



NEWFOUNDLAND AND LABRADOR HISTORICAL SOCIETY

## MALNUTRITION RESEARCH IN NEWFOUNDLAND AND LABRADOR IN THE 1900s TO 1930s: Brown flour and the “dole plague” of beriberi

PART II: THE FIRST MALNUTRITION RESEARCH WAVE, 1900s-1930s  
BY DR JIM CONNOR

*Part I of this article (NQ, Spring 2019) focused on studies into malnutrition in Newfoundland and Labrador by international researchers during the early decades of the 20<sup>th</sup> century; this concluding section analyzes the perceived problem of malnutrition-related disease during the Depression era.*

THE 1930S WERE HARD YEARS FOR NEWFOUNDLAND, OWING TO THE COLLAPSE OF PRICES FOR FISH, PAPER, AND IRON ORE. RISING DEBT AND THE POSSIBILITY OF DEFAULT LED THE DOMINION OF NEWFOUNDLAND TO SUSPEND ITS SYSTEM OF RESPONSIBLE GOVERNMENT IN 1934 IN FAVOUR OF A COMMISSION OF GOVERNMENT APPOINTED BY BRITAIN. THIS SIX-MAN TEAM AND THE NEWFOUNDLAND GOVERNOR HAD FULL CONTROL OVER ALL ADMINISTRATIVE AND BUDGETARY MATTERS, INCLUDING HEALTH AND PUBLIC WELFARE; THE COMMISSION REMAINED IN POWER UNTIL 1949. ON THE ONE HAND, AS HISTORIAN TERRY BISHOP-STIRLING CONCLUDED, GOVERNMENT POLICY ON PUBLIC HEALTH WAS FLEXIBLE AND TOOK INTO ACCOUNT NEWFOUNDLAND CULTURE: THUS ITS SECRETARY, DR HM MOSDELL, “SET UP A WORKABLE ADMINISTRATIVE STRUCTURE, ESTABLISHED GUIDELINES, SET PRIORITIES AND MOST IMPORTANTLY, LAID THE BASIS FOR PERMANENT, WELL-TRAINED STAFF.” ON THE OTHER, ITS POLICY ON WELFARE WAS A FAILURE.<sup>1</sup>

The main flashpoint for popular discontent over public health and welfare policies was the Commission’s distribution of only brown flour to dole recipients, as a means to combat apparent epidemics of deficiency diseases such as beriberi. The allotment of brown flour to selected Newfoundlanders who might have been at risk of developing beriberi was defensible on biomedical grounds as its beneficial nutritional effects had been well-established. Yet well-known at the time was the fact that brown flour kept poorly, and that many deemed it to be unpalatable. Years before the Depression numerous international researchers had noted that Newfoundlanders disdained brown bread, and Anglo-Irish nutritionist Walter Aykroyd, who later headed the United Nations Food and Agriculture Organization, in particular had warned that coercing people to use brown flour was “outside the sphere of practical politics.”

Even without the benefit of historical hindsight it would seem that the brown flour programme might fail. Exacerbating this situation was the additional negative effect of stigmatization – which was actually twofold. First, brown flour and brown bread was tangible evidence of a family’s reliance on the “dole”; it was material evidence of financial calamity and shame in Newfoundland. Second, and perhaps even more culturally embedded, was the longstanding class

element associated with brown bread in Anglo-Saxon culture. Those people deemed as “lower” class Britons, the stock from which most outport Newfoundlanders hailed, made much of only eating white bread as a symbol of their advancing “success” within hierarchical Britain, as eating white bread emulated those of “higher” class status. Anti-brown bread campaigns in Britain have their own history.<sup>2</sup>

### “EAT ONE SLICE AND BE MERRY”

Not surprisingly, then, when in February 1934 the newly appointed and untested Commission of Government tied the “dole” to brown flour the decision was contentious. As sociologist James Overton has described, popular protest ranged from parade banners reading “We want money and not cattle food”<sup>3</sup> to the satirical song *Brown Flour* by Fogo Island resident Chris Cobb, which had seven verses that caricatured the situation and were variously polemical, nonsensical, and erroneous, but occasionally to the point:

Oh, boys, did you hear of the shower?  
From Russia we're getting brown flour;  
With a mixture of bran and corn meal it is grand,  
Guaranteed to rise in one hour.  
Some say for duff it has power,  
For more their bread turned out sour;  
If you want to get fat, and wear a quiff hat,  
Just try a sack of brown flour.  
Eat one slice and be merry,  
You'll turn so red as a cherry;  
The doctors all claim out in Holland and Spain,  
It kills and it cures berri-berri.

• • •

In Fogo there is a big station,  
You have nine miles to walk for your ration;  
On the door at the back of the court-house  
you'll rap,  
Touch your cap and walk in, it's the fashion.  
Be careful in answering questions,  
And don't make any suggestions;  
The bobby's not slack, he's right at your back,  
In his pockets there's handcuff connections.

• • •

Now, you've work to do for your ration,  
It's harder then doing dictation;  
You're a pauper you know, and you must  
shovel snow,  
This will help 'em reduce the taxation.<sup>4</sup>

Although Overton is undoubtedly correct that complaints about brown flour were expressed by several segments of the population, it is unknown actually how widespread and sustained such protests were. Because this product was connected literally and figuratively to so many other unpopular entities such as the dole, an externally and arbitrarily imposed government, and hard times in general, it probably became emblematic for many people. There is also the possibility that any unrest was fanned by merchants as they, too, had a grievance to air.

While not discounting this negative reaction, it is in need of moderating. Certainly, one historian's spin that the “commission had been *forcing* [my italics] those on public relief to eat whole-wheat flour” perhaps ought to be re-evaluated as the interpretation connotes a particularly Draconian scenario.<sup>5</sup> If oral histories about the era are to be believed, people adjusted to, or developed coping strategies, vis-à-vis brown flour and bread. Abe Davis (b 1913) recalled growing up during the Depression with “only black [sic] flour” but he expressed no criticism of it.<sup>6</sup> More informative was Albert Boland (b 1921): “Some of the neighbours were better off than we were and some of the fishermen. But some were very poor. We'd eat more brown flour, brown bread, during the Depression and a lot of the people who were on the dole ate it.”<sup>7</sup> If such accounts are reliable, then it is likely that despite the bad press that brown flour has been subject to, it was consumed without complaint by many and may have had corrective action averting beriberi for some. That one can readily find a popular Newfoundland recipe for “Depression Bread” dating from the 1930s which was made from an equal mixture of white flour and “dole” flour and deemed to be “reasonably palatable,” is another indication that people could and did accommodate.<sup>8</sup>

### OUTPORT DOCTORS “HAVE BACKS TO THE WALL”

There is a more fundamental question that could significantly alter our understanding of beriberi during the Depression: how extensive was it? On the one hand, it seems intuitively obvious that the prevalence of deficiency disease might increase during the economic crisis. Overton cites a government document dated October 1934 stating that “Reports to the Department [of Health and Welfare] from many sections of the country make it plain that a considerable number of persons are

suffering from beri-beri, many totally disabled thereby. ... Until about five or six years ago, however, it was not generally prevalent. ... During the last few years the number of cases reported has shown a marked increase, notably in sections where destitution is unusually prevalent or where garden crops have been a failure or have been restricted because of lack of agricultural opportunity.”<sup>9</sup> Such information is highly suggestive, but not definitive. More dramatically, Dr Charles Parsons, the medical superintendent of the important regional hospital in Twillingate, featured in an early 1934 major Canadian newspaper article with a headline of “Island Hit By Dole ‘Plague’ – Beri-Beri is Widespread in Newfoundland.” The article noted that “doctors of the outports have their backs to the wall in a valiant battle with beri-beri, dreaded disease that stalks in the wake of poverty and cripples many of its victims.” In particular, Parsons recounted a single case of two teenage boys suffering from beriberi who were found crawling around their decrepit home using only their hands and elbows and thus had to be carried on a makeshift stretcher to the boat that would transport them to his hospital. Adding to the poignancy of the story was that a group of about twenty men observing this were unable to assist as they also were too weak and disabled due to this disease.<sup>10</sup>

Again, this material is suggestive, but its journalistic style must be taken into account. The most persuasive evidence that might confirm if beriberi was “widespread” and if outport doctors had “their backs to the wall” would derive from an examination of hospital admission records for the period 1930 to 1940. Clinical records of the several hospitals in St John’s appear not to have survived, except for some of the General Hospital. The extant records covering the period August 7, 1931, to September 12, 1936, are especially important for this study as they embrace the worst of the Depression, the institution of the Commission of Government, and the introduction of brown dole flour. It is also worth underscoring that the General was not just the main hospital for St John’s but also serviced the vast southern coastal area of Newfoundland along with much of the populated inland regions – more so up to the mid-1930s when the first cottage hospitals were built. General Hospital admission entries confirm that patients from “around the bay” might populate wards just as frequently as city residents,

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thus analysis of them ought to be a good indicator of larger trends.

The five years of records for the General show that 55 persons were admitted suffering from beriberi. On average, treatment in hospital lasted for 28 days but might occasionally range from one week to several months. No one died from this disease; all patients were discharged cured or improved. Men admitted, ranging in age from 14 to 65 (with an average of 42), outnumbered women in a

ratio of six to one. The average age of female beriberi sufferers was 31 (with the youngest 16). These data are generally consistent with patterns identified by earlier physicians: older men were more like to suffer than women, but noteworthy was the longer time for treatment in St John’s, lasting about one month.

Of greater interest, however, is the changing annual intake of beriberi cases. For the full calendar years of 1932, 1933, 1934, and 1935, five, 29, 13, and four persons were admitted, respectively. Thus the number of cases clearly rose and then fell, with a spike in the year 1933. That the prevalence of beriberi increased sharply for a short period is incontrovertible. Such a conclusion supports in part that 1933-34 was a bad year for it, with typically most cases being admitted in the months of April and May at the end of winter when the ice began to break up. And as these cases admitted to the General Hospital hailed from many outports and towns covering a wide area (44 in total, including Badger, Bishop’s Falls, Catalina, Marystown, Burin, Grand Bank, Norris Arm, Bay Roberts, Port de Grave, Bell Island, and Tor’s Cove, for example), the disease was not restricted to any one region.<sup>11</sup>

Yet it must be kept in mind that these numbers are small. Out of the approximately 13,000 General Hospital admissions due to a vast host of injuries, diseases, and ailments, only 55 of them were cases of beriberi, for an annual average of about one a month. More significantly, as we know the exact home locations of those admitted, it can be said with certainty that over this approximately five-year period

there were no particular hotbeds of this disease. Typically, only one or two people might come from the same community over the total period examined. Expressed differently, beriberi, even at its worst, was not an epidemic like Spanish influenza or some other infectious disease that might sweep through a community leaving it devastated.<sup>12</sup>

### EPIDEMIC VS PEAKS AND VALLEYS

Of greater importance is the fairly rapid decline of beriberi after its peak in 1933. Several interconnected explanations might reasonably account for this. A stint in the General for the treatment of beriberi surely would have included education about its cause and how it could be avoided in future; perhaps such a programme of preventive health paid off. Certainly beginning in 1934, the Commission of Government took over the administration of all public health affairs, including the introduction of brown flour. So, despite all the grumbling and sporadic protest, the dole bread may have been an effective prophylactic. The Commission also commenced the building of cottage hospitals bringing health care to many settlements where previously there had been none. Thus emerging cases of beriberi could be treated locally and sooner, meaning that such patients would not show up on the books of the General.

In an unpublished study, William Knowling, a history graduate student at Memorial University, tracked all admissions due to beriberi for the St Anthony General Hospital from 1905 to 1934, which resulted in a graph with a profile resembling the Rocky Mountains. There are admission peaks due to beriberi for the years 1906, 1912, 1915, 1920, 1923, 1928, and 1932, while the intervening periods are for the most part deep valleys. Even more revealing is when beriberi admissions are charted as a percentage of total hospital admissions: the Depression peak of 1932 is equal to, or lower than, the preceding peaks of 1906, 1912, 1915, and 1920.<sup>13</sup> From this perspective, perhaps the beriberi problem may be contextualized by understanding it was not so much that the prevalence had risen dramatically, but rather that it was exhibiting yet another peak as was a fairly regular occurrence in the past.

Dr John Olds, who succeeded Charles Parsons as the medical superintendent at the Notre Dame Bay Memorial Hospital, admits in his personal testimony that he had no figures on the number of beriberi



A political cartoon in favour of Confederation based on the trope that a return to Responsible government would result in the hard times of the Depression as represented by diseases such as beriberi and tuberculosis, along with the dole.  
Source: *The Confederate*, St John's, vol 1, no 8, May 31, 1948

cases at that time, but he did recall that “up to 1945 we dispensed around 400 pounds per year of dried yeast powder which we got in 100-pound drums and gave it to anyone with tender calf muscles.” While he recalled a couple of specific cases of beriberi that were medically intriguing, it was his “impression that beriberi did not come easily; you had to work at it to get it. Bad leg complaints gradually became fewer and I cannot recall a real case of beri-beri after 1937 or 1938.”<sup>14</sup> Again, this is not to deny that this deficiency disease existed, but exactly how widespread or entrenched it was remains unknown.

What are we to make of the Depression era and beriberi? The island of Newfoundland may indeed have been “hit by dole plague,” but history would appear to trump hyperbole. Clearly, the disease existed; its severity was undoubtedly increased owing to parlous times. But whether it was truly



“rampant” (as compared with tuberculosis which was incontrovertibly endemic) should remain an open question. And, yes, it was also “widespread,” but that term should be understood as meaning individual cases could be found in settlements scattered across the map. Using a model based on the conclusions drawn by nutrition researchers of previous decades it may have struck only certain communities, or more likely only certain households within certain communities; undoubtedly, however, more of the population was probably adversely affected. Yet it was not “widespread” in the sense that the Black Plague, for example, was widespread across Europe centuries before, or the pandemic of Spanish influenza was in 1918. Beriberi did not, to use the phrase, “spread like the plague.” There were documented deaths due to beriberi, but the overwhelming majority of sufferers recovered without any lasting ill-effects. There were no carts loaded with corpses trundling through outports, or calls to “bring out your dead.”

It seems that the real problem of malnutrition and beriberi was that it *qua* disease and its cure, brown flour, had, unlike earlier regular outbreaks, become politicized and thus more visible to many more people. Because of the response of the new political regime, people became galvanized into action and criticism unlike before. In effect, the response was disproportionate to the government’s initiative, or the actual problem itself. As with other examples of public health policies through history, such as mass immunizations programme in an effort to avert a potential epidemic (for example, swine flu or H1N1 influenza), rational measures may attract additional attention, carping and ridicule, which in so doing potentially inflates the magnitude of the threat and people’s memory of it. Certainly, adding to this politicization of disease was former Premier Joseph R Smallwood, who characterized the pre-Confederation period as nothing but “the dole, the dole bread, the tuberculosis and the beriberi.”<sup>15</sup> His calculated use of menacing, polemical political cartoons during the campaign to join Canada, depicting the spectre of death bringing hunger and disease if Confederation was rejected, underscored his equally overly biased interpretation of health matters during the previous decades.<sup>16</sup> **NQ**

# THERE WERE NO CARTS LOADED WITH CORPSES TRUNDLING THROUGH OUTPORTS, OR CALLS TO “BRING OUT YOUR DEAD.”

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*Medicine, Journal of the History of Medicine and Allied Sciences, Canadian Bulletin of Medical History, Acadiensis, and Newfoundland and Labrador Studies.* He is also the author of *Doing Good: the Life of Toronto’s General Hospital*, and co-editor of a collection of essays entitled *Medicine in the Remote and Rural North, 1800-2000*.

- 1 Theresa Lynn Bishop, “Public Health and Welfare in Newfoundland, 1929-1939,” (unpublished MA thesis: Queen’s University at Kingston, Ontario, 1984), p 102.
- 2 See Mark Weatherall, “Bread and Newspapers: The Making of ‘A Revolution in the Science of Food,’” in Kamminga and Cunningham, eds., *The Science and Culture of Nutrition*, pp 179-212; RA McCance and EM Widdowson, *Breads White and Brown: Their Place in Thought and History* (London: Pitman Medical Publishing, 1956).
- 3 Overton, “Brown Flour and Berberi,” p 15.
- 4 Kenneth Peacock, ed, *Songs of the Newfoundland Outports* (Ottawa: National Museum of Canada, 1965) Vol 1, Bulletin No 197, Anthropological Series No 65, p 46-7. Chris Cobb (1897-1968), the author, was a singer-poet from the Fogo Island area who was known for his ability to “encapsulate local incidents in a ballad-like form that could be readily recalled.” See, Anna Kearny Guigné, *Folksongs and Folk Revival: The Cultural Politics of Kenneth Peacock’s Songs of the Newfoundland Outports* (St John’s, NL: Institute of Social and Economic Research, Memorial University of Newfoundland, 2008), p 119.
- 5 Sean Cadigan, *Newfoundland and Labrador: A History* (Toronto: University of Toronto Press, 2009), p 291.
- 6 RR Andersen, J. Crellin, B.O’Dwyer, eds, *Healthways: Newfoundland Elders: Their Lifestyles and Values* (St John’s, NL: Creative Publishers, 1998), p 30.
- 7 Andersen et al, *Healthways: Newfoundland Elders*, p 54.
- 8 Len Margaret, *Fish & Brewis, Toutens & Tales* (St. John’s, NL: Breakwater, 1980), p 106.
- 9 Overton, “Brown Flour and Berberi,” p 16.
- 10 “Island Hit By Dole ‘Plague,’” *The Gazette* (Montreal) January 2, 1934, p 1. That the focus of the so-called “dole plague” appeared to be the Notre Dame Bay region is intriguing as 70 years later medical researchers identified families in this area as suffering from a rare genetic disease passed along for centuries from ancestral founding

settlers. The condition, known as hereditary sensory and autonomic neuropathy (HSAN) type II, peculiar to this area of Newfoundland (and occasionally to rural Quebec and parts of Nova Scotia) exhibits symptoms that could easily be mistaken for those of beriberi (which is also a neuropathic disease) by physicians. See "Memorial researchers collaborate in gene discovery," *MUNMED* 16 (Spring 2004) <http://www.med.mun.ca/munmed/162/pages/geneNew.htm>; Richard G Lafrenière et al, "Identification of a Novel Gene (HSN2) Causing Hereditary Sensory and Autonomic Neuropathy Type II through the Study of Canadian Genetic Isolates," *American Journal of Human Genetics* 74 (2004): 1064-73; and personal communication of Dr. William Pryce-Phillips to the author, 17 February, 2015.

11 St John's General Hospital General Register – August 1931-September 1936, (in the author's possession, Faculty of Medicine, Memorial University).

12 Compare with, for example, the death and social havoc wrought by the Spanish flu in Labrador: see Anne Budgell, *We all expected to die: Spanish Influenza in Labrador, 1918-1919* (St John's, NL: ISER Books, 2018).

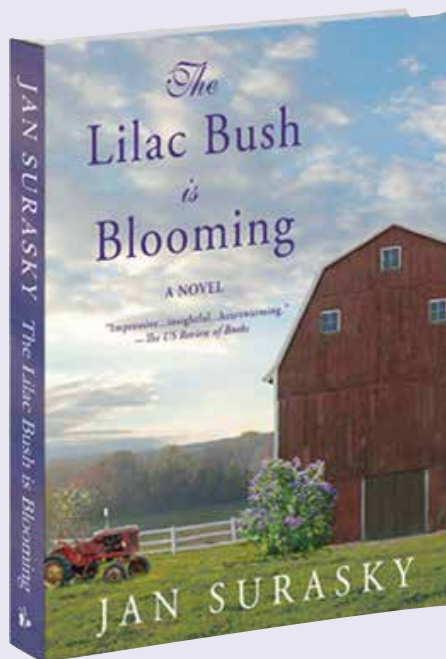
13 William R Knowling, "Lifestyles of the 'Poor and Destitute': Beriberi in Northern Newfoundland from 1905 to 1934," unpublished honors thesis, Department of History, Memorial University of Newfoundland, St John's, 1991, p 28-9.

14 John Olds quoted in Gary Saunders, *Doctor Olds of Twillingate* (St John's, NL: [1994]), pp 94-96.

15 Robert Paine, "Smallwood: Political Strategy, and a 'Career' of Rhetoric," *Newfoundland Studies* 3 (1987): pp 217-26. Smallwood's penchant for embellishing and stretching facts to the point of telling 'tall tales' is explored in Robert Paine, "The Persuasiveness of Smallwood: Rhetoric of Cuffer and Scoff, of Metonym and Metaphor," *Newfoundland Studies* 1 (1985): pp 57-75.

16 This image originally appeared in the first volume of *The Confederate* (May 31, 1948), which was a pro-Confederation publication sponsored by the Confederate Association and then reprinted in James K Hiller, *Confederation: Deciding Newfoundland's Future, 1934 to 1949* (St John's: Newfoundland Historical Association, 1998), p 51.

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