Newfoundland and Labrador Maligned: Taking Stock of Nutritional Health in Rural Newfoundland and Labrador, 1912-1949

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Cet article explore la relation entre la façon dont les gens de l'extérieur (principalement) décrivaient la santé nutritionnelle des Terre-Neuviens et l'incidence que ces descriptions eurent sur le destin constitutionnel de Terre-Neuve dans la période précédant son entrée dans la Confédération en 1949. La santé nutritionnelle des Terre-Neuviens a fait l'objet de nombreuses recherches universitaires au cours de la première moitié du 20e siècle, dont beaucoup conclurent que les Terre-Neuviens eux-mêmes étaient souvent les responsables de leur mauvaise santé nutritionnelle. Sans surprise, de nombreux Terre-Neuviens trouvèrent cette conclusion très offensante, au point que la question de la nutrition s'imposa comme un facteur important dans les débats sur la Confédération à Terre-Neuve au milieu du siècle.

This article explores the relationship between the ways (mainly) outsiders characterized Newfoundlanders' nutritional health and the bearing those characterizations had on Newfoundland's constitutional destiny in the lead up to Confederation in 1949. Through the first half of the 20th century, Newfoundlanders' nutritional health was the subject of numerous scholarly inquiries. Many of these inquiries concluded that Newfoundlanders themselves were often the authors of their own poor nutritional health. Not surprisingly, this conclusion proved deeply offensive to many Newfoundlanders – so much so that by mid-century the issue of nutrition emerged as no small factor in Newfoundland's Confederation debates.

IN EARLY MARCH, 1945, THE *CANADIAN MEDICAL ASSOCIATION JOURNAL* published a report on the state of Newfoundlanders' health. Dryly entitled *Medical Survey of Nutrition in Newfoundland*, it promised to be a dull affair. Instead, it struck the public "almost with the shock of a bombshell."[1] As one irate Newfoundlander wrote to the editors at the *Twillingate Sun* in April, 1945: "Sir: - Can you imagine it! In these days when doctors' services are at a premium, a bunch of them can actually take time off to give Newfoundland the once over and give out with such a malicious and untrue report."[2] The editors of the *Atlantic Guardian* weighed in that same month: "The report is anything but flattering to the people of

1 Canadian High Commissioner to Newfoundland J.S. Macdonald to Prime Minister William Lyon Mackenzie King, 8 March 1945, RG 29, vol. 922, Library and Archives Canada (LAC). I wish to thank Sarah Glassford and Linda Kealey for their comments and thoughts on earlier drafts of this article. I also want to thank the three external reviewers for their comments.

2 "Report is insult to NFLD," *Twillingate Sun*, 7 April 1945.

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Britain's Oldest Colony."[3] J. Scott Macdonald, Canada's high commissioner to Newfoundland, also found the report troubling, especially as it appeared at a moment when Canada was trying to develop a stronger relationship with the colony and potentially to draw it into Confederation. Writing to Prime Minister Mackenzie King in March, 1945, Macdonald laid out the basic problem: "It undid, at a single stroke, more than this office, the Canadian Government Trade Commissioner and the heads of the Forces here could do in months of patient effort to build up goodwill for Canada."[4] Sir John Puddester, Newfoundland's commissioner for public health and welfare, and the man who commissioned the survey in the first place no less, attacked the report: "Canadians are always maligning Newfoundland and you can't have Confederation if you go on like that."[5]

What lay beneath this outrage? The survey purported to be merely an attempt to quantify key indices of nutritional health or malnutrition like infant mortality rates, rates of tuberculosis, and evidence of beriberi; but it also contained explosive qualitative judgments of the people. "The average person," the report's authors observed, "was somewhat slow in mental reactions and lacking in initiative." The children examined were "apathetic and abnormally subdued." Physically, the children "seemed older than their years," and their skin "lacked elasticity and resembled skin from adult men and women." As for the young adults, their skin was "atrophied and wrinkled." "Muscular development," the survey team further noted, "was very poor in very many subjects of all ages and both sexes."[6] The report also featured a series of harsh and off-putting full colour photographs depicting swollen gums, poor teeth, and arched backs – graphically suggesting a weak and sickly population. Perhaps equally galling to Newfoundlanders was the survey's conclusion that many of the nutrition-related problems facing them were due to their own poor food preparation practices and poor food choices rather than their crushing poverty.[7] Newfoundlanders were, in other words, the authors of their own ill health.

What follows here considers part of Newfoundland's story in the first half of the 20th century in two related historical contexts. The first is a widespread medical preoccupation with Newfoundlanders' nutritional health stretching back to before the First World War. For members of the medical profession, Newfoundland was an ideal nutrition "laboratory"[8] within which they could test theories associated with the

3 *Atlantic Guardian*, April 1945, 32.

4 Macdonald to King, 6 March 1945, RG 29, vol. 922, LAC.

5 "Asserts Canadians Malign Newfoundland," *Globe and Mail*, 7 March 1944.

6 J.D. Adamson et al., "Medical Survey of Nutrition in Newfoundland," *Canadian Medical Association Journal* 52, no. 3 (March 1945): 231.

7 Although the report's authors recognized the comparatively low suitability of Newfoundland's soil for agriculture relative to other jurisdictions, they nevertheless lamented the small percentage of suitable land in agricultural use. The report's authors also offer a good deal of critical commentary on what they call "civilian food consumption," observing that Newfoundlanders generally failed to make good use of the limited foods available to them. See Adamson et al., "Medical Survey of Nutrition in Newfoundland," 229, 233-5.

8 Historian Linda Kealey explores the understanding of Newfoundland and Labrador as laboratories for nutrition-related studies. See Linda Kealey, "Historical Perspectives on Nutrition and Food Security in Newfoundland and Labrador," in *Resetting the Kitchen Table: Food Security, Culture, Health, and Resiliance in Coastal Communities*, ed. Christopher C. Parrish, Nancy J. Turner, and Shirley M. Solberg (New York: Nova Science Publishers, 2008), 177-90.

so-called "newer knowledge of nutrition."[9] The people were nearly all Island-born, their ethnic origin was nearly entirely British,[10] and they had access to nearly the same, limited kinds of food, especially in the 1,200 or so outports scattered along the coast.[11] Collectively, medical professionals and lay observers had by the 1940s concluded that Newfoundlanders' nutritional health, especially in the outports, was generally poor. This conclusion, though widely known through the interwar years, took on added significance in the lead-up to the second historical context: Newfoundland's constitutional destiny at mid-century. As we shall see, medical and lay perceptions of Newfoundlanders' nutritional health, culminating in the 1945 survey, threatened at a critical moment to complicate Britain's oldest colony's entry into Confederation.

Nutrition research

This article is situated within a growing literature on the history of nutrition.[12] For historians Harmke Kamminga and Andrew Cunningham, modern nutrition's story began in German scientific laboratories in the opening decades of the 19th century. There, some chemists and physiologists were beginning to investigate the relationships between the chemistry of food and animal physiology. Nutrition, they increasingly concluded, was much more than merely calories consumed and energy and waste excreted. Instead, chemists like Carl Schmidt, Justus Liebig, and Gerrit Jan Mulder were busy classifying what they called "ultimate foodstuffs" into three nutritional categories: fats, proteins, and carbohydrates. Over the course of subsequent decades, new hypotheses appeared, were tested, and then retested until something approaching a scientific consensus was arrived at by the late 19th

9 Influential early nutrition scientist Elmer McCollum coined this phrase as a way of differentiating pure chemical food analyses from the growing scientific understanding of amino acids. See Elmer Verner McCollum, *The Newer Knowledge of Nutrition: The Use of Food for the Preservation of Vitality and Health* (New York: Macmillan, 1918). In later years, the phrase enjoyed popularity as a shorthand for amino acid-based research on nutrition.

10 Christopher A. Sharpe, "The 'Race of Honour': An Analysis of Enlistments and Casualties in the Armed Forces of Newfoundland: 1914-1918," *Newfoundland Studies* 4, no. 1 (Spring 1988): 31. Sharpe has noted that by 1911, 98.6 per cent of the population was Newfoundland-born.

11 In these senses, Newfoundland was not unlike rural Scotland or rural Ireland, two other places that were quite popular among nutrition surveyors. Newfoundland's *Royal Commission on Health and Public Charities, Interim Report* (St. John's: King's Printer, 1930) makes extensive comparisons between Newfoundland and Scotland. See also Glenn Hooper, "The Isles/Island: The Wilder Shore," in *The Cambridge Companion to Travel Writing*, ed. Peter Hulme and Tim Youngs (Cambridge: Cambridge University Press, 2002).

12 See, for example, Harvey Levenstein, *Paradox of Plenty: A Social History of Eating in Modern America* (Berkeley: University of California Press, 1993); Harvey Levenstein, *Fear of Food: A History of Why We Worry About What We Eat* (Chicago: University of Chicago Press, 2012); Walter Gratzer, *Terrors of the Table: The Curious History of Nutrition* (New York: Oxford University Press, 2005); Harmke Kamminga and Andrew Cunningham, eds. *The Science and Culture of Nutrition* (Amsterdam: Rodopi, 1995); Jessica Mudry, *Measured Meals: Nutrition in America* (Albany: State University of New York, 2009); Ian Mosby, *Food Will Win the War: The Politics, Culture, and Science of Food on Canada's Home Front* (Vancouver: University of British Columbia Press, 2014); Aleck Samuel Ostry, *Nutrition Policy in Canada, 1870-1939* (Vancouver: University of British Columbia Press, 2006); Caroline Durand, *Nourrir la machine humaine. Nutrition et alimentation au Quebec, 1860-1945* (Montreal and Kingston: McGill-Queen's University Press, 2015).

century. The basic thinking was that people and animals could achieve maximum nutrition by consuming a precise balance of fats, proteins, and carbohydrates.[13]

Nutrition research continued in Germany into the 20th century, based largely around the chemical components of foods. But by the 1910s, in Britain and the United States especially, the emerging field of biochemistry suggested a different route to nutritional health, emphasizing the role of amino acids in sustaining the body. This new direction of enquiry led scientists to research what Polish biochemist Casimir Funk called "'vitamines" (from "vital amines"). Within a short period of time, researchers advocated the use of vitamins to solve all manner of disease and illness, from beriberi to rickets to pellagra to scurvy, and mostly to good effect. The so-called "newer knowledge of nutrition" transformed the field, and vitamins became a critical part of nutrition thinking.[14]

But this interest in nutrition in the 19th and 20th centuries, Kamminga and Cunningham insist, must be seen within the much-wider context of the rise of the modern nation state, the appearance of modern laboratory science, and, I would add, the emergence of the process of industrialization. The idea of the nation state, of course, is premised on the relationship between the state and the citizen. The state, in this view, has an obligation to create conditions in which the citizenry can thrive. Equally, citizens have an obligation to serve the state, whether that be through productive (and reproductive) labour in peacetime or through effective soldiering in wartime.[15] In both cases, the state requires from its citizenry the healthiest bodies possible. In similar and related fashion, the rise of the modern laboratory, principally in the German states of the early- and mid-19th century, heralded an increasing – and increasingly codified – interest in medical and clinical research. Increasingly too, as historian Timothy Lenoir notes, organized science "was self-consciously harnessed to the needs of a nascent, industrializing, capitalist economy."[16] We might equally, then, set this all in the context of industrial capitalism, for employers also require their workers to be at least moderately healthy in order to produce efficiently. As the process of industrialization rolled out in the American context, sociologist Steve Sturdy has argued, both the state and industrial concerns became increasingly interested in the health of workers' bodies.[17] As early as the 18th century, and drawing on a growing and persuasive medical literature that "had been developing techniques for defining and measuring the capacity of the living body to generate energy to perform physical work," both the nation state and industry began regarding workers' bodies as a form of capital to be managed and nourished for maximum productivity.[18] To be sure, and as historian Arthur McIvor has argued in the British context, though employers may well have viewed such medical

13 Kamminga and Cunningham, *Science and Culture of Nutrition*, 3-5.

14 Rima D. Apple, *Vitamania: Vitamins in American Culture* (New Brunswick, NJ: Rutgers University Press, 1996), 2-4.

15 Kamminga and Cunningham, *Science and Culture of Nutrition*, 2.

16 Timothy Lenoir, "Laboratories, Medicine and Public Life in Germany, 1830-1949," in *The Laboratory Revolution in Medicine*, ed. Andrew Cunningham and Perry Williams (Cambridge: University of Cambridge Press, 1992), 16.

17 Steve Sturdy, "The Industrial Body," in *Companion to Medicine in the Twentieth Century*, ed. Roger Cooter and John V. Pickstone (London and New York: Routledge, 2003).

18 Sturdy, "Industrial Body," 221.

developments with interest, "in general British management (with some notable exceptions) grossly neglected the human element in production, ignored human physiological and psychological limitations, and hence both created and exacerbated serious problems of mental and physical fatigue and overstrain."[19] Nevertheless, the association of the physical (and sometimes mental) health of the individual body projected its way into the 20th century to become conflated with the health of the industrial process and, eventually, with the health of the nation state itself.

Nutrition in Newfoundland

The 1945 nutritional survey of Newfoundlanders appeared in the midst of a flurry of similar surveys carried out not just in Newfoundland and Labrador, but also throughout the western industrialized world.[20] According to American historian A.R. Ruis, the nutrition surveys appeared, principally through the first half of the 20th century, in response to a perceived "malnutrition crisis" facing industrializing nations. This so-called "crisis" had multiple and broader causes and implications. It was in part related to the surge in nutrition research, and interest in nutrition more generally, as a proactive agent in ensuring good health during the early 20th century. Concerns over widespread malnutrition also helped the nutrition professions effectively stake their claim as an important subset within the wider medical community. And, doubtless, the rise of nutrition advocates was related to the much broader trend toward "progressive" urban reform within the context of a rapidly industrializing and urbanizing western world. Writing in 1922, prominent American sociologist James H.S. Bossard described the broad contours of the malnutrition "crisis": "A few years ago only extreme cases of malnutrition were recognized," he wrote in the *Annals of the American Academy of Political and Social Science*. "Today we are told that one-third of the children of the United States are underweight or undernourished or malnourished." This "crisis," Bossard maintained, was not limited to the poor or the working class. It instead affected everyone everywhere. And the attention to so-called "positive health," Bossard believed, was a "reflex of the recognition by present day statesmen, military leaders, economists, employers, pedagogues, and social workers, of the fundamental importance of physical well-being, and the imperative necessity of health conservation during childhood."[21]

19 A.J. McIvor, "Employers, the Government, and Industrial Fatigue in Britain, 1890-1918," *British Journal of Industrial Medicine* 44 (November 1987): 724.

20 Newfoundland was an especially popular destination for surveyors. See, in addition to surveys examined in this study, H.S. Mitchell, "Nutrition Survey in Labrador and Northern Newfoundland," *Journal of the American Dietetics Association* 6 (June 1930): 29-35; M. Vaughn and H.S. Mitchell, "A Continuation of the Nutrition Project in Northern Newfoundland," *Journal of the American Dietetics Association* 8 (August 1933): 526-31; D. Steven and G. Wald, "Vitamin A Deficiency; A Field Study in Newfoundland and Labrador," *Journal of Nutrition* 21 (May 1941): 461-76; and Ellen McDevitt et al., "Vitamin Status of the Population of the West Coast of Newfoundland with Emphasis on Vitamin C," *Annals of International Medicine* 20, no. 1 (January 1944): 1-11.

21 James H.S. Bossard, review, in *American Academy of Political and Social Science* 133 (September 1922): 144-7, of William Emerson, *Nutrition and Growth in Children* (New York: D. Appleton & Co., 1922); Jean Lee Hunt, J. Bufford, and Edith M. Lincoln, *Health Education*

Interest in Newfoundlanders' nutritional health has a lengthy history. Dr. John Mason Little, for instance, reported on incidences of beriberi cases before the onset of the First World War.[22] Little arrived at Wilfred Grenfell's Mission at St. Anthony in northern Newfoundland in 1907, and remained there for the next ten years as hospital administrator and resident surgeon.[23] Shortly after his arrival, Little began noticing widespread nutritional deficiency diseases like tuberculosis, scurvy, and beriberi. By 1912 he was seeing two or three cases of beriberi per day.[24] Though nutritional knowledge, and especially the relationship between a lack of thiamine and beriberi, was not yet understood, Little suspected that the problem in Newfoundland was the people's preference for white bread over thiamine-rich whole wheat bread. With no experimental equipment at the Grenfell Mission, Little had his friend Dr. W. Richard Ohler at the Harvard Medical School conduct experiments on chickens that ultimately showed the link between a lack of thiamine in the diet and the devastating disease.[25] But he also made clear that extreme poverty also played an important role in malnutrition. "A great many people here live from hand to mouth," he wrote, "being always on the verge of poverty." For much of the winter and into the early spring, Little continued, the people consumed little more than unfortified white bread, tea, and molasses. A large part of the problem during those dark months, of course, was that it was in those times that families' winter stores were nearly empty. Spring break up usually brought a more varied diet to the people in the outports, but, Little further noted, "let an added burden be thrown on the economy, whether it be pregnancy, a wetting and chill or a cold; add the squalor and discomfort, dirt and bad air of one of the air-tight overheated cottages the

and the Nutrition Class (New York: E.P. Dutton & Company, 1922); National Child Health Council, *Child Health in Erie County, New York*, supplement to *Mother and Child* – magazine of the American Child Hygiene Association (Washington: American Child Hygiene Association, May 1922); South Carolina Mental Hygiene Committee, "A Report of the South Carolina Mental Hygiene Survey," *Quarterly Bulletin* 111, no. 1 (Columbia: South Carolina Board of Public Welfare, 1922); Helen T. Woolley and Hornell Hart, *Feeble-Minded Children Who Have Been Students in Cincinnati Special Schools*, Studies From the Helen S. Traounstine Foundation 1, no. 7 (Cincinnati: Helen S. Traounstine Foundation, April 1921); and George H. Green, *Psychanalysis In the Class Room* (New York: G.P. Putman's Sons, 1922) (quotation on 144).

22 J.M. Little, "Beriberi Caused by Fine White Flour," *Journal of the American Medical Association* 58, no. 26 (June 1912): 2029-30. Little also produced a report in 1908 in the *American Medical Association Journal* on medical conditions in northern Newfoundland and Labrador, but it does not concern itself with the nutritional health of the people. See J.M. Little, "Medical Conditions on the Labrador Coast and North Newfoundland," *Journal of the American Medical Association* 50, no. 13 (March 1908): 1037-9.

23 Founded by British medical missionary Wilfred Grenfell, the Grenfell Mission opened its first hospital at Battle Harbour in 1893. Thereafter the mission expanded its operations, treating all manner of medical ailments throughout northern Newfoundland and Labrador. See Ronald Rompkey, *Grenfell of Labrador: A Biography* (Toronto: University of Toronto Press, 1991).

24 Little, "Beriberi Caused by Fine White Flour," 2030.

25 Ronald Rompkey, *Grenfell of Labrador: A Biography* (Montreal and Kingston: McGill-Queen's University Press, 2009), 179. See also W. Richard Ohler, "Experimental Polyneuritis: Effects of Exclusive Diet of Wheat Flour, in the Form of Ordinary Bread, on Fowls," *Journal of Medical Research* 31, no. 2 (November 1914): 239-46.

natives live in, increased by the neglect caused by their own undermined health, then you will see . . . [beriberi] advancing sometimes very rapidly . . . ."[26] Indeed, eleven people died of beriberi in Newfoundland in 1912, the year Little's study was published. Fifteen people died of it the following year, and a further twenty died of the disease in 1914.[27]

The onset of the First World War in August, 1914, further revealed health problems in Newfoundland. Newfoundlanders, like their counterparts throughout the British Empire, reacted with zeal to the prospect of fighting "the Hun" and preserving "democracy." But many also signed up early because joining the Newfoundland Regiment, formed on 21 August 1914, paid one dollar per day. This constituted an especially welcome sum at a time of economic recession then plaguing most of the western industrialized world.[28] For many, it was also a rare time when they could earn cash, and hopefully rise above the non-cash truck system that had kept them perennially in debt to the merchant-traders. Descending on recruiting stations and magistrates' offices, then, were thousands of young men from the towns and cities, from the interior mills, and from the outport fishing communities.[29] In the end, more than 11,000 men from Newfoundland enlisted – some 8,700 in three discrete Newfoundland units and more than 3,000 in the Canadian Expeditionary Force. Over the course of the war, however, medical officers rejected nearly half of the 8,700 would-be soldiers. And, following the imposition of conscription in 1918, medical officers rejected more than half of the 3,600 men conscripted. In these cases, the reason for rejection was medically unfit.[30] The earliest enlistments, as historian Mike O'Brien notes, tended to be from urban areas, with some 80 per cent from St. John's. But as the fishing season drew to a close, increasing numbers of recruits came from the outports. Thereafter, and following a pattern among all Allied nations, recruitment faltered, especially after 1916. For one thing, the romantic notions of war fell increasingly flat as news spread of soldiers hunkered down in the mud and the blood and the rats in the trenches at the front. For another, would-be recruits at home could not miss the scores of injured veterans returning or those recruits who did not return at all. And, in Newfoundland in particular, the rising price of cod proved an attractive incentive to return to the fisheries and contribute to the Allied Forces' food supply.

26 Little, "Beriberi Caused by Fine White Flour," 2029.

27 W.R. Aykroyd, "Beriberi and Other Nutritional Diseases in Newfoundland," *Journal of Hygiene* 30, no. 3 (August 1930): 358.

28 See, for example, Mike O'Brien, "Out of a Clear Sky: The Mobilization of the Newfoundland Regiment, 1914-1915," *Newfoundland and Labrador Studies* 22, no. 2 (2007): 402, 407.

29 Quoted in O'Brien, "Out of a clear sky," 408. See also John Gallishaw, *Trenching at Gallipoli: The Personal Narrative of a Newfoundlander with the Ill-Fated Dardanelles Expedition* (Toronto: S.B. Gundy 1916).

30 Sharpe, "'Race of Honour'," 32. To be fair, British military leaders also bemoaned the ill-health of potential recruits from their industrial cities as well. Sharpe quotes British Secretary of State for War Lord Kitchener: "Robust enough in spirit," wrote Lord Kitchener during the war, "the men of the narrow streets of the industrial towns, offspring of long working hours, low wages, persistent poverty and persistent malnutrition, simply did not meet the physical standards laid down by a small professional army which could normally pick and choose its recruits"; see Sharpe, "'Race of Honour'," 33.

After the war, scientific attention soon returned to the nutritional health of Newfoundlanders. Dr. Vivia B. Appleton, a pediatrics instructor from the University of California at San Francisco, arrived at the straits along Labrador's Belle Isle in the autumn of 1919.[31] There, she expected to find nutritional deficiencies among the "Esquimos."[32] The following summer, she intended to travel to Newfoundland's northern shores to compare her Labrador findings against the islanders' nutritional health.

The Labrador population, Appleton reported, consumed one-and-a-quarter to one-and-a-half barrels of flour per person each year in the form of bolted wheat bread. She estimated an average family size at eight members and noted a relatively high consumption of meat, including "one or two barrels of salt meat, pork or beef, two to four quintals of salt codfish, and one to three barrels of salt herring." During the winter, Labrador families supplemented their diet with hunted game, and in the autumn and spring they hunted ducks and geese. At spring break-up, sometimes as early as May, they fished on the ice for trout until the cod and salmon fishing season began in June. Labradorians consumed molasses in place of sugar in quantities of roughly 20 gallons per person per year. Vegetable consumption was much less certain, especially in the early months of each year when supplies were low. Sufficiently wealthy families could afford one or two barrels of potatoes, and again as much of rutabagas. But the vast majority relied on dried peas, onions, and garden-grown cabbage for their vegetable intake. Nevertheless, Appleton noted that by the following spring most families were subsisting on bread, molasses, and tea.[33]

For the most part, the fishing population in Labrador followed a predictable yearly cycle. At the end of the fishing season, usually in mid-to-late October, families procured winter stores of food from the resident merchant-traders. And, almost to a person, the exchange was the truck system, generally keeping the fishers in debt to

31 V.B. Appleton, "Observations on Deficiency Diseases in Labrador," *American Journal of Public Health*, 11, no. 7 (July 1921): 617-21.

32 It remains unclear whether Appleton's study actually featured Inuit, who may have lived much further North by the 20th century than the non-Inuit or mixed-race fishers who lived and worked along the coast. Some may well have been the progeny of European male and Inuit female unions, a practice with roots dating to the late 18th century. Inuit trading parties routinely travelled south to engage with British merchant-traders through to the end of the 18th century. See Cleophas Belvin, *The Forgotten Labrador: Kegashka to Blanc-Sablon* (Montreal and Kingston: McGill-Queen's University Press, 2006). See also a useful overview: John C. Kennedy, "Southern Inuit of NunatuKavut: The Historical Background," http://www.heritage.nf.ca/articles/aboriginal/southern-inuit.php. For her part, Vassar College student Grace Hamilton Parker described Labrador's population in 1925 this way: "Just who are the people who live on this coast of Labrador and North Newfoundland? Eskimos? Yes, only some thousand or more left, in the far north, far beyond the limits of Doctor Grenfell's work; not more than a dozen perhaps, in this area I have described. The people are all of English, Scotch, French, or Irish extraction, men whose ancestors came over some generations ago with the old fishing and trading firms. They are all Christians of a simple and devout faith. In the interior of Labrador there are still roving a few bands of Indians. But the native people have been gradually pushed back and have more or less succumbed to the advance of the Anglo-Saxon civilization. Naturally there has been intermarriage between the natives and the settlers, so as one travels farther northward along the Labrador coast one finds a fringe of half-breeds, mingling with the whites"; see Grace Hamilton Parker, "With Doctor Grenfell in Labrador," *Vassar Quarterly* (February 1925): 70.

33 Appleton, "Observations on Deficiency Diseases in Labrador," 618.

the merchant-traders. While some Labrador fishers accrued insurmountable debts, most remained consistently at a small debit on their accounts and, in so doing, remained at the mercy of the merchant-trader. Having procured their winter stores, the fishing families moved away from the coast to the inland forests, which afforded shelter and access to timber for heating fuel. There they stayed, trapping and hunting, until March's seal hunt, and eventually the spring break-up and the start of another fishing season. At this point in the seasonal cycle, fishing families secured, usually on credit, supplies for fishing and salting from the merchant traders.

The truck system, then, was central to nutrition and nutritional deficiency diseases in both Newfoundland and Labrador. A fishing family's access to reliable, nutritious foods was generally contingent on everything from the success of their fishing season to accessing credit from the merchant-trader to settling on whatever sorts of foods the merchant trader kept in his stores. If the summer catch was poor, or if the international price for salt cod was low, then the fishing families could afford less and lower-quality food in the autumn for their winter stores. Equally, if a family's ledger at the merchant-traders' store fell in the debit column then they could rely only on the merchant-trader's goodwill and hope for a more successful next season or turn to charities or the government for emergency assistance.[34]

Newfoundland boasted of a more prosperous economy than Labrador, but Appleton found many more cases of nutritional diseases on the island. The diets of the Newfoundlanders had some important differences from those of their counterparts in Labrador. For one thing, Newfoundlanders, in contrast to their Labrador counterparts, had no potatoes or rutabagas or tinned milk, but they did have cows to help provide them with access to calcium. Rather than consuming cow's milk as a liquid, though, most Newfoundlanders boiled it as part of the process of producing butter. In fact, nearly all of the cow's milk produced in Newfoundland was turned into butter. And while the consumption of butter was a good source of vitamin A,[35] turning cows milk into butter reduced its calcium content by nearly 17 per cent.[36] And this source, too, tended toward the precarious.

34 The truck system that developed in Newfoundland and Labrador beginning in the early 19th century appeared to accommodate the end of the large-scale migratory fishing and the emergence of the year-round domestic fisheries. And it was a complex system. As historian Sean Cadigan has argued, it was much more than a simple exploited fishers/exploiting merchants relationship that saw the merchants overcharge for goods, underpay for fish, and discourage agricultural development. The truck, Cadigan writes, "was not something imposed by the venality and avarice of merchants, but rather . . . it arose as a complex adaptation over time to mutual, if unequal, merchant-fishing-family dependence on salt-cod markets in a region with few other resources to encourage much production outside of the fishery"; see Sean Cadigan, *Hope and Deception in Conception Bay: Merchant-Settler Relations in Newfoundland, 1785-1855* (Toronto: University of Toronto Press, 1995), viii. See also Cadigan, "Battle Harbour in Transition: Merchants, Families and the State in the Struggle for Relief in a Labrador Community During the 1930s," *Labour/Le Travail* 26 (Fall 1990): 125-50.

35 Appleton doubtless was aware of the links between the consumption of what she would have known as "fat soluble A" and normal growth, reproduction, immunity, and vision, but scientists only began referring to this nutrient as "vitamin A" in 1920, the very summer she was doing research in Newfoundland. See Richard Semba, "On the 'Discovery' of Vitamin A," *Annals of Nutrition and Metabolism* 61, no. 3 (November 2012): 192.

36 This figure is based on the fact that people can get 12 per cent of their daily value of calcium from milk, but only 2 per cent from butter.

Generally, Newfoundlanders fed the cows only dry hay throughout the winter, leaving herds' nutritional health depleted by spring; this was so much so that some cows perished, while the survivors often did not recover fully until June.[37]

Lay nutritionist attention turned to Newfoundland and Labrador during the 1920s as well. Beginning in 1920, scores of young women from a handful of northeastern and midwestern American colleges descended on outport communities during their summer breaks to carry out what they called nutrition and child welfare work.[38] For the most part, the young women were volunteers attached to the Grenfell Mission. While their training in the science of nutrition was doubtless modest, according to historian Gail Lush, they did require core courses in foods and nutrition.[39] Some, like Bryn Mawr's Marion Mosely, had been trained by influential Boston nutrition advocate Dr. William Emerson.[40] Typically, they would arrive on the shores of Newfoundland in June from their studies at Bryn Mawr College or the University of Chicago or Wellesley College or Vassar College. There they were put up in a family's residence, and they went about setting up school lesson plans, leading Sunday school, and engaging in their "nutrition work." In the main, this was generally made up of trying to convince children and their mothers to eat more nutritious foods and practice better hygiene. The attention directed especially at mothers reflected widespread notions that women were ideally placed to help spread nutrition propaganda. Nutrition, in this sense, reinforced mothers' particular and prescribed role of "natural" nurturers responsible for the health and welfare of their families as part of what historian Cynthia Comacchio has called "the medicalization of motherhood."[41] In their reports back to their schools, the nutrition workers also had much to say about the people in addition to their own work. Vassar College student Margaret Earhart traveled to the western coast of Newfoundland and to Labrador in the summer of 1922. Earhart, as a part of the advance guard bringing scientific mothering to Newfoundland and Labrador, taught the local children reading and writing and offered instruction on eating nutritional foods. And, like the other young women arriving each summer, Earhart laid plenty of blame for nutritional deficiencies on the people themselves. "Along the fifteen miles of coast where I worked," she wrote in October 1922, "there were six little villages. The soil

37 Appleton, "Observations on Deficiency Diseases in Labrador."

38 Marion R. Moseley, "The Third Year of Health Work," *Among the Deep Sea Fishers* 20, no. 3-4 (January 1923): 106-9.

39 Gail Lush, "Nutrition, Health Education, and Dietary Reform: Gendering the 'New Science' in Northern Newfoundland and Labrador, 1893-1928" (MA thesis, Memorial University of Newfoundland, 2007), 128.

40 The so-called 'Emerson method" involved charting the subject's height and weight over time, as well as making the results open for all to see in order to encourage "competition" among participants to see who could gain the most weight.

41 Cynthia Comacchio, *Nations are Built Of Babies: Saving Ontario's Mothers and Children, 1900-1940* (Montreal and Kingston: McGill-Queen's University Press, 1993), 4. See also Kealey, "Historical Perspectives on Nutrition and Food Security in Newfoundland and Labrador," 180, 188; Denise Baillargeon, *Making Do: Women, Family and Home in Montreal During the Great Depression*, tran. Yvonne Klein (Waterloo, ON: Wilfrid Laurier Press, 1999); and Katherine Arnup, *Education for Motherhood: Advice for Mothers in Twentieth-Century Canada* (Toronto: University of Toronto Press, 1994).

in them was splendid for gardens, and the people, had they tried, could have raised their whole supply of winter potatoes. They did not try. We could not make them." She also took aim at people's stubborn clinging to "old ways": "The people on the coast knew that they should eat brown bread instead of white, and so avoid beriberi, but they just never had bothered to change their habits."[42]

Earhart also describes one widely used tactic to get the people to change their ways and embrace the young nutrition workers' advice. One teacher arrived at her placement with a bag of brown flour, and, according to Earhart, "tricked" the people into embracing whole wheat bread. The teacher with the brown flour, Earhart writes,

> said sweetly, "I *always* eat brown bread, I can't eat anything else. Will you please bake up this flour for me?" And when after that she passed around samples to the natives, why then the people decided they liked brown flour and began to order it.' The line, "I *always* do so and so," sighed forth with a sweet stubbornness became a sort of slogan among the nutrition workers. We said it for everything from goat's milk and dandelion greens to weekly baths![43]

Another Vassar College student, Helen (Patsy) McCarthy, arrived at Venison Island off the coast of Labrador in June 1921. The people were, she reported, a "hardy race of Scotch and Irish descent." Her main interactions were with the community's children, to whom she taught reading and writing. She taught nutrition classes in the afternoons, and provided milk to undernourished children. Only one student, she reported, was "up to normal."[44] In similar fashion, Bryn Mawr students Marion Mosely and Elizabeth Fuller arrived on the shores of Labrador in the summer of 1920. They too had come to volunteer for the Grenfell Mission, and tasked themselves with nutrition work. They quickly linked the high incidences of tuberculosis, beriberi, and scurvy to the generally poor diet of the people. Echoing earlier commentators on Labradorians' diet, they concluded that the chief problem was people's reliance on white bread, fish, and tea. "Therefore," wrote Moseley in 1923, "effort was made to secure a more varied diet for the children. Teaching them and their parents to use foods already at hand which had been neglected through ignorance, and to provide for a greater variety of supplies through the traders." This "teaching" apparently met with some success. At the beginning of the summer, the children had denounced lettuce as "hay" and whole wheat bread as "only fit for animals." But by summer's end, the children were eating both.[45]

Such largely pessimistic characterizations of Newfoundlanders' nutritional health appeared at the end of a modestly prosperous time in much of the western industrialized world. But for the most part, Newfoundlanders generally did not share to the same extent in the relatively good economic times elsewhere. Cod prices, on which most Newfoundland families relied for their survival, especially in the outport communities, were generally low through most of the 1920s, further aggravating

42 Margaret Earhart, "Labrador Life Described," *Vassar Miscellany*, 4 October 1922.
43 Earhart, "Labrador Life Described" (emphasis in original).
44 Helen McCarthy, "Vassar Students in Labrador," *Vassar Miscellany*, 30 November 1921.
45 Moseley, "The Third Year of Health Work," 107.

Newfoundlanders' already poor nutritional health.[46] And formerly reliable importers of Newfoundland cod from the Mediterranean and Europe grew ever less reliable, as the efforts at reconstruction after the war led to hard times there as well.[47] Exports fell more than half a million quintals between the end of the war and the close of the 1920s. Adding insult to injury, the rise in the 1920s of the great trawlers substantially lowered the catch of the inshore dory fishers.[48]

Exacerbating the already limited access to good, nutritious food was the onset of the cataclysmic economic downturn of the 1930s. While the Newfoundland government had, in the years following the Great War, been able to more or less make payments on its debts, it could offer the people little in the way of unemployment relief. But the onset of the Great Depression laid bare the extent of the dominion's financial troubles. The value of dried cod exports fell sharply, from nearly $12 million in 1928 to just over $5 million only three years later.[49] Government revenues, mostly based on declining customs duties, were in freefall. All told, Newfoundland's debts stood at $100 million. And by 1932, the newly elected United Newfoundland Party, led by Frederick Alderdice, revealed that the dominion had no choice but to reduce markedly its debt interest and principal payments.[50] This, of course, was alarming news to authorities in Great Britain. In

46 Terry Bishop-Stirling, "The Amulree Report: An Introduction," in *Amulree's Legacy: Truth, Lies, and Consequences*, ed. Garfield Fizzard (Newfoundland Historical Society Symposium, St. John's, 2001), 15. See also David Alexander, "Development and Dependence in Newfoundland, 1880-1970," *Acadiensis* IV, no. 1 (Autumn 1974): 20, and David Alexander, "Newfoundland's Traditional Economy and Development to 1934" *Acadiensis* V, no. 2 (Spring 1976): 64 (see especially Table 3).

47 N.A., "Dr. Grenfell Tells of Labrador," *Vassar Miscellany*, 12 January 1921. Grenfell, according to the Vassar College student newspaper, explained "these fishermen are now undergoing a period of hard times because there is no market for their 'fish' (cod are 'fish' in their speech, though salmon are salmon, etc.). Since the war the poorer classes of the Mediterranean countries who usually buy the cod in large quantities have been unable to afford it."

48 V.M. Hodder, "Trends in the Cod Fishery Off the East Coast of Newfoundland and Labrador," *Research Bulletin Number* 2 (Washington, DC: International Commission for the Northwest Atlantic Fisheries, 1964), 31. While Hodder argues that trawlers had begun to make an impact on the inshore fisheries by the late 1920s, W.H. Lear and L.S. Parsons of the Department of Fisheries and Oceans Biological Sciences Directorate suggest that trawlers appeared in the North Atlantic as early as 1908 but that the first commercial trawler did not begin operations in Newfoundland until 1938. See W.H. Lear and L.S. Parsons, "History and Management of the Fishery for Northern Cod in NAFO Divisions 2J, 3K, and 3L," *Canadian Bulletin of Fisheries and Aquatic Sciences,* Perspectives on Canadian Marine Fisheries Management Series (Ottawa: National Research Council of Canada, 1993), 62. See also Miriam Wright's examination of the industrialization of the Newfoundland fishery: *A Fishery for Modern Times: The State and the Industrialization of the Newfoundland Fishery, 1934-1968* (Oxford: Toronto, 2001). A quintal is "a hundredweight (112 lbs.)"; see *Dictionary of Newfoundland English,* http://www.heritage.nf.ca/dictionary/#3555.

49 J.K. Hiller and M.F. Harrington, eds., *The Newfoundland National Convention, 1946-1948*, *Vol. 2* (St. John's: Memorial University of Newfoundland, 1995), Appendix B, 215-16. Amulree notes that fish export values more generally fell from just over $16 million in 1928 to a mere $6.3 million two years later; see *Newfoundland Royal Commission 1933 Report* (London: His Majesty's Stationary Office, 1934), para. 44.

50 Bishop-Stirling, "Amulree Report," 18. Alderdice maintained that Newfoundland could only pay 3 per cent interest.

response, the British government hurriedly pressed into service William Warrener Mackenzie, Baron Amulree, to lead a royal commission on the future of the dominion.

Following a briefing by the Treasury and Dominions Office, Amulree met his fellow commissioners, Canadian bankers Charles A. McGrath and William Stavert, at St. John's in mid-March 1933. There, and for the next month, they spent their working days taking testimony from various interests and groups on the state of the country. On 17 April the commissioners heard from witnesses at no fewer than ten outport communities, and took written testimony from other communities further north. By the end of the month, they had wrapped up their investigation, having held more than 100 formal sittings and having heard from some 260 witnesses.[51] In the end, the commission recommended, in political scientist Mark Graesser's words, "a novel, radical constitutional remedy for what had been presented in its terms of reference as a financial crisis": the suspension of democratic institutions, the reversion of the dominion to colony status, and the formation of a commission of government for an indefinite period.[52]

For our purposes, the Amulree Commission's report remains largely silent on the nutritional health of the people. In fact, the entire report sums up problems associated with malnutrition in this way: "Lack of nourishing food was undermining their health and stamina; cases of beri-beri, a disease caused by inferior diet, and of malnutrition were gradually increasing, and were to be found in numerous settlements; the general attitude of the people was one of bewilderment and hopelessness."[53] The report laid the blame of nutritional problems not at the feet of the people, but rather at the grinding poverty resulting from three successive poor fishing seasons. This was, of course, both a proximate conclusion and a superficial one. As the report notes, the fisheries had declined sharply between 1929 and 1933. But the fisheries had been declining since at least the end of the Great War. And, as noted above, nutritional problems in Newfoundland certainly had a much longer history than the Great Depression's onset.

Nevertheless, the report had several important implications for the future of health care generally and nutrition in particular. Broadly, the most important of these implications was the British authorities' acceptance of the commissioners' recommendation that a Commission of Government be established to replace the existing parliamentary system. Almost immediately, the Commission of Government mandated that brown flour be added to the relief diets of the increasing number of people on relief. Doubtless this move was related at least in part to Newfoundland's chief medical officer of health's testimony before the Amulree Commission in 1933. Despite the by-then well-known link between white bread consumption and beriberi, Dr. Robert Almon Brehm reported "We have been supplying some of them with whole meal bread. But they do not seem to like it, they

51 See, for example, Garfield Fizzard, ed., *Amulree's Legacy: Truth, Lies, and Consequences* (St. John's: Newfoundland Historical Society Symposium, 2001). See also Gene Long, *Suspended State: Newfoundland before Canada* (Breakwater Books, 1999).

52 Mark W. Graesser, "Review of Suspended State: Newfoundland before Canada," *Newfoundland Studies*, 14, no. 2 (1998): 301.

53 *Newfoundland Royal Commission 1933 Report*, para. 222.

prefer the fine white flour, but it contains very little food."[54] Dr. William Grenfell and Dr. Charles Parsons, the latter of whom was the superintendent of the Notre Dame Bay Hospital in Twillingate, also had been advocating for the introduction of brown bread to relief diets. Prime Minister Frederick Alderdice was sympathetic, and was willing to support a limited program of mixed flour bread. But he was also skeptical that Newfoundlanders would accept anything but white bread and he was worried about opposition to the scheme from St. John's merchants, who complained that stocking both white and brown flour was too costly.[55] In the end, it fell to the Commission of Government in 1934 to introduce brown bread to relief diets. Still, as historian James Overton has noted, even though brown bread improved relief diets, the Commission of Government's intervention "represented a least-cost, limited, and in many ways inadequate way of dealing with dietary deficiencies." This mandated consumption would also have future consequences. Thereafter, and continuing at least into the 1940s, the consumption of brown bread came to be viewed as an admission of poverty and failure, linked as it was to unemployment and relief.[56] Newfoundlanders, University of London professor of chemical pathology Dr. David Cuthbertson noted in 1947, "despise any but perfectly white flour."[57]

The Commission of Government also inserted itself directly into Newfoundlanders' health story in an unprecedented way. The pre-1934 Newfoundland government had made some small steps in this direction, but those steps rarely went in any meaningful way beyond St. John's. Blaming mothers' lack of knowledge of food preparation and diet planning, a 1909 Royal Commission on public health had called for, according to Melvin Baker and Janet Pitt, "improved nutrition, better ventilation in housing, a clean water supply and improved sanitation." But while the Newfoundland government made some headway, including on sanitation, sanitoria, and health care, its nutrition work was largely left to private concerns like the Grenfell Mission. And in response to the Royal Commission on Public Health and Charities, which reported in 1930, the Newfoundland government created a separate Public Health department out of the older Commission of Charities and made it responsible for "the control of infectious diseases, the inspection of milk and other foods, the protection of water, sanitary inspection, the health of school children and the treatment of the sick and poor, including the blind, deaf and insane, throughout the country."[58] Still, as researchers Gordon S. Lawson and Andrew F. Noseworthy have argued, "State intervention in

54 Quoted in James Overton, "Brown Flour and Beriberi: The Politics of Dietary and Health Reform in Newfoundland in the First Half of the Twentieth Century," *Newfoundland Studies* 14, no. 1 (1998): 15.

55 Gary L. Saunders, *Doctor Olds of Twillingate: Portrait of an American Surgeon in Newfoundland* (St. John's: Breakwater, 1997), 93-4.

56 Overton, "Brown Flour and Beriberi," 24, 16-18.

57 J.R. Marrack, "Nutrition in Newfoundland," *British Medical Bulletin* 5, no. 2-3 (January 1947): 244. Marrack in this research note was commenting on Dr. David Paton Cuthbertson's "Report on Nutrition in Newfoundland," Dominion's Office 4 series (London: His Majesty's Stationary Office, 1947).

58 Melvin Baker and Janet Miller Pitt, "A History of Health Services in Newfoundland and Labrador to 1982" (1984), Melvin Baker's website: http://www.ucs.mun.ca/%7Emelbaker/PublicHealthNL.pdf.

health care was extremely limited." Hospital services and health care were readily available in St. John's, but health services in the rural communities were limited to the International Grenfell Association at St. Anthony, two paper companies, the Buchans Mining Company, and two local communities.[59] The same royal commission also recommended that the colony establish a series of "cottage hospitals" that would be mandated to provide a modicum of health-related services to people in rural Newfoundland and Labrador.[60] These the new Commission of Government was determined to implement.

In these interventionist and health-related efforts, neither the Newfoundland government to 1934 nor the Commission of Government thereafter was alone. The terrible effects on nutritional health of the Great Depression itself led to calls at the international level to implement a nutrition strategy on a worldwide scale. For example, in 1936 the League of Nations released the results of its Mixed Committee on the Problem of Nutrition and called on member nations to embark on broad ranging investigations of nutrition and malnutrition among their citizens.[61] For its part, the Canadian government was moving in similar directions by creating in 1938, for instance, the Canadian Council on Nutrition. The idea was to have a central research authority to make use of emerging research on the science of nutrition to improve the health of the nation.

The Second World War and the road to Confederation

Newfoundland, and especially its future, attracted a good deal of attention from the US, Canada, and Britain following the onset of the Second World War. Both the Americans and the Canadians, for example, had early in the war established a series of military bases on the island as a bulwark against feared German attacks on North America. With France defeated by 1940, and Britain struggling for its very survival, the threat that Germany might lead a North American invasion via Newfoundland appeared to many credible enough. But Newfoundland also offered other attractive features in addition to its strategic location on the Atlantic. As historian Raymond B. Blake, among others, has argued, Newfoundland boasted substantial mineral wealth, other natural resources, and a sizable chunk of land – some 150,000 square miles if we include Labrador, which the Judicial Committee of the Privy Council confirmed in 1927 as falling under Newfoundland's sovereignty – not to mention the population itself (some 316,000 by 1944).[62] For Canada and the United States in particular, Newfoundland also represented a fair measure of competition in the fishing industry.

59 Gordon S. Lawson and Andrew F. Noseworthy, "Newfoundland's Cottage Hospital System: 1920-1970," *Canadian Bulletin of Medical History* 26, no. 2 (Fall 2009): 479. The two paper companies were in Grand Falls and Corner Brook while the two communities with health facilities were in Grand Bank and Twillingate.

60 Deputy Minister of Health Dr. H.M. Mosdell inspected an existing version of cottage hospitals in Scotland in an effort to replicate such a system in Newfoundland and Labrador. See Kealey, "Historical Perspectives on Nutrition and Food Security in Newfoundland and Labrador," 185.

61 See recent work on the Mixed Committee in Mark Gibson, *The Feeding of Nations: Redefining Food Security for the Twenty-First Century* (Boca Raton, LA: CRC Press, 2016), 180-3.

62 Raymond B. Blake, *Canadians at Last: Canada Integrates Newfoundland as a Province* (Toronto: University of Toronto Press, 1994). See also, for example, David C. MacKenzie, *Inside the Atlantic Triangle: Canada and the Entrance of Newfoundland into Confederation, 1939-1949*

If Newfoundland joined the federation or the republic, then the fisheries would fall under the legislative and jurisdictional competence of Ottawa or Washington respectively, and, equally importantly, would remove Newfoundland as an international competitor in what had been for some time a tight fishing market.[63] For both Canada and the US, the question of the status of the military installations each nation had in Newfoundland would also be resolved.[64]

The question as the world eased out of war was what would Newfoundland do? The options on the table were fairly clear. First, Newfoundland could remain a Crown colony, an option not really suitable to most. Second, Newfoundland could again become a dominion in its own right. And third, Newfoundland could be subsumed by Canada or the US. As early as 1943, British parliamentarian Charles George Ammon visited Newfoundland with the goal of determining the conditions of the colony, assessing the mood of the people, and making recommendations as to possibilities for the colony's constitutional future. His conclusions (rightly or wrongly) about the mood of the people on the issue were that there was no strong positive feeling toward the Canadians, an observation later confirmed by the fallout from the nutritional survey published by the *CMAJ* in 1945. Ammon also found that the US was not a likely candidate, attracting negligible support. Finally, Ammon found that retaining formal ties to Britain was a possibility, likely along the lines of Ireland's experience, but that this was not practical given that, despite the loyalty of the people to the British Crown, the people had a pronounced North American orientation.[65] Ammon's own view was that the Commission of Government ought to continue, at least for the foreseeable future, given especially the weak health, housing, education, and other social conditions prevailing.

In some ways, however, Canada seemed a natural fit. Newfoundland had been, as early as the start of the Great War, moving closer to Canada: Canadian currency was accepted, Canadians were investing heavily in Newfoundland, Canadian banks dominated Newfoundland's financial system, Newfoundlanders increasingly moved to Canada either permanently or as seasonal workers, and trade with Canada rivalled trade with Britain. But in other ways Newfoundland remained outside of Canada, with little appetite amongst the public for joining Confederation.[66] It was into this climate that the *CMAJ* released the 1945 survey.[67]

The medical doctors who descended on Newfoundland in August 1944, both in

(Toronto: University of Toronto Press, 1986); Peter Neary, *Newfoundland in the North Atlantic World, 1929-1949* (Montreal and Kingston: McGill-Queen's University Press, 1988); and Corey Slumkoski, *Inventing Atlantic Canada: Regionalism and the Maritime Reaction to Newfoundland's Entry into Canadian Confederation* (Toronto: University of Toronto Press, 2011).

63 Newfoundland's entry into Confederation, of course, would still pit the Newfoundland fisheries in national competition with the Maritime provinces.

64 See Raymond B. Blake, *Canadians At Last: Canada Integrates Newfoundland As A Province* (Toronto: University of Toronto Press, 2004), 11.

65 Ammon, *Newfoundland*, 6.

66 David Mackenzie, "Eastern Approaches: Maritime Canada and Newfoundland," in *Canada and the First World War: Essays in Honour of Robert Craig Brown*, ed. David Mackenzie (Toronto: University of Toronto Press, 2005), 370-1.

67 Another less widely publicized study appeared around the same time. See J. Metcoff et al., "Nutritional Survey in Norris Point, Newfoundland," *Journal of Laboratory and Clinical*

St John's and the outports, interviewed 868 individuals. For the most part, they limited their examinations to a search for abnormalities of the scalp, hair, eyes, skin, lips, gums, tongues, and the peripheral nervous systems as well as taking basic measurements – a widely practiced method for quickly determining degrees of malnutrition. For their part, Newfoundlanders responded graciously. Finding candidates for examination in St. John's was easy enough. But even in the outports, where it was impossible to arrange proper notice before their arrival, the doctors reported that the local teachers, clergy, nurses, or sometimes all three came out straightaway to meet the team and to subsequently assemble a number of subjects for examination in one of the local buildings.

The doctors' survey told a difficult story about Newfoundlanders' nutritional health. The crude mortality rate per 1,000 of the Newfoundland population – deaths from all causes for the five-year period 1939 to 1943 inclusive – ranged from 11.7 to 12.5. The comparable death rate for the five-year period in Ontario ranged from 10.0 to 10.4. The rate of death of infants of all ages under one year in Newfoundland in 1941 was 101 per 1,000 live births, and 107 per 1,000 live births the following year. These figures, the doctors noted, were twice as high as those encountered in the US (at 47 per 1,000) and Canada (56 per 1,000). The prevalence of tuberculosis was another measure relating to nutrition problems. And the doctors found the incidents of TB to be high in Newfoundland. Relying on figures produced in 1941, the doctors noted that the crude death rate from respiratory illness was 144 per 100,000, as compared to 40.9 per 100,000 in Canada and 42 per 100,000 in the US.[68]

In commenting on the general fitness of the population, the doctors relied on a "statement that had been made that the native Newfoundlander proved quite unfit for the work involved in building the several airfields required for military service; that labour, they noted, had to be imported from Canada and the United States."[69] But, in the aftermath of the survey's publication, Canada's high commissioner seized on what he called the "glaring inaccuracies" in the article, including the assertion that Newfoundlanders were "quite unfit" for jobs constructing military infrastructure. To the contrary, the high commissioner pointed out, "the bulk of the hard work on all these constructions was done by Newfoundland civilian workers while the Armed Forces, well fed, clothed, and housed, looked on."[70] Canada, the high commissioner concluded, would have a good deal of hard work to do to repair the damage done by the article.

Nutrition, and perhaps more especially, the costs associated with the expected provision of social services to the island generally, was in many ways at the very heart of Canadian considerations around Newfoundland's potential entry into Confederation. On the one hand, Mackenzie King made no secret of his desire that Newfoundland should join Canada – at least at some point. For King, the immediate danger was that "the U.S. might make an effort to have that colony join them or

Medicine 30, no. 6 (June 1945): 475-87. John Puddester had similar concerns about the implications of some of the Metcoff survey's language. See Kealey, "Historical Perspectives on Nutrition and Food Security in Newfoundland and Labrador," 184.

68 Adamson et al., "Medical Survey of Nutrition in Newfoundland," 229-30.

69 Adamson et al., "Medical Survey of Nutrition in Newfoundland," 232.

70 Macdonald to King, 8 March 1945, RG 29, vol. 922, LAC.

perhaps some large American syndicate might get control of that little island" if Canada failed to act. Perhaps more to the point, and in King's Quebec lieutenant and future prime minister Louis St. Laurent's view, acquiring the island would mean that "Canada might come into possession of valuable mineral deposits . . . uranium as well as iron ore. Also timber etc."[71] The island's people, territory, resources, and strategic location at the mouth of the St. Lawrence, in short, made Canada's acquisition of Newfoundland nothing less than a boon and even a necessity.

These potential benefits notwithstanding, however, both politicians and policymakers well understood the very real costs Canada would accrue should it admit Newfoundland into Confederation. As early as 1933, Edgar Rhodes, the finance minister in R.B. Bennett's Conservative administration, argued against Confederation "as the Newfrs would really in effect become another Ireland – not in a racial sense, but a nuisance and always grumbling and wanting something."[72] Some 15 years later, St. Laurent echoed that sentiment, admitting "the country would be a liability for some years to come. Its costs way beyond what any revenues would bring."[73] The nature of these costs, of course, included Newfoundland's considerable existing debts. But they also included monies that would be required to furnish Newfoundlanders with an acceptable level of social services, including health and welfare services.[74] Another related issue was King's fear that leaders of the Maritime provinces would chafe at the addition of a new province on better economic terms than their own. The likelihood of a considerable financial outlay not only to Newfoundland, but also to Nova Scotia, New Brunswick, and Prince Edward Island, then, helped convince King as late as 1946 that "while in the long run the objective should be the inclusion of Newfoundland," the Canadian government ought not make any immediate commitment.[75] In any event, as Corey Slumkoski has noted, "Ottawa was well aware that after Newfoundland joined Confederation, its social services would have to be improved."[76]

In the end, the potential future benefits Newfoundland offered Canada outweighed any lingering doubts in Ottawa. Federal politicians and policymakers, however, understood well the necessity of treading carefully on the road to Newfoundland's constitutional future. For one thing, although policymakers in Britain and Canada saw Newfoundland's future within the Canadian federation, everyone agreed that Newfoundlanders must come to that conclusion on their own, and, further, that any hint of outside pressure or influence might well scuttle the deal.[77] It was a precarious moment, and the Canadians had to be especially careful. A repeat of the fallout from the 1945 nutritional survey, in this context, would be

71 William Lyon Mackenzie King, 27 December 1946, *The Mackenzie King Diaries, 1893-1950* (Toronto: University of Toronto Press, 1980).
72 Quoted in Peter Neary, *Newfoundland in the North Atlantic World, 1929-1949* (Montreal and Kingston: McGill-Queens, 1988), 20.
73 King Diaries, 27 December 1946.
74 Slumokoski, *Inventing Atlantic Canada,* 2-3.
75 King Diaries, 27 December 1946.
76 Slumkoski, *Inventing Atlantic Canada*, 3.
77 Peter Neary, "Research Note – Newfoundland's Union with Canada, 1949: Conspiracy or Choice?" *Acadiensis* XXII, no. 2 (Spring 1983): 115.

most unwelcome. So when Acting High Commissioner for Canada Paul Bridle learned of the imminent publication of a follow-up nutritional survey, he wrote Prime Minister Louis St. Laurent in August 1948 reminding him of the outrage accompanying the publication of the earlier survey and warning of the consequences for Canada in the future. The 1945 survey, together with the associated "sensational and rather partial summary which appeared in the Canadian press . . . testifying to the widespread incidence of malnutrition and of unhealthy physical conditions," Bridle noted, resulted in a "truly alarming outcry. I am inclined to think," he continued, "that it would be desirable if the report of the present survey were not published at or near the time that Confederation takes place." He further advised "It would probably be preferable if it were to be released at some time subsequent to this event." Bridle hoped that both the surveyors and the press would cooperate, too. "So far as the report itself is concerned," he offered, "I suppose that it may be regarded as a matter entirely in the hands of the scientists themselves. At the same time, one may hope that they will . . . endeavour to state their findings less bluntly than they did in 1945." As for members of the press, he suggested "it may perhaps not be too much to hope" that they would "exercise a sense of proportion in publicizing the report."[78] Newfoundland in 1945, as High Commissioner Macdonald saw it, was "held up to the world as a country of 'high death rates, mental sluggishness, physical apathy, and small muscular development'."[79] Insults like these, charged Macdonald's successor Paul Bridle, could hardly be "anything but galling to any Newfoundlander with more than a modicum of national pride."[80]

Much had changed in the four years since the first survey team had visited the island, and the report conveyed a decidedly more positive view of Newfoundlanders and their health. For one thing, the population had grown: from 316,000 to 328,000. For another, the war had "led to prosperity unparalleled in the history of the country. At one time off the beaten track, scarcely known to outsiders, Newfoundland was catapulted into a new position." Newfoundland had become, in the survey's words, a "world crossroads" and a "place of great strategic significance." The value of mineral exports more than doubled between 1937 and 1947, from $6.5 million to 13.5 million. Export values in the fisheries grew even more dramatically, from $7.5 million in 1937-1938 to $34 million in 1946. The number of Newfoundlanders on government relief fell from some 90,000 persons in 1933 to about 8,000 ten years later as new employment opportunities appeared at the Gander airport, on American air bases, and in resource extraction industries. Government revenue rose, too, allowing for unprecedented public spending. Newfoundland's annual budget, for instance, grew from a mere $12 million prior to the war to $40 million by 1947. "The improving economic status," the survey concluded, "which was only just apparent in 1944, was obvious in 1948." Newfoundlanders, the survey noted "had money to spend freely for the first time in their lives. They might not spend it wisely,

78 Acting High Commissioner for Canada Paul Bridle to Prime Minister Louis St. Laurent, 21 August 1948, RG 29, vol. 922, LAC.
79 Macdonald to King, 6 March 1945, RG 29, vol. 922, LAC.
80 Bridle to St. Laurent, 21 August 1948, RG 29, vol. 922, LAC.

many might be making purchases for which they had little use, but the little stores in all the villages we visited gave striking evidence of an increase in purchasing power."[81] This relative wealth also meant that a greater variety of fresh, canned, and preserved foods were available to Newfoundlanders in the outports, and that they could afford to buy them.[82] Finally, at least according to the editors of the St. John's *Evening Telegram*, the improved health situation owed at least something to the publication of the earlier *CMAJ* report itself. On 13 August 1948 the editors credited the report with "reawakening the public interest" in Newfoundlanders' overall health, and predicted that continuing to spread "the gospel of good health through the schools, press and over the radio will also bring desired results in producing a healthier and happier people."[83]

As a result of this significantly improved situation, the survey team was able to note in 1948 the vastly improved health of the people using the same criteria as they gauged Newfoundlanders' health in their survey four years previous. Crude death rates, for example, had fallen to a point where they "compared quite favourably with those of favoured regions whose racial stocks resemble those of Newfoundland." TB rates also fell, from an average of 144 per 100,000 in 1941 to 101 per 100,000 in 1946. Infant mortality rates likewise had improved, from an annual average of 101 deaths per 1,000 live births in 1941 and 107 deaths per 1,000 live births in 1942 to 76.3 in 1946.[84]

Still, the team could not help but add some strikingly off-handed characterizations of the people to their 1948 report:

> The comment has already been made that the people we encountered in 1948 were better dressed than they were in 1944, and that their homes looked better tended. This was true not only in St. John's but for the most part also in the outports. Of more significance was the evident increased alertness of the persons we examined. Gone to a great extent was the apathy so noticeable in 1944. The children no longer waited patiently for their examinations. They clustered around the tables of the examiners unless they were shooed away. More monitoring was required. They were interested and curious, as children ought to be. They

81 W.R. Aykroyd et al., "Medical Resurvey of Nutrition in Newfoundland 1948," *Canadian Medical Association Journal* 60, no. 4 (April 1949): 331-2.

82 Increased wealth generally, together with the growing interest in nutrition more broadly, also led the government of Newfoundland to invest in public education campaigns in the form of radio spots, news articles, and adult education programs emphasizing the importance of good nutritional practices. The Newfoundland Tuberculosis Association in 1947 produced what the survey team called "a very excellent colour motion picture film on tuberculosis." The departments of Public Health and Welfare and Education launched nutrition education programs, as did private organizations like the Red Cross. The Public Health and Welfare Department hired a full-time trained nutritionist to instruct "teachers in the schools, women's civic bodies, and public health nurses" in nutrition practices; see Aykroyd et al., "Medical Resurvey of Nutrition," 334.

83 *Evening Telegram* (St. John's), 13 August 1948.

84 Aykroyd et al., "Medical Resurvey of Nutrition," 336.

> swarmed over the decks of the motorboat *Christmas Seal* when we docked at outports and had to be herded off. Also they engaged in games and play, whereas the absence of play had been remarked upon before.[85]

Newfoundland joined Confederation at midnight on 31 March 1949. As has been well documented, the road to Confederation was not without its complications. Newfoundlanders had engaged in rigorous debate assessing the advantages and disadvantages maintaining the Commission of Government. They had considered Newfoundland's future as an independent state, with or without closer economic ties to the United States. And they had thought about the implications of throwing their lot in with the Canadians. In the end they voted in two referendums, the second of which resulted in a thin but clear majority opting for Confederation. For their part, both the Canadian and British governments applauded the results of the second referendum even as representatives from Canada and Newfoundland sat down to the hard business of hammering out the final arrangements of the new relationship. Naturally, the focus of much scholarly attention has centred on the economic and political terms of union. Overshadowed in the discussion has been matters relating to nutrition and food. As part of the deal, for instance, the Canadians allowed the continued production and sale of margarine in Newfoundland despite the product's ban in the rest of Canada.[86] Similarly, the Canadians agreed that Newfoundland could continue compulsory fortification of flour with thiamine even though additives would run afoul of Canada's *Food and Drug Act* in the rest of the country until 1953.[87]

The Newfoundland and Labrador nutrition surveys through the first half of the 20th century were part of a much broader scientific interest in the relationship between food and human health. The members of the medical professions who descended on Newfoundland through this period no doubt believed that their studies and advice would bring about positive changes to Newfoundlanders' overall health. No doubt, too, the medical professionals' activities helped legitimize nutrition science as an important part of debates over health practices and public policy. Certainly, nutritional science had by mid-century broadly reached a stage of legitimacy in terms of measuring the state of national health. The unhappy coincidence of the rise of nutritional science, the clumsy release of the 1945 survey – including its conclusions about Newfoundlanders' nutritional health – and the charged atmosphere surrounding Newfoundland's constitutional future conspired to bring nutrition into the Confederation debates. Not surprisingly, the *CMAJ* report revealed deep-seated resentments within Newfoundland at outsiders' negative characterizations of the people's overall health and their condescending attitudes toward Newfoundlanders more generally.[88] But the outcry over the report's

85 Aykroyd et al., "Medical Resurvey of Nutrition," 341.

86 Victor R. Preedy et al., *Handbook of Food Fortification: From Concepts to Public Health Applications, Vol. 1* (New York: Humana Press, 2013), 61.

87 National Research Council Committee on Cereals, *Cereal Enrichment in Perspective, 1958* (Washington: National Research Council, 1958), 16.

88 The fall-out from the mid-century characterizations of Newfoundlanders' nutritional health still resonated even as late as 1961. On a visit to Newfoundland, then-federal nutrition advisor Olga

publication in March 1945 revealed that such negative characterizations could harm Canada's reputation among Newfoundlanders, and possibly Canada's future relationship with Newfoundland.

Anderson met with Deputy Minister of Health Dr. Leonard A. Miller. Anderson reported that Miller was concerned about the level of nutrition education in the province, and speculated on ways to improve it. His mind, Anderson further reported, turned to a nutritional survey, but he was equally quick to dismiss the idea: "He expressed his personal reticence for a survey because of the publicity resulting from the survey done in Newfoundland several years ago." See Anderson, "Visit to Newfoundland," 2 February-7 February 1961, RG 29, vol. 922, LAC.