic of the public policy under study plausible?
- What are the effects of the policy (positive, neutral, negative) on the problem targeted?
- How effective is the policy in terms of its intermediate effects?
- What impact does the implementation context have on the policy's effectiveness?

1.1.2 Unintended Effects

Consideration is given here to all the effects that are produced, but not directly pursued within the context of the public policy under study; in other words, effects that are unrelated to the objective(s) pursued. The fact that they are unintended implies nothing about their value: these effects may be positive or negative. Moreover, they may or may not have been anticipated. Unintended effects occur because public policies are applied within complex systems characterized by multiple interrelated processes that interact in a nonlinear manner and adapt to changes (Morell, 2005). Put more simply: given the complexity of the real world, it is impossible to control a public policy so fully as to ensure that it produces only the desired effect, and no other. A public policy can have unintended effects in all sorts of areas: effects on health that are unrelated to the health problem targeted, economic, political, or environmental effects, effects on social relations, etc.

Example of a Key Question: Unintended Effects

Does the policy under study produce unintended effects (whether these be positive or negative, anticipated or unanticipated)?

1.1.3   Equity

There are as many definitions of equity as there are conceptions of the meaning of social justice (Potvin et al., 2008) and we make no attempt here to cover that debate. Of interest here are the *implications* of public policies in terms of equity. In this regard, we uphold a distinction established by Mooney that is often made in the health field (Culyer, 2001; Mooney, 1983; Starfield, 2001). Two facets of equity are distinguished: horizontal equity, which calls for similar treatment of individuals with similar needs; and vertical equity, which calls for different treatment of individuals with different needs, in proportion to the differences that exist between them (concretely: those with greater needs receive more, and the reverse). In terms of public policies, the concept of equity is related to that of redistribution: the extent to which policies mainly benefit groups with greater needs (Salamon, 2002).

Thus, we are examining effects on equity; that is, the *differential* effects of the public policy under study on different groups (categorized by age, gender, socioeconomic status, ethnicity, residence in certain zones, etc.), or the probability that the policy will affect the unequal distribution of the targeted health problem (Swinburn et al., 2005). It is very important to take into account equity and not only effectiveness, because it is recognized that, often, public policies which improve population health in terms of the *overall average* nevertheless increase health *inequalities* (Potvin et al., 2008). For example, nutrition labelling aimed at promoting healthy eating habits may have effects that are less than equitable: if the Nutrition Facts table is too complicated to interpret, its information will be exploited mainly by the most highly educated groups, and only to a lesser degree by less educated groups, which are already more affected by the problems of overweight and obesity. Because of its different effects on groups with varying levels of education, this labelling policy could increase inequalities linked to weight problems.

Examples of Key Questions: Equity

- What are the effects (pursued or unintended) of the policy under study on different groups?
- Does the policy provoke, reinforce or correct social inequalities in health?

1.2   DIMENSIONS RELATED TO THE IMPLEMENTATION OF PUBLIC POLICIES

1.2.1   Cost

Consideration is given here to the financial costs associated with applying a public policy, which may be negative (expenses) or positive (gains). It should be noted that a policy may also have symbolic or political "costs" (for example: loss of votes during the next election for the party in power if it implements an unpopular public policy); these are not costs in the strict sense of the word, but rather a type of unintended effect, and are thus classified under the corresponding dimension.

When studying a public policy, one thinks first of all of the financial cost assumed by the government in its application; but it is also necessary to take into account the cost to other actors affected by the policy (Salamon, 2002): those who implement it as well as those directly or indirectly affected (Rychetnik et al., 2002). Costs can be considered in an absolute

manner or in a relative manner, by comparing the costs of the policy under study with the costs of other potential policies (Pineault & Daveluy, 1986; Drummond et al., 2005). Analysis of the costs of public policies can also be cross-referenced with data on their effectiveness, to estimate their efficiency (Salamon, 2002; Pineault & Daveluy, 1986; Drummond et al., 2005). Finally, costs can be analyzed in terms of their distribution over time (immediate or deferred costs, short- or long-term investments) (Pineault & Daveluy, 1986) and in terms of their visibility, that is, the degree to which the positive and negative costs associated with a policy are apparent (Salamon, 2002; Peters, 2002).

Examples of Key Questions: Cost

- What are the implementation costs for the government? For other actors (private, community, individual, etc.)?
- How do the costs of the policy under study compare to those of other potential policies?
- What is the cost-effectiveness of the policy under study, for the government, for society?
- Are the costs of implementation immediate or distributed over time?
- To what extent are the costs of implementation apparent?

1.2.2 Feasibility

Under this dimension, the *technical* feasibility of the public policy under study is considered. Aspects of political feasibility are considered under the "Acceptability" dimension.

The level of feasibility is tied to a series of factors. The feasibility of the public policy under study depends first on its conformity with all applicable legislation (Pineault & Daveluy, 1986); attention should be paid, in particular, to the distribution of powers among the various levels of government. The pre-existence of pilot programs to which the public policy is a follow-up is both an indication of the feasibility of the policy and a facilitating factor, if the policy can draw on the experience and structure of these programs (Swinburn et al., 2005).

The policy's feasibility can be enhanced by what Salamon refers to as automaticity, that is, the extent to which a public policy's implementation is managed by pre-existing administrative mechanisms (Salamon, 2002); however, Salamon acknowledges, along with others (Sabatier & Mazmanian, 1995), that existing mechanisms have their own objectives, which may not completely coincide with those of a public policy – a problem which does not arise when a new structure is created specifically for the implementation of a policy. Regardless, it is interesting to collect data on the degree of automaticity involved, to see whether or not, in a given context, it increases the public policy's feasibility.

Application of a policy tends to be simpler in contexts of greater "directness," that is, when the entity that authorizes, finances or launches the policy is also involved in its implementation (Salamon, 2002). Inversely, it tends to become more complicated as the number of actors involved in its implementation rises; although this complexity can be tempered, according to Sabatier and Mazmanian, through a form of hierarchical integration: that is, the extent to which those spearheading the public policy guide the activities of the

other actors involved in its implementation, using an appropriate system of incentives and sanctions (Sabatier & Mazmanian, 1995).

The quality of the cooperation between the actors involved in implementation is fundamental to feasibility (Salamon, 2002; Pineault & Daveluy, 1986; Swinburn et al., 2005). With inverse effects, the ability of opponents to interfere is an equally important factor; especially since the opponents of a public policy are often more active, over a longer period, than its partisans (Sabatier & Mazmanian, 1995). It should be noted that cooperation and interference are considered in relation to the "feasibility" dimension because of their *practical* implications for the implementation of a public policy; however, these factors are influenced by how stakeholders view the policy, which is an aspect of the "acceptability" dimension.

To conclude, at the operational level, feasibility depends on the availability of the personnel (Pineault & Daveluy, 1986; Swinburn et al., 2005), material resources and "technology" (in the broad sense) required (Dobrow et al., 2004; Sabatier & Mazmanian, 1995).

Examples of Key Questions: Feasibility

- Does the policy under study fall under the jurisdictional power of the authority that wishes to adopt it? Does it conform to existing legislation?
- Is the policy a follow-up to a pilot program?
- Can the policy be administered by pre-existing mechanisms?
- Is the authority promoting the policy also the one applying it?
- How many different actors are involved in implementing the policy? To what extent are their activities being guided by the policy's promoters? Do they cooperate well?
- Do the policy's opponents have the ability to interfere with its adoption or implementation?
- Are the personnel required to implement the policy available?
- Are the required material and technological resources available?

1.2.3 Acceptability

Acceptability refers to the way in which a public policy is judged by stakeholders (Swinburn et al., 2005). Stakeholders are actors concerned with the objectives and/or implementation of a policy (Rychetnik et al., 2002); these may include: groups directly targeted by the policy, the wider public, ministries, other decision makers, professionals from the relevant public sectors (for example, health or education), funding agencies, industry, the media, political organizations, etc. (Swinburn et al., 2005).

The term acceptability is not to be understood in the moral sense. Rather, it refers to the balance of power between the actors concerned by a public policy. Regardless of how effective the policy is expected to be, if it does not have enough political support (including the support of public opinion, of those with economic and financial power, etc.), it will be difficult to see it adopted and implemented, and thus producing the desired effects (Salamon, 2002; Dobrow et al., 2004).

Acceptability is probably the most complex dimension of the analysis. First, it involves subjective elements (the *judgement* of actors). Secondly, it is influenced by all the other dimensions of the public policy being studied, among other things. Finally, the acceptability of a policy also depends on factors that are external to it: the position of each actor is determined by that actor's knowledge, beliefs, values and interests (political, economic, symbolic, etc.) (Peters, 2002).

In analyzing the acceptability of a public policy, it is necessary to consider stakeholders' judgements not only of the intrinsic characteristics of the policy, but also of the conditions surrounding its adoption and implementation.

a) <u>Stakeholders' judgements of the intrinsic characteristics of a public policy</u> must themselves be deconstructed (Peters, 2002; Barry et al., 2009):

- First, there is *the acceptability of acting on the targeted problem*: do the relevant actors think that the problem merits public intervention; or, using the terminology of political science, is it on the political agenda?

- Next, there is *the acceptability of the public policy proposed*, compared with that of other potential policies aimed at addressing the problem: in fact, all actors have their own way of framing the problem (that is, of interpreting the necessarily complex reality, to construct their own definition of the problem and its causes), which influences which solutions they judge suitable for addressing the problem (Rein & Schon, 2005).

With regard to the acceptability of a public policy, stakeholders' reactions are based on their assessment of the other dimensions: do they think that the policy is effective (in particular: do they subscribe to its intervention logic), that its unintended effects are acceptable, that it is equitable, that it is costly (and this perception depends largely on the distribution of costs over time and their visibility (Salamon, 2002; Peters, 2002)), and that it is feasible. Often, the judgement formed is not explicitly articulated in these terms; but ultimately, stakeholders are reacting to these factors. Since it is based on their *perception*, their judgement might not correspond to the *objective* data on these dimensions. The perceptions of actors are not any less important. On the contrary, these perceptions often carry more importance for political decision makers than objective evidence (Sabatier & Mazmanian, 1995).

Another important factor affecting how public policies are judged is the degree of coercion they involve. In concrete terms, the question raised in relation to public health is: how far can we go to change behaviour? (Pineault & Daveluy, 1986). Public policies can make use of a wide range of instruments, from the least coercive (for example: information campaigns), to the moderately coercive (for example: subsidies or other incentives), to the most coercive (for example: regulations prohibiting or making mandatory certain behaviours) (Salamon, 2002). Because coercive policies restrict individual liberty, they are poorly tolerated by some actors; decision makers are aware of these reactions, and often choose the least coercive option, or at least try to combine coercive measures with informative measures or incentives (De Leeuw, 2007; Sabatier & Mazmanian, 1995).

b) <u>Stakeholders' judgements concerning conditions related to the adoption and implementation of a policy</u>. Stakeholders' reactions to decisions depend on the extent to which they acknowledge the legitimacy of the decision maker(s) and the decision-making process (Singer et al., 2000). They form judgements about the legitimacy and the capability of actors implementing a public policy (actors who may include themselves). Finally, planned accountability related to a policy is an important factor in stakeholders' assessment of its acceptability (Salamon, 2002).

To document the acceptability of a public policy, one can draw information from the literature, such as, the results of opinion polls, the stated positions or publicly declared views of certain actors, etc.

Because acceptability can change over time, given ongoing changes to socio-economic, political and technological conditions (Sabatier & Mazmanian, 1995), it is important to document acceptability not only when a public policy is being discussed, adopted and implemented, but also in the medium- and long-term during its application.

Examples of Key Questions: Acceptability

- Which actors are or will be affected by the public policy being considered?

- Is the problem the policy aims to address considered to be a social issue that merits intervention? Is it on the discussion agenda?

- What are stakeholders' reactions to the idea of intervening to address this problem?

- What type of intervention do stakeholders propose for addressing this issue?

- What do they think of the proposed policy? Of its effectiveness, its unintended effects, its effects on equity, its costs, its feasibility? Of the degree of coercion it involves?

- What do they think of the conditions surrounding the adoption and implementation of this policy?

1.3 RELATIONSHIPS BETWEEN THE SIX DIMENSIONS FOR ANALYSIS

The six dimensions for analysis described above may be considered separately, but it is interesting to keep in mind that they are interrelated.

All of the dimensions, without exception, influence the "Acceptability" dimension, because stakeholders judge a public policy on the basis of their assessment of the other dimensions. Inversely, a public policy's degree of acceptability can have a bearing on its feasibility: this is the case, for example, if certain actors' *assessment* of a policy is unfavourable ("Acceptability" dimension) and, consequently, they decide to *take action* to impede its implementation ("Feasibility" dimension). In addition, feasibility can influence the cost of implementing a public policy: the more compromised its feasibility, the greater the risk that its implementation will entail additional costs. Finally, the three dimensions of implementation (cost, feasibility and acceptability) collectively influence a policy's effects (effectiveness, unintended effects, and effects related to equity), because they determine its ability to produce those effects.

It should be noted that we are not taking temporality into account here, that is, the fact that some dimensions come into play before or after others. The proposed knowledge synthesis process first adopts a completely *a posteriori* approach (review of the literature to gather data about the six dimensions of a public policy already implemented elsewhere); and then a completely *a priori* approach (deliberative processes aimed at anticipating what would occur in terms of these six dimensions, if a similar public policy were to be applied in one's own context).

IN BRIEF – Framework for Analyzing Public Policies

→ To identify the public policies that are most likely to succeed in a given context, it is necessary to study their effectiveness, but study cannot be limited to this.

→ The analytical framework proposed here also takes into consideration other dimensions related to a policy's effects: its unintended effects and its effects on equity.

→ In addition, it takes into account dimensions related to a policy's implementation, because these influence the effects produced and because they are of interest to the decision makers and actors concerned: the cost, feasibility, and acceptability of a policy.

→ The figure below illustrates the six dimensions of the analysis framework and their relationships.



→ = influence

Figure 2   Relationships between the six dimensions for analyzing public policies

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Next, let us examine the types and sources of data to be considered when documenting the different dimensions of public policies.

2 TYPES AND SOURCES OF DATA TO BE CONSIDERED

The traditional approach to synthesizing evidence gives precedence to data on effectiveness drawn from scientific literature and, in particular, to data from experimental studies (randomized controlled trials). However, this approach, designed for interventions targeting individuals, seems limited as an approach to assessing public policies, which are far more complex and apply to entire populations in varied contexts, which are themselves complex (McQueen, 2002; Briss et al., 2000; Lomas et al., 2005). In the field of public health and public policy, it is very difficult to obtain effectiveness data from experimental studies because carrying out such studies is often technically and ethically unfeasible (Banta, 2003; McNeil & Flynn, 2006; De Leeuw, 2007; McQueen, 2007). Moreover, assessment of the very complex socio-political processes at play during decision making and policy implementation is often carried out by other research groups guided by different values and methods (Rychetnik et al., 2002).

Thus, there are two serious problems associated with using the traditional approach to collecting evidence when gathering evidence to guide public health decision making:

- There is a risk that promising policies will not be taken into consideration because of the absence of "evidence" (in the restrictive classical sense of the term) to support them (Rychetnik et al., 2002).

- The traditional approach fails to take into account data on issues related to implementation, despite the fact that these issues are highly important to decision makers and influence the effectiveness of public policies (Salamon, 2002; Waters, 2009).

Many experts have broadened their definition of the concept of evidence, so that decisions can be informed by the best *available* data – and not by the best *possible* data (Swinburn et al., 2005; Banta, 2003; Lomas et al., 2005). For example, subsequent to work carried out by the European Advisory Committee on Health Research, the World Health Organization's Regional Office for Europe adopted a more exhaustive definition of evidence, which includes not only the findings from research, but also "other knowledge that may serve as a useful basis for decision-making in public health" (WHO Regional Office for Europe, 2009). Mays and his colleagues, in a methodological article on systematic reviews aimed at informing decision makers and managers, argue that the more the authors of a knowledge review seek to support decision making, the more the review must consider context and the more open it must be to different forms of "evidence" (Mays et al., 2005). This openness implies including quantitative and qualitative data, research data, and also other types of data.

More specifically, certain authors have suggested that a whole range of data should be drawn on when producing a knowledge synthesis aimed at informing public health decision making (Haby et al., 2006; Swinburn et al., 2005):

- not only data traditionally referred-to within the context of the evidence-based movement, drawn from experimental studies (controlled trials);
- and quasi-experimental studies (case-control, cohort studies);
- but also data drawn from descriptive studies;
- effectiveness modelling;

- economic evaluations (for example, cost-effectiveness analyses);
- process evaluations;
- monitoring & surveillance data;
- "parallel" evidence (on a strategy that is similar, but targets another public health problem; for example, data on the taxing of tobacco, which provide indications about what could be achieved by taxing junk food);
- the intervention logic (the chain of effects expected to link the policy under study to the targeted problem);
- and expert opinion.

Our method for synthesizing knowledge about public policies adopts this openness toward data, going beyond the exploration of the scientific literature, to include exploration of the "grey" literature as well (documents produced by governments or non-profit organizations, statements by professional associations, opinion polls, etc.).

Moreover, a synthesis of knowledge about a public policy should extend even beyond the literature. Data from the literature are often complex, incomplete, inconclusive, subject to scientific controversy or non-contextualized; and, consequently, uncertainty remains as to a public policy's chances of succeeding (Lomas et al., 2005). Also, when used for decision making, these data must, inevitably, be interpreted in the light of, and even supplemented by, "colloquial" evidence drawn from local experience. One way to combine evidence from the literature and "colloquial" evidence in a transparent and explicit manner is to organize deliberative processes (Lomas et al., 2005). By "deliberative processes," we mean processes through which dialogue can be established between experts, decision makers and other actors, for the purpose of critically examining an issue.

The organization of deliberative processes to gather information for knowledge syntheses is a recent trend, but one in which interest has been spurred by the movement promoting evidence-informed policy making. A deliberative process can fulfill at least three roles within the context of a knowledge synthesis (Lomas et al., 2005; Lavis, 2006; Lavis et al., 2009):

Combining different forms of "evidence": The results of knowledge syntheses compete with many other factors that can influence decision making. Consider, for example, the impact of values, interests, institutional arrangements, the political or administrative feasibility of an intervention, etc. Thus, deliberative processes can be useful as a way of drawing out data on these factors and combining them in a transparent manner with data found in the literature, to guide decision making.

Contextualizing data drawn from the literature on the subject: It is sometimes difficult to determine if data are generalizable or transferable from one context to another. Deliberative processes involving experts, decision makers and other actors allow data from the literature to be co-interpreted in the light of the respective knowledge of these actors about the context in which implementation of the public policy under study is being proposed.

<u>Generating new knowledge</u>: By promoting dialogue between experts, decision makers and other stakeholders, deliberative processes can generate new insights from the cross fertilization of knowledge. This can lead to creative and innovative solutions to collective problems.

Thus, knowledge syntheses become much more complete and likely to inform decision making. Consequently, we recommend that deliberative processes be organized to gather data and that this be a specific step in the public policy knowledge synthesis process.

IN BRIEF – Types and Sources of Data to be Considered
→ The traditional approach to synthesizing evidence, focused on effectiveness data drawn from experimental studies, does not apply to the synthesis of knowledge about public policies. → When reviewing public policies, it is necessary to expand the definition of evidence: quantitative, qualitative, research and other data should be included. → Sources to be considered include not only the scientific literature, but also the grey literature and (through the organization of deliberative processes) actors working within the context in which implementation of the public policy under study is being proposed.

Having made these general points about the approach required by the specific nature of public policies, we can now describe the proposed knowledge synthesis method in detail.

3   KNOWLEDGE SYNTHESIS METHOD

The proposed knowledge synthesis method involves four steps:

1) Compilation of an inventory of public policies that could address the targeted health problem (by means of a preliminary exploration of the literature), followed by the selection of the policy on which the knowledge synthesis will focus.

2) Explication of the intervention logic of the policy under study (construction of the logic model).

3) Synthesis of the data on effects and on the issues related to implementation of the selected policy, carried out through means of a literature review.

4) Enrichment and contextualization of the data drawn from the literature, through deliberative processes that bring together actors concerned by the targeted health problem and working within the context in which implementation of the policy under study is being considered.
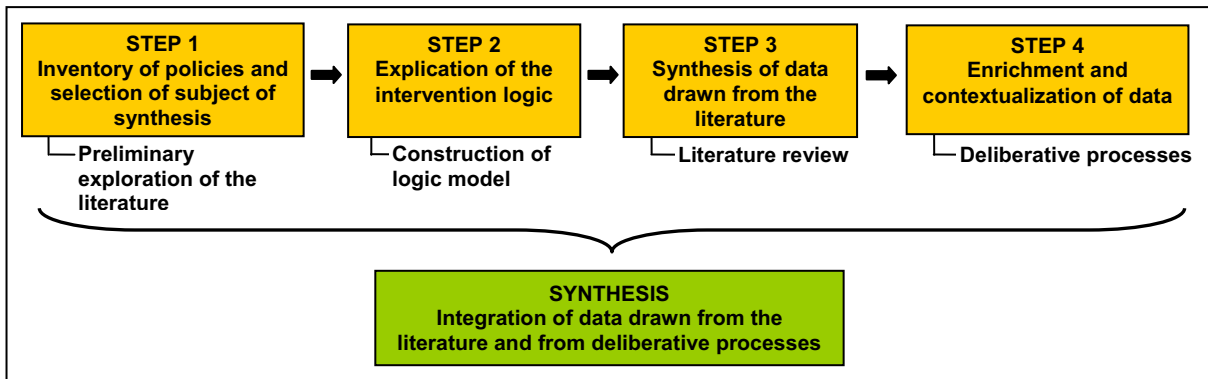
Figure 3   Steps in the knowledge synthesis process

With an eye to simplicity, these steps are being presented as part of a linear process. However, in reality, the proposed method is open to iteration: one may, at any time, return to a previous step to rework it in light of new understanding of the subject under study, acquired while carrying out a subsequent step.

Before even embarking on the knowledge synthesis, the targeted health problem must be described (in terms of the problem's characteristics and its scope in the particular context in which a public policy's adoption is being considered as a way of addressing it). We will not dwell further on this preliminary step, since once actors are at the point where they have decided to carry out or to mandate the production of a knowledge synthesis of public policy options, this step has already been carried out. In the document presenting the knowledge synthesis, this description of the problem should be brief and included in the introduction. It should be informed by material already provided by those mandating the knowledge synthesis and, if necessary, supplemented by some of the data gathered during the knowledge synthesis process.

3.1 INVENTORY OF POLICIES AND SELECTION OF THE SUBJECT OF THE KNOWLEDGE SYNTHESIS

Traditional knowledge syntheses focus on an intervention that has been selected prior to the outset, and the literature review is oriented toward this predetermined subject. It is possible to follow the same procedure when synthesizing knowledge about public policies. However, we are proposing a process that takes the targeted health problem as its point of departure and identifies the range of policies that could potentially address the problem, without predetermining which policies will be studied. Because public health problems are usually multidimensional, there exists a wide range of public policies that are likely to affect them. Thus, an exhaustive identification process seems better suited to ensuring that potentially interesting policies are not bypassed. This approach does not prevent one from selecting just a portion of the policies identified as the subjects of knowledge syntheses. If this selection is made from a complete range of policies, it will certainly be better informed.

Compiling an inventory of public policies targeting a particular health problem involves carrying out an initial series of documentary searches. Consulting experts on the targeted problem can help identify relevant sources of information; below, we provide a few broad avenues for exploration.

3.1.1 Exploration of the Grey Literature

The first step is to identify the public policies already in place and those that are recommended for addressing the targeted problem in the context being considered (this context may be Canada, a particular province, etc.). For this purpose, one can begin by exploring the websites of organizations working within the relevant context and possessing expertise related to the targeted problem.

Naturally, public health organizations come to mind. For example: the health ministries of the various provinces and territories (for a full panorama of public health services in the various Canadian jurisdictions, see http://www.ncchpp.ca/en/structuralprofile.aspx), Health Canada, the Public Health Agency of Canada, the Institut national de santé publique du Québec (and, in particular, its Public Policy and Health Portal), the Canadian Public Health Association and the provincial public health associations (http://www.cpha.ca/en/about/provincial-associations.aspx).

One must also consider organizations working in sectors other than health, but concerned by the targeted problem. Depending on the problem, relevant sectors might be, for example, transportation, urban planning, agri-food, education, etc.

The websites of some other institutions that focus on public policy are listed in Appendix 1.

The search can then be extended to include the websites of relevant organizations in other countries (for example: the National Institute for Health and Clinical Excellence in the United Kingdom, the Centers for Disease Control and Prevention in the United States) and international organizations (in particular, the World Health Organization).

3.1.2   Survey of the Scientific Literature

The preliminary exploration of the grey literature via various websites can be complemented by an initial survey of the scientific literature. Since the aim here is simply to compile an inventory of public policies, it is not necessary at this stage to carry out an in-depth exploration of the literature. Thus, one can begin by targeting institutions that produce, inventory or assess systematic reviews.

Health Evidence (http://health-evidence.ca/articles/search) is a Canadian registry of systematic reviews assessing the effectiveness of health promotion interventions. Through the registry's website, one can search for systematic reviews by subject, and thus obtain an overview of the type of interventions used to address a given health problem.

The Ontario-based Effective Public Health Practice Project conducts systematic reviews on the effectiveness of public health interventions and makes these available on its website, (http://www.ephpp.ca/index.htm) along with critical summaries of systematic reviews produced by other teams.

The Centre for Reviews and Dissemination (http://www.crd.york.ac.uk/crdweb/) of the British National Health Service disseminates critical summaries of systematic reviews of health and social services interventions (Database of Abstracts of Reviews of Effects - DARE).

Of the organizations conducting systematic reviews, the best known is the Cochrane Collaboration. Since the aim here is to identify public policies, we suggest referring to the website of the Cochrane Public Health Group (http://www.ph.cochrane.org/en/index.html).

Depending on the nature of the subject under study, it may be useful to explore the site of the Cochrane Collaboration's "sister" institution, the Campbell Collaboration, which produces systematic reviews on the effects of social interventions (education, social welfare, justice; http://www.campbellcollaboration.org/).

The Guide to Community Preventive Services website (http://www.thecommunityguide.org/index.html), sponsored by the Centers for Disease Control and Prevention in the United States, summarizes the main results of the systematic reviews its team has conducted on various public health interventions.

If one's inventory of public policies still seems incomplete, this preliminary documentary search can be extended through the exploration of databases (using the keywords public policy / *politique publique* in combination with terms describing the targeted health problem or its determinants); and through snowballing (locating new references in the bibliographies of previously identified references).

There is no specific time limit for this phase of exploration; however, since it is a preliminary search, no more than a week or two should be devoted to it. In this space of time, the proposed exploration strategies should make it possible to gather enough information to produce a reasonably comprehensive overview of the public policies that have already been

adopted for addressing the targeted health problem, as well as of those that have generated interest.

3.1.3   Selection of the Subject of the Knowledge Synthesis

The preliminary exploration of the literature should result in delineation of the subject of the knowledge synthesis or, in other words, selection of the policy that will be examined (several policies may be selected, but in this case a separate knowledge synthesis must be devoted to each). This selection depends on the results of the inventory (type and number of policies identified), on the resources available for carrying out the knowledge synthesis, and on the context within which it is being carried out.

The time and resources available for carrying out knowledge syntheses are key criteria for deciding how many public policies, from among those identified, may be studied.

The scope of policies is another criterion for selection: the field of public policy being a vast one, it is necessary to decide at what point a policy's influence is too indirect for that policy to be considered among the resources for addressing a specific problem. One possible option is to select only policies whose *explicit* objective is to combat the health problem targeted.

The Guide to Community Preventive Services of the Centers for Disease Control and Prevention in the United States suggests other selection criteria: the potential effectiveness and cost of interventions (of which we have at least a rough idea at this stage) and the interest they elicit from public health actors and from decision makers (Briss et al., 2000). Indeed, without sacrificing considerations of effectiveness, it is necessary to take into account the realities of the decision making process (Fafard, 2008). These realities include the objectives of decision makers to whom the knowledge synthesis is addressed, the judicial and organizational context that frames decision makers' actions, the windows of opportunity they see for promoting this or that policy, etc. All these elements have a bearing on the interest that future users of the knowledge synthesis have in some of the public policies inventoried and their lack of interest in others. Exploration of their websites may make it possible to perceive these interests; if not, it is useful to consult future users of the knowledge synthesis to determine which public policies interest them the most.

> ### *IN BRIEF* – Inventory of Policies and Selection of the Subject of the Knowledge Synthesis
>
> → Before choosing the subject of the knowledge synthesis, compile an inventory of the various public policies that could address the targeted health problem, by means of a preliminary exploration of the literature.
>
> → Grey literature: websites of national and international organizations interested in the targeted health problem, to identify already established policies or those that have generated interest.
>
> → Scientific literature: websites of institutions that produce, inventory or assess systematic reviews; optionally, the preliminary exploration of databases.
>
> → Selection of the subject of the knowledge synthesis: selection of the policy or policies to be studied based on the results of the inventory, the context, and the resources available for carrying out the synthesis.

3.2   EXPLICATION OF THE INTERVENTION LOGIC OF THE PUBLIC POLICY BEING STUDIED

The intervention logic deconstructs the chain of effects, or intervention hypotheses, expected to link the public policy to the problem it targets: the policy should produce a given intermediate effect, which in turn should produce another effect, which in turn should have an effect on the targeted problem. The logic model is the graphic representation of the intervention logic:

Public policy	→	Intermediate effect on the determinants of causes	→	Intermediate effect on causes of the problem	→	Ultimate effect on the problem
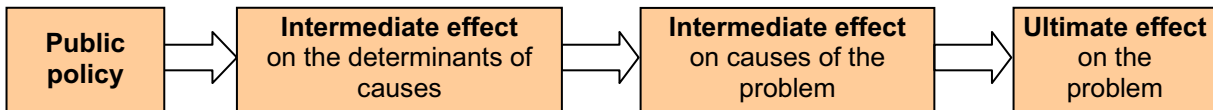
Generic logic model *(Repetition of Figure 1)*

Detailing the intervention logic and constructing the logic model of interventions being studied is a process borrowed from program evaluation methods (Champagne et al., 2009b; Weiss, 1998) which has now been integrated into the knowledge synthesis methods of recognized institutions, such as the Task Force on Community Preventive Services affiliated with the Centers for Disease Control and Prevention in the United States (Briss et al., 2000) and the National Institute for Health and Clinical Excellence in Great Britain (National Institute for Health and Clinical Excellence, 2009).

This analysis makes it possible to:

- Verify whether we have clearly demarcated the public policy under study, or whether we have initially defined as a single policy what, in fact, constitutes several distinct policies.

- Detail the chain of observable and measurable effects, which helps to define the scope of analysis for assessing the effectiveness of the policy under study (Williams et al., 2009). In concrete terms, as will be shown further on, this orients the documentary search during the literature review (Briss et al., 2000; National Institute for Health and Clinical Excellence, 2009).

- Verify the effectiveness of the public policy at each step in its chain of effects:

    - This provides a better indication of what elements of the policy work or don't work (Weiss, 1998). Some intervention hypotheses may work out, while others may not.

    - Literature on the effectiveness of public policies is often limited. In the absence of data on the link between the policy and its ultimate effects, the logic model points toward data on the policy's intermediate effects (more often available), which indicate the effectiveness at different stages in the chain of effects.

How to construct the logic model:

- On one end, indicate the policy under study; on the other end, indicate the desired effect on the targeted problem. Then, identify the steps required logically to move from one end to the other (Weiss, 1998).

- The number of steps (intermediate effects) can vary according to the policy and the problem under study.

- The logic model is not a causal model. It is not necessary to reconstruct *all* the causal links to the problem, only that or those targeted by the policy under study.

- The logic model does not purport to *demonstrate* causality between a policy and its intended effects. Rather, it represents the *theory* of how the policy should produce its intended effects (Williams et al., 2009).

- Within the context of an evaluation, it is recommended that the intervention logic be reconstructed on the basis of discussions with stakeholders (Weiss, 1998; Williams et al., 2009). Within the context of a knowledge synthesis produced using the method we are proposing, the preliminary documentary search that produced the inventory of public policies should have resulted in the collection of enough knowledge to make it possible to reconstruct the intervention logic of each policy. When links in the chain of effects are missing (steps that are not explained in the literature gathered), one can consult experts or simply use reasonable guesses to fill in the blanks. At this point the process becomes iterative: if necessary, one may modify the logic model as one's understanding of the policy under study is deepened by carrying out the subsequent steps in the knowledge synthesis process.

Below, as an example, is a logic model (shaded boxes) of a policy aimed at addressing obesity: nutrition labelling on food products. Also represented (white bubbles) are the categories of effectiveness data associated with each step in the chain of effects.
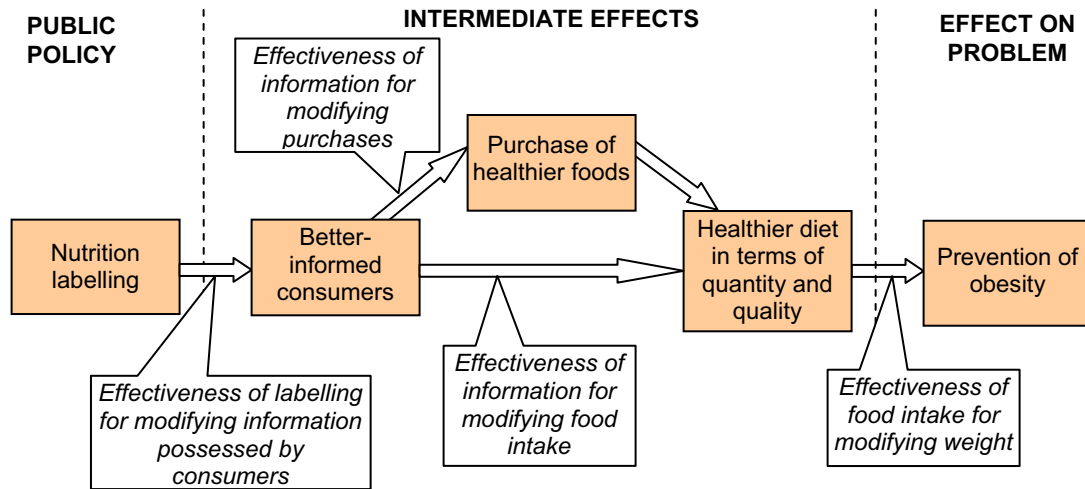
Figure 4   Logic model (nutrition labelling)

The intervention logic holds that nutrition labelling will result in consumers being better informed about the nutritional value of food products; this improved knowledge will lead them to purchase and consume healthier food (the relationship between information and food intake can also be direct, as, for example, for those members of a family who choose from among foods that are present in the home, but which they did not buy themselves); and this consumption of healthier foods will help prevent obesity.

It can be expected that, at each step in the process, the policy's effectiveness will be affected by factors that are uninfluenced by nutrition labelling, which limits the extent to which the intervention hypotheses hold. For example (and there are others): To what extent does nutrition labelling increase consumers' knowledge, given that this depends on whether *or not* they read and understand the nutritional information? To what extent does nutritional information influence consumers' purchasing choices, compared to other factors, such as price and taste preferences, etc.?

Detailing the intervention logic does not involve representing "competing" factors. On the other hand, the influence of these factors will be taken into account later on, when data are collected on the *real* effectiveness of the public policy, which indicate the limits of the intervention logic when it is confronted with reality.

<table>
<tr><td align="center">IN BRIEF – Explication of the Intervention Logic
of the Public Policy Being Studied</td></tr>
</table>

→ The intervention logic (represented graphically by the logic model) deconstructs the chain of effects expected to link the public policy to the problem targeted.

→ Detailing the intervention logic at the outset guides, facilitates, and refines analysis of the effectiveness of the public policy under study.

→ The logic model is constructed on the basis of knowledge gathered during the preliminary exploration of the literature, carried out during the policy inventory step; this knowledge can be supplemented, if necessary, through expert consultations or through the use of reasonable guesses.

3.3   SYNTHESIS OF DATA DRAWN FROM THE LITERATURE

This synthesis is produced by means of a literature review. The sub-steps of the literature review process (documentary search, appraisal of the quality of data, data extraction, and synthesis) are described here one after the other, for ease of reading. However, in reality, previous sub-steps are often revisited during the process and some sub-steps may be carried out simultaneously (in particular, assessment of quality and extraction).

3.3.1   Documentary Search

Exhaustiveness

It is difficult to carry out an exhaustive review of the literature on public policies. For one thing, the field is vast and its limits are poorly defined; it is therefore hard to presume to cover it completely. In addition, the literature devoted to public policies addresses numerous aspects of the subject (effectiveness, cost, acceptability, etc.), and emanates from various disciplines (public health, political science, sociology, anthropology, economics, ethics, law, etc.). This multiplies the potential orientations of a documentary search. To prevent relevant documents from being missed, the search must be much more extensive than a traditional documentary search for a systematic review pertaining to the health field, and it must give equal consideration to the scientific literature and the grey literature, which requires both time and resources (Petticrew & Roberts, 2006).

However, the fact that the literature review is often inexhaustive does not mean that it cannot be methodical. The key is to describe and justify all the decisions made, to ensure that the process is transparent and reproducible (Pawson et al., 2005; Mays et al., 2005). In concrete terms, the documentary search strategy followed must be described: data sources, keywords, inclusion/exclusion criteria, etc., as well as any modifications while the search is ongoing. It is strongly recommended that one keep a log in which to note these elements while the documentary search is underway; for it is difficult to recall the details afterward to reconstruct the process followed.

Inclusion and Exclusion Criteria

The preliminary exploration of the literature resulted in delineation of the subject of the knowledge synthesis or, in other words, selection of the public policy to be examined. During the in-depth documentary search, the criteria for including and excluding documents must be more fully detailed.

a) Content of Documents

This must obviously focus on the policy chosen, and more precisely:

- on its status within the contexts under study: for example, the history of its adoption and a description of its content, if the policy has already been established; or a description of the current debate surrounding its adoption, if this is under discussion; or
- on one or several dimensions of the policy: effectiveness (including its intermediate effectiveness at various points in the logic model), unintended effects, equity, cost, feasibility, and acceptability.

Moreover, it may be relevant to include documents on experiments testing a potential future public policy on a small scale. For example, if policies requiring nutrition labelling on restaurant menus are being studied, it would be interesting to include documents on experiments with such labelling involving one or several restaurants. Because they can be more closely evaluated than public policies implemented on a large scale, such experiments produce more precise information about the effects produced by a policy and, in particular, about the intermediate effects represented in its logic model; thus, they allow for better understanding of what does or does not work.

One may also decide to include documentation on initiatives carried out in the private sector in an area for which a public policy is being considered (for example, manufacturers' placing of logos that summarize nutritional characteristics on food packaging). For one thing, the lessons drawn from these private initiatives may be transferable, at least partially, to a public policy related to the same subject. For another thing, these initiatives already "occupy the territory" and cannot be ignored by those considering implementation of a public policy.

Finally, especially if the documentary search turned up few results, it may be useful to include documents presenting parallel evidence; that is, data on public policies based on similar strategies, but targeting another public health problem; for example, data on the taxing of tobacco, when studying the application of a tax to carbonated soft drinks.

b) Country of Implementation

Do we consider only Canada, other industrialized countries, other countries more broadly? This choice should take into account the possibility of drawing lessons from the implementation of public policies in other countries (according to socio-cultural, economic and political similarities and differences) and the scope of the literature available (balance the risk of finding too few documents if the search is too narrowly focused against that of finding too much literature if the search is too inclusive).

c) Period Considered

There are no specific rules or recommendations regarding the length of the period to be considered within the context of a literature review.

In some cases, a particular year demarcates the beginning of the period: for example, the year an event took place which placed the targeted health problem on the agenda, or the publication of an influential document concerning the issue, or the adoption of a law with an impact on this sector of public health intervention.

Otherwise, the limits of the period to cover are chosen mainly on the basis of the quantity of literature that can be found for a given period: have a sufficient number of documents been published in recent years (which are of most interest, since the aim is to survey the current situation to inform decision making), or is it necessary to go further back in time?

d) Language of Publications

Considering documents in French as well as in English, and even in other languages if possible, provides access to additional literature.

The choice of inclusion criteria has a significant impact on the direction taken by a literature review and, therefore, should be made by at least two members of the team carrying out the knowledge synthesis.

Documentary Sources

The documents found previously during the preliminary exploration of the literature (websites of stakeholder organizations in Canada, in other countries, and at the international level; websites of institutions that inventory or produce systematic reviews; preliminary exploration of databases) form an initial document base. However, it may be useful to return to these sources to carry out a more focused search, one that now targets a specific public policy and is not aimed at compiling an inventory of all the policies addressing a given health problem.

In addition, during this new step, relevant databases should be further explored. The various disciplines likely to document interesting aspects of the policies being studied (not only their effectiveness) should be identified, and the databases associated with these disciplines should be explored. For reference purposes, see Appendix 2 for the list of databases suggested by the Cochrane Health Promotion and Public Health Field (Armstrong et al., 2007).

The tables of contents of a few scientific journals focused on the subject under study can also be reviewed (journals recommended by experts consulted or that frequently appear among references identified through other sources).

Finally, to gather more context-specific and recent information, one can explore conference presentations given in Canada. For example, the websites of the *Journées annuelles de santé publique du Québec* and the Ontario Public Health Association provide access to numerous presentations: http://www.inspq.qc.ca/aspx/fr/jasp_presentations.aspx?sortcode=1.55.58.62.69, http://www.opha.on.ca/our_voice/conference/archives.shtml#2007conf.

Whether databases, scientific journals or conferences are being perused, the documentary search should not only target public health resources, but should be open to other relevant disciplines as well (political science, sociology, anthropology, economics, ethics, law, etc.).

Documentary Search Methods

Searches by keyword and through snowballing should be considered.

For **keyword** searches, one can begin by using the name of the public policy (for example: nutrition labelling / *étiquetage nutritionnel*).

Given that it is often difficult to express a public policy as one or two words, it is possible that the initial keyword search will not produce the range of results desired; other combinations of keywords should therefore be tried. In particular, various synonyms or equivalent terms should be tested (for example: food labelling / *étiquetage des aliments,* calorie labelling / *étiquetage des calories*). It is likely that the various terms used to refer to this subject emerged during the preliminary exploration of the literature, which resulted in the inventory of relevant policies. If this proves insufficient, experts in this field of study can be consulted.

More narrowly focused searches may also be attempted, focusing on:

- certain intermediate segments of the chain of effects, as defined by the logic model (for example, nutrition labelling / *étiquetage nutritionnel* AND reading / *lecture* to obtain information about consumers' habits with respect to reading nutrition labels);
- the objectives being pursued (for example, nutrition labelling / *étiquetage nutritionnel* AND health promotion / *promotion de la santé*);
- other dimensions of the public policy (for example, nutrition labelling / *étiquetage nutritionnel* AND cost / *coût*).

Note: the thesauruses of the databases being explored can help identify keywords, since they suggest terms related to the search term. Thesauruses can also be searched using their controlled vocabularies to locate documents; but caution should be exercised, since the thesauruses of some databases are less efficient, less well structured, and less precise than others. Specialists in documentary search techniques recommend using both approaches for each database: using "free" keywords and using the controlled vocabulary of the thesaurus.

Certain more abstract or generic concepts simply cannot be "translated" into keywords that function (Pawson et al., 2005); and this is especially true for the field of public policy. Hence the usefulness of **snowballing** as a search technique: once several relevant references have been identified, their bibliographies lead to other references on the same subject. Exploring bibliographies also makes it possible to locate more detailed documents, often belonging to the grey literature, containing more information about aspects like the implementation context and process of a policy, rarely addressed in scientific articles, which focus on effectiveness and are limited in length.

Preferably, the documentary search will initially rely on the use of keywords, as this approach carries less risk of bias than snowballing (since the documents consulted may exclusively cite documents that support their conclusions).

Extent of the Documentary Corpus

After the initial sort (based on reading titles and abstracts) aimed at retaining, from among those identified, only those documents that meet inclusion criteria, two problems may surface: either too many documents may remain, when the resources for carrying out the knowledge synthesis are limited, or too few documents may remain.

In the first instance, many techniques can be used to narrow selection to a sample of the documents located. One may, if this is feasible for the policy being studied, carry out a **"review of reviews"** and take primary studies into consideration only if they were published after the most recent literature review (Mays et al., 2005). The **inclusion criteria can be limited**, particularly with respect to the period and the countries being considered. Finally, one can move on to the data extraction sub-step and apply the **saturation** criterion: once the documents being read no longer contain any new information, one stops reading further (Pawson et al., 2005). Methodological rigorousness demands that this decision be documented and justified. In addition, one must avoid bias when selecting documents, since reading only documents that lean in a certain direction will create the impression of saturation. Therefore, unlike Pawson and his colleagues, who accept purposive sampling of the documentary corpus (Pawson et al., 2005), we recommend that documents be read in an order that reflects more neutrality: inverse chronology (starting with the most recent documents, since the aim of the knowledge synthesis is to reflect the current situation) and alphabetical order, based on the authors' names.

If, on the other hand, the documentary search has located little information, one can **relax the inclusion criteria**, try **new keywords** (a reading of the first documents found can point to new terms that had not been considered), explore **new documentary sources** (in particular, other databases), look for **parallel evidence** (on another health problem; for example, data on anti-tobacco policies can provide clues about the possible effects of anti-obesity policies based on similar strategies and on the issues related to their implementation).

Despite such attempts to add depth to the documentary search, it is common to find little information about certain dimensions of public policies: for example, it is generally more difficult to find information in the literature about the issues surrounding policy implementation than about effectiveness. However, later on, the step involving deliberative processes will make it possible to gather information about such aspects.

IN BRIEF – Documentary Search
→ While it is difficult to carry out an exhaustive review of a public policy, it is possible to be methodical and transparent (in particular, by recording the documentary search process).
→ Define the criteria for including and excluding documents: content, countries, period, languages.
→ Documentary sources (from public health, but also from other relevant disciplines): those referred to during the preliminary exploration of the literature (return to these if necessary); databases; tables of contents of scientific journals; conference presentations.
→ Documentary search methods: by keyword and through snowballing.
→ Control the scope of the documentary corpus: **Too many documents**: review of reviews; limit inclusion criteria; saturation. **Too few documents**: relax inclusion criteria; new keywords; new documentary sources; parallel evidence.

3.3.2 Appraisal of the Quality of Data

In traditional systematic reviews, which synthesize effectiveness data, the documentary search is usually followed by an appraisal of the quality of the documents found, to allow selection of those considered to be of sufficiently high quality for inclusion. The quality of studies is evaluated on the basis of their design and their research methods. In the hierarchy of evidence, data produced by randomized controlled trials are considered to be at the top. The research design is of such importance in this approach because it indicates the extent to which potential biases were controlled during research: the more controlled the study, the higher the internal validity, that is, the degree to which the results of the study are correct for the sample studied (Rychetnik et al., 2004).

However, it seems to be difficult to strictly apply such an approach to a synthesis of knowledge about a public policy, for the following reasons:

- The diversity of the data used does not allow for uniform appraisal of their quality:

  - This type of synthesis integrates, among other things, data that are not produced by research (documents published by governments or non-profit organizations, statements by professional associations, the opinions of stakeholders, etc.) and to which the quality criteria developed for scientific data do not apply.

  - This type of synthesis is informed by quantitative and qualitative data. Relatively recent attempts to establish common grids for appraising the quality of these two types of studies are far from generating consensus (Mays et al., 2005).

  - This type of synthesis considers not only effects, but also the implementation of policies: cost, feasibility and acceptability. Even when data on these aspects are drawn from research, they are often collected using study designs and methods that differ from those used to measure effects and they may be produced by diverse disciplines.

Furthermore, what is meant by "study quality" varies from one discipline to another (Petticrew & Roberts, 2006); and it is difficult to develop a hierarchy of evidence that applies to more than one field of research (Banta, 2003). Moreover, studies whose method for assessing policy effects may be of "low quality" can, on the other hand, provide useful information about issues related to implementation, such as feasibility. Excluding such studies would mean losing useful information.

- Appraisal of study quality focuses on internal validity. However, decision makers are just as concerned, even more concerned, with external validity; that is, the degree to which a study's results are generalizable to populations other than the one studied. They want to know if the results of the intervention being examined are transferable to their own context (Mays et al., 2005). Thus, sorting documents according to their internal validity alone may not be the most appropriate approach.

- Above all, despite the frequent absence or incompleteness of data on public policies, we must not remain inactive. We must accept that decisions can be informed by the best *available* data, and not necessarily by ideal data (Swinburn et al., 2005). This is all the more crucial, given that there is little data from controlled studies of interventions targeting disadvantaged groups, simply because these groups are more difficult to reach; thus, conforming too rigidly to the rules for appraising the quality of evidence would result in an absence of interventions that benefit these groups (Rychetnik et al., 2002).

For all these reasons, appraisal of document quality within the context of a synthesis of knowledge on a public policy requires a more flexible approach. We recommend, along with other authors (Mays et al., 2005; Pawson et al., 2005), that the documents located during the documentary search not be rejected on the basis of rigid methodological criteria. We recommend, instead, an assessment of their relevance: the question to ask is whether the document contributes in some way to the knowledge synthesis (Pawson, 2006).

At the same time, one must present readers of the knowledge synthesis with information about the quality of the documents chosen, by describing their principal characteristics, which includes pointing out their major methodological defects (Mays et al., 2005). We suggest indicating, for each document: what type of document it is (scientific journal article, grey literature, etc.), its source (name of website, database or other resource that led to its identification), its design, and its authors' affiliations (university, government, industry, etc.).

In brief, the idea underpinning our approach to evaluating the quality of data is that even if the only information found is of mediocre quality, presenting it to readers is preferable to providing no information at all; providing that readers are carefully warned about the quality of the information included, so that they can themselves decide how much weight to give it.

IN BRIEF – Appraisal of the Quality of Data
→ An appraisal of quality based on the criteria of research design and methods is difficult to apply to knowledge about public policies.   → Sort the documents gathered according to their relevance (contribution to the knowledge synthesis).   → Describe for readers the main characteristics of the documents included (type, source, research design, authors' affiliations).

3.3.3 Data Perusal and Extraction

Information to Collect from Documents

The guiding reference when reading and extracting data from documents is the analytical framework proposed in the first chapter of this text, which explores six dimensions of public policies: effectiveness, unintended effects, equity, cost, feasibility, and acceptability. The framed text below summarizes the criteria associated with each analytical dimension. These criteria constitute the different elements about which information is sought.

Table 2   Summary table: dimensions and criteria for analyzing public policies

Effectiveness	Feasibility
• Plausibility of the intervention logic • Effectiveness of the policy under study as a means of addressing the targeted problem • Intermediate effects of the policy • Impact of context on the policy's effectiveness • … **Unintended Effects** Unintended effects of the public policy (be these positive or negative, anticipated or unanticipated) **Equity** • Differential effects of the policy under study on various groups • Effects on social inequalities in health • … **Cost** • Implementation cost for the government • Cost for other actors • Cost compared to that of other potential policies • Cost-effectiveness • Distribution over time • Visibility • …	• Conformity with all relevant legislation • Existence of pilot programs • Automaticity • Directness and hierarchical integration • Number of actors involved in implementation • Quality of the cooperation between actors • Ability of opponents to interfere • Availability of human resources required • Availability of material resources required • Availability of "technological" resources required • … **Acceptability** For each actor concerned: • Acceptability of acting on the problem • Acceptability of the policy: – Assessment of its effectiveness, unintended effects, equity, cost, and feasibility – Assessment of the degree of coercion involved • Acceptability of the decision-making process • Acceptability of the actors involved in implementation • Acceptability of accountability measures • …

This list of criteria is not exhaustive: many more could be added. Rather, these criteria are intended to clarify the type of information that falls under each dimension. The analytical framework is useful as a tool for organizing the information gathered into categories, thus facilitating analysis. The dimensions and criteria shown here are indicative only; no rigid boundary exists between them. When examining the extracted data in detail, it is sometimes difficult to classify certain data, which might relate to two different criteria; but settling such questions is not of primary importance.

One exception concerns the "Acceptability" dimension. Because this dimension includes stakeholders' assessments of various dimensions of the public policy, it is sometimes difficult to discern whether certain information should be classified under acceptability or under other dimensions. The key is to distinguish between objective and subjective information. For example: if a study establishes that a certain public policy is effective at reducing the prevalence of obesity by 5%, this information should be classified under the "Effectiveness" dimension; if an association of health professionals *consider* a certain policy to be an effective means of reducing obesity, this information should be classified under the "Acceptability" dimension, because it indicates this stakeholder's assessment of the

effectiveness of the policy (regardless of whether this position is based on scientific data or represents an arbitrary choice: what is important here, is that this is the stakeholder's position). This distinction is important, because these two pieces of information inform the reader about two very different aspects of the problem, and these would not be well illuminated if all the information were classified under the "Effectiveness" dimension.

It should be pointed out that it is often not possible to find information in the literature on every aspect of the analytical framework. In particular, the dimensions relating to the implementation of public policies are rarely the main subject of studies; rather, they tend to be addressed in a few sentences in the sections on background or in the discussion. Sometimes, no information about certain criteria can be found in the literature. These gaps can be filled in later during the deliberative processes with knowledge gathered from the participants; thus, specific questions should be prepared in advance, which will allow these aspects to be documented.

In addition to data relating to the six analytical dimensions, information must be drawn from the literature on the status of the public policy of interest in the contexts being examined (for example: the history of its adoption, if a policy has already been established, or a description of the current debate surrounding its adoption, if this is under discussion).

If necessary, when reading the documents, one can take the opportunity to collect some data to enhance the description of the targeted health problem, which will be presented in the introduction to the knowledge synthesis.

Practical Advice

We recommend separate treatment of the published, peer-reviewed literature and of the grey literature. Since the latter is less controlled, it can be used to a greater extent by authors to express their subjective opinions. That said, the published literature is not exempt from any expression of subjectivity, either. Thus, this is a rudimentary principle of classification; nevertheless, we feel it should be applied because it helps orient readers with respect to the data presented.

The documents should be read in reverse chronological order and (optionally) in alphabetical order, by author. This approach is doubly justifiable. On the one hand, within the context of a knowledge synthesis aimed at informing decision making, the documents containing the most up-to-date data are the most informative. On the other hand, this approach makes it possible to stop the literature review at any given point on the basis of the saturation criterion (when the documents being read are no longer adding any new information): this approach minimizes bias related to the order in which documents are read; and it allows data extraction to be halted when appropriate, while ensuring recent documents are read (inversely, if, for example, for a literature review covering the 2000-2009 period, one began by reading the documents published in 2000 and reached data saturation with the documents published in 2004, it would still be necessary to continue on until the most recent documents had been read).

We strongly suggest presenting the data extracted from documents in extraction tables (one for the published literature and one for the grey literature), based on the model below:

Table 3   Sample data extraction table

Reference	Characteristics of Document	Status	Effectiveness	Unintended Effects	Equity	Cost	Feasibility	Acceptability
Author A, 2010								
Author B, 2010								
…								
Author A, 2009								
…								

The extraction tables help make sense of the data extracted, thus simplifying the next step, which is data synthesis. Above all, they make it possible to apply more rigour in carrying out this step, ensuring that information is not omitted. Moreover, presented in an appendix of the knowledge synthesis or made accessible on the internet, the tables add to the transparency of the process: readers can verify the contribution made by each document to the synthesis as a whole (Petticrew & Roberts, 2006).

It is necessary to devote all the required time and attention to the perusal and extraction of data. Firstly, the rigour and the quality of the literature review will be compromised if this sub-step is not carried out properly. Secondly, it is advantageous to carry it out as carefully as possible, to avoid having to consult the documents again later – which would cause more loss of time.

IN BRIEF – Data Perusal and Extraction

→ Treat the published literature and the grey literature separately.

→ Read the documents in reverse chronological order and, optionally, in alphabetical order, by author.

→ In each document, extract information on the status of the public policy being examined with respect to the contexts being studied and on the six dimensions of the analytical framework (effectiveness, unintended effects, equity, cost, feasibility, and acceptability). Note the principal characteristics of each document to allow its quality to be assessed.

→ Present the data in the form of extraction tables: one row for each document and one column for each dimension analyzed.

3.3.4   Synthesis of Data Drawn From the Literature

The data synthesis sub-step presents particular challenges, given the heterogeneous nature of the literature used. The recommended approach for synthesizing different kinds of data (quantitative and qualitative, research-based and external to research) is to produce a narrative review, incorporating a thematic analysis (Mays et al., 2005). Thus, the data drawn from the literature are summarized in a structured manner. The thematic analysis will already have been prepared during the extraction stage, when the data drawn from the literature were classified under the various dimensions of the analytical framework. However, the extraction tables often contain large amounts of information, which is difficult to manage in raw form.

Thus, before beginning the synthesis, it is sometimes necessary to subdivide the main extraction table into several sub-tables, each devoted to one of the analytical dimensions. For example, the column on "Effectiveness," with all the information it contains, is isolated from the extraction table, and a new table is formed, in which this information is reclassified under separate columns, each devoted to an analysis criterion associated with effectiveness: intervention logic, intermediate effects (if necessary, with a sub-column for each intermediate effect identified in the logic model), ultimate effect on the targeted problem, and influence of context on effectiveness.

One may choose to classify the information in sub-table columns not according to analysis criteria, but to other classification categories that seem relevant: for example, data on acceptability may be classified *by actor* (acceptability for the greater public, for industry, etc.); data on the status of the policy under study may be classified *by country* (in Canada, in the United States, etc.).

Readers are invited to refer to the document demonstrating the application of this knowledge synthesis method (to the example of nutrition-labelling policies), for a concrete example of how the extraction tables may be refined (Morestin et al., in press).

Once the data have been arranged in the tables, it is easier to write the text summarizing them, because each sub-table column contains a coherent body of information focused on the same sub-topic. The text should point out where the data from the various documents converge and diverge. To avoid bias, *all* the data contained in the tables should be used and cited in the text (with the exception of the often very basic data on the status of the public policy under study, such as the date a law was adopted: in such cases, it is not necessary to cite all the documents that present the same information).

As indicated earlier, the data drawn from the grey literature (recorded in a separate extraction table) should be clearly distinguished, in the text, from the data drawn from published literature. We suggest presenting data related to the same topic side by side, but identifying data drawn from the grey literature (for example, by using grey text) and indicating who the authors are (for example, using the following type of formulation: "according to the X foundation, …"), so that readers can consider the data from an informed point of view.

IN BRIEF – Synthesis of Data Drawn From the Literature
→ If necessary, form sub-tables from the extraction tables to classify the extracted data more precisely.   → Summarize all the data found on each sub-topic.   → Point out where the data from the various documents converge and diverge.   → In the text, distinguish separately the data drawn from the grey literature, and indicate its origin.

3.4   ENRICHMENT AND CONTEXTUALIZATION OF DATA / DELIBERATIVE PROCESSES

We recommend conducting deliberative processes to finalize the knowledge synthesis, as this will enrich and contextualize the data drawn from the literature.

Other institutions use similar processes. For example, to produce public health guidance, the National Institute for Health and Clinical Excellence in Great Britain carries out a review of the literature, then submits the conclusions to policy makers and practitioners for discussion, either within the context of individual consultations or during group discussions that resemble deliberative processes (National Institute for Health and Clinical Excellence, 2009). The McMaster Health Forum (http://healthforum.mcmaster.ca) is another institution that organizes deliberative discussions among experts, decision makers, citizens and other stakeholders, to find innovative solutions to collective problems. A document synthesizing knowledge about the subject to be discussed is distributed to participants prior to discussions and generally serves as a point of departure for deliberation.

Other institutions organize deliberative processes at the outset of the knowledge synthesis process and throughout its duration, so that the knowledge synthesis can be co-produced with decision makers and reflect their needs. This obviously requires more resources, as well as sustained interest on the part of the decision makers involved in the work. This formula is used, for example, by the Canadian Health Services Research Foundation (www.chsrf.ca), which recently established a decision support synthesis program. This program involves the use of a deliberative process to bring together researchers and decision makers in an effort to define a problem, establish the scope of relevant research, interpret results and formulate recommendations.

How Does One Organize a Deliberative Process?

In concrete terms, the type of deliberative process proposed as part of our knowledge synthesis method consists of bringing together actors concerned with the targeted problem for a meeting, at which they are presented with a synthesis of data drawn from the literature on a public policy likely to have an impact on the problem and, during which, through collective discussion, they supplement these data with their own knowledge.

Preparation

- **Objective of the Deliberative Process**: The objective should be clearly defined, on the one hand, because it orients the organization of the process (in particular: who to invite) and, on the other hand, so that participants have a clear understanding of what is expected of them (Gauvin & Martin, 2009).

  Within the context of our knowledge synthesis method, deliberative processes are aimed at supplementing the literature review and at identifying contextual factors related to the potential effects of the policy and issues related to its implementation, drawn from the experience and knowledge of the participants. It is important to indicate to participants that the objective here is not to reach a consensus among participants regarding the public policy under discussion; but simply to elicit new ideas and data, to identify where participants' views converge and diverge and to evoke their reactions to the data drawn from the literature.

- **Choice of Actors to Invite**: In choosing which actors to invite, the question that must be asked is who can bring forward knowledge about the expected effects of the policy under study or about issues related to its potential implementation: for example, which experts possess technical knowledge about the subject, which decision makers can shed light on the issues related to the feasibility or acceptability of the policy, etc. The actors invited may come from the health sector, but they may also come from other sectors concerned by the issue; and they may represent public, private or community perspectives. Relevant stakeholders can be found among the members of formal associations or informal networks with an interest in the subject under discussion. The exploration of websites carried out during the first step in the knowledge synthesis method should have led to the identification of most of these associations and networks. Information about the status of the public policy under study with respect to the relevant context, gathered during the literature review, may also have led to the identification of some key actors. Ordinary citizens can also be invited, to contribute their "local knowledge" (Fischer, 2000) about the subject under discussion, based on their day-to-day experience.

  The choice of actors to invite also depends on the relevant geographic zone, determined by the level(s) at which decisions about the public policy under study would be made and applied: is it of interest to seek information at the national, provincial, regional or local level? In which province(s), region(s), etc.? Are differences between jurisdictions expected, which could be elucidated by actors working in various jurisdictions? For example, the issues related to a public policy may be perceived differently in different provinces; or even in different places within the same province. The status of this policy may also vary from one province to another: it may not even be on the political agenda in one province, it may be at the decision-making stage in another, it may already have been implemented in another, etc. Naturally, this colours the exchanges that take place during the deliberative processes.

- **Number of Persons to Invite**: There is no consensus about the number of participants to invite to deliberative processes. A large group has the advantage of broadening the range of views expressed and the disadvantage of limiting the active participation of each person (Lomas et al., 2005). In practice, many deliberative processes bring together

between 10 and 20 persons (Lavis, 2009; Lomas et al., 2005). Within the context of this method, we have tested the process with groups of between 9 and 12 participants (not counting the members of our team).

In any case, regardless of the number of participants, deliberative processes cannot be said to be representative. The views expressed will vary according to the group of actors assembled, especially since an attempt is being made to discover their views on very diverse aspects of a policy (i.e. the six dimensions of the analytical framework) in a very short time: thus, it is inevitable that the tenor of the discussion will vary with each group, exploring certain directions more than others and leaving some points out of the discussion. This said, our experience has shown that organizing *several* deliberative discussions on the same subject makes it possible to respect limits on the number of participants per group and to gather a wider variety of information: combining the information obtained through different deliberative processes leads to a more complete portrait of the public policy being studied.

- **Preliminary Documentation**: To clarify which factors are to be discussed during the deliberative processes, it is necessary to send the invited actors a description of the analytical framework. Moreover, so that the actors invited can develop a common knowledge base in preparation for the meeting, it is necessary to send them a document of a few pages synthesizing the data drawn from the literature on the policy under study (Gauvin & Martin, 2009; Lavis, 2009; Lavis et al., 2009); in other words, a short version of the literature review produced in Step 3. For advice on how to produce such brief documents, refer, for example, to the Knowledge Translation Toolkit produced by the Research Matters team (Campbell, 2008).

- **Schedule**: The invitation to participate in the deliberative process, including a description of its objective, the agenda for the meeting and the analytical framework, can be sent 6 to 8 weeks before the event. The short version of the literature review should be sent about 2 weeks before the meeting to those who have confirmed their participation.

The Day of the Meeting

- **Duration**: There is no established rule, but in our experience, at least two or three hours of discussion should be devoted to each public policy.

- **Agenda**: It is useful to first explain the context in which the knowledge synthesis is being carried out, briefly describe the steps that have already been completed, reiterate the objective of the deliberative process and obtain the participants' agreement regarding the rule governing the use of information exchanged (see below). This can be followed by a brief review of the information contained in the preliminary document that was sent to the participants. The rest of the meeting can be devoted to exchanges between the participants, with discussion organized around the six dimensions of the framework for analyzing public policies. To prompt exploration of these dimensions, participants are asked the questions contained in the text boxes in Chapter 1, with emphasis being laid on the dimensions that are rarely discussed in the literature on the policy under study. Information is also gathered from the participants about the current status of the public

policy in the jurisdiction where the deliberative process has been organized (already established, under discussion, etc.).

- **Facilitation**: Facilitation is of primary importance not only to pursuing, synthesizing and clarifying exchanges, but also to curtailing the speaking time of participants who might try to monopolize the discussion (Lavis et al., 2009). To perform his or her task well, the facilitator of the deliberative process must be sufficiently well-acquainted with the analytical framework. It is also important for the facilitator to be neutral (Lavis, 2009; Gauvin & Martin, 2009; Lavis et al., 2009); in particular, facilitators must avoid unconsciously manipulating the dialogue, for example, through the way they present a problem or ask questions.

- **Rule Governing the Use of Information Exchanged**: Most deliberative processes seek to establish a balance between the confidentiality required to encourage people to speak freely and transparency (Lomas et al., 2005). In some deliberative processes, the discussion is completely confidential (Lavis, 2009). A compromise, which we recommend, is to apply the Chatham House Rule (http://www.chathamhouse.org.uk/about/chathamhouserule): participants are free to use and to cite the content of exchanges that take place during the meeting, but neither the identity nor the institutional affiliation of any of the participants may be revealed (Lavis et al., 2009).

  For practical purposes, it is recommended that the discussion be recorded to facilitate subsequent analysis of its content and, above all, to ensure accuracy (when notes are taken, there is a risk that statements will be interpreted while being condensed into summary form). However, participants must be reassured that this recording will only be used for purposes of transcription and analysis and that it will not be released in its raw form.

  The rule governing the use of exchanges should be discussed and agreed-to by participants at the beginning of the meeting.

Follow-up

- **Analysis and Synthesis of Exchanges**: The audio recordings of discussions are transcribed and then analyzed by the team carrying out the knowledge synthesis, using the same method as for the literature review: classifying participants' statements under the various dimensions of the analytical framework (effectiveness, unintended effects, equity, cost, feasibility, and acceptability) and in a section on the status of the public policy in the jurisdiction where the deliberative process has been organized.

  As with the data drawn from the literature, the exchanges on each dimension must next be summarized, while drawing attention to points of convergence and divergence between participants' statements (but without identifying speakers, in accordance with the Chatham House Rule (Lavis et al., 2009)) and, if applicable, between the various deliberative processes organized.

- **Validation by Participants**: The text synthesizing the statements made during the deliberative process is distributed to participants (Lavis, 2009), to ensure that the analysis and synthesis have not distorted the content of the discussion.

IN BRIEF – Deliberative Processes
→ Finalize the knowledge synthesis by organizing one or more deliberative processes, to enrich and contextualize the data drawn from the literature.
→ Preparation: define the objective of the deliberative process; choose which actors to invite (10 to 20 per deliberative process); prior to the meeting, send them the analytical framework and a condensed version of the literature review.
→ The day of the meeting: briefly summarize the context of the synthesis; establish the rule governing use of the information exchanged; then open the discussion to exchanges among participants, guided by a neutral facilitator (with discussion organized around the six dimensions of the framework for analyzing public policies).
→ Follow-up: classify and summarize the statements made about each dimension of the analytical framework, drawing attention to points of convergence and divergence; send the summary to the participants for validation.

3.5   SYNTHESIS – INTEGRATION OF THE DIFFERENT TYPES OF KNOWLEDGE GATHERED

At this point, the aim is to bring together the different types of data gathered during the four steps in the knowledge synthesis method.

The final document presenting the knowledge synthesis should contain the following sections:

- Introduction: A brief description of the targeted health problem.
- (*Optionally*: A description of the step in which an inventory of the public policies likely to have an impact on the targeted health problem is compiled. Alternatively, one may decide to describe the process starting from the point where the policy to be studied has been chosen.)
- Justification for the choice of policy examined.
- A description of the method used, including the documentary search strategy and the characteristics of the deliberative processes (places, dates, number and background of participants, etc.).
- The intervention logic of the public policy examined.
- A synthesis of the data drawn from the literature (grey and published) on the status of this policy in the contexts being studied and on its effectiveness, unintended effects, effects on equity, cost, feasibility and acceptability.
- A synthesis of the data gathered during the deliberative processes, on the same topics.

   One may choose to present the data drawn from the literature and the data gathered during deliberative processes either in two separate texts or side by side, for each topic addressed. They should, however, be clearly differentiated, as is already the case for the data drawn from the published literature and that drawn from the grey literature. For

example, the data drawn from the published literature would be presented in standard text form, that drawn from the grey literature would be written in grey, and the statements made by participants during the deliberative processes would be identified by means of underlining.

The first option, presenting the data drawn from deliberative processes in a separate text, serves the interests of decision makers who wish to see all the data gathered from actors working in their own context grouped together. The second option has the advantage of offering a complete picture, topic by topic, of the data gathered from all the sources consulted – literature and stakeholders. If the knowledge synthesis has been mandated by a particular decision maker, it is appropriate to ask how this stakeholder would prefer the data to be presented: grouped together by data source or by topic.

Readers are invited to consult our document examining nutrition-labelling policies (Morestin et al., in press) for an example of the final form taken by a knowledge synthesis document produced using the method proposed here.

In parallel with the detailed document, it is often worthwhile to write a summary document a few pages long, for the benefit of readers with less available time.

Finally, so that it can serve its intended purpose of guiding public policy decision making, the knowledge synthesis should be disseminated in an appropriate manner. However, dissemination strategies fall outside the bounds of this knowledge synthesis method; therefore, the reader is invited to refer to the literature on knowledge sharing and influence strategies.

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APPENDIX 1

**LIST OF SELECTED WEBSITES OF
RELEVANCE TO PUBLIC POLICY AND HEALTH**

LIST OF SELECTED WEBSITES OF RELEVANCE TO PUBLIC POLICY AND HEALTH

Caledon Institute of Social Policy
http://www.caledoninst.org/

The Canadian Population Health Initiative (CPHI)
http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=cphi_e

Chaire Approches communautaires et inégalités de santé FCRSS / IRSC, Université de Montréal
http://www.cacis.umontreal.ca/actualite.asp

Centre for Health Economics and Policy Analysis (CHEPA), McMaster University
http://www.chepa.org/Home.aspx

Centre for Health and Environment Research (CHER), University of British Columbia
http://www.cher.ubc.ca/

Groupe d'étude sur les politiques publiques et la santé (GÉPPS), École Nationale d'Administration Publique
http://www.gepps.enap.ca/fr/accueil.aspx?sortcode=1

National Association of County and City Health Officials (NACCHO)
http://www.naccho.org/

Policy Research Initiative sponsored by the Government of Canada
http://www.policyresearch.gc.ca/

PolitiquesSociales.net portal, Centre de recherche sur les Politiques et le Développement social, Université de Montréal
http://www.politiquessociales.net/

Public Policy and Health Portal, Institut national de santé publique du Québec (INSPQ)
http://politiquespubliques.inspq.qc.ca/en/index.html

Wellesley Institute
http://wellesleyinstitute.com/

APPENDIX 2

**LIST OF DATABASES PROPOSED BY THE COCHRANE
HEALTH PROMOTION AND PUBLIC HEALTH FIELD**

LIST OF DATABASES PROPOSED BY THE COCHRANE HEALTH PROMOTION AND PUBLIC HEALTH FIELD (ARMSTRONG ET AL., 2007)

Psychology	PsycINFO/PsycLIT
Biomedical	CINAHL, LILACS (Latin American Caribbean Health Sciences Literature), Web of Science, Medline, EMBASE, CENTRAL, Combined Health Information Database (CHID), Chronic Disease Prevention Database (CDP), SCOPUS
Sociology	Sociofile, Sociological Abstracts, Social Science Citation Index, Social Policy and Practice
Education	ERIC (Educational Resources Information Center), C2-SPECTR (Campbell Collaboration Social, Psychological, Educational and Criminological Trials Register), REEL (Research Evidence in Education Library, EPPI-Centre)
Transport	NTIS (National Technical Information Service), TRIS (Transport Research Information Service), IRRD (International Road Research Documentation), TRANSDOC (from ECMT: European Conference of Ministers of Transport)
Physical Activity	SportsDiscus
Public Health / Health Promotion	BiblioMap, TRoPHI (Trials Register of Promoting Health Interventions) and DoPHER (Database of Promoting Health Effectiveness Reviews) (EPPI-Centre), Public Health electronic Library (National Institute for Health and Clinical Excellence), Global Health
Other	Popline (population health, family planning), Enviroline (environmental health) – available on Dialog, Toxfile (toxicology) – available on Dialog, Econlit (economics), NGC (National Guideline Clearinghouse)
Qualitative	ESRC Qualitative Data Archival Resource Centre (QUALIDATA), Database of Interviews on Patient Experience (DIPEX)

Adapted by the NCCHPP.

www.ncchpp.ca