



November 2012



Market Opportunities for Foods with Added Health Benefits for an Aging Canadian Population

The Canadian population is aging, with seniors contributing to a significant and growing segment of the marketplace. This report is intended to help Canada's agri-food sector capitalize on the market potential for innovative food products that meet the needs of an aging population. The report identifies the food and nutrition concerns of this heterogeneous demographic segment along with current market trends and opportunities, and outlines the regulatory issues that need to be considered prior to product development.

A Growing and Heterogeneous Market Segment

Currently 14% of Canadians are over the age of 65. This will grow to 25%, or approximately nine million Canadians, by 2031 as the last of the baby boomers (born between 1946 and 1965)—the largest generational group in Canada—turns 65 years of age (Statistics Canada, 2011). The boomers remain a powerful group, accounting for more than half of all consumer spending (Datamonitor, 2009) and 20% of spending for food, the highest percentage among all age groups (Datamonitor, 2011a). Not only is the population aging, but seniors can expect to live longer. Average life expectancy is currently 78 years for men and 83 years for women (Statistics Canada, 2012).

Senior Canadians are a heterogeneous group, with market segmentation defined less by age than by health status, level of autonomy and socioeconomic support. Other influences include values and level of education. Seniors can be categorized into three basic segments: active healthy seniors who want to maintain youth and vitality, seniors living independently and managing their health, and those in assisted living situations. Each of these segments has specific nutritional requirements that need to be considered when developing and marketing new and innovative food products.

Seniors' living arrangements are one example of influences that have an impact on purchasing decisions and eating habits. Most seniors (93%) live in private households; the remainder reside in collective dwellings, mainly healthcare institutions such as nursing homes and hospitals. Institutional residency is age-related, increasing from 2% among seniors aged 65 to 74 to 32% among those aged 85 or older (Statistics Canada, 2007).

Aging and Nutritional Health

Older Canadians today are more likely to be in better health than seniors in previous generations (Statistics Canada, 2009). Despite this fact, many seniors have at least one diet-related chronic condition. Nutritional status can be affected by degenerative biological changes or environmental factors (Table 1). These age-related changes may be mitigated through lifestyle choices and adequate nutrition. However, the fact that energy requirements decrease while nutrient requirements may increase as people age presents many challenges in obtaining the essential nutrients required to maintain health. Innovative food products could address seniors' health-related needs and desires.

Table 1: Impact of Age-Related Biological or Environmental Factors on Nutritional Status

Age-Related Biological or Environmental Factor	Impact on Nutritional Status
Anorexia of aging	Eating less due to a reduced resting metabolic rate, reduced activity and sarcopenia (loss of skeletal mass or lean muscle mass)
Reduced appetite	Eating less; linked to reduced acuity of taste and smell due to decreased olfactory cells
Decline in oral health and ability to swallow	Can result in reduced quality and quantity of food consumed
Decreased mobility	May impact the ability to obtain and prepare nutritious food
Malabsorption of nutrients	Reduced ability to absorb and utilize nutrients due to decreased gastric secretions, enzymatic production, gut health and intestinal motility; often compounded by poor dental health and/or some medications
Medications	Some may alter appetite, hydration levels, taste and smell, or influence absorption of nutrients due to drug–nutrient interactions
Impaired fluid balance	Degenerative changes in the kidneys, and reduced water re-absorption in the colon due to insufficient dietary fibre; decreased ability to maintain fluid balance under stresses such as heat or illness
Socio-economic and psychological factors	Includes income level, loneliness, lack of cooking skills or desire to cook, inadequate nutrition knowledge, dementia, depression
Chronic diseases	Can have a negative impact on nutritional status and quality of life; can also influence dietary needs

Source: NIN, 1996; Pulisetty and Morley, 2007

Top Health Concerns of Aging Canadians

Most Canadian seniors have at least one chronic condition (89% in 2009) (Butler-Jones, 2010). The most common include:

- Arthritis and rheumatism (44% of seniors);
- Osteoporosis (29% of female and 6% of male seniors);
- Cardiovascular diseases (23% of seniors);
- Diabetes (21% of seniors; 2006/07 data); and
- Cancer (39% of all new cases occur among those aged 65 to 79; 17% of new cases are among those 80 years or older; 2006 data).

Chronic conditions affecting vision are also common among seniors. For example, age-related macular degeneration is estimated to affect 19% of seniors aged 65 to 74 and 37% of those aged 75 or older (Butler-Jones, 2010). Along with a loss of physical strength and dexterity, some seniors have trouble focusing their vision, distinguishing between different colours and adapting to different lighting conditions.

Many seniors are affected by a combination of chronic conditions. In 2009, 25% of those aged 65 to 79 years and 37% of those aged 80 years or older reported having four or more chronic conditions (Butler-Jones, 2010). Diet-related chronic diseases have a negative impact on nutritional status and quality of life.

The most common health conditions correspond closely to the concerns identified by seniors: heart and cardiovascular health, cancer, obesity, arthritis and joint/bone health, cognitive health and digestive health (Datamonitor, 2009; NMI, 2010a). For example, heart health risks are a major concern for seniors: in 2011, 48% of respondents to a survey said that they had experienced concerns for conditions including hypertension, stroke, and high cholesterol (IFIC Foundation, 2011). Among respondents to a survey of 1,512 baby boomers, 85% indicated that brain fitness was the most important part of healthy aging (NMI, 2010a).

Factors Influencing the Food Choices of Seniors

Awareness of the factors that influence seniors' food choices will allow the agri-food industry to make informed decisions on innovative product development, packaging and placement at the retail level.

Many seniors understand the impact of nutrition on quality of life. Their food choices can be influenced by nutrition-related factors, including:

- availability of foods with “value added nutrition”;
- product labels that are easy to read and have meaningful nutrition information; and
- awareness of food or food ingredients that are associated with health benefits.

However, seniors' food choices also remain tied to other factors, including:

- good taste, freshness and quality;
- convenience, including easy-to-prepare foods, take-home foods and delivered meals;
- packaging that is easy to read, easy to open, and available in single or double serving sizes;
- value for the dollar, including being economical to purchase and store;
- product placement and accessibility at the retail level; and
- level of independence in shopping for and preparing food.

These factors have not changed over time as they were originally identified more than a decade ago by the National Institute of Nutrition (NIN, 1996). However, in 2012 their magnitude and importance have increased drastically because seniors represent a much larger proportion of the population.

Willingness to Take Action

Although statistically seniors appear to be affected by multiple physical health issues, many feel healthy and are willing to take action to improve their health. For example, 13% indicated changing their eating habits (Statistics Canada, 2009). U.S. boomers indicate having increased their usage of heart-healthy foods (34%), whole grain foods (39%) and high fibre foods (41%) (NMI, 2010a). Baby boomers are taking personal responsibility for healthy aging: 93% indicate that taking more responsibility for their health is the best way to promote healthy aging, and 79% are interested in trying new approaches to managing their health (NMI, 2010a).

Over half of boomers (58%), significantly more than younger generations, indicate that it is important for their store to carry foods that have specific health claims on the label (NMI, 2010a). Whole grains topped the list of the most sought-after claim on food packages in 2010, followed by high fiber, low sodium, low fat, no trans fats, low sugar, low calorie, no chemical additives, no preservatives, and low/lower cholesterol (NMI, 2010b). Boomers are more likely to purchase foods that provide heart health benefits or lower cholesterol (NMI, 2010a). There is also an increased interest in foods that provide calcium, vitamin D and omega-3 fatty acids. As seniors seek to manage specific health conditions, interest is growing in “foods for special dietary use” at retail (Datamonitor, 2009; Conference Board of Canada, 2011).

Potential Market Opportunities for Reaching Seniors

The size of the senior market presents many opportunities for the agri-food sector in the development of food products with health benefits. To better understand and prioritize these opportunities, additional market intelligence is needed on the attitudes and consumption patterns, shopping habits, and needs for products and services for the various segments of the senior population. Industry could look to senior's organizations as partners and sources of information.

For seniors with medical conditions and decreased mobility, specialized foods are required at the retail level as well as for institutions or agencies. Reduced appetites, a reduction in taste and smell acuity and problems with chewing and swallowing would indicate a need for appetizing products that appeal to the eye and have good mouth feel. Opportunities exist for innovation to enhance flavour, taste and texture to improve sensory properties of food along with the nutritional profile. These enhancements can be accomplished through new technologies, new processing methods, food additives and novel ingredients.

Few food products have been specifically marketed to seniors. While industry has been addressing the nutritional needs of seniors through a variety of means that increase access to healthy food choices, there is a significant opportunity to expand on strategies such as altering nutrient levels in pre-packaged foods, developing nutrient-dense foods and ready-made meals, and applying innovative ingredients and technologies to enhance product format and packaging. Some opportunities are explored below.

Sodium Reduction

Reducing the sodium content of food is an important way that industry can help seniors address high blood pressure (a major risk factor for stroke, heart disease and kidney disease). Health Canada has recently published [*Guidance for the Food Industry on Reducing Sodium in Processed Foods*](#) which includes guiding benchmark levels by product category to help industry accomplish this task.

Trans Fat Reduction

Reformulating products and using new fat sources and ingredients that contain little or no trans fat is helping industry to successfully lower the trans fat content of the Canadian diet. Continuing these changes will meet the needs of the senior population who are managing, or are interested in preventing, cardiovascular disease.

Dietary Fibre

Increasing the fibre content of foods can help seniors improve their overall dietary fibre intake to manage blood cholesterol levels and laxation. In addition, fibre can be used to modify product texture to assist with swallowing. Recently, Health Canada updated the dietary fibre definition and developed the [*Policy for Labelling and Advertising of Dietary Fibre-Containing Food Products*](#). This update provides industry with an opportunity to increase the fibre content of many categories of foods by using recognized sources of fibre and new novel fibres.

Nutrient-Dense Foods

Foods that provide higher levels of protein, vitamins, mineral nutrients and sometimes calories in smaller volumes can help seniors meet increased nutrient requirements. The challenge for industry is to develop appetizing, nutrient-dense foods through value-added ingredients, novel ingredients, new technologies, reformulation, fortification and supplementation to meet the unique needs of the various segments of the senior population.

Ready-Made Meals

Most seniors live independently, and in general prefer home-made meals. Consumption of ready meals by those aged 55 or older is below the national average (Datamonitor, 2009), and 60% of people in this age category prefer to prepare meals from scratch (Intel, 2012a). For older consumers, ready meals are more likely to be perceived as lacking and a compromise in comparison with more traditional meal preparation. However, pre-packaged meals and meal services represent conveniences that could help many meet their nutritional needs.

Pre-packaged meals provide convenience by offering a complete meal that requires easy one-step cooking in the oven or microwave. The food industry may be able to expand this market to help meet seniors' nutritional needs through development of products that appeal in quality, taste and freshness and that meet specific nutritional requirements.

Meal services represent another convenience that could be important to seniors. To reach a broad customer base, marketing would need to counter the perception that this type of service is for the "old and sick". Ingredients that are fresh, portion controlled and partially prepared represent an opportunity that may appeal to the healthy, active senior.

The opportunity also exists to market meal replacements and foods with modified textures not only to institutions but also for distribution at retail and home delivery markets. These types of products can be promoted to professional and family caregivers.

Food Packaging and Labelling

Developing appropriate product format and packaging addresses the special needs of the mature consumer by making food accessible and therefore potentially improving seniors' nutrient intake and ultimately their health status.

Industry can expand current efforts in adapting product packaging to accommodate reduced strength and dexterity. Some trends in packaging that may appeal to the senior population include easy open and reclose, single and double portions, microwave reheating including steam-assisted, stand-up flexible pouches and cook-in barrier bags, flip-top caps in which the product and cap stay together (as opposed to twist tops), and square packages (instead of round) that do not roll (Mintel, 2012a; 2012b).

Use of increased font size and colours with good contrast are especially important for label information. Including instructions on how to open packaging, adjusting package size to contents and including a toll-free number for consumer information (Mintel, 2012b) are some of the many ways for industry to continue improving upon food and beverage packaging.

Regulatory Considerations

In developing new and innovative products that will meet the nutritional needs of seniors, it is important for industry to consider regulatory implications early in product development. The regulations that apply will depend on the specific methods and ingredients used. For example, there are regulatory implications if a product is fortified with vitamins and mineral nutrients, if a new or existing food additive is used in a particular food, if the health benefits will be promoted on the label, if an ingredient is produced from a novel source or novel technology, and if promoting a "food for special dietary use".¹ Health Canada may require pre-market notification or a submission substantiating the safety or health benefits of an ingredient or technology before a product can be approved for sale in the marketplace. The regulatory requirements and the timelines involved in the approval process must be taken into consideration when planning the timing of a product launch.

Recent changes to the regulatory framework provide opportunities for Canada's agri-food sector to develop innovative products to meet the nutritional requirements of aging Canadians. The changes maintain the rigorous science-based requirements that protect consumer health and safety but streamline the way regulations are administered. For example, new tools called "Marketing Authorizations" and "Incorporation by Reference" could allow faster implementation of food additives or food health claims in the marketplace once the science has been substantiated.² Temporary Market Authorizations could be used to permit the addition of vitamins and mineral nutrients above currently regulated levels while data is being collected to support a regulatory amendment.³

Communicating the Health Benefits of Foods

Marketing the health benefits of foods to seniors in clear and meaningful ways will improve consumer knowledge and acceptance of new foods with health benefits. Product labels are the most used source of nutrition information but are in the middle in terms of credibility (CCFN, 2009). Furthermore, Canadian consumers are reluctant to trust claims that are not verified by government or health association sources (Datamonitor, 2011b). Therefore, communicating health benefits that are based on scientific substantiation is vital to increasing consumers' trust in the credibility of health claims, thus widening the market to those who have not previously considered purchasing foods for added health benefits (Datamonitor, 2011a). As an additional consideration, simple messages may be better for seniors with declining eyesight.

¹ Foods for special dietary use, including formulated liquid diets, meal replacements, nutritional supplements and foods represented for use in a very low-energy diet, have detailed and explicit nutrition and other labelling requirements.

² Priority Scheduling and Expedited Handling of Submissions that Have the Capacity to Enhance Food Safety
www.hc-sc.gc.ca/fn-an/securit/addit/priority-priorite/index-eng.php

³ *General Guidance Document for Temporary Marketing Authorization for Foods*
www.hc-sc.gc.ca/fn-an/legislation/guide-ld/food-market-author-marche-aliment-eng.php

Nutrient content claims and **quantitative declaration** of bioactive substances can be used to highlight specific product features. Examples would be claims such as “25% less sodium” or “excellent source of calcium”, or declaration of the amount of lutein or omega-3 fatty acids in a serving of the product. Factual statements identifying the quantity of nutrient in a product are straightforward to use as long as conditions for their use are met.⁴

Nutrient function claims can also be used to highlight product features sought by seniors. CFIA maintains a list of accepted claims⁵ that describe the well-established roles of energy or known nutrients that are essential for the maintenance of good health or for normal growth and development. Examples that may be of interest to seniors include: “vitamin A supports healthy skin”, or “calcium aids in the formation and maintenance of bones and teeth”. Claims not on the defined list would only be considered for nutrients with established recommended intakes for which the function reflects consensus among authoritative scientific bodies.

Function claims are statements based on the specific beneficial effects that the consumption of a food or a food constituent has on the normal functions or biological activities of the body. The claim must be scientifically substantiated before its use. Pre-market approval is voluntary but encouraged.⁶ Since 2003, there have been 414 launches of new food and drink products in Canada bearing function claims related to the health concerns of aging Canadians (Table 2).

Table 2: Number of New Product Launches in Canada Since 2003 Bearing Function Claims Related to the Health Concerns of Aging Canadians

Function Claim	Food	Drink
Digestive Function	131	22
Cardiovascular Function	131	19
Immune System Function	31	15
Antioxidant	10	28
Bone Health	19	1
Weight control	3	4
Total	325	89

Source: Mintel, 2011

Manufacturers can make use of **health claims** approved by Health Canada for use on food labels of products that meet the conditions of use. A list of claims reviewed by Health Canada for scientific validity is published on their [Health Claim Assessments](#) web page. Many of these are related to the top health concerns of aging Canadians. Any proposed new health claims would need to be substantiated and would require pre-market approval by Health Canada before their use.

Regulatory Roadmap

AAFC's Food Regulatory Issues Division has developed the [Canadian Food Health Claim Roadmap](#) to guide industry through the regulatory decision-making process for foods with value-added health benefits. The Roadmap takes into account the decisions that need to be made based on the regulatory system and the parallel implications from the business, scientific and marketing perspectives. It includes considerations for novel foods, novel fibres, foods with added vitamins and minerals and food additives as well as nutrient claims and health claims. One key consideration is the cost and time required to provide the scientific substantiation necessary for approval of novel ingredients and new food–health relationships for health claims.

⁴ See [Chapter 7 of the Guide to Food Labelling and Advertising](#).

⁵ The list of permitted nutrient function claims can be found in [Chapter 8 of the Guide to Food Labelling and Advertising \(Section 8.6\)](#).

⁶ A list of acceptable function claims that have been reviewed by Health Canada, along with conditions for their use, is maintained in [Chapter 8 of the Guide to Food Labelling and Advertising \(Section 8.5\)](#).

Conclusion

Despite improvements in longevity and seniors' health, aging results in physiological changes that shape requirements for nutrients and energy from food, packaging and preparation of food. Consumer interest represents an opportunity for industry to meet the concerns of this burgeoning and increasingly influential population segment. Regulatory considerations must be included in the decision-making process.

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Select Resources

Agriculture and Agri-Food Canada

- *Canada's Regulatory System for Foods with Health Benefits*
www.agr.gc.ca/food-regulatory-issues
- *Canadian Food Health Claim Roadmap*
www.agr.gc.ca/food-regulatory-issues

Canadian Food Inspection Agency

- *Guide to Food Labelling and Advertising*
 - Chapter 2: Basic Labelling Requirements
www.inspection.gc.ca/english/fssa/labeti/guide/ch2ae.shtml
 - Chapter 8: Health Claims
www.inspection.gc.ca/english/fssa/labeti/guide/ch8e.shtml
 - Section 9.9: Foods for Special Dietary Use
www.inspection.gc.ca/english/fssa/labeti/guide/ch9ae.shtml#a9_9

Health Canada

- Food Directorate Guidance Documents
www.hc-sc.gc.ca/fn-an/legislation/guide-ld/index-eng.php
- Health Claim Assessments
www.hc-sc.gc.ca/fn-an/label-etiquet/claims-reclam/assess-evalu/index-eng.php
- *Guidance Document for Preparing a Submission for Food Health Claims*
www.hc-sc.gc.ca/fn-an/legislation/guide-ld/health-claims_guidance-orientation_allegations-sante-eng.php
- *Guidance Document for Preparing a Submission for Food Health Claims Using an Existing Systematic Review* www.hc-sc.gc.ca/fn-an/legislation/guide-ld/systemat-revi-sub-eng.php
- Policy for Labelling and Advertising of Dietary Fibre-Containing Food Products
www.hc-sc.gc.ca/fn-an/legislation/pol/fibre-label-etiquetage-eng.php
- Priority Scheduling and Expedited Handling of Submissions that Have the Capacity to Enhance Food Safety www.hc-sc.gc.ca/fn-an/securit/addit/priority-priorite/index-eng.php

Contact us to learn more about regulations for health claims, novel foods and ingredients.

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Cat. No. A72-117/2012E-PDF

ISBN 978-1-100-21424-5

AAFC No. 11923E

Electronic version available at www.agr.gc.ca/food-regulatory-issues

Aussi offert en français sous le titre : *Débouchés pour les aliments procurant à la population canadienne vieillissante des bienfaits supplémentaires pour la santé*

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