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The Development of a Permanent
Public Health Care System
in

Industrial Cape Breton

1880 to 1930

by

Kathleen M. MacKenzie

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Thesis Submitted in Conformity With the
Requirements for the Degree of
Master of Arts

St. Mary's University
Halifax, Nova Scotia, Canada

1991



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This thesis was written in partial fulfillment for the Master of Arts (History) degree at Saint Mary's University. It was successfully defended and approved by:

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Dedicated to the Memory
of
Najala E. Orrell, R.N.
1961 - 1986
"Gone but not forgotten"

Abstract

The Development of a Permanent Public Health Care System in Industrial Cape Breton, 1880-1930

by

Kathleen M. MacKenzie
April 1991

The introduction of industrialization into Cape Breton brought with it great changes. The economy quickly changed from a mercantile agricultural economy to one based upon the coal and steel industries. Immigrants flocked to the island from virtually every corner of the world in search of work. The growth of towns was so great that civic authorities could not adequately keep up with the fast pace. There was no proper housing, nor sewerage systems and health matters were generally at the bottom of the totem pole on the list of priorities. Because of the neglect for health matters, infectious diseases such as smallpox and tuberculosis were able to gain footholds and caused many deaths. It was only when Cape Breton towns were forced to deal with these outbreaks that steps were taken to establish a permanent public health care system.

The establishment of a permanent public health care system was a slow agonizing process. It developed on an ad hoc basis and as was necessary to suit the needs of the time. Prior to 1880 provincial legislation did not guarantee many safeguards for health matters. It was not mandatory for boards of health to be permanent institutions and they were basically active only in times of infectious disease outbreaks. It was not until

amendments were made to the provincial Public Health Act in 1900 that positive changes could be seen. The 1900 amendments made it mandatory for the hiring of permanent medical health officers. These men became the advocates for sanitary reform, for the establishment of permanent boards of health, and for preventive medicine. They encountered much opposition from the public and town officials in the line of duty.

By about 1920, many more people were beginning to play predominant roles in the fight for public health. The watchword for this period became prevention and much effort was made to educate children in the schools and mothers in the home in regard to health matters. The hospitals established many outreach programs and clinics in the communities. Children were the greatest benefactors of this phase of the public health movement.

The hospitals that were established by various groups at the beginning of the twentieth century grew tremendously. Most were taxed beyond their capacities. This was evidence of the public's growing trust in science and the medical profession. Hospitals were no longer viewed as houses of death. The role of the hospital and the doctors were interdependent of one another. Industrial Cape Breton doctors maintained general practices in their homes as well as worked in the hospitals. These doctors were viewed by the public as more than doctors. Patients sought their advice on matters other than health matters. Those who were medical health officers were very vocal in their push for a permanent health care system.

The development of a permanent health care system in industrial Cape Breton town was a painfully slow ad hoc process. Its proponents met much opposition at every turn. The permanent system paralleled the growth of the towns. Local authorities made concessions often much too late and at great expense to the towns and to the public. With the introduction of hospitals and preventive medicine, more people became involved in the movement. Total responsibility for health matters became diffused among several groups. The entire burden for health no longer rested with medical health officers who were the initial proponents for a permanent public health care system in industrial Cape Breton.

List of Abbreviations

AR	- Annual Report
ARCFI	- Annual Report of City Food Inspector
ARMH	- Annals for Ross Memorial Hospital
CBCOM	- Cape Breton County Minutes
GBGHAR	- Glace Bay General Hospital Annual Report
GBTM	- Glace Bay Town Council Minutes
G.G.	- Golden Gleanings
HHA	- Hamilton Hospital Annals
HHVH	- History of Harbor View Hospital
HVHAR	- Harbor View Hospital Annual Report
MDM Papers	- M.D. Morrison Papers
MHOR	- Medical Health Officer's Report
MISIR	- Milk Inspector and Sanitary Inspector's Report
PANS	- Public Archives of Nova Scotia
PHNR	- Public Health Nurse's Report
PW	- <u>Presbyterian Witness</u>
RMSI	- Report of Meat and Sanitary Inspector
RSN	- Report of School Nurse
RSEPSNS	- Report of the Superintendent of Education of the Public Schools of Nova Scotia
RSSJH	- Report of Superintendent of St. Joseph's Hospital
RTSJAR	- Report of the Trustees of St. Joseph's Hospital, Annual Report
SCM	- Sydney Council Minutes
SDP	- <u>Sydney Daily Post</u>
SI	- Sanitary Inspector
SJHAR	- St. Joseph's Hospital Annual Report
SMTM	- Sydney Mines Town Council Minutes
SNS	- Statutes of Nova Scotia
SR	- Special Report
SRHVHAR	- Superintendent's Report, Harbor View Hospital, Annual Report
SCTM	- Sydney Town Council Minutes
VCOM	- Victoria County Minutes
VON,MSB	- Victorian Order of Nurses, Minutes of Sydney Branch

Introduction

This theses is concerned with the development of permanent health services and the development of the medical profession in industrial Cape Breton from 1880 to 1930. The evolution was a painfully slow one with opposition and resistance at every phase. Prior to the introduction of the Public Health Act of 1888 and its amendments in 1900 there was virtually no legislation in effect to create an effective public health system. These acts introduced compulsory Boards of Health, sanitary inspectors, and medical health officers. Each group tried to use the legislation as tools to enforce a sanitary utopia. At each turn health officers encountered the opposition from both the public and local governments. It was very aggravating and frustrating for sanitary inspectors and medical health officers. Very often public indifference and ignorance permitted community leaders to be lax in the promulgation and enforcement of health regulations. Occasionally nepotism and cronyism could be discovered in the appointment of poorly qualified inspectors of meat, milk, or sewage disposal.

After 1920 public health nurses, doctors, and dentists took over the roles as principal public health advocates. Experts preached prevention and health education. They entered both schools and homes educating the public in everything from how to brush your teeth to well baby care. Nursing schools added social welfare and personal hygiene to their curriculums. The concern

for overall public health touched all facets of society. Previous to preventive medicine, medical health officers were dealing with sanitation and infectious disease after the fact. Preventive medicine changed this and was expressed in the many new facilities and services that were offered by local authorities and the provincial government as well. During this period local boards of health played a more active and responsible role in health matters than they had in the past.

The urgency health officers felt toward health matters was expressed in a number of ways. It was evident in the establishment of permanent legislation as well as in the emergence of hospitals. Hospitals were an expression of a permanent and effective need for health care. They were no longer built to handle sporadic outbreaks of infectious diseases. In industrial Cape Breton they were built by several different groups of people who had a long term interest in them. As they developed they began to departmentalize and specialize. Hospitals offered many different services to their patrons; nutrition and well-baby care counselling, t.b. annexes, social welfare services and free clinics. Their contributions were felt in virtually every facet of society. Their strong presence reveals that they were permanent, regulated, and efficiently operated health centers.

Physicians in industrial Cape Breton played a very active role in the development of a permanent public health system. During the early part of the twentieth century many acted as

sanitary inspectors, medical health officers, and meat and milk inspectors. They faced a headwall of public opposition and civil disregard for the public health legislation. Their constant prodding of local authorities to establish permanent health laws did in fact help to establish a more efficient and permanent system. They played a role in the preventive medicine of the 1920's often acting as medical inspectors of schools, and provided their services free to those who were too poor to pay. Their interaction with the hospitals was a very integral part of the health care system. Each supported the other, and were in fact interdependent. Hospitals did much to strengthen the doctor's public profile as well as increase the public trust in science and medicine.

To undertake a thesis regarding the medical history of industrial Cape Breton was not an easy task. There are very few personal or professional records available which would outline the lives of the Cape Breton doctors. Perhaps they were too busy to keep accurate records of their practices. As well no records exist which relate to the professionalization of medicine. Although there was a Cape Breton Medical Society none of its records exist. It is very difficult to determine what these doctors' social, political, and personal views were. The interviews I conducted opened a window onto the doctors as people. It was very difficult to recreate the lives and beliefs of these doctors otherwise.

Undoubtedly the most valuable archival resources for this

theses were the annual reports of the towns and hospitals. In these reports were reports of various health officers such as the sanitary inspectors and medical health officers. These people painted a grim picture of early twentieth century living conditions. It is also through these reports that we can experience the frustration the health officers felt as they tried to perform their jobs.

Original medical records for industrial Cape Breton hospitals are scarce. The Glace Bay General Hospital does possess some of its original patient records, from approximately 1915 to 1930. The meticulously kept annals of the Sisters of St. Martha and the Sisters of Charity reveal the Catholic philosophy of caring for the whole person. Other hospitals which have preserved their early records will not make them available to researchers. The hospitals' annual reports are still important because they tell a great deal about the operation and financial structure of early twentieth century hospitals. Other valuable sources that help to enhance the annual reports of the towns and hospitals are town council minutes and items from the local newspapers. Both recreate realistic portraits of early twentieth century health care. Short histories of the hospitals were valuable to give an overall view of each hospital's achievements and successes.

Another very valuable resource in the writing of this thesis was the Victorian Order of Nurses Papers. Through the kindness of the Board of the Sydney Branch of the VON I was given

permission to use these records. This collection, although unaccessioned, contained valuable information regarding the VON's role in the establishment of a permanent health care system. They were a unique group who battled alongside the many sanitary inspectors and medical health officers in their quest for a healthy state. Other books, articles, and thesis used were valuable in helping me to place the history of Cape Breton medicine into a wider scenario.

In completing this thesis I find myself indebted to many people; most particularly Dr. Colin D. Howell, Department of History, Saint Mary's University. His guidance, support, and professional criticisms have meant a great deal throughout the writing of this thesis. I would like to especially thank my parents Dr. and Mrs. L.D. MacKenzie for providing me with the necessary emotional and financial support, Carman V. Carroll and Dr. Ray MacLean for advice and encouragement, and to Mary Jessie MacDonald and David Hart for the typing and retyping of the manuscript. I would like to thank the staffs of both the Beaton Institute, U.C.C.B. and the Public Archives of Nova Scotia all were cheerful and helpful. I would especially like to thank Sisters Margaret Flahiff, Mary Martin, and Mary Reginald MacKinnon for allowing me access to their religious archives. All made my research days at their archives very productive and enjoyable. I would like to thank the Sydney Branch of the VON for granting access to their records. I would like to extend thanks to the people who agreed to be interviewed for this

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Chapter I

The Fight Against Infectious Disease

The rapid industrialization and expansion that Cape Breton experienced at the end of the nineteenth and beginning of the twentieth centuries brought with it drastic alterations to the island. Accompanying economic expansion were the facts of poverty, overcrowding, and infectious diseases. Because municipal governments in Cape Breton were concerned primarily with the growth of the town's utilities and the attraction of new business, many municipalities neglected essentials such as the installation of sewerage systems, proper housing, and the enforcement of sanitary by-laws. The local governments' unwillingness to vote monies for permanent salaried health officials was an enduring problem. The unwillingness to establish a permanent, efficient, and regulated public health system led to trouble in the future.

Infectious diseases of various forms had been present in pre-industrial Cape Breton. The Micmacs contracted syphilis and smallpox from the Europeans, and had their own cures. During the nineteenth century new types of infectious disease such as typhoid fever, scarlet fever, and tuberculosis became common. Many of these diseases owed their prevalence to the baser characteristics of industrialization. With the influx of immigrants from all four corners of the earth, and consequent overcrowded housing conditions, and with negligence on the part of local governments, corporations, and citizens, conditions were

ripe for infectious diseases to spread. At times officials argued over whose responsibility it was to curtail the spread of disease. Before 1888 there was no machinery in place to force anyone to take such responsibility. Needless to say, it was the fault of many involved. It was not until a permanent public health system was put into practice that those in authority could hope to win the struggle. Even then, municipal officials were often unwilling to spend the time and money to protect the public health. Many unfortunate people lost their lives because of the incompetence and procrastination of others.

Although physicians and medical health officers made conscious attempts to make advances in medicine, they also did much to hamper the curtailment of infectious disease. Two predominant views on sanitation existed in the late nineteenth and early twentieth centuries. These theories greatly affected the direction of the public health movement. Physicians could not agree among themselves. The most popular doctrine was the "zymotic" or filth theory. It was believed that all waste left to decay, produced foul smelling vapours or miasma, which in turn led to disease¹. As a result physicians continued to treat the symptoms and not the disease itself². At the other end of the spectrum were the proponents of the germ theory. This group believed that distinct germs caused infectious disease. It was not until the bacteriological revolution of the 1880's that the germ theory triumphed. By that time the miasmatics were adhering to the view that "under the proper climatic conditions the

disease germs which abounded rotting effluvia became active and led to outbreaks of contagious disease". Furthermore, despite their differences with respect to the origins of disease, both groups believed that the most effective means of preventive medicine was sanitation.³

Diphtheria was probably one of the most dreaded infectious diseases to run rampant on Cape Breton Island during the late nineteenth and early twentieth centuries. Its presence caused much fear and agitation among the populace. Many parents chose to use their own home remedies and disregarded the physicians' call for medical treatment. Most home cures did little to alleviate the disease and many caused death. Diphtheria was an infectious disease that primarily affected young children. A false grey membrane coats the back of the throat and large bleeding ulcers eventually appear. It affects the air passages and causes difficulty in breathing. It could be found in the countryside as well as urban centres. Usually one person in a family contracted the disease and spread it throughout the entire family. Dr. A. S. Kendall in his 1922 annual report to the Cape Breton County makes note of the disease. Kendall noted that "every second young mother was mourning the loss of her children."⁴ Although there had been consecutive outbreaks from 1870-1895, Kendall made special reference to the 1879-80 outbreak. Also, he noted a case in 1887 when he attended a family in which all six children were affected, all died of diphtheria within six days.⁵ The disease had been present in Richmond county,

Inverness county and probably affected all of the island. Diphtheria was a regular visitor to Cape Breton homes between 1870-1895. It spread quickly and left a trail of death behind it. For example, the Catholic newspaper The Aurora for January 12, 1882 noted that in a 14 day period between January 1 and 12, there were 14 deaths due to this "dreadful scourge." The disease was such a regular visitor that it came to be expected. The Aurora stated:

Its persistent recurrence at stated intervals in certain communities is worthy of remark, and almost leads one to believe that its course and progress are governed by regular laws, which are apparently little affected by the climatic or sanitary conditions of the localities in which it thus takes its rise ... and the good people of that parish, (Arichat) who have been so sorely tried, are to be congratulated at having escaped at last -- let us hope for many years -- from the ravages of that fell destroyer.⁶

Yet Cape Breton was by no means free from the disease. Diphtheria raged in Port Hood and Margaree Forks between 1885 and 1897. Observing that the "dread diphtheria is again at work," one report noted that many are "prostrated with this terrible illness".⁷ The newspapers made note of the loss of many good people. When a 15 year old young man, the eldest child of the family died, the paper remarked that "he gave promise of being a clever man." The local citizens were perplexed to discover the origins of the disease or unaware of how to prevent it.⁸

With the introduction of anti-diphtheria serum in 1895, some doctors felt that they might finally be able to curtail the spread of diphtheria. The administration of diphtheria antitoxin

did have a beneficial effect, but many still succumbed. On April 27, 1895, Dr. Arthur S. Kendall and Dr. Alexander D. MacGillivray administered anti-diphtheria serum to 18 exposed and infected diphtheria patients.⁹ The introduction and administration of the serum was one thing, but the inability of doctors to properly diagnose the disease, the reluctance of parents to recognize the seriousness of the disease and the bickering between medical health officers, boards of health, and civic officials prolonged epidemics and caused diphtheria to be present in virtually every municipality and county from 1870 to 1930. When diphtheria presented itself in the early 1900's medical health officers could only remark in their annual reports to their respective councils that there were "several cases" or "few cases". The lack of precise figures of the disease's incidence reveals their inability to assess the seriousness of the disease. Apparently the town of Glace Bay was the only town in Cape Breton that took serious measures to prevent diphtheria. Dr. M. T. Sullivan, Medical Health Officer for Glace Bay noted in his annual report for 1903 that "as far as I know" Glace Bay is the only town that supplies antitoxin free of charge. In fact Glace Bay continued this practice until 1912 when the finance committee complained about the large expenses on public health and requested that people pay for their own antitoxin unless they were unable to do so.¹⁰

Diphtheria was hard to control. One year there might be a mild outbreak, the next year, a severe one. Doctors could

discover the location of the disease and reported this in their reports, but very few of them understood how the disease originated. Diphtheria was further complicated when it arrived at the same time as chicken pox, or measles epidemics. Some doctors felt that they had controlled the disease but that was not really the case. Indeed, Dr. Allister Calder noted as late as 1927 that the "subjection and control of today is no different from the hopeless impotence of medical practitioners of thirty years ago."¹¹ Diphtheria was like many different types of infectious diseases that struck Cape Breton.. It was permitted to leave a trail of death in its path. It gradually became obvious that a permanent regulated system was necessary to curtail the spread of infectious diseases. The development of any government plan in any field of endeavour has historically been characterized by conflict between those favouring the status quo and those wanting change to it. The long struggle to control the causes and spread of infectious disease in Cape Breton, and indeed throughout Nova Scotia, was no exception.

The infectious disease that created the most public concern and provided an impetus for civic authorities and health officials to act was smallpox. Smallpox was a disease that was always present in Cape Breton even after the coming of industrialization. It is a highly contagious and acute disease which is caused by a virus. It is usually characterized by a pustular eruption that often leaves permanent pits or sores. A look at the prevalence of the disease and the manner in which it was

controlled will show how boards of health dealt in an ad hoc fashion with disasters when they erupted. The frequent, sporadic outbreaks of smallpox were only handled when they arose, and no permanent initiatives were taken to halt the spread of the disease before the turn of the century. When smallpox hit in 1903-04, 1906-07, and again in 1911, however, Cape Breton was forced to take more drastic measures and to recognize that permanent changes were necessary.

The outbreak of smallpox in 1903-04 was a serious one. Sporadic smallpox cases had presented themselves as early as February 1903 but it was not until March of that year that it had affected enough people to cause real concern.¹² The area most affected was the North Sydney-Sydney Mines district. In these communities the smallpox scare reached such proportions that antagonism erupted between local physicians, town officials and townspeople. Concerns about the epidemic intensified when the Sydney Daily Post published sensational front-page stories about the epidemic in March and April of 1903. The outbreak originated when a young man from Halifax came to visit his stockbroker brother-in-law in North Sydney. Although his case was reportedly mild the house was quarantined. The Medical Health Officer from Sydney, Dr. D. K. MacIntyre came to consult with North Sydney doctors, circulars were distributed calling for a general vaccination, the Board of Health called a meeting, and schools were temporarily closed. The Board of Health, said the Sydney Daily Post on the 4th of March, had acted with "commendable promptitude

[and there was] not the slightest case for alarm"¹³ The local Boards of Health took steps to put an immediate stop to the epidemic. Mr. Martin, the unfortunate victim was removed to a small pox hospital built near the rear of Inter-Colonial Railway station at the foot of Ferris Hall - a rather remote area of North Sydney at the time - and "made as comfortable as possible" under the care of a nurse who acted as keeper and doctor.¹⁴ His brother-in-law was not as fortunate. His home was quarantined, his family barricaded and his business suffered from his absence. With these actions the local authorities and physicians felt that they had contained the disease and curtailed its spread. It was at the best of times virtually impossible to maintain a strict quarantine or to accomplish a general vaccination. The quarantine of a house meant that there was to be no communication or movement in or out of the house. The breadwinner could not go to work and paid guards stood outside to make sure all restrictions were observed. Quarantining was a humiliating experience for those afflicted. A yellow flag or placard was conspicuously displayed on the front of the house for all friends and neighbours to see. The names and addresses of all the afflicted were published in the local newspaper. The fumigation process left a path of destruction in its wake; it was disruptive and expensive. Suspected cases were told to bathe in a solution of carbolic or bichloride acid. The walls of the house were cleansed with sulphur and all the furniture was washed

with a solution of carbolic acid and water. All bedding and mattresses were burned.¹⁵

A conflict soon erupted involving the towns of North Sydney and Sydney Mines. A front page headline in the Sydney Daily Post of 26 March 1903 blared "Sydney Mines is Isolated -- Armed Sentinels on Her Frontier Boundaries Prevent Traffic and Communication with Outside World!" and revealed the source of the dispute. The Sydney Mines Board of Health had reacted to the outbreak of smallpox in North Sydney by placing an embargo on communication with its neighbouring citizens. North Sydney residents were not permitted to travel to Sydney Mines without presenting medical certificates. The Sydney Mines embargo may seem to be extreme. Yet, by this time they had their own smallpox in the town. On March 13, 1903 the town disallowed Arab peddlers from exhibiting any goods within the town. If they did not obey, they would have to pay a fine of \$100 or spend 30 days in jail; other towns followed suit. Glace Bay forbade any public assembly or meeting. Dealing with the epidemic caused many other problems. At this time, for example, the steel plant of the Nova Scotia Steel and Coal Corporation was under construction and 400 North Sydney men travelled daily on the train to get to work. The North Sydney stipendiary also travelled home everyday to Sydney Mines for lunch. Understandably there was "considerable annoyance" on the part of the citizens from both towns. Public annoyance grew with the statement by the Sydney Daily Post that Sydney Mines physicians regarded the embargo as unnecessary. So

heated was the controversy, that an intermediate party, Dr. Sinclair, the Provincial Board of Health Physician, was called in to settle the dispute.¹⁶

The smallpox outbreak made good copy. The Sydney Daily Post noted in vivid detail how "grizzly visaged sentries" patrolling the frontiers of the town stopped each person demanding that they present their "magic passes." It noted with some amusement the objects that people were forced to leave within the boundaries of North Sydney, anything from tea, oranges, and empty milk cans, to tombstones. Food was not permitted to pass the sentinels either. The paper made much of the probably false claim that Sydney Mines was so highly dependent upon North Sydney for its food, provisions, and supplies that it was in danger of starvation. It relished in reporting the cruelty of the sentinels, who forbade one man from attending his father's funeral in North Sydney. There were also charges that the sentinels had acted in a discriminatory fashion. Some delivery men were let in while others were not. Assuming the role as the ultimate authority on the quarantine issue, the Sydney Daily Post waited in anticipation for the next day's events when another example of the denial of individual freedom could be reported. Who knows, said the Sydney Daily Post

"Whether it will be considered the healthful breezes of the Atlantic will have sufficiently removed all taint of impurity from them by tomorrow morning remains to be seen."¹⁷

The newspaper reports created serious misconceptions on the part of the residents of Sydney Mines. The town council and Board of Health had to reassure them that there was no chance of starvation since food could enter by the I.C.R. The Sydney Mines town council stated that their citizens supported the quarantine instead of ridiculing the civic authorities as had the people of North Sydney. The Sydney Daily Post took no blame for this matter but assumed the self-designated role of defender of individual rights. It stated that Nova Scotia should assist Sydney Mines since "the smallpox scare was too serious a matter for mere jest."¹⁸ The town council's assertion that the Sydney Daily Post's previous reportings were coloured and inaccurate was rejected by the newspaper's editor. Controversy continued after the Sydney Mines embargo was raised, when North Sydney refused to issue return permits to Sydney Mines residents and allow them to buy "some fresh meat for their Sunday dinner."¹⁹

The Sydney Daily Post's willingness to criticize North Sydney's town officials because of the manner in which they handled the smallpox outbreak caused an outpouring of protest from Sydney Mines councillors and physicians. In an article entitled "Last Echoes of the Embargo -- Correspondence Received Relating to Alleged Misrepresentations of Facts in Connection with the Small-pox Scare," the Sydney Daily Post held its ground, refusing to retract statements claiming that Dr. Sinclair had accused Sydney Mines local authorities of taking "extreme measures." The newspaper argued that it was correct in principle

because Dr. Sinclair had accepted some part of the embargo but not all. Sinclair's opposition was greatly exaggerated. In addition, the Medical Health Officer of Sydney Mines, Dr. Bernard Francis was very annoyed about the paper's allegation that he was opposed to methods adopted by the Board of Health when in fact in most instances he was "heartily in favour of them." The Sydney Daily Post articles were thus "untruthful and misleading."

Francis had been concerned only that bogus medical certificates had been circulated. A prestigious Sydney Mines lawyer, A.H. Butts, also noted that Sydney Mines coal town merchants were upset over verbal attacks from North Sydney residents. He stated to the Sydney Daily Post that Sydney Mines was not dependent upon its neighbours for fresh meat. Because of the disruption, people who wanted to do business in the district had to by-pass North Sydney and go directly to Sydney Mines. In the face of these attacks the Sydney Daily Post printed an editorial entitled "Sydney Mines and Its Officials," which made an effort to diffuse the controversy by praising local authorities for taking every precaution. It also admitted that the town could live in isolation for weeks since the merchants were "progressive", always prepared, and up-to-date. The public, the editorial continued, should have confidence in its public officials because they had the best interests of their fellow-townsmen at heart. "There is no town in the Maritime Provinces so perfect in civic government, and so judicious and progressive in its administra-

tion."²⁰ The parochialism that lies just under the surface in all small towns erupted under the stress of the health crisis.

Even though the actions taken seemed extreme to some, they were not extreme enough to stop the spread of smallpox into Sydney Mines for on April 3, 1903, a case had been located at the shacks of the Sydney steel company. The dwelling was quickly quarantined. Approximately 30 men had been living in this place and the spreading of smallpox would be difficult to stop. Although the Board of Health tried to take every precaution, it could not control the situation completely.²¹

By June and July 1903, smallpox spread to the outskirts of Sydney Mines and to the Bras D'Or area. Dr. W. D. Currie, the Medical Health Officer for Sydney Mines told Dr. M. D. Morrison, the Medical Health Officer for the County of Cape Breton, that there was total apathy and indifference on the part of the people in rural areas. It was "very difficult to accomplish a general vaccination and almost impossible to maintain a strict quarantine throughout the district."²² To make matters worse the disease was difficult to diagnose because it usually appeared in a mild form and was often mistakenly diagnosed as chicken pox. When smallpox was diagnosed, the house was quarantined, fumigated, and hired guards were stationed outside houses. These special police officers, however, were often negligent in the discharging of their duties. They allowed people in infected houses and at times permitted alcohol on the premises.²³ The rural districts were especially difficult to control. County officials had to

oversee a great deal of territory. Furthermore, people were frequently travelling through rural areas where the disease was prevalent on their way to look for work in the urban centres. Because the work force was so mobile, smallpox was easily spread. In the midst of the 1903 summer outbreak, for example, 50 Newfoundlanders packed up and left Sydney Mines even though they probably had been exposed and in many cases would subsequently get the disease.²⁴

In the spring of 1904 the city of Sydney was hit by an outbreak of the disease, and the town's schools, the YMCA, and the churches were all closed in the first week of April.²⁵ The Sydney Daily Post published weekly reports outlining the progress of the disease and what was being done to curtail it. Sydney's town officials called for a mandatory general vaccination. Although many were not convinced that vaccination was necessary, most complied. Those who would not submit to vaccination were subject to prosecution. Physicians made house to house visits to ensure compliance with the law, and were able to vaccinate up to 1000 people per day. By May 6, 7000 residents had been vaccinated.²⁶

Towns were afraid of smallpox outbreaks because of disruption in daily routine of life. Schools, churches, theatres, businesses were closed and work stoppages were imposed by respective Boards of Health. The inability of town officials to enforce the quarantines and embargoes, led to frustration. Municipalities were also left with the huge cost which each town

was forced to settle after the disease had been quashed. Initially, towns would offer free vaccinations only to those who were too poor to pay. However, as in Glace Bay, the problem became so serious that the towns were compelled to assume the entire cost of vaccination if they wanted a clean town. The bill was often less than it might have been. Physicians usually offered their time au gratis and often administered antitoxin which they had purchased themselves. Many physicians chose not to submit bills for payment for services rendered, or presented bills that were far below actual cost of service. It was not an uncommon practice for doctors in Cape Breton.

The 1906-1907 smallpox outbreak was similar to that which erupted three years earlier in that it was accompanied by sensationalism in the press, and controversy among civic officials and physicians. In addition to those who contracted the disease, an unfortunate scapegoat in the person of Dr. John MacKenzie was singled out. MacKenzie had been hired jointly by all the towns within the island of Cape Breton. All councils were to pay a pro rata contribution for his salary of \$7.00/day. MacKenzie's job was to inspect all Cape Breton bound trains that crossed the Strait of Canso at Mulgrave.

The initial presence of this smallpox outbreak appeared in the early part of December 1906 in Springhill and Westville. With this case individual local boards of health scrambled to organize themselves so that they could meet the threat head-on.²⁷ They wanted to be ready to prevent the disease from entering Cape

Breton. On December 12, 1906 a meeting was held in Sydney, composed of health authorities of Cape Breton's incorporated towns, the provincial health officer, Dr. Alexander P. Reid, Cape Breton County Health Officer, Dr. M. D. Morrison and medical health officer for Sydney, Dr. D. K. MacIntyre. During the meeting the men expressed great fear that Nova Scotia might be taken over by the "loathsome and costly disease" and planned to take action and vigorous steps for the protection of the immediate area. The end result of the meeting was the appointment of Dr. John MacKenzie as Medical Health Officer at the Strait of Canso. Health officials feared the ease with which smallpox spread from infected areas and the financial burden that accompanied its spread. Indeed, as the number of smallpox cases grew, so did expenses. Pictou County, for example, was forced to foot a bill of \$8,000.00 for the care of 150 cases.²⁸

Dr. John MacKenzie was hired jointly by all Cape Breton Counties as a special health officer at the Strait of Canso, Mulgrave at \$7.00/day, and held this position from December 13, 1906 until February 16, 1907.²⁹ MacKenzie had initially agreed to work for \$5.00/day yet the Provincial Medical Officer Dr. Alexander Reid considered \$7.00/day a more reasonable wage due to "the responsibility and clerical labour involved."³⁰ MacKenzie's duties required that he stop and inspect all Cape Breton bound trains that had travelled via smallpox-infected areas. He was to arrange that the conductors of all passenger trains present him with the names of all the passengers travelling from these

areas.³¹ Initially, in December of 1906 Springhill and Westville were the only infected areas. Soon after, however, smallpox appeared in New Glasgow, Pictou, and Truro. This put added pressure upon MacKenzie because he now had to inspect virtually all passengers. It was not long before MacKenzie received a curt letter from his superior Dr. M. D. Morrison, who was concerned that MacKenzie's inspections were not rigorous enough. Morrison related how infected people had made their way into Cape Breton. He stressed that MacKenzie should inquire as to the final destination of the passengers and make sure that these passengers possessed medical certificates which stated either that they had been recently vaccinated or that they had not been exposed to the disease. Morrison also called for the isolation and quarantine of these people. Morrison also placed some of the blame for the spread of the disease on Dr. Reid, the Provincial Medical Health Officer. In his December 27, 1906 correspondence to MacKenzie, Morrison wrote: "Dr. Reid does not seem to have conveyed to you the full impact of the requirements arranged for at our meeting in Sydney." Morrison went on to say that MacKenzie should check both passenger and freight trains, especially ones originating in New Glasgow and the surrounding area.³² MacKenzie responded by noting the great difficulty he faced in the implementation of his duties and he refused to accept allegations of neglect on his part.³³ Because railway officials misunderstood the initial directive from the Intercolonial Railway Superintendent, G.A. Campbell, MacKenzie noted they did not perform their duty and

would not furnish the names of the passengers.³⁴ Morrison then prodded Reid to take action. He asked Reid to bring pressure upon the I.C.R. to compel the conductors to report the names of potential smallpox carriers.³⁵

On January 3, 1907 the Sydney Mines Town Council held an "indignation meeting."³⁶ The Sydney Daily Post made much of the town council's criticism of Dr. MacKenzie and implied that he was paid \$7.00/day for his carelessness and negligence. The paper seemed indecisive in its stand. It was not clear who was to blame after it laid out the fact that the people were not obeying MacKenzie at the Strait. As well, New Glasgow authorities were trying to conceal the fact that the disease had taken on epidemic proportions in the area.³⁷

Sydney Mines and North Sydney authorities had chosen to work together during this smallpox outbreak. Both agreed that the services at the Strait were useless. They rallied together to oppose the towns' contribution to MacKenzie's salary when infected persons managed to get into Cape Breton. The town of Glace Bay reacted by enforcing mandatory vaccination and Louisbourg and Sydney held special meetings to show their concern.³⁸

Another meeting was held in Sydney where a "considerable objection was taken to the validity of the authority conferred to Dr. MacKenzie."³⁹ Reid agreed with Morrison that MacKenzie had been "unjustly accused of dereliction." Morrison and Reid had to present MacKenzie's case to G.A. Campbell who gave MacKenzie the

authority to inspect the trains and take off people who held tickets from smallpox infected areas.⁴⁰ The problem lay in two circumstances; one was MacKenzie's uncertainty as to the degree of the power conferred upon him at Mulgrave. There also was deceptiveness on the part of passengers to deal with. It was necessary for Reid to issue new instructions and to give them the force of the law. As Morrison reported to Reid, "... people are clamouring about the inadequacy of our methods ... we are liable to legal proceedings ... we had better stop short and do nothing further." Morrison was referring to an article which appeared in the New Glasgow Eastern Chronicle which reflected the popular opinion that MacKenzie had no authority to prevent people from crossing the Strait. Reid could not legally satisfy Morrison's request as the government did not have the power to prevent any healthy man from travelling. If they did so, it would render them liable to a civil action. The local boards of health had jurisdiction only within their own districts. The boards did not have the legal authority to block travel. However the newspaper's statements were misleading and did nothing more than add fuel to the fire. Undoubtedly this upset MacKenzie who felt it necessary to make an example of one or two of the tricksters.⁴¹

Commercial travellers and some passengers were very obstinate and would not submit to medical inspections. Many would purchase train tickets to an outlying railway station in the country, would depart there and purchase a second ticket to

Cape Breton. This would give the appearance that they had originated in a noncontagious area.⁴²

The criticism of the New Glasgow newspaper continued and perhaps influenced the public into taking action against MacKenzie, and those local authorities who had been involved in "fighting a clerk phantom"⁴³ Towns in industrial Cape Breton were also upset. Various town residents laid a formal complaint with the municipality of Cape Breton County and argued against paying Dr. MacKenzie's salary which had accumulated over time into a formidable sum.⁴⁴ By 16 February 1907, it seemed to the local boards of health and physicians that smallpox had been controlled and that they could now dispense with the services of MacKenzie. His colleagues backed him to the end and believed that he had performed his duties faithfully and had been a great service to the Cape Breton county.⁴⁵ However, smallpox outbreaks continued sporadically well into April, May, and June as people continued to travel to Cape Breton from New Glasgow.⁴⁶ The disposal of MacKenzie's services proved to be premature in the end. MacKenzie's firing reveals how local boards of health and the medical health officers met constant opposition in the performance of duties and that they should fear the power of the press. Here also, as in earlier outbreaks, we witness the difficulties faced by the medical profession, from within and without, to implement a standard policy of health control. This was a fact of life which doctors everywhere had to contend with in their efforts to educate public opinion.

The disease which undoubtedly caused the largest number of deaths in Cape Breton was tuberculosis. In 1901 seventy fatalities were recorded for the island and in 1912 Sydney alone had forty-three deaths caused by the disease.⁴⁷ The disease is usually a slow and progressive one. The most common form, which is pulmonary tuberculosis, develops inconspicuously. The typical first symptoms are a slight fever, loss of appetite, weight loss, sweating at night, a persistent cough with a production of sputum, and sometimes blood. The disease begins with a slight cough and a general feeling of malaise. The affected person becomes emaciated which progressively makes him weaker. Tuberculosis can also spread to the kidneys, spine, to joints, the reproductive organs, and to virtually every part of the body. The disease is spread when the tubercula bacilli which can be found in the saliva of an infected person is passed on through inhalation of dried sputum from dust or in the air.⁴⁸

Doctors of the time believed that tuberculosis could be ameliorated if they could overcome the ignorance and the fear of the disease among the populace.⁴⁹ There were some medical procedures available in sanatoriums such as artificial pneumothorax and phrenicotomy but these were reserved only for the well-to-do.⁵⁰ The disease remained primarily a disease of the poor who usually lived in an overcrowded and dirty urban environment. The affected were undernourished and ignorant of such matters as personal hygiene.⁵¹ Many would not seek medical treatment due to a lack of education about the disease, poverty,

or the threat of an imposed quarantine of their houses. If a doctor did get a chance to treat the afflicted he would recommend fresh air, exercise, rest, and ingestion of fatty foods.⁵²

These people were usually too poor to travel to the provincial sanatorium at Kentville for treatment. Cape Breton doctors saw the only hope in the construction of several small sanatoriums on the island. But as was later to be learned from the experience of the provincial sanatoriums, isolation was not the key to quashing tuberculosis.

The public indifference toward tuberculosis during the late nineteenth and early twentieth century was characteristic of Cape Breton's attitude toward every infectious disease that made its way onto the island. Indifference affected the local boards of health, municipal governments, and the public at large. Gradually, however, there were strides taken to confront the disease, revealing a more active and enduring commitment to public health.

At the turn of the twentieth century the "Great Scourge" had made itself known in Cape Breton County. By 1908 tuberculosis was the principal disease causing death. The easy spread of the disease was not the only cause for concern. Dr. Fred Haszard, the Medical Health Officer for Cape Breton County noted:

There have probably been more deaths from tuberculosis in the past year than from all other infectious diseases put together and I think that the time has arrived when active measures should be taken for the prevention and proper treatment of this disease. To say a person has consumption is to condemn him to an early death. We know now that a great many cases of tuberculosis if treated early are curable. The great

difficulty in many cases is the inability on the part of patients or their families to incur the expense necessary to send the patient to a proper sanatorium or even to a proper climate for treatment.⁵³

Dr. Haszard's opinion was characteristic of other Cape Breton physicians. They were well aware of the apathy expressed toward this disease. Dr. M. T. Sullivan, Medical Health Officer of Glace Bay noted that tuberculosis had claimed more lives than practically all other diseases combined.⁵⁴ His successor, Dr. E. O. MacDonald reiterated the comment. The doctors seemed to be very frustrated to try to get action from the public or the municipal and provincial governments. Dr. MacDonald called for a united effort on the part of all three above mentioned parties. It was their duty to "become acquainted with the plain simple facts as to cause and prevention .. and to limit the spread of this disease."⁵⁵ The physicians waited in hope of action. What they really wanted was the establishment of a tuberculosis sanatorium in Cape Breton with free admission.⁵⁶ "Selected cases" or probably those too poor or too far advanced in their disease to travel to the Kentville Sanatorium would be admitted.⁵⁷ The push for a local Cape Breton Sanatorium was a reasonable one. Dr. E. O. MacDonald, Medical Health Officer for Glace Bay, noted in his annual report for 1910 that the public was becoming rather cruel in its attitudes toward tubercular patients. Where previously it was apathetic, it now expressed contempt for tubercular patients. Because the public was

misinformed and believed that the disease could be contracted directly from continual association with these patients,

now they exercise extreme care, inflicting unnecessary hardships on patients ... they have an insane desire to get rid of the patient's presence, if a boarder to get him out of the house. But few people take any interest in this matter until disease strikes their own home. If indifference did not enter so largely into the make-up of the ordinary individual there would be to-day an institution where the friendless tubercular patients could receive the care and treatment their condition entitles them to receive.⁵⁸

Dr. J.A. MacIvor, the Medical Health Officer for Victoria County was especially concerned about the "old and careless" tubercular patients in his rural district. They had no one to care for them because their children had moved to the urban centres in search of work. It was this class who especially needed treatment in a local sanatorium.⁵⁹ The movement to have a Cape Breton tuberculosis sanatorium began in 1911 and was resurrected again after World War One. The plan was for the municipality of the County of Cape Breton to build a sanatorium with the pro rata financial aid of the incorporated towns within the country. In his 1912 annual address to the Cape Breton County Council Warden C. Levatte described the apathy, indifference, and frustration he encountered when he pushed for the establishment of the local tuberculosis sanatorium.

It is deplorable that in a Christian country, where people are not so very poor that nothing should be done to, at least, take care of the people affected, who cannot afford proper treatment. I am aware that some of my opponents have used canvasses during council elections, and at other times that I am extravagant [sic] and want to overburden the taxpayers, particularly in connection with our unfortunate insane and poor. Of these people want to put me out of public life for any action of

mine in making God's unfortunate more comfortable than they have hitherto been, well and good. I am perfectly satisfied. I am preparing to go further and advocate the immediate steps be taken toward the supervision of tuberculosis or consumption in this country. If the other municipal corporations will not join us we can do something ourselves.⁶⁰

By 1928 both bovine tuberculosis and consumption of the lungs were very widespread, the former among younger children and the latter among the middle-aged and elderly. Dr. A. S. Kendall, Medical Health Officer for Cape Breton County also saw the amelioration of the tuberculosis problem in the establishment of a sanatorium in Cape Breton County. There was great apathy on the part of various municipalities and local authorities which prevented its building. The notion had been first raised in 1911 without any concrete results. Kendall could not understand (as others could not as well) why there was so much hesitation. As he stated, the building of the institution was not an experiment. Sanatoriums had been built in France, Germany, and Britain as far back as 1903 and in Nova Scotia by 1904. The revived efforts since 1921 to have a local sanatorium established were encouraging. The situation was almost critical and the required money would not be lost.⁶¹

With the establishment of a local sanatorium a seemingly distant prospect, the local boards of health, physicians and medical health officers tried to do what they could. As early as 1902 Sydney had drafted a by-law to prevent spitting on the tramcars and teachers tried to prevent the same within classrooms.

Notices were placed in the classrooms which forbade spitting.⁶³ Outside the classroom the distribution of educational pamphlets and lectures helped to focus attention on disease prevention. Dr. F. W. Green, Medical Health Officer for Glace Bay recommended in 1914 distribution of literature at regular intervals so that prevention and dangers could be known. He also proposed that lectures be given in the schools, and that there be medical inspection of schools in order to separate tubercular children from healthy children. He encouraged that laws against public spitting be enforced and that everybody should encourage and support the Anti-TB leagues. Probably the most important recommendation was the prevention of the sale of milk that had been drawn from tubercular cows.⁶⁴

Of the many books which outlined tuberculosis, one of the earliest was that provided through the Extension Department of Saint Francis Xavier University entitled, "Consumption, the Cause, Prevention and Cure" edited by George H. Cox and published in 1912. Forty-two thousand copies were distributed to the homes and schools in Cape Breton by the Tri-county League (Guysborough, Pictou and Antigonish), the Cape Breton Leagues, the Victorian Order of Nurses and the St. Anthony's Aid in Sydney. The books were well distributed and the medical health officers called for its placement in every home and suggested that it be compulsory reading in the schools.⁶⁵

The root of the tuberculosis problem lay not only in apathetic attitudes but also in poverty, malnutrition, and poor

housing. The amount of infected milk that managed to find its way onto Cape Breton tables was large. By 1911 Glace Bay dairies were not inspected nor milk men licensed. Complaints of tainted milk grew.⁶⁶

By 1920 tuberculosis of the lungs accelerated in the urban areas, especially the colliery towns, and decreased dramatically in the rural areas.⁶⁷ Consumption of the lung was less prevalent than it had been at the turn of the century in Cape Breton County but it still killed many elderly people who contracted it in early life. The disease had been subdued somewhat, but not amongst the aged whose resistance had broken down. There was a decrease in the mortality rate of the young and middle aged from consumption of the lung. This was due to better education, an improvement in diet, better housing conditions, and improved ventilation.⁶⁸

Urban children sometimes contracted bovine tuberculosis which usually presented itself in glandular infections. This was due to tubercular milk found "all too frequently" and to "prolonged semi-starvation" suffered by children especially when the mines were not in operation. The treatment prescribed for bovine tuberculosis was a proper diet consisting of milk, cod liver oil, oatmeal, cornmeal, sugar, apples, raw vegetables, and rest, sunshine, fresh air and proper clothing. This assumed, of course, that one had the money to buy what was needed.⁶⁹

One of the most important steps taken in the attempt to ameliorate tuberculosis in Cape Breton County and to help to

create a regulated and efficient public health system was the establishment of travelling chest and throat clinics after the First World War. The clinics fell under the direction of Dr. P. C. Campbell of the Provincial Health Department who was assisted by a public health nurse, Miss Flora Kerr. They travelled around the farming and fishing communities of Cape Breton County. Clinics for municipal charges were held at the local town hospitals. Most people could not afford to send their children to the Provincial Sanatorium at Kentville. In 1926 alone there were 196 home visits in Cape Breton County.⁷⁰ By 1928, 154 tubercular patients had been visited in their homes and 6 TB clinics had been held. The decrease can be attributed to the fact that more people began to use the clinics in the towns while others managed to get to Kentville for treatment. Yet many believed that tuberculosis was still on the increase because it was often still being discovered in its early stages.⁷¹ By 1929 Kerr reported that there were only 90 home visits and fewer clinics supervised by Dr. Campbell.⁷² The following year even fewer were treated and examined at the clinics. More cod liver oil was supplied and sealed sputum cups were distributed free of charge to those who were affected.⁷³ By 1931, Kerr's report made no reference to tuberculosis, suggesting that she felt that the problem had been solved.⁷⁴ This was probably not the case. More rural people were probably making use of the municipal sanatoriums or annexes connected to local hospitals. In the end the sanatorium did not prove to be the answer to the treatment of tuberculosis. Many

patients arrived at sanatoriums when their cases were mostly too advanced to benefit from treatment. Fundamental underlying changes such as raising the standard of living and increasing the awareness of the disease were absolutely necessary first.

As local authorities were repeatedly forced to combat various outbreaks of infectious disease, such as diphtheria, smallpox, and tuberculosis it became increasingly evident that a permanent public health system was vital to the efficient operation of towns and county municipalities. Because there was no permanent regulated system in place, civic administrators gradually learned just how costly and disruptive an outbreak of infectious disease could be. Perhaps the greatest drawback to an earlier control of infectious disease was the lack of health education on the part of the public. As the medical profession came to realize, during this period, people had to be made aware of preventive measures to a much greater degree than ever before. It is a lesson which has no ending and it is of equal importance today. It is fair to state that health education was given some impetus through the actions of physicians during this period on Cape Breton Island.

The next chapter follows the gradual development of an effective public health system as municipal authorities came to see the prevention of disease as a boom to social efficiency.

Chapter II

The Development of an Effective Public Health System

Prior to 1900 the organization of local boards of health was haphazard and inconsistent throughout the entire island of Cape Breton. Gradually, however, a regulated and effectively run public health system emerged in Cape Breton. In general, expenditures on public health were viewed by local town councils as a necessary evil in time of epidemic disease and not as the individual responsibility of the municipal unit. By the turn of the century some counties and municipalities had extensive and efficient public health organizations. Elsewhere they were practically non-existent. Some municipalities placed physicians on their boards. Others revealed extensive political patronage and nepotism. By the last decade of the nineteenth century a rudimentary public health system with organized local boards of health began to take shape. In 1896, for example, Cape Breton County was comprised of 25 districts, each with its own board of health. Those appointed to these boards (other than incorporated towns) had a specific area under their jurisdiction and reported to county administrators. Nevertheless, at this time to learn that only one district out of twenty-five had a health officer (sanitary inspector) and only two had appointed educational health officers, is very shocking indeed. At the same time, only one of these three appointments was held by a physician.¹

A similar situation occurred in Victoria County, where in 1899 only four medical doctors held appointments to the Board of health.² It is also instructive to note that Dr. John Lemmel Bethune of Baddeck, a leading advocate of a modern public health system, held the position of Warden in Victoria County.

A great improvement in the system came in 1900 with the introduction of the Public Health Act of that year. This made it mandatory that municipalities and counties appoint a medical health officer. By 1902, Sydney's local board of health consisted of a medical health officer, a sanitary inspector and plumbing inspector. One person performed these jobs and a few labourers performed miscellaneous cleaning and scavenging jobs.³ The first formalized board of health in Sydney Mines was established in 1903 during that year's smallpox epidemic. The Board consisted of the mayor, three councillors and a medical health officer.⁴ The town of Glace Bay, possibly because it faced the most unsanitary conditions, had three physicians appointed to its board in 1904, and by the following year, all resident doctors were required to constitute the board along with the town councillors.⁵ By 1907, Glace Bay had a subcommittee of the board of health, a Sanitation Committee which was comprised of five members of the town council.⁶ The town of Dominion's board of health in 1906 consisted of the mayor, who was a physician, and four councillors. This same group of men comprised the Sanitation Committee for the town with the mayor acting as chairman.⁷

Prior to the emergence of these local boards of health, which not only grew out of the need to curtail the spread of infectious disease but also out of a new progressive reform spirit that emphasized the efficient management of urban life, there had been officers responsible for health matters in the towns. For some time, for example, there had been concern in the colliery towns about residents who raised their own geese, hogs, and cows within the town limits. In 1891 in Sydney Mines, therefore, four hog-reeves were been appointed. These had been salaried town employees whose job it was to post notices stating that owners of pigs or geese (and hogs) must keep their animals from going onto the streets, or suffer the penalty.⁸ All horses, cattle, or hogs, found at large between the hours of 7 p.m. and 7 a.m. would be dealt with according to the by-laws of the town. In Sydney Mines this meant a fine of \$1.00/cow impounded.⁹ By 1894, the hog-reeves were known as cattle-reeves, and up to five could be appointed for one year. This gives a clear indication of the extent of the problem.¹⁰ Gradually the by-laws were more strictly enforced and a pound on the outskirts of town was constructed.¹¹

In Sydney, the cattle-reeves obtained \$.50 per cow found roaming at large and \$.10 per cow that was impounded.¹² Straying cattle seems to have been a continuing problem in Sydney Mines and cattle-reeves were heavily penalized if they failed to perform their duties. In one case, a Sydney Mines cattle-reeve had \$4.00 deducted from his pay cheque for failure to collect

finer and was reminded of his responsibility to do so.¹³ It was important for the cattle-reeve to perform these duties since the town usually was forced to compensate property holders when damage resulted, as in the case of a Sydney Mines farmer who submitted a bill to the town for damages resulting from a dog in his fields.¹⁴ Similar complaints were expressed by Sydney residents who stated that cows were permitted to graze on Great George Street. They demanded that steps be taken to stop such infringements upon their private and public rights.¹⁵

By 1902 the duties of the cattle-reeves became more clearly defined. During this year they were given designated areas of the town to patrol rather than detaining cows anywhere within the town limits. It is no coincidence that the areas controlled by the cattle-reeves were the rows of houses where miners lived and often kept cows for milk. At first the cattle problem was considered more serious in the winter months than in summer. By 1903 Sydney Mines decided that it was equally as important that cattle and hogs not be permitted to roam during the summer months. After May 4, those animals found at large would be impounded; after May 15th owners would be severely dealt with according to the law.¹⁶ The position of cattle reeve was thus a vital one to the town, especially when it tried to enforce its sanitary by-laws and public health act. A cattle-reeve was not permitted to resign his position unless a successor was immediately there to replace him.

If the problem of cattle-roaming was a serious one and the appointment of a cattle-reeve a necessary antidote to unsanitary conditions,¹⁷ dogs were also a health hazard. By 1904 the Sydney Mines' pound keeper or "cattle pounder" also held the position of dog tax collector and "dog pounder". He impounded all animals that were found roaming at large and was paid \$1.00 for every dog that had to be shot.¹⁸ Prior to this, police officers performed similar duties, making sure that all dogs were registered and money paid.¹⁹

Another area of concern was that of food inspection. As early as 1898, Sydney had an inspector of meats destined to be sold at market. Inspections were completed by the health warden or health officer (a physician) of the town.²⁰ In Sydney Mines the sanitary officer was authorized to dispose of adulterated meat.²¹ It was not until much later, however, that most towns formalized food inspection by-laws into town by-laws.

By the turn of the twentieth century physicians were also becoming concerned about the quality of milk distributed in Cape Breton towns because typhoid fever and tuberculosis were easily spread by contaminated milk. In his 1903 annual report, Dr. M. T. Sullivan, the medical health officer for Glace Bay suggested that it was time that a law was put into effect that provided for milk inspection. He suggested that the town's police officers should be empowered to collect milk samples at regular intervals and have them analyzed.²² The following year, Dr. Sullivan made

the same recommendation, and noted that Sydney was moving to introduce a milk inspection system.²³

It was not until April of 1905 that the Glace Bay council addressed this matter, and subsequently appointed Dr. Jakeman a veterenarian as Food Inspector for the town of Glace Bay with a salary of \$250/year.²⁴ The position was to be reviewed annually. Jakeman's duties included inspecting all stores selling meats and all meats offered for sale, and examining and testing all milk offered for sale. He was to file a summary of his monthly findings every three months or immediately if he detected fraud. By 1908 Dr. Jakeman was appointed Milk and Meat Inspector, a new title which more accurately described his duties. It was suggested by the town council in 1908 that the Chief of Police take over the position of Food Inspector in hopes of saving the town money.²⁵

Although a milk and meat inspector was appointed for Glace Bay, the position was not a permanent one and problems with milk continued. In 1911 Glace Bay's Medical Health Officer, Dr. W. L. MacLean, called for the mandatory inspection of local dairies and the licensing of milk men.²⁶ Still no changes were made. Although Dr. MacLean considered the local dairies very good, public complaints about the milk supply were daily occurrences.²⁷ In 1913 he suggested that money left over in the Board of Health budget should be used for milk inspection.²⁸ His successor, Dr. F. W. Green again complained about the milk supply in 1914, especially since milk from tubercular cows made its way onto

local dinner tables.²⁹ It was not until 1916 that a salaried milk inspector was appointed, when Dr. Dan MacNeil was given the position.³⁰ Between 1916 and 1923 there seems to have been an improvement in the town's milk supply. The medical health officer's reports make no reference to problems during that time. In 1923, however, Glace Bay experienced 967 cases of typhoid fever with six deaths. The disease was traced to a dairy farmer in East Bay who was a carrier and who sent his milk to the White Dairy in Glace Bay. He had also sent his milk to a plant in Sydney which manufactured ice-cream. The typhoid scare once again raised questions about the purity of the local milk supply. Dr. Chisholm, the Assistant Provincial Health Officer at the time, visited Glace Bay to inspect various milk premises. He was appalled to see the unsanitary conditions of these premises, remarking that he would not feed his pigs on some of the milk if he had to eat the pork. Chisholm's findings strengthened the medical health officer's demand for pasteurization of all milk sold in Glace Bay.³¹

Physicians continued to express concern about the high infant mortality rate, which they attributed both to poor sanitary conditions and the absence of pasteurization. Dr. M. T. Sullivan, the Medical Health Officer for Glace Bay in 1924, noted that the problem lay in the fact that there were such long delays between the time of milking the cows and the time of drinking the milk. Farmers were negligent -- often they did not bother to sterilize vessels -- and allowed unsanitary conditions on farms

which spread disease. The real solution was pasteurization of milk.³²

1927 witnessed a severe outbreak of cholera infantum and an elevated infant mortality rate. Dr. Allister Calder, Medical Health Officer for Glace Bay, blamed both the producer and the consumer for carelessly handling the milk. He recommended the revision of the town's by-laws regarding the handling and sale of milk, the stringent enforcement of these laws, and the immediate appointment of a competent milk inspector. He called for new requirements involving the sterilization and cooling of milk.³³ The following year saw the appointment of F. Aiktens Smith as milk inspector and sanitary inspector. Smith sampled and tested milk twice a month for sediment, fat, water and solids and if he suspected milk was contaminated, he tested for bacteria. When he found a high bacteria count, the producer's permit was revoked. Although he did see an improvement in cleanliness, uniformity and quality, he believed that this was not enough.³⁴ What was needed, Smith argued, was a "dependable and qualified party" who would be interested in building a proper and modern milk plant.³⁵

By 1929 there was a noticeable improvement, The Medical Health Officer, Dr. Calder, praised the "work of inestimable value" of the milk inspector.³⁶ Much better attention was now given to handling, storage, cooling and sterilizing of bottles. Even more important was the introduction of pasteurized milk. By 1929 approximately 50% of the milk sold within the town limits was pasteurized. With pasteurization there was a drastic decline

in the amount of bacteria in the milk. In 1928 the highest incidence of bacteria in sampled milk was 4,000,000 bacteria per c.c.; in 1929 it was 1,000,000 bacteria per c.c. The lowest reading in 1929 was 12,000 per c.c. with an overall average of 120,000 per c.c.³⁷

With the introduction of the provincial Public Health Act of 1888, the idea of sanitary inspection had been given legal force. The position for sanitary inspector, however, was temporary rather than permanent. The act stated that the town or municipality "shall from time to time appoint sanitary inspectors." In addition the town or municipality had the power "to designate the limits within which each inspector shall act." The province did not set a designated salary for the office but guaranteed that "each inspector shall receive such reasonable compensation for his services" decided upon by the local authorities.³⁸

Technically a town or county council could hire any person it wanted for any length of time, could set the duties according to its whims, and pay the officer whatever salary it wished. The authority of the sanitary inspector was clearly defined. The sanitary officer was subject to the authority of the new office of medical health officer and prior to this the local board of health.³⁹ They were also responsible to the commissioners of street or overseers of highways, or those who were in charge of public streets, sewers, and drains. They were to inspect and control streets, passages, docks, wells, water supply systems,

markets and market places, privies, water closets, sewers and generally remove or destroy all nuisances and filth which proved dangerous to the public health. They were given the power to enter premises where noxious substances were reasonably suspected to exist and by order of writing, have any house, building, place, vessel, or boat fumigated and have anything dangerous to the public health removed.⁴⁰ A failure to perform duties would result in a \$20.00 forfeit. The position of Inspector was to be held for one year only and no sanitary inspector was bound to serve more than once in four years.⁴¹

The first indication of an incorporated town in Cape Breton employing a sanitary inspector occurred in Sydney Mines in 1889. In this year the town employed three, one of whom was a prominent physician and town councillor.⁴² Dr. Lewis W. Johnstone held this position until 1893 when the police officer took over the duties of sanitary inspector.⁴³ In May of 1891, the duties of the sanitary inspector became more clearly defined as each of the three officers were assigned their own areas of town for inspection. Each man was given two areas of the town under his jurisdiction. Dr. Lewis W. Johnstone, a 29 year old alumnus of Bellevue Hospital Medical College and son of a prominent Sydney Mines physician, was given control over Main Rows and Bar Road (the highway between neighbouring towns of Sydney Mines and North Sydney); Alexander Baye Johnstone was given the Dominion Coal Company Houses, New Houses and Bog Row; and James MacKinnon shared the New Houses and Lazytown.⁴⁴

In 1894 the duties of the sanitary inspectors were handed over to the two police officers, who were soon complaining about serving the Main Rows because of the opposition they faced from residents when trying to enforce the public health act. By 1897, however, they were serving Lazytown, the Main Rows, and the eastern section of the town. The following year a police officer and Dr. Johnstone were appointed the town's sanitary officers, an indication that a physician's expert knowledge was becoming seen as necessary to curtail infectious disease and ameliorate unsanitary conditions in the colliery districts. Louisbourg in 1896 also had a physician as sanitary inspector, in the person of Dr. C. D. Baumaby. The following year with the election of Dr. Johnstone as mayor of Sydney Mines, the police officers were once again appointed as sanitary inspectors. This practice continued until 1902, when the officers were caught drunk on the job and were threatened with dismissal.⁴⁵

It appears that some polling districts of Cape Breton County shared a sanitary inspector with their nearest neighbour (even though there was an established local board of health for the district). For example, in 1901 Main-a-Dieu had a three person board membership but yet no sanitary inspector. It seems the town of Louisbourg shared its one sanitary inspector with its nearest neighbour. Trout Brook shared Marion Bridge's sanitary inspector.⁴⁶ The number of sanitary inspectors does not seem to have depended upon how many members constituted the board but whether enough work was available to keep a sanitary inspector

busy. Another factor was the amount of money the Board of Health would pay a sanitary inspector. Usually, with a board of five members only one sanitary inspector was hired. But there were exceptions to the rule. For example, the fishing village of Gabarus had a board of seventeen members and only one sanitary inspector, while the colliery village of Old Bridgeport with seventeen members maintained seven sanitary inspectors. In 1894 Sydney employed two sanitary inspectors at \$10.00 per month.⁴⁷ It appears that they were employed to take care of unsanitary conditions in only the most unsanitary areas of town. In 1895 Sydney's sanitary inspectors worked only in Wards 2 and 3 of the town. By June of that year, however, one was employed for Ward 1.⁴⁸

There was a high turnover rate in the position of inspector, even though a sanitary inspector could hold the position for more than one year. The reason for this was the heavy workload. In 1900 the inspector's duties were doubled as the position of sanitary inspector was joined with that of Superintendent of Streets. In 1906 the position was extended to include food inspection. It was the inspector's duty to inspect all meat, fish, poultry, or other natural products offered for sale. He had authority to enter carts and carriages to inspect, and if need be seize, and destroy, adulterated food. Again, more work was added to an already demanding job. When Alan Curry was given this position in March of 1900 at \$30.00 per month, the local authorities did not anticipate that he would resign less than

two-and-one-half months later. It was just too much work for one man. Nor should it be surprising that the Council found the work of Curry's successor unsatisfactory. The newly appointed sanitary inspector, Henry Durney was hired for one month at a time at \$50.00 per month. By 1902 the sanitary inspector was hired for 10 months at \$35.00 per month and an assistant sanitary inspector at \$10.00 per month. He performed the necessary cleaning and scouring in the town. By 1903 the initial sanitary inspector, Alan Curry, (hired in 1900) held the office as a full-time, twelve month position at \$40.00/month and with an assistant at \$10.00/month.⁴⁹

The work performed by the sanitary inspector in Sydney was considerable. In 1911 an inspector removed 7,277 loads of garbage, 439 loads of night soil, cleaned 39 cesspools, buried 69 carcasses of various animals including horses, dogs and cats, and wrote 81 letters to people to order them to clean up their premises. The following year demanded even more work. The inspector wrote fewer letters but removed more loads of garbage and buried more animal carcasses.⁵⁰ Undoubtedly, most of this work was performed in the spring and summer months after the snow had melted and the ground had thawed. By 1917 a permanent assistant still had not been hired. Sydney's Medical Health Officer, Dr. J. Fraser McAulay recommended that an assistant be hired at least for the busy spring and summer months and called for a more effective and energetic inspection of houses and their premises.⁵¹ Although it may have appeared to Council that the

sanitary inspector was ineffective in the performance of his job, such was not the case. There was simply too much work for one person with only sporadic aid from an assistant. Inspectors also suffered from the inability of the Board of Health to allot money to hire a full-time assistant and labourers. They also faced continuing public apathy and blatant disrespect for the public health act.

It was this public indifference that drove medical doctors to enlist the support of the police in sanitary matters. When the town council of Glace Bay met in April of 1901 to consider the appointment of a sanitary inspector it believed that the best man for the job, a 28 year old recent graduate of Trinity College, was the Medical Health Officer, Dr. E. O. MacDonald.

In accepting the job, Dr. MacDonald recommended that police officers be appointed sanitary inspectors. They would act with him in the discharge of his duties as had the police in Sydney Mines as early as 1894. MacDonald felt that he needed to have the strong arm of the police to force people to clean up their properties. In June the police began to accompany MacDonald on inspection tours. Two weeks or so later the police officers were appointed sanitary inspectors for the year, a practice that continued for another two years.⁵²

It was not until 1904 that a permanent sanitary inspector was hired by the town at \$300.00 per year. But the burdensome workload continued to cause problems. The Medical Health Officer, Dr. M. T. Sullivan, was not satisfied with the services

of the sanitary inspector and subsequently forced his resignation.⁵³ In his annual report to the Mayor and Town Council Sullivan suggested that the town needed a sanitary inspector equipped with a team of horses and who would be one prepared to do scavenging work himself.⁵⁴ Most sanitary inspectors were unwilling to clean premises or privies for such a limited remuneration. By 1905 the Sanitation Committee, a sub-committee of the Board of Health, recommended that police officers be reinstated as sanitary inspectors and that tenders be called for "town scavengers" for different sections of the town, but the medical health officer opposed this recommendation since the officers on duty at night could not attend to sanitary matters.⁵⁵ It was finally decided that the sanitary inspector should be engaged on a monthly basis. Eventually four men (each with their own designated area of town) were hired at \$50.00 for a term not exceeding 2 1/2 months, providing that their services proved satisfactory to the medical health officer and town.⁵⁶ There was sufficient work to hire the men beyond the prescribed time. However, the work was largely seasonal. One sanitary inspector requested and was granted a leave of absence in December because no benefit could be obtained from the position during the winter months. This became common practice. The services of all sanitary inspectors were dispensed with from approximately the middle of December until the spring. Often these men obtained employment in the mines during the winter months.⁵⁷

When the town council met in the spring of 1908 to discuss the role of the sanitary inspector, the Sanitary Committee raised some interesting recommendations. The previous year only one man had been hired as sanitary inspector but the job proved too much for him. The Committee suggested that both of the newly appointed men should wear badges or some other form of identification and report every two weeks to the Sanitation Committee. This was important because it indicated that the town clearly recognized the need to enhance the authority of the inspectors in order to gain respect from the public. That year also saw the duties of sanitary inspectors expanded to include keeping the pound. They were paid half the fees that were collected. Although the work load was tremendous the role of the sanitary inspector became more clearly defined over time and the system of reporting unsanitary conditions became more effective.⁵⁸

Gloucester Bay's Medical Health Officer in 1910, Dr. E. O. MacDonald, advocated the hiring of only one permanent sanitary officer in order that he be sufficiently paid so that he could devote all his time to the position.⁵⁹ The recommendation was eventually adopted but there were still those, especially his successor, Dr. F. W. Green, who felt that the sanitary inspector should be a member of the police department.⁶⁰ Green was very agreeable with the outcome. He believed the man to be capable, energetic and recommended to the Town Council that they reappoint the sanitary inspector for the following year.⁶¹ But as time

went on there were sanitary inspectors who were considered to be effective and those who were totally useless. The Medical Health Officers did not hesitate to comment upon the work of the inspectors. For example Dr. Dan MacNeil, the Medical Health Officer in 1918, wanted to see the hiring of a "good live" sanitary inspector who would keep his eyes open and "do things."⁶² The commentary of Dr. M. T. Sullivan, one of the more outspoken physicians of his time, reveals much about the appointments of sanitary inspectors. He recognized the need for an "up-to-date" sanitary inspector. He wrote:

I mean a whole-time man who would act as meat inspector and have charge of quarantine regulations. I trust however that in making such appointment ward politics and friendship will not be considered. Such a man should command a fair salary and he should be directly under the health officer, and he could easily earn his salary many times over and do all the Town sanitary work satisfactory.⁶³

Sullivan's comments reveal that the performance of sanitary inspector was not up to par, primarily because the sanitary inspector feared no reprisals from the Sanitation Committee or Town Council. By 1927 the town of Glace Bay still did not have a permanently appointed sanitary inspector. The Medical Health Officer Dr. Allister Calder realized that the considerable public criticism of the Board of Health and public health officials was due to sanitary inspectors and to the town's sanitation policy. There were no follow-up visits to see that recommendations were made, due to a lack of a regular inspector's services.⁶⁴ The

indifference of the general public and local politics did not make health education an easy task.

Even as late as the 1920's it was quite common that the incorporated towns in Cape Breton lacked a permanent sanitary inspector. As late as 1928 North Sydney's Chief of Police, George T. Raike was performing the duties of town sanitary inspector. He visited all backyards and basements of the business district on a monthly basis.⁶⁵

Where the Public Health Act of 1888 created the sanitary inspector, the Public Health Act of 1900 created the office of medical health officer. Every municipal council either of the county, district, or incorporated town, was required by this law to appoint a "duly qualified medical practitioner" as medical health officer. The appointment was to be for one year and be paid at salary of \$100.00. The medical health officer would also be the executive of the local board of health and also be responsible to the mayor and town council of his municipality. His duties were primarily to enforce the province's sanitary laws, to have all nuisances removed, to regulate and control cesspools, privies, yards, and drains, etc. to notify the Provincial Board of Health of any infectious disease outbreak in the town, to inspect annually all schools and school buildings, and to make a quarterly report of his findings to the town council. The act gave medical health officers authority to close all schools and prohibit public assembly during the outbreak of infectious diseases, to furnish vaccine and disinfectants, and to

provide temporary hospitals. The health officer was in charge of sanitary inspectors and his office grew out of the need for one person to be responsible for organizing efforts to curtail the spread of infectious disease and to ameliorate unsanitary conditions.⁶⁶

The role of a medical health officer in Cape Breton municipalities during the age of industrialization was a very difficult one. The responsibility for all health and sanitary matters fell upon the Medical Health Officers' shoulders and they often were blamed for the ineptness and procrastination of their civil superiors.

In his annual written address to the citizens of Sydney in 1899, Mayor Walter Crowe clearly outlined the intended duties of Cape Breton's initial medical health officers. Crowe noted that the appointment of the medical health officer was necessary, because it was of vital importance that a man be hired "whose duty it would be to look specifically after the sanitation of the town." As is evident, the medical health officers were seen merely as educated sanitary inspectors. The anticipated adoption of a code of workable by-laws and their rigid enforcement were to be the tools (or as we shall later see, the weapons) that the medical health officer used to ensure sanitary practice. Crowe could not possibly anticipate that the appointment would be one of the most difficult of all public positions. He saw the alleviation of Sydney's unsanitary conditions as his top priority. The civic authority had the responsibility for the

town's growth within its hands. To Crowe urban and industrial growth demanded a more efficient management of municipal affairs:

The future of Sydney [looks] exceedingly bright ... with the growth of Sydney the management of town affairs becomes greater and calls for larger sacrifices of time and close attention on the part of those who devote themselves to the advancement of the public business and interest.⁶⁷

An intent to reform the public health system may have been initially present, but time would show that medical health officers did not or possibly could not fulfill all their responsibilities. The primary complaint they had about their work was the abominable state of sanitation within their jurisdictions and the unwillingness of public servants to address this reality. Dr. Fred L. Haszard, the Medical Health Officer for Cape Breton County, complained in his 1909 annual report that very few of the appointed members had taken the time to read the Public Health Act and many had no knowledge of their powers or duties. He wanted to see clearly defined district boards with the power to cope with an emergency if one arose. He considered it important that the secretary of district boards of health had his or her name registered with the medical health officer and that every councillor had read the Public Health Act.⁶⁸

Medical health officers in virtually every district and municipality in Cape Breton Island had the same complaints. They realized their lack of authority to bring about an improvement in sanitary conditions. In 1910 Dr. E.O. MacDonald of Glace Bay complained that there were no legal steps taken against those who

did not comply with sanitary laws.⁶⁹ In 1912 Dr. K.A. McCuish, Medical Health Officer for Cape Breton County noted that some local boards of health were "not exercising sufficient care in having suspected or mild cases of infectious disease quarantined and brought to the attention of physicians." Cases were dealt with only after they had taken on a virulent character. A more careful watch and proper precaution were of vital importance.⁷⁰

Public health doctors often became frustrated as the public increasingly demanded more from them while failing to provide necessary financial support. Dr. F. W. Green, Medical Health Officer for Glace Bay in 1914 quoted the motto of the New York Department of Health which stated that the "public health is purchasable."⁷¹ In other words, it was possible for a community to establish a healthy state only if money, time, and effort were expended. It was of the utmost importance that money be allocated for sewer construction, a pure water supply, hospitals, food and milk inspection, and the rigid enforcement of the public health act. With appropriate expenditures no infectious disease should be able to get a foothold in Cape Breton towns.

Other doctors saw other deficiencies in the system. Dr. W. L. MacLean, Medical Health Officer for Glace Bay in 1913, complained that he did not even have a room in the town hall to deal with matters which exclusively concerned the public health. He wanted to see a code of quarantine by-laws as well that would guarantee the strict application of the law.⁷² His successor, Dr. F. W. Green noted the following year that the town needed a

health department that embraced everything connected with public health. He noted that the health of the town was a most important resource, yet it received the least attention and smallest possible expenditures. The town needed an active board of health, up-to-date methods, and a moderate grant of money for improvement to take place. Dr. J. A. McIvor Medical Health Officer for Victoria County complained that in his area, the members of the local district boards of health lived too far away from each other and could not easily get together in time of emergencies such as a smallpox outbreak. McIvor recommended the appointment of younger men to the boards, implying the need for men who were willing to cast off outmoded ideas and who would be quick to face emergencies if need be.⁷³

Probably the most important prerequisite for an effective public health system was the willingness of local authorities to grant sufficient funds to boards of health. Still, as Dr. F. W. Green, Glace Bay's Medical Health Officer noted in 1915, much of the needed improvement in sanitation could be accomplished without great expense to the town's treasury. The greatest expenditure should be the time and energy expended by local authorities and appointed officials. More effort was needed, but money was also important. In 1918, Dr. Dan MacNeil felt that more money indeed was needed for health and sanitation purposes, asking the rhetorical question "for what is wealth without health?"⁷⁴ Other medical health officers saw the answer to the problems of public health not in more money but in the rigid

enforcement of the Public Health Act. Dr. Arthur Kendall, Medical Health Officer, for Cape Breton County in 1922, called for the implementation of fines and imprisonment of offenders if need be. He saw this as the only way of bringing people to their senses and to a recognition of their responsibilities.⁷⁵

This position was reiterated by Sydney's Medical Health Officer, Dr. J. Fraser McAulay who saw the enforcement of sanitary rules and regulations as absolutely necessary.⁷⁶

Although the medical health officer's term of office was merely a year, the positions were usually renewed. In some cases they became full-time continuing positions. For example, both the communities of Sydney and Glace Bay employed Medical Health Officers who held the position for 10 years; other towns alternated doctors from year to year.

When the position of medical health officer was initially created under the Public Health Act of 1900, it was done mainly to help improve unsanitary conditions and curtail the spread of infectious disease. As these health officers conducted their work their roles eventually expanded. Medical health officers were not merely publicly appointed doctors but became teachers, sanitary inspectors, fathers and providers to many, and important social commentators and critics of their time. While on their inspection tours -- especially in the colliery districts of Cape Breton -- medical health officers witnessed some of the worst living conditions imaginable. Crowded rows of houses, many with privies or partially open cesspools nearby, were the bane of

health officers. The fact that rapid industrialization was often blamed for such conditions should not have led to their easy acceptance. They became frustrated when their respective boards of health and the town council executives neglected to implement their recommendations for improvement. Probably one of the most important hats worn by the medical health officer was that of teacher. Whenever there was an outbreak of infectious disease such as typhoid fever, smallpox or tuberculosis, the doctors explained how to recognize the disease to both the public and the local authorities. In fact preventive education was as fundamental as was the urge to cure.

Councillors were much more interested in the paving of roads, building up business districts and attracting new enterprises, establishing electric hookups, and keeping big employers such as the Dominion Coal Company and the Dominion Iron & Nova Scotia Steel Company happy. The preservation of health and local health matters were low on the list of priorities. This explains why local town councils refused to vote large or even moderate grants of money to their respective boards of health, except in times of unexpected outbreaks of infectious disease. In the end the local authorities often ended up paying more than they might have. The cost of free antitoxin, the professional service fees of doctors, salaries for watchmen for quarantined houses, and the cost of damages from destroyed articles of clothing and furniture often involved huge sums.

With the introduction of the Public Health Act of 1888 and amendments made in 1900 the law created the appointments of the sanitary inspector and medical health officer. Other appointments such as cattle Reeves and meat and milk inspectors were created on the whim of local authorities. They came and went according to what town councils saw as the most important at the time. These appointments were evident of a more efficient public health system but progress was limited by financial considerations and by a tendency to place industrial progress before public well-being on the list of Cape Breton's priorities. In the previous chapter, we saw that the lack of health education was a factor in the lack of change; here, we have noted that public indifference and local politics made the implementation of fundamental improvements a very difficult task for the medical practitioners involved. Progress has its price.

Chapter III

Preventive Medicine

As infectious disease ran rampant across Cape Breton towns and municipalities at the beginning of the twentieth century, civic officials came to recognize the huge cost of unreadiness. As sporadic outbreaks of infectious disease appeared, money was expended on vaccinations, physicians' bills and quarantine watchmen. Civic officials soon discovered that prevention was important and began to establish the machinery for an efficient public health system.

School age children benefitted greatly from the emphasis on preventive medicine. School instruction was given in hygiene, physical exercise and military drill. Physical examinations were conducted by physicians or public health nurses, and physical exercise and military drill were made part of the total education of a child. It was believed that children of unfortunate circumstances would benefit the most. Educators believed that the younger the pupils, the more frequent should be the exercise. Physical exercise was undertaken for the improvement of the health and physique but also for the "development of alertness, decision, concentration, and perfect control of mind over body"². It was hoped that the school children would leave school healthy and trained for work. Physical training would help to develop discipline, good manners and a well balanced body.³

An act was passed by the Nova Scotia Legislative Assembly in 1907 entitled the Medical Inspection of Schools Act which gave

local school boards the power to vote money for the periodic medical and dental examination of school children. The boards had the choice whether or not to put the act into effect.⁴ Each town accepted the act as the need arose but some educators felt that it should be compulsory especially in the rural areas where physicians and dentist were less numerous. In 1907 the City of Sydney chose to implement the act. The Board of School Commissioners authorized the Medical Health Officer, Dr. J. K. McLeod to enter the schools and examine the school children. At this time only primary school children were examined. In his annual report for 1907, McLeod noted that he had examined children for defective eyesight, hearing, nose and throat trouble. He hoped that in the future both the childrens' teeth and the total general physical condition of the children would be taken into consideration.⁵ In his 1908 annual report he noted that it was only the youngest of the children that were examined and that school commissioners had met with the Sydney Dental Society to stress the importance of inspecting teeth.⁶ In 1909 the examination of school age children's teeth was initiated. Of the 489 children examined, 90% had poor or carious teeth. McLeod noted that the work was still incomplete and probably more afflictions would be found among school children. The Supervising Principal for Sydney Schools, Dr. George W. MacKenzie, noted in his 1909 annual report that the problems were largely confined to children not formerly enrolled in any of the schools.⁷ This leads one to believe that many of the

deficiencies involved children of transients or new immigrants to Sydney. The work continued until 1916, with the medical health officer generally examining the children for defective eyesight, hearing, and nose and throat trouble. In that year, McLeod noted that children were examined for enlarged adenoids and tonsils. He also noted the increased use of eye glasses and the number of pupils receiving surgery.⁸

In 1918 medical inspection was suspended because of the influenza epidemic. Three years later in 1921 the duties of the medical inspection of schools were transferred to school nurses. In that year McLeod summarized Nurse McDonnell's excellent work and noted that most health problems were the result of bad teeth.⁹ In 1923 McLeod reported that the School Commission had appointed a permanent dentist for the school system. He also noted that the children were now cleaner and healthier and that there was a definite improvement in all of Sydney's schools.¹⁰ In 1924 McLeod noted the appointment of a second permanent dentist and called for a free clinic for the treatment of all children. He felt that this was necessary because many of the children would go without treatment. As a result a free clinic was established in Whitney Pier.¹¹ McDonnell reported in 1924, in her report for that same year that some children could not afford to pay for their glasses. The Board of School Commissioners and the Junior Red Cross took on the responsibility for payment. The Rotary Club and Junior Red Cross also paid for the removal of tonsils. McDonnell also noted that children were

being examined for parasitic infections, skin diseases, undernourishment, and mental health as well.¹² In 1925 the school nurse noted the vaccination of school children and that only older children were being attended by the school dentists. By 1926 the city dentists were providing free treatment for all school children whose parents could not afford payment.¹³ In 1927 MacLeod called for more aid to undernourished children. Of 3,106 children examined in that year, 2,208 or 71% were found to be underweight. He noted that the local Kiwanis Club had initiated an "open air camp" at Mira River on the outskirts of Sydney.¹⁴ This camp was opened in the summer of 1929 and allowed 95 boys and girls to enjoy fresh air and healthy living.¹⁵

A very important component of the preventive health movement was the work of charitable organizations. A Crippled Children's Clinic sponsored by the Junior Red Cross and Rotary Club was held twice a year, in September and November, at Sydney City Hospital. Braces, boots, and cork lifts were provided free of charge for children.¹⁶ By 1929 the clinic was held three times a year, clearly indicating a need for the its services.¹⁷

The Town of Glace Bay did not act upon the 1907 act as quickly as Sydney had done. In 1908 the town's Medical Health Officer, Dr. M.T. Sullivan had urged the mayor and town council to initiate the medical inspection of schools.¹⁸ His suggestion fell upon deaf ears. Sullivan's recommendations were reiterated three years later by his successor Dr. W. L.

McLean.²⁹ MacLean strongly urged school inspection and noted that its adaptation would greatly reduce the spread of contagious diseases in the town. He noted to the mayor that the only cost involved would be no more than the printing of a few forms. Any child suspected of ill health would be unable to re-enter school unless he presented a certificate from his/her family physician stating that he was again in a healthy condition.³⁰ In 1913 MacLean noted that the idea of school inspection was gaining some momentum. But interest waned and nothing was accomplished. MacLean urged that money left over from the previous year's budget be used for medical inspection of schools and milk inspection.³¹

In 1914 Dr. F. W. Green was appointed medical health officer for the town. Like MacLean, Green advocated the medical inspection of schools and strongly urged the separation of tuberculin children from the classroom. He noted also that those children attending school with lice, ringworm, impetigo and a host of skin, eye, ear, nose and throat diseases were proving a source of danger to others as well as to themselves. He strongly urged that teachers be given the power to demand certificates of health from these children and that these certificates be presented to the town authorities.³² By 1915 the Town of Glace Bay still had not introduced the medical inspection of town schools. Green noted the very urgent need of medical inspection of schools, especially with the passage of the Compulsory School Attendance Act in 1912 which made it compulsory for all children

up to age sixteen to attend school. In 1914 Green noted in his annual report that the medical health officer should only diagnose but not treat the children; to do so would conflict with the duties of the family physician.²³ The following year Green drew up a list of six recommendations concerning the duties of the medical inspector of schools. He suggested that the medical health officer be consistent in his inspection of schools. Inspection had to be regular and standardized. Secondly, it was the medical health officer's duty to determine which children were in an unhealthy state. Thirdly, the medical health officer should make recommendations and suggestions to parents regarding the physical condition of their children. Fourthly, the medical health officer should keep a complete record showing the physical and mental health of each child, so that progress over time might be noted. Fifth, the medical health officer should not treat the illness but merely indicate the child's condition to the parents and request treatment by the family physician. Sixthly, the inspector should comment upon the condition of the school buildings, seating accommodation, ventilation, lighting, heating and sanitary arrangements.²⁴ All of this was fine in theory but it was very late in being accepted and implemented. Many of the towns residents had rural backgrounds and perhaps were overly conservative in recognizing the need for collective action in preventive medicine.

The medical inspection of schools in Glace Bay was instituted after World War I and a school nurse was appointed.

The system was similar to that employed in Sydney. Children were examined for defective teeth, eyes, and throats and for their general health. Glace Bay children attended clinics for crippled children twice a year as Sydney's children had done. In 1932 the school nurse Ms. Jessie Guthrie, noted her disappointment because many children who greatly needed treatment and surgery did not attend the clinic as requested.²⁵ The town also employed a school dentist. Dr. S. G. MacIsaac, D.D.S. noted in his 1931 annual report that he found that extractions of teeth was the largest amount of work. Of the 1804 pupils examined, he performed over 2,269 extractions or 1.25 extractions per student.²⁶

By 1920 most school inspections were performed by public health or country nurses. The province provided a nurse to those communities which could not afford a nurse's salary. The Red Cross also supplied these nurses on an annual basis. After the expiration of the first year, the various town councils and municipalities would jointly provide for the nurse's maintenance. It was this nurse's duty to examine the students for diseases or abnormalities, to recognize infectious diseases in their early stages, and to act as a sanitary and hygienic expert. She would give health talks, tooth brush drills and visit sick children at home. A card was maintained for each child. On one side was a physical record of each child which the nurse completed. On the other side was a record of the child's school progress filled out by the teacher. This card was complete when a child finished

school. The work of the nurses was followed up by the Department of Health physicians. Physicians would make a complete examination of those students who needed it, and also would make a sanitary survey of the school premises.

Provincial Health Officer W.H. Hattie was especially supportive of the nurses' efforts. The nurses not only had accomplished much in the schools but also performed important work in the homes. As they followed a sick child from the school to the home they performed a useful child welfare service. Hattie felt that pressure should be applied to town and municipal councils. "It is important that popular interest should be created in public health work in order that councils may feel justified in making adequate appropriations for its effective prosecution". The work was important and effective. In 1921 approximately 31,700 children were examined across the province.²⁷

One group of nurses that accomplished much in the area of preventive medicine after the turn of the century was the Victorian Order of Nurses. Two Sydney physicians Drs. E. J. Johnstone and D. K. McIntyre and local clergymen were instrumental in bringing the VON to Sydney. The first meeting to discuss the matter was held on July 28, 1905 ²⁸ and by September 3, the group had managed to hire a nurse, Ms. M.E. Duncan, who had been stationed at Truro. She was hired at a salary of \$30 per month and the VON committee agreed to pay for room and board at \$20.²⁹ During the first year of her job

Nurse Duncan was making from 47 visits to 152 visits per month.³⁰ She attended to medical and obstetrical cases and made a number of private nursing visits.³¹ By September of 1907 the work of the VON could be enlarged. In December Dr. H. E. Kendall complained that the work was not growing as it should and that the fees charged were too low for the class of paying patient.³² Operational expenses depended upon paying patients. The Board of Management hoped that membership dues of \$2 would help build up the treasury, and the local clergy were encouraged to solicit support and new members from the pulpit.³³

By late 1908 the Board of Management was hoping to extend the work of the VON into Ward 5 or the Whitney Pier region.³⁴ This was the industrial region of Sydney which experienced poor living conditions and where infectious diseases were more common. A special meeting was held at the Imperial Hall on October 7, 1908 to discuss VON nursing with the Pier's clergy and medical practitioners. The welcome for the VON was by no means a warm one. Dr. William R. MacRae protested that there were enough "old fashioned nurses" in Ward 5 and that the VON's appearance would put these women out of work. MacRae noted that these granny nurses suited the people better than did the VON but added that if a VON nurse was sent he would try to employ her services. Conservatism was still affecting the public health policies. The clergy agreed to try to collect contributions for the VON from their parishioners.³⁵

Gradually the VON gained public support for their work. Dr. J. K. McLeod, the Medical Health Officer for Sydney, highly praised its work, and noted that there was a growing acceptance and appreciation of the nurses work amongst local doctors. The local Superintendent Miss MacKenzie suggested in July 1911 that the VON might also undertake the medical inspection of the schools, but this was not to be.³⁶ Nevertheless, the work of the VON was becoming increasingly recognized. A committee of the Anti-TB League, for example, requested from the VON committee the services of a VON nurse in their work. In August, 1910 the Anti-TB League agreed to pay three-quarters of the salary of \$400.00 for another nurse to reside in Whitney Pier, and assist the first nurse in the treatment of tuberculin patients. Although the nurses supplied these patients with nourishing food and provided supportive care, this seems to have been merely a temporary undertaking.³⁷

By October, 1915 the Sydney Committee employed three VON nurses in Sydney proper and Whitney Pier. Each worked 8 1/4 hours per day Monday to Saturday and 5 to 6 1/2 hours on Sunday. Each month saw from 24 to 49 new cases. The annual report reported that 886 new cases were undertaken in Whitney Pier in 1915 and 330 in 1916.³⁸

During the 1920's the work of the VON became more preventive than curative. This paralleled other aspects of the public health movement. Education was the most effective tool in disease prevention, and VON nurses had often taken post-graduate

courses in public health. By 1920 much of their work involved prenatal and postnatal care for mother and child, and general child welfare. Many infant welfare visits were undertaken. The nurse could see a group of up to 25 children per afternoon on her visits. The mothers seemed to benefit and expressed a desire for a "mothers centre" at the Pier where babies could be brought in to be weighed, and general advice given. A "Well Baby Clinic" was established by the Chief Superintendent in the Pier in 1924. It was hoped that two more clinics could be established in Sydney proper.

Despite these innovations the VON nurses faced serious difficulties. There was a call to lessen the load of Whitney Pier's only nurse. She was badly overworked and time was wasted walking to each case. Nurses also complained of too much night work and too long hours.³⁹ Later in the same year, the Atlantic Inspector of the VON, Miss Mary Boswell, R.N. reported on the work of Sydney's six VON nurses. She stated that they were in great need of offices and district rooms, as well as a library. She noted that the work among the children was neglected as was educational work. She stressed prevention as the best cure for Sydney's health problems and she also noted that there was public support for welfare work although prevention should be given more emphasis by the VON. The lessening of work hours and night work, better organization, group teaching, and better means of transportation were also listed as essential. She praised the VON's maternity work and

suggested that they approach the steel plant management and ask for the use of some of their facilities and services.⁴⁰

By 1926 there were two nurses for Whitney Pier, five in total for the city of Sydney. During that year the VON experienced financial difficulties and received aid from the local IODE, the Business Girl's Club, and various individuals. Other societies raised money through dances and teas. On two separate occasions the nurses had to work an entire month without remuneration.

During the twenties free TB clinics, baby clinics and "mother craft classes" predominated. St. Andrews church in Sydney provided its hall for the clinics free of charge. The VON raised money for its relief committee through the Kiwanis and Rotary Clubs. The relief committee primarily cared for the sick and undernourished and provided free milk, "pneumonia jackets" and infants' layettes, sheets, towels and diapers. Approximately half of the work done was in maternity service and the education of new mothers in the care of young children. There were 96 well-baby clinics held bi-weekly in both the Pier and Sydney. The educational program also expanded with over 500 "non-nursing" educational cases noted in 1925 and 1926. The nurses also gave assistance to the provincial TB clinics. Previously these duties had been undertaken by the county nurse. Visits to contact cases and TB patients were now routinely performed by the VON.⁴¹

Because of the great workload, the Chief Superintendent of the VON for Canada recommended that basic nursing care be taught

to people who had to care for family members who were acutely ill. This was necessary because no nurses could be hired for relief when other VON nurses went on vacation. Cases had to be turned away and local nurses had to be called in at \$3.00/case.⁴²

During the early part of the twentieth century public health officials and civic authorities recognized the fact that unsanitary conditions, poor housing and living conditions, and economic distress, played an important role in the spread of infectious disease. Medical health officers and sanitary inspectors tried to curtail the spread of infectious and contagious diseases through an assault on unsanitary conditions. From the early 1900's until the 1920's inspectors were appointed to examine the milk, food and water supplies. These offices were not as permanent as that of the medical health officers and the sanitary inspector. Milk, food and water inspectors were appointed haphazardly and these duties were often added to the already heavy workload of the medical health officers. Convenience and the "old boy" network apparently played a role in some of these appointments.

The first mention of milk inspection in industrial Cape Breton was made in Glace Bay's Medical Health Officer's annual report of 1903. Dr. M.T. Sullivan called for a law which empowered either the local medical health officer or police officers to collect milk samples at regular intervals and to have them analyzed. It was difficult to regulate the control of milk

which was entering the town because much of it was imported and widely distributed. Doctors feared that adulterated milk was the main source of typhoid fever. In his next year's report Sullivan reiterated his recommendations, stressing the importance of the inspection. He noted that Sydney was also considering milk inspection. The following year a Dr. Jakeman was appointed as Milk and Meat Inspector.⁴³

In 1905 the City of Sydney amended section 62 of its ordinances relating to milk vendors. After January 1, 1906 a seller needed a licence to sell milk in the city. The amendments were necessary, strict, and quite detailed. Firstly a licence for all sale of milk had to be obtained from the city clerk. Secondly, the sanitary inspector was required to register annually the names and addresses of all milk vendors, source or sources of their milk supply, the number of cows they owned, the average quantity of milk they sold, the type of food fed to the cows, and the condition of the milk vendors' stables and dairies. Thirdly, it became illegal to sell unwholesome or unfit milk that had been adulterated, reduced, or changed by the addition of water or the removal of cream. This milk was known as "swill milk". It was also unlawful to sell cows' milk from cows who had been fed any unwholesome food. Fourthly, the sanitary inspector was required to inspect all milk cows, cow barns, and dairies for unhealthy conditions. If uncleanliness prevailed the premises were to be condemned. Fifthly, all milk vendors were required to provide the sanitary inspector with milk samples. Sixthly, the

sanitary inspectors was required to keep an accurate account of these samples with proper labelling. Seventhly, every sample was to be examined by the medical health officer. Eighthly, the sanitary inspector was empowered to seize and to destroy any adulterated milk. Ninthly, he was also given the power to procure milk samples once a month without previous notice given to the vendors. Those that disregarded such regulations were to be prosecuted for breach of this ordinance in particular. Tenthly, the sanitary inspector was required to inspect all dairies four times per year.⁴⁴

The local Medical Health Officer Dr. D. K. McIntyre complained in 1906 that not one milk vendor had registered or even applied for a licence. Like Glace Bay's medical health officer, McIntyre was concerned that because most of Sydney's milk supply was brought in from outlying districts, it was virtually impossible to undertake a thorough inspection. The legislation was one attempt at permanent regulation of the milk supply.

Even though these strict ordinances became law the following year, the new medical health officer was still complaining of the need for improvement in the milk supply. The summer months brought with them a scourge of cholera infantum accompanied by a high infant mortality rate. 44 deaths in August and 54 in September, 1906 were attributed to this disease. The Medical Health Officer Dr. J. K. MacLeod noted that no amount of boiling could ever remove the tubercula bacilli from infected milk.⁴⁵

In that year as well a local veterernarian, Dr. E. C. Thurston was appointed City Food Inspector for the period of June to December. In his first annual report he noted that only 5 of the 133 samples of milk that he tested were below standard. Two of the five were due primarily to unclean utensils and improper straining. He had inspected all vendors engaged in milk traffic. He noted that it was virtually impossible to inspect all sources of the milk supply since many suppliers lived at a distance from the city. He also noted that he needed the help of the police in his work. The following year he noted that the source of the problem was not with local milk but with stale milk that had been shipped in from outlying districts. In 1908 the Medical Health Officer Dr. McLeod along with Dr. Thurston attempted to help alleviate the problem through educational programs. A large meeting was held at City Hall with local milkmen. Literature describing how to obtain cleaner and purer milk products was circulated. The literature was also circulated free to all licensed dealers. More preventive measures were also instituted that year with the implementation of the tuberculin test for cows.⁴⁶

The next five years saw a more systematic system of inspection for local farm dairies and the milk supply. During the first World War inadequacies in the milk supply were due to carelessness on the part of the milk dealers and not the dairy farmers. In the 1920's farmers were commended by the medical health officer for doing their best in providing healthy milk.

In 1924 Sydney's Medical Health Officer, Dr. McLeod requested that the Mayor and City seriously consider pasteurization. Apparently it was not an immediate concern to the local authorities as Dr. McLeod reiterated his recommendation again in 1925, 1926, 1927 and 1928.⁴⁷

The Town of Glace Bay did not seem to have been as progressive as Sydney in its implementation of milk inspection. Although it had appointed a milk and meat inspector one year previous to Sydney's appointment in 1906, it took a long period of time to implement regular and efficient milk inspection. A year after the appointment of Dr. Jakeman in Glace Bay, the town's medical health officer was still urging the strict inspection of milk.⁴⁸ By 1911 it appears as if Glace Bay dairies were still not inspected nor were milk men licensed. There were regular complaints about the town's milk supply and the medical health officer called for a standardization of all town dairies.⁴⁹ Apparently the board of health did not want to dedicate monies for permanent inspection as Dr. MacLean intimated in his report of 1913. Calls for inspection were heard again in 1914.⁵⁰ Two years later in 1916 a local medical doctor, Dr. Dan MacNeil was appointed milk inspector. The following year he was appointed medical health officer.⁵¹

By the 1920's problems with the town's milk supply were still in evidence. A major outbreak of typhoid fever of 67 cases and 6 deaths occurred in the town in 1923. The disease was traced to a farmer "carrier" who had shipped his milk to a dairy

in Glace Bay. The disease spread easily and because the man had a milk route that was irregular and scattered over a large district. He had also sold his milk to an ice-cream plant in Sydney. Dr. Murdock Chisholm, the Assistant Public Health Officer for the Province had made an inspection of this farmer's premises and following his report Dr. M.T. Sullivan urged the creation of provincial legislation which would force the sale only of pasteurized milk in Glace Bay.⁵² He knew all too well about the long delays between milking and drinking the milk. The farmers and dairies did not sterilize their vessels and they were often dirty.

The town authorities' unwillingness to establish vigilant milk inspection contributed to contagious disease. In the summer of 1927 another serious outbreak of cholera infantum hit the town. Dr. A. Calder, the Medical Health Officer at the time blamed the outbreak on the careless handling of the milk by both producer and supplier. He strongly urged that the Board of Health revise the town by-laws regarding the sale of milk, demanded a stringent enforcement of these laws, and called for the immediate appointment of a competent milk inspector. He also recommended that the by-laws be made accessible to milk vendors in order that they be educated in terms of the new requirements such as sterilization of bottles and cooling of milk.⁵³

The following year the sanitary inspector took on the added office of milk inspector. He tested the milk twice a month for sediment, fat, water and solids. The milk that was suspected of

being contaminated was tested for the presence of bacteria. If the milk was found to contain any the vendor's permit was revoked.⁵⁴ In 1929 two milk vendors began to sell pasteurized milk which local medical health officers considered as a major step forward in public health. The inspector was quite pleased with the distribution of pasteurized milk to the town as these two interests were supplying approximately 50% of the town's milk. Probably because of this, the milk and sanitary inspector could report a steady improvement in the milk supply and people were paying better attention to the application of more sanitary procedures in the storage of the milk.⁵⁵

By 1930 more frequent examinations of milk were undertaken in the summer months. This was because of the ever present threat of cholera infantum and typhoid fever. Two years later in 1932 the medical health officer rather than a milk inspector was undertaking the responsibilities of milk inspection. This indicates that the local board of health no longer felt that the milk supply was threatened and that it was unwilling to provide funds for the appointment of a separate and better qualified milk inspector.⁵⁶ The town councils were rarely conservative when it came to cutbacks.

Prior to the appointment of the city food inspector in 1906, Sydney's medical health officer and sanitary inspector had inspected meat and fish stores only intermittently. They concluded that there were no major complaints regarding the city's food supply and found most premises to be "neat and clean"

on their inspection tours. In 1905 only one diseased beef cow was destroyed.⁵⁷ With the appointment of Thurston in 1906, however, came a tremendous change. In one year he reported that he had either confiscated or destroyed approximately five tons of food stuffs. Items ranged from vegetables, sausage, apples, poultry, beef and lamb. This might indicate either an overzealousness on his part or a tremendous amount of adulterated food on the market that the medical health officer and sanitary inspector had failed to uncover. Thurston had inspected many shops, stores and warehouses and gave owners suggestions for improvement in refrigeration and cleanliness. Licensed dealers and taxpayers complained to the inspector about unlicensed transient traders, no doubt many of whom were new immigrants. These peddlers sold produce, lamb, and veal door to door. Thurston called for the establishment of a public market to remedy this situation.⁵⁸ Within a year in 1906 Thurston noted an improvement although he still cited the confiscation of 16,000 pounds of veal, lamb, mutton and beef. He blamed the consignor or transportation delays for the major problems. He noted that the food inspection law involving compulsory abattoir inspection had benefitted the general public. He reiterated his concern for the abolition of door to door peddling. In 1908 there was less confiscation of food stuffs. Thurston's biggest concern for that year was regulation of slaughter houses which were licensed and under the control of the local Board of Health.⁵⁹ Near the end of the war, Thurston was still reporting the destruction of

considerable quantities of food stuffs; generally due to "unavoidable delays in transfer." This destruction of food continued into the 1920's but to a considerably lesser degree than in the early years of the century. In 1920, 3,620 pounds of meat, 8 pounds of fish, 18 bushels of vegetables, and 2 box cars of hay were either condemned or destroyed. There was still concern over street peddling, and the keeping of pigs and other animals. The City Food Inspector also concerned himself with the civic scavenging system or garbage pickup. In 1921 again large amounts of food were again destroyed, and resulted in 42 prosecutions initiated, 8 convictions and 9 warnings. The only hope to put an end to such a great deal of adulterated food and wastefulness lay with a revision of the City Food Ordinances. Only a stricter implementation of the by-laws with threat of prosecution would help to alleviate this problem.⁶⁰

The first indication that the Medical Health Officer of Glace Bay was interested in food inspection was in 1906 when Dr. M.T. Sullivan recommended the adoption of a new ordinance. He recommended that meat and fish dealers be prohibited from displaying their products uncovered during the summer months. The threat of dust and germs settling on the food was greater during this time of year.⁶¹ There appears to have been no significant discussion of food inspection by the Medical Health Officer until 1927 when Dr. A. Calder suggested that the Board of Health consider that bread be paper wrapped. This product, like milk, was poorly handled by both delivery men and retail

carriers. The high rate of cholera infantum and typhoid fever could possibly be attributed to their neglect and ignorance. In the 1930's the medical health officers inspected restaurants at "regular intervals." They found them basically to be clean and sanitary although in some cases tainted meat was uncovered and destroyed.⁶²

The water supplies of Sydney and Glace Bay did not present as many problems as the milk and food supply, but there were problems nonetheless. In 1921 Dr. J. K. MacLeod, Medical Health Officer for Sydney noted the problems of the previous year. In late summer of 1920 the City water had taken on a "fishy" taste and the reservoir was in need of draining, cleaning and other improvements. Three years later he was calling for the construction of a chlorinization plant. He reiterated this again in 1925 and 1928.⁶³ The town of Glace Bay did not appear to suffer major water problems. In the 1930's monthly water samples sent to the Provincial Lab in Halifax proved free from contamination.⁶⁴

It became evident to public health officers and educators that preventive health measures would be effective only if they were enforced by the law. Since this had been obvious for a number of years one can only conclude that they were slow in taking remedial action. Health officials must have wearied over the never ending struggle to educate public opinion. The medical inspection of schools need only be enacted if school trustees chose to reinforce it. Unfortunately all schools did not choose

to implement the inspection of food, milk, and water was unevenly enforced across industrial Cape Breton. These duties were usually attached to those of an already overworked medical health officer. Stringent laws regarding these inspections were added ad hoc to town by-laws. There was no consistency or consensus in all the towns. It was evident that town officials did not want to make financial commitments regarding public health. Various town and county municipalities would not vote monies for the employment of school or public health nurses. VON nurses were forced to take up this work. They were overworked and the meagre remuneration was collected from among private paying patients and fund raising efforts. It was clear that their work was in great demand. Unfortunately, the civic fathers did yet not view public health as a responsibility of the town or municipal councils. This attitude lay at the root of the problem and remains with us to this day. The lack of funds is usually cited for inaction and that is undoubtedly true; a more basic reason lies within ourselves, the tendency of humanity to delay or postpone whatever does not effect us immediately. We, the public, have yet to grasp fully the importance of preventive medicine so we should not be overly surprised that people had problems with that concept in the early 1900's.

Chapter IV

Hospitals

The development of a public health system in industrial Cape Breton can be said to have paralleled the growth of the towns and urban centres. The responsibility for the general health of a town initially fell upon the shoulders of individual doctors, then upon salaried medical health officers and town officials, and ultimately upon the provincial departments. But what about medical treatment other than in times of crisis? What about hospital care for those who need it? As industrialization changed the face of Cape Breton the local towns found their resources stretched to the limit and were generally unable to provide adequate financial support for the health of the community.

In the absence of municipal commitment to health care, outside agencies took it upon themselves to create permanent health care facilities that would not burden town budgets. A number of quite different groups in industrial Cape Breton participated in the establishment of permanent health care facilities. Among those groups who established hospitals were the Dominion Iron and Steel Company, the Dominion Coal Company miners in Glace Bay, the Sisters of Charity, the Sisters of St. Martha, and in some cases local towns. Virtually all of the hospitals they presided over were established within a twenty year period and clearly indicate the need for permanent and effective health care in early twentieth century Cape Breton.

Cape Breton industrial hospitals did not originate as charitable institutions. Although there were poorhouses which received the regular medical services of local physicians, those that did continue to grow into permanent institutions were for a paying clientele. A few of the hospitals were established primarily as hospitals for the labouring class - the upper class received medical attention in their homes - they grew into hospitals for the middle class as well and eventually became municipal hospitals. All aimed for the same effect; the alleviation of suffering and the quick and necessary "patching up" of people, especially in view of the many industrial accidents which were very prevalent in Cape Breton towns.

The church was particularly active in hospital care. Religious orders such as the Sisters of St. Martha and later the Sisters of Charity, established hospitals in both industrial and rural Cape Breton. The Sisters of St. Martha had been originally established in Antigonish, Nova Scotia in 1900 by Bishop John Cameron, Bishop of the Diocese of Antigonish, (1877-1910). He established the order to care for the domestic needs of St. Francis Xavier University. The small group established a hospital in Antigonish in 1906 and gained autonomy from the university in 1917. The sisters soon looked beyond domestic service and into nursing and social service. They established hospitals in Antigonish and Cape Breton and as far west as Alberta in Canada and south into the U.S.. The Sisters of Charity were established in New York by Sister Elizabeth Seton.

In 1849 their Halifax chapter was established at what is today known as Mount Saint Vincent University. Primarily known as a teaching order, this group was accomplished in nursing as well. The Filles de Jesus, a French-speaking order for women, emphasized that the healing of the soul was just as fundamental as was physical healing. They worked also in the educational field in Cape Breton.

The first religious order to have a role in early twentieth century Cape Breton hospitals was the Congregation of the Sisters of St. Martha. St. Joseph's Hospital was established in 1902 as a Roman Catholic Hospital in the busy mining town of Glace Bay, primarily through the efforts of Father Ronald MacDonald of St. Anne's Parish and Father Charles W. MacDonald of Bridgeport. During this time the parish priest in a working class community maintained very close contact with his parishioners. He buried many dead. He was often among the most educated members of the community and acted not only as confessor but social worker as well. Priests knew all too well the plight of poverty and the miner's constant fear of injury in the work place. It is not surprising that they recognized the need for a permanent health care facility.

St. Joseph's Hospital was officially opened July 1, 1902 as a hospital for Dominion Coal Company employees and quickly grew into a public hospital. In 1903 the Sisters of St. Martha were invited by the Board of Directors to come to the hospital and administer the household management as they had been doing at St.

F. X. They purchased supplies and performed necessary domestic work. It is not surprising that they were invited to do this work here as both Fathers MacDonald were aware of the Sisters' accomplishments at St. F. X. The small college was their alma mater and often a second home to diocesan priests who made frequent visits there over time. Although the order was a young one, its excellent reputation in the diocese was well-known. It had been successful in its work at St. F. X. despite overwork and financial constraints. No doubt these priests believed that the sisters would apply the same degree of dedication to their work at St. Joseph's as they had at St. F.X. The Sisters worked undaunted for four years at the hospital from 1902 to 1906. In that year they were called back to help with the newly established St. Martha's Hospital in Antigonish. Nine years later in 1915 they returned to Glace Bay with complete control over the administration of the hospital and of the school of nursing which had been established in 1902.¹

From 1902 until 1915 the hospital fell under the supervision of a superintendent or matron. Miss Janet Cameron, R.N. a Catholic and a native of Port Hood, Cape Breton had close ties to both the medical profession and the Sisters of St. Martha, and was the first to occupy this position. An "exceptionally capable nurse," she was a graduate of the Massachusetts General Hospital. She was known for setting high standards for institutional management and nursing service, and played an active rôle in the hospital's administration. She resigned at one point in 1909 and

was replaced for a time by Miss Margaret Conroy. Cameron returned in 1912 as superintendent after completing a course in hospital administration in an American hospital.²

The priests also realized that a solid financial backing was needed for the hospital to endure. Although they had virtually no experience behind them, they travelled to the United States to study hospitals that were comparable to their own. They also hired the services of a Mr. Hutchinson, a Sydney architect. In 1900, they made personal visits to the mine faces to try to obtain financial support from Catholic miners and gained the support of the miners who contributed through a solicited check-off system. In this way St. Joseph's Hospital was built at a cost of \$42,000 and maintained through the check-offs. The Dominion Coal Company has previously donated two company houses in District Two to be used as a hospital. They were clearly ineffective and could only accommodate 15 - 17 patients per day. There were many accidents. The check-off system possibly might have been the first hospitalization prepayment plan in North America. The priests, especially Father C. W. MacDonald, maintained close contact with the hospital administration, often acting as President of the Board of Directors.

The first Superintendent after the Sisters of St. Martha returned to the hospital in 1915 was Mother Faustina, with another sister, Sister Stella Maris the Superintendent of Nurses. The congregation had as their motto "Science, Service, Sanctity." The sisters quickly saw a need to modernize the physical

facilities of the hospital and all resources were directed to meet the requirements to have the hospital accredited. In 1921 St. Joseph's Hospital was the first hospital east of Montreal to receive approval from the American College of Surgeons.³ The application was made in 1919 but it took two years to receive accreditation. The future of the hospital rested primarily upon the public's support for its operation. It could not operate with the miner's monthly subscription alone. During the first year of operation 406 patients were admitted to the hospital at a cost of \$1.28 1/2 per patient/day. The hospital owed much of its maintenance to the employees of the Dominion Coal Company who subscribed on a monthly basis to the hospital. In 1902 they had paid \$15,215.60 towards it. The Town of Glace Bay gave an annual grant of \$500.00 and the Ladies Auxiliary of the town and nearby Bridgeport supported it as well.⁴

The hospital employees soon were overtaxed as the hospital remained understaffed for the amount of work it was forced to handle. This was a time which saw lenient safety standards in the mines, and the town was always open to infectious disease. The hospital also suffered from the communities' work stoppages. By 1904 depressed economic conditions in the mines were already proving harmful to the hospital. Although the income of the hospital was decreased, the hospital workers performed heroically. Within two years of the opening of the hospital the Board of Trustees was reporting that it needed more room for expansion.⁵ The following year it was necessary to increase the

check-off from 20-30 cents per month.⁶ This money was also intended to support the erection of a new Nurses' Home as well as to supplement the lack of funds, but it was not enough.

By 1905 the Board of Trustees faced serious financial problems. They could boast of St. Joseph's growing prestige "with its years in the scientific and humane treatment of the sick and maimed"⁷ yet its popularity was its underlying problem. It had increased its patient load from 432 patients/year in 1903 to 833 patients/year in 1908 and greatly expanded its staff and physical facilities.⁸ Gradually, with the increasing debt, it was necessary to raise the monthly contributions of the miners and increase the charges to paying patients. In 1909 the hospital had a debt of \$20,697.51 and could no longer treat non-subscribers gratuitously.⁹ The Provincial grant was also enhanced.

In 1908 the hospital was averaging 74.5 patients/day. It had a staff of two head nurses, a surgical nurse, and 22 student nurses.¹⁰ It had a combined medical and surgical staff of thirteen and two doctors from Halifax who acted as consultants.¹¹ By 1908 a Nurses Home had been built¹², and new additions included various new sheds, an ice house, smoke stack, a laundry building and new sewerage system.¹³ In 1909 there came a new superintendent (Miss Margaret T. Conroy), new sterilizers, and new shearer sterilizers for surgical dressing and instruments. The patient population grew each year. There was a crying need for more public and private rooms; more

children were brought to the hospital and there was an increase in maternity cases.¹⁴ In 1910 a new ward with accommodation for eight adults and five children was opened. The staff lodging was remodelled to fit these needs.¹⁵ Expansion continued over the next decade particularly after the Sisters of St. Martha began to administer the hospital in 1915. In 1916 the hospital purchased its first X-ray machine. In 1917 and 1918 it had increased its private room space with major renovations totalling \$12,720.00. Two years later another major expansion and renovation was undertaken at a cost of \$120,00.00. The hospital obtained its first laboratory, a new heating plant, and completed the remodelling of its basement. In 1926, more repairs and additions totalling \$16,200.00 were added. New laundry equipment was ordered, a new ward and sun porch added, as well as and a new ice-plant costing \$3,000.00. With its 25th anniversary in 1927, it has spent \$151,920.00.¹⁶ Both the community and the Order were generous in their support of this important health facility.

In addition to its physical expansion, the hospital also began to departmentalize and specialize. This was clearly indicative of the growing confidence in modern medicine and of the growing attachment of the medical profession to the ideology of science. Probably the first specialty department of the hospital was the Eye, Ear and Throat Department, established in 1908. In that year it treated 20 cases of patients with enlarged tonsils and adenoids, and suppuration of the middle ear. The following year it treated 30 patients with basically the same

complaints.¹⁷ In 1910 the number of cases continued to grow. But it was not until World War I that there was a real acceleration in the number of newly established departments. Although many of the duties had been performed earlier they were now provided in designated departments. By the 1920's the hospital had an outpatient and obstetrical department.¹⁸ In the 1920's it established a Home Economics Department, and more importantly a Social Service Department. These latter departments were established as measures of educating former patients and the public in disease prevention. Prior to the opening of the Glace Bay General Hospital in 1915, when St. Joseph's was the only hospital in the town, the hospital treated all religious denominations. The bulk of the patients treated in the hospital were Catholics. With the opening of the Glace Bay General Hospital the number of Protestants, notably Presbyterians, Anglicans and Methodists, decreased substantially.¹⁹ St. Joseph's also treated members of the Salvation Army, Jews, and the Greek Orthodox church. The majority of patients were native born Cape Bretoners, but Newfoundlanders, and mainland Nova Scotians were also heavily represented, indicating the transient and seasonal nature of mining work. The patients were predominantly miners and housewives. These were the subscribers. But people of other general occupations such as merchants, carpenters, blacksmiths, domestics, school children, shoemakers, and the "unoccupied" were treated there. The professional classes still chose treatment at

home. In the earlier days of the hospital most patients were hospitalized primarily for infectious diseases (especially in times of outbreaks), contusions, fractures, appendicitis, and lacerations. Much of this was patch up work emanating from the great number of mine accidents. There was often treatment for crushed skulls, ribs, clavicles, feet, and hands. Treatment was also provided for diabetes, pneumonia and rheumatism. The most common surgical cases were appendicectomies, removal of tubercular glands from various parts of the body, repairs of lacerations and dislocations, amputations, and incising of abscesses. There was clearly more surgical than medical work performed. In 1906 the hospital had 430 surgical cases and only 201 medical cases. The average stay at 26.5 days/patient (1902-04) at \$1.17/patient. By 1908 there was an increase in surgery especially in the ear, eye, and throat department. The death rate for surgery was 2.8% death rate.²⁰ It was not surprising that mining town doctors soon became adept surgeons. Dr. John Stewart of Halifax notes in his reminiscences, "Early Days of St. Joseph's," that this hospital saw the "largest percentage of 'industrial surgery' than any in the Maritimes." The doctors performed first class surgery in very difficult circumstances.

The beginnings of Harbour View Hospital in Sydney Mines also reveal much about the active role labour played in the establishment of municipal hospitals. This hospital grew out of a need for an emergency institution to treat accidents. After an industrial accident in 1905 in which two men died, many miners

voiced the opinion that these two men would have survived had they received the proper hospital treatment. The miners approached R. H. Brown, general-manager of the General Mining Association, demanding that the company do something about the lack of a hospital. Brown did not respond to their demands. Two years later the issue surfaced again. On Saturday evening July 20, 1907, a number of men came together to propose a plan for a new hospital. They included representatives of the Provincial Workmen's Association Drummond Lodge, No.8; Pretozia Lodge, No. 77; and Roberts Lodge, No. 35; a representative of the mechanical department; and a representative from the management of Nova Scotia Steel and Coal Company. They agreed to have each miner and steelworker initially contribute a day's pay to help erect a building, and they established four committees, each with a specific purpose. Two of these were established to visit St. Joseph's Hospital in Glace Bay and the Aberdeen Hospital in New Glasgow, another to lobby town authorities, and the fourth to solicit subscriptions from the public. These were fact finding missions as well as attempts to gain public, moral and financial support. Initially the hospital was to be a "public hospital", patients other than Nova Scotia Steel and Coal Company employees were permitted admittance there. They would be required to pay the same amount of money as the miners and steelworkers, and also pay \$3.00/year as the subscription rate. The Nova Scotia Steel and Coal Company employees would pay.

In January 1908 the group met again to discuss the purchasing of property for a hospital. The former general manager, Mr. Graham Fraser of the Nova Scotia Steel and Coal Company, had decided to sell his palatial home in the Autumn of 1907. The group bought the property for \$10,000.00, far below its actual retail value. It was worth approximately \$25,000.00. The men paid \$5,000.00 outright and took a mortgage for five years at six percent per annum. After renovations, and the hiring of a matron and caretakers it opened with on June 15 with 10 beds. Electric power was installed and a ladies auxiliary formed. The group paid off the mortgage a year and a half later. One very interesting aspect of the history of Harbour View hospital is the naming of it. During the planning meetings for the hospital four names for the hospital were brought before the committee: Unity, Peoples, Beech Hill and Harbour View. The latter names refer to the location of the hospital, but the first two names reveal much. Clearly the miners and steelworkers saw the establishment of the hospital as a victory and one expressing solidarity and strength among the labouring class. The establishment of the hospital also revealed that management and labour could work together. The general manager of the G.M.A. intervened with the power company to have the hospital supplied with electric power for a year.²¹

One characteristic common to the establishment of all hospitals including Harbour View was the creation of ladies auxiliaries. While the miners and other groups could build the

physical structures, the women's groups helped furnish and stock the hospitals.

Obviously, if it were not for the establishment of Ladies Auxiliaries, the hospitals would have been in worse financial straits than they were. Many types of women served. In the mining districts the miners' wives comprised them, while in other communities the doctors wives often took the lead. When St. Joseph's opened in 1902 one of the first efforts of the auxiliary was the support of two free beds per year at \$150.00 each. The women also made donations of fruit, preserves, and linen. Doctor's wives also donated flowers, fruit, vegetables, carpet, and reading material. At Christmas the Dominion Coal Company donated port wine, blankets, chickens, geese, tablecloths, and gramophone records. The Eastern Telephone Company provided free use of the telephone. When the other town hospital, the Glace Bay General, was opened in 1915 it also established a ladies auxiliary. In fact the hospital had five auxiliary divisions; Glace Bay, Dominion, Reserve, New Aberdeen and Bridgeport groups all came together for the good of the hospital. Other community groups that supported the work of this hospital were the Masonic Lodge, The Sisters of Ulster, Rebecca Lodge, The Pythian Sisters, and the MacKinnon Lodge. They provided curtains, rugs, linen, chairs, and food. Other groups such as the Orange Lodge, True Blue Lodge, the Dominion Coal Company, The African Society and various school children supported the hospital with cash

donations. Systematic government support was yet to be fully established.²²

In North Sydney, Mr. Charles Hamilton gave money to the established Sisters of Charity Hospital in memory of his son Alexander. Hamilton provided 10 hospital beds when the hospital opened in 1908.²³ The Knights of Columbus supported this first Catholic hospital on the Northside with cash donations.²⁴ Doctors gave public concerts and dinners to pay for instruments.²⁵ Even supporters in Halifax had thimble showers for the hospital. The Hospital Annals for January 28, 1909 describe a treasure box filled with table cloths, sheets, pillow cases, carpets, bedspreads, and towels.²⁶ Harbour View hospital like the others had a ladies auxiliary and relied upon such events as public picnics to raise funds. Their first one was held in 1913 five years after the hospital opened. The hospital also relied upon bequests²⁷ and encouraged their clientele to leave money to the hospital in their wills. All of these groups helped keep the hospitals in existence and worked very hard to keep them furnished with new equipment. In 1924 the ladies auxiliary of the Sydney City Hospital helped to furnish the new Nurses Home and in 1927 helped to outfit the operating room.²⁸

To reduce costs, hospitals often maintained their own farms. In this way, they would not have to rely upon outside suppliers for milk, meat, and vegetables. In 1914 the St. Joseph's Hospital farm had put aside \$2,248.28 for milk, hay, pork, cows

and calves, potatoes and pasture rental.²⁹ Although Hamilton Hospital did not have a farm, it kept some farm animals. At one time in 1913 Hamilton Hospital had forty hens; primarily for eggs.³⁰ However even though a hospital farm did bring money to the institution, the experience of running one was not always a happy one. On the eve of the 35th anniversary of Harbour View Hospital, original board members reminisced about the hospital farm:

It is safe to say that this phase of the hospital has had its shortcomings and perhaps more than anything else has provided an enormous amount of work for the board members. Experience is a hard teacher and in the light of the years, it is questionable if it has fulfilled the best interests of the hospital notwithstanding the dominant place it has occupied in the daily working of the institution. No one will attempt to minimize the value of milk and produce yielded each year from the farm but on the other hand, we can underemphasize other features which might be termed unfavourable.

The farm began with the purchasing of a cow in September, 1912. At the time milk was scarce and very expensive and the hospital needed a fresh supply of milk. Eventually the hospital purchased a barn for \$1,160.00 and added a horse, cart, sleigh, plough, and harness. An assistant janitor was hired to help with the farm, a small potato patch was started and more cows and eventually hogs were purchased. By 1940 the hospital farm was producing hundreds of bushels of potatoes and vegetables. Despite these efforts the hospital board often felt that it interfered with other activities of the hospital. Also, the upkeep of the farm proved

very expensive. As noted "the farm in all its relations has cost men a great deal of time and thought." Undoubtedly the board did not want to spend their energies worrying about the farm's existence when the financial future of the hospital was in jeopardy. But there were very productive years as well as meagre ones. By 1942 the farm was still in operation, remaining operational only to help with the war effort.³²

Although larger hospitals such as the Victoria General in Halifax were usually administered by men, smaller hospitals like those in Cape Breton were usually administered by women. The Board of Trustees usually consisted of town officials who created policies and guidelines for the hospital and usually appointed a female superintendent or matron who looked after the everyday administration of the hospital. During the 1920's hospital administration became more regulated as the provincial government committed itself to more efficient administration of health and hospital care. On April 23, 1925 for example, the Nova Scotia Legislative Assembly passed "An Act to Incorporate St. Joseph's Hospital in the County of Cape Breton." It repealed the hospital's constitution of 1902 and clearly indicated the design and authority of the hospital administrator. This act made provisions for a board consisting of 15 members. Three were to be appointed from various levels of government; one from the town, one from the County of Cape Breton, and one from the Government of the Province. The other members were predominantly Catholic clergy and Catholic professional and business men. It

appointed a President, Vice President, Secretary and Treasurer. The board was the hospital's ultimate authority and had complete control over the hospital's property, financial holdings, and staff. It had the authority to make and pass by-laws, resolutions, rules and regulations regarding the conduct and management in all matters relating to the medical staff and work of the hospital. It had the power to appoint the hospital and medical staff, the Superintendent of Nurses, the Superintendent of the Training School, house officers, department nurses, hospital employees, and all other persons employed by the hospital. The Board could fire any one of these. The Superintendent was also granted the power to hire and fire hospital employees, house officers, and department nurses. There does not seem to have been any provision in this act for the frequency of meetings. One assumes that the board met on a regular basis since it was responsible for every "non-scientific" duty of the hospital. It was mandatory, however, that the annual meeting be held on the second Tuesday of October each year. The Act did not set a predetermined length of service for each board member. It did, however, specify the fact that the Board may prescribe the duration of the term of office and make provisions for the retirement of a fixed number of the Board each year.³²

As Agnew points out in Canadian Hospitals, 1920 to 1970, the early hospital superintendent had the duties of head of nursing services, personnel officer, public relations officer, purchasing agent, enforcer of visiting regulations, and receiver of doctors'

messages. The job was a difficult one.³³ With the opening of the Glace Bay General Hospital in 1915 the first Superintendent, Miss Edith MacClarney, assisted by a staff of three nurses, performed many duties. During the first year MacClarney cooked, prepared and served all meals to her staff and patients, established the business procedures, oversaw the nursing, teaching, and engineering departments, and gave anesthetics. The matron had general charge of the hospital and her duties included the ordering of all drugs and surgical supplies, keeping financial accounts, keeping records of the number of patients with pertinent information such as birthplace, residence, disease, religion and giving weekly accounts to patients who were not subscribers. She would receive the payment and submit it to the treasurer and also submit an annual report to the Board of Trustees. It was not until later that she hired domestics and other support staff. MacClarney was described in the hospital's history as "a busy woman, a strict disciplinarian, but a warm and thoughtful human being."³⁴

The position of superintendent appears to have been a difficult one, given the high turn over rate of those who assumed the job. Between 1915 and 1943, the Glace Bay General Hospital employed 7 matrons, each remaining from one to 10 years, the average being 4.5 years. Most hospital matrons, usually nurses, were unmarried women. Some of course may have left the profession for marriage. Others probably left because of low salaries. In addition, there was usually an O.R. supervisor, a

night supervisor, a head nurse/surgical head nurse/medical, and below them student nurses (if the hospital had a nursing school). By 1920 St. Joseph's Hospital had a nurse on each floor, a record room nurse, a laboratory technician, six graduate nurses and approximately 28 nursing students (senior, intern, and junior).³⁵ Student nurses provided free labour for the hospitals. The growing trend toward training schools for nurses in industrial Cape Breton showed the great demand for their services. Between 1902 and 1922 hospitals in the area established nursing schools; the St. Joseph's School of Nursing (1902); the Glace Bay General (1915); the Hamilton Hospital (1911); Brookland (1916); and Ross Memorial (1922). These local hospitals established training schools for nurses and thus provided a much needed service. Some graduates went to the eastern seaboard states, and others to Ontario. Many of the graduate nurses went into private duty nursing, joined the Victorian Order of Nurses, or went to other hospitals as superintendents or assistant superintendents.

A discussion of nurses' training during the first quarter of the twentieth century reveals the vital role nurses played in administration and hospital care. To be admitted into a nursing school, a woman had to be between the ages of 21 and 35 years. (By the 1920's the age group had been extended to age 19-30 at St. Joseph's and 19-35 for the Glace Bay General.) In 1902 the young woman had to possess a "good common school education, be in good physical condition and able to undergo the strain due to

labour and fatigue." Gradually more emphasis was placed upon an "unblemished character, refinement, and a temperament which [would] enable [her] to conform cheerfully to the discipline of the school."⁶ She had to present two letters of reference from two responsible people stating her good character. If accepted, the young woman spent the first two months on probation. She would receive board and lodging for this time period but no remuneration. At this point the Admissions Committee of the Training School would decide if she was a candidate for the nursing school. If so, board and lodging was given and the probationary student would receive a \$5.00 monthly allowance and three weeks vacation. In 1922 the probationary period was extended to six months of classroom work with a monthly remuneration of \$10.00. The hospitals received cheap labour in return for a miserly monthly stipend.

Student nurses faced strict dress regulations. The women had to supply three plain gingham or print dresses; eight white aprons with 6" hem, 1" from the bottom of the dress; a band 2" wide with 2 pearl buttons; a warm night-jacket, night shoes, noiseless broad toed and flat heeled boots, complete waterproof equipment, a valise, clothes and shoe bags, a good supply of "perfectly plain underclothing", warm winter clothing, a napkin ring, and watch with a second hand.⁷ The uniforms had to be neat and clean and worn from 7:00 a.m. until 7:00 p.m.. They were not to be worn beyond the limits of hospital premises. Nurses were not permitted to leave the grounds without permission

of the superintendent and women had to be in a state of "constant readiness" to answer all summonses. They were expected not only to care for the patients but also to prepare food for them. They were not permitted to gossip about patients, physicians, or the hospital, or to receive visitors while on duty. They had to rest at least six hours out of every twenty-four and have thirty minutes of outdoor exercise everyday, which usually consisted of walks around the grounds.³⁸

The three year course involved both theory and practice. Although it appears as if most of the training was on the floors, the nursing students attended lectures once a week from October 1st until June 1st each year. They were required to attend all lectures and were given oral and written exams. These courses were taught by doctors of the medical staff. The following subjects were taught: care of patients and their rooms; surgical and medical nursing; anatomy and physiology; obstetrics; hygiene; bandages and dressings; food and medicine; cooking and serving food; emergencies; and special surgical nursing.³⁹ By 1910 materia medica was added to the curriculum and the students were travelling to Carey Hill Hospital and Bellevue Hospital in New York, for special study.⁴⁰ By 1916 the nurses training included new specializations such as eye, ears, nose and throat, bacteriology, pharmacology, the theory and practice of dietetics, and nursing ethics.⁴¹ At this point others such as pharmacists and dieticians were brought in to teach courses. Subsequent courses included pediatrics, infectious and contagious diseases,

and hygiene.⁴² By the twenties psychology,⁴³ public health nursing⁴⁴, social services, and nervous diseases and by 1930 infant feeding and preventive medicine were added to the curriculum.⁴⁵ Obviously these changes in curriculum reflected the changing character of medicine itself.

The second year of training was a crucial one. In that year students were permitted to take on private nursing duty outside the hospital. The Committee of the Training School made these external appointments and any remunerations the nurses received went back into the hospital treasury.⁴⁶ Although proper behaviour was always important in the hospitals, it was doubly important for private nursing. The nurse was admonished to "hold in sacred confidence the knowledge, which to a certain extent, [she] must obtain of the private affairs of such households or individuals [that she] may attend."⁴⁷ By the 1920's there was a great demand for "home nurses", public health nurses, school and district nurses. And the training school noted that special efforts were made to prepare the student nurses for advanced work.⁴⁸ The student nurse of the 1920's was expected to have a wide knowledge of contemporary medical science and to possess such characteristics as sobriety, honesty, truthfulness, trustworthiness, quietness, orderliness, neatness, patience, kindness, and cheerfulness, and to carry these traits over into her working life.⁴⁹ Nurses had to be saints, in other words.

It is interesting to look at the actual day to day operations of a hospital in industrial Cape Breton.

Unfortunately, there is little archival resource material available that would help one to recreate this scene. Annual reports exist, but they give a clinical recreation of hospital life. Then there are various annals of religious orders which help to illuminate the topic. These annals suggest that these hospitals were more than hospitals for physical ailments. The staff, nurses and doctors often aimed for the healing of the total person. These seemed to be in line with Catholic educational philosophy which emphasized the education of "the whole person".⁵⁰ Protestant hospital staff undoubtedly had equal concern for their patients' welfare but the records for these hospitals do not exist.

Hamilton Hospital was established in August of 1908 in North Sydney. The old glebe of St. Joseph's Parish was purchased by the local collector of customs Mr. Alexander Hamilton, as a hospital to be administered by the Sisters of Charity and named in memory of his son Charles who was fatally injured in a train accident in 1893. The Sisters of Charity had been stationed in town since 1883. They had established schools there and in other Cape Breton towns. Harbour View Hospital had been in the neighbouring coal mining town of Sydney Mines four months previous, but one hospital in the area did not seem sufficient to meet the medical needs of the population.

The Sisters arrived in August of 1908 to take on their new mission. They were to live in the glebe house which had been renovated for use as the new hospital. Mr. Hamilton and local

doctors quickly set out to furnish and provide equipment for the new facility. Eventually an operating room was set up, a small lab, a male and female ward, kitchen and living facilities for the sisters and two servants. Originally, facilities existed to house ten patients. The hospital would not accept obstetrical cases but the sisters were willing to travel with the doctors to help them with deliveries. Eventually, after 1913, caesarian sections were performed there.

Hamilton Hospital was unique, unlike other local hospitals in the diversity of patients treated there. North Sydney served as a port of call for ships bearing flags from various nations. The chronicler of the Annals for the hospital notes that the Sisters cared for patients from all over the world. The hospital treated fishermen from Newfoundland, St. Pierre and Miquelon, Norwegian, Swedish, German, Russian soldiers and sailors, blacks and Syrians. There was no official policy with respect to religious background, and at one point the chronicler noted that more Protestants than Catholics were treated there. There is strong evidence, however, that special attention was given to wayward Catholics who were encouraged to renew their faith again, especially if death was imminent. The Sisters took great satisfaction in winning back Catholics to the Church. Doctors of both Catholic and Protestant faiths worked at the hospital, but Catholic doctors took an active interest in the furnishing of the chapel and often attended mass along side the Sisters, especially during festive occasions such as Christmas.

From 1908 until the late 1920's the Sisters cared for patients inflicted with infectious diseases such as typhoid fever, TB, scarlet fever, and influenza. It appears, however, that most doctors brought their patients in for surgical purposes. By 1915 up to four operations could be performed per day, each doctor using the hospital operating room for his patient. That year surgery was being performed virtually every morning; often on Sundays if necessary. Surgeons such as Dr. John Stewart and Dr. Murdock Chisholm of Halifax travelled to North Sydney to operate at the hospital. There is also evidence that those doctors consulted with doctors from Glace Bay, New Waterford, North Sydney, Sydney Mines, and Sydney, possibly passing on or learning new surgical techniques and practices. The doctors performed everything from the amputations of legs and feet, to the draining of abscesses, teeth extractions, or tonsillectomies. Emergency surgery such as appendicitis or amputations predominated. The Sisters usually cared for convalescent patients, for local priests, doctors, and their own colleagues who had contracted various infectious diseases.

In the early twentieth century patients had long convalescent periods during illness or after surgery. Patients could spend anywhere from four weeks to four months in the hospital. It is not surprising that close relationships developed between the staff and patients. One Swedish sailor noted on his departure, "I am sorry to leave, this is good ship." The staff took a special interest in young children who had been

treated there and remarked upon their progress. Those who could return often did in order to visit the Sisters. Grieving relatives often were granted peace of mind to know that their loved ones had died peacefully even when far from home. A brother of a British sailor from Kent, England, wrote after his brother's death "I will never again pass a Sister of Charity without thinking of the great deal you did for my brother."⁵¹

The establishment and life of industrial Cape Breton's hospitals was closely related to the economic conditions in the colliery towns. As has been previously indicated the hospitals could not operate independently of the community and depended on it to a great extent for financial support. When the community and local industry faced economic hardship however, so too did the hospitals. The 1920's were lean years in Nova Scotia and especially in Cape Breton towns. During this time hospitals in industrial Cape Breton were vulnerable to economic dislocation. The Sisters of St. Martha who had established the Ross Memorial Hospital in Sydney in 1920 with a mere four beds housed in the parlour, sought public support to keep the hospital doors open. It had been established initially as a maternity hospital which could only care for 50 patients. Because the city had only one other hospital it was unable to cope with the growing number of patients and in 1922 it was forced to expand and included male patients also. In 1923 the hospital received both a municipal and county grant to help meet operating expenses. Two years later the hospital was incorporated by the provincial government

and received a provincial grant in that year. It would comfortably accommodate twenty-five patients with a nursing staff of four sisters and three graduate nurses. By 1927 it was evident that more beds were needed. An adjacent property was purchased, renovated and remodelled for a nurses residence. The 1928 financial campaign was an important one because it demonstrated that the hospital was a public one. It also showed that government money was not easily available. As a result of the campaign a further addition was built and forty adult beds along with three pediatric cribs were readied. It was in this year as well that the name of the hospital was changed to St. Rita's Hospital.⁵²

The growing public acceptance of hospitals during the 1920's as permanent, public health care institutions was reflected in the small but growing financial support they received from the various levels of government. All municipal hospitals, regardless of their sponsoring bodies, were given government grants. At the same time government grants did not provide sufficient funding for hospital maintenance and hospital boards often complained of the shortage of funds.

In September of 1900, Doctors E.J. Johnston and John K. MacLeod approached the Sydney Town Council in the hopes of obtaining support in conjunction with Dominion Iron and Steel Company for the construction of a municipal hospital.⁵³ The local Medical Health Officer, Dr. D. K. MacIntyre believed that the town should take part in the project and encouraged the town

The hospital constantly had heavy demands placed upon its facilities, staff, and finances. It could provide only for some thirty patients; eighteen to twenty-five in the public wards and four to five in private wards. In 1912 DISCO relinquished management of the hospital to the City of Sydney.⁵⁸ The City was still granting an annual subsidy of \$300.00 and DISCO was bearing the financial burden of providing permanent institutionalized health care for the entire community. It transferred the buildings to the city in the form of a gift and made arrangements that DISCO employees be permitted treatment. The company would continue to pay for a number of beds.⁵⁹

On June 18, 1913 the City of Sydney suffered a setback in medical care with the loss by fire of the city hospital. It was forced to share the surrounding local hospitals and emergency facilities which were already overtaxed, those being the local theatre, the Lyceum, the Old Marine Hospital, and DISCO's on-site emergency hospital. The city was able to recoup losses with the opening in November 1916 of a \$60,000.00 sixty bed hospital. \$72,000.00 in public funds was voted for the purchase of a site and the construction of a hospital.⁶⁰

Accompanying the planning and construction of the new hospital was the establishment of a Hospital Commission in 1914. It was comprised initially of five then seven members; the only medical member being the matron. By 1923 the Commission still constituted seven members, but with two medical practitioners, and the matron on the board. The doctors included one local

physician and the local medical health officer. Other representatives included the mayor and city councillors. The board initially was established as a planning committee for the construction of the new hospital but eventually it developed into the top administrative body of the hospital. The Commission controlled the number of beds the Steel Workers' Benefit Society received and the fees charged to DISCO employees. It supervised not only the staffing of all hospital employees and physicians, but the entire budget. It made the decisions concerning the purchase of equipment and hospital expansion.⁶¹ Clearly it was a municipal hospital in that all facets of hospital administration were controlled by a board appointed by the city authorities. It does not seem as if the physicians on staff had much decision-making powers or influence with the Commission. This board administered the hospital as if it were any other company of its day. Boards of Trustees and boards of directors of other local hospitals administered their hospitals in much the same manner. This was an indication of a greater degree of civic responsibility for health care and represented, however slight, a further involvement of government towards the eventual provision of care for all citizens.

Industrial Cape Breton Doctors

The industrialization of Cape Breton brought with it many challenges for its physicians. With the growth of the steel plant and coal mines came many opportunities for physicians to practice their craft. The living and social conditions of the working class introduced physicians to public health, the control of infectious diseases, and health problems peculiar to industrialization. Physicians were brought face to face with conditions which caused many to question the early twentieth century notions of free enterprise and laissez-faire capitalism. Cape Breton doctors of the period 1880-1930 were forced to practice in a health system that was slow to develop. To some physicians this was most frustrating. The art of medicine had to be practised under very trying circumstances. Despite the aggravation, however, there eventually developed a permanent and efficient health system which could deal with any public health problem. The physicians were an integral element in the creation of this system.

Cape Breton doctors who practised on the island from approximately 1880 to 1930 were an interesting group and a profile can easily be drawn. Cape Breton doctors were primarily native born Cape Bretoners although some were born on the mainland. Many of the doctors who travelled to the industrial centres circa 1900 were usually born in one of Cape Breton's rural counties. Many were of Scottish heritage, although there were French speaking doctors in the Acadian regions, and most

were of Roman Catholic or Protestant affiliation. The majority were graduates of Dalhousie, McGill, and Bellevue Medical Hospital College. The bulk of the doctors flocked to the busy industrial centres of Sydney, Glace Bay, North Sydney, and Sydney Mines. Some doctors started their careers in rural areas or small towns and then would move to the busier centres where they would spend their entire careers. It was not unusual for young doctors to start their careers with older experienced doctors in a practice. Many of the younger doctors married their bosses' daughters. It was common as well for young doctors to practice with their physician fathers or brothers.¹ In coal mining centres such as Glace Bay, a physician earned approximately 90-95% of his income from the "check-off system".² A more experienced doctor would pay his assistant a salary from what he earned through the check-off. Deductions for the doctors' services were taken from the miners' wages. This system was in effect during the 1880's and later. It was not until 1903, however, that the system received legal sanction from the provincial assembly. With the introduction of the Company Doctors' Act a doctor had to obtain the signatures of 25% of the miners of one colliery before the Company would act as a collection agent. Those doctors who obtained the largest number of signatures maintained the largest practices. It was not unusual to find one doctor treating practically an entire town. At this time large practices were very common. Well-to-do doctors would often lend a number of their subscribers to help

younger doctors who were beginning their careers. In this way the younger doctors could get on the company payroll.³

Most of the doctors who were paid through the check-off treated their patients in their offices. Most offices were located in the doctors' homes although some maintained offices in the downtown business districts. Patients came to a doctor's house at any hour of the day or night. Many of the doctors' wives became adept at bandaging and treating minor wounds. Some doctors held office hours in the afternoon and evening for six days a week, as well as making house calls. The doctors found that they had little time for leisure and entertainment. Ultimately, these doctors lived for their work and were very dedicated to their patients. The doctors' patients looked to the doctors with respect and often sought advice for other than medical problems. The doctors were as respected as clergymen.⁴

The check-off system guaranteed that medical service would be available for a miner and his family. Those who were not on the check-off would have to pay the doctors themselves. This is when doctors were paid fee-for-service. During the early twentieth century money was very scarce for working class people in Cape Breton. The majority of Cape Breton doctors were never paid for all of the services they performed. Many patients would offer flour, meat, or some act of kindness in return for a service.⁵ One prominent physician in the Glace Bay area died in 1928 with approximately \$200,000 worth of outstanding bills

owed to him. The family burned the bills as they knew that the money could never be recovered.⁶

Physicians could also earn money in other ways. They could obtain contracts to perform medical examinations for insurance companies, act as municipal medical health officers or be employed by the steel company. These men could still carry on private practices with these other jobs. The steel plant maintained its own emergency hospital located on the plant site. Four doctors were employed there at once. Virtually all types of surgery and treatment of injuries was undertaken here.⁷

As has been shown throughout this thesis, the Cape Breton medical profession was an integral part of the establishment of permanent health care. It played an important role in hospitalization and the introduction of preventive medicine in the school system. The profession was supported by the two religious orders of the Sisters of Charity and the Sisters of Saint Martha, the nursing fraternity, and other organizations. The development of both health services and the medical profession in the late nineteenth and early twentieth century shows the emergence of a permanent and efficient public health system. It came only gradually, largely as a result of the efforts of the medical profession. In the process the profession faced indifference and resistance on the part of the municipal authorities and the public at large.

Conclusion

At the beginning of the twentieth century industrial Cape Breton witnessed an economic boom. Immigrants were coming from the four corners of the world seeking employment in the coal mines and the Sydney Steel plant. Between 1896 and 1901, 6246 immigrants had arrived in Cape Breton County. Over half of that number had arrived in the four year period 1896-1900. The population had increased by 400% in the two decades before 1900.¹ Because island towns and municipalities were totally unprepared for such a large influx of immigrants, many health problems were to result.

As Cape Breton towns accepted these immigrants it soon became evident that the towns were unprepared for the problems that would follow. Sufficient proper housing was unavailable, forcing many into overcrowded shacks. Some of the first immigrants to industrial Cape Breton arrived without their families. Many of them expressed little concern for personal hygiene or cleanliness of any sort. The local newspaper made comment on the situation:

[The shacks are] a positive disgrace to the most filthy parts of Constantinople ... The very look of [them] is enough to make you feel pale and fathers of children should unite in having the surrounding thoroughly cleaned of these undesirable environments ... they are little more than graveyards [where] humans are buried before they are dead If the sanitary inspector shut his eyes and entrusted his duties only to the reporting powers of his nostrils, he should be able to detect and remedy to some extent the disgraceful conditions that exist.²

Even when the men moved out of the shacks and into company owned homes with their families, the situation did not greatly improve. There was no indoor plumbing or municipal sewerage system. Privies were rarely cleaned and it was not uncommon for families to dump bath and dish water at the back door. Stagnant pools of water near the houses and on the streets were the order of the day. The problem became very dangerous in the summer months. Strewn garbage and carcasses of dead dogs or cats were sometimes found decomposing on the ground. It was very common as well for the family to have its own horse, cow, pig, chickens, or ducks. It was a rare occasion when a family disposed of these animals' droppings and entrails. Cows would frequently wander into the street without restraint and the streets were often splashed with cow dung. This attracted swarms of flies which gained easy access into those homes that had no screens.³ This environment provided fertile conditions for various sorts of infectious organisms to breed.

Even before the industrialization of Cape Breton County, infectious diseases frequently swept across the island. With the coming of industrialism, however, infectious disease became more common. The most common epidemics involved were diphtheria, smallpox, tuberculosis, and cholera infantum. When these diseases struck, local town councils were totally unprepared. No permanent and effective public health system had been established which could adequately address the gravity of the problem. In 1888 a Public Health Act was passed by the provincial legislature. It provided for the establishment of a Board of

Health and for the appointment of a sanitary inspector, but only during times of infectious disease outbreaks. In 1900 amendments were made to the act. Probably the most significant addition involved the appointment of permanent boards of health and for the hiring of medical health officers. Every town or municipality was now required by law to maintain a board of health, a permanent salaried medical health officer and a sanitary inspector.⁴

The amendments to the 1888 Public Health Act did not mean that industrial Cape Breton would now find all of its health problems resolved. Medical health officers and sanitary inspectors encountered indifference and resistance from the public as well as its local officials. Private citizens continually evaded the Public Health Act and the local governments refused to vote adequate budgets for the boards of health. Medical health officers expressed their frustration in their annual reports, fought for the permanent appointments for meat, milk, and water inspectors, permanent sanitary inspectors and advocated general vaccination. Many of these objectives were finally obtained but only when it became obvious that infectious disease outbreaks were costing municipalities thousands of dollars. In addition, the rudiments of a permanent health system were only enacted after the local governments were forced to establish them. As other historians have noted, the Canadian public health system was developed slowly and on an ad hoc

basis.⁵ Many civic official learned the hard way that health was purchasable, but usually at a very high price.

Children may be said to have been the prime benefactors of the bacteriological age and the movement for sanitary reform. After 1907 municipalities could choose, if they wished, to implement medical inspection in the public schools. As with the Public Health Act of 1888 which neglected to make boards of health mandatory, the 1907 act did not establish a permanent and compulsory system of medical inspection of schools. School boards implemented inspection as need be, revealing the continuance of an ad hoc approach to disease prevention and a continuing resistance to public expenditure on health care.

The philosophy behind the medical inspection of school-age children was to teach personal hygiene as well as mental health. This was the school reformers' attempt to heal the whole child; his mind, soul, as well as his body.⁶ County or municipality-appointed public health nurses examined the children for defective hearing, eyesight and obvious physical deformities. They gave health talks and toothbrush drills. These nurses along with VON nurses made follow-up visits in the schools. Medical health officers requested that towns provide free dental service for all children. Preventive medicine in the school system also included physical drill and exercise and the growing of home and school gardens. The education of the entire child was taken into consideration.

The watchword of the preventive medicine movement was education. Anti-tuberculosis leagues not only advocated anti-spitting laws, and healthier living conditions, but also circulated literature en masse outlining the causes and prevention of tuberculosis. They believed that they had a mission to educate the tuberculosis patient, his family, and the general public about healthy living and personal hygiene.⁷ Other preventive measures were found in the introduction of milk and meat inspection. These were instituted and controlled by local governments. Medical health officers had called for their implementation for years on end. Yet prevention was left to the whims of local governments who refused to see public health as a priority.

The establishment of permanent public health care institutions was promoted by various groups. Hospitals developed from infectious disease hospitals and poor houses into efficient, modern health care institutions. Fortunately for the public, municipal governments had little to do with their establishment. The Dominion Iron and Steel Company in Sydney and coal miners in Glace Bay and Sydney Mines helped to establish Sydney City Hospital, Harbour View Hospital, and St. Joseph's Hospital. Two religious orders, the Sisters of St. Martha and the Sisters of Charity, also established hospitals. The hospitals received municipal and provincial grants and established formal trustees. Initially run in a haphazard fashion, they gradually introduced formal standards and common

rules and regulations. By the 1920's the hospitals had begun to departmentalize and specialize, and provided outreach services to the community. The more the public used the services of the hospital, the more they revealed confidence in medical science. The hospital gradually became an institution that provided health care to all levels of society. Hospitals moved from the periphery of medical care to its centre. They became more and more vital to successful medical practice.^a

In this thesis the development of the health services and the growth of the medical profession in Cape Breton during the late nineteenth and early twentieth century have been examined. The emergence of a permanent and effective health system came gradually, with lengthy pains, and largely as a result of efforts of the medical profession.

In the course of that process too often the medical profession had to contend with public apathy or indifference, municipal politicking and a generally low level of importance attached to the concept of health matters. However, they persevered and their efforts should not be forgotten. Perhaps the greatest gift of the medical profession, doctors, nurses and administration, to the development of education and legislation in Cape Breton was the fact that they cared for those whom they served.

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The Fight Against Infectious Disease

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5. Interview with Dr. Liam McKeough. North Sydney, August 26, 1990; Interview with Dr. Douglas Roy. Halifax, August 16, 1990.
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7. Interview with Dr. Clement Young. Sydney, August 26, 1990.

Footnotes

Conclusion

1. Census, 1901. As quoted in Ronald Crawley, Class Conflict and the Establishment of the Steel Industry, 1899-1904. M.A. Thesis Sociology. Dalhousie University. 1980. p 51.

2. David Frank. The Cape Breton Coal Miner, 1917-1926. Ph.D. Thesis. Dalhousie University. 1979.

3. S.D.P., 22 April, 6 June 1901; 24 November 1905.
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4. For a discussion of the development of permanent public health systems in other Canadian cities see:
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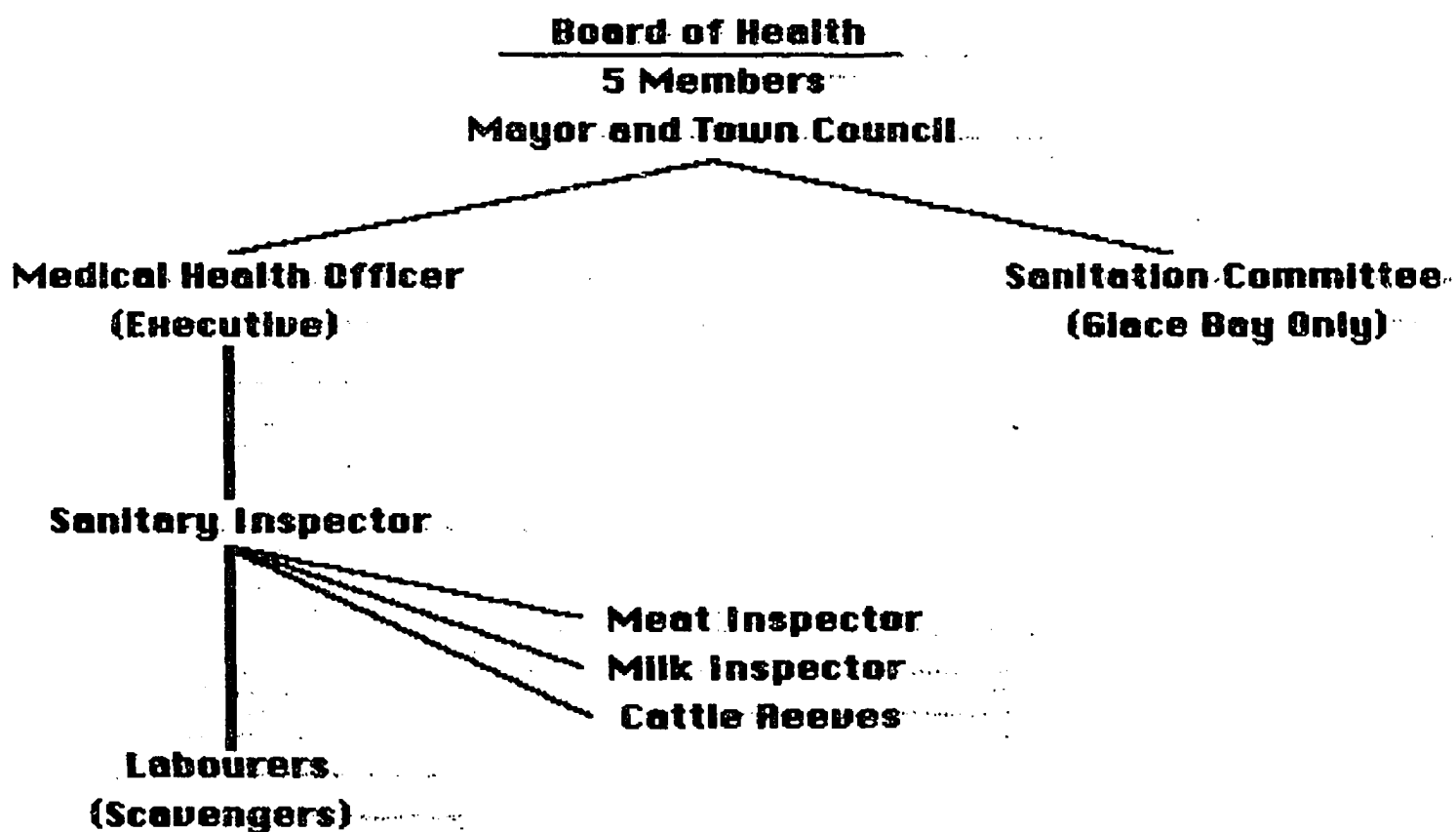
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Diagram 1



Source: Minutes and Annual Reports of Industrial Cape Breton Town, 1898-1930.

Table I
-----SYDNEY DEBTS - 1903

Water	\$323,000.00
Sewerage	89,000.00
Dominion Iron and Steel Company, Ltd.	85,000.00
Schools	59,500.00
Land	50,000.00
Flating Debt	34,500.00
Town Hall and Fire Station	10,000.00
Sidewalks	10,000.00
Streets	2,500.00

Total	\$663,500.00
	=====

Source: Journals, House of Assembly, Nova Scotia, 1903,

Appendix 14, Incorporated Towns. p. 22.



Dr. Michael T. Sullivan

c.1924

1874-1928

Graduated McGill 1901

Medical Health Officer for Glace Bay,

1901-1908

and

1923-1925

Table II
-----Board of Health Account
-----Expenditures, Glace Bay 1905

Medical Health Officer	\$100.00
Sanitary Inspectors	379.15
Attending Physicians	1,402.50
Police Guards	379.50
Clothing Destroyed	172.80
Supplies for Smallpox	493.49
Phone Rent for Infectious Disease Hospital	24.98
Repairs to Infectious Disease Hospital	99.39
Insurance	18.00
Lease of Dumping Premises	120.00
Cleaning	7.25
Caskets	12.25
Fuel	10.50
Miscellaneous	15.63

	\$3,235.44
	=====

Source: Town of Glace Bay Annual Report, 1905.

Table III

Board of Health Account

Expenditures, Glace Bay 1928

Dr. A. Calder	750.00
Dump Tenders	240.00
Milk & Sanitary Inspector	1,275.00
Repairs to Hub Dump	49.40
Postage on Circulars	1.00
C. Richardson & Co. Ltd., Milk Testing Machine	120.10
Expassage on Testing Machine	7.93
The DeLaval Co. Ltd., Thermometers	2.95
S.A. Peters, Cleaning	4.00
Brodie Printing Services	31.75
Chappell's Ltd.	86.45
Hugh Cameron Sons	31.76
Gazette Publishing Co.	83.90
A.N. Morrison	7.35
B. Seigel	0.40
Black Diamond Pharmacy	55.95
Medical Hall	233.45
C. & G. McLead	1.25
Thompson & Sutherland Ltd.	0.14
John D. McDougall	6.00

Transferred to Revenue Account	\$2,988.78
	=====

Source: Town of Glace Bay Annual Report, 1928.

ILLUSTRATION IISmallpox and Quarantining of Patients

Source: Early Health and Medicine, Toronto: Crabtree Publishing Company, 1983

Table IV

British Empire Steel Corporation, Limited

Statement of Deductions From Mine Employees

Year 1924

	Dominion Coal Company	Nova Scotia Steel & Coal Company
Warehouse Supplies (for their work)	115,717.51	22,958.70
House Rents	168,470.80	17,752.98
Employees Coal	206,303.10	55,765.86
Sanitation	5,541.51	-
Electric Light	18,906.93	-
Water	7,963.36	1,748.27
Retail Stores	1,080,051.14	119,242.64
Doctors	154,024.84	38,840.00
Checkweighmen	46,486.97	7,494.55
U. M. W.	160,353.92	36,653.00
Employees Benefit Society	122,076.47	-
Churches	60,966.34	6,074.55
Taxes	51,680.20	-
Hospitals	99,636.18	14,620.00
Sundries	51,687.24	8,069.85
	2,349,866.51	329,220.40
	=====	=====

Source: Report of the Royal Commission Respecting the Coal Mines
of the Province of Nova Scotia, 1925. Appendix "E"

Table V

 Patients Admitted to Glace Bay General Hospital 1916-1930

Year	Admitted	Treated	Died	Death Rate	Max. Pat./Yr	Daily Avg.	Subscrip Days	Non- Subscrip Days	Free Days
1916	787	824	43	5.22%	72	47.5	7138	5173	840
1917	- - - - -	No Information Available				- - - - -			
1918	990	1024	53	5.18%	68	46.1	5820	5330	429
1919	988	847	40	4.72%	62	47.3	6574	2539	374
1920	963	1015	40	3.94%	68	57.2	6567	3328	303
1921	993	1048	41	3.91%	72	60.4	5899	3718	762
1922	1063	1122	34	3.03%	82	64.8	8031	3311	921
1923	1151	1202	40	3.33%	72	62.6	6482	2157	1279
1924	1179	1227	39	3.18%	80	58.6	6800	3471	1055
1925	- - - - -	No Information Available				- - - - -			
1926	1203	1245	53	4.26%	85	59.3	8212	2480	707
1927	1365	1415	58	4.10%	88	65.5	6960	2686	542
1928	1353	1402	43	3.07%	79	56.0	6229	1930	566
1929	1687	1747	64	3.66%	78	62.0	8187	2953	381
1930	1855	1908	66	3.46%	84	62.0	6880	3238	550

Source: Glace Bay General Hospital Annual Reports, 1916-1930.

Table VI

Number of Days Spent in Hospital, 1915-1916

<u>Diagnosis</u>	# of Days
Burns of Body & Extremeties	1-18
Cancer of Stomach	81-99
Crushed Thigh	3
Fracture of Femur	23
" " Skull	21
" " Spine	122
Pneumonia	5-8
Nephritis	1
Osteomyelitis	9
Paresis	114
Syphilis	6
Tuberculosis (pulmonary)	7-150
Tubercular Meningitis	6-20

Source: Gloucester Bay General Hospital Records, 1915-1930.

Case Study IChorea and Diphtheria

Case #9728 - Dr. F.W. Green

Esther Tiller, age 15, Mechanics Row, Cape Breton native

Admitted December 10, 1924- discharged February 14, 1925.

Six months previously, suffered attack of chorea and was responsive to treatment. Ill one month previous, anemic, temper, irritable, could not remain still. Developed sore throat with pain in abdomen and vomiting. Temperature 99-104 degrees. Poorly nourished. Isolated for diphtheria; made good recovery.

Treatment: Liquor arsenicalis Mv given every 4 hours, house diet. January 3 - headache, sore throat, pain in side and vomiting. A small amount of brownish fluid, temperature increased to 104. Two days following anti-diphtheretic serum, 5000 units given. Rx Empirin tab, grs 1/2 q. 4 hrs, boral gargle given frequently, temperature remained high for five days then returned to normal, liquid diet given followed by light diet. Patient was discharged in good condition.

Source: Glace Bay General Hospital Records, 1915 - 1930.

Case Study IIMalnutrition

Case #13551 - Dr. F.W. Green

George Bobbett, age 3 months, New Aberdeen, Cape Breton native
Admitted March 3, 1928 - discharged August 20, 1928

Mother died with TB at time baby admitted, sent to hospital for proper care and feeding. Weight was 6 1/2 pounds at 3 months. Upon examination baby was found to be undernourished for age; very pale. Weight less than at birth.

Treatment: Modified cow's milk gradually increased in strength; cod liver oil, orange juice daily. Gained weight very slowly. Weight 12 pounds when discharged.

Source: Glace Bay General Hospital Records, 1915-1930.

Case_Study_IIITuberculosis

Case #8952 - Dr. W.W. Patton

John A. MacDonald, age 35, Broughton, Cape Breton native, miner
Admitted May 1, 1924 - died October 30, 1924

One year previously had pain in mid-back, swelling over left eye, pain in both shoulders, stiffness in left arm. May 23 had severe pain in right hip. July 11 had gland removed from left side of neck for microscopic examination. A large walnut sized-lump over eye. Between May 1 - July 17 patient experienced considerable pain in shoulders, arms and legs.

Treatment; Electric battery to limbs for twenty minutes bid, rheumatol massage, salicylates, aspirin, morphin for pain. Patient became weaker, and unconscious, eventually died.

Source: Glace_Bay_General_Hospital_Records, 1915 - 1930.

ILLUSTRATION IIIVarious examples of preventive medicine

Source: Early Health and Medicine, Toronto: Crabtree Publishing Company, 1983
Medical Services in Glace Bay, Antigonish: Nova Scotia Co-operative
Educational Council, 1941

Table VII

1901 - Cape Breton - Principal Causes of Death

Disease	Male	Female	Total

Diphtheria/croup	35	37	72
Tuberculosis	33	37	70
Senility	16	35	51
Bronchitis/pneumonia	25	18	43
Diseases of Heart	16	10	26
Measles	11	14	25
Accidents	24	1	25
Affections of Intestines	15	5	20
Apoplexy/paralysis	12	6	18
Cancer	12	4	16
Congenital Diseases	6	9	15
Influenza	9	5	14
Diseases of the Kidneys	11	2	13
Typhoid Fever	6	5	11
Periphereal Disease	-	7	7
Affections of the Liver	-	1	1
	-----	-----	-----
	237	197	434
	=====	=====	=====

Source: Census, 1901. Volume II Miscellaneous Statistics, Table VI

Principal Causes of Death.

Table VIII

1912 - Cape Breton - Principal Causes of Death (all ages)

Location	Disease	# of Deaths
Sydney	1. Tuberculosis	43
	2. Pneumonia	43
North Sydney	1. Tuberculosis	15
	2. Enteritis (under 2)	10
Sydney Mines	1. Convulsions of Infants	17
	2. Tuberculosis	12
	1. Enteritis (under 2)	37
	2. Congenital Debility	28

Source: Journals, House of Assembly, Nova Scotia, 1912.

Part II, Appendix 25, Vital Statistics. p. 29.