NUTRITION POLICY AND FOOD SECURITY TO THE SECOND WORLD WAR IN CANADA:

Lessons for Food and Nutrition Policy Today



ABSTRACT

Canada lacks a "joined up" food and nutrition policy in which nutrition and nutritional health concerns are empowered relative to food and agricultural policy making. Uni-dimensional education campaigns targeting mothers and their infants were the bedrock of policy to improve nutritional health up to the Second World War. These campaigns were sometimes at cross-purposes with food marketing efforts by agricultural department officials. There is no evidence that these uni-dimensional campaigns worked, and when conducted outside the framework of a joined up food and nutrition policy, may have simply blamed mothers for the difficult nutritional situation of their families. To better promote the health of the population, nutritional health and food and agricultural policy must be developed and conducted holistically and jointly.

RÉSUMÉ

Le Canada n'a pas de politique alimentaire et nutritionnelle « intégrée » permettant d'adresser les préoccupations en matière de nutrition et de santé nutritionnelle dans le cadre du processus d'élaboration des politiques alimentaires et agraires. Jusqu'à la Deuxième Guerre mondiale, les politiques visant l'amélioration de la santé nutritionnelle de la population reposaient essentiellement sur des campagnes d'information unidimensionnelles centrées sur les mères et leurs enfants. Ces campagnes étaient parfois même en contradiction avec les stratégies de marketing alimentaire des fonctionnaires du ministère de l'Agriculture. Or, l'efficacité de ces campagnes unidimensionnelles n'a pas été démontrée. Non encadrées par une politique alimentaire et nutritionnelle intégrée, elles ont eu pour effet de faire porter aux mères le blâme pour les problèmes nutritionnels des familles. Aussi, dans le but de favoriser la santé de la population, il importe d'élaborer et de gérer une politique regroupant les questions de santé nutritionnelle, d'alimentation et d'agriculture dans une perspective holistique.

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Introduction

While Canada has a long history of nutrition policy making, this history has not been systematically researched, synthesized, or published. In consequence, the public, academics, and policy makers have little information on past nutritional health policies (Ostry, 2005, 2006a) and lessons from the past are not well known and therefore not used to improve current policy making. The purpose of this article is to describe some of the main nutrition and food security issues in Canada from the late 19th century to the Second World War in an effort to fill this gap.

The Establishment of a System of Food Safety in Canada

Food adulteration legislation was passed in Britain in the 1860s and 1870s (Fallows, 1988; Jukes, 1987). Canada adopted this legislation when establishing its food safety system in 1874 (Curran, 1954; Davidson, 1949). Canada was an innovator in food standards legislation between 1984 and the 1890s , but the food safety service had limited ability to capitalize on these legislative advances because of an under-trained and under-equipped inspectorate as well as a lack of funds to conduct the research and development to establish food standards. This began to change in the decade following passage of the 1906 Pure Food Act in the United States when

the Canadian government adopted many of the new American food standards (Davidson, 1949).

Over the next 15 years, civil service support for the food safety system was upgraded, culminating in the passage of a modern Food and Drug Act in 1920, the responsibility for which was placed under the control of the new Federal Department of Health. Shifting the act to the health department was more than symbolic as it foreshadowed a health protection as opposed to a policing approach to food safety, as well as an expansion of the mandate of the food safety system (Food and Drug Act, 1920).

The discovery of vitamins in 1912 and the ensuing vitamin mania among the general public in the 1920s and 1930s provided manufacturers and retailers with new opportunities for adulteration. An expansion of laboratory infrastructure in the 1920s was needed to detect and handle the resulting increases in vitamin-based false health claims. As well, by the 1920s, mis-labeling and mis-advertising of mass produced food items began to take the lion's share of food inspectors' efforts (Davidson, 1949).

At this time, while the federal system of food safety was national in scope, the public health system was an uncoordinated patchwork of provincial and municipal regimes. The federal food safety system was responsible for regulating food that was traded across provincial and national boundaries and for the integrity of some bulk and most processed canned and packaged foods, while the various public health systems regulated local food producers, distributors, and retailers, giving central government partial control over food safety.

The disjointed constitutional and organizational structure governing food safety meant it was difficult to develop a coordinated strategy to improve the food supply. This, in turn, limited the federal government's efforts to address the serious issue of persistently high infant mortality in the 1920s, just as the beginning of a major secular shift away from breastfeeding caused federal officials to focus on cleaning up the national milk supply in order to mitigate the negative impacts of this development.

Infant Feeding and Infant Mortality in the Inter-war Years

In the 1920s, particularly for poor women living in less than ideal sanitary conditions, artificial feeding was very dangerous for their babies (Baumslag and Michels, 1993). The efforts of reformers to provide pasteurized or certified milk in urban milk depots and child welfare clinics, which were established in many Canadian cities prior to World War I, and the efforts of municipal public health officials to clean up local milk and water supplies, were one of the keys to reducing infant mortality (Chandler, 1929; Comacchio, 1993).

The other solution to the problem of persistent infant mortality – a problem more directly the responsibility of the Federal Department of Health's Children's Division, was to provide authoritative advice to slow or stop the move away from breastfeeding (MacMurchy, 1923). However, while the new federal health department had the constitutional authority to develop national campaigns to improve child health, during the inter-war years it steadily lost its authority to directly promote nutritional health messages to mothers. This was due to the steady growth, over the decade, of the scientific and moral authority of physicians, most of whom were uninterested or actively opposed to breast feeding (Ostry, 2006a).

The late 19th century had witnessed the popularization of relatively expensive artificial infant formula, particularly in the United States (Goldbloom, 1924). The promotion of artificial infant feeding among paying patients was central to the evolution and popularity of pediatrics and family practice in that country and, later, in Canada (Spohn, 1920). These infant formulas, prior to the discovery of vitamins, were extremely dangerous because when given as the exclusive diet for infants they ensured vitamin deficiency.

As the safety of the milk supply improved in the 1920s and 1930s, at least in some municipalities, public health officials who had earlier vilified milk increasingly touted it as an ideal protective food for children. This about-face undermined some of the traditional public health and medical support for breast feeding. After all, if the milk supply was safe (as it was in some locations by the 1920s) and if, as the new vitamin discoveries indicated, milk was a very good supplier of vitamins, calcium, and calories, then the traditional arguments against artificial infant feeding were blunted.

It was during this time of transition in infant feeding practices in Canada that Helen MacMurchy (director of the Children's Division in the Federal Department of Health) developed and widely disseminated her national breast feeding guidelines through the Canadian Mothers' Book (CMB). The instruction to mothers that they

absolutely must wait until their infant reached the age of nine months or more before giving them cow's milk, as well as the strict and dire admonition not to feed this dangerous liquid to younger infants and to keep physicians and nurses at arms' length during the nursing process, demonstrated that federal officials were well aware both of the antipathy of physicians toward breast feeding and that the milk supply remained unsafe (MacMurchy, 1923).

New attitudes toward artificial feeding among public health officials in conjunction with its increasing promotion by family physicians and pediatricians left federal officials such as MacMurchy with few medical allies in the fight to promote breast feeding. At the same time, many women in Canada actively sought out physicians who would help them artificially feed their babies (Myres, 1979), and this contributed to fading active medical support for breast feeding.

Given the massive secular move away from breast feeding, the focus on exclusive breast feeding in the CMB (with its defensive moral denial of the existence of artificial infant feeding) rendered it increasingly irrelevant. While this correct and courageous health promotion stance taken by the Children's Division was ineffective in promoting breast feeding among women in the 1920s and 1930s, it may have acted as an authoritative standard that slowed down the flight to artificial feeding in the inter-war years.

Agriculture and Industry Trumps Nutrition and Health in the 1920s

The federal government's ability to develop policy to reduce infant mortality was also hindered by its complex relationship with industry. As early as 1911, the Canadian Manufacturers Association was heavily involved with the federal government in developing food standards (Davidson, 1949). With the discovery of vitamins and the growing realization by many manufacturers that they could use vitamin-based health claims to boost their sales, the relationship between the agency and industry became strained (Department of Pensions and National Health, 1937).

Intra-governmental confusion occurred, too, because the federal department of Agriculture discovered the marketing potential for vitamins in the 1920s. In conjunction with industry, the department promoted Canadian food products (particularly beef and milk), often using highly targeted campaigns based on generalized vitamin–based health claims (Department of Agriculture Report, 1927, 1931).

By the mid-1920s, the Division of Child Health's cooperation with the Department of Agriculture's Milk Utilization service in marketing cow's milk to mothers was at cross purposes with its own breastfeeding guidelines warning about the dangers of cows' milk. As well, because the marketing strategy of the Department of Agriculture was founded on general vitamin-based health claims, particularly for protective foods, the Food and Drug Division's efforts to stop manufacturers' adulteration of food with vitamins and the proliferation of vitamin-based false health claims was compromised.

The basis for the aggressive marketing promotion of dairy and beef by the Department of Agriculture was the increasing predominance of animal production (in relation to grain and vegetables) in Canada (Bicknell and Fowkes, 1962). Expansion of herds created pressure to improve sales of animal-based foods by increasing exports or by changing Canadian food purchase and dietary habits through marketing campaigns (Drummond et al., 1966). While foods other than milk and meat were rich in vitamins (e.g. leafy green and orange-coloured vegetables, and whole wheat cereal products), these less economically important foods were not promoted in the same way as dairy products and meat.

Nutrition, Health, and Agriculture in the 1930s

All these policy disjunctions were exacerbated by the Depression. As noted in the Health Department reports from this time, sharpened economic competition during the 1930s increased the incidence of adulteration, mis-labeling, and mis-advertising. The Department of Agriculture and Canada's farmers also felt the pressure of sharpened competition as, following passage of the Smoot-Hawley Act in 1930, borders were closed with the United States, increasing the glut of food on the Canadian market (Britnell and Fowkes 1962).

The health status of the population improved dramatically during the Depression (Statistics Canada, Series B35-50, 1983; Ostry, 2006b). Both Apple (1987, 1995) and McKeown (1976) postulated that food security mediated the relationship between changes in socioeconomic conditions and health. The peculiar agri-economic situation of the Depression led to a stable or improved domestic food supply for most basic commodities, at least at the national level, and historically low food prices

for the entire decade in spite of severe economic dislocation.

From the few dietary surveys, conducted at the end of the Depression, the evidence is limited but clear that although wealthier families ate better than poorer ones, and though men had better diets than women and children within poor working families, individuals in such families had sufficient calories in their diets (McHenry, 1939; Pett, 1942, 1944; Young, 1941). Given the abundance of cheap food available at this time, the stability of nutritional deficiency-related disease mortality, and the rapid decline in rickets mortality it is likely that the dietary conditions faced by the poor and unemployed improved as the 1930s unfolded relative to the 1920s.

Given the continuing high agricultural production through the 1930s, lack of income was the main factor preventing access to food by the unemployed (Struthers 1983, 1991). This, in turn, depended on the relief rate which, particularly in the early 1930s, varied widely across municipalities. Thus, the relief rate was central to the food insecurity experienced by the unemployed.

In this situation of good food supply, obtaining more money for the unemployed (a key success of reformers) was therefore also key to reducing the very high proportions of income spent on food by families on the lowest economic rung in the 1930s. The combination of cheap food in good supply and constant upward political pressure for direct food aid and increases in relief payments ensured that those in the margins did not become malnourished. The situation for the marginally food secure remained, however, precarious, with little room for maneuverability.

The role of leading nutrition scientists in improving the lives of Canada's unemployed at this time was more ambiguous (Struthers, 1991). First, many of the nutrition scientists who conducted the dietary surveys in Canada at the end of the 1930s were convinced at the time that malnutrition was widespread in the population (McHenry, 1939; Young, 1941, 1964). Yet, they reverted to "blame the mother" strategies calling for the education of mothers to help them use their existing funds more wisely in the purchase and preparation of food, instead of initiatives that would increase the incomes of the unemployed.

Conclusions

From this historical overview, there are three main lessons for food security and nutrition policy making today in Canada. First, Canada lacks a "joined up food and nutrition policy" in which nutrition and nutritional health is empowered relative to food and agricultural policy (MacRae, 1999; Riches, 2004; Rideout et al., 2006; Ostry, 2006a). Canada did develop nutrition policies in the 1920s and 1930s but these were dominated by the promotion of dairy and meat. In other words, nutrition policy was driven by the needs and concerns of food and agricultural policy.

This lack of a coherent health promotion message for milk was exacerbated by the disjunction between nutrition policy makers operating within the federal government and locally-based public health officials. As well, less than ideal nutrition education messages were developed, and these were shaped more by the needs of the agricultural economy than the issue of stubbornly high infant mortality. This was exacerbated by the relative weakness of the Federal Department of Health in comparison to Agriculture as well as the lack of a strong federal public health voice. In the 1920s, nutrition policy was subordinate to food policy. The dominant, and most coherent and effective policy developed in the inter-war years, was the aggressive promotion of milk and meat.

Second, uni-dimensional initiatives directed at educating mothers have been the bedrock of policy to improve the dietary and nutritional health of the population since the 1920s. There are two problems with this approach. First, there is no evidence that narrow education promoting changes in eating and shopping habits actually work. As was demonstrated, in the 1920s and 1930s, nutrition education campaigns were compromised by the domination of food policy concerns (i.e., they were countered by marketing campaigns designed to promote the sale of foods). Thus, nutrition education, conducted in isolation from other strategies and outside the framework of a joined up food and nutrition policy, was overwhelmed by the market.

This approach also essentially blamed mothers for both the difficult nutritional situation of their families and their failure to fix the problem. Through the inter-war years, mothers were blamed by their physicians for not being able to breast feed, and by MacMurchy and her officials for not breast feeding enough as well as for working outside the home. Mothers, through the inter-war years, were the primary targets for all nutrition marketing campaigns by industry and agriculture. Poor mothers were told by nutrition scientists in

the 1930s that they should make do with their limited incomes and learn instead to shop and cook more efficiently.

The third lesson for modern policy makers is that the impact of future economic crisis on dietary status and nutritional health may be much more severe than what was observed during the Depression. The steady roll back of the welfare state, the rise of food banks, the likelihood that the next economic slump may involve both unemployment and inflation, and the decline in the number of people who can grow their own food, suggest more dire conditions than existed in the 1930s. In other words, with greater urbanization of the population and increased dependence on highly concentrated markets, the ability of poor Canadians to cope with prolonged food insecurity associated with any future economic crisis may be highly compromised.

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