CONSTANCE BEATTIE WAS THE ONLY real choice to answer a distress call issued by the Department of Indian Affairs in late March 1949. A physiotherapist was urgently needed to help treat Inuit polio victims in the Arctic settlement of Chesterfield Inlet on the west coast of Hudson Bay. It would be an unprecedented mission in response to an unprecedented and especially tragic polio epidemic that struck during the winter of 1948–49, seemingly seeking out a large proportion of the immunologically vulnerable Inuit population. There were about 275 Inuit, along with 25 non-Inuit, living in and around the outpost.

Connie was twenty-four years old. She grew up in Brockville, Ontario, and graduated from the University of Toronto’s physiotherapy program in 1945 before serving in the Royal Canadian Army Medical Corps. In 1948 she joined Toronto East General Hospital’s physiotherapy department and very quickly became its head. She was also president of the Toronto branch of the Canadian Physiotherapy Association, which was where officials from the Department of Indian Affairs started their search.

Connie wasted little time in volunteering her services. “It will be a thrilling adventure and a chance to help those un-
A MYSTERIOUS ENEMY VANQUISHED

Above: The Sammurtok family, including Jacqueline Tuluniak Sammurtok (front row left, with hat), and Honore Aggark (man in front), poses inside an igloo near Chesterfield Inlet, August 1949. Constance Beattie took the photo, which was included with a letter of condolence, written by Sister St. Ignace de Loyola, that was sent to Beattie’s parents a year after her death. Below: Beattie photographed these Inuit women and a young child at Chesterfield Inlet, in the spring or summer of 1949.

News of the Arctic polio epidemic spread quickly in Canadian and American newspapers. The reports focused on its severity and rarity, with doctors and scientists struggling to explain the unprecedented crisis. Many experts doubted that polio was the real cause. A physician from New York City wrote to the Manitoba minister of health and public welfare, seeking information about “the so-called polio victims under treatment in Manitoba.” In the loaded language of the time, he wrote that it seemed “hardly believable that a summer disease like poliomyelitis, which usually affects people with high modern sanitary standards, should cause a winter epidemic amongst natives of the frozen north with their primitive living conditions.”

Leading polio researchers pressed Dr. Andrew J. Rhodes of Cazenovia Medical Research Laboratories at the University of Toronto to expedite the testing of specimens from Chesterfield Inlet. Rhodes, a foremost virus specialist with special expertise in polio, had been recruited from the United Kingdom in 1947 to lead a comprehensive poliovirus research program. By the end of April 1949, Rhodes was able to confirm the presence of the poliovirus in specimens from five Inuit cases. There was now no doubt about the polio diagnosis, but researchers were uncertain how to explain its presence in such unusual geographic and climatic conditions. And why was it striking this traditional nomadic population with such severity? Rhodes was not aware that polio had struck the Arctic region before. There had been widespread immunization programs started in 1955 with the vaccine developed by Dr. Jonas Salk and changed everything. The last polio case in Canada was in 1979. Not long ago, polio – short for poliomyelitis – was one of the most feared diseases on the planet. Highly infectious, it does not usually have visible symptoms, and about three quarters of sufferers recover in a few days. In the other one quarter of victims, though, the poliovirus can turn deadly, attacking the spinal cord. Victims can develop meningitis and paralysis, which in turn lead to death in as many as ten per cent of those stricken, when their breathing and swallowing muscles are weakened or paralyzed. The only treatment was the iron lung, developed in the late 1920s, which forced air in and out of the lungs. Before the advent of vaccines in the mid-1950s, polio was a terrifyingly common and indiscriminate scourge. Polio epidemics first emerged during the late nineteenth century and worsened through the first half of the twentieth, ironically because of improving public health standards limiting what had been all but universal circulation of the poliovirus among infants. By the late 1940s, polio was the middle-class plague, mostly striking otherwise healthy children as well as increasing numbers of adults, particularly in new postwar suburbs. Polio epidemics peaked in Canada in 1953 with some nine thousand cases and five hundred deaths. Much remained mysterious and uniquely frightening about the polio during the late 1940s. With epidemics typically occurring every few years with varying degrees of severity, the popular and scientific view of “the crippler” as a warm-weather threat was reinforced in North America. Widespread immunization programs started in 1955 with the vaccine developed by Dr. Jonas Salk and changed everything. The last polio case in Canada was in the 1970s, and the country was certified polio-free in 1994. Worldwide incidence has declined ninety-nine per cent since 1988. Polio remains active only in Pakistan and Afghanistan, according to the World Health Organization.

Fortunate Eskimos who don’t have half the chance that polio victims get down here,” she told the press on April 2, 1949. A month earlier, North American newspapers first reported the alarming news of a mysterious epidemic striking Chesterfield Inlet — Igluligaarjuk in Inuktitut — the oldest permanent settlement in Nunavut and the hub of the Keewatin District. Early reports said eleven Inuit people had died from the disease, which appeared similar to poliomyelitis, but noted that “white persons” seemed to have escaped it. Very little about the outbreak fits what was known about polio at the time, especially the way “the crippler” had struck so far north in the middle of winter when the average temperature was near minus forty degrees Celsius. One sixth of the Inuit population in the immediate area was affected, including many adults, leaving them with varying degrees of paralysis. Dr. Joseph P. Moody, the federal government’s medical officer of health for the Eastern Arctic and resident physician at Chesterfield, took the unprecedented step of ordering the quarantine of the vast area’s six hundred or so mostly nomadic Inuit. Nagjuk was found dead the next morning. There was no further polio deaths, and those who were sick recovered.

By the late 1940s, polio was the middle-class plague, mostly striking otherwise healthy children as well as increasing numbers of adults, particularly in new postwar suburbs. Polio epidemics peaked in Canada in 1953 with some nine thousand cases and five hundred deaths. Much remained mysterious and uniquely frightening about the polio during the late 1940s. With epidemics typically occurring every few years with varying degrees of severity, the popular and scientific view of “the crippler” as a warm-weather threat was reinforced in North America. Widespread immunization programs started in 1955 with the vaccine developed by Dr. Jonas Salk and changed everything. The last polio case in Canada was in the 1970s, and the country was certified polio-free in 1994. Worldwide incidence has declined ninety-nine per cent since 1988. Polio remains active only in Pakistan and Afghanistan, according to the World Health Organization.
Several outbreaks among the Greenland Inuit, most notably one in 1925 that caused twenty-seven deaths among a population of eight hundred. Based on Moody’s initial investigations, the outbreak was traced to September 1948 and a person named Tutu, who was described in a Toronto Star report as “a tough young Eskimo hunter.” After a good season of caribou hunting, Tutu went to Churchill, Manitoba, to trade some ivory carvings. There he likely came into contact with someone who was infected with polio, and he then became a carrier himself. He then took a leisurely month-long journey home, visiting many camps and settlements, all the while unwittingly spreading polio—an Arctic “Typhoid Mary,” as a Toronto Star reporter suggested.

During the first week of October, two cases of paralytic polio developed in the Inuit camps of Nunella and three in Eskimo Point, now known as Avarik, Nunavut. One of the Nunella cases was an Anglican missionary, the other an Inuk RCMP special constable, Jimmy Gibbons, who developed paralysis in his arms. Gibbons soon travelled to Padlei, where seven paralytic cases, two resulting in death, developed by late December.

More detailed epidemiological investigations traced the origin of the outbreak further back to July 1948. An Inuk man contracted polio north of Churchill in early July; in late September, he was flown to Winnipeg for physiotherapy. A month later, in late December, the Inuk man had surgery at King George II hospital in Churchill to remove a bone from his left leg. The same month, and in the same region, a young Chipewyan girl was also stricken with polio.

From Toronto following the annual congress of the Canadian Physiotherapy Association, which he had attended, Gibbons was flown to Winnipeg and diagnosed with polio soon after he arrived. Moody had not been informed of the case, despite Churchill’s location on the border of his jurisdiction.

Father Henri-Paul Dionne, a Roman Catholic missionary, was the likely connection between the first polio outbreak and the start of the epidemic in Chesterfield Inlet. He flew to Chesterfield from Eskimo Point on January 28, 1949. He did not show symptoms, although he had visited polio victims in Eskimo Point. While in Chesterfield, he stayed in the outport’s hospital, visited patients, and mingled among the white and Inuit populations.

Five days after his departure on February 9, the first of many polio cases emerged in Chesterfield. Within two weeks, fifteen of the twenty-five Inuit who were in the hospital developed polio, three died, and eight were paralyzed. An unusually long and unusually winter season set the stage for polio to spread among the vulnerable Inuit population in the area. Warmer than normal temperatures led to the spoiling of caribou meat caches that would otherwise have remained frozen into the winter. During January and February, many Inuit were forced to travel to Chesterfield Inlet to buy food from the store, becoming exposed to the virus in the process.

By the end of March, some sixty polio cases appeared in a population of about 2,750. Thirty-eight were paralyzed, and thirteen died from respiratory complications. According to Moody, however, the majority of sufferers were not seriously paralyzed. He felt that several of the cases would benefit from physiotherapy but advised against evacuating them to Winnipeg. Instead, he suggested that a physiotherapist was needed in orthopaedic exercises—a person like Connie Beattie.

Beattie committed to spending four months in Chesterfield Inlet, working closely with Moody and the Grey Nun nurses at St. Theresa Hospital. As newspaper reports noted, she would not have to live in an igloo but would sleep in the seven-bed mission hospital. The epidemic forced improvisations to add twenty-eight more beds.

Beattie’s Arctic adventure actually began in Winnipeg on April 11, after a hurried flight from Toronto following the annual congress of the Canadian Physiotherapy Association, which she had attended.

She spent three weeks at Winnipeg’s King George Hospital assisting with the care of the thirteen paralytic Inuit patients from Chesterfield. But, as noted in a letter published in the June 1949 issue of the Journal of the Canadian Physiotherapy Association, there had been essentially “no Physio provided so far.” “Despite the ‘Inninni girls doing a noble job,’” she said, “the hospital desperately needed a physiotherapist, especially for the Inuit patients.”

Beattie focused most of her attention on two of the Inuit boys, six-year-old George Tanniak and five-year-old Simeone Koehler, who had been posted to Chesterfield Inlet for Ken’s mission. During the early 1940s, the use of hot packs challenged the prevailing medical treatment of polio, which had long been based on splints and surgery. By the late 1940s, the Kenny method was the prevailing treatment method and promoted a more active physiotherapy-based approach. In a letter home Beattie stressed, “Arctic or no Arctic, I am still horfarking.” She often had to melt snow to obtain water for the treatments.

Beattie spent much of her spare time with Rita and Ken Komai, whom she had met when she was posted to Chesterfield Inlet in 1948. Beattie was always busy, occasionally confessing to bouts of loneliness. Her letters were sometimes accompanied by film canisters whose contents bore out her passion for photography. Among the snapshots were many showing her smiling brightly in the snow against a brilliant blue sky. She also kept in touch with her “physio” colleagues, who saw her as a pioneer of the growing specialty.

Beattie was spared much of her time with Rita and Ken Komai, although she had been posted to Chesterfield Inlet for work. She built a close friendship with Rita that provided more of a personal connection with home than was possible with the priests and nuns. In mid-May, she wrote that she expected to be home by the end of August. In her letter, she said, “we can’t depend upon transportation up here.”

After a fairly quiet spring and early summer, Beattie was surprised to learn that she would be leaving two weeks earlier than expected. It was a scrabble to be ready on time, and also to say her goodbyes, although she did not tell her parents she was heading home. She’d wait until getting to Winnipeg, “as Mother would worry herself sick.” She was eager to get back; she had plans to marry Dr. Guthrie Grant of Brooks, Ontario.

The earlier departure was to facilitate the flight plan of the amphibious RCAF Canoe aircraft that would transfer several federal transportation department personnel to a remote weather station on Baffin Island before making stops at Chesterfield Inlet and Churchill on August 21 en route back to Winnipeg. Although Beattie had completed her Arctic assignment, and eight polio patients with the most serious symptoms would accompany her on the flight, Moody wrote, “we dreaded having her go back to civilization.”

The plane caused a commotion as it splashed-landed on the water of Chesterfield Inlet. Moody’s wife, Viola, prepared a farewell.
Connie Beattie’s smiling face dominated the front page of the Toronto Star’s August 22 edition, but it was placed below an alarming headline: “20 Missing On Mercy Plane: Crash Site Seen.”

The crash was an alarming headline: “20 Missing On Mercy Plane: Crash Site Seen.”

On August 22, after receiving several reports of parachute flares lighting up the storm-swept area, and a trigger sighted a column of smoke, the search teams found the crash site. Newspapers on August 23 reported that the news that the Canos had crashed and all twenty-one on board were very likely killed.

The front page of the August 23 Toronto Star featured Connie Beattie, the “pretty physiotherapist,” in her University of Toronto yearbook photo, along with a picture of her fiancé, Guthrie Grant. As soon as he heard the plane was missing, Grant had set out on a Trenton-based RCAS search plane for Winnipeg, although he arrived too late to see the exact location of which would not be discovered until a grandson of one of the crash victims tracked it down some sixty years later. At about the same time, Annie Ol-lie asked a lawyer to help find information on the crash that had killed Ushuak, who was her father’s younger sister. The names of the other Inuit killed in the crash were not again published until 2009. The double tragedy of polio and the crash affected one family especially hard: Hilarie Arnaluktituaq, in December 2007, Ollie and another crash victim’s relative worked in the treatment of polio.

In contrast to the personal details given about the white victims of the crash, the extensive newspaper coverage said very little about the plane’s Inuit passengers, other than to note that their bodies were taken for burial in a single grave near Norway House at the head of Lake Winnipeg. After a difficult recovery effort due to the condition of most of the bodies, the remains of the thirteen white passengers were identified in 2019.

In December 2007, Ollie and another crash victim’s relative worked in the treatment of polio.

In 1948, for treatment.

He was six years old and would return to his family until he was ten.

A picture of her fiancé, Guthrie Grant, in a magazine, he recalled. Over the years, he was relieved to meet other physiotherapists who had worked with Beattie. In 1948, for treatment.

Connie Beattie’s personal story of service in response to the Arctic polio tragedy, coupled with her own shocking death, played out prominently in the Canadian media. Her death hit her fellow physiotherapists especially hard. Indeed, as a report in the September 1949 issue of the Journal of the Canadian Physiotherapy Association noted, “She had served where no physiotherapist had served before.” Her legacy has lived on, most notably with the establishment of the Canadian Physiotherapy Association’s Constance Beattie Memorial Fund bursary program. The fund was designed to support post-graduate training in physiotherapy, originally with preference for work in the treatment of polio.

From his home area. But they never arrived.

Canadian Physiotherapy Association noted, “she had served where no physiotherapist had served before.” Her legacy has lived on, most notably with the establishment of the Canadian Physiotherapy Association’s Constance Beattie Memorial Fund bursary program. The fund was designed to support post-graduate training in physiotherapy, originally with preference for work in the treatment of polio.

They were on the plane that crashed in August 1949. Confined to bed, he was taken for daily exercises in a futile attempt to rebuild strength in his polio-weakened limbs. “For me, at least, it didn’t do the least bit of good, and its only result was to annoy me.”

Finally, in the spring of 1952, he flew back to the North and home. “Oh, how truly wonderful it was,” he wrote.

Kalluak learned to read and write English during his four years in Winnipeg, and he became a respected translator, teacher, cultural consultant, and author. He was named to the Order of Canada in 1990 and was one of the first recipients of the Order of Nunavut. Despite the lasting damage to his arms and hands, and the separation from his family and home, he concluded his article, “I had to live my life over I would not choose another path.” – Nancy Payne