The Use of Policy Frameworks to Understand Public Health-Related Public Policy Processes: A Literature Review

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Prepared for Peel Public Health
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This report’s observations and conclusions are those of the author.
EXECUTIVE SUMMARY

Background

The burden of chronic diseases is of great concern particularly considering existing trends in obesity and the projected rise in diabetes rates. Seeking change in public policy is a key public health strategy to protect and promote the health of the public. The best available evidence indicates a need to alter the social and physical environmental drivers of unhealthy eating, physical inactivity and sedentary behaviours. This will require changes in public policies affecting a wide range of stakeholders and settings. Much of the focus to-date for evidence-informed public health policy processes has been on the review of evidence and its provision in an appropriate format for decision-makers. However, a key challenge is that evidence is only one of many inputs into policymaking and often not the most important. Public health requires a more thorough understanding of the public policy development process in order to optimally influence public policies that promote health and prevent disease.

Objective

To identify policy process frameworks that have been successfully applied to inform understanding of and/or action on a public health-related public policy.

Search Methods

Policy analysis case studies were sought that focussed on a public health-related public policy issue and applied one of five prominent policy process frameworks. The latter were identified during the preliminary scan of the literature and by a leading authority as being among the most promising frameworks. The following databases were searched for the years 2001-2012: Medline, Psychinfo; Global Health; Sociological Abstracts, Healthstar, and CINAHL. Reference lists of all relevant publications were followed up. Searches excluded non-English publications and those addressing substantially different political contexts from Canada, as well as books, book chapters and dissertations. Attempts were made to search the grey literature, but due to the nature of the topic, this proved to be unhelpful. Contacted experts provided several suggestions for potentially pertinent studies.

Data Collection and Analysis

The relevance of identified records was assessed. Information was captured for each included study regarding the nature of the policy issue, context, and type of policy framework applied.
An assessment was also made regarding the extent the use of the policy framework assisted understanding of the policy issue and/or action. It was also noted whether the study provided concrete guidance on how the policy framework was applied. The methodological quality of studies was assessed using a qualitative review form previously utilized by Peel Public Health. A random sample of identified records was assessed by a second reviewer to assess the application of the selection criteria. The second reviewer also applied the qualitative review form to assess its inter-rater reliability.

Main Results

After the selection process had been completed, 21 policy analysis case studies were included in this review. The policy process frameworks were applied to a wide range of policy issues across the spectrum of public health practice including: chronic disease prevention (tobacco, physical activity, obesity, alcohol); infectious diseases (global disease control, reporting of healthcare infections, drug policy); healthy development (childhood health promotion; emergency contraception); environmental health (urban policy, health impact assessments); and health inequities and social determinants of health.

The majority (14) of the case studies utilized the Multiple Streams framework, while four applied the Advocacy Coalition Framework (ACF). An additional two studies used the Punctuated Equilibrium framework and one study used the Institutional Analysis and Development Framework (IADF). While no studies used the Stages Heuristic in isolation, some studies incorporated it into their preliminary descriptive analysis. The methodological quality of studies was only moderate since many studies did not fully describe their approaches to data collection and/or analysis. Nevertheless, several studies utilizing either the Multiple Streams framework or the ACF provided useful insight into the policy process. Performing an adequate descriptive policy analysis is important prior to applying one of the policy process frameworks.

Conclusion

Based on the findings of this review, a suggested approach is provided for conducting policy analysis in a systematic way by a public health organization. The findings of this analysis can then be used to inform subsequent policy engagement strategies.
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The Use of Policy Frameworks to Understand Public Health-Related Public Policies: A Literature Review

ISSUE
Seeking change in public policy is a key public health strategy to protect and promote the health of the public. The policy advice and analysis provided by public health must be premised on the best available evidence. However, “health is largely constructed outside the health sector”\(^1\) such that the public policy decisions public health is seeking to influence often involve multiple levels of government and other organizations. For example, efforts to increase opportunities for physical activity will involve the policies of schools, workplaces and municipal government, which themselves will be facilitated (or not) by provincial level policies.

In these policy contexts, evidence of health risk and benefit is but one of many considerations of decision-makers. An evidence-informed policy development process needs to therefore not only consider the evidence-base for public health advice and action, but also incorporate an effective understanding of the policy process itself. A number of existing reports address the retrieval and synthesis of evidence. The purpose of this review is to seek a greater understanding of the policy process itself and how it is applied to public health-related public policies. This understanding is fundamental for public health organizations to optimally influence public policies affecting the health of the public.

CONTEXT
The burden of chronic diseases in Peel, as in Ontario and across Canada, is very large. In Peel, obesity and diabetes rates are of particular concern. At current rates, diabetes prevalence is projected to increase by 58% over the next 15 years.\(^2\) In addition to the personal effects on health and wellbeing, such an increase is expected to place significant pressure on the healthcare system and further threaten its sustainability. From a prevention perspective, reducing or eliminating this projected increase in diabetes is dependent upon altering the social and physical environmental drivers of unhealthy eating, physical inactivity and sedentary behaviours. This will require policy change affecting a wide range of stakeholders and settings. Table 1 provides selected examples of evidence-based population approaches for the prevention of chronic diseases from a recent scientific statement of the American Health Association (AHA).\(^3\) Implementation of every one of these approaches will require public policy decisions.
### Table 1: Selected Evidence-Based Population Approaches for Preventing Chronic Diseases

<table>
<thead>
<tr>
<th>Setting/Item</th>
<th>Policy</th>
</tr>
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| Labelling and Information| • Mandated nutrition fact panels or front-of-pack labels/icons to influence industry behaviour and product formulations  
                           • Point-of-decision prompts to encourage use of stairs                                                                                     |
| Economic Incentives      | • Subsidy strategies to lower prices of more healthful foods and beverages  
                           • Tax strategies to increase prices of less healthful foods and beverages                                                                     |
| Schools                  | • Multi-component interventions focussed on improving diet and physical activity including specialized educational curricula, trained teachers, supportive school policies, a formal physical education program, healthy food and beverage options, and a parental/family component |
| Workplaces               | • Comprehensive wellness programs with nutrition and physical activity  
                           • Increased availability of healthier food/beverage options and/or strong nutrition standards for foods and beverages served, in combination with vending machine prompts, labels or icons to make healthier choices  
                           • Improving stairway access and appeal, potentially in combination with ‘skip-stop’ elevators that skip some floors (thereby making stair use necessary) |
| Local Environment        | • Improved accessibility of recreation and exercise spaces and facilities (e.g., building of parks and playgrounds, increased operating hours, use of school facilities during non-school hours)  
                           • Improved land use design (e.g., integration of and inter-relationships of residential, school, work, retail and public spaces)  
                           • Improved traffic safety  
                           • Improved neighbourhood aesthetics to increase physical activity in adults  
                           • Improved walkability, a composite indicator that incorporates aspects of land-use mix, street connectivity, pedestrian infrastructure, aesthetics, traffic safety and/or crime safety |
| Restrictions and Mandates| • Restrictions on television advertisements for less healthful foods or beverages advertised to children  
                           • Restrictions of advertising and marketing of less health foods or beverages near schools and public places frequented by youth  
                           • General nutrition standards for foods and beverages marked and advertised to children in any fashion, including on-package promotion  
                           • Regulatory policies to reduce specific nutrients in foods (e.g., trans fats, salt, certain fats) |


Existing public health tools focus predominantly on reaching evidence-informed decisions regarding effective interventions such as those shown in Table 1. As part of a previous EXTRA project, Peel Public Health has developed and is institutionalizing an evidence-informed public health decision-making model. This model has proven to be extremely useful for the decision-making by our organization. However, our experience with a range of public health policy issues including the fluoridation of drinking water to improve oral health, workplace food policies, and
land-use approval processes, indicates that public policy decisions are influenced by much more than scientific evidence. Peel Public Health requires a theory and evidence-informed process in order to optimally influence public policy development.

**APPROACH**

**Conceptual Framework**
Identifying a conceptual framework to guide this literature review was an initial challenge. We readily found models whose primary focus was on evidence synthesis and knowledge translation. While helpful, these models tend to treat the policy process as a ‘black box’ providing little insight into how and why certain policies are made or at times, not made.

Our goal is the achievement of public policies that create supportive environments to promote health and prevent diseases. Our initial scan of the literature indicates that evidence-based policy is qualitatively different from evidence-based medicine. Policy identifies a course of action that sets priorities and guides resource allocation. It is a product of, and constructed through, political and social processes. The reality is that politics and ideology are strong drivers of policy decisions. Overall, decision-makers consider a wide range of factors of which evidence is only one that includes: personal beliefs, values, evidence, external factors (e.g., recession, election), interest group pressure and institutional constraints.

Despite this reality, there is often an implicit assumption by health professionals and researchers of “a linear model of policy making where if good data are provided, good policy decisions will follow.” However, the realities of decision making about policy are non-linear and complex, and presenting it as a linear, rational process moving from formulation to implementation... has been criticized as an over-simplistic view.”

Fafard criticizes the underlying assumption that “policy will be based on evidence if researchers can find the most effective ways of putting research into the hands of decision-makers. In other words...if they have it (research), they will use it.’ This assumption is, however, not supported by much of the available empirical evidence that points to the fact that many policy decisions are based on considerations other than the best available evidence... [The] general reality [is]
that while policy-oriented researchers may want to ‘speak truth to power’, the powerful are by no means obliged to listen and often do so when it best suits them.” 12 Fafard further argues that public health practitioners’ disappointment or frustration with policy decisions based on ‘politics’ and ‘ideology’ rather than science reflects “an inadequate theory of government decision making and indeed of the nature of political power.” 10

Typical knowledge translation models “tend to be silent on the complexities of cross-sectoral, multilevel policy change and the implications of these complexities for evidence creation... [and] have little to say about the influence of power, politics and social movements” in shaping change. 13 Even though “health promotion is an inherently political enterprise... the politics of health promotion are rarely discussed.” 14 As noted by Oliver, “Science can identify solutions to pressing public health problems, but only politics can turn most of those solutions into reality.” 15

An editorial by Catford emphasizes the importance of political analysis for health promotion practice,

Past experience of promoting public health, however, suggests that, while evidence is important, it is not enough. The skills required in health promotion today are more than the traditional specialist ones taught at university. Health promotion needs to be able to work within existing political and economic systems, to understand how decisions are made and then to know how to influence this decision making. This is the essence of political analysis and strategy and a major ‘art’ of health promotion practice. 16

Similarly, Breton and de Leuuw stress that “a sound theoretical repertoire can offer an invaluable guide to policy advocacy practice.” 17 Gilson states that “Effective policy change does not simply require good technical design or using evidence to generate policy...It requires clear attention to the processes by which change is brought about.” 9

There are multiple existing theories of the policy process. Unfortunately, no single policy model offers a fully comprehensive description or understanding of the policy process as each answers somewhat different questions. 11 Existing policy frameworks have complementary strengths since policy dynamics are driven by a multiplicity of causal paths. 18 It therefore seems reasonable to apply multiple frameworks as ‘tools’ in order to assess and plan action recognizing that some frameworks may be better suited for a particular situation. 11,19 Once greater understanding of the policy situation is achieved, then consideration can be given to how public health might best improve the prospects of attaining the identified policy goals.

Figure 1 combines these two components of policy analysis and policy engagement strategies with the foundation of public health advice and decisions informed by evidence.
It is beyond the scope of this project to consider the entire universe of policy frameworks and theories. In the preliminary scoping of the literature, a limited number of policy frameworks were repeatedly encountered.\(^8\),\(^11\),\(^21\),\(^22\) In addition, a key text by Sabatier, *Theories of the Policy Process*, limits its consideration of frameworks to those that are the most promising.\(^23\) Based on these sources, this project focuses on five policy process frameworks with complementary strengths:

- **Stages Heuristic**: an ‘idealistic’ or ‘textbook’ approach to the policy process that divides the process into a series of stages.
- **Institutional Analysis and Development Framework**: focuses on how institutional ‘rules’ alter or influence the behaviour of intendedly rational individuals motivated by material self-interest.
- **Multiple Streams Framework**: explains how policies are made under conditions of ‘ambiguity’, where there are many ways of thinking about the same circumstance or phenomenon.
- **Punctuated Equilibrium Framework**: policymaking is characterized by long periods of incremental change punctuated by brief periods of major policy change.
• Advocacy Coalition Framework: developed to address highly challenging problems in which there are substantial goal conflicts, important technical disputes and multiple actors from several levels of government.

Since understanding the results section is dependent on familiarity with these frameworks, each will be briefly described.

Overview of Selected Policy Process Frameworks

Stages Heuristic

The stages heuristic is an ‘idealistic’ or ‘textbook approach’ to the policy process. It divides the policy process into a series of stages:

- Agenda setting
- Policy formulation
- Policy adoption
- Policy implementation
- Policy assessment.

As an early ‘theory’, it divided a complex policy process into discrete stages and stimulated research into specific stages. However, by the 1980s, it became increasingly criticized for a number of limitations:

- It does not identify the causal drivers that govern the policy process within and across stages. It offers little insight into the policy change process with an absence of causal mechanisms. It is therefore not a theory with hypotheses than can be tested.
- A linear, systematic approach to solving policy problems is rarely found. Not all problems go through the cycle in order or even use all stages. Furthermore, the inter-linkages among stages is ignored (e.g., evaluation of existing programs affects agenda setting and policy formulation occurs as bureaucrats attempt to implement vague legislation).
- Evidence is ‘external’ to the policy cycle whereas other models incorporate it within processes.
- It implies a top-down approach such as the passage and implementation of a single piece of legislation. It neglects the interaction of the implementation and evaluation of numerous pieces of legislation within a given policy domain and the reality that multiple policies/legislative initiatives at varying stages may be occurring simultaneously.

Some advantages are offered by the stages heuristic. It is accessible and intuitive to the non-specialist and disaggregates the policy process into manageable segments. Pragmatically, it
can assist the public health practitioner to identify where in the policy cycle an issue is currently situated as an initial part of their analysis and to describe what public health’s role could be. It also highlights the “many points of influence on policy orientations.”

While emphasizing that evidence is often not the primary driver of policymaking, Fafard notes that the role of evidence varies at different stages of the policy cycle. Lavis explores this issue in more detail identifying different types of systematic reviews for specific steps of the policymaking process. Overall, while the stages heuristic does not provide insights into the mechanisms of policymaking, it potentially aids practitioners to ‘get their bearings’ and to begin to consider how they may contribute to the policy process.

**Institutional Analysis and Development Framework**

This framework focuses on how institutional ‘rules’ alter or influence the behaviour of intendedly rational individuals motivated by material self-interest. There are differing levels of ‘rules’ from those that are mutually understood and predictably enforced to those that are shared perceptions that tend to be enforced by participants themselves. The unit of analysis and investigation is the ‘action situation’, which is the social space where individuals interact, exchange goods and services, solve problems, dominate one another or fight. Analysis of the situation involves several components:

- the set of participants (actors who may be individuals or groups)
- positions that exist (e.g., within an organization/association)
- allowable actions
- potential outcomes
- level of control over choice
- available information
- costs and benefits of actions and outcomes.

The framework is multi-dimensional describing at least three levels of action:

- Operational tier: where actors interact in light of the incentives they face to generate outcomes directly in the world
- Collective choice (policy) tier: where policy decisions are made within the constraints of a set of collective-choice rules
- Constitutional tier: where decisions are made about who is eligible to participate in policymaking and about the rules that will be used to undertake policymaking.

A key strength of the framework is bringing an institutional perspective to policy analysis, which tends to be weak/lacking in other frameworks. It considers ‘institutions’ as more than just a government department, business firm, or political party, to apply the concept more broadly.
where people interact in a repetitive manner organized by rules, norms and strategies. For example, the framework has been valuable in the study of common property regimes such as the management of forestry resources.

**Multiple Streams Framework**

The Multiple Streams framework explains how policies are made under conditions of ‘ambiguity’, where there are many ways of thinking about the same circumstance or phenomenon. This is different from ‘uncertainty’, which is the inability to accurately predict an event. The distinction is such that more evidence may reduce uncertainty, but does not reduce ambiguity. "For example, more information can tell us how AIDS is spread, but it still won't tell us whether AIDS is a health, educational, political or moral issue." The framework is built on a garbage can model of choice in which participants drift in and out of decisions, no one person controls the process of choice, and fluctuating attendance, opportunities and attention give the process highly dynamic and interactive qualities. Time is a limiting factor:

- Number of issues under consideration by policymakers at any one time is limited
- Number of pet projects a policy entrepreneur will push for adoption will be quite limited
- Policymakers often do not have the luxury to taking their time to make decisions because many issues vie for attention with a need to strike when the iron is hot.

Systems can do many things in parallel such that problems, solutions and politics each can be conceived as having a life of its own. The concept of ‘agenda setting’ receives particular attention since not all issues are problems. They need to be perceived as a problem, which will involve values and framing. The problem recognition stream involves agenda setting, as well as fluctuation in attention given to changing issues. The policy stream includes many ideas in competition to win acceptance. Technical feasibility and value acceptance increase the chance of survival. Ideas that do not align with prevailing ideological currents or those that may be sound but boring may not succeed. The politics stream is influenced by public mood, shifting public opinion, pressure-group campaigns and administrative/legislative turnover.

This framework posits that policy choices are made when the three streams are coupled or joined together at critical moments in time and these are referred to as ‘windows of opportunity’. Opportunities may occur spontaneously due to a specific event or the presence of a new administration. The framework emphasizes the importance of policy entrepreneurs. These “are individuals or corporate actors who attempt to couple the three streams.” When a window opens, the policy entrepreneur must immediately seize the opportunity to initiate action to attach problems to their solutions and find politicians receptive to their ideas.
The framework does not assume a rational sequence. A window may open because of a problem that requires a solution. It may also open in the politics stream that prefers a particular solution that then searches for a problem to couple with. In such circumstances, “what matters more is the solution to be adopted rather than the problem to be solved.” The coupling of windows provides an opportunity, but not certitude for policy change.

Concern has been expressed regarding this framework that the streams are often not independent with often the same people participating in problem identification and suggesting solutions. However, proponents counter that “stream independence is a conceptual device. It has the advantage of enabling researchers to uncover rather than assume rationality.” The framework tends to not address issues of collective action and coordination among participants and deals with institutions unsystematically.

**Punctuated-Equilibrium Framework**

This framework argues that policymaking is characterized by long periods of incremental change punctuated by brief periods of major policy change. The concept was initially developed in palaeontology to explain sudden bursts of change in the fossil record interspersed among longer-term minor changes. It has been since applied to policymaking as similar patterns were observed. A range of factors have been identified to resist and encourage large scale policy change (see Table 2).

**Table 2: Factors Encouraging and Resisting Major Policy Change**

<table>
<thead>
<tr>
<th>Resist Policy Change</th>
<th>Encourage Policy Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Policy entrepreneurs</td>
<td>• Exogenous shock resulting in tipping point</td>
</tr>
<tr>
<td>• Courts and rule of law</td>
<td>• Elected officials &amp; legislative committees</td>
</tr>
<tr>
<td>• Policy monopolies</td>
<td>• Wars</td>
</tr>
<tr>
<td>• Bounded but not comprehensible rationality</td>
<td>• New technologies and scientific changes</td>
</tr>
<tr>
<td>• Lack of acceptance of new policy ideas</td>
<td>• Radical economic change</td>
</tr>
<tr>
<td>• Fragmented political jurisdictions between and among levels of government.</td>
<td>• Reformist mobilizations by interest groups and coalitions opposed to policy monopolies</td>
</tr>
</tbody>
</table>

Source: adapted from Givel 2010.

In recent descriptions, considerable attention is given to fashioning a new ‘policy image’ and to exploit multiple policy venues. The theory has been recently criticized for not apparently applying to a number of major policy areas in the U.S. despite widespread disturbance to the system. These include Pacific Northwest forest policy, state tobacco policy, and federal auto efficiency standards.
**Advocacy Coalition Framework**

The Advocacy Coalition Framework (ACF) was developed to address highly challenging problems in which there are substantial goal conflicts, important technical disputes and multiple actors from several levels of government.\(^{33}\) The framework focuses on the interaction within a policy subsystem of a small number of advocacy coalitions comprised of actors from a variety of institutions sharing a set of policy beliefs.\(^{24}\) The ACF purposely avoids a linear depiction of the policy process and was designed as an alternative to the stages heuristic.\(^{34}\)

While the ACF assumes a central role of scientific and technical information in the policy processes, the ACF identifies beliefs as the causal driver for political behaviour.\(^{34}\) The ACF describes three tiers of beliefs:

- **Deep core beliefs:** broadest and most stable and predominantly normative
- **Policy core beliefs:** moderate scope and span the substantive and geographic breadth of a policy subsystem – ideal for forming coalitions and coordinating activities among members. While resistant to change but more likely to adjust in response to verification and refutation from new experiences and information than deep core beliefs.
- **Secondary beliefs:** more substantively and geographically narrow in scope and more empirically based – most likely to change over time.\(^{34}\)

The following table provides a more detailed breakdown of these three levels of beliefs.
Table 3: Advocacy Coalition Framework Structure of Belief Systems

<table>
<thead>
<tr>
<th>Deep Core</th>
<th>Policy Core</th>
<th>Secondary Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Defining Characteristics</strong></td>
<td>Fundamental normative and ontological axioms</td>
<td>Instrumental decisions and information searches necessary to implement policy core</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Across all policy subsystems</td>
<td>Subsystem-wide</td>
</tr>
<tr>
<td><strong>Susceptibility to Change</strong></td>
<td>Very difficult; akin to religious conversion</td>
<td>Usually only part of subsystem</td>
</tr>
<tr>
<td><strong>Illustrative Components</strong></td>
<td>Orientation on basic value priorities</td>
<td>Moderately easy; this is the topic of most administrative and even legislative policymaking</td>
</tr>
<tr>
<td>• The nature of man (e.g., inherently evil vs socially redeemable)</td>
<td>Identification of groups or other entities whose welfare is of greatest concern</td>
<td></td>
</tr>
<tr>
<td>• Relative priority of various ultimate values (e.g., freedom, security, health)</td>
<td>Basic causes of the problem</td>
<td></td>
</tr>
<tr>
<td>• Basic criteria for distributive justice: whose welfare counts? Relative weights of self, primary groups, all people, future generations, non-human beings, etc.</td>
<td>Proper distribution of authority between government and market</td>
<td></td>
</tr>
<tr>
<td>• Sociocultural identity (e.g., ethnicity, religion, gender, profession)</td>
<td>Priority accorded to various policy instruments (e.g., regulation, insurance, education)</td>
<td></td>
</tr>
<tr>
<td>• Method of financing</td>
<td>Seriousness of specific aspects of the problem in specific locales</td>
<td></td>
</tr>
<tr>
<td>• Seriousness of specific causal linkages in different locales and over time</td>
<td>Importance of various causal linkages in different locales and over time</td>
<td></td>
</tr>
<tr>
<td>• Most discussions concerning administrative rules (e.g., budgetary allocation)</td>
<td>Information regarding performance of specific programs or institutions</td>
<td></td>
</tr>
</tbody>
</table>

Source: Breton et al., 2007

The ACF assumes that policymaking in modern societies is so complex that participants must specialize in order to be influential and that the vast majority of policy making occurs within policy systems involving negotiations among specialists. The set of policy participants includes not only legislators, agency officials and interest group leaders, but also researchers and journalists writing in this area. It might also include judicial officials who regularly intervene in a policy subsystem. The ACF assumes that policy participants hold strong beliefs and are motivated to translate those beliefs into policy. Furthermore, the ACF assumes that scientific/technical information plays an important role in modifying the beliefs of policy participants and that researchers (scientists, policy analysts, consultants, etc.) are central players. The use of evidence occurs within the context of advocacy coalitions and depends upon how they use it to bolster their positions. Power and competition for power are critical to explaining how research evidence is used and not used.

Figure 2 depicts the current flow diagram of the framework.
The ACF continues to evolve since its first development. While the original framework identified two causal pathways for major policy change, additional paths have been identified:

- External subsystem events resulting in shifts in the policy core attributes of the subsystem. This may include broad changes in socioeconomic conditions, public opinion, governing coalitions and other subsystems. These can foster change by shifting or augmenting resources, tipping the power of coalitions, and changing beliefs.
- Internal subsystem events that indicate monumental failures of the policies and behaviours of a dominant advocacy coalition. This directly questions the policy core beliefs of the dominant coalition and confirms the policy core beliefs in minority coalitions. A shift in critical resources such as public support and financial support may result.
- Policy-oriented learning which is relatively enduring alternations of thought or behavioural intentions that result from experience and/or new information and that are concerned with the attainment or revision of policy objectives. Because of the rigidity of belief systems, this learning primarily affects secondary beliefs.
- Negotiated agreements involving two or more coalitions. This includes the use of professional forums that provide an institutional setting that allows coalitions to safely negotiate, agree and implement agreements. Likelihood of change is affected by
presence of a hurting stalemate, effective leadership, consensus-based decision rules, diverse funding, duration of process and commitment of members, a focus on empirical issues, an emphasis on building trust, and lack of alternative venues.  

One concern raised in the literature is whether some public health issues such as obesity prevention and physical activity may not easily reduce to a single policy sub-system. Another concern is that institutions play a secondary role as targets of coalitions’ strategic behaviour. Nevertheless, the ACF is a highly developed framework that has been usefully applied to public health issues in which there are a small number of coalitions in conflict with highly divergent perspectives.

Literature Review Question

The focus of this literature review is on the ‘policy analysis’ component of the conceptual framework. The issue of evidence synthesis is well covered from a number of existing sources. The ‘policy engagement strategies’ component cannot be addressed until the policy analysis component is completed and will be addressed in the discussion section of this report based on materials encountered during the literature scoping phase.

The literature review question is as follows:

“\textit{What policy process frameworks have been successfully applied to inform understanding of and/or action on a public health-related public policy.}”

P: public health-related public policy issue  
I: application of a policy framework \(^1\)  
C: nil  
O: informed understanding of and/or action on issue

\(^1\) One or more of: Stages heuristic; Multiple Streams Framework; Advocacy Coalition Framework; Institutional Analysis and Development Framework; Punctuated-Equilibrium Framework.
Literature Search
Searches of the published and grey literatures were conducted in July 2012. Preliminary scans of the literature were conducted to identify relevant studies and used to craft a more comprehensive set of search terms. The search strategy included the following:

- Included years 2001 – 2012
- Indexed databases: Medline, Psychinfo; Global Health; Sociological Abstracts, Healthstar, CINAHL
- Search terms (see Appendix 1)
- Grey literature: including public health sites and Internet search engine (Google)
- Contacting key informants that actively work in the area of public health-related public policy.

Inclusion criteria for this review included the following:

a. Focussed on the application of one or more policy process frameworks of interest;

b. Focussed on a public health-related public policy issue; and,

c. Was a policy analysis case study in that it considers: content of the policy reform; actors involved in the reform; processes contingent on developing and implementing change; and, context within which policy is developed.

Exclusion criteria included:

- Non-English language
- Political context substantially differing from Canadian context (e.g., developing country; totalitarian regime)
- Books, book chapters and dissertations.

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8 Dr. Patrick Fafard (University of Ottawa); Dr. Michael Rachlis (University of Toronto); Professor Mark Exworthy (University of London). An attempt was also made to contact Francois Benoit, the Director of the National Collaborating Centre for Healthy Public Policy (NCCHPP), but summer vacation schedules did not allow for further communication. However, a number of resources on the NCCHPP’s website were considered by this review.
Relevance Assessment and Data Extraction
An initial assessment of the relevance of retrieved citations was conducted first by title and then by abstract. If the relevance of the study was unclear from these two information sources, the publication was retrieved for further assessment.

Information was captured for each included study regarding the nature of the policy issue, context, and type of policy framework applied. An assessment was also made regarding the extent the use of the model assisted understanding of the policy issue and/or action. Also noted was whether the study provided any concrete guidance on how the policy framework was applied.

Quality Assessment
Assessing the quality of studies is a key aspect of conducting a literature review. Inherently, all of the included studies are qualitative in nature. As described by the UK Centre for Reviews and Dissemination, there is a lack of consensus about quality assessment of such studies with numerous existing tools, lack of agreement among different tools and different researchers, and a lack of agreement as to how findings should be used.37 A Qualitative Review Form initially developed by the Occupational Therapy Evidence-Based Practice Research Group at McMaster University38 has been used previously at Peel Public Healthiii. While the focus of this project is not on the effectiveness of an intervention applied in a clinical setting, the main features of the tool appear to align with those of a 2008 literature review that assessed the health policy analysis literature.9 Each of the items in the tool was scored equally with a maximum possible score of 24.

Similar to the disagreement regarding quality assessment overall, there is also a lack of consensus regarding the meaning and value of inter-rater reliability assessments.37 Nevertheless, a second reviewer assessed a random sample of included and excluded studies to compare decisions on application of the inclusion/exclusion criteria. For the sample of included studies, the second reviewer also applied the quality assessment tool.

See Appendix 2 for a copy of the tool.
RESULTS

Search and Quality Assessment
The search strategies produced three pools of citations for the relevance assessment:

i. Medline
ii. Other databases
iii. Cited references from retrieved studies identified in i. and ii. above, as well as suggestions from contacted experts.

The grey literature search produced an unwieldy number of disparate responses that were not useful. It did however, yield a website at the University of Denver\textsuperscript{iv} that was potentially useful in providing a list of applications of the Advocacy Coalition Framework. However, relevant citations had already been identified from the indexed database searches.

As summarized in Figure 3, 376 records were identified in the searches of the indexed databases. Of these, 63 full-text articles were retrieved for further assessment as were 25 additional studies identified from other sources. Overall, 21 studies met the selection criteria for this review.

Figure 3: Overview of Systematic Search Process

\textsuperscript{iv} www.ucdenver.edu/academics/colleges/SPA/BuechnerInstitute/Centers/WOPPR/ACF/Pages/AdvocacyCoalitionApplications.aspx
Common reasons for excluding studies included a focus on: health service design or funding, clinical services, or broader health and social issues (e.g., human trafficking, housing co-ops). Appendix 3 provides more detailed results from the search process.

Among the 21 studies that met the inclusion criteria, the average quality score was 10.8 out of 24, with a range of 4-19. The quality scores were limited for a variety of reasons. Many studies did not describe their methodology very well. Lower quality studies tended to not describe the sources of their data. In other studies that did provide this information, it was often unclear how key informants were selected and their number was often arbitrary versus seeking redundancy in the data. Quality control of data collection was not discussed in most studies. The approach to data analysis also tended to be poorly described. With respect to the policy analysis itself, many studies lacked sufficient description of the actors and setting to allow the reader to fully understand the policy context. A final limitation of several studies was an only superficial application of the policy framework.

For resource reasons, a single reviewer was relied upon to conduct this review. A random sample of six included and six excluded studies were provided to a second reviewer blinded to their inclusion status and quality assessment score. For the 12 studies, there was an initial rate of agreement of 75% (9/12) for inclusion status. The items of disagreement raised two issues. The first issue was how to address studies that did not identify their data sources, but otherwise met the inclusion criteria. It was decided to include these studies since the purpose of this review is to seek understanding of the application of the policy framework versus acting upon the findings. These studies however, would score poorly on the quality assessment related to sampling methodology.

The second issue was how to address studies that addressed a public health-related public policy issue and mentioned a policy framework, but did not actually conduct a policy analysis. Discussion of this issue led to providing explicit guidance in the inclusion criteria for this implicit expectation.

For the six included studies that were quality assessed by both reviewers, the average difference in scores was 3.5 points. For three of the studies, the quality assessment scores were the same or differed by a single point. The remaining three studies had larger differences and the reviewers’ scoring were compared. The score differences were predominantly due to differences in judgement as to the adequacy of description of the policy actors and context, as well as judgement regarding transferability of results. Following discussion of these studies, adjustments of the quality scores for these studies was made.
Types of Policy Frameworks and Issues

Table 4 summarizes the policy frameworks and policy issues addressed in the 21 included studies. The Multiple Streams framework accounted for two thirds (14) of the studies with the ACF the next most frequent with four studies. There were only two studies that used the Punctuated Equilibrium framework and one study that used the IADF. No studies solely used the Stages heuristic, although some studies used it as a narrative framework before utilizing another framework for more detailed policy analysis.

A range of policy issues across the spectrum of public health practice were analyzed using the frameworks including:

- Chronic disease prevention: tobacco control, physical activity, obesity, alcohol,
- Infectious diseases: global disease control, reporting of healthcare infections, drug policy
- Healthy development: childhood health promotion, emergency contraception
- Environmental health: urban policy, health impact assessments
- Health inequities and social determinants of health.

Table 4: Summary of Public Health-Related Policy Issues to Which Selected Policy Frameworks Have Been Applied

<table>
<thead>
<tr>
<th>Policy Framework</th>
<th>Number</th>
<th>Policy Issue</th>
<th>Average Quality Score (max 24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stages heuristic</td>
<td>0</td>
<td>Note: some studies used this framework to organize the descriptive analysis before applying a policy framework</td>
<td>-</td>
</tr>
<tr>
<td>Institutional analysis and development framework (IADF)</td>
<td>1</td>
<td>• Tobacco control in hospitals</td>
<td>4</td>
</tr>
<tr>
<td>Multiple streams framework</td>
<td>14</td>
<td>• Physical activity in schools (3)</td>
<td>11.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tobacco control (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Health inequalities/social determinants (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Health Impact Assessment (2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Urban policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Alcohol policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Obesity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reporting of healthcare infections</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Childhood health promotion</td>
<td></td>
</tr>
<tr>
<td>Punctuated-equilibrium framework</td>
<td>2</td>
<td>• Global disease control priorities</td>
<td>7.5</td>
</tr>
<tr>
<td>Advocacy coalition framework (ACF)</td>
<td>4</td>
<td>• Tobacco control (2)</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Emergency contraception</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Drug policy</td>
<td></td>
</tr>
</tbody>
</table>
Summary of Included Studies

Appendix 4 provides a summary of the included studies clustered by the type of framework used. For each case study, the Appendix describes key findings, the extent to which the study’s use of the framework assists understanding of the policy issue and the quality assessment score.

**Stages Heuristic**

There were no studies that meeting the inclusion criteria that relied on the stages heuristic for their analysis. One study that applied the Multiple Streams framework utilized the stages heuristic to provide a detailed narrative of the evolution of the policy for Health Impact Assessment in Sweden. Use of the stages heuristic as a descriptive framework appears useful in understanding where a policy came from, how it developed and was implemented, which is key descriptive information for subsequent analysis.

A Swedish study by Guldbrandsson and Fossom applying the Multiple Streams framework for childhood health promotion initiatives conducted its preliminary descriptive analysis using a two-dimensional matrix. One dimension was the stages heuristic and the other used an actor/structural framework (context, institution, actor, performance). The content of the published article, however, did not provide data organized by the stages heuristic. The ‘performance’ item is not typical of policy analysis but was added by the authors “to detect if any municipal health promoting measure was empty talk rather than real action.”

**Institutional Analysis and Development Framework**

Only one study used the IADF in studying the implementation of tobacco control policies in hospitals in Spain. Overall, the study was methodologically weak and had the lowest quality score reviewed in this review. The superficial use of the IADF did not appear to provide any added value to the study’s analysis.

**Punctuated Equilibrium Framework**

The two studies applying the Punctuated Equilibrium framework were both relatively weak. One of these studies addressed state tobacco policies and the other the emergence of global disease control priorities. In neither instance did the applied framework seem to improve understanding of what policy changes had or had not occurred. The reviewer’s impression for both studies is that a different framework may have been preferable for the analysis. For example, for the state tobacco control study, the ACF may have been a better choice since the ‘policy story’ was essentially one of the balance of power between the tobacco industry and tobacco control proponents. For the global disease control priorities study, the Multiple Streams framework may have been a better choice since there appeared to be constant fluctuation in a range of infectious disease problems, what could be done about them, and the perception of key decision makers until the three streams aligned and action was taken.
The main point of the Punctuated Equilibrium framework is that a large shock can generate policy change, unless, as in the case of the tobacco study, it does not generate change. The framework does not appear to assist understanding of why change did or did not occur. In contrast, both the ACF and Multiple Streams frameworks acknowledge the importance of large system shocks to spur change and provide explanatory mechanisms. The ACF considers large shocks as an opportunity for shifts in the balance of power among coalitions. The Multiple Streams framework views shocks as an opportunity for coupling of the streams with changes in how problems are perceived, solutions considered to be feasible, and/or shifts in public mood or legislative/administrative changes.

**Multiple Streams Framework**
The majority of reviewed studies applied the Multiple Streams framework across the range of domains of public health practice. The quality of studies varied markedly with scores ranging from 4-19 out of 24. The quality score was not necessarily predictive of the useful application of a framework to improve the understanding of the policy issue since the quality assessment tool focuses primarily on the methodological rigor of studies.

While the Multiple Streams framework was the most commonly encountered framework in the included studies, it did not always appear to have been the best choice for the topic under consideration. For example, some studies were addressing circumstances in which there were two or more groups with strong core beliefs that were in competition for political dominance. In such circumstances, the ACF may have been a more appropriate choice. Examples include the introduction of smoke-free legislation in a tobacco-growing county and the power issues between public health and the alcohol industry regarding national alcohol control policies. Proponents of the Multiple Streams framework indicate that the framework is most useful for ambiguous situations in which there is a lack of clarity regarding the nature of the problem and/or policy solutions. Those case studies where the framework was most useful for understanding the policy issue are described here in greater detail.

Three case studies from different countries applied the Multiple Streams framework to examine physical activity policies for schools. Figure 4 illustrates the ambiguity that was experienced in these studies regarding the framing of the problem, the types of solutions proposed, and the extent of political interest.

The nature of the problem could be viewed in a variety of ways by different actors. Some actors viewed it from a general health and well-being perspective where increased physical activity leads to improved mental health and physical health, including reducing the risk of obesity. Others however, were particularly interested in participation in sports and the need to support this to occur. Those in the educational sector were particularly interested in the potential for
physical activity to improve academic performance and address behavioural issues, and less interested in health-based perspectives.

Figure 4: Aligning the Streams for Increasing Physical Activity in Schools

Based on information from Gladwin et al., 2008.\textsuperscript{46}

Uncertainty also existed regarding how best to tackle the problem. A range of potential solutions are possible including increasing physical activity throughout the school day. This might also consider active transportation options for how children get to and from school. Another approach is to mandate daily physical education within the curriculum. Building and supporting sports infrastructure is yet another approach. As these solutions float around waiting to be coupled to other streams, some solutions will be less attractive than others. From a provincial or national perspective, active transportation as a policy solution is problematic because it requires a tailored approach to each community/school and is not feasible for all students. It also raises traffic safety concerns, and because it occurs outside of the curriculum, education officials are less likely to be engaged on the issue. The framing of active transportation can include its contribution to addressing other problems such as air pollution and thereby is a way to engage other stakeholders. However, it also risks fragmenting the description of the problem and provides a solution not salient to some key decision makers (i.e., air pollution not considered a problem of the education sector). In contrast, physical education is something to which schools have been familiar with for years.

The political stream is important in determining which solutions and associated problems may receive attention. In the two case studies from Alberta and England, there was strong political
interest in taking action. In the third case study from Scotland, there was much weaker political interest for this policy area with Ministers publicly articulating how they had disliked physical education as students. This was identified as one of the reasons for the lack of successful policy change in that country.\textsuperscript{47}

The Multiple Streams framework highlights the importance of a policy entrepreneur to take advantage of windows of opportunity to couple the streams. In both Alberta and England, entrepreneurs existed and seemed to be particularly important in engaging the education sector who were otherwise not enthused to address a health issue. In Alberta, it was the Minister of Learning, who was a physician with personal beliefs about the benefits of physical activity, who utilized his position as minister to actively seek a daily physical activity policy for schools.\textsuperscript{46} He highlighted the benefits for educators based on the research evidence that daily physical activity improves educational outcomes. In England, a non-political adviser to government on school sport and physical education served as the entrepreneur. The case study’s analysis indicated that “she managed to persuade civil servants and ministers of the potential value of physical education and school sport, despite initial departmental scepticism… [She] articulated an alternative view of school sport and physical education and skilfully positioned it as particularly relevant to the government’s broader social and educational objectives.”\textsuperscript{48}

Analysis from both locations noted the lack of effective lobbying. In Alberta, proponents for active transportation policies were locally based and relatively weak and unorganized. In England, there was an absence of effective lobbying due to fragmentation among stakeholders and their reluctance to define their objectives in terms of government priorities. The English case study also noted the value of the steady accumulation of evidence that was persuasive to more sceptical politicians and senior civil servants in the education sector.

Despite the success in policy adoption, one of the deficiencies in policy initiatives in Alberta and England was the lack of attention to implementation. In Alberta, while the daily physical activity policy was enacted, no funding for facilities or equipment was provided. In England, some key informants expressed concern regarding the extent of change in schools, particularly in elementary schools in which teachers were viewed to be less well prepared to teach physical education than 20 years previously. Neither study addressed the actual implementation of the policies.

The Multiple Streams framework was also usefully applied by Exworthy, Blane and Marmot to identify the challenges of tackling health inequalities in the UK (see Figure 5).\textsuperscript{49} The authors noted that considerable progress has been made through a series of landmark reports in establishing health inequalities as a policy problem. However, the policy solution stream is more problematic since evidence about the technical feasibility of policies remains limited.
Acceptability of policies is also unclear since the authors’ perspective is that it barely registers as a public issue. Within the politics stream, it is unclear whether a critical mass of civil servants and Ministers across government exists that is committed to tackling health inequalities. Their overall impression is that the policy window is partially open and the authors identify a number of factors that will encourage its closure or opening.

Figure 5: Application of the Multiple Streams Framework to Health Inequalities in the UK

Based on information from Exworthy et al., 2003. 49

A case study from Arkansas illustrates the application of the framework for the passage of childhood obesity legislation. 50 Figure 6 shows key points within each stream. Gradual progress over a period of years was occurring in each of the three streams. The Speaker of the House, as a policy entrepreneur, personally intervened requesting that public health officials draft legislation for a school-based policy to reduce childhood obesity. He furthermore personally advocated for passage of the bill. The public health professionals not only drafted the legislation, but had been providing information and raising awareness through the preceding years until the streams converged. The legislation that was passed included six components:

- Child Health Advisory Committee created to make recommendations to State Board of Education and Board of Health regarding physical activity and nutrition standards for schools
- Nutrition and Physical Activity Committees established in each school district to guide locally policies and programs
- Statewide school-based BMI screening with reports to parents
• Restrict student access to vending machines in elementary schools and disclosure of vending contracts and revenues
• Employ community health promotion specialists to provide technical assistance to schools in formulating and implementing the rules and regulations.  

Figure 6: Multiple Stream-Based Analysis of the Development of Obesity Legislation in Arkansas

<table>
<thead>
<tr>
<th>Problem</th>
<th>Policy</th>
<th>Politics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public health officials provide annual updates about burden of obesity and diabetes in Arkansas—lasting impressions among legislators of 40+ year olds requiring amputations and extent of problems in children</td>
<td>Previous legislative hearings on healthy school vending machine content</td>
<td>Earlier task force to study effects of obesity on children and adults</td>
</tr>
<tr>
<td>Children’s Hospital discusses sharp rise in number of cases of type 2 diabetes</td>
<td>History of school health services including screening</td>
<td>Women Legislators Conference made impact on extent of diabetes and obesity in state</td>
</tr>
<tr>
<td>Speaker of House and Governor both experience serious obesity-related health problems</td>
<td>Some schools routinely measure height and weight</td>
<td>At national meeting of legislators, contiguous states discussed different approaches to address child obesity</td>
</tr>
</tbody>
</table>

Based on information from Craig et al., 2010.  

In summary, the Multiple Streams framework has been frequently applied to a range of public health issues and appears to be useful in assessing the alignment of the problem, policy and politics streams, and the value of a policy entrepreneur to actively couple the streams.  

Advocacy Coalition Framework  
The ACF was utilized in a total of four case studies. However, as previously indicated, the ACF would have been a more useful framework for some of the studies applying other frameworks. The best application of the ACF occurred in the two tobacco-related case studies from Quebec; both of which were among higher quality studies in this review. The simplified version of the ACF used by the authors is shown in Figure 7. Key features include identifying relatively stable parameters, as well as external events that have the potential to influence the balance of power among the coalitions. The key feature of the framework is weighing the beliefs, resources and strategy of the coalitions.
The authors use the ACF to analyze two time periods for tobacco policy in Quebec. The first is the consideration of rolling back tobacco taxes in 1994 in response to a widespread increase in contraband tobacco. Figure 8 provides their analysis using the ACF.

Figure 8: ACF-Based Analysis of 2004 Tobacco-Tax Rollback in Quebec

Parameters framing the policy debate (observed as far back as 1986)
- Tobacco use entails substantial health risk for smokers.
- Youth smoking is a problem.
- Tobacco use induces health care costs.
- A smoke-free environment is a right.
- Provincial government intervention on tobacco is legitimate as long as it does not impact on the economy of the province and employment.

External Events
- Steep rise in tobacco contraband activities.
- Provincial politicians are seeing and public opinion backs the tobacco-tax rollback.

The Tobacco Policy Subsystem
- Anti-tobacco coalition
  - Homogeneous constituency (mostly organizations from the health sector).
  - Low level of organizing.
  - Low level of resources (in expertise and for the coordination of the strategy) to participate in the policy debate.
  - Willingness to participate in the policy debate is impeded by the stigma of radicalism relayed by the media.
  - The opposition strategy rested almost exclusively on a public health rational.

Promoters of a tobacco-tax rollback
- Heterogeneous and comprising influential participants.
- Well-structured media campaign backed by a high level of resources (funding and PR expertise).
- Proponents set the contraband debate, provide the data and analysis of the problem.
- Rational for the tax rollback centered on economic arguments (loss of government revenue and tobacco manufacturing jobs), prejudice to honest retailers and taxpayers, the necessity of restoring good order in Quebec society.

Politics eager to resolve the crisis and restore good order cut the tobacco provincial tax whose potential impact on public health is party addressed by a tobacco control action plan.

Source: Breton et al., 2006.52
The analysis indicates that the external events influencing the tobacco policy subsystem were a steep rise in tobacco contraband activities and upcoming provincial elections in which public opinion backs a tax rollback. Analysis of the two coalitions indicates the relative weakness of the anti-tobacco coalition with low levels of organization and resources, reliance on a health-based rationale and negative media coverage. In contrast, the promoters of the tobacco tax rollback, which included local retailers and tobacco industry employers, had a well financed and structured media campaign that framed the debate and focussed on economic arguments. Of note, the health effects of tobacco were considered to be non-debatable and are therefore included within the stable parameters domain. The prevailing perspective was that the government could legitimately intervene on tobacco as long as it did not impact the economy or employment within the province. The net result was the provincial government cut tobacco taxes. However, a partial victory for public health occurred since the government also established a tobacco control action plan that provided new tobacco control resources to public health. This appears to have laid the foundation for the next stage.

As shown in Figure 9, within a few years, the policy context had changed. As per their nature, the relatively stable parameters remained unchanged. However, several new external events (to the subsystem) were in play. These included a steep increase in tobacco use in youth, the election of a new government with a Minister of Health interested in tobacco control measures, and new insights into tobacco industry practices from disclosures in court cases in the US. When considered against the two advocacy coalitions, these events weakened the relative strength of the pro-tobacco coalition and provided an opportunity for the tobacco-control coalition. Learning from their previous experience, and taking advantage of their increase in resources, public health had increased their tobacco control expertise and realized the need to address the economic arguments of their opponents. For this reason and the highly negative media coverage they had previously endured, public health organizations created a buffer by contributing to the establishment of a NGO to advocate on their behalf.
The net result was passage by the government of a comprehensive Tobacco Act.

**Figure 9: ACF-Based Analysis of 2008 Decision to Implement Tobacco Act in Quebec**

### Relatively Stable Parameters
- Tobacco use entails substantial health risk for smokers
- Youth smoking is a problem
- A smoke-free environment is a right
- Provincial government intervention on tobacco is legitimate as long as it does not impact on the economy of the province and employment

### Constraints and Resources
- The lethality (for smokers) and addictive properties of tobacco can hardly be contested
- The legitimacy of the province in tobacco control is difficult to challenge as long as it does not impact on the economy
- Some local public health organizations acquiring expertise to address environmental determinants of tobacco use
- With previous negative media coverage, public health organizations create a non-governmental organization for advocacy efforts – particularly on non-health (economy) concerns
- Tax rollback and resulting increase in youth smoking may lead to major increases in provincial and regional tobacco control budgets and to calls for new tobacco control measures
- An anti-tobacco advocate takes office as the new Minister of Health and tables a tobacco control bill
- The federal restrictions on the promotion of tobacco products being neutralized, the provincial government can now legitimately intervene in this area
- Readily available evidence that tobacco control measures are applicable, common sense and do not harm the economy
- The tobacco industry lies and deceives

### External Events
- Election of a new provincial government with a new Minister of Health advocating tobacco control measures
- Steep increase in tobacco prevalence in youth
- Numerous instances elsewhere in Canada and abroad of successful implementation of tobacco control measures
- US administration proposed set of measures to tackle youth smoking
- Trials in US with disclosure of confidential strategic documents from the tobacco industry
- Trials in US with disclosure of confidential strategic documents from the tobacco industry
- An anti-tobacco advocate takes office as the new Minister of Health and tables a tobacco control bill
- The federal restrictions on the promotion of tobacco products being neutralized, the provincial government can now legitimately intervene in this area
- Readily available evidence that tobacco control measures are applicable, common sense and do not harm the economy
- The tobacco industry lies and deceives

### Key Messages:
- Prevalence of youth smoking has increased
- There are effective measures to control tobacco use
- The tobacco industry is deceitful
- The population backs the measures
- The tobacco industry lies and deceives
- Tobacco control measures will have a huge impact on the economy of the province

### Tobacco Policy Subsystem - 1998

#### Anti-tobacco coalition
- Increased resources available for intervening in policy debate including expertise on advocacy and tobacco industry
- Organizing and coordinating resources based on past experience
- Constituency somewhat inflated to encompass representatives from healthcare and NGOs promoting sports
- Advocacy rational encompasses not only public health issues but economic ones as well. For fear of engendering another tax debate, hardly address fiscal measures as a means to control tobacco use.

**Key Messages:**
- Prevalence of youth smoking has increased
- There are effective measures to control tobacco use
- There is a solution to alleviate the impact of the Act on tobacco-sponsored events
- The tobacco industry is deceitful
- The population backs the measures

### Opponents to tobacco control measures
- As dubious conduct of the tobacco manufacturers during the contraband crisis come under the spotlight, they lose most of their credibility in the debate
- Arguments against the Tobacco Act almost exclusively centered on economic arguments (loss of manufacturing jobs and revenue for sports and cultural events relying on tobacco industry sponsorship)

**Key Messages:**
- Only health education and the prohibition of the sale of tobacco products work
- The tobacco control measures will have a huge impact on the economy of the province

In summary, the ACF appears to be useful in breaking down a complex policy situation where there are two or more coalitions advocating for political dominance into a series of domains to aid understanding.
DISCUSSION

The intent of this project was to seek a greater understanding of the policy process related to public health issues in order to inform the policy development processes at Peel Public Health. A total of 21 case studies were retrieved applying one of the five policy analysis frameworks of interest to a range of public health-related policies. While it is possible that additional case studies may exist within the literature, this report represents the most comprehensive review of published analyses of public health related public policies.

The overall quality of included studies was only moderate with many studies not addressing a number of important methodological considerations. This is not dissimilar to a previous review of policy analysis studies in low and middle income countries published in 2008 observing that studies were “largely descriptive in nature, limiting understanding of policy change processes.”

A previous review of the application of policy process frameworks in health promotion had observed that many studies were atheoretical or utilized inappropriate types of frameworks. Since studies using specific policy frameworks was part of the selection process, this review cannot comment on whether the proportion of studies using policy frameworks is changing. Nevertheless, there is an accumulating body of literature applying such frameworks to public health-related issues.

As indicated by previously noted commentary on the quality assessment of qualitative studies, the quality assessment step was not straightforward. The quality assessment tool used in this review had been previously used by Peel Public Health. Since it was originally developed for use by a clinical service, some questions were oriented towards ‘participants’ and ‘study site’, whereas for a policy case study, ‘actors’ and ‘context’ are more appropriate. Despite the presence of a guidance document, considerable judgement was required in applying aspects of the tool and was the source of scoring differences between the two reviewers.

The inter-rater differences in quality assessments have implications for the future conduct of reviews of qualitative studies. Tailoring the selection of the tool to the nature of the studies may be of assistance. Since the purpose of this review is on seeking understanding regarding the application of policy frameworks versus directly applying the results of the analysis, the quality scores are relatively less important. However, the quality assessment highlighted a series of methodological gaps in many policy analyses that can be addressed in the application of the frameworks at Peel Public Health in the future.

The reviewed case studies indicate that existing policy frameworks can assist with the understanding of the policy process. While the descriptions of policymaking reinforce the sense that the black box of policymaking is complex, chaotic and unpredictable with many factors
influencing policy decisions, at least two of the policy frameworks showed that they could contribute to understanding the policy process.

There were indications in many of the case studies regarding the use of evidence. It tended to play a supporting role and did not appear to be a primary or sufficient driver in any of the studies. Nevertheless, public health officials and/or the use of evidence were key factors in many studies. This included the use of evidence to achieve recognition of a problem (i.e., agenda setting), to refute opposing group’s messages, and to win over reluctant stakeholders.

A key learning from this review is the importance of conducting a policy analysis in two stages. The first stage is descriptive in nature and needs to achieve a sufficient understanding of the current status of the policy issue and the history of its development, as well as the various actors and the policy context. When studies provided this descriptive analysis, it was much easier to understand and apply the policy framework as part of the explanatory analysis. Several studies tried to utilize one of the policy frameworks prematurely without providing a sufficient understanding of the key elements resulting in a superficial and inadequate policy analysis product.

The most frequently applied and useful policy process frameworks that fostered understanding of the policy process were the Multiple Streams framework and ACF. These frameworks appear to be complimentary having different strengths depending upon the type of issue and the policy context. In general, the Multiple Streams framework is particularly useful for ambiguous problems that are competing for attention with many other issues and for which solutions are not clear. Encountered examples include the government response to obesity or health inequalities.

In contrast, the ACF is particularly useful where two or more coalitions are competing on an issue to have their positions be politically dominant (i.e., accepted, resourced, supported, etc.). These coalitions are often based on differing strongly held core beliefs. Encountered examples included drug policy (abstinence vs. harm reduction), tobacco control policy (individual choice and economic benefit vs. health of the public), and emergency contraception (anti-abortion vs. woman’s choice and health).

The implication is that deciding which framework to initially apply should be driven by the nature of the issue and context. While not encountered in this set of case studies, there may be circumstances in which both of these frameworks may provide complementary perspectives on an issue. The study of school sport and physical education policy in England had intended to apply both the Multiple Streams and Advocacy Coalition Framework. However, due to the absence of effective coalitions, the latter was not particularly helpful.\textsuperscript{48}
The case studies utilizing the other two policy process frameworks did not provide convincing evidence for their usefulness. Nevertheless, these frameworks provide concepts that may be useful to an analysis. For example, the IADF indicates that analysis should be conducted at multiple system levels. In other words, whether the interaction between actors, institutions, and content varies among local, provincial and national levels. With respect to the Punctuated Equilibrium framework, it indicates that consideration should be given to noting whether or not any major factors have or could occur that may encourage policy change.

Overall, the case studies indicated that the policy frameworks are suited to the study of policy, but do not directly identify the actions for policy. In other words, they help to understand a policy situation regarding what has happened, but not necessarily how to influence it. This is consistent with our initial conceptual framework that separated out the steps of policy analysis and policy engagement. The latter is not the focus of this literature review, but will be touched upon later in this report.

**Implications for Policy Analysis by Public Health Organizations**

As shown earlier in the conceptual framework in Figure 1, prior to conducting a policy analysis, public health staff should have an understanding of the issue and the existing state of evidence for effective interventions. At a minimum, this would involve checking the latest available health status information, retrieving a recent high quality literature review, and prioritizing available policy options. Several existing resources address these steps and additional considerations.

Once there is clarity of the nature of the problem, effective solutions and an identified policy issue of interest, the next step is the policy analysis work, which should be divided into two parts:

a. Descriptive analysis
b. Explanatory analysis.

**Descriptive Analysis**

The importance of conducting the descriptive analysis is that it provides the material for use in the explanatory analysis. A variety of approaches to conducting the descriptive analysis appear in the literature because there are different dimensions that need to be addressed. The case studies that provided a narrative of the development of a policy were particularly helpful in ‘telling the story’ of where and how the policy issue emerged, how it has developed, and its current status. To this end, the stages heuristic appears to be a useful tool to break down the policy process into different stages or categories recognizing that policy processes do not follow a clean linear process. The use of this framework is as a descriptive, and not explanatory, tool.
Different sources use slightly different numbers and labels for the stages. Nevertheless, the use of five stages is common:

- **Agenda Setting**: how have problems been recognized and received attention; how have they been framed
- **Policy Formulation**: how were policy options considered and decided upon, how were they communicated
- **Policy Adoption**: what decision was made
- **Policy Implementation**: what rules and procedures were established to implement the policy; to what extent were they aligned with the initial intentions of the policy
- **Policy Assessment**: what has been the impact of the policy, how is it monitored, has it achieved its objectives, are there unintended consequences.

Following this grounding in what has happened, more information is required to examine several dimensions of the policy process. This includes:

- **Actors**: may be individuals or groups or organizations; who are the key actors, what are their beliefs, their interests, and their influence (i.e., power)
- **Context**: what systematic factors (political, economic, social, other) have/may affect the policy; are there external events that may influence or shock the policy context
- **Institutions**: what rules or norms are there for policy processes; what differences in perspectives may there be by system level (local, provincial, national, international).

It should be noted that different authors have slightly different ways of lumping and splitting these concepts. For example, the policy analysis triangle by Walt and Gilson includes content, context and process with actors in the middle of the triangle. Several authors refer to the ‘3 l’s’ of ideas, interests and institutions. Ideas are the mental constructions and beliefs of policy actors, while institutions are the rules, procedures and organizations that structure conduct. Interests are what actors have at stake or are affected by an issue. Regardless of how these inter-dependent concepts are labelled, a framework needs to be applied to seek explanation of the policy process.

One additional integrative approach is worth noting. In the case study of childhood health promotion initiatives in Sweden, the authors combined the stages heuristic with the actor/structure elements generating a two-dimensional matrix for data collection and organization. Since the authors did not provide the completed matrix, it is unclear whether it would be useful to do so versus just having a listing of the completed elements. Applying the proposed approach with real policy examples will help indicate which tools are most useful for the public health context. For example, this could include piloting with staff separate and combined templates of the stages heuristic and actor/context dimensions to assess what is preferred.
**Explanatory Analysis**

Once the raw material is available from the descriptive analysis, one or more of the policy process frameworks can be used to seek greater understanding of what has or is occurring. This literature review has found that the Multiple Stream framework and ACF have been most useful for a range of public health-related policies. The one to start with depends upon the issue and context. Since the two frameworks are complementary, an attempt at applying the other framework should occur. Key concepts from the other two policy process frameworks have been embedded within the descriptive analysis (i.e., looking for a major external event that could shock the policy context (Punctuated Equilibrium) and the role of rules and norms, and system levels (IADF)).

Application of the MS framework needs to consider:

- **Problem stream:** extent the issue is perceived to be a problem; how it is framed; extent of attention it is receiving as it competes against other problems
- **Policy/solution stream:** technical feasibility; value acceptance; alignment with prevailing currents; creates interest
- **Politics stream:** what is the public mood; influence of pressure-groups; administrative change; legislative turnover
- **Alignment of the streams:** is there a window of opportunity
- **Policy entrepreneur:** is there someone influential that can couple the streams.

Application of the ACF needs to consider:

- **Stable parameters:** factors that do not change for a generation or more; e.g., constitution, economic system, well-established facts that are beyond debate (e.g., smoking causes cancer)
- **Dynamic/new factors:** external factors that may alter the policy environment e.g., business cycle, election, new disease (e.g., AIDS), new information (e.g., proof of tobacco industry deception)
- **Coalitions:** what are the coalitions, what are their values, beliefs, interests, resources, and strategies
- **Information:** how is information being used; what are the sources.

The application of one or both of these frameworks involves a mix of science and art. The latter is hypothesizing how the different domains are interacting to produce the observed result. The next section involves taking the next step of seeking to influence the policy.

**Implications for Policy Engagement**

The preceding explanatory analysis involved the creation of hypotheses to explain the policy process. Prospective analysis involves an even greater use of hypotheses to attempt to leverage the existing understanding to identify what may or may not happen depending upon what
interventions or changes occur. To a large degree, the reviewed case studies focused on analyzing what had happened versus attempting to look forward to what might happen, although some authors made high level suggestions regarding factors that may help create policy change. This relative lack of prospective analysis does not appear to be unique for public health-related policies. According to Buse, there are few accounts in the overall policy literature of prospective policy analysis.  

While not the focus of this review, the initial literature scoping identified a variety of tools and checklists to aid in policy engagement strategies that will be noted recognizing that that this area requires more in-depth information collection and analysis.

Public health authors tend to focus on the use of information and evidence. For example, Benoit identifies possible public health roles depending upon the stage of the policy cycle (see Table 5).

**Table 5: Possible Public Health Roles for Stages in the Policy Cycle**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
<th>Public Health Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agenda Setting</td>
<td>Problems are recognized and discussed</td>
<td>Problem structuring. Challenge assumptions underlying definition of problems. Influence what types of evidence are used to look at the problem.</td>
</tr>
<tr>
<td>Policy Formulation</td>
<td>Policy options (alternatives) are considered and evaluated</td>
<td>Forecasting. Determine the consequences of existing or proposed policies.</td>
</tr>
<tr>
<td>Policy Adoption</td>
<td>A decision is made</td>
<td>Recommendations. Reveals information and identifies future benefits and costs under all policy scenarios through information generated via forecasting.</td>
</tr>
<tr>
<td>Policy Implementation</td>
<td>Rules and procedures are set out</td>
<td>Monitoring. Provides information about the consequences of previously adopted policies.</td>
</tr>
<tr>
<td>Policy Assessment</td>
<td>Policy is evaluated, revised or even terminated</td>
<td>Evaluation. Reveals discrepancies between expected and actual performance.</td>
</tr>
</tbody>
</table>

From: Benoit, 2008.

Similarly, Lavis describes how systematic reviews addressing different types of questions can be used to influence policymaking at different stages. Furthermore, engagement strategies such as deliberative dialogues with decision makers can be employed in some situations to encourage the transfer of information from researchers/practitioners to policymakers.

There are many more options within public health’s policy engagement repertoire. These include the establishment of community partnerships and coalitions, media advocacy, community mobilization, and providing technical support and resources to community groups. While not necessarily all applicable to public health action, Buse et al provide a more comprehensive categorization of political strategies for policy change to shift position, power, players, or perception (the 4 ‘P’s):
**Position strategies** – in general, this is about changing the *content* of the proposed policy so that it is more closely aligned to the interests of some of the players:

- Making a deal with those in opposition or neutral to make them more supportive or less opposed by altering a particular component of the policy
- Deals can be struck through which support is sought for one issue in return for concessions on another
- Promises can be made
- Threats can be made

**Power strategies** – can be used to affect the distribution of political assets of the players involved to strengthen supportive groups and undermine opposition groups:

- Providing supportive actors with:
  - Funds, personnel and facilities
  - Information to increase expertise
  - Access to decision makers and the media
  - Links to supportive networks
  - Public relations materials which highlights supportive actors’ expertise, legitimacy, victim status or heroic nature
- Limiting political resources of opponents by:
  - Challenging their legitimacy, expertise, integrity or motives
  - Reduce their access to decision makers
  - Refuse to cooperate or share information with them or withhold information

**Player strategies** – attempt to impact the number of actors involved in a policy area:

- Mobilize those that are neutral (e.g., inform a group that an item is on agenda and what their stake in the issue is)
- Undermine opponents (e.g., identify a sub-group within the larger group that might benefit from your proposal and attempt to win them to your side)
- Change the venue of decision making

**Perception strategies** – use the force of ideas and the perceptions of a problem and its solution

- Use data and arguments regarding the relative importance of a problem or the practicality of a policy solution
- Frame the problem in a manner to gain support (e.g., preventing congenital syphilis as something inflicted on innocent infants versus treating mothers with sexually transmitted diseases, which may raise moral challenges)
- Appeal to prevailing values – e.g., appealing to fairness and equity by comparison to other issues/conditions
- Invoke symbols to change perceptions – e.g., use of celebrities, brand the initiative.\(^{55}\)
The University of Kansas’ *Community Tool Box* applies a more pragmatic and process-oriented approach providing a tool to influence policy development. High level categories include the following with more detail available within the resource:

1. State why a policy needs to be developed or modified
2. Study the issue or problem a policy change would affect
3. Based on knowledge about the issue or problem and who it affects, indicate the type and context of policies to be developed
4. State what your group will do to influence each of the stages of policy development (e.g., agenda setting)
5. Identify resources and assets to be used for policy development
6. Indicate potential allies and opponents of policy development efforts
7. Identify targets and agents of policy change efforts and their assets and interests.
8. Depending on the broad goal of your policy development efforts (see #3), choose the strategies and action plan to be used
9. Review whether the planned policy goals, strategies and actions fit the situation
10. Create an action plan to carry out your policy efforts (who is going to do what by when)
11. Influence the adoption of a policy or how it will be implemented
12. Assess the evaluation of the policy development effort
13. (As appropriate) State the circumstances under which you will close out the policy development effort.

In contrast, Catfield focuses on generating political will for health promotion efforts:

- **Issue:**
  - Vital that the intervention is seen to be responding to a perceived problem
  - There needs to be a strong constituency of support both inside and outside government advocating for the measure
  - Need to give confidence that the intervention is possible and realistic

- **Source:**
  - Advocates need to demonstrate their own credibility and status with community, politicians and government – knowledgeable, legitimate and trustworthy?

- **Benefits:**
  - Provide solutions, not more problems
  - Create multiple ‘wins’ for different stakeholders
  - Emphasize the consequences and risks from not acting are worse

- **Timing:**
  - Build on existing policies and political ‘entry points’ that have already been agreed
  - Place issues on political agenda before an election so can be included in policy platforms
  - Avoid major funding requests midway through term

- **Methods:**
  - Develop supportive and constructive relationships – show empathy and realism
In summary, Catfield’s five ‘P’s include:

- Position: what are you seeking; when do you want it to happen
- Perception: How does this fit within current context? What are the benefits?
- Players: Who are you? What credibility do you have? How united are you?
- Power: What resources and influence do you have to influence the agenda?
- Persistence: How determined are you? Will you stay the course?\textsuperscript{16}

And finally, focusing on developing a policy strategic plan, Hoover outlines the following steps:

1. Who can make the change (city council, planning board, business owner)?
2. Who influences their decisions?
3. Why should this change be made?
4. What kinds of data and other information are needed?
5. What are arguments in favor? Against?
6. Who is likely to oppose?
7. How can you counter their arguments?
8. Do you have a media plan?
9. What actions will be taken?
10. Who will do them?
11. When?\textsuperscript{57}

As indicated, the foregoing is a sample of existing tools to help inform action on public policy. The source documents for these lists provide considerably more guidance.

**Summary**

Building on this review’s conceptual framework, it is envisioned that an evidence-informed process to understand and influence public health-related public policies would involve several inter-related components (see Figure 10).
Interest in conducting a policy analysis will presumably be driven by the knowledge of a particular health issue, existing evidence, and a particular policy area for further exploration. Then one can proceed on conducting a descriptive analysis, which provides the raw material for conducting the explanatory analysis. That understanding can then be leveraged to conduct a prospective analysis to hypothesize potential opportunities for influencing the policy environment. These can then be initiated and the impact monitored.
CONCLUSION
This literature review sought, retrieved and reviewed the application of prominent policy process frameworks to public health-related issues. A total of 21 case studies were reviewed indicating that these policy frameworks can facilitate understanding of the process for public policy. Based on the findings of this review, a suggested approach is provided for conducting policy analysis in a systematic way by a public health organization. The findings of this analysis can then be used to inform subsequent policy engagement strategies.
GLOSSARY

**Actor**: any participant in the policy process that affects policy including individuals, organizations, groups and even the government.

**Advocacy coalition**: group within a policy sub-system distinguished by a shared set of norms, beliefs and resources. Can include politicians, civil servants, members of interest groups, journalists and academics who share ideas about policy goals and to a lesser extent about solutions.

**Agenda setting**: process by which certain issues come onto the policy agenda from the much larger number of issues potentially worthy of attention by policy makers.

**Context**: systematic factors which may have an effect on health policy, e.g., political, economic, social or cultural.

**Evidence**: any form of knowledge, including but not confined to research, of sufficient quality to be used to inform decisions.

**Evidence-informed policy**: movement within public policy to give evidence greater weight in shaping policy decisions. ‘Evidence-informed’ more appropriate to ‘evidence-based’ since evidence is only one factor influencing decision making.

**Institutions**: the ‘rules of the game’ determining how government and the wider state operate. May be formal structures and procedures, but also informal norms of behaviour that may not be written down.

**Policy formulation**: how policies are arrived at, agreed upon and how they are communicated.

**Policy implementation**: how policies are implemented and the extent of any diversion or change from how formulated.

**Policy assessment**: what happens once a policy is put into effect – how it is monitored, whether it achieves its objectives and whether it has unintended consequences.

**Power**: the ability to influence people and in particular, to control resources to achieve a desired outcome.

From Buse, Mays and Galt, 2012\(^{55}\)
APPENDIX 1 – SEARCH STRATEGY

The following is the search strategy used for Medline:

1  stages.tw. (224983)
2  heuristic.tw. (3927)
3   1 or 2 (228846)
4  policy.tw. (89422)
5   3 and 4 (1024)
6  brewer.tw. (277)
7  deLeon.tw. (19)
8   6 or 7 (296)
9   5 and 8 (0)
10  policy.ti. (23968)
11  5 and 10 (141)
12  ostrom.tw. (7)
13  institutional analysis.tw. (151)
14  iad.tw. (451)
15   12 or 13 or 14 (608)
16   4 and 15 (6)
17  kingdon.tw. (20)
18  stream*.tw. (29931)
19   17 or 18 (29949)
20   4 and 19 (354)
21  10 and 20 (78)
22  sabatier.tw. (37)
23  advocacy coalition.tw. (22)
24  acf.tw. (1470)
25   22 or 23 or 24 (1524)
26   4 and 25 (17)
27  punctuated equilibrium.tw. (69)
28   4 and 27 (3)
29   11 or 16 or 21 or 26 or 28 (244)
30  limit 29 to yr="2001 -Current" (165)

A modified version of this search strategy was utilized in additional databases.
APPENDIX 2 – QUALITY ASSESSMENT TOOL

The quality assessment tool for qualitative studies developed by Letts et al.\(^{38}\) was utilized in this review. In the tool, Y=Yes; N=No; and, NA=Not Addressed. Minor modifications were made to tailor the tool to the study issue – these are noted within questions through the use of italics and underlining. The assessment tool included the following questions:

Study Purpose:
- Was the purpose and/or research question clearly stated? Y/N
  - Outline the purpose of the study and/or research questions.

Literature:
- Was relevant background literature reviewed? Y/N
  - Describe the justification of the need for this study. Was it clear and compelling?
  - How does the study apply to your practice and/or to your research question? Is it worth continuing this review?

Study Design:
- What was the design? (phenomenology; ethnography; grounded theory; participatory action research; other)
  - Was the design appropriate for the study question? (i.e., rationale) Explain.
- Was a theoretical perspective identified? Y/N
  - Describe the theoretical or philosophical perspective for this study e.g., researcher’s perspective.
- Method used: (participant observation; interviews; document review; focus groups; other)
  - Describe the method(s) used to answer the research question. Are the methods congruent with the philosophical underpinnings and purpose?

Sampling:
- Was the process of purposeful selection described? Y/N
  - Describe the sampling methods used. Was the sampling method appropriate to the study purpose or research question?
- Was sampling done until redundancy in data was achieved? Y/N/NA
  - Are the participants described in adequate detail? How is the sample applicable to your practice or research question? Is it worth continuing?
- Was informed consent obtained? Y/N/NA

Data Collection – Descriptive Clarity
- Clear and complete description of site (setting): Y/N; of participants (actors): Y/N
  - Describe the context of the study. Was it sufficient for understanding of the “whole” picture?
• Role of researcher and relationship with participants: Y/N
  ○ What was missing and how does that influence your understanding of the research?
• Identification of assumptions and biases of researcher: Y/N

Data Collection – Procedural Rigour
• Procedural rigour was used in data collection strategies? Y/N/NA
  ○ Do the researchers provide adequate information about data collection procedures e.g., gaining access to the site, field notes, training data gatherers? Describe any flexibility in the design and data collection methods.

Data Analysis – Analytical Rigour
• Data analyses were inductive? Y/N/NA
  ○ Describe method(s) of data analysis. Were the methods appropriate? What were the findings?
• Findings were consistent with and reflective of data? Y/N

Data Analysis – Auditability
• Decision trail developed? Y/N/NA
  ○ Describe the decisions of the researchers re: transformation of data to codes/themes. Outline the rationale given for development of themes.
• Process of analyzing the data was described adequately? Y/N/NA

Data Analysis – Theoretical Considerations
• Did a meaningful picture of the phenomenon under study emerge? Y/N
  ○ How were concepts under study clarified and refined, and relationships made clear? Describe any conceptual frameworks that emerged.

Overall Rigour
• Was there evidence of the four components of trustworthiness? Credibility: Y/N; Transferability: Y/N; Dependability: Y/N; Confirmability: Y/N
  ○ For each of the components of trustworthiness, identify what the researcher used to ensure each.
  ○ What meaning and relevance does this study have for your practice or research question?

Conclusions and Implications
• Conclusions were appropriate given the study findings? Y/N
  ○ What did the study conclude? What were the implications of the findings for occupational therapy (policy analysis of public health-related public policies) (practice and research)? What were the main limitations in the study?
• The findings contributed to theory development and future OT (policy analysis of public health-related public policies) practice/research? Y/N
APPENDIX 3 – MORE DETAILED SEARCH RESULTS

Table 6 provides a more detailed breakdown of the search results.

Table 6: Summary of Search Results

<table>
<thead>
<tr>
<th>Source</th>
<th>Medline</th>
<th>Additional Databases**</th>
<th>Other (Cited references; Contacted experts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total identified</td>
<td>165</td>
<td>211*</td>
<td>25</td>
</tr>
<tr>
<td>Primary relevance assessment (retrieved)</td>
<td>45</td>
<td>18</td>
<td>-</td>
</tr>
<tr>
<td>Met inclusion criteria</td>
<td>10</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

*Originally 442 items, but obvious duplicates from Medline search were detected and removed.
**Includes: Psychinfo; Global Health; Sociological Abstracts, Healthstar, CINAHL

Among the Medline search, reasons for rejecting records for further review are summarized in Table 7.

Table 7: Reasons for Rejecting Medline Citations for Further Assessment

<table>
<thead>
<tr>
<th>Reason</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health service design/funding</td>
<td>22</td>
</tr>
<tr>
<td>Focus on clinical service</td>
<td>21</td>
</tr>
<tr>
<td>Broader health/social issue (e.g., human trafficking, housing co-ops)</td>
<td>17</td>
</tr>
<tr>
<td>Modelling/KTA</td>
<td>12</td>
</tr>
<tr>
<td>Markedly different contexts (e.g., sub-Saharan Africa)</td>
<td>10</td>
</tr>
<tr>
<td>Non-English</td>
<td>8</td>
</tr>
<tr>
<td>Discussion documents</td>
<td>6</td>
</tr>
<tr>
<td>Focus on researcher/KT</td>
<td>4</td>
</tr>
<tr>
<td>Disease control</td>
<td>4</td>
</tr>
<tr>
<td>Methodology focus</td>
<td>3</td>
</tr>
<tr>
<td>Focus on lab procedures</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
</tr>
</tbody>
</table>
## APPENDIX 4 – INCLUDED POLICY FRAMEWORK CASE STUDIES

### Table 8: Summary of Case Studies Applying Policy Framework to Public Health-Related Issue

<table>
<thead>
<tr>
<th>Framework</th>
<th>Issue (Author)</th>
<th>Key Findings</th>
<th>Model Application Assisted Understanding and/or Action</th>
<th>Guidance on How to Apply Model</th>
<th>Quality Assessment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stages heuristic</td>
<td>Health impact assessment in Sweden (Mannheimer 2007)⁴⁹</td>
<td>The ‘problem’ relating to inequalities seems to have opened a window for HIA, but lack of attention to implementation and differing political perspectives has hampered progress</td>
<td>Helps understand the time sequence (i.e., where idea came from), how policy proposal came to be, and problem with implementation</td>
<td>No (refers to Buse)</td>
<td>8/24 (Kingdon focus)</td>
<td>More detail provided with this framework than with Kingdon.</td>
</tr>
<tr>
<td>Institutional Analysis and Development Framework</td>
<td>Tobacco control policy implementation in Catalan hospitals (Martinez 2009)⁴¹</td>
<td>Implementation has been incomplete with five key management and executive outcomes impeding successful implementation.</td>
<td>No</td>
<td>No</td>
<td>4/24</td>
<td>Impression is that could have likely come to the same conclusions without mentioning the IAD model. (i.e., what are the typical barriers to implementing hospital-based tobacco control policies) unclear how collected or analyzed data</td>
</tr>
<tr>
<td>Multiple streams</td>
<td>Physical activity policy in schools in Alberta (Gladwin et al, 2008)⁴⁶</td>
<td>Streams became linked for daily physical activity but not walk-to-school initiatives. Minister who was physician as policy entrepreneur</td>
<td>Shows alignment for one policy option and not another. However, relationships unclear among values, beliefs and political context. Action of policy entrepreneur not described.</td>
<td>Partial. Use of questionnaire structured by agenda setting, policy formulation and decision-making. Findings then analyzed via streams model.</td>
<td>13/24</td>
<td>Stream model useful to seek understanding in situation where there was ambiguity (i.e., what to do about physical activity in children). Lack of coalitions. But, needed more data to improve understanding of context and process.</td>
</tr>
<tr>
<td>Framework</td>
<td>Issue (Author)</td>
<td>Key Findings</td>
<td>Model Application Assisted Understanding and/or Action</td>
<td>Guidance on How to Apply Model</td>
<td>Quality Assessment</td>
<td>Comments</td>
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</tr>
<tr>
<td>Evolution of school sport and physical education policy (Houlihan and Green, 2006)⁴⁸</td>
<td>Politician interest in finding a policy solution, but none obvious. Key role of policy entrepreneur to couple streams assisted by context that favoured action by politicians, increasing evidence of benefit, and alignment with broader political aims.</td>
<td>Yes – ambiguous situation of what should be done with key role by policy entrepreneur</td>
<td>No</td>
<td>12/24</td>
<td>Authors considered ACF, but found no evidence of effective coalition. Was ‘policy learning’ but this was leveraged by the entrepreneur.</td>
<td></td>
</tr>
<tr>
<td>School sport and physical education policy (Reid and Thorburn, 2011)⁴⁷</td>
<td>Ambiguous problem with different problem perspectives and solutions and without strong political interest and focus on implementation.</td>
<td>Yes – analysis broken down by streams.</td>
<td>No</td>
<td>12/24</td>
<td>Narrative indicates how there were challenges within all of the streams and without entrepreneur to help coupling.</td>
<td></td>
</tr>
<tr>
<td>Social entrepreneurship in urban policy (de Leeuw 1999)³⁸</td>
<td>Cities that recognize three Kingdon streams more likely to influence policy agendas. Institutionalized entrepreneurs more likely to have impact</td>
<td>Somewhat, although insufficient data provided for each stream within individual cities. Actual actions of entrepreneurs not described.</td>
<td>Not in any detail.</td>
<td>13/24</td>
<td>Stream appears potentially useful for local policy context, but more data needed. Institutionalized entrepreneur interesting concept (very public health relevant), but little info provided on actual actions.</td>
<td></td>
</tr>
<tr>
<td>Framework</td>
<td>Issue (Author)</td>
<td>Key Findings</td>
<td>Model Application Assisted Understanding and/or Action</td>
<td>Guidance on How to Apply Model</td>
<td>Quality Assessment</td>
<td>Comments</td>
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<td>Tackling health inequalities in the UK (Exworthy et al, 2003)&lt;sup&gt;39&lt;/sup&gt;</td>
<td>Made progress getting inequalities viewed as a problem. However, limitations regarding solutions and politics to make progress.</td>
<td>Yes, in terms of need positive response to all three streams and have them aligned.</td>
<td>At high level yes, but not in any detail</td>
<td>11/24</td>
<td>Value of looking at an ambiguous issue along three streams.</td>
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<td>Tackling health inequalities in Norway (Strand and Fosse, 2011)&lt;sup&gt;59&lt;/sup&gt;</td>
<td>Policy alternatives must be advocated for a long period before an opportunity presents itself</td>
<td>No</td>
<td>No</td>
<td>5/24</td>
<td>Limited data gathering; unclear methodology; insufficient description of context and actors</td>
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<td>Introduction of childhood obesity legislation (Craig et al, 2010)&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Legislation resulted from alignment of the three streams and the leadership of policy entrepreneur. Key supporting role for public health</td>
<td>Yes can see how three streams aligned.</td>
<td>Yes, sample questions provided and diagram showing alignment helpful</td>
<td>17/24</td>
<td>Shows alignment of the streams with practical example.</td>
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<td>Health impact assessment in Sweden (Mannheimer 2007) &lt;sup&gt;39&lt;/sup&gt;</td>
<td>The ‘problem’ relating to inequalities seems to have opened a window for HIA, but lack of attention to implementation and differing political perspectives has hampered progress</td>
<td>Somewhat – model seems insufficiently applied with data sources limited to documents. Not clear there was agreement to ‘the problem’, and blending politics and policy streams not helpful. No mention of policy entrepreneur.</td>
<td>Initial data collection to include content, actors, processes and context of policy-making. No guidance regarding Kingdon model application itself.</td>
<td>12/24</td>
<td>Data collection approach seems inadequate. Application of model seems superficial (e.g., clarity of the ‘problem’ seems critical).</td>
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<td>Health impact assessment in Slovakia (Mannheimer et al, 2007)⁵⁰</td>
<td>Multiple windows opened: problem (deteriorating health status; lack of intersectorality); politics (transition in approach to government); policy (HIA was favoured by WHO and EU)</td>
<td>No. Insufficient descriptive information is provided in order to be able to fully understand the analysis. In addition, much more attention given to implementation than policy itself</td>
<td>No.</td>
<td>9/24</td>
<td>Insufficient descriptive analysis in order to support the analysis by the multiple streams.</td>
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<td>Childhood health promotion initiatives in Sweden (Guldbrandsson and Fossum, 2009)⁴⁰</td>
<td>In 9 case studies, outlined policy, problem, politics and role of policy entrepreneur</td>
<td>Yes. Demonstrated analysis in two stages. One to describe in two dimensions (stages and structure/actor) and then apply streams</td>
<td>Conceptually yes. List of interview guide items provided in earlier publication⁴¹</td>
<td>19/24</td>
<td>Very good methods. Somewhat weak in applying enough detail around context to fully understand what happened.</td>
<td></td>
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<td>Contraband tobacco in Canadian context (Schwartz and Johnson, 2010)⁶²</td>
<td>Nature of the contraband problem has changed such that there is no political agreement on a feasible solution.</td>
<td>Yes, showed how problem has changed and that while understood, no agreement on what to do.</td>
<td>No.</td>
<td>11/24</td>
<td>Shows need alignment of the three streams. Doesn’t address how to make this so. Also tends to mix policy and political streams together.</td>
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<td>Mandatory reporting of health-care associated infections (Odom-Forren and Hahn, 2006)⁵³</td>
<td>Three streams not fully aligned; concern for problem is there, but different solutions possible, and political stream is unclear</td>
<td>Yes, although limited by lack of information</td>
<td>No</td>
<td>4/24</td>
<td>Methodology unclear. Poor description of context and actors. Detectable bias towards reporting.</td>
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<td>Smoke-free legislation in tobacco county (Greathouse et al, 2005)⁴⁴</td>
<td>Number of events and trends provided window of opportunity.</td>
<td>Yes, although model limited to explain 'why'.</td>
<td>No</td>
<td>6/24</td>
<td>Methodology unclear. Advocacy coalition may have been more appropriate framework to apply</td>
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<td>Alcohol policy (Greenfield, Johnson &amp; Giesbrecht, 2005)¹⁰,⁴⁶</td>
<td>Findings generally consistent with Kingdon, although not clear how windows of opportunity occur</td>
<td>No</td>
<td>No</td>
<td>18/24</td>
<td>Recurrent theme is that of a power struggle between two groups with quite different core beliefs. ACF may have been better choice. Use of science mainly to bolster existing views</td>
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<td>Advocacy Coalition Framework</td>
<td>Drug policy in Switzerland (Kubler 2001)⁴⁴</td>
<td>Existing competition between coalitions advocating different belief systems externally shocked by AIDS epidemic causing a shift in their power distribution</td>
<td>Incompatible deeply held beliefs: drug use as a deviant behaviour and individuals need help to get back on track; vs, harm reduction model. With AIDS, prevention became more important than abstinence with shift in power balance; coalitions not fixed but fluid depending on issue specifics</td>
<td>None. Narrative description. Non-systematic application of the ACF domains</td>
<td>7/24</td>
<td>Good example of how external event shifted power balance between belief-based coalitions. Not a single decision, but series of issues as both sides adapted to previous decisions. Also, coalitions morphed and aligned with other networks to pursue their core beliefs. Major limitation is lack of methodology description.</td>
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<td>Fighting a tobacco-tax rollback secondary to tobacco smuggling (Breton et al, 2006)</td>
<td>Tax reduction coalition was stronger due to more financial resources, better use of media, and more heterogeneity. Change in resources and loss of influence of industry later shifted balance.</td>
<td>Analysis of power balance between coalitions providing understanding why lost initial fight about tax rollback.</td>
<td>Yes, ACF-based diagrams show analysis at two points in time when tax reduction won and when later tobacco strategy won.</td>
<td>15/24</td>
<td>Very good example of how external events shifted power balance between coalitions. Diagrams quite helpful to distill what was going on.</td>
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<td>Tobacco control policy in Quebec (Breton et al, 2008)</td>
<td>Adoption of Quebec Tobacco Act explained using ACF. Importance of external events and recognition that most important issues were not the health impacts, but potential economic ones.</td>
<td>Impact of contraband crisis enabled influencing of government agenda. Advocates addressed economic aspects of industry’s strategy &amp; failure of opponents to present a unified voice.</td>
<td>Uses ACF components of ‘relatively stable parameters’ and ‘external events’ to identify constraints and resources of subsystem actors. Strategically, public health organizations created an NGO to do advocacy work, particularly to address the non-health issues.</td>
<td>16/24</td>
<td>Very good example of application of the ACF. Cannot leave unaddressed concerns for non-health-related policy impacts. Authors note that more complex issues such as obesity and physical activity attract more complex constellations of policy actors that will transcend a ‘policy subsystem’.</td>
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<td>Emergency contraception for sexual assault victims in Tennessee (Schorn 2005)</td>
<td>Considering the two coalitions with deep beliefs, analysis suggests need to frame the issue as one of the health and well-being of women and on pregnancy prevention</td>
<td>Two main coalitions of proponents and opponents and their being driven by their core beliefs.</td>
<td>No, but use of ACF theory to suggest ways to address the power balance between the two coalitions</td>
<td>7/24</td>
<td>Value here is use of ACF to understand the situation and suggest the potential routes of policy change to shift the balance. Weakness is lack of information on methodology (data sources, analysis, etc.).</td>
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<td>Punctuated-Equilibrium Theory</td>
<td>State tobacco policies in US (Givel 2006)</td>
<td>Despite widespread disturbance of the system through coalitions of health advocates and Master Agreement, no major change in policy</td>
<td>No, other than that shocks by less powerful won’t always be successful. Seems as though ACF would have been better model to apply to this issue.</td>
<td>No.</td>
<td>8</td>
<td>Not entirely clear whether it is the lack of depth within the theory or the lack of its application is the issue in this paper. Since two coalitions with strong core beliefs, ACF might have been better choice.</td>
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<td>Emergence of disease control priorities (Shiffman et al, 2002)</td>
<td>Global disease control priorities experience long periods of incremental change and then bursts of activity. Change related to convergence of agreement of problem, solution and political interest</td>
<td>No – doesn’t really seem to be a model. Description of factors fits Kingdon streams</td>
<td>No other than looking at image (way in which a given problem and set of solutions are conceptualized) and venue (set of actors and institutions that make decisions)</td>
<td>6</td>
<td>Seems to fit Kingdon streams. No methodologic description.</td>
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</table>
REFERENCES


(4) Lavis JN. How can we support the use of systematic reviews in policymaking? PLoS Med 2009; 6(11).


(11) Exworthy M. Policy to tackle the social determinants of health: using conceptual models to understand the policy process. Health Policy Plan 2008; 23(5):318-327.


