

24-1

**MALCOLM ROSS BOW, MD, DPH, FRCPC  
1887-1982**



24-2

Alberta Board of Health and Medical Officers of Health 1906-c1927 from Jamieson's *Early Medicine in Alberta*, 1947

## MALCOLM ROSS BOW, MD, DPH, FRCPC 1887-1982

*"We have scarcely more than made  
A good beginning in the application  
Of the knowledge that we now possess"*<sup>(1)</sup>

### Introduction

The role of Dr. Malcolm Ross Bow in the history of medicine in Saskatchewan and Alberta was a long and illustrious one, lasting forty-years.<sup>(2)</sup> Ontario born, Malcolm Ross Bow came west for his first summer job in 1907.<sup>(3)</sup> In 1910 while still a medical student, he was assistant to the Director of the Saskatchewan Provincial Laboratory in Regina. After graduating in Medicine in 1911, Dr. Bow was appointed the interim Director of the Laboratory.<sup>(4)</sup> In 1912 Dr. Bow accepted one of the first full time MOH positions on the prairies, just in time to manage the medical response to the 1912 Regina cyclone.

Dr. Bow returned to academia after WWI and obtained his DPH in 1919 at UofT. In 1921 he accepted the added responsibility of Medical Superintendent of the Regina General Hospital. In February 1927 he was appointed Alberta's Chairman of the Provincial Board of Health as well as the Provincial Medical Officer of Health and Deputy Minister of Health. Dr. Bow and Health Minister Hoadley became a powerful public health team.

As soon as Dr. Bow arrived in Alberta he faced a plethora of healthcare challenges. His recommendations and decisions gained the confidence of the government and the respect of the medical profession. As his authority and stature increased, it gave him the opportunity to accelerate the government's public health agenda and healthcare Acts.<sup>(5)</sup> (Table 1)

Dr. Bow's plans for mental health, health units, health insurance, tuberculosis, polio, cancer care, and maternity care, faced detours and delays from the Depression, drought, and government deficits. With strong political support the programs were never derailed. Healthcare remained a government priority through the early 1920s and 1930s.<sup>(6)</sup>

Dr. Bow remained intimately familiar with the public health scene in other provinces particularly Saskatchewan. The medical profession responded to the UFA government initiatives in the late 1920s by becoming increasingly well organized. Dialogue and good communication between the two became important. Dr. Bow provided that link.

Because the Depression so dramatically limited access to healthcare in Alberta, the UFA government searched for a solution.<sup>(7)</sup> So did the AMA/CPSA as the amount of free medical care in Alberta doubled after October 1929.

The AMA/CPSA strove to retain the direct physician/patient relationship in a fee for service system. Health Minister Hoadley was a strong supporter and proponent of the Saskatchewan municipal doctor or salaried system, especially in the remote, under-doctored parts of Alberta. Dr. Bow's motivation remained a public health one. The most effective strategy to prevent disease through the Depression, Bow believed, was to promote and maintain a healthy work force.

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|---------------------|---|
| 1. Bow, Malcolm R.  | "Public Health Yesterday, Today and Tomorrow," CPHJ 28: 313-317, 1937.  |
| 2. Bow, Malcolm R.  | Interview with Lory Laing, Department of Community Medicine UofA, Edmonton on July 24, July 31, September 20 and October 10, 1974. Thirty-seven pages. The interview was initiated by Dr. Bow's long-standing friend and UofA Director of Community Medicine Dr. Stanley Greenhill. Manuscript deposited in the AMF archives. |
| 3. Bow, Malcolm R.  | Interview, page 3.  |
| 4. Neatby, Hilda    | "The Medical Profession in the North West Territories" in Saskatchewan History 2(2): 1-15, Spring 1949. Reprinted in Part 2. The Bacteriological Laboratory was completed by 1905, with the NWT Medical Executive Council paying the equipment costs of \$3,795 and the NWT Legislative Assembly, the operating costs.        |
| 5. Lampard, Robert  | "Hon. George Hoadley, Irene Parlby, WW Cross and the UFA Healthcare Program," in Part 2.  |
| 6. Collins, Paul V. | "The Public Health Policies of the United Farmers of Alberta Government 1921-1935", page 108, Masters thesis UWO, 1969. For a broader discussion of the challenges faced by the UFA government see Franklin Foster's <i>John E. Brownlee</i> , a biography, page 197.   |
| 7. Lampard, Robert  | "The Roots of Medicare in Canada are in Alberta," in Part 2.  |

Under Dr. Bow, the healthcare debates in Alberta never became adversarial. In time Alberta became recognized as one of the most progressive, forward acting, and healthcare-responsive governments in Canada. That reputation continued throughout Dr. Bow's term of office. When he retired in 1952, Dr. Bow could be satisfied with his public healthcare accomplishments. He had become one of Canada's public health leaders.<sup>(8)</sup>

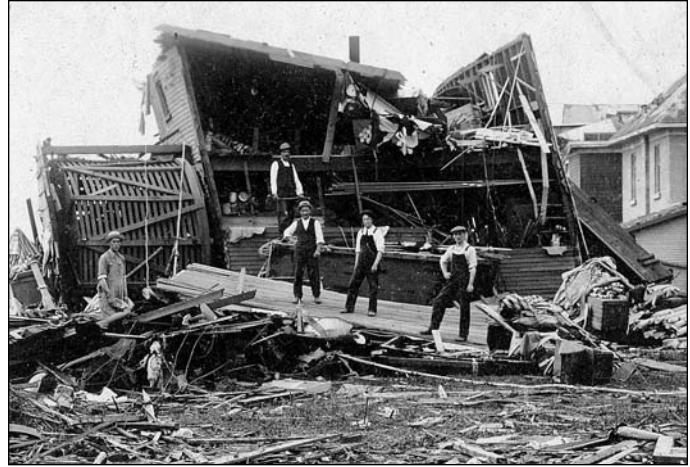
### From Youth to MD 1887-1911<sup>(9)</sup>

Malcolm Ross Bow was born in Vernon, Ontario on July 13, 1887 just south of Ottawa. His father owned and operated a general store. It contained the town's only telegraph station. As a youngster Malcolm Bow taught himself Morse code well enough to receive and post hockey and football scores and share them with his friends. Following high school matriculation in 1904, he was accepted into medicine at Queen's University at the age of seventeen. Extracurricular activities like being elected President of the Alma Mater Society and earning a place on the university's championship debating team in 1909 deferred his graduation until the spring of 1911.

Malcolm Bow's interest in Bacteriology was kindled during his undergraduate medical years. Professor W.T. Carl offered him a job working on a typhoid carrier research project. He worked many nights and weekends on it. The impact was life long; it focused his medical career on preventative medicine.



Medical Building, Queens University 24-3



Effects of the Regina tornado, 1912 24-4

During his undergraduate years Malcolm Bow decided, as did many, to go west to work. His western Canadian career started in the summer of 1907 with a municipal job in Regina. During the summers of 1908 and 1909, he secured a position as a replacement teacher. In 1910, he was offered a position at the Saskatchewan Provincial Laboratory as an assistant to the Director Dr. G.A. Charlton.

### Regina's Medical Officer of Health 1911-1927

After graduating in 1911 Dr. Bow accepted another offer from Dr. Charlton, to be his interim replacement as the Director of the Laboratory, so Charlton could spend the winter with his wife in California. When Dr. Charlton returned the following April, Dr. Bow became Regina's first full-time Medical Officer of Health (MOH). Two months later on June 30, 1912 the famous tornado hit Regina, injuring three hundred and killing thirty more.<sup>(10)</sup>

The 1912 Regina cyclone was perfectly timed for Dr. Bow. As the new MOH he organized five temporary-hospitals in local schools and churches. He predicted cases of typhoid would appear. By November there were two hundred. His research discovered that the outbreak was not caused by a contaminated water supply, but by inadequate sanitation measures. Bow organized a night system of collecting sewage from the shanty community in East Regina. He had the containers emptied and sterilized every night. Dr. Bow exhibited the collection and sterilization system

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8. Fleming, A. Grant "The Relationship of Public Health to Medical Care," CPHJ 25: 461-465, 1934. Dr. Bow summarized his philosophy and life's work, in "The 1960 RR Parker Memorial Address, Public Health Yesterday, Today and Tomorrow," CPHJ 52: 252-255, 1961.
9. Bow, Malcolm R. Interview with Lory Laing, page 1-16.
10. Dawson, Bruce "It Speaks for Itself, Wilfred Johnson's Images of the 1912 Regina Tornado," Saskatchewan History 57(2): 35-39, Fall 2005.

at the first National Public Health Convention in Western Canada in Regina in 1913. Dr. Harold Orr a future 1952 CMA President and department head under Dr. Bow took the idea back to Medicine Hat. Over the next two years Orr resolved a similar problem in that city.<sup>(11)</sup>



24-5

*Dr. Harold Orr, CMA President 1952-1953*

Always on call, Dr. Bow became the city's most experienced smallpox diagnostician. His advice was often sought to assess perplexing fevers and rashes. He saw about one hundred cases of smallpox in his sixteen years in Regina. To prepare for them he set up an isolation hospital, which was periodically opened and closed, depending on the caseload. Each case was isolated and contacts were vaccinated and/or re-vaccinated to contain the spread. This approach was remarkably effective. When diphtheria antitoxin became available, he responded quickly by immunizing thousands in the community.

After the influenza epidemic of 1918/19, which reduced Regina's medically fit physicians from thirty to ten, Dr. Bow registered for the diploma course in Public Health at the UofT. He finished the course and was offered the Medical Superintendency of the Regina General Hospital from 1921-1926, in addition to his duties as Regina's Chief Medical Officer of Health.

In 1926 the CMA struck a Committee on Hospital Efficiency to seek ways to improve hospital standards in Canada. Dr. Bow was appointed the chairman. A conference was organized with a prestigious set of presenters. The next year the CMA established a Department of Hospital Service. It began on January

1, 1928, supported financially by the Sun Life Assurance Company. Dr. Harvey Agnew became the associate secretary.<sup>(12)</sup> Three years later the Canadian Hospital Association was formed.

### **The Regina Typhoid Outbreak 1920**

Dr. Bow's return from his Toronto studies was soon followed by Regina's next public health crisis. In December 1920 there was a serious typhoid outbreak in Regina from unpasteurized milk.<sup>(13)</sup> Sixty-eight of 180 students as well as four teachers and six staff at Regina College developed signs of typhoid fever. Nine died. The source was discovered to be a dairy farm four miles outside the city. After an emotional public meeting, a voluntary agreement was reached. It led to pasteurization of 85% of the milk supply sent to the city. One doubting city commissioner who received milk from a friend, declined Dr. Bow's pasteurization advice. A year later his family members were suffering from Undulant Fever.



*1911 Regina Rugby Team. Club President, Dr. M. Bow, 3rd row, 3rd from (L)*

24-6

In his spare time Dr. Bow dabbled in athletics. He especially liked rugby and organized the first rugby meeting in Western Canada in 1913. It led to the formation of the Western Canadian Rugby Union. He played halfback with John Bracken, the future Premier of Manitoba. The Regina team would later become known as the Regina Roughriders and still later as the Saskatchewan Roughriders.

11. Bow, Malcolm R.

Interview with Lory Laing, pages 4-6 and the Biography of Dr. H.H. Orr, five pages, September 1985, AMF Archives.

12. Agnew, G. Harvey

*Canadian Hospitals 1920-1970*, pages 64-66.

13. Pistula, James M.

*An Act of Faith. The Early Years of Regina College*, pages 57-58, 62, CPRC, 1988. Also recalled in Dr. M.R. Bow's Interview with Lory Laing, pages 12-14.

While in Saskatchewan Dr. Bow learned much from the wise guidance and supervision of the Provincial Medical Officer of Health, Dr. M.M. Seymour. Seymour had come to the NWT as a CPR physician. He joined the Medical Corps in the 1885 Northwest Rebellion and stayed after the hostilities to become Saskatchewan's first Chief Public Health Officer and Deputy Minister of Health. He retired in 1927.<sup>(14)</sup>

## Public Health Services in Alberta

M. R. BOW, M.D., D.P.H.

*Deputy Minister, Department of Health, Alberta*

IN many countries to-day there appears to be general recognition of the need for the development of a system that will insure efficient medical and hospital service for all the people. Under present conditions the prompt and skilled care which the medical profession and the hospitals are organized to render is not accessible to a very considerable proportion of our people. This is a question that is receiving careful study and investigation by leaders of thought not only in the medical and allied professions, but which is even more significant, by the layman, who has come to recognize that health is the right of every citizen and not the privilege of those who can afford to pay for it or who must accept it as a form of charity.

*Dr. Bow's review of Public Health Services, 1905-1930  
CPHJ Volume 21, 1930*

## Alberta Healthcare Initiatives before 1927

In 1926 Dr. W.C. Laidlaw, who held the equivalent position to Dr. M.M. Seymour's as the Chief Public Health Officer in Alberta, died unexpectedly. Dr. Bow applied for the position. He was impressed by the location of the Provincial Laboratory on the UofA campus and its integration with the degree granting Faculty of Medicine.

Dr. Bow must also have been impressed by the success of UofA President H.M. Tory, in securing the conditional five hundred thousand Rockefeller grant in 1920. By 1923 Tory and the Faculty of Medicine had met the grant conditions. They had built a medical school (1921), repurchased the Strathcona Hospital (1922), appointed two full time clinical professors (1922), extended the MD program from two to four years (1923), accepted the first full MD class (1921), passed the American curriculum audit

(1923), and sent Professor J.B. Collip on a traveling fellowship, during which time he isolated insulin (1921/2), before returning to Alberta where he succeeded in isolating the parathyroid hormone (1925). The new (1920) Dean of Medicine, Dr. Allan Rankin was a bacteriologist and a senior WWI Canadian Army Infection Control expert. George Hoadley, the Minister of Health, was interested in public health and the Saskatchewan municipal doctor's program.

### PUBLIC HEALTH NURSING SERVICE

The Public Health Nursing Service was inaugurated in 1918. The training of the first four nurses followed generally the plan which was then in operation in Manitoba. Miss Christine Smith, sister of the Hon. George P. Smith, Provincial Secretary, became the first superintendent of Public Health Nurses. She was followed by Miss Clarke, in 1921, one of the first nurses to take the special training. From 1929 until 1943 Miss Kate Brighty was superintendent.

### DISTRICT NURSING

Before a district nursing area can be organized, application for the service must be made to the Minister of Health by a representative community group, and it must be ascertained that the population of the proposed district is at least between 500 to 1,000 persons, that establishment of the service there is feasible and that no other medical aid or hospital facilities are available.

This service has spread to the far outposts of the province until in 1947 there are 35 District Stations. Nineteen of them are in charge of nurses with Public Health Nurses training. Five other nurses have advanced obstetrical training.

24-7

### *Public Health and District Nursing Services in 1947*

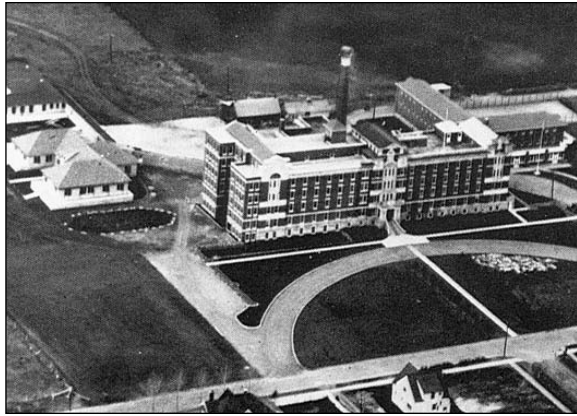
Dr. Bow's application was successful and he arrived in Edmonton in February 1927 as the Deputy Minister of Health. Concurrently he was appointed the Provincial Medical Officer of Health and Chairman of the Provincial Board of Health.<sup>(15)</sup> He would hold these positions for twenty-five years.

## To Alberta as Deputy Minister of Health 1927-1952

Dr. Bow joined a Public Health sensitive government.<sup>(16)</sup> Alberta (1919) was the second province in Canada after New Brunswick (1917) to establish a separate Department of Public Health. New Brunswick was the first in the British Empire.<sup>(17)</sup> The municipal hospital system started in 1917/18 in Saskatchewan and Alberta. The Alberta Hospital and Municipal Hospital Associations were formed in

14. Houston, C. Stuart "Maurice MacDonald Seymour: A Leader in Public Health," in the *Annals of the Royal College of Physicians and Surgeons* 31(1):41-43, February 1998. Also see A. Ostry's "The History of Public Health in Canada," *CJPH* 85: 293-294, 1994 and the profile of Dr. J.D. Lafferty. Dr. Seymour retired in 1927 at the age of 70. His heir apparent, Dr. Bow, likely had the choice of either the Alberta or Saskatchewan Deputy Minister positions.
15. Jamieson, Heber C. *Early Medicine in Alberta*, page 75, AMA, 1947.
16. Collins, Paul V. "The Public Health Policies of the United Farmers of Alberta Government", 143 pages. For a discussion of Mental Health in Alberta to the end of the UFA Government tenure (1935), see Ian H. Clarke's "Public Provision for the Mentally Ill in Alberta 1907-1936". 176 pages. Master thesis, UofC, August 1973.
17. Bow, Malcolm R., Cook, F.T. *History, Administration, Organization and Work of the Provincial Department of Public Health and Boards of Health*, page 1. Alberta Government, 1937.





24-8

The 1941 Cancer Clinic (L), 1927 Polio Hospital (M) and University of Alberta Hospital (R)

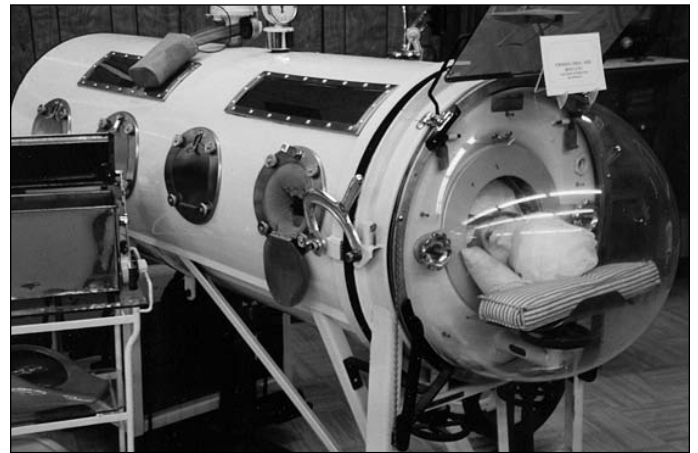
1919 and 1920 respectively.<sup>(18)</sup> Alberta was the first province in Canada to pass a VD Prevention Act (1918), just as the majority of the veterans returned from Europe. It created the Division of Social Hygiene, which started free VD clinics in Calgary and Edmonton in 1920. Dr. Harold Orr was hired to run the program, after his illustrious wartime service.<sup>(19)</sup>

Dr. Bow inherited the 1919 District Health Nursing program, that had started with four nurses.<sup>(20)</sup> He increased it to twenty-five by 1939 and to thirty-six by 1945.<sup>(21)</sup> A summer dental (1921) and medical (1924) traveling clinic had been started in to supple-

ment the District Nurse program in northeastern and northwestern Alberta.<sup>(22)</sup> A Board of Visitors program was started in 1925 to evaluate all the penal and mental institutions and the special (TB, polio) hospitals in the province.<sup>(23)</sup>

### Alberta Healthcare Initiatives from 1927-1952 – the Polio Outbreak

The first severe epidemic of polio in Canada struck Alberta in the summer of 1927, months after Dr. Bow's arrival. There were 354 cases including 53 deaths.<sup>(24)</sup> Dr. Bow with the approval of Minister Hoadley, ordered the construction of a special hospi-



24-9

The Iron Lung for treating respiratory paralysed patients

18. Thomson, R. Kenneth "The Development of Alberta Hospitals Since World War II," in D.R. Wilson and W.B. Parsons' *Medicine in Alberta: Historical Reflections*, pages 1-17, AMF, 1993. Reprinted in Part 2. The organization of hospitals in Alberta was researched in greater detail in an unpublished manuscript (224 pages) by Bill Carney, as "The Hospitals Story: The History of the Alberta Hospital Association" (AHA), pages 1-33, 74, April 1987. A copy was deposited with the Provincial Health Authorities of Alberta, Edmonton. The Municipal Hospital concept became a preoccupation of the Social Credit Minister of Health, Dr. W.W. Cross (1935-1957), who retired and avoided implementing the Federal-Provincial Hospital and Diagnostic Services insurance program in 1957. See R. Vant and T. Cashman's *More Than a Hospital*, page 124.

19. Rentier, Paul Biography of Dr. H.H. Orr, five pages, September 1985. Dr. Harold Orr joined the armed services in WWI. After Dean Allan Rankin identified the flea vector as the cause of Trench Fever, Orr developed the Orr Hut, which could disinfect the clothes of 1000 troops/day. In 1916 it affected over 17,000 Canadian troops, occupied one-quarter of Canadian Hospital beds and caused 14 deaths. As Dr. J.N. Gunn, who suffered from Trench Fever twice noted, Dr. Rankin did "more for the comfort of the soldiers than any other one man's contribution during the World War", *CMAJ* 31: 434, October 1934. For further comments on the disease, see D. Morton's "When Your Numbers Up," in *Canadian Health Care and the State*, pages 45-46, McGill-Queens, 1992; and P. Rentier and D.R. Wilson's "Evolution of the Venereal Disease Program" in the *Province of Alberta in Medicine in Alberta: Historical Reflections*, pages 92-96, AMF 1993.

20. Cashman, Tony *Heritage of Service: A History of Nursing in Alberta*, pages 190-207, 266-268, 281-282, AARN, 1966. Also see H.C. Jamieson's *Early Medicine in Alberta*, pages 76-80.

21. Richardson, Sharon "Frontier Health Care: Alberta's District and Municipal Nursing Services 1919 to 1976," *Alberta History* 46(1): 2-9, Winter 1998.

22. Richardson, Sharon "Alberta's Provincial Traveling Clinic, 1924-42," *CBMH* 19: 245-263, 2002.

23. (MacEachern, J.M.) Report of the Board of Visitors for Public Institutions, 1925. Sessional Paper No. 49, 1926. In his 1964 retirement letter chairman J.M. MacEachern, Ph.D. wrote "I would be glad if the final meetings of the Board, we could be at Ponoka, Red Deer and Deer home in order that I may personally thank all who have treated me with such consideration and courtesy since I have associated with them on the Visiting Board since 1919 and later on the Eugenics Board till the present." Quoted in a letter from Ms. E.S. James to Dr. L.J. LeVann, April 27, 1965.

24. Vant, J. Ross, Cashman, Tony *More Than a Hospital, the University of Alberta Hospitals: 1906-1986*, pages 78-79, 84, UAH, 1986.

Edmonton, November 10, 1928.

TO THE HONOURABLE GEORGE HOADLEY,  
Minister of Health,  
Parliament Buildings, Edmonton, Alberta.

SIR,—

I have the honour to submit the Ninth Annual Report of the Department of Public Health.

The Department is divided into the following Branches:

1. Communicable Diseases.
2. Hospital Inspection and Coroner's Supervision of Operations.
3. Laboratory.
4. Nursing.
5. Hospitals, Charity and Relief.
6. Social Hygiene.
7. Sanitary Engineering and Sanitation.
8. Provincial Dentist.
9. Institutions: Central Alberta Sanatorium.  
Provincial Mental Hospital.  
Provincial Mental Institute.  
Provincial Training School.

A report from each is attached hereto.

Seventy-four licenses were issued under the Private Hospitals Act during 1927; 68 Private Hospitals were in operation at December 31st.

Miss M. V. Bonallo, R.N., was appointed Inspector of Hospital Equipment in the fall of the year.

Twenty-nine persons received free insulin during the year.

All of which is respectfully submitted.

I have the honour to be, Sir,

Your obedient servant,  
M. R. Bow,  
Deputy Minister of Health.

*Department of Public Health Annual Report, 1928*  
tal of sixty beds. It was built in two and a half winter months, adjacent to the University of Alberta Hospital.<sup>(25)</sup>

### Tuberculosis:

To control and prevent the spread of tuberculosis, Dr. Laidlaw established the first TB referral clinic in Drumheller in 1925. Dr. Bow expanded the follow-up service with the second and third tuberculosis clinics in Calgary and Edmonton in 1928. Later a traveling tuberculosis team was formed to visit the smaller cities, to confront what he called the Captain of the Men of Death. The problem was more directly

addressed with the passing of the Alberta Tuberculosis Act in 1936. It provided free diagnostic and sanatorium treatment for pulmonary tuberculosis. It was the second such Act in Canada after the 1929 precedent in Saskatchewan. Applications increased dramatically. Sanatorium beds in Edmonton's three hospitals rose from fifty to two hundred. Two mobile chest x-ray units were made available to the department through the TB Seal Campaign donations. The first one was operational by 1943. By 1946 a quarter of a million Albertans had been examined.<sup>(26)</sup>

### Municipal Doctors

In 1929 the Municipal Districts Act was amended to permit municipal funds to pay or subsidize municipal doctors. Dr. Bow helped recruit several full-time salaried physicians to work in Northern Alberta. They were all female physicians and included Drs. Owens, Strang, Johnson, and Percy. Dr. Helen O'Brien arrived shortly afterwards. Dr. Percy became the well-known Dr. Mary Percy Jackson of Keg River.<sup>(27)</sup> In the fall of 1929 there were eleven physicians on part-time contracts in unorganized districts in Alberta, as well as three salaried physicians in northern Alberta.<sup>(28)</sup>

Saskatchewan's popular municipal doctor system<sup>(29)</sup> was alive and well in rural Alberta, particularly in the sparsely populated northern districts. But it did not last. Dr. Mary Percy married in 1931 and moved to Keg River. Dr. H. O'Brien returned to England in 1933.<sup>(30)</sup> Premier Aberhart ended the program.

### Mental Health

In 1929 Dr. Bow established the first Child Guidance and Mental Hygiene clinics in Alberta. He also supported the Sexual Sterilization Act, which was passed in 1928.<sup>(31)</sup> The Sexual Sterilization Board deliberated for over a year before approving the principles under which it would operate. It heard its first applications in 1929. The Board defined two criteria to adjudicate

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25. White, A.,  
Pattinson, Chris "Inquiry into Systems of State Medicine," 72 pages, Kings Printer, Edmonton, 1929.
26. Jamieson, Heber C. *Early Medicine in Alberta*, page 80. For more details on the history of TB care in Alberta see H.H. Stephen's "Tuberculosis in Alberta: 1905-1980," in *Medicine in Alberta: Historical Reflections*, pages 69-90, AMF 1993; D.B. Hogan's "Calgary, Climate and Tuberculosis," *RSPSC Annals* 35(7): 430-434, October 2002, and the profile of "Dr. A.H. Baker."
27. Chatenay, Henri Dr. Margaret Owens and Dr. Mary Percy Jackson in, *The Country Doctors*, pages 47-60, 61-72, Matrix Press, 1980. Also see the Dr. Mary Percy Jackson profile.
28. Bow, Malcolm R. "Health and the State," a presentation at the Third Conference on the Medical Services in Canada, pages 18-27, November 21, 22, 1929, Kings Printers 1930. A complete list was provided in the Report of the (White/Pattinson) "Inquiry into Systems of State Medicine," Kings Printer, 1929.
29. Houston, C. Stuart "Saskatchewan's Municipal Doctors: a forerunner of the Medicare system that developed 50 years later." *CMAJ* 151(11): 1642-1644, December 1994.
30. (O'Brien, H.) Minutes of the CPSA, Volume I: 10, January 30, 1933.
31. Bow, Malcolm R.,  
Cook, A.H. Minutes of a presentation to the Calgary Medical Society, March 12, 1928. Discussed further in the Alberta Sexual Sterilization Act, in Part 2.



# HEALTH UNITS OF ALBERTA

by

ADELAIDE SCHATNER

Health Unit Association of Alberta  
Co-op Press  
EDMONTON

From 1932-1982

24-10

cases, and rarely deviated from those criteria for over forty years.<sup>(32)</sup>

Following the death of veterinarian Dr. Arthur Hobbs at the Ponoka Mental Hospital in 1928, the pioneer Canadian psychiatrist Dr. C.M. Hincks was asked to conduct his second Alberta Mental Health survey in 1928/29, seven years after the first one in 1921. Hincks recommended the appointment of Alberta's first Provincial Commissioner for Mental Health Services. Dr. C.A. Baragar was appointed in 1930 and made responsible to Dr. Bow for the care and management of 1300 patients in Ponoka, Oliver, and Red Deer. The number of patients increased to 2300 before his death in 1935.<sup>(33)</sup>

## Public Health

Dr. Bow continued the expansion of the District Nurse program by starting the Rural Maternity and Well Baby programs. Although the District Nurse complement dropped from thirty to fifteen between 1930 and 1935, by 1939 the number was back up to twenty-five, as District Nurses were recruited to replace enlisting physicians.

In 1929 the Public Health Act was amended to allow the government to organize two pilot health units in High River and Red Deer in 1931. One-third of the health unit money came from the Rockefeller Foundation. These health units were two of the earliest in Canada. When the Rockefeller money ran out in 1936, the municipalities were so supportive of the

concept, they picked up half the costs themselves.<sup>(34)</sup>

## University of Alberta Hospital (UAH)

When the UAH started having fiscal difficulties in 1929, Dr. Bow proposed implementing the 1922 University of Alberta Hospital Act. The Act provided an equal number of Government and UofA Board of Governors appointments to the Board.<sup>(35)</sup> Dr. Bow became one of the four government board members. They approved significant increases to the UAH budget from \$332,000 (1930) to \$470,000 (1935) and \$528,000 (1940).<sup>(36)</sup> Dr. Bow was joined by Health Minister Dr. W.W. Cross on the UAH Board from 1936-1940.<sup>(37)</sup>

Calendar year/Dollars			
1906	4,148.66 (09 months)	1945	668,658.99
1907	6,689.69	1946	897,429.43
1908	5,708.75	1947	1,111,054.27
1909	8,088.00	1948	1,277,616.10
1910	10,148.64	1949	1,419,316.48
1911	10,000.00	1950	1,712,656.13
1912	14,732.56	1951	1,866,605.92
1913	21,600.00	1952	2,276,101.47
1914	43,500.00	1953	2,449,284.29
1915	45,500.00	1954	2,718,303.29
1916	45,800.00 (10 months)	1955	3,085,729.00
1917		1956	3,362,624.00
1918		1957	3,696,200.00
1919	Military Hospital	To March 31	4,729,341.00
1920	No record	To December 31	3,881,123.00 (09 months)
1921		To December 31	5,784,827.00
1922		1960	6,283,500.00
		1961	6,650,000.00
1923	Not separated from	1962	7,177,900.00
1924	University accounts	1963	8,004,800.00
		1964	8,821,100.00
1925	245,908.17	1965	9,774,000.00
1926	252,557.63	1966	11,261,200.00
1927	267,224.69	1967	13,162,600.00
1928	67,708.60 3 months to March 31	1968	15,500,500.00
1929	323,291.38 To March 31	1969	17,251,808.00
1930	332,197.15	1970	18,757,000.00
1931	454,335.03	1971	23,074,000.00
1932	487,251.85	1972	26,289,000.00
1933	462,562.63	1973	29,845,000.00
1934	436,742.23	1974	37,426,000.00
1935	470,413.93	1975	50,361,000.00
1936	515,257.65	To December 31	57,461,000.00
1937	498,892.44	To March 31	78,889,000.00 (15 months)
1938	520,272.76	To March 31	72,228,000.00 (12 months)
1939	536,785.04	1980	85,798,000.00
1940	528,584.89	1981	104,969,000.00
1941	520,027.62	1982	130,132,000.00
1942	572,357.54	1983	157,271,000.00
1943	587,342.69	1984	167,246,000.00
1944	610,443.05	1985	178,572,000.00
		1986	193,671,000.00

University of Alberta Hospital Operating Costs 24-11

32. MacLean, Randall R. Letter to Dr. Charles Roland, December 23, 1964 with a 2 page unsigned attachment entitled "Reasons for Sexual Sterilization in Alberta." The two criteria were: 1) could the applicant procreate – if they were over 12 they could, and 2) could the applicant satisfactorily parent – if their IQ was <70, the answer was no. These criteria were confirmed in personal conversations with Board members Dr. R.K. Thomson and Margaret Thompson, Ph.D. See Alberta's Sexual Sterilization Act in Part 2.
33. Bow, Malcolm R., Cook, E.H. "The History of Public Health in Alberta," CPHJ 26: 384-396, 1935. Also see the profile of "Dr. R.R. MacLean and Mental Health Care in Alberta."
34. Schartner, A. *Health Units of Alberta*, pages 62-63, H.U.A.A., 1982.
35. McGugan, Angus C. *The University of Alberta Hospital 1914-1964*, pages 8-9, UAH, 1964.
36. Vant, J. Ross, Cashman, Tony *More Than a Hospital*, page 389.
37. McGugan, Angus C. *The University of Alberta Hospital 1914-1964*, page 18, UAH 1964.

## The Depression

Dr. Bow's modus operandi did not change. It was simply "public health is purchasable".

Avoidable disease and avoidable deaths must be tackled on a municipal, provincial and national basis and be effectively coordinated as well.<sup>(38)</sup>

Philosophically Dr. Bow often quoted British Prime Minister, David Lloyd George, to support his healthcare arguments.

"Within natural limitations...a jurisdiction...can determine its own death rate...You cannot build an A-1 nation out of a C-3 population".<sup>(39)</sup>

Dr. Bow stressed that an investment in preventing illness, especially infectious diseases, was cost beneficial. It was not a widely supported concept during the 1930s, as the economies of the prairie provinces deteriorated, but Dr. Bow was persuasive. A master at analyzing health care figures, he preached the message that one half of all the disabling illnesses in Canada could be prevented. While preventable infections affected two percent of the population, he believed that eradicating them could prevent twenty-three million days in lost work time, or save one hundred and fifty million dollars per year throughout Canada.

Dr. Bow never lost the support of the United Farmers of Alberta government or the post 1935 Social Credit government, for his public health strategy. As a result government funding of the Department of Health budget through the depression years decreased little, despite a serious decline in the province's revenue and a ballooning deficit, made worse by the continuing drought in the Palliser triangle of southeastern Alberta.<sup>(40)</sup>

### THE COST OF PREVENTABLE SICKNESS AND DEATH

DR. M. R. BOW

Deputy Minister of Health

Public Health is purchasable. As one outstanding health authority has stated "Within natural limitations, a community can determine its own death rate." The health of the people is a matter of vital concern to the state. Health is, therefore, a matter which must be considered not alone from the municipal and provincial point of view, but also from the national standpoint.

During the war, David Lloyd George, Prime Minister of Great Britain, made the statement that you cannot build an A-1 nation out of a C-3 population. As a result of the physical examination of men enlisting for service during the war, it was found that a very high proportion of our men were physically unfit for active service. This physical unfitness was

*Alberta Medical Bulletin, July 1935*

One of the preferred solutions of the UFA government was to recruit more municipal doctors. They were called provincial doctors and cost \$2000/year, much less than the income of the average doctor. The proposal must have led to many ideological discussions over contracted medical services versus the fee for services approach.<sup>(41)</sup> Dr. Bow with the help of Dr. A.C. McGugan, straddled both sides of the debate but never lost the confidence of either side.

In 1938 another outbreak of polio cases led to the passing of the Polio Sufferers Act. It provided free rehabilitation services for all polio patients. It was a Canadian precedent. Under the direction of an orthopedic surgeon, the polio rehabilitation services were made available through the UAH and the Calgary Junior Red Cross Crippled Children's Hospitals.<sup>(42)</sup>

### The State Medicine deliberations of 1932-1935

In March 1924, the CPSA discussed a request from the village of Lomond to allow two hundred or more ratepayers to sign medical services contracts for \$15.00 per patient per year with the local physicians. It didn't proceed.<sup>(43)</sup>

Eight years later on the heels of the White/Pattinson 1929/29 State Medicine Inquiry, the Hoadley

38. Bow, Malcolm R. "The Cost of Preventable Sickness and Death," AMB 1(2):11-12, 1935.

39. Bow, Malcolm R. "The Cost of Preventable Sickness and Disease," pages 11-12.

40. Jones, David C. *Empire of Dust*, pages 219-223, UofC Press, 1987. The Alberta Dry Belt triangle from Hanna to Medicine Hat to Lethbridge, became the most abandoned or vacant agricultural section on the prairies over the decade 1926 to 1936. For identification of the relief expenditures by province during the Depression, see the *Rowell-Sirois Report of the Royal Commission on Dominion – Provincial Relations*, Book I, pages 169-171, May 3, 1940. Reprinted by the Queens Printer, 1954.

41. Lampard, Robert See the profiles of Drs. McEachern and Archer, and the "Hons. Hoadley, Parlby and Cross and the UFA Healthcare Program" in Part 2.

42. Mitchell, Ian, Coppes-Zantinga, A. *Child in the Center*. Pages 20-32 describe the dramatic impact of Polio, UofC, 1997.

43. (Bow, M.R.) Minutes of the CPSA, Volume I: 325, March 30, 1924. The Cardston Medical Contracts of 1932 were slightly cheaper at \$25.00 per family or the same \$15.00 per person. For further details see the "Cardston Medical Contracts and Canadian Medicare," in *Alberta History* 54(4): 5-10, Autumn 2006. Reprinted in Part 2.

Commission (1932-34) was charged with designing a state medicine program that would provide “adequate medical and health services for the people of Alberta”. Drs. Bow, A.C. McGugan and the Department of Health assumed the responsibility for drafting the proposals. By December 1932 the task was essentially completed. Dr. Bow ensured that public health was covered by the proposed plan.<sup>(44)</sup>

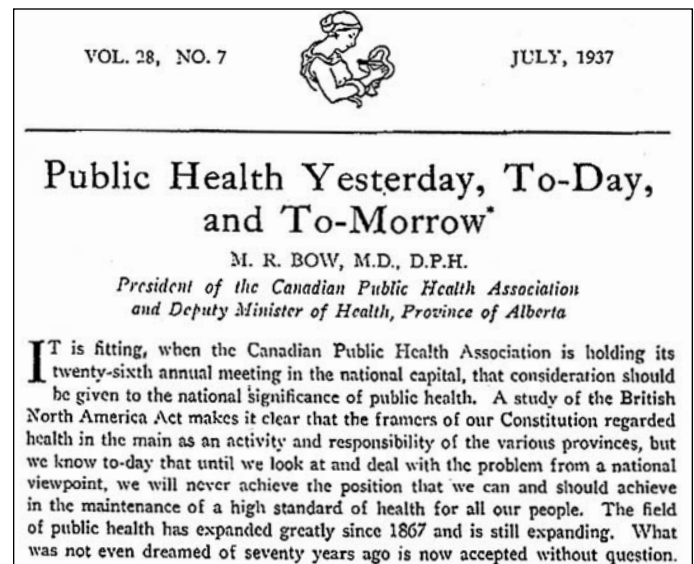
The Hoadley Commission recommendations were enshrined in the 1935 Alberta Health Insurance Act. The Act was assented to but died with the demise of the UFA Government in August of that year. However there was continued interest in the concept by the new Social Credit government, the AMA/CPSA and the CMA. The Social Credit government's position never changed from the UFA one. It resurfaced when the government passed a replica of the 1935 Act in 1942.<sup>(45)</sup>

Implementation of the 1942 Alberta Act was postponed, as further progress was being made on the funding of a national health insurance program.<sup>(46)</sup>

The Federal Government's favorable Haegerty Advisory Committee report (1943) and the House of Commons Social Security Committee report (1943/44), led to a health insurance proposal being added to the Federal/Provincial post war Conference on Reconstruction in 1945. Under the Haegerty proposal the federal government would fund approximately 60% of the estimated 233 million cost (1943), with the provinces to pick up 19% to 40% of the total government cost. In 1945 the federal government increased the offer to 100% of the revised \$250 million annual cost, with a 60/40 federal/provincial split of the total amount. The program covered hospital, medical, drug, dental, public health, and nursing

services, the same as the Alberta Hoadley plan of 1932/33. A disagreement over tax jurisdictions led Ontario to request more federal money. That brought an abrupt halt to the discussions on May 3, 1946.<sup>(47)</sup>

In 1946 the Swift Current, SK demonstration project was started. It was a combination of the Cardston municipal hospital and voluntary prepaid medical insurance programs of 1920 and 1932. It covered everyone. Popular but expensive, it was saved when the Douglas government introduced a province wide universal hospital insurance program in 1947. A similar but municipally based contributory hospital insurance program, followed in Alberta in 1948.<sup>(48)</sup> It was an extension of the Edmonton Group hospital insurance program of 1934, the forerunner of the Blue Cross plans in Canada.<sup>(49)</sup> A medical insurance



Dr. Bow, President's Address  
Canadian Public Health Journal, 1937

44. Hoadley, George "Hoadley Commission Preliminary and Final Reports," 1933, 1934, Alberta Government, Kings Printer, Edmonton. Both Plan A and Plan B Health Insurance proposals included public health coverage. Dr. G.D. Stanley made a concurrent and supportive presentation on State Medicine to the House of Commons on March 21, 1932.
45. Alberta Government Alberta Health Insurance Act, RSA Chapter 204, 1942. The Act was a repeat of the Health Insurance Act of Alberta, RSA Chapter 49, 1935. The only difference was, the definition of a Municipality was added. Doctors were to be included on the Board of the Commission. Also see the profiles of Drs. A.E. Archer and J.S. McEachern and "Alberta is the Root of Medicare in Canada," in Part 2.
46. Archer, Albert E. "The Association and Health Insurance," CMAJ 48(2): 93, February 1943. The first special CMA meeting ever was held in Montreal on January 18, 19, 1943. Dr. Archer was in the Chair as the CMA President. The only agenda item was a vote to support (or not) a national health insurance plan. The vote was 78-0 in favor.
47. Naylor, C. David *Private Practice, Public Payment*, pages 131-134, McGill Queens, 1986.
48. Parsons, William B. "The Development of Prepaid Medical Care in Alberta to 1969" in D.R. Wilson and W.B. Parsons' *Medicine in Alberta: Historical Reflections*, pages 33-60, AMF, 1993, reprinted in Part 2. Further discussed in R.K. Thomson's "The Development of Alberta Hospitals since World War II," in D.R. Wilson and W.B. Parsons' *Medicine in Alberta: Historical Reflections*, pages 1-17, reprinted in Part 2.
49. Agnew, G. Harvey *Canadian Hospitals 1920-1970*, pages 156-158. For a discussion of non-paying emergent admissions from adjacent government operated Improvement Districts, see pages 7, 8 of Dr. A.F. Anderson's 12 page memorial of his 20 years (1928-1948) as the medical superintendent of the Royal Alexander Hospital (RAH). It was written circa 1960. Copy in the RAH archives.

program started in Alberta with the passage of an Enabling Act in 1947 and the formation of the AMA's Medical Services (of Alberta) Incorporated (MSI) in 1948.<sup>(50)</sup>

### The Cancer Control Movement 1922-1941

The Alberta Department of Health's interest in cancer care was first evident in the public health annual report of 1922. That report recorded the Alberta crude cancer death rate as fifty per 100,000. Because of Alberta's younger population, it only rose to eighty per 100,000 by 1936 and remained the lowest in the country.<sup>(51)</sup> Mrs. O.C. Edwards, the Calgary Women's Federation Social convener and one of the famous Five Persons (1927-29), included a cancer presentation in her 1926 program. Pioneer Calgary radiologist Dr. W.H. McGuffin spoke knowledgeably to her overflow audience on cancer in women.

In 1931 the AMA established a Cancer Committee with Dr. Bow as the Chairman.<sup>(52)</sup> Cancer was made a notifiable disease to improve the accuracy of current and future cancer statistics. A cancer education committee was established in each hospital with over one hundred beds. Dr. Bow remained the northern Alberta AMA cancer committee Chairman, until 1937. He was succeeded by Dr. W.H. McGuffin. The next year the committees became a branch of the 1938 formed Canadian Cancer Society.

Government interest in cancer care and services did not diminish with Dr. Bow's resignation. At the September 1940 annual AMA meeting, the Minister of Health Dr. W.W. Cross announced a plan to provide free cancer services starting January 1, 1941. He received cheers and a standing ovation.<sup>(53)</sup> Dr. G.H. Malcolmson was appointed the first provincial Director of Cancer services. The Act established free diagnostic clinics in Calgary and Edmonton, and provided free x-rays, radium treatment, surgery and hospitalization. The Act was a Canadian precedent.

### Free Deliveries 1944

Three years later in 1944, Dr. Bow championed the passage of the Maternal Hospitalization Act. It provided two weeks of free hospitalization for expectant

## HISTORY, ADMINISTRATION, ORGANIZATION AND WORK OF PROVINCIAL DEPARTMENT OF PUBLIC HEALTH AND BOARDS OF HEALTH



ISSUED BY THE  
DEPARTMENT OF PUBLIC HEALTH  
OF THE  
PROVINCE OF ALBERTA

*The History of Public Health Boards, in Alberta, 1937*

mothers, though it cost the government one half million dollars per year.<sup>(54)</sup> As usual Dr. Bow was patient, always willing to take the time to advance his agenda. He had given his first speech with supporting statistics on the program to the Calgary Medical Society on September 10, 1929.<sup>(55)</sup>

### Sharing the Vision

During his 1937/38 term as the President of the Canadian Public Health Association, Dr. Bow shared his vision of the importance of public health and the contribution it could make to healthcare, with his national and provincial counterparts.<sup>(56)</sup> He repeated his message at every opportunity. Dr. Bow also encouraged his own colleagues to follow his example by sharing their findings. (Appendix 1) He attracted excellent people to work for him: Drs. A.C. McGugan, R.R. MacLean, H.H. Orr, A. Somerville, and J.S. Clark, RN. Their publications extended the reputation and influence of the department even further.<sup>(57)</sup>

Dr. Bow was not publicity shy. On January 2, 1929 he assembled 500,000 international units of diphtheria anti-toxin and gave it to bush pilot Wop May to fly from Edmonton to Fort Vermilion on the Peace River. The flight followed the first air ambulance<sup>(58)</sup> flight into the North in 1927. On the 50th anniver-

50. Parsons, William B. "The Development of Prepaid Medical Care in Alberta to 1969," pages 39-41.

51. (Bow, M.R.) Provincial Annual Reports for the Department of Health 1922-1952.

52. (Bow, M.R.) Provincial Annual Report for the Department of Health, 1931.

53. Editor Alberta Medical Bulletin 6(1): 14, January 1, 1941.

54. Jamieson, Heber C. *Early Medicine in Alberta*, pages 82-85.

55. Bow, Malcolm R. Minutes of Dr. Bow's speech to the Calgary Medical Society, September 8, 1929.

56. (Bow, M.R.) "Public Health Yesterday, Today and Tomorrow," CPHJ 28: 313-317, 1937.

57. Stewart, Irene *Those were our Yesterdays*, pages 75-78, Friesen, 1979.

58. Godsel, Philip H. *Pilots of the Purple Twilight*, pages 78-90, Ryerson, 1955.

sary of that mercy flight (1979), Dr. Bow participated in its re-enactment. He delivered a box of memorabilia, which was flown by the original two pilots' sons to the same recipient, Dr. Harold Hamman. The occasion must have been a memorable flashback for both of them. The famous flight was re-enacted again on the 75th anniversary in 2004.<sup>(59)</sup>

### Retirement 1952

Dr. Bow retired in 1952, satisfied that the results of his life long work as a leader in Canadian public health, had reduced mortality and morbidity from avoidable diseases in Alberta and beyond.<sup>(60)</sup> In his R.R. Parker Lecture at the Northwest Conference on Disease in Nature, Communicable to Man in 1960, Dr. Bow reiterated his career long, philosophical fight, for preventative health funding. Bow admitted that "the pound of cure still takes a predominant share of the taxpayers dollar".<sup>(61)</sup> He reminded his colleagues of the need to rigorously, almost religiously, support the concept of preventative health; to remember the danger from any loss of interest in preventative health; the tendency for it to be waylaid by specialization; the need to support the all out attack on cancer and diseases of the heart and circulatory systems; and to support a new culture based on blending the spirit of science and humanistic values. He believed this to be a condition for survival. He

closed his comments with the note that the spirit of international cooperation, understanding and goodwill, so prevalent in the preventive health and infectious fields, must prevail in all other fields.

Dr. Bow died at the venerable age of ninety-four on July 5, 1982. His wife Norma, whom he married in 1914, had predeceased him. He was survived by two daughters Maxine (1917) and Rosslyn (1924), and one son Malcolm (1918). A grandson Dr. Michael Bow became an Obstetrician in Edmonton. In 2005 Dr. Bow was named one of Alberta's 100 Physicians of the Century.

**Related Profiles:** Lafferty, Mewburn, Mason, Jamieson, Rankin, Baker, McEachern, Archer, Jackson, MacLean

**Related Perspectives:** Hoadley, Parlbay and Cross and the UFA Healthcare Agenda, The Mercy Flight and Dr. Harold Hamman, Alberta is the Root of Medicare in Canada, The Third and Fourth CMA meetings in Alberta in 1934 and 1942

**Key Words:** Communicable diseases, Public and preventative health, Alberta Deputy Minister of Health, Municipal doctors, State medicine, cancer, Infectious diseases: typhoid, polio, tuberculosis, diphtheria, Annual Reports of the Alberta Department of Public Health



Aerial photo of the University of Alberta Hospital and South Campus, 1952 24-12

### The R. R. Parker Memorial Address, 1960<sup>1</sup> Yesterday, Today, and Tomorrow in Public Health

MALCOLM R. BOW,<sup>2</sup> B.A., M.D., C.M., D.P.H.

ALLOW me to say how much I appreciate the honour conferred on me in being asked to give the R. R. Parker Memorial Address on the occasion of this the fifteenth International Northwestern Conference on Diseases in Nature Communicable to Man. I recall that the first meeting of this organization was held in a school house at Waterton Lakes, Alberta on July 24, 25, and 26, 1946 with an attendance of 15. I had the honour to act as chairman of that meeting and Dr. Parker took an active part in the proceedings.

CPHJ Volume 52 1961

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59. Lampard, Robert "75th Anniversary of Mercy Flight; Saluting Dr. Harold A. Hamman." Alberta Doctors Digest 29(1): 6-9, Jan/Feb 2004. Reprinted in Part 2.
60. McCallum, M.G. "The Alberta Development of Public Health," pages 109-122 in, *The Federal and Provincial Health Services in Canada*, Second Edition, Canadian Public Health Association, 1962.
61. Bow, Malcolm R. "The R.R. Parker Memorial Address," 1960. "Yesterday, Today and Tomorrow in Public Health," CPHJ 52: 252-255, 1961. His comments anticipated Canadian Medicare (1967) and Marc Lalonde's *A New Perspective on the Health of Canadians*, Government of Canada (1975). Dr. Bow's conclusions on the savings resulting from money spent on smallpox eradication, and the recent Rotary Polio Plus eradication program were prophetic.

**Table 1**  
*Selected Health Acts from the RSA of Alberta to 1944*

Alberta Health Insurance Acts (not enacted)	1935, 1942
Alberta Pharmaceutical Act	c1919
Cancer Treatment and Prevention Act	1940
Child Welfare Act	c1919
Chiropractic Act	c1919
Dental Association Act	c1919
Hospital Act	c1919
Maternity Hospitalization Act	1944
Medical Profession Act	1906, 1907
Mental Defectives Act	c1921
Municipal Districts Act	1929
Municipal Nurse Service Act	1950
Private Hospitals Act	1917, 1918
Poliomyelitis Sufferers Act	1938
Public Health Act	1907, 1911, 1918
Public Health Nurses' Act	1919
Public Health Nursing Service Act	c1919
Registered Nurses Act	c1919
Sexual Sterilization Act	1928
Tuberculosis Act	1936
University of Alberta Act	1906, 1907
University of Alberta Hospital Act	1922
Venereal Diseases Act	1918
Vital Statistics Act	c1919
Workmen's Compensation Act	1922

See the Alberta online History Collection website [www.ourfutureourpast.ca](http://www.ourfutureourpast.ca) for a complete documentation of all the Statutes in Alberta.

### Appendix I

*A preliminary List of Presentations and Publications by Dr. Bow and members of the Alberta Department of Health, 1928-1961*

- 1) Presentation to the Calgary Medical Society, March 12, 1928 on Mr. Hoadley's Sterilization Bill and Maternal Mortality as a Public Health problem. (Bow)
- 2) Third Conference on the Medical Services in Canada. Health and the State, pages 23-27, November 21, 22, 1929. (Bow)
- 3) Public Health Services in Alberta, CPHJ Volume 21: 590-600, 1930. (Bow)
- 4) The Cost of Preventable Sickness and Death, AMB 1(2): 11-12, 1935. (Bow)
- 5) The History of Public Health in Alberta, CPHJ 26: 384-395, 1935. (Bow)
- 6) The Provision of Medical Clinics for the People by the Provincial Department of Health, CPHJ 27: 546-549, 1936. (Bow)
- 7) Public Health Yesterday, Today and Tomorrow, CPHJ 28: 313-317, 1937. This article was Dr. Bow's CPHA Presidential address. (Bow)
- 8) The Epidemic of Spinal Paralysis, presented at the Alberta Medical Association annual meeting September 8, 1937. (Bow)
- 9) A Second Case of Tuberculosis, M.R. Bow and J.H. Brown, CPHJ 34: 315, 1943. (Bow/Brown)
- 10) Epidemic Jaundice (in Turner Valley) by A. Somerville and J.S. Clark, CMAJ 51: 120-123, 1944. (Somerville/Clark)
- 11) Tularemia in the Seven Persons Coulee, Alberta. M.R. Bow and J.H. Brown, CMAJ 53: 459-464, 1945. (Bow/Brown)
- 12) Tick-Borne Disease of Man in Alberta, M.R. Bow and J.H. Brown, CMAJ 53: 459-464, 1945. (Bow/Brown)
- 13) The 1960 R.R. Parker Memorial Address, Yesterday, Today and Tomorrow in CPHJ 52: 252-255, 1961. (Bow)
- 14) Poliomyelitis in the Yukon, CPHJ, August 1954 (Bow, Adamson, Lossing)
- 15) Annual Reports of the Department of Public Health of Alberta 1928-1952. (Bow)