



**CARMEN Policy Observatory  
on  
Chronic Noncommunicable Diseases**



**Stakeholder Convergence on Nutrition Policy:**

**A Cross-Case Comparison of Case Studies in  
Costa Rica, Brazil and Canada**

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## Summary

This study is a cross-case comparison of three nutrition case studies across three national jurisdictions: Costa Rica, Brazil and Canada. Each case study used a common methodology to examine complex processes by which nutrition policies were formulated and approved at the State-level. Our conceptual framework considered contexts, ideas, nature and availability of evidence, policy interests and conflicts, institutions, policy instruments, and action plans. Data collection included document review, and key informant interviews with representatives of government, the voluntary sector, industry and academia (n=20 in Costa Rica; n=16 in Brazil; and n=24 in Canada).

A high degree of stakeholder convergence developed in all three countries, and this convergence facilitated the process of intersectoral policy development. Success factors included

- a. strategic national and/or international nutrition policy documents articulating a vision and recommended actions;
- b. participants' early adoption of a population health frame;
- c. innovative change management processes led by internal "champions" with access to both technical expertise and senior political support; and
- d. a solid base of evidence including cost-effectiveness data, industry-supported studies, and consumer research.

We positioned findings within a framework depicting policy- making capacity (PMC) at three levels: individual, organization, and system. Overall, we found that, when there is "high" PMC at the individual *and* system levels, a policy proposal can move forward to a successful policy outcome, even when organization PMC is "medium." Gaps in organization PMC included resource shortages; "stop-start" policy processes; fragmentation of health policies and programs; insufficient communication with stakeholders; and policy silos.

While each case study told an important story of policy innovation, until we examine the implementation process (stage two of our research), we cannot be confident that the goals have, in fact, been successfully realized. Recommendations called for enhancing training and applied research opportunities for senior policy makers, including the initiation of international policy dialogues, to build PMC in integrated chronic diseases prevention and control strategies.

**Key Words:** Nutrition; policy formulation; case study; population health

## Introduction

Studies conducted by the World Health Organization's (WHO) CINDI<sup>4</sup> and CARMEN<sup>5</sup> networks document common health policy challenges across the Americas (Pan American Health Organization, 2006). Currently, there is a paucity of data to assist decision-makers in evaluating policies aimed at both preventing and controlling chronic non-communicable diseases (NCDs) such as obesity, diabetes mellitus, cardiovascular disease, hypertension and stroke, and some types of cancer (WHO, 2004). In 2001, chronic NCDs contributed 60% of the 56.5 million total reported deaths in the world and 46% of the global burden of disease. These figures are expected to rise to 73% and 60% respectively by 2020 (WHO, 2002).

In 2003, recognizing the need to strengthen chronic NCDs prevention and control measures, Member States of the Pan American Health Organization (PAHO) asked Canada<sup>6</sup> to assume a lead role in establishing the first CARMEN Observatory on Chronic Non-communicable Diseases Policy in the Americas. The goal of the observatory was to support the development of integrated chronic diseases prevention policies through the systematic analysis of policy formulation, approval, and implementation processes.

Integrated prevention strategies refer to the determination and simultaneous confrontation of multiple risk factors common to several chronic NCDs (in contrast to a process of attacking

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<sup>4</sup> Countrywide Integrated Noncommunicable Diseases Intervention programme, an initiative of the World Health Organization's Regional Office for Europe.

<sup>5</sup> Spanish acronym for *Conjunto de Acciones para la Reducción Multifactorial de las Enfermedades No-transmisibles* [Initiative for Integrated Prevention of Non-communicable Diseases in the Americas], CARMEN, an initiative of the Pan American Health Organization's Regional Office for the Americas, and promoted by the World Health Organization.

<sup>6</sup> The WHO Collaborating Centre on Noncommunicable Diseases Policy is located in the Centre for Chronic Diseases and Control, Public Health Agency of Canada (formerly Health Canada). The Centre plays a lead role in the development of the CARMEN Observatory on Chronic Non-communicable Diseases Policy.

many individual diseases separately). Specifically, integrated chronic disease prevention consists of

interventions that address common risk factors through the health system and other existing community structures ... a comprehensive approach that combines varying strategies for implementation; intersectoral action to implement health policies to address the major determinants of health that fall outside the remit of the health system; efforts to combine population and high-risk approaches by linking prevention actions of various components of the health system, including health promotion, public health services, primary care and hospital care (CARMEN, 2007).

In 2004, funding from Health Canada's International Affairs Directorate moved the concept of a policy observatory forward. An initial project involved three pilot case studies implemented in Costa Rica, Brazil and Canada in 2005-06. Each case study examined nutrition policy formulation and approval processes at the State level. Using a common methodology, Technical Working Groups in the three countries examined the following over-arching research questions:

- ➔ What were the processes by which nutrition policies were formulated and approved?
- ➔ What were the key conditions and factors influencing the formulation and approval of the nutrition policies?
- ➔ What were the salient lessons learned about intersectoral approaches to policy formulation and approval?

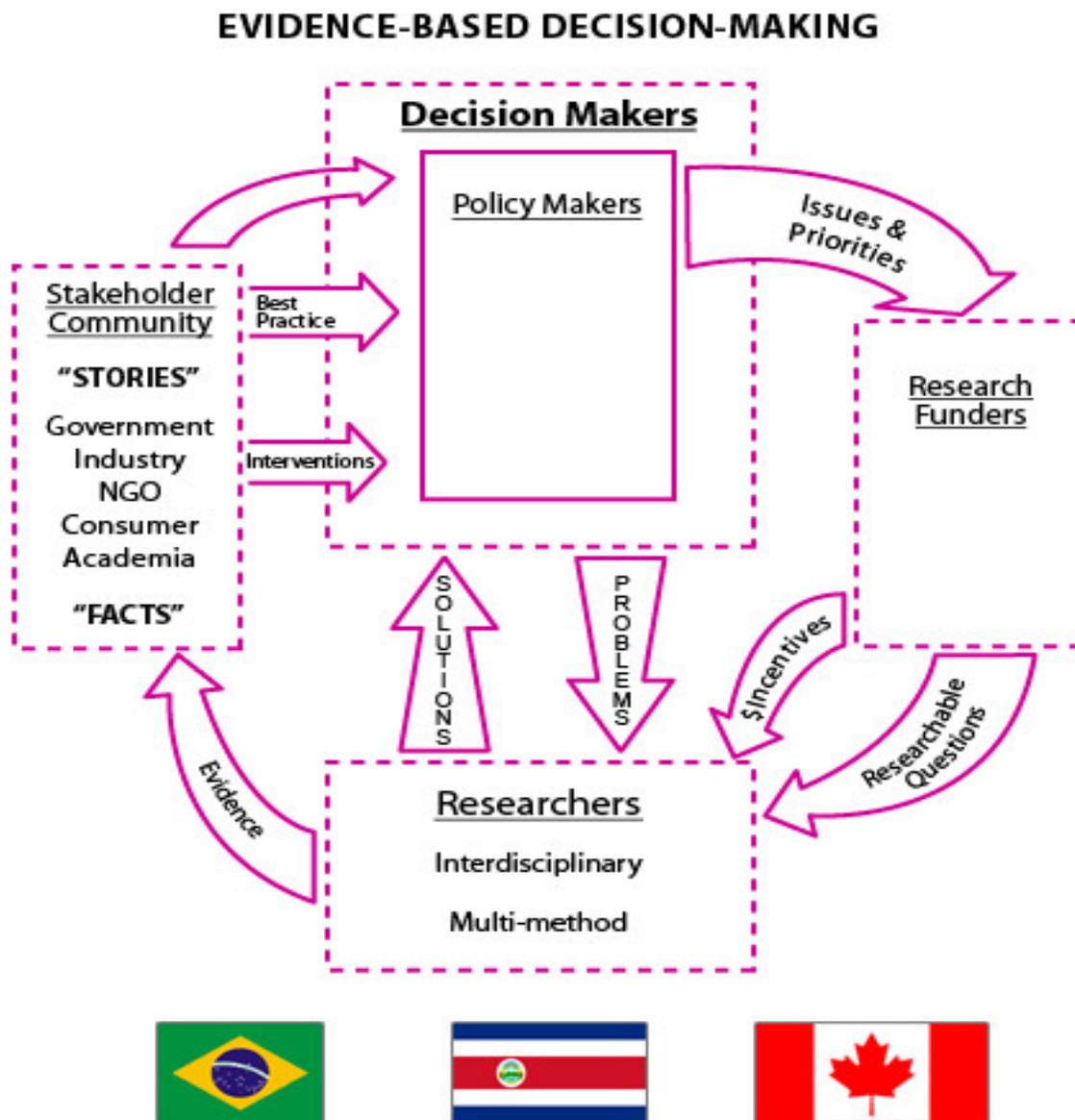
Technical Working Groups included senior decision-makers (e.g., policy analysts, program managers) and academic researchers with expertise in areas related to the study. In Figure 1, we present the model underpinning the research design<sup>7</sup> and highlight the interaction between policy-makers, academics, and funders at all stages of the process. The Technical Working

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<sup>7</sup> Figure 1 was adapted from Canadian Health Services Research Foundation. (1998). *Growth through innovation: 1998 Annual Report*. Figure 5. Evidence-based decision-making: Where to focus for improvement, p. 38. Available from [http://www.chsrf.ca/other\\_documents/annual\\_reports/pdf/1998\\_e.pdf](http://www.chsrf.ca/other_documents/annual_reports/pdf/1998_e.pdf). Accessed 30 July 2007.

Groups collaborated through a series of technical workshops, teleconferences, and regular e-mail communication.

*Figure 1: Evidence-Based Decision-Making*



Note: Figure 1 was adapted from Canadian Health Services Research Foundation. (1998). *Growth through innovation: 1998 Annual Report*. Figure 5. Evidence-based decision-making: Where to focus for improvement, p. 38. Available from [http://www.chsrf.ca/other\\_documents/annual\\_reports/pdf/1998\\_e.pdf](http://www.chsrf.ca/other_documents/annual_reports/pdf/1998_e.pdf). Accessed 30 July 2007.

## Rationale for Nutrition Case Studies

On the international stage, industrialization, urbanization, economic development and market globalization have resulted in significant diet and lifestyle changes over the past decade (WHO, 2003, p. 1). Negative health and nutritional outcomes in populations, particularly in developing countries, and in countries in transition, are the result of these political, economic, social, and environmental shifts:

While standards of living have improved, food availability has expanded and become more diversified, and access to services has increased, there have also been significant negative consequences in terms of inappropriate dietary patterns, decreased physical activities and increased tobacco use, and a corresponding increase in diet-related chronic diseases especially among poor people (WHO, 2003, p. 1).

To implement effective and sustainable food and nutrition policies, international experts call for a new platform, “not just of dietary and nutrient targets” (WHO, 2003, p. 2), but of a broader examination of the determinants of nutritional health (e.g., ecological, societal, and behavioral aspects beyond causation mechanisms). This platform, proposed by the WHO, is congruent with the components of a population health approach<sup>8</sup>--a key orientation of health ministries in Canada, Costa Rica and Brazil since the mid-1990s.

Healthy eating has emerged as a key determinant of human health and development through the life course (Frank & Finegood, 2007). However, national food policies in many developing countries are focused on under-nutrition and fail to address the prevention of chronic

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<sup>8</sup> An essential feature of a population health approach is directing interventions towards a range of individual (biological, behavioural) and collective (social, cultural, physical, economic and political) determinants of health. Developing, fostering and supporting collaborations between multiple sectors (e.g., government, industry and voluntary sector) are critical success factors as many of the determinants lie outside the remit of the traditional healthcare system.

NCDs (WHO, 2003, p. 2). In order to address complex issues such as the prevention of chronic NCDs and/or food insecurity<sup>9</sup>, nutritional considerations must be integrated into health, agriculture, education, social and economic policies and programs (Dietitians of Canada, 2007). However, taking action has proved challenging and examples of effective intersectoral nutrition policy innovation in the Americas are limited.

More recently, Raine (2005) conducted an overview and synthesis of healthy eating in Canada. She concluded there are “huge gaps in our understanding of the process of intervening in macro-level environments” (p. S13) and called for an investment in research focused both on the collective determinants of healthy eating and policy contexts for promoting healthy eating that “policy is a powerful means of mediating multiple environments” (p. S13).

We posit that a cross-case comparison of findings emerging from three nutrition case studies across three national jurisdictions adds to the evidence-base by

1. illuminating a range of effective policy levers in preventing and controlling chronic NCDs;
2. describing requisites for policy formulation and approval in diverse settings;
3. assessing capacities for systematic data collection and analysis at multiple levels;
- and
4. initiating intersectoral technical support in policy review and analysis.

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<sup>9</sup> Food security implies that all people, at all times, have access to sufficient, nutritious, safe, personally acceptable and culturally appropriate foods that are produced, procured and distributed in ways that are environmentally sound, socially just, and sustainable (adapted from Fairholm, 1999).

## Methodology

In this study we focused on the first three stages of the policy cycle: agenda-setting, policy formulation, and decision-making (Howlett & Ramesh, 1995). This strategy imposed boundaries on a complex case study research design, international in scope, and requiring significant coordination and monitoring (Yin, 1989). In our Conceptual Framework (Appendix 1), we considered a variety of factors (contexts, ideas, nature and availability of evidence, policy interests and conflicts, institutions, policy instruments, and policy action plans). Implicit in our analysis is the recognition that a major goal of policy formulation is to achieve consensus (i.e., stakeholder convergence) on how best to address a policy idea. Early agreement among stakeholders on a common issue frame has been shown to facilitate the policy development process (Campbell *et al.*, 2005).

Data collection included document review (e.g., peer-reviewed articles; government reports; “expert knowledge” of individuals, groups and networks; parliamentary records; media reports); and key informant interviews. Key informants, identified through a “snowball sampling” process (Patton, 1987), were affiliated with multiple sectors including State government (health and non-health departments); non-governmental organizations (NGOs); health professional associations; consumer advocacy groups; food industry; trade associations; elected officials and academia. Key informant interviews (20 in Costa Rica; 16 in Brazil; and 24 in Canada) were conducted by trained researchers. Each interview, approximately 90 minutes in duration, was completed using a piloted semi-structured interview guide, translated and back-translated in English, Spanish and Portuguese. Key informants signed an informed consent form as per research ethics protocols at the country-level.

Researchers performed content analysis of the data, and apparent themes and patterns were identified in a process of open coding (Stake, 1995; Miles & Huberman, 1994). A qualitative data analysis software program (i.e., NVivo6) was helpful in sorting the data. The use of code books and de-briefing sessions to resolve coding issues helped to increase consistency. Further, audit trails were established to document the process that researchers followed to arrive at their final conclusions.

## Results

We begin by providing an overview of each case study including a summary of salient lessons learned (Part A). Next, we present cross-case findings pertaining to building policy-making capacities at three levels: individual, organization and system (Part B).

### Part A: Overview of Nutrition Case Studies

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#### Costa Rica:

#### *Formulation of the Policy on Fortification of Wheat Flour with Folic Acid*

In 1997, a national decree on the fortification of wheat flour with folic acid was approved by the Ministry of Health. Goals included reducing folate deficiencies and decreasing the prevalence of congenital defects, including neural tube defects<sup>10</sup>, which constituted the second leading cause of infant mortality in Costa Rica. Relative to NCDs prevention, low intakes of folate have been associated with an increased risk of heart disease (Rimm *et al.*, 1998; Schnyder *et al.*, 2001). Clinical and epidemiological studies indicate that higher dietary folate intake and blood folate levels are associated with a lower risk of colorectal cancer (Kim, 2003). However,

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<sup>10</sup> Neural tube defects refer to abnormalities of the brain and spinal cord apparent at birth and believed to be related to a woman's folate intake before and during pregnancy (Sizer and Whitney, 2006, p. GL-11).

Mason *et al.* (2007) report that colon cancer cases in Canada and the United States have spiked after manufacturers began fortifying cereal grains with folic acid in the late 1990s. Stating that these observations alone do not prove causality, Mason *et al.* call for cautious approaches to instituting or enhancing fortification programs until the current evidence-gaps have been addressed.

The context in which policy negotiations occurred was characterized by complex transformations in Costa Rica's economic, political and social spheres. In the 1980s, Costa Rica transitioned from an economy heavily regulated by the State to an economy "open" to free trade. The underlying premise was that international trade would serve as an "*engine for economic development*", requiring that Costa Rica become competitive with foreign markets. As a result, the National Production Council lost its control over the importation of wheat. With the liberalization of the national economy in Cost Rica, import barriers and price controls for both wheat and bread ceased to exist.

Throughout the policy formulation process, decision-makers did not engage industry stakeholders in a discussion on the feasibility of fortifying wheat flour with folic acid. Rather, their strategy was to secure industry support for a policy decision already enacted by the Ministry of Health. However, the Steering Committee realized that industry collaboration was critical to success: "*An authoritarian attitude [on the part of government] would not facilitative an environment conducive to implementing the policy.*" This approach assisted Ministry officials in convincing industry of the importance of the measure and in achieving a sustainable alliance.

## **Lessons Learned**

The wheat flour fortification policy was formulated, negotiated and approved in a favourable national and international environment, although in the early stages, industry

stakeholders expressed both technological and financial concerns. A clearly articulated political decision, combined with the efforts of a motivated, knowledgeable team of policy makers in the Ministry of Health, and a receptive food industry sector, all facilitated consensus-building. Success factors included strong political-technical and public-private alliances; a strong body of scientific evidence; a feasible implementation strategy; effective teamwork; and most importantly, social responsibility on the part of policy actors (Tacsan *et al.*, 2006).

### **Brazil:**

#### ***Process for Setting an Agenda and Formulating Public Policy on the Prevention, Control and Surveillance of NCDs in Brazil— An Analysis of the National Diet and Nutrition Policy***

The case study analyzed the formulation of the Brazilian National Diet and Nutrition Policy<sup>11</sup> (PNAN), a complex and ground-breaking directive formulated on a constitutional principle: “*adequate food as a basic human right.*” The Ministry of Health assumed a lead role, in partnership with other ministries including Planning, Budgeting and Management; Social Development and Hunger Alleviation; and Education. In 1999, the Ministry of Health approved PNAN as part of the National Health Policy in Brazil.

The PNAN is supported by a regulatory framework including

- a.** intersectoral actions that provide universal access to food;
- b.** quality assurance mechanisms applicable to both food products and services;
- c.** nutrition surveillance and monitoring;
- d.** promotion of healthy eating habits and lifestyles;

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<sup>11</sup> The Brazilian Food and Nutrition Policy, part of the National Food And Nutrition Policy, is available in English at <http://www.saude.gov.br/alimentacao> .

- e. prevention and control of nutritional disorders and illnesses associated with food and nutrition;
- f. promotion of research; and
- g. human resources development and training.

## Lessons Learned

Case study findings illuminated key success factors for intersectoral nutrition policy formulation including

A national issue translated by the epidemiological relevance of the problem and placed on the government's public agenda to respond to social demands that were seen as significant public health challenges; a favorable climate in the Ministry of Health in that the department of diet and nutrition (human, technical, and financial resources) was being reorganized; and political pressure from government and civil society players interested in redefining government priorities and actions in the field of diet and nutrition.

*(Bomtempo Birche de Carvalho et al., 2006)*

Barriers to the formulation of PNAN included disputes between experts (e.g., physicians and nutritionists); fragmentation of chronic NCDs policies and programs in the Ministry of Health; challenges associated with establishing regulatory frameworks for food production; marketing and labelling issues; and lack of political and technical agreement on terminology (i.e., definitions of hunger, malnutrition, and food security). Despite these challenges, PNAN was formulated in a highly participatory manner with significant involvement of civil society. International cooperation was deemed helpful as was the high level of political support that drove the process nationally. Authors concluded that that the policy formulation process was helpful in focusing national diet and food policies on the prevention and control of chronic NCDs, and not solely on under-nutrition (Bomtempo Birche de Carvalho *et al.*, 2006).

## Canadian Case Study: *Stakeholder Convergence on Nutrition Labelling— Building Consensus on a Complex Issue*

In 2002, mandatory nutrition labelling was introduced in Canada and the scope of the regulations place Canada at the forefront of nutrition labelling. Over the next 20 years, the accrued benefits to Canadians will be in the range of \$5 billion, an estimate based on reductions in direct and indirect costs associated with cancer, diabetes, coronary heart disease and strokes (Health Canada, 2003).

Under the regulations, the labels of most pre-packaged foods sold in Canada must carry a *Nutrition Facts* table. The regulations also include updated criteria for nutrient content claims to better address consumer health issues. For the first time in Canada, diet-related health claims are allowed that highlight the relationship of certain nutrients and foods with the reduction of heart disease, cancer, high blood pressure and osteoporosis.

The 2002 regulations address three inter-related topics (i.e., nutrition labelling, nutrient content claims, and health claims). The policy development process for these initiatives followed separate collaborative routes of documentation, expert and stakeholder consultations and feedback. An unexpected result was the merging of regulations pertaining to nutrition labelling, nutrient content claims, and health claims into one comprehensive “policy package” in the publication of the Canada Gazette, Part II (January 1, 2003).

### **Lessons Learned**

Findings reinforced the notion that broad stakeholder consultation and meaningful citizen engagement, utilizing web-based information and communication technologies, contributed to policy innovation. Additionally, stakeholders’ perceptions of the policy formulation process can

differ significantly from those of policy makers. In this study, key informants described policy formulation as a “stop-start” process, characterized by unexplained and lengthy delays. Decision-makers, on the other hand, stated that the policy formulation process, particularly the complex work associated with moving from the proposed amendments (Canada Gazette, Part I, June 16, 2001) to the publication of occurred at unprecedented speed.

Case study findings pertaining to policy silos suggest that conflicting organizational mandates and priorities have the potential to sabotage intersectoral policy making. The authors concluded that when organization policy-making capacity is weakened by resource shortages, restructuring, and/or policy silos, decision-makers must implement strategic change management practices to overcome barriers (Vogel *et al.*, 2007).

## Part B: Policy-Making Capacities at Three Levels:— Individual, Organization and System

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In this paper we focus our discussion of cross-case findings on building policy-making capacities (PMC). In conducting the comparative analyses, we use a framework adapted from the earlier work of Shelley Bowen and Anthony Zwi (2005). The authors suggest that we can understand the policy-making process by examining three different levels of capacity: individual, organization and system. Bowen and Zwi are inconclusive about the relative importance of these three levels of capacity. Further, their work is preliminary, and focussed on suggesting ways in which “evidence” can inform health policy.

We refined the Bowen and Zwi (2005) model, and explored the relative significance of each of the indicators within each capacity level, as well as the importance of the three levels

overall for successful policy outcomes. Our general finding is that, when there is “high” PMC at the individual *and* system levels, a policy proposal can move forward to a successful policy outcome, even when organization PMC is “medium.” We base this conclusion on the combined evidence of the document reviews and key informant interview results, summarized in Table 1:

*Table 1: Policy-Making Capacities at Three Levels—Individual, Organization, and System*

Level of Policy-Making Capacity (PMC)	Costa Rican PMC	Brazilian PMC	Canadian PMC
<b>Individual:</b> 5 Indicators (e.g., Values, Leadership, Knowledge and skills)	Medium → High	High	High
<b>Organization:</b> 5 Indicators (e.g., Resource allocation; Internal and external partnerships)	Medium*	High → Medium*	Medium*
<b>System:</b> 4 Indicators (e.g., Political support, Economics, Policy networks)	Medium → High	High	Medium → High

*Source:* Adapted from *Capacities Required for Policy Adoption and Adaptation* (Bowen & Zwi, 2005).

\* Although overall organization PMC was ranked “medium” for Costa Rica, Canada and Brazil, some indicators were ranked “low” across all three countries (e.g., human and/or financial resource allocation to support work).

## 1) Individual Policy-Making Capacity

In our framework, individuals include policy “champions” internal to government, as well as policy advocates in the broad stakeholder community. Building on the work of Bowen

and Zwi (2005), we created five indicators of individual PMC, including: *values (or frames)*; *leadership*; *knowledge and skills*; *resources*; and *partnerships and networking*.

In all three countries, individual PMC was “high” on the first three indicators, and “medium-to-high” on both resources and partnerships/networking. For example, in the area of external partnerships, policy makers in Costa Rica experienced difficulty in establishing alliances with food industry leaders. This barrier was overcome when Ministry of Health officials responsible for nutrition monitoring and surveillance presented clear evidence of cost benefits to the flour industry. Additionally, policy makers called on the help of their allies in the salt industry, where fortification had occurred earlier, with successful public health outcomes.

Our findings suggest that some individual PMC indicators are more important than others. Of particular significance is early convergence of stakeholders on the policy frame (i.e., values). Members of policy networks in all three countries were strongly united by a commitment to a population health approach. Driving forces behind this convergence differed somewhat in the three countries, reflecting country-specific political cultures. For example, in Costa Rica and Brazil, international organizations such as the WHO, and policy documents including the “*Global Strategy on Diet, Physical Activity and Health*” (WHO, 2004) were instrumental in convincing stakeholders of the importance of focussing on nutrition in order to improve population health.

## **2) Organization Policy-Making Capacity**

In our framework, organizations include government departments, branches and/or agencies at the State level responsible for the policy arena. Again, building on the work of Bowen and Zwi (2005), we created five indicators of organization PMC, including *policy*

*processes and procedures; partnerships; leadership; resource allocation, and knowledge and skills.*

On the basis of cross-case findings, we ranked the indicators in *descending* order of importance: leadership; resource allocation; knowledge and skills (including change management skills); and policy processes and procedures. The fifth indicator (partnerships) varied in its significance, depending on the scope of the policy. For example, in Brazil, a broad base of internal/external partnerships was critical given the sweeping nature of the food security initiative. In Costa Rica, establishing a wide range of internal and external partnerships was of lesser importance, and policy makers put minimal emphasis on citizen engagement.

In the area of organization PMC, we found evidence of weaknesses in all three countries (e.g., shortages of human and/or financial resources; “stop-start” policy processes; and insufficient communication with stakeholders). Innovative change management strategies overseen by internal “champions” helped to mitigate these challenges, and with senior political support, the three policy processes moved forward despite the gaps noted. These “champions” had the support of technical experts inside and outside government who were able to present clear findings about the health benefits of implementing the policies under consideration. The strength of the scientific evidence, combined with cost-effectiveness data, proved significant in achieving stakeholder convergence.

Internal “champions” were also adept at modifying existing policy-making practices in order to overcome existing or potential opposition from the stakeholder community. In Brazil, government officials convened a series of meetings or seminars to engage members of the policy community. They also made compromises designed to encourage industry buy-in. For example, they opted to label the policy as a health sector initiative, rather than a food security initiative, in view of the lack of consensus on a food security agenda. In Canada, officials within Health

Canada created a new “corporate approach” that focussed on building partnerships with key stakeholders. To this end, they established an intersectoral advisory policy group that operated on a consensus model. Incidentally, this process was consistent with the government’s commitment to new public management practices, and contributed to the department’s credibility.

Importantly, in all three countries governments failed to commit sufficient human and/or financial resources to their respective policy initiatives. For example, Health Canada did not receive funding for a promised national public awareness campaign on nutrition labelling. This was significant as policy makers had, from the onset, positioned nutrition labelling as a useful tool that, combined with a broader educational framework, would reduce consumer confusion when reading labels and support informed food choices.

Additionally, policy silos emerged between Health Canada and Agriculture & Agri-Food Canada, responsible for the Canada Food Inspection Agency (CFIA). The CFIA was charged with implementing the nutrition labelling regulations. Progress was hampered by differing organizational mandates and priorities, particularly in the initial stages. Findings illuminated a “dichotomy” between policy formulation and other inter-related stages of the policy cycle namely, implementation and evaluation (Sutton, 1999).

Although the CFIA officially voiced support for Health Canada’s proposal, it was repeatedly pointed out by senior bureaucrats that the CFIA required significant increases in funding to enforce the regulations. Policy makers working in non-health sectors at the federal level stated that while Health Canada ranked nutrition labelling as a high priority in the late 1990s, “*for the CFIA it was low priority because of the potential need for resources to enforce [the regulations].*”

In both Canada and Costa Rica, “medium-to-low” policy-making capacities on these two indicators of organization PMC (i.e., resource allocation and partnerships with other key federal government departments) failed to keep the policy proposals from advancing to the decision-making stage. However, lower rankings on these two indicators may prove to be significant at the implementation level. We posit that cross-case findings pertaining to organization PMC are highly significant given the complex nutritional issues now on the political and public “radar screens” (e.g., child obesity, food insecurity, functional foods, *trans* fat) and the need to take action using cross-cutting policy levers.

### 3) System Policy-Making Capacity

In our framework, system refers to the entire policy community, including government, interest groups, and the attentive public. We created four indicators of system PMC, adapted from the work of Bowen and Zwi (2005), including: *values* (e.g., support of powerful lobby groups, opinion leaders, and government); *ideology* (e.g., epistemic communities); *politics* (e.g., political will, advocacy strategies, the overall political agenda); and *economics* (e.g., funding for implementation; evidence of cost-effectiveness).

Without exception, Costa Rica, Brazil and Canada ranked “high” on the first three variables at the system level, with the *values* dimension shifting from “medium-to-high” as the processes evolved, reflecting the excellent work done by the internal “champions.” In all countries, the fourth indicator (*economics*) was ranked as “medium-to-high”. Policy actors were challenged by resource shortages, especially as they planned implementation strategies (e.g., enforcement of policies; nutritional surveillance data necessary to monitor outcomes). As a

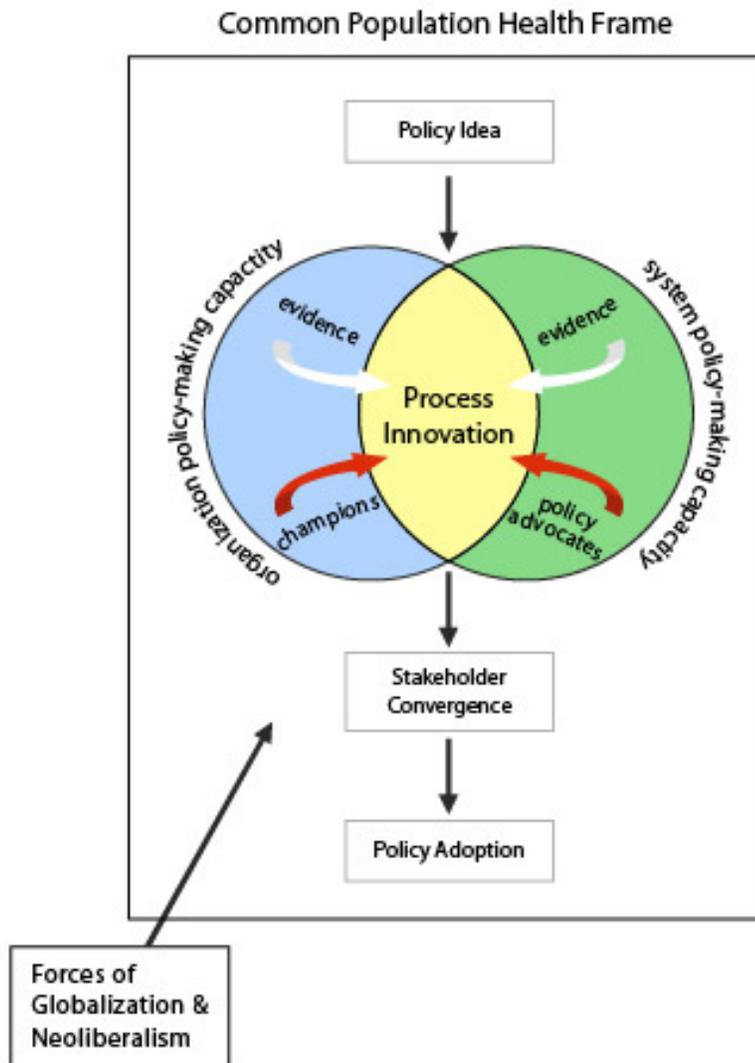
result, government officials were forced to be very creative in securing financial support and/or in-kind donations from the stakeholder community.

We are struck by the consistency of the findings pertaining to building PMC, particularly at the individual and system levels. Without exception, the notion of population health was a uniting value for members of the policy networks, and a driving force in moving the nutrition policies onto the political agendas of the three countries. However, in the case of both Canada and Brazil, high PMC at the system level was partly a reflection of compromises made by government officials during the policy formulation process (e.g., Brazil’s decision to work within a health frame rather than a food security frame, and Canada’s decisions regarding format specifications, timelines for implementation, and exemptions to the regulations).

## Conclusions and Recommendations

In Figure 2, we recast findings in a diagram that captures a population health frame, levels of policy-making capacities, and important contextual factors identified through the research such as globalization and neoliberalism. We represent individual PMC via red two arrows corresponding to “champions” (internal to government) and policy advocates (external to government). The interactive model captures the complexity of the policy-making process, as well as the “common ground” between the three levels of PMC.

## Building Capacity for Policy Making at Three Levels: Individual, Organization and System



We present these conclusions pertaining to building PMC and recommendations for the consideration of decision-makers and others with an interest in the policy-making process:

- ➔ Consultation and collaboration through sustained intersectoral partnerships is an essential part of the policy-making process;
- ➔ Multiple forms of evidence and information sources are necessary for policy formulation, including cost-effectiveness data, industry-supported studies and consumer research;

- ➔ Strategic national and/or international policy documents are important in charting a future course and setting out an agenda for action;
- ➔ Senior policy makers require knowledge, skills, practical tools and resources to build PMC as well as opportunities to practice what they have learned;
- ➔ Globalization of agriculture, trade and trans-national food industries necessitate increased international cooperation and sharing of lessons learned;
- ➔ National and/or international policy dialogues offer an effective venue for addressing gaps in the evidence-base while enhancing knowledge translation.

We conclude that each case study tells an important story of nutrition policy innovation where all of the stakeholders realized at least some of their goals. However, until we examine the policy implementation process (phase two of the international research initiative), we cannot be confident that the goals have, in fact, been successfully realized. Our recommendations for future research include a longer-term, comprehensive evaluation strategy to determine whether the three policy initiatives have achieved their ultimate goal of improving population health.

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# Appendix 1: Analytic Framework—Policy Formulation Stage

