

## Polio Epidemics in Manitoba, Canada

In late June of 1953, Mrs. Leitch, a resident of East Kildonan, a Winnipeg suburb, took her sons, Brent, aged two and a half, and four-year-old Dale, on a trip to Ottawa, Ontario. What was supposed to be a fun vacation quickly turned tragic when Brent contracted polio on 12 July and died four days later. His parents made plans to return to Winnipeg with his body for burial, but before they could go, four-year-old Dale contracted polio and Brent had to be buried by his grandparents.

Despite these tragedies, polio was not done with the Leitch family: on 22 July, Mrs. Leitch, still reeling from the unexpected death of her youngest son, also contracted polio, and had to be placed in a respirator. Mrs. Leitch's fate is unknown, and while Dale was reported to have survived, although with paralysis in one leg, it is clear that polio affected the Leitch family intimately and irreversibly.

Most families did not suffer so many polio-related illnesses; however, this one family's story encapsulates many of the ways Manitobans were affected by the multiple epidemics of the disease that occurred in the province in the first half of the twentieth century. Primarily understood as a disease that affected young children, adults were not immune to polio. Often, people recovered completely, but others were left with paralysis of a limb, as was Dale Leitch.

While polio had a relatively low mortality rate, people did die from it, as did little Brent; although, by the 1940s, the introduction of iron lung respirators helped keep people with respiratory polio alive, at least for a while. The widespread use of respirators represents one of two major medical interventions designed to ameliorate the effects of epidemic polio, but for the most part, despite the increased scientific understanding about some aspects of the disease, there was little medicine could offer patients. Many were often left with visible (Continued on page 2)

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disabilities, generally in the form of temporary or permanent paralysis of the limbs or the respiratory system. These disabilities shaped people's daily lives, and the way they were viewed by experts and others, long after the epidemics abated.

#### Families, Patients, and Health Care during Manitoba's Polio Era, 1928 – 1953

By Leah Morton

A thesis submitted to the Faculty of Graduate Studies of the University of Manitoba, in partial fulfilment of the requirements of the degree of Doctor of Philosophy

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This dissertation examines the broad social impacts of the multiple polio epidemics that occurred in Manitoba between 1928 and 1953, a period she refer to as the epidemic era. It argues that examining these six major polio epidemics as an era, and the disabilities these epidemics engendered, are useful windows into twentieth-century social history.

This project also considers the post-war development of rehabilitation programs, and argues that they worked to transform people with an illness into people with disabilities. Polio tested, but did not break, the bonds of family. By exploring the broad social impact of polio, this dissertation adds to a number of literatures and works to bring the history of disability and people with disabilities out of the margins and into the mainstream of Canadian social history.

The charts used in this dissertation were originally from, "Do something! Do anything! Poliomyelitis in Canada 1927-1962" by Christopher Rutty,

**EDITOR'S NOTE**: Leah Morton has graciously allowed us to reprint portions of this excellent dissertation. It is over 300 pages, and covers the Manitoba polio epidemics of 1928, 1936, 1937, 1941, 1944, 1952, and 1953. Because of space constraints, we have concentrated on those parts of the dissertation that highlight the polio epidemics of 1952 and 1953.

If the Manitoba officials hoped the moderate 1947 epidemic would be representative of any future epidemics, they were incorrect. The next epidemic, in 1952, registered fewer cases than in 1941, but in terms of virulence and mortality, it was worse than previous outbreaks, and would be surpassed only by the 1953 epidemic. Towards the end of June 1952, the Department of Health and Public Welfare (DHPW) began to receive reports of polio from around Winkler, a community in the southern part of the province. Health officials believed that an outbreak in an area that had not been affected by the earlier epidemics might stay confined to that location, but by the end of the epidemic "all parts of the province" had been affected. The final count of confirmed cases for the 1952 epidemic was around the 800 mark. Historically, polio tended to

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affect children under the age of ten, and the majority of the 1952 cases were in this age range, with 427 out of the 794 cases occurring in children between one and nine. But polio in the post -war era was not confined to young children. More older youths and young adults contracted the disease in 1952: 128 patients were between ten and fourteen, and ninety-three patient were between the ages of twenty and twenty-nine.

The first reports from the Mennonite community near Winkler did not suggest to officials that a province-wide epidemic was imminent. Two factors led officials to believe that the outbreak might be confined to that particular community. The first was an "earlier outbreak among Mennonites" in the neighboring province of Saskatchewan. The second was the lack of a history of polio amongst Mennonites. As noted in the Department's 1952 *Annual Report* "doctors practicing in the area [around Winkler] stated that they had never been troubled to any great extent by poliomyelitis in former years." It was believed that this lack of history made the people of the area more susceptible to polio, leading to the localized outbreak. Despite the largest proportion of cases occurring in that area, the epidemic spread throughout Manitoba.

The 1952 epidemic was remarkable for both its length and its virulence. Polio usually began in July and dropped off by late September. In 1952, however, case reports began to filter in to the DHPW in June and, although the peak week was 13 - 20 September, "really there was a high incidence from July  $12^{th}$  until November  $15^{th}$ ." The DHPW indicated that while polio did drop off significantly by mid-November, cases continued to be reported until the end of the year.

Ten cases, for example, were reported for the week ending 20 December, and one more the following week. In terms of virulence, the 1952 outbreak was characterized by provincial officials as "one of our most severe" with twenty-seven deaths. This placed the death rate at 3.1 per 100,000, which was lower than the death rates recorded in 1928 and 1936, respectively with 6.5 and 5.2 per 100,000.

The 1952 epidemic led to more cases of residual paralysis and pharyngeal, or bulbar, polio than had been seen in previous epidemics. Prior to the 1930s, bulbar polio, which affects the



muscles used in swallowing and breathing, was almost always fatal. The introduction of iron lung respirators to Manitoba in 1936 gave physicians a chance to prolong the life of those with bulbar polio and they were certainly put to use in 1952. That year the King George Hospital (KGH) had forty patients in respirators, and half of them needed tracheotomies. For these reasons, the hospital administrators and provincial health officials believed that the 1952 polio epidemic had been extremely taxing. The severity of the residual paralysis was also problematic to health officials in the province. As in 1947, officials (Continued from page 3)

categorized polio cases according to degree of paralysis. Without explaining their criteria, provincial health officials noted that 130 individuals had "slight" paralysis, 110 had "moderate" paralysis, and 125 had "marked" paralysis. The severity of the 1952 epidemic could not prepare officials, medical professionals, or the public, for what was to happen in the following year.

Polio had never been epidemic in two consecutive years in Manitoba and an outbreak was not expected in 1953. When case reports began trickling in to the DHPW in June, they were described as normal for that time of year; indeed, a few cases in June were not cause for alarm as Manitoba had not experienced a polio free year since it had become a notifiable disease. Health officials in the City of Winnipeg, however, did feel uneasy about the high number of cases presenting so early in the year. Dr. R. G. Cadham, the city's Deputy Medical Health Officer, wrote that the "sudden appearance of sixteen cases in the last week of June, a greater number than had been reported for June in any previous epidemic years, was a disturbing indication that the city was to experience a major epidemic." Cadham was correct. The number of cases continued to increase and the Advisory Committee, created during previous epidemics to provide advice and guidance to health authorities, was re-established in the first week of July 1953.

Province	1928	1936	1937	1941	1944	1947	1952	1953
British Columbia	15.9	3.6	3.4	7.1	2.0	29.9	49.6	63.1
Alberta	13.7	2.1	21.5	20.9	12.0	9.9	76.3	145.5
Saskatchewan	3.3	9.6	54.5	6.2	2.0	33.1	142.9	139.6
Manitoba	65.4	73.8	37.3	132.7	13.6	79.4	105.1	286.4
Ontario	2.6	5.8	70.0	3.8	8.5	19.1	14.7	42.7
Quebec	1.4	3.9	5.5	1.4	1.3	3.9	3.0	11.4
New Brunswick	1.2	0.7	37.5	91.6	18.4	4.1	81.2	16.5

Table 1: Canada's Provincial Polio Case Rates per 100,000 Population, Selected Years

By the end of the year, over 2,300 Manitobans, 763 of them in Winnipeg, had contracted the disease. When case reports finally began to decline in December, the province was, sadly, able to lay claim to having had the worst polio epidemic in Canadian history.

The King George Hospital, an infectious disease hospital that had opened in 1914 as part of the Winnipeg Municipal Hospitals, was the main center for polio patients during the acute stage of the disease, and the 1953 epidemic taxed heavily its staff and resources. At the outset of the epidemic, one hundred beds were available at the KGH, although one quarter of them were

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still being used by patients from the previous epidemic. It soon became clear to Dr. J. Hildes, the Medical Director of the Municipal Hospitals, that that was not enough and in short order two hundred more beds were cleared in the KGH and Princess Elizabeth Hospitals, forty extra beds had been set aside at the Children's Hospital, and a decision had been made to send all non-paralytic cases home. In previous epidemics, many rural cases had been sent to the KGH, but the sheer size of the 1953 epidemic meant that that was not possible. Rural cases, except for the most serious ones requiring respirators, were re-routed to the General Hospital in Brandon, approximately two hundred kilometers west of Winnipeg. The high number of cases also meant that the KGH, which usually only kept a "skeleton staff" on duty, had to look elsewhere for staff. The nursing shortage will be discussed fully in a later chapter; however, it is important to note that doctors, interns, and nurses were brought in from other hospitals and even the armed forces to ease the situation engendered by the polio epidemic in 1953.

In terms of size, virulence, and paralysis, the 1953 epidemic far surpassed all of the previous outbreaks. Just over 2,300 Manitobans contracted polio in 1953, leading to an astonishingly

high case rate of 286.4 per 100,000 population. Winnipeg's case rate was 318 per 100,000 population. In 1953, polio was not only more widespread, it was also more virulent. In 1941, close to 1,000 cases were confirmed, however, officials termed that epidemic mild, due to the low levels of residual paralysis. This was not the case in 1953, when 59% of Winnipeg cases were left with some degree of paralysis and the death rate for the province was 11.2 per 100,000 population, even though iron lung respirators were widely available.

The increased incidence of the most dangerous, and fatal, type of the disease – bulbar polio – is noteworthy. One hundred and eighty-five individuals required the use of respirators in 1953, many of these were borrowed



or bought from other locations. This included an American manufacturer in Boston. RCAF planes were used more than once to transport newly made respirators to Winnipeg.

The 1953 epidemic was also unique in that more adults than ever contacted the disease. By the immediate post-war era, the name infantile paralysis had fallen out of favor, but the wide spread belief that children were most susceptible to the virus remained. Rutty argues, for example, that polio garnered so much attention, even though other diseases were more of a threat, precisely because of "its unique predilection to suddenly and permanently paralyze healthy middle-class children." Hundreds of young children did contract polio during this epidemic; however, the incidence of the disease in adults was markedly high in 1953. The numbers compiled by the Winnipeg Health Department are illustrative of this trend.

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Table 3: Polio Deaths – Manitoba, 1953

Age	Total Cases in the Age	Total Deaths in the	Percentage of Fatal Cases	
	Bracket	Age Bracket		
Under 1 year	66	2	3.0	
1-4 years	484	6	1.2	
5-9 years	641	10	1.5	
10-14 years	292	5	1.7	
15-19 years	157	11	7.0	
20-24 years	174	8	4.5	
25-29 years	197	14	7.1	
30-39 years	253	20	7.9	
40-49 years	62	7	11.2	
50-59 years	7	1	14.2	
60-69 years	4	2	50	

In 1936, approximately four percent of the total cases in the city occurred in persons over the age of twenty-five. In 1941, approximately seven percent of all Winnipeg cases were twenty-five or older. In 1953, however, almost thirty percent of all city cases were in persons aged twenty-five and over. This was a substantial and sobering increase, particularly since the provincial figures, as shown in Table 3, indicate that older people were much more likely to die from polio.

The 1953 epidemic was the last major outbreak of polio in Manitoba, but it did not end the province's engagement with the disease. Although the vaccine developed by Jonas Salk was used, starting in 1955, Manitoba experienced another outbreak in 1958, with 107 cases and eleven deaths. Manitoba's engagement with the Salk vaccine has been documented extensively by Rutty, but it is important to note the interest of Winnipeg's public health officials in the process. In 1954, the National Foundation for Infantile Paralysis (NFIP) asked the Canadian government if it was interested in participating in its "placebo-controlled trial" of the Salk Vaccine. Each province was given the choice as to whether or not they wanted to be involved. According to Rutty, the members of Manitoba's 1953 Advisory Committee "initially recommended declining the offer"; however, "political expediency forced the Manitoba Minister of Health F. C. Bell, to accept the NFIP offer" although it was up to the municipalities if they wanted to participate.

Not all of Winnipeg's health officials agreed that city children should participate in the NFIP trial. In a letter to the members of the civic Committee on Health, Winnipeg's Medical Health Officer Dr. Morley Lougheed, provided a lengthy and measured analysis of the situation. Lougheed knew firsthand the impact of polio, and he believed Salk's vaccine to be safe; however, he argued that, for multiple reasons, vaccinating the 5,000 children in grades one through three was logistically impossible. Lougheed explained:

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Waivers of liability must be given by parents. At least 5,000 will have to be sent out, received and tabulated, and careful records kept, otherwise the trial is of little or no value, It would mean inoculating 1,000 children a day and sterilizing at least 500 to 1,000 syringes a day, and no place could do that except the Hospitals, probably already pushed to the limit. The best we could do at this late date would be one dose of vaccine before school closed. The number of children receiving the vaccine would be about 1 in 400 of those in the City and it appears to me that this great effort would be of little value to anyone.

A written response to Morley's letter is not available; however, his logic must have been persuasive. City officials, who had already received the NFIP forms meant to be distributed to parents, decided ultimately to not participate in the trial.

Non-participation in the trial notwithstanding, health officials in Winnipeg were interested in the vaccine. In April 1954, Lougheed requested funding to travel to Minneapolis to watch the announcement of the trial results on closed circuit television and, once the vaccine had been cleared, the city entered into an agreement with a candy company to supply each child who received the vaccine with a "kiddy pop" sucker. Health officials organized vaccination campaigns, estimated in 1956 to cost the city \$16,000, indicating that they were desirous to prevent any re-occurrences of epidemic polio.

Despite the time and money spend on the city's vaccination program, by 1957 city officials worried that the general public was not interested in being vaccinated against the disease. In January of that year, R. G. Cadham, the city's deputy health officer, sent a memo to the civic Committee on Health, voicing his frustration with the lack of desire on the part of parents to vaccinate their children. Cadham wrote that, "for those who recall the unhappy days of the poliomyelitis epidemics of 1941, 1952, and 1953, when no protective vaccine against this disease was available, it is difficult to understand the sense of complacency which now exists in the minds of the public in regard to this crippling disease." The memo does not mention the efforts of Cadham's father to produce convalescent serum in 1928, but his frustration that people seemed to forget easily the anxiety, fear, and dread that existed during an outbreak of polio was palpable.

Polio continued to shape people's lives in multiple and important ways long after the epidemics faded from the headlines and parents presented their children for the vaccine. Marc Shell, writing about the impact of polio on American culture, suggests that "the usual view is that a person contracts polio, then has the virus [and] has 'classic' polio symptoms for a couple of weeks. Then follow "obviously discernible" effects – like paralysis. Then it is over."

This "view of polio," he argues, "is wrong." Shell suggests that it is erroneous because of the development in the 1980s of post-polio syndrome, which is defined by a constellation of

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symptoms including "increased muscle weakness and pain, [and] debilitating fatigue" in those who had contracted the disease decades before. This is an important observation, but it too ignores the often changed lives of people who had contracted the disease. The young ages of most people who contracted polio during the epidemic era means, quite simply, that people



with polio-related disabilities had a lot of living left to do after they were released from the hospital. Their lived experiences, and how ideas about gender intersected with ideas about education, work, parenting, and disability is one of the main focus of this dissertation. Following Shell, this project suggests that a person's engagement with polio and the effects of polio did not end even though they were no longer a patient; rather, I suggest that there is not a discernible end to the impact of epidemic polio.

There is a particularly poignant photograph that highlights the importance of viewing polio

through a different, wider lens. In the photograph, a jubilant nurse is holding up the front page of a newspaper that reads, in bold print, "Vaccine 'Triumph' Ends Polio Threat." Here is the end of the polio drama! And yet, the nurse is holding the newspaper up for a man to read. He is in bed, his arms lying by his side, paralyzed, and a portable chest respirator covering his torso. He very clearly had multiple polio-related disabilities. The look on his face indicates that for him, and for countless others, the long complex engagement with polio was not ending. Rather, it was just beginning.

Polio, because it led to visible and very often permanent disabilities, continued to affect individuals' lives long after they ceased to be considered sick. The vaccines did not make a difference for those individuals who had already contracted the disease, and who had poliorelated disabilities.

**EDITOR'S NOTE**: Near the end of this dissertation, in Chapter Seven, the author added personal stories. She titled this chapter, '*I sort of got on with my life': The Lived Experiences of People with Polio Related Disabilities in Manitoba*. Using twenty-two interviews with the members of Manitoba's Post-Polio Support Group, the author suggests that polio and its various side effects certainly had an impact on peoples lives, but it didn't ruin their lives.

These personal histories add a great deal to our shared polio narrative. Our own personal stories have value to other people. These "other people" could be our families, medical and social historians, and our brother and sister polio survivors. We hope you will make a start on YOUR polio story. On the next page we give you a few hints to help you begin.

# **Telling Your Own Polio Story**

A good way to start telling your story is to pretend you are interviewing yourself. You don't need to start at the beginning, but that is sometimes easier. Here are some general questions that you can ask yourself to start the conversation:

#### **General Questions:**

What year did you contract polio? Where were you living? How old were you? Do you remember anything about the first days, months, etc.? Were you hospitalized? What hospital? How long?

### Life Adjustment Questions:

Were your polio changes visible to others? If so, how did they react? Parents? Siblings? Schoolmates? Did you feel "different"? How has polio changed your life?

#### Later Life and Post-Polio Questions:

Have you experienced post-polio? When did you learn about post-polio? What changes has post-polio brought to your life?

These questions offer a way to start the conversation with yourself. Every polio survivor is different, both in degree of polio's effects and how each person deals with life. As you interact with your memories, just let the conversation take on a life of its own.

Keep notes as you reflect on your memories. It is often better to start with brief notes. You can expand on them later. Some people find it very helpful to have another person ask you the questions. A friend or family member is usually best. Make it simple, but stick to it.

As you work your way through this project we would appreciate a progress report. Please remember, few of us are professional writers. Just put down your memories and thoughts as they come to you. Don't worry about spelling or sentence structure. A brief history is better than no history al all.

Send your "work in progress" to the editor: RanchoPolioGroup@gmail.com

## Life can be complicated! Try to have fun!

## **Rancho Los Amigos Post-Polio Support Group**

Our next meeting will be **Saturday, October 27<sup>th</sup> at 2:00 p.m.** This meeting, and our December Holiday Party, will be in Rancho's 500 Assembly Hall. A **map with directions is on the next page**. We don't meet in November, but encourage you to join the Post-Polio Support Group of Orange County at their November 10<sup>th</sup> meeting. Their meeting information is on the last page.

Our Saturday, October 27<sup>th</sup> meeting will be focused on topic ideas for 2019. We need your suggestions and ideas for our meetings next year. All of our monthly meeting are designed to be informative, and also enjoyable. We always reserve time to listen to your concerns, and offer suggestions if appropriate.

Our Holiday Party will be Saturday, December 8th, at 2:00 p.m. This will also be in Rancho's 500 Assembly Hall, and is a joint meeting with the Post-Polio Support Group of Orange County. This will be a pot-luck, so bring a Holiday treat you want to share.

The photographs below were taken at our September meeting. Fourteen people met in Richard Daggett's backyard, and no person went hungry. We talked about many things, but there was little talk about polio. We were all effected by polio, but we all have lives beyond polio.

It was welcome to hear about our "other" lives at the September meeting.



# A Map to the 500 Assembly Hall

This will be the location of our October and December meetings



Enter Rancho from Imperial Highway. If you are coming from the 605 Frwy, or other areas east of Rancho, take the ramp on your right, that is past Apollo Park and Rives Avenue. Turn right at the top of the ramp, then turn left in front of Rancho's Mission style main bldg.



If you are coming from the west, take the ramp on your right, that is past Old River School Road. Turn left at the top of the ramp (Erickson Avenue), then turn left in front of Rancho's Mission style main bldg.

We will have signs with arrows at every turn.

Please save this page! If you get lost, please call Diane at (310) 418-7056

Did You Know

Did you know that Rancho Los Amigos was the largest polio rehabilitation center in the United States? Did you know that polio patients came to Rancho from many western States, and even from other countries? Did you know that this iconic polio photograph was taken at Rancho?



Emma Eivers





RANCHO

POLIO

GROUP

**Richard Daggett** 

## **Post-Polio Support Group of Orange County**

The Post-Polio Support Group of Orange County has a **new meeting location (see map below)**. They will meet at the **Newland Street Church of Christ**, **13852 Newland Street**, **Garden Grove**, **CA 92844**. A map is printed below.

The Post-Polio Support Group of Orange County is now meeting four times a year. Their last meeting for 2018 will be **Saturday, November 10, 2018 - 2:00 p.m. to 4:00 p.m.** The timely subject will be the Health Insurance Counseling and Advocacy Program (HICAP). You will learn about any changes in Medicare coming in 2019.

Contact information for the Post-Polio Support Group of Orange County

Newsletter Editors: Janet Renison - 949-951-8613 - renison@lagunawoodsvillage.net or Baldwin Keenan: - 949-857-8828 - abaldwinkeenan@gmail.com

Do you have agenda ideas for the Orange County group? Please call Aleta at: 949-559-7102, or email Priscilla at: prisofoc@aol.com Their WEBSITE is: www.ppsupportoc.org

