

Building Convergence

Toward an Integrated Health & Agri-Food Strategy for Canada

August 2009

**An abridged version of a discussion paper prepared by
the McGill World Platform for Health and Economic Convergence**



By Laurette Dubé, Paul Thomassin, Janet Beauvais and David Sparling

AUTHORS

Laurette Dubé

Professor, James McGill Chair of Consumer and Lifestyle Psychology and Marketing,
McGill University;
Founding Chair and Scientific Director,
McGill Health Challenge Think Tanks, Canada

Paul Thomassin

Associate Professor, Department of Agricultural Economics,
McGill University, Canada

Janet Beauvais

Professor of Practice, McGill University, Canada;
Director General, Food Directorate, Health Canada (until January 2009), Canada

Dr. David Sparling

Chair of Agri-Food Innovation and Regulation, Richard Ivey School of Business

Lead Research Analyst: **Natalia Chalaeva**

Research Analyst: **Neely Mcdonald**

Canadian Agri-Food Policy Institute (CAPI)

960 Carling Avenue, CEF

Building 49, Room 318

Ottawa, ON K1A 0C6

T: 613-232-8008 F: 613-232-3838

info@capi-icpa.ca

www.capi-icpa.ca



Canada 

I EXECUTIVE SUMMARY

Canada is facing a health crisis. Obesity rates are rising at an alarming pace, leading to higher rates of chronic diseases like diabetes and heart disease. Chronic disease has significant social and economic costs, including reduced quality of life, lost productivity, and escalating health care costs that threaten to overwhelm provincial budgets. The federal and provincial governments are searching for innovative solutions to these diet-related challenges and rising health care budgets.

At the same time, Canadian governments are grappling with continual challenges in the agri-food sector. Canada's farmers seem to go from crisis to crisis. In recent years, low grain and oilseed prices have driven down farm income to the point that many farmers turned to government payments, rather than the market, to generate the majority of their income. As incomes fell, program payments from governments rose. Neither farmers nor governments view the situation as sustainable in the long run. The costs to governments are huge, at a time when they face mounting pressure to reduce expenditures. The recent strengthening of grain prices relieved pressure on grain and oilseed farmers, but the rest of the industry remains stressed, from meat producers to food processors and biofuel producers. Both industry and government are looking for a different model.

Within this context, the Canadian Agri-Food Policy Institute (CAPI) is proposing to stimulate a national dialogue on the convergence of health and agriculture policies. A strategy that combines human health concerns with the agri-

food industry could present real opportunities. By working together, the health care system and the agri-food industry can simultaneously improve the health of Canadians, reduce health care budgets, stimulate agri-food innovation, and improve the economic viability of the agri-food industry. The agri-food industry can help improve public knowledge about the functional properties of food, leading to healthier food choices.

In 2008, CAPI commissioned the McGill World Platform for Health and Economic Convergence to prepare a paper on the development of an integrated health and agri-food strategy for Canada. In essence, the strategy will require a new approach, one that sees stakeholders working together toward a “whole-of-society” solution. While the relationships that need to be fostered are complex and call for difficult changes, the economic and social ramifications of the proposed strategy are immense. A cooperative approach will be required that spans government agencies, multiple levels of government, industry, and health care providers. New levels of public-private partnerships will be needed. But these partnerships will only work if multiple strategies are employed simultaneously, strategies that approach the health challenges and agri-food opportunities from several directions at once.

The discussion paper — *Building Convergence: Toward an Integrated Health and Agri-Food Strategy for Canada* — is a first step. Designed to stimulate discussion and action, it will be based on six key elements: safe food, nutritious food accessible food, healthy eating, innovation

An integrated strategy will present a real chance to improve the health of Canadians and develop new opportunities for the agri-food industry.

and sustainability. Preparing the strategy will involve bringing together numerous stakeholders to identify so-called “levers for change” within each of the six elements, and plans of action. This document is an abridged version of the discussion paper.

Canada has the essential elements needed to realize an integrated health and agri-food strategy. The country enjoys a diverse agricultural base, an innovative food processing industry, and a strong food safety system. Canada’s universal health care

system is highly regarded, and the country has taken a leadership position globally in developing policies related to infectious diseases, nutrition, and chronic disease prevention. In Canada, an integrated health and agri-food strategy would be supported by world class research in healthier food products and effective, more inclusive approaches to policy development. An integrated health and agri-food strategy will present a real chance to improve the health of Canadians and develop new opportunities for the agri-food industry.

II SETTING THE CONTEXT FOR CANADIAN HEALTH AND AGRIFOOD SYSTEMS

Trends in Health Care Costs, Disease and Obesity

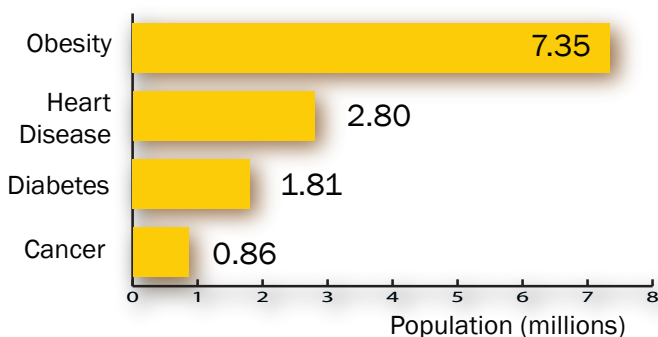
Canada can benefit tremendously by investing in an integrated health and agri-food strategy. Health care costs are rising, and chronic disease and obesity are becoming more common. Lifestyle changes that encourage a better diet and exercise could significantly help combat these trends.

Rising health care costs: In Canada, health care expenditures rose from 7% of Gross Domestic Product (GDP) in 1975 to 10.5% in 2005. The annual cost is an estimated \$160 billion.¹ Per capita health care expenditures

doubled from about \$1,700 in 1975 to approximately \$3,600 currently (1997 \$).²

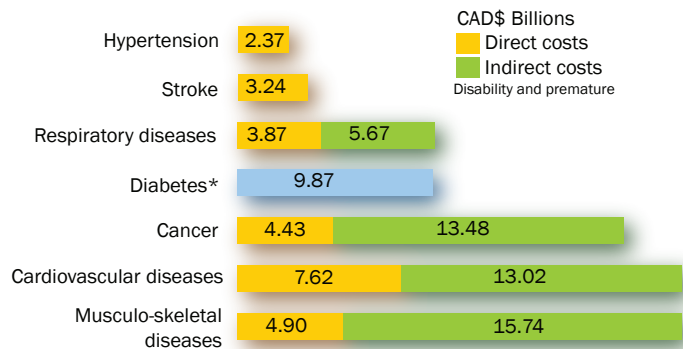
Rising incidences of diet related chronic disease: Diet-related chronic diseases, such as cancer, cardiovascular diseases, diabetes and stroke (Figure 1)³ continue to rise and are projected to become increasingly prevalent. All toll, these diseases take up two-thirds of the direct costs of the health system.⁴ Chronic diseases are also estimated to contribute approximately 60% of indirect health care costs to the Canadian economy, costing \$54.4 billion annually.⁵

Prevalence of chronic disease in Canada, 2004



* Measured, excluding territories
Source : CCHS 2004, Heart and Stroke Foundation Canada, PHAC

Chronic disease costs in 2005 dollars



* Diabetes is only expressed as a total cost
Source : Economic Cost of Chronic Disease

Figure 1. Current state of chronic disease in Canada and examples of economic projections of health care costs.

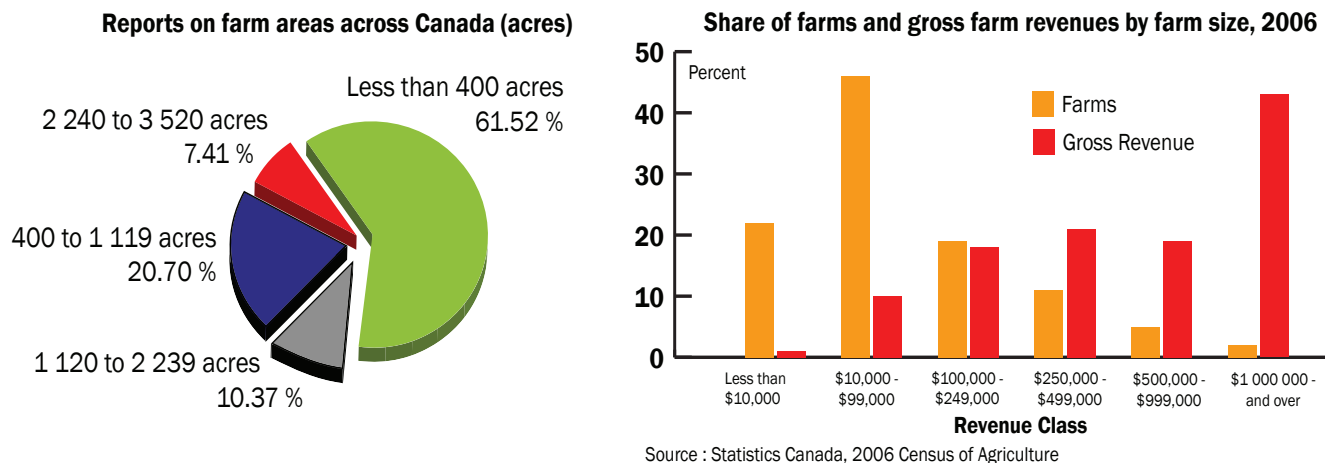


Figure 2. Farm size and revenue in Canada.

Increasing rates of obesity: The number of overweight and obese Canadians continues to rise. Half of the adult population is now overweight or obese, and this trend is becoming alarmingly prevalent in children.

The link between food and health:

Changes in lifestyle, such as diet and physical activity, can significantly reduce the prevalence of chronic diseases. For example, appropriate nutrition and physical activity could reduce the prevalence of cancer by 24%⁶ and lead to dramatic reductions in cardiovascular disease.⁷ A U.K. study suggests that the rising rates of obesity in children need to be addressed through a combination of improved nutrition and physical activity programs delivered by different sectors and levels of society.⁸ The study identifies the need for the agri-food sector to help deliver such programs.

The Canadian Agriculture and Food System

The integrated health and agri-food strategy will have impacts beyond the health of Canadians and health care budgets. It will also provide opportunities for the agri-food industry. Although the industry faces some serious challenges, agriculture is one of

Canada’s strongest engines of economic growth and regional prosperity.

An important economic force: The agri-food sector — including primary production, through food processing, wholesale/retail and food service — contributed \$87.9 billion (1997 \$) to Canada’s economy in 2006, or 8% of the GDP.⁹ The sector employs 2.1 million individuals, representing 12.8% of Canadian active manpower.¹⁰ Canada is the world’s fourth largest agri-food exporter and sixth-largest importer.

Challenges at the farm level: Canada’s farms are faced with declining commodity prices, and a concentrated industry structure. Seventy percent of farms sell less than \$100,000 annually (Figure 2),¹¹ accounting for less than 10% of total farm sales. The concentration of food processing and retail activities makes it harder for small farms to market their products.

Government program payments to farms surpass market income: Estimated at \$5 billion annually, government expenditures to supplement farm income are a significant burden on provincial and federal governments (Figure 3).¹²

Agricultural productivity growth lags behind competitors: However, in food processing, productivity has consistently improved and is superior to competitors (U.S. and Australia).¹³

Interest in organic food is growing: Organic agriculture is on the rise in Canada. Between 2001 and 2006, the number of farms growing certified organic products increased 60%, from 2,230 to 3,555 farms.¹⁴ Most food retail organizations now offer a wide range of fresh and processed organic products.

Food processing plays a larger role: Food processing revenue and its percentage of value added exports and imports have risen dramatically over the last two decades.¹⁵

Canada lags in food related R&D: Public

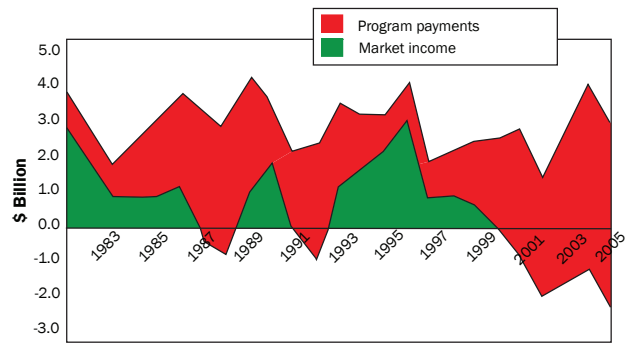


Figure 3. Net farm income and program payments.

investment in R&D has decreased over the past two decades.¹⁶ Since the early 1990s, Canada has lagged behind its competitors (U.S. and Japan) in R&D expenditures as a share of value-added investments in the food processing industry.¹⁷ Private agri-food R&D expenditure as a share of GDP is significantly smaller than in other sectors of Canadian manufacturing.¹⁸

III NUTRITION AND HEALTH AS DRIVERS OF FOOD SUPPLY AND CONSUMER DEMAND

In order to determine how to influence the relationship of nutrition and health with food supply and demand, it is essential to understand current and emerging trends in the types of food that consumers purchase, and why and where they make these purchases. Consumer demand drives agri-food company R&D investments, and that demand has been changing, particularly around health concerns. This section reviews some key trends in the food supply and consumer demand.

Consumers are aware of the connection between food and health: Nutrition and quality are the two top decision criteria; price is of less significance.

Companies are reformulating products: Food manufacturers are responding to consumer demand for healthier products by introducing items that advertise their healthy

qualities, proclaiming certain foods to be trans-fat free or low in sodium. An ACNielsen¹⁹ report that annually tracks nearly 500 agriculture and food product categories reported that approximately one in five active manufacturers' listings in retail grocery stores in 2003 were considered "better for you" products. The number of "better for you" product listings had more than doubled in three years, while the market share of these foods increased by 1% annually over the same period.

Agriculture is benefiting from the move to healthier foods: Healthy food products, ranging from blueberries to bioactive yoghurt and omega-3 eggs, are making significant inroads into consumer markets. Moreover, Canada produces many crops whose healthy market potential has yet to be developed. For example, Canada's ability to produce pulse crops competitively has enabled Canadian pulse

production to grow from under one million tonnes in 1991 to over 4.8 million tonnes in 2008. Exports have increased five-fold over the same period to 3.5 million tonnes. Canada now accounts for 10% of global production, and nearly 40% of the global pulse trade.²⁰ While Canada is doing well in these traditional markets, real opportunities exist to export our products into non-traditional markets by espousing the health benefits of these foods.

Growth in consumption of fruits and vegetables has been limited:²¹ The link between fruit and vegetable consumption and a reduced risk of obesity and chronic

diseases is well-established. It is estimated that reducing the rate of diseases through the consumption of five to 10 servings of fruits and vegetables per day would save the health care system approximately \$6.4 billion in direct and indirect costs.²²

An integrated strategy must also consider consumption outside the home: The average family visits a restaurant for a meal or snack approximately 520 times per year, costing it about one-fifth of the total household food expenditure.²³

IV POLICY TOOLS AFFECTING HEALTH, AGRICULTURE AND AGRI-FOOD

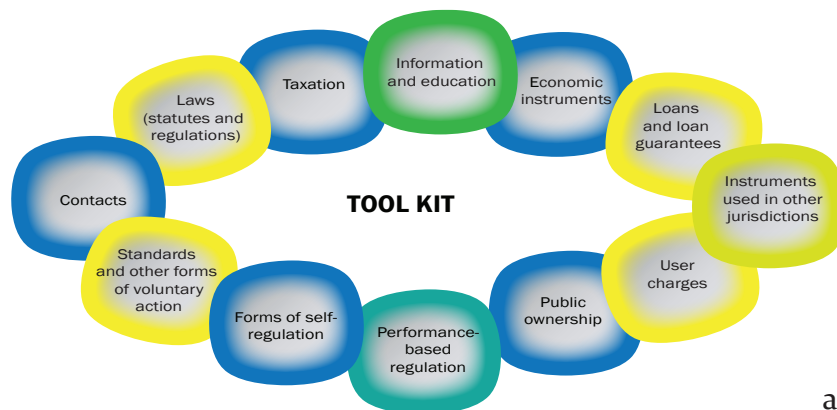


Figure 4. Policy tool options.

Numerous instruments are available to governments to advance public policies that affect health, agriculture and agri-food (Figure 4).²⁴ These include: laws (statutes and regulations), economic instruments (including taxes, subsidies, and public expenditure), forms of self-regulation, standards, voluntary initiatives, information and education, and collaborative or consensual approaches.ⁱ Addressing health and agri-food domains in a way that reasonably accounts for both health and economic considerations requires broader involvement than government departments

ⁱ A broad framework used by the government of Canada to assess, select, and implement the best portfolio of instruments to pursue policy objectives is available at: <http://www.regulation.gc.ca/documents/gl-ld/asses-eval/asses-eval00-eng.asp>

and jurisdictions. It calls for the participation of the private sector, non-governmental organizations, as well as communities and consumers.

Government policies can shape food supply and consumer demand in various ways.²⁵ Some policies can affect farm and agri-food input and technology costs, and shape food products, by making certain ingredients and/or methods cheaper or more accessible. Such policies include farm-income and commodity-price support, trade policies, and public investment in R&D. Taxation policies, meanwhile, can shift consumer demand. Information policies, like mandatory nutrition labelling and front-of-package labelling schemes, can affect consumer demand and market competition.

Finally, policies that influence business practices, such as industry self-regulation and mandatory restrictions or bans on certain ingredients in processing (or advertising to children), have the power to shape both food supply and consumer demand.

V A 'WHOLE-OF-SOCIETY' APPROACH TO AN INTEGRATED HEALTH AND AGRI-FOOD STRATEGY

In Canada, experts in nutrition, public health, and medicine increasingly recognize the contribution the food industry can make to helping society confront obesity, chronic diseases, and other challenges related to food and diet. The agri-food industry recognizes the potential economic benefits from partnering with the health care community. Both the health sector and the agri-food industry have been working toward healthier food production. The health community is also working to educate consumers about the benefits of healthy eating and regular exercise. However, no systemic approach has been developed to simultaneously move both supply and demand toward health and nutrition in a convergent and sustainable manner.

In order to shift the food supply, and consumer demand, toward the production and consumption of healthier food, the partners of the integrated strategy will need to engage society beyond the nutrition, health, and agri-food sectors. A whole-of-society systems approach (Figure 5)²⁶ will be required, one that influences local and global culture and media, rural and urban communities, the education system, the transportation sector, the environment, and even urban design.

Under this strategy, the consumer must be the central focus. The strategy must therefore account for varying cultures and norms. It must also recognize the complexity of global agri-food



Figure 5. The whole-of-society systems driving food supply and consumer demand. (Modified from the report *Food: an analysis of the issues*, by the Strategy Unit, UK Cabinet Office, 2008.)

supply chains, and how these supply chains will shape strategies and policies related to health, agriculture and agri-food.

Progress has been made on integrating health and agri-food policies and frameworks at the local, provincial, national and global levels. But much more opportunity exists for synergy and for going beyond a “whole-of-government” to a “whole-of-society” approach for developing and implementing health and agri-food policies.

VI A VISION FOR AN INTEGRATED HEALTH AND AGRI-FOOD STRATEGY

The discussion paper, *Building Convergence*, proposes a vision for an integrated health and agri-food strategy for Canada. The vision is one of “improving the well-being of Canadians by providing safe, nutritious and accessible food that supports healthy eating, contains health care costs, and is promoted by innovative and sustainable agricultural, food and health sectors” (Figure 6). Canadians will benefit from consuming food that makes them healthier, while Canadian businesses in the agri-food sector that produce healthier food will be better able to compete in local, national and global markets. The vision is supported by six pillars: safe food, nutritious food, accessible food, healthy eating, innovation, and sustainability. These pillars represent areas where policies and initiatives relevant to an integrated health and agri-food strategy are currently in place.

Building Convergence proposes a set of ‘lever points for change’ that runs within and across the six pillars. The lever points are intended to focus the discussions of leaders in the field around ways to develop an integrated strategy (bearing in mind that neither the levers nor the proposed lever points for change have been the subject of a consensus-building process).

The lever points for change would create a structure that could bring together numerous interests to effect change in the food sector. Such interests would include consumers, the private sector, civil society, public health, and agriculture and agri-food agencies at the local, provincial/territorial, national and global levels. This whole-of-society mobilization would translate the levers into a set of concrete and focused initiatives, ultimately resulting in



Figure 6. A vision for an integrated health and agri-food strategy for Canada.

measurable health and economic outcomes. In the long term, this approach will reduce health care costs and improve the economic performance of the agriculture and agri-food sector.

The Strategic Components

Safe Food: The recent, widely publicized recalls of certain food products have heightened consumer awareness of food safety. Initiatives like the Food and Consumer Safety Action Plan²⁷ and the Growing Forward Framework²⁸ provide opportunities for governments, industry and consumers to cooperate in enhancing food safety and market confidence in Canadian products. The balance of action between government and industry is changing, as industry increasingly supplements government food safety programs with voluntary programs and private standards. With the rise of global food chains and increasing concentration in distribution and retail, government cannot be seen as the sole stakeholder in setting food safety policies.

Nutritious Food: Canada is committed to the recommendations of the *WHO Global Strategy on Diet, Physical Activity and Health*.²⁹ The strategy recommends that populations and individuals achieve energy balance and a healthy weight, limit dietary intake of free sugars, and increase their consumption of fruits, vegetables and legumes, whole grains, and nuts. They should also limit salt (sodium) consumption, and limit energy intake from total fats and shift their consumption patterns from saturated fats to unsaturated fats, and toward eliminating trans fatty acids. Canada continues to implement these global recommendations through federal and provincial nutrition initiatives, such as the Integrated Pan Canadian Healthy Living Strategy.³⁰

Accessible Food: Canada's Action Plan for Food Security³¹ (1998) recognizes that food

security exists when all people, at all times, have physical and economic access to sufficient, safe, and nutritious food. In 2004, more than 1.1 million households in Canada (9.2%) were food insecure at some point in the previous year.³² Policy levers that change the social and economic environments (e.g., income supports, adequate employment, cost and availability of food) will have a significant impact on food access for many Canadians. Similarly, innovations in the agriculture and agri-food sector may help reduce the cost and price differential between food of high nutritional quality and food of little nutritional value.

Globally, although food prices have eased from their record highs in 2008,³³ the World Bank estimates that higher food prices have increased the number of undernourished people from 850 million (prior to 2008) to as many as 100 million more.³⁴ Over two billion people in developing countries suffer from micronutrient malnutrition.³⁵ The World Bank projects that, by 2030, worldwide demand will rise by 50% for food and by 85% for meat.³⁶ By 2050, the world population is expected to reach 9.2 billion. Food security will remain a challenge for decades, not only because of increased demand but also issues such as climate change, energy security, water scarcity and competition for land.

Healthy Eating: In 2003, Canada implemented mandatory nutrition labelling. In 2007, the federal government released *Eating Well with Canada's Food Guide*³⁷ to help Canadians make better food choices. But many Canadians are still not acting on this advice, and more effort is needed to encourage the population to use these information tools.³⁸ While some believe government should limit "harmful" nutrients through regulations, industry proposes non-mandatory approaches. Some industries have already initiated healthy eating strategies, through health and wellness strategies or programs like the Children's Food and Beverage

Advertising Initiative.³⁹ Under this initiative, 17 food and beverage companies pledged to devote at least 50% of their advertising aimed at children under 12 to the promotion of products that represent healthy dietary choices and/or include healthy lifestyle messages. In 2003, the first “diet-related disease risk reduction claims” were allowed in Canada. But the process for approving these claims can be lengthy under the current regulatory framework.⁴⁰

Weaving Innovation Across All Aspects of Healthy Eating: The Growing Forward Framework emphasized the need to support innovation, building on Canada’s strong R&D base. The Framework prioritized “enhancing human health and wellness through food, nutrition, and innovative products,” particularly functional foods. Support for R&D funding, tax credits and public/private research partnerships and clusters will be essential to developing leading-edge

products and technologies. The Advanced Food and Materials Network (AFMNet), one of Canada’s Networks of Centers of Excellence, is an example of a nationwide partnership among 39 universities, 35 industries, and 29 government departments.

A Socially, Economically and Environmentally Sustainable Approach: An integrated health and agri-food strategy would link health and agri-food in a manner that is socially, economically, and environmentally sustainable. Environmental quality includes clean air, clean water, and reduced greenhouse gas emissions, while sustainable development encompasses sustainable communities, the sustainable development and use of natural resources, and governance for sustainable development. These core components would guide the selection of the lever points for change that link food, health and the environment.

VII LEVER POINTS FOR CHANGE

Advancing the integrated health and agri-food strategy will require identifying a number of initial domains for action as “lever points for change.” Several seem to be potential candidates for change:

Scaling up Traceability: With some notable exceptions, traceability is under-developed in Canada. “Whole chain traceability” can enhance food safety, increase efficiency, and ensure consumer confidence in the labelling of other attributes, such as “hormone-free,” “grown local” or “fair trade” characteristics. Support for traceability research, technology, and process developments are options for enhancing traceability.

A “Whole-of-Society” System Approach to Increase Supply and Demand of Fruit and Vegetables: This lever point calls

for a whole-of-society effort to encourage the consumption of sufficient fruits and vegetables in order to support better health and reduce health care costs.⁴¹ Since the relative price of fruits and vegetables has increased in the last two decades,⁴² addressing price barriers would be a starting point.

In order to influence consumer demand, an integrated strategy must target production initiatives in the horticultural sector. This sector faces several significant challenges. These include rising input costs, increased competition, a highly regulated marketplace (in food safety, environmental standards, tax policy, etc.), difficulties in storage and transportation, small-scale operations, a fragmented sector, a weak operating value chain, and limited product advertising.

Improving the Nutrient and Caloric Profile of the Supply and Demand for Processed Food: Even small changes in the nutrient and/or caloric profile can have a significant impact on chronic diseases. A recent simulation has shown that the United States' health care system could reap considerable savings through reductions in calories, salt, and fats. Reducing caloric intake by 100 calories/day could save a whopping \$58 billion. Reducing salt by 400 mg/day could save \$2.3 billion, while reducing fat by five g/day could save \$2 billion.⁴³ Canadians could derive considerable health benefits by reducing calories, reducing trans fats and sugars, finding healthier oils, and increasing the fibre in their food supply.

Improving Nutrition and Streamlining Regulation in Functional, Nutraceuticals and Natural Health Foods: Many conventional foods are natural sources of functional ingredients that confer health benefits. These functional ingredients can be added to other foods to enhance their nutrient profile (i.e., omega-3 DHA and EPA which aid proper brain and eye development in babies and children⁴⁴). Canada is well positioned to be a world leader in functional ingredients. A recent study indicated that the functional foods and nutraceuticals sector had the potential to double market revenues from the current \$3 billion to \$6 billion by 2010⁴⁵ and could contribute up to \$12 billion annually.⁴⁶ However, the sector is impeded by the lack of a modern and responsive regulatory environment in Canada,⁴⁷ particularly around the issue of health claims.

Fostering the Consumption of Canadian Foods by Developing and Promoting a Canadian Diet: An integrated strategy could promote a 'Canadian Diet' that achieves the same prominence as other regional diets, such as the Mediterranean Diet. The Canadian Diet could contribute to positive economic,

health-related, and socio-cultural outcomes from a uniquely Canadian perspective. Public awareness of the health benefits of Canadian foods is generally low. The integrated strategy would need to support research that substantiates the health benefits and health claims of nutritious Canadian foods. The strategy would propose educating consumers about the foods and advantages of the Canadian Diet.

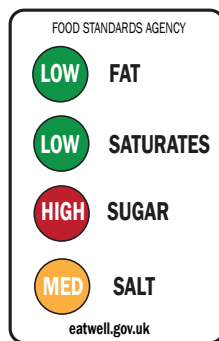
Promoting Technology, Business and Social Innovation and Entrepreneurship for Better Links between Small Agricultural Producers and Local Food Businesses and Communities: The number and poor financial viability⁴⁸ of small agricultural producers is a major challenge for the agriculture sector. Supporting small agricultural producers is a balance between agricultural and rural social policy. "Local food" initiatives may promote the economic prosperity of the local agri-food sector, and could be a boon to small agricultural producers. For example, 75% of fruit and vegetable farm incomes in 2006 came from agricultural producers with annual sales of less than \$100,000. By contrast, only 10% of Canada's dairy farm income came from producers with annual sales of less than \$100,000.⁴⁹ A first step would be a systematic review of existing local foods to determine their health and economic outcomes, and examining the transferability and scalability of these programs.

Innovation and Access to Bottom-of-Pyramid Markets for Safe, Low-Carbon Footprint and Affordable Agricultural and Processed Foods: Much interest exists in integrating food affordability, food safety and nutritional quality with low-carbon footprint food (through trade, through food aid, and in agricultural development goals for developing countries). The 5 billion people at the bottom of the pyramid present new

market opportunities. But they also require different value chain structures, additional intermediaries, new innovations and capacity building.⁵⁰ Some successes can already be identified. For example, Canada supplies nearly 50% of India's pulse imports, the world's largest pulse market.

Supporting Healthy Consumer Choices by Streamlining Nutrition and Health Information at Points of Purchase and Consumption:

Retailers and food companies could simplify and streamline health information for consumers by using front-of-package (FOP) labelling, shelf-level regimes, and “better for you” programs. Programs like the U.K. traffic light system, which applies to a food package a green, yellow, or red light for its content of fat, saturates, sugar and salt, help consumers make healthier food choices. In Canada, a good starting point would be to initiate a consensus-building process among organizations which have developed nutrition and health information systems. The proliferation of labelling



systems could confuse consumers and reduce their effectiveness. Could a standardized front-of-package scheme be adopted at the national level to generate significant health outcomes? Approaches to enhancing nutrition information in restaurants is also worthy of consideration.

Fostering Nutrition in Education at Home, School and in Health Care Settings:

The home, school and health care settings all provide opportunities to convey information about food and nutrition, and to influence mindsets and social norms. The most vulnerable segments of the population, in particular, can benefit greatly from education on the benefits of nutrition. Devoting more health resources to education and communication can also have a major impact on the overall health of the population.

Fostering Nutrition in Social and Commercial Marketing:

Significant health benefits could arise from various mandatory and non-mandatory policy tools related to advertising. Such tools could also be used to support innovative social marketing (i.e. the use of carefully targeted persuasion practices that define marketing for public service purposes).

VIII BUILDING CONVERGENCE: AN INTEGRATED APPROACH

The development of policies that advance an integrated health and agri-food strategy should begin with whole-of-government approaches that merge potentially conflicting policy domains. Such whole-of-government approaches must engage governments at multiple levels. However, the complexity of issues related to both health care and the agri-food sector dictate that a whole-of-government approach will not suffice.

The success of an integrated health and agri-food strategy will depend on action being taken at all levels of society, involving stakeholders

from business, government, non-governmental organizations, and consumers.

The first step is to assemble networks of key public agencies, business, and civil society stakeholders. A separate network is required for each lever point. These networks would become the strategic units for innovation and action on the ground. Invited participant organizations must be willing to invest not only time and expertise, but also core competencies and financial and/or substantive resources to shape and implement the resulting action plan.

IX THE PATH FORWARD

This discussion paper was designed to act as a “springboard” for discussion and convergence-building. Significant changes must occur to reduce rising health care costs and improve the health of the population. Nutrition and health can also become major drivers of economic performance in the agriculture and agri-food sector. An integrated health and agri-food strategy is needed to create a portfolio of initiatives that can have real impacts in both domains. A great opportunity exists now for leaders in business, civil society, and government

in the health, agriculture and agri-food sectors to invest in projects that are sustainable and have a positive impact on public health and the agri-food sector. Leaders in government, and in public agencies, must engage the policy levers needed to serve as catalysts. The time is right to make Canada’s agri-food industry a world leader in promoting healthier food products and a leader in the innovation and economic activity needed to support an integrated health and agri-food strategy.



NOTES

- ¹ Canadian Institute for Health Information (2008). Health Care in Canada 2008 (Ottawa, Ont.: CIHI, 2008). Pg 5. Retrieved from http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=PG_1472_E&cw_topic=1472&cw_rel=AR_43_E
- ² Ibid.
- ³ PHAC (2004). Trends in Prevalence of Obesity in Canada excluding Territories. Ottawa: Public Health Agency of Canada.
- Heart and Stroke Foundation. (2004). Statistics. Retrieved March 20 of 2009, from <http://www.heartandstroke.com/site/c.iklQLcMWJtE/b.3483991/k.34A8/Statistics.htm>
- Canadian Cancer Society/National Cancer Institute of Canada (2008). Canadian Cancer Statistics 2008. Toronto, Canada.
- Health Canada. (2002). The Economic Burden of Illness 1998. Retrieved from <http://www.phac-aspc.gc.ca/publicat/ebic-femc98/pdf/ebic1998.pdf>
- ⁴ Canadian Coalition for the Public Health in the 21st Century.(2005, August). Chronic Disease – A public Health Issue. Public Health Fast Facts. Retrieved from http://www.cpha.ca/uploads/progs/_/ccph21/Facts_Chronic_e.pdf
- ⁵ Health Canada (2002). The Economic Burden of Illness 1998. Retrieved from <http://www.phac-aspc.gc.ca/publicat/ebic-femc98/pdf/ebic1998.pdf>
- ⁶ World Cancer Research Fund / American Institute for Cancer Research. (2009). Policy and Action for Cancer Prevention. Food, Nutrition, and Physical Activity: a Global Perspective. Washington DC: AICR.
- ⁷ Canadian Heart Health Strategy and Action Plan. (2009, February). Building a Heart Healthy Canada. Retrieved from <http://www.chhs-scsc.ca/web/wp-content/uploads/60408strategyeng.pdf>
- ⁸ UK Cross-Government Obesity Unit, Department of Health and Department of Children, Schools and Families (2008). Healthy Weight, Healthy Lives: A Cross Government Strategy for England. Retrieved from www.dh.gov.uk/publications
- ⁹ Agriculture and Agri-Food Canada. (2008, June). An Overview of the Canadian Agriculture and Agri-Food System 2008. Agriculture and Agri-Food Canada. Retrieved from http://www.agr.gc.ca/pol/index_e.php. The reproduction is not represented as an official version of the materials reproduced, nor as having been made, in affiliation with or with the endorsement of Agriculture and Agri-Food Canada.
- ¹⁰ Agriculture and Agri-Food Canada. (2007, May). An Overview of the Canadian Agriculture and Agri-Food System 2007. Agriculture and Agri-Food Canada. Retrieved from http://www.agr.gc.ca/pol/index_e.php. The reproduction is not represented as an official version of the materials reproduced, nor as having been made, in affiliation with or with the endorsement of Agriculture and Agri-Food Canada.
- ¹¹ Ibid.
- ¹² Tyrchniewicz, E., McDonald, B. (2007, December). Finding Common Ground: Food for a Healthy Population and a Healthy Agri-food Sector. CAPI Food and Health Project, Pg. 11.
- ¹³ Agriculture and Agri-Food Canada. (2008, June). An Overview of the Canadian Agriculture and Agri-Food System 2008. Agriculture and Agri-Food Canada, Pg 30. Retrieved from http://www.agr.gc.ca/pol/index_e.php.

- ¹⁴ Statistics Canada. Certified organic products, by province (2001 and 2006 Census of Agriculture) (Canada). Retrieved from <http://www40.statcan.ca/lo1/cst01/agrco4a-eng.htm>
- ¹⁵ Ibid.
- ¹⁶ Ibid, pg 36.
- ¹⁷ Ibid, pg 34.
- ¹⁸ Ibid, pg 34.
- ¹⁹ ACNielsen. (2008, October 4). Canadian Consumer Shopping Behaviour Report. (PowerPoint Presentation).
- ²⁰ Agriculture and Agri-Food Canada. (n.d). Canada's Agriculture, Food and Beverage Industry: Pulse Industry. Retrieved from http://www.ats-sea.agr.gc.ca/supply/3317_e.pdf
- ²¹ Statistics Canada. Table 105-0449 - Fruit and vegetable consumption, by age group and sex, household population aged 12 and over, Canada, provinces, territories and selected health regions (June 2005 boundaries), every 2 years. Retrieved from Database CANSIM E-STAT.
- ²² Ibid.
- ²³ Agriculture and Agri-Food Canada. (2008, June). An Overview of the Canadian Agriculture and Agri-Food System 2008. Agriculture and Agri-Food Canada, Pg 47. Retrieved from http://www.agr.gc.ca/pol/index_e.php
- ²⁴ Treasury Board of Canada Secretariat . (2007). Assessing, Selecting, and Implementing Instruments for Government Action. Retrieved from <http://www.tbs-sct.gc.ca>.
- ²⁵ Golan, E., Unnevehr, L. (2008). Food product composition, consumer health, and public policy: Introduction and overview of special section. Food Policy, 33:465-469.
- ²⁶ COI Communications. (2008, July). Food Matters: Towards a Strategy for the 21st Century. UK Cabinet Office. Retrieved from: http://www.cabinetoffice.gov.uk/strategy/work_areas/food_policy.aspx
- ²⁷ Government of Canada. (2007). Canada's Proposed Food and Consumer Safety Action Plan – Overview. Retrieved from http://www.healthycanadians.ca/alt_formats/pdf/01-P_440-ActionPlan_Pamphlet_eng_16.PDF
- ²⁸ Agriculture and Agri-Food Canada. (2008). Growing Forward: The New Agricultural Policy Framework. Retrieved from <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1200339470715&lang=eng>
- ²⁹ The WHO Global Strategy. Diet and physical activity: a public health. Retrieve from the World Health Organization: priority <http://www.who.int/dietphysicalactivity/en/>
- ³⁰ Public Health Agency of Canada. (2005). The Integrated Pan-Canadian Healthy Living Strategy. Retrieved from http://www.phac-aspc.gc.ca/hl-vs-strat/pdf/hls_e.pdf
- ³¹ Agriculture and Agri-Food Canada. (1998). Canada's Action Plan for Food Security. Retrieved from http://www.agr.gc.ca/misb/fsec-seca/pdf/action_e.pdf
- ³² Office of Nutrition Policy and Promotion. Community Health Survey, Cycle 2.2, Nutrition (2004). Retrieved from Health Canada: <http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/index-eng.php>
- ³³ The International Bank for Reconstruction and Development / The World Bank.(2009). Global Economic Prospects 2009: Commodities at the Crossroads, Pg 56. Retrieved from <http://web.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/GEPEXT/EXTGEP2009/o,,contentMDK:22002695~pagePK:64167689~piPK:64167673~theSitePK:5530498,00.html>

³⁴ Ibid.

³⁵ Food and Agriculture Organization of the United Nations. (2006). The State of Food Insecurity in the world 2006, Pg. 8. Retrieved from FAO Corporate Document Repository: <http://www.fao.org/docrep/009/a0750e/a0750e000.HTM>

³⁶ Ibid.

³⁷ Eating Well with Canada's Food Guide. Health Canada. Retrieved March 20,2009, from: <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>

³⁸ Statistics Canada. Table 105-0449 - Fruit and vegetable consumption, by age group and sex, household population aged 12 and over, Canada, provinces, territories and selected health regions (June 2005 boundaries), every 2 years. Retrieved from Database CANSIM E-STAT.

³⁹ Canadian Children's Food & Beverage Advertising Initiative. (2007, April). Retrieved from Advertising Standards Canada: <http://www.adstandards.com/en/childrensinitiative/default.htm>

⁴⁰ Cantox Health Sciences International. (2007, December 18). Critical Review of Health Canada's Standards of Evidence for Evaluating Foods with Health Claims and Analysis of Requirements for Pre-market Evaluation of Functional Foods and Related Health Claims in the Canadian Market. Retrieved from Nutri-Net: <http://www.nutrinetcanada-nnc.ca/resources.aspx>

⁴¹ Statistics Canada. Table 105-0449 - Fruit and vegetable consumption, by age group and sex, household population aged 12 and over, Canada, provinces, territories and selected health regions (June 2005 boundaries), every 2 years. Retrieved from Database CANSIM E-STAT.

⁴² Schoonover, H., Muller, M. (2006, November). Food without Thought: How U.S. Farm Policy Contributes to Obesity. Institute for Agriculture and Trade Policy, Pg 6. Retrieved from <http://www.iatp.org/iatp/publications.cfm?accountID=421&refID=80627>

⁴³ Dall, T.M., Astwood, J. et al. (2009). Health Benefits and Medical Cost Savings Attributable to Calorie, Sodium and Saturated Fat Reductions in the American Diet. Accepted for publication.

⁴⁴ MarS Landing. (2008, November). The Satellite Special Edition, Pg 3.

⁴⁵ Scott Wolfe Management Inc.(2002): <http://www.scottwolfe.ca/>

⁴⁶ George Morris Centre.(2008, March 31). Opportunities for the Canadian Agri-Food Industries in Functional Foods and Natural Health Products. Nutri-Net Canada and Agriculture and Agri-Food Canada. Retrieved from <http://www.nutrinetcanada-nnc.ca/resources.aspx>

⁴⁷ Cantox Health Sciences International. (2007, December 18). Critical Review of Health Canada's Standards of Evidence for Evaluating Foods with Health Claims and Analysis of Requirements for Pre-market Evaluation of Functional Foods and Related Health Claims in the Canadian Market. Retrieved from Nutri-Net: <http://www.nutrinetcanada-nnc.ca/resources.aspx>.

Smith, B., Harrison, G., Rutherford, S. (2007,October).Comprehensive Overview of Federal Statutes and Regulations Applicable to Pre-Market Evaluation of Foods and Food-Related Health Claims. Retrieved from Nutri- Net: <http://www.nutrinetcanada-nnc.ca/resources.aspx>

⁴⁸ Sparling, D. and P. Laughland (2006). The Two Faces of Farming. <http://www.iafpi.ca>

⁴⁹ Statistics Canada (2006). Proportion of farms by receipts class by farm type.

⁵⁰ Prahalad, C.K. (2008). Presentation at the Global Convergence Building Workshop Commissioned by The Bill and Melinda Gates Foundation in Montreal.

