

HEALTH CARE SERVICES IN LYTTON, BRITISH COLUMBIA  
A STUDY OF THE RELATIONSHIP BETWEEN THE  
HOSPITAL AND THE RURAL COMMUNITY

by

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ST. BARTHOLOMEW'S  
HOSPITAL

LYTTON,  
BRITISH COLUMBIA



## ABSTRACT

The study was undertaken when St. Bartholomew's Hospital, in Lytton, B.C., a 27 bed facility, was experiencing under-utilization and the threat of closure. This study examines the health and social services of the area, and suggests alternatives for the hospital.

Three methods of investigation were used, involving survey methods, documentary analysis, and oral histories. Two survey instruments were prepared by the researcher and applied to a stratified sample of key informants from the community. The respondents in these surveys were divided into either provider or consumer categories, and stratified within each of these as to the degree of contact with the local hospital. Twenty-five such interviews were held with each major category for a total of fifty completed interviews.

A comparative questionnaire was also given to patients of St. Bartholomew's Hospital, asking for specific comparison between that hospital and any other with which the patient may have had personal contact.

Documentary analysis involved examination of data from three major sources. The hospital maintained records were examined to present utilization rates according to age, sex, diagnosis, residence location and ethnic origin of patients for specified years. Information from British Columbia Hospital Plan was relied on to provide similar



information for the school district of South Cariboo, and for the Thompson-Nicola Regional District, for comparison with local rates. The Medical Services Commission of British Columbia was approached to supply information on the volume of physician visits in the local community for selected years.

Oral histories were prepared from various persons in the local health field, and from many other individuals in the community. The purpose of these oral histories was to substantiate the factual material, and to generate new and different information not available from the data.

The results of this study indicate that Lytton is probably not going to change much in the next decade, but that patterns of health care delivery, and modes of demand for health services are experiencing a significant change at the present time. The result is that the local hospital has become less favoured, and therefore less used by the local people in satisfying their health service wants.

Five alternatives for this hospital were examined in some detail.

Alternative A involved no change in the present system. From medical, economic and political viewpoints this alternative is not acceptable.

Alternative B suggests a reduction in the present inpatient capacity of the hospital, a restructuring of the governing body, the attraction of a second primary health care worker to the area, and the placement

of the present doctor and the additional primary care person within the hospital setting. The additional primary care worker could be either a nurse-practitioner, or a physician on salary to the hospital. This alternative has many strengths, but attempts to facilitate change in the hospital in isolation with little regard to the other health and social agencies in the area.

Alternative C has all of the attributes of B but goes one step beyond to house the primary health care workers in a Community Clinic built adjacent to the hospital, and include most of the other health and social services available to this community. This alternative requires substantial initial capital, but represents the optimum for the people of Lytton.

Alternative D suggests the closing of the inpatient services, and the creation of a comprehensive Diagnostic and Treatment Centre housing most of the health and social services.

Alternative E would be for the hospital to close its doors, offer no services, and make no effort to meet the community's health care requirements. Similar to A, this alternative is deemed unacceptable.

The last alternative suggests that the University of British Columbia Faculty of Medicine might take over the hospital as a teaching hospital providing rural exposure to a rotation of resident physicians as part of their formal education.

The final report was presented to the Board of Directors of St. Bartholomew's Hospital for their consideration.

Dr. C.J.G. Mackenzie  
Thesis Chairman

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The Board of Management of St. Bartholomew's Hospital, Lytton is commended for their far-sightedness in the initial undertaking of this study. Also, the residents of the Lytton Community deserve credit for their openness and interest in my contacts with them, and I wish them well in their efforts to effect positive change.

In addition, there is a long list of people with whom I met, corresponded with, or otherwise badgered regarding various aspects of this work. To all of these I say thanks.

Lastly, my deepest thanks go to Marilyn, for without her patience and gentle pushing this project may not have reached its eventual completion.

## CHAPTER 1

### INTRODUCTION

#### A. Background to the Study

##### 1) Background, Proposal and Terms of Reference

The underlying ideas for this study began to develop in Lytton in the spring of 1976. In April of that year, St. Bartholomew's Hospital had entered into a new administrative regime, sharing its senior executive with the Ashcroft and District General Hospital, located in Ashcroft, some forty-five miles away. The new administrator, finding the hospital in Lytton underutilized and having a poorly controlled budget, contacted the University of British Columbia to discuss the possibility of having one or a group of students take on a study of the health care services available in the Lytton area. It was not until September 2, 1976 that a formal request for such a study was sent from the Hospital to Professor Warner, Acting Director, Graduate Program in Health Services Planning at the University (see Letter, Appendix 1). That Correspondence suggested that "....the hospital wishes to identify the best or optimum method of providing 'Health Care' Services to the community of



Lytton and its surrounding population." Also, that a survey could "....identify the existing and planned health care services and facilities as well as identify the community's knowledge, interests and expectations for services and facilities." The Hospital Board would like to have "....recommendations made as to a practical means of delivering this optimum system in Lytton."

The administrator suggested that the Board had been looking beyond hospital care to a broader concept of health care including preventive care, curative care, social services, and mental health services. He also suggested that "....consideration should be given to the implications of the high native population, geography, socio-economic and demographic characteristics of the population and religious influence on the kinds of services to provide."

I made a visit to the community with Dr. C.J.G. Mackenzie of U.B.C. in October 1976 to discuss the project with the hospital administrator. In November, the thesis proposal was given approval by the university faculty and on January 17, 1977, the Board of Directors of St. Bartholomew's Hospital in Lytton gave their approval for the study.

## 2) Time Frame for Events of the Study

The Board of Directors of the Hospital wished to have a report, with recommendations, by the middle of August, 1977.

The formulation of the strategy involved the first month of the project. By early March, I had determined that two questionnaires would be used, and these were prepared and printed. Contact was made with British Columbia Hospital Plan, and requests for their data were submitted about the same time.

Fifty interviews with providers, and potential consumers of health and social services were conducted during April and May, 1977. At the same time, the Medical Records Librarian prepared the 1973, 1975, 1976 and January to June, 1977 patient utilization information for analysis. The analysis of the completed survey and of the statistical data was done in early July.

## B. Purpose of the Study

The overall goal of St. Bartholomew's Hospital in Lytton is to provide effective and efficient diagnostic and treatment services of a high quality, to meet the health care needs of the community. Community in this context is understood as including

not only the regular residents of the area, but also anyone else such as tourists or temporary workers who need medical services while in this location.

This present study involves three aspects: 1) the determination of health care needs in the community, 2) an intra-community examination of the services available and their effects on each other, and 3) an inter-community examination of health care services, looking at the broader network of services within the province and how St. Bartholomew's relates to this network.

1) The Determination of Health Care Need

The purpose of this portion of the study was to examine what the health care requirements of this area are, with a view to determining what organizational structure in the health service system would meet these requirements most effectively and efficiently.

2) The Intra-Community Examination

This portion of the study involved an examination along two dimensions. Firstly, there are the internal dynamics operating solely within the hospital. Attitudes and behavior of the staff towards each other, their patients, and the hospital are considered to have an effect on the quality of care provided within any institution providing

care for the sick.

The second part of the intra-community examination involved a searching out of all the other health and social services available in the community. Each of these services was then viewed in its relationship to the hospital in Lytton, and in the mini-network of relationships between providers of care within the community.

### 3) The Inter-Community Examination

St. Bartholomew's Hospital in Lytton is but one small part of a complex network of hospitals throughout the province of B.C. In turn, hospitals are but one part of an even more complex system of health care, involving curative care, prevention and education, and health maintenance. This inter-community examination considered the role of St. Bartholomew's in this larger context of health care services within the province, with the aim of optimizing the role which this hospital should play.

## C. Terms of Reference

In order to meet the goals of the hospital, and serve the larger health care network, the study had the following objectives:

### (i) Developmental Objectives of the Study

- (a) To determine what health services should be available in the Lytton area to effectively meet the basic

health care needs of the community.

- (b) To determine what services the hospital in Lytton should offer to serve its goals, meet the needs of the community, and have an appropriate "fit" with the broader health care system.
- (c) To determine how the hospital should relate to the other health and social services which are, or should be available in the community.

(ii) Outcome Objectives of the Study

- (a) To propose a set of alternatives for the hospital, exploring the organizational and service components of each alternative.
- (b) To examine the proposed alternatives, explaining the strengths and weaknesses of each proposal from a medical, economic and political point of view.
- (c) To examine the strategy for implementation of each of the alternatives.

The major purpose of this study is to develop alternatives for this hospital to help them fulfill their objectives. The alternatives are presented in a manner which represent a range of complexity of service orientations for this hospital. Each alternative is discussed according to the findings from the surveys, the empirical information, and from the oral histories.

Each of the proposed alternatives is then further examined in relation to the medical, economic and political implications

of the alternative if it were implemented. The strategy for implementation of the alternatives is tentative, and each requires more investigation. The basic implementation issues are discussed in Chapter 8, and could be used to assist in making decisions about selection of an alternative.

#### D. Development of a Strategy for the Study

##### 1) Development of the Strategy

This study represents a single case study from the real world, undertaken against the background of the literature, to provide any lessons for more general application that it may suggest. To conduct a meaningful study of the health care needs and services of this community therefore required the development of a community-based, evaluative strategy which would involve the residents in the research process. This community involvement required an approach which would de-emphasize the quantitative material, and stress the value of more subjective, qualitative information. From this conclusion evolved the approach which was followed in this study: a community survey technique, with an open ended survey instrument, and the oral history method of gathering information. Both of these research methods may be more cumbersome than purely quantitative research, but they provide the opportunity for a much richer and broader input regarding the question at hand.



## 2) Limitations of the Study

There were three basic limitations in this study: time, money, and personnel. All three factors constrained the research strategy. Time and money, as is often the case, limited the scope of the study, both the number and depth of interviews which could be completed, and the amount of empirical information which could be requested, gathered and analyzed from the various sources.

The personnel factor was also a result of the money limitation in that I was the sole researcher, charged with the responsibility of requesting statistical data, conducting interviews, analyzing all of the information, and writing the final report. In short, the need for skills in these four areas in one person, and the time available should be kept in mind.

Three other major limitations in this type of study need to be considered. The first of these is the problem of assessing the quality of health care. This concept will be dealt with more fully in the review of the literature (Chapter 3. C.) but requires some explanation here. When assessing quality of care, what does one measure, and how does one measure it? As noted by Donebedian (101, p.632) "Judgments of quality of care are incomplete when only a few dimensions are used and decisions about each dimension

are made on the basis of partial evidence." Empirical information, such as that gained from utilization rates and diagnostic groupings tend to miss the personal or individual sense that contribute to the concept of quality of health care. In this study, an effort was made to include such personal feelings through the survey questions and through the use of the oral histories.

A second major limitation in this study is the lack of control groups with which there could be some comparison. Comparisons for generating a functional plan should be both longitudinal, in that it would study the same population before and after a specific event, and latitudinal, in that a comparable hospital, community or population might be examined which have their health care services operated along different lines.

The longitudinal aspect of comparison was not possible because the health care system, both within this community, and beyond it within the overall provincial network, is such a complex and changing mass that cause-and-effect changes are difficult to evaluate. In addition, in the present study there was not time available for a long examination period.

The latitudinal control group concept is also difficult to use because of the complexity of even this relatively

small rural health care setting. The complexities of cultural, economic, political, geographical and other characteristics are simply too intricate to be controlled considering the pressures of time and the amount of research which would be necessary to develop such community profiles. In addition, these profiles would only represent a "snapshot" view of these communities as they are in a never ending process of change.

The last major limitation was the lack of an accessible data base upon which to develop an empirical approach to the problem. The British Columbia Hospital Plan data is maintained in computer files according to School Districts within the province. School District number 31, South Cariboo contains both St. Bartholomew's Hospital in Lytton, and the Ashcroft and District General Hospital in Ashcroft, which made it impossible to determine the residence location of patients who use St. Bartholomew's Hospital. It also made it impossible to examine the out-migration of patients from the Lytton community to other hospitals.

To deal with the first of these problems, the hospital maintained records were analyzed for the years 1973, 1975, 1976, and January to June 1977. This analysis involved a large amount of time as this hospital had not maintained a record system which would provide the information which was

needed, other than cases per year. A manual search of all cases for these two years provided information such as age, sex, diagnosis, Indian or non-Indian, Indian Band number, and place of residence. In this manner, some idea of the catchment area for St. Bartholomew's could be determined.

Population movement patterns remained difficult to assess although the Comparative Questionnaire of St. Bartholomew's Hospital patients gave some indication of out of district trends.

## CHAPTER 2

### HISTORICAL AND GEOGRAPHICAL ASPECTS OF LYTTON AND ST. BARTHOLOMEW'S HOSPITAL

#### A. Lytton

##### 1) Background

For centuries before the coming of the first European explorers, the plateau above the junction of the Fraser and Thompson Rivers had been a summer gathering place for members of the various Interior Salish Indian bands. It was also the permanent settlement for a band of Indians who hunted and fished the locale and dwelt in unique underground houses. These native people knew the area as "Cumchin", or meeting of the rivers, and their first recorded contact with the white man was during Simon Fraser's visit to the valley in 1808. An account of his arrival has been preserved, and is presented here as it appears in the Okanagan Historical Society Report of 1954:

(Note: "Kwolin'an" means Birch Bark canoe, a term the Natives applied to Simon Fraser's party.)

"Simon Fraser's Visit to Lytton, 1808  
Related by Wa'xtkoa of Spences Bridge.

"When Kwolin'an came to Lytton, Tcexe'x was chief of the Spences Bridge Band. He was a prominent chief and a great orator. He had one eye. He never practised as a Shaman, but was more powerful than most Shamans are. I am directly descended from him. He had a large family and was an elderly man when the whites came to Lytton.

It was midsummer. The berries were just ripe in the river valley and many of the tribe were assembled in Botani, digging roots and playing games.

Some Thompson River men who had been up at La Fontaine on horseback came back quickly with the news of the approach of these people.

Tcexe'x was at Botani with others from Spences Bridge. He hurried down to Lytton and was there when the whites arrived. The Chief of the whites we called 'Sun'. We did not then know his name."

And so the white man came to what we now know as Lytton. By the middle 1850's British Columbia was a growing crown colony, and in recognition of Sir Edward Bulwer-Lytton, the colonial secretary in London, the settlement was given its present name. The California gold rush was on the wane, and news of gold in the Fraser River became known. Then news of gold at Barkerville in the Cariboo stirred even more people into seeking their fortunes. Lytton, situated as it is on this river junction, became an important centre of trade, and in the middle 1850's and 60's had a population of about 4,000 at any given time. In 1871, the Reverend John Booth Good, an Anglican priest who had settled there, reported to the Society for the Propagation of the Gospel in London that the population of the area was comprised of 1,000 Europeans, 500 Orientals, and 7,000 to 8,000 Indians.



The first boom soon ended and by the mid 1870's, Sir James Douglas, the first governor of the colony reported that the population had dwindled to about 900 persons.

Two further and related booms swept this community between 1880 and 1912. This was the construction of the Canadian Pacific Railway, followed by the Canadian Northern Railway (now the Canadian National Railway). These were followed by the construction of the Pacific Great Eastern at Lillooet, for which most of the supplies were freighted through Lytton.

The British Columbia Year Book 1882-3 devoted several paragraphs to an awe-inspiring description of Lytton. Interesting is the number and variety of commercial enterprises seemingly thriving in the area: "The annual sale of flour and dry goods ...is simply enormous ...". The wants of the "Chinese locality...are abundantly met within the unique establishments that are constantly multiplied by enterprising firms within the area...The European portion has also the look of thriving prosperity." The article makes note of a dry goods store, fruit store, two general merchants, butcher shop, three hotels with restaurants, two livery stables, a telegraph office, two blacksmiths, sawmill, gristmill, court house, canning factory, government school and offices, and a constantly growing group of railway warehouses and offices. Agricultural produce consisted of "tons of melons", apples, pears, plums and numerous vegetables, all

of which were grown as commercial crops. At one time there even existed an imported silks shop, and a Buddhist temple.

A problem which Lytton has always faced because of its hot dry climate is the threat of fire. Two major fires in the early 1900's burned more than half of the existing buildings. Again in 1931, a fire destroyed 28 buildings in the town. In fact, on a mainstreet in Lytton today, only two buildings, a home and a dis-used warehouse date from before this fire.

## 2) Geography

As has been pointed out, Lytton is located at the junction of the Thompson and Fraser Rivers. Although the town was not incorporated until the early 1900's, it was felt by the inhabitants that it would develop as an important commercial and trade centre due to its strategic waterways location. The development of the railroads however, and the difficulties of the river system for transport, soon left this dream unfulfilled, and Lytton's early locational asset became its liability. The Fraser and Thompson river valleys are both narrow and steep for some distance each direction from Lytton. This had made Lytton become the nucleus of a trading area which may be forty to fifty miles in length, but fewer than two miles wide at most locations (see maps, Figures 2.1, 2.2, 2.3).

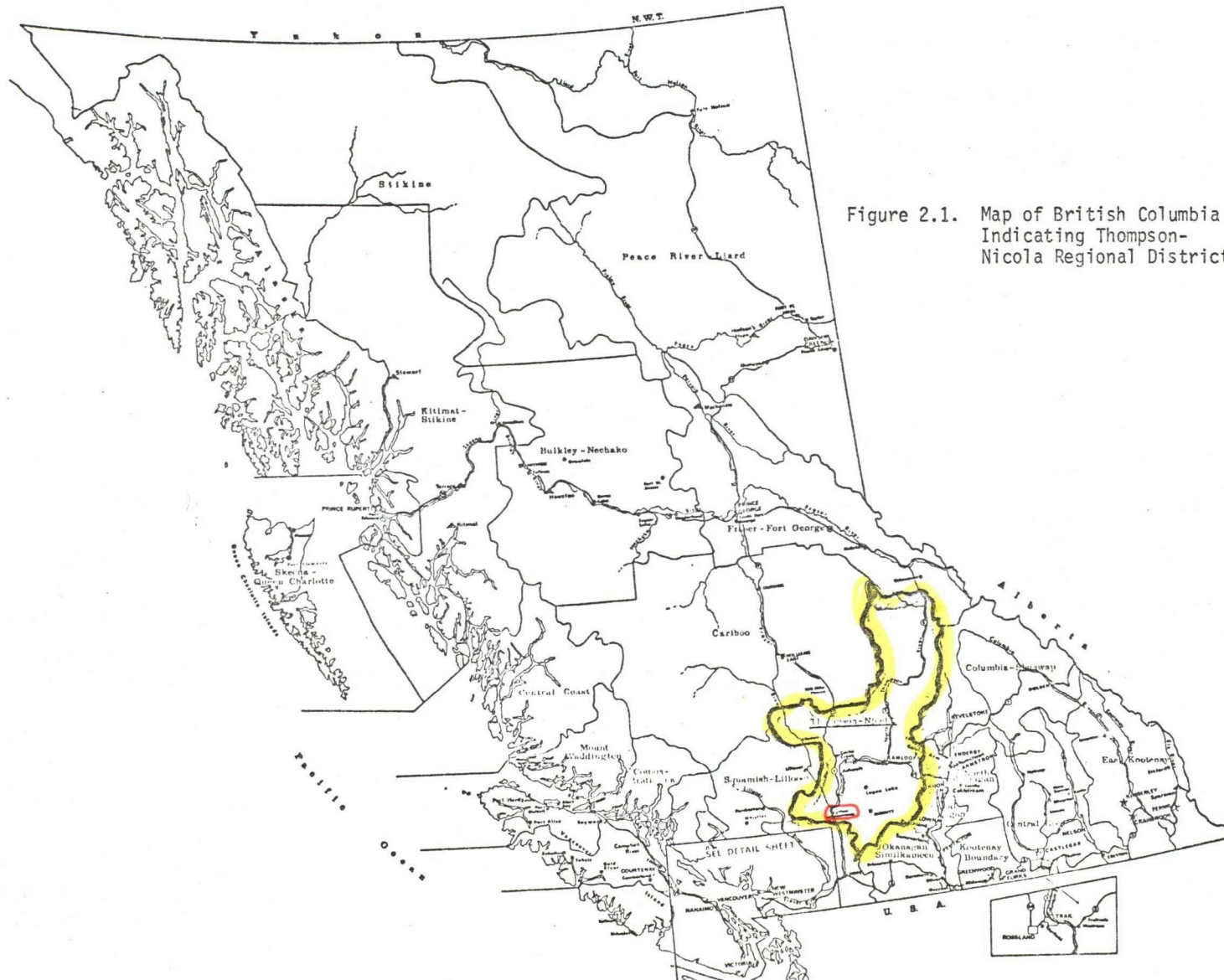


Figure 2.1. Map of British Columbia  
Indicating Thompson-  
Nicola Regional District



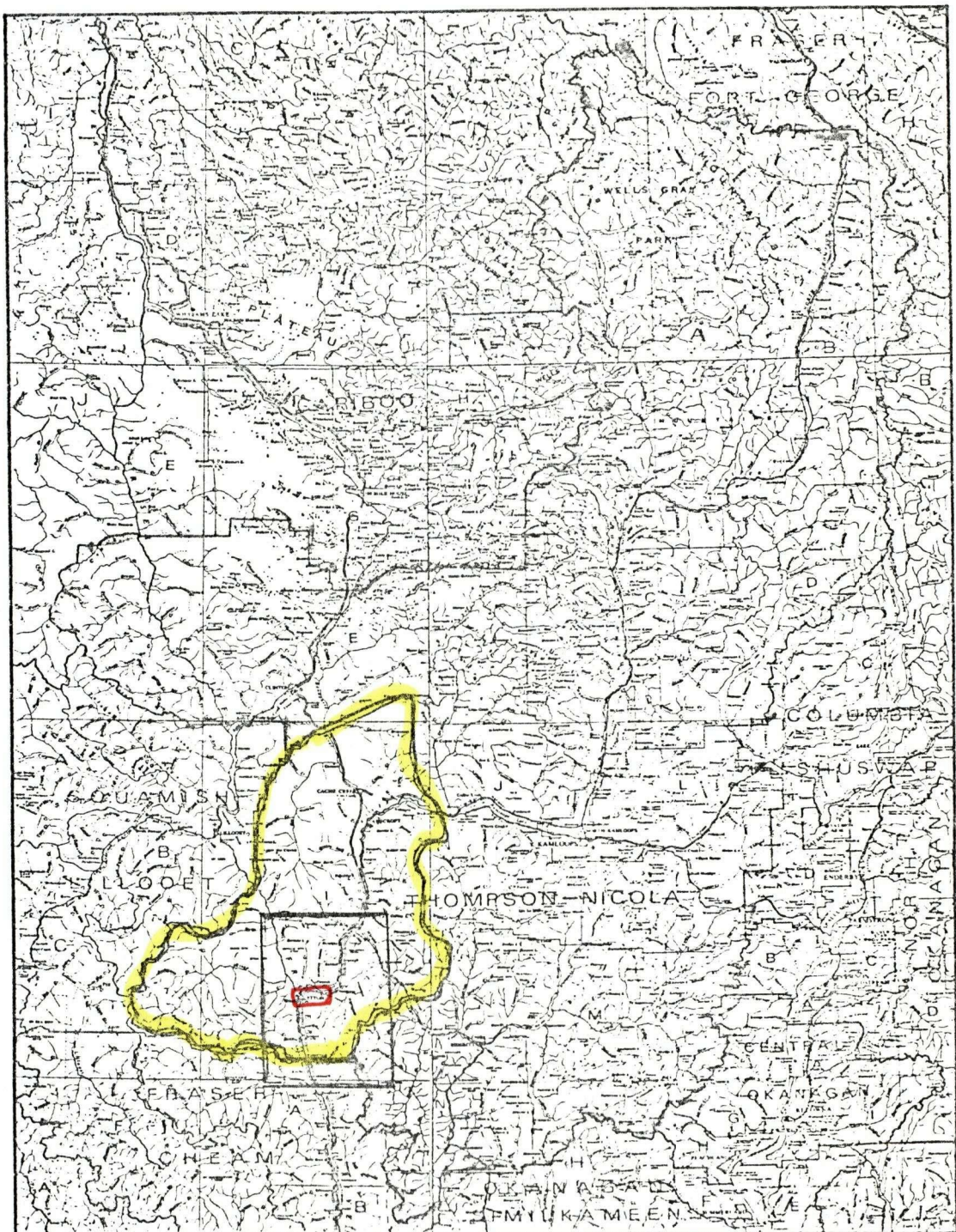
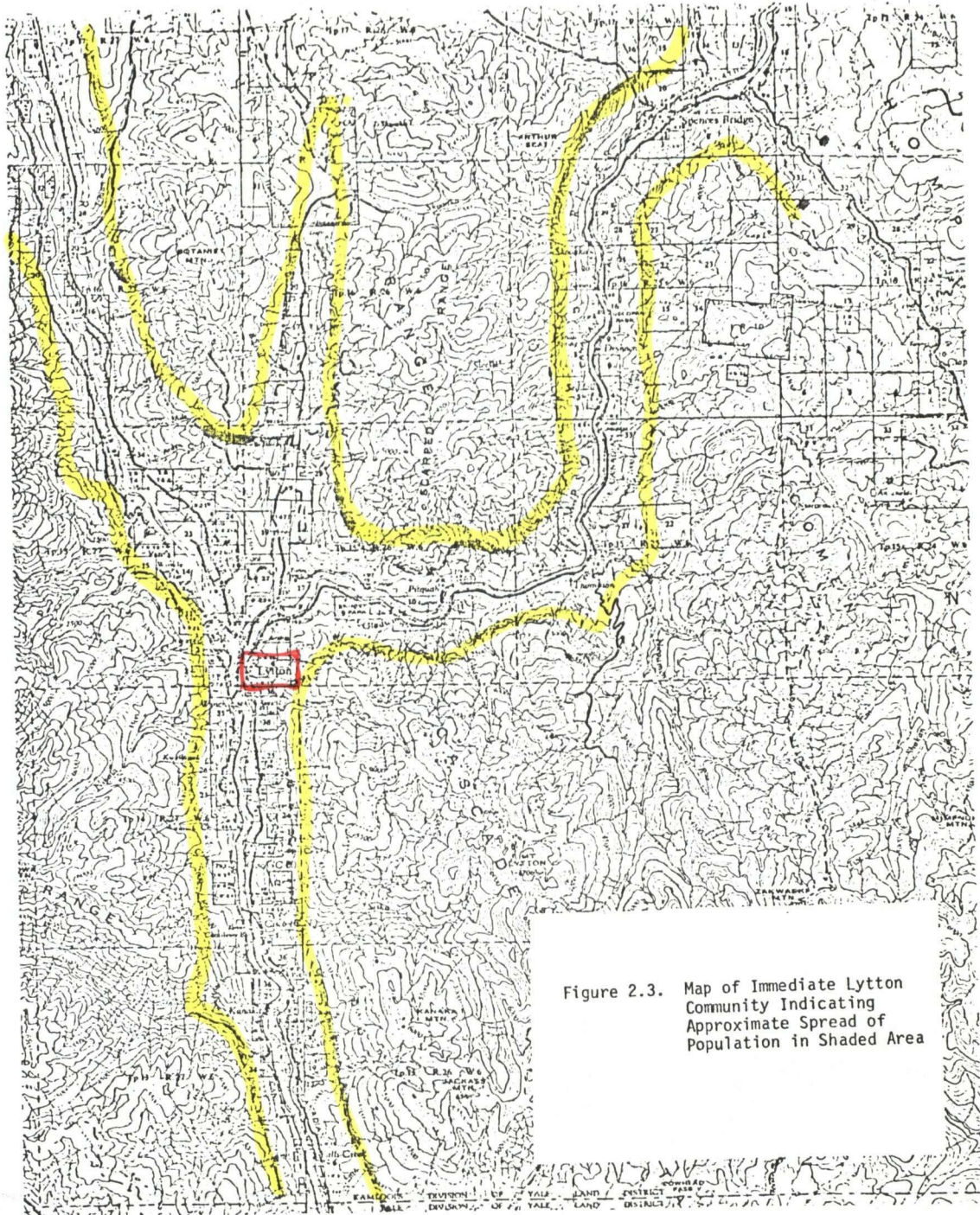


Figure 2.2. Map of Thompson-Nicola Regional District, Indicating School District 41, South Cariboo, and Location of Community of Lytton





The mountains immediately to the West are high and massive with the effect that after depositing its moisture in the mountains, the Pacific air goes high over the community. Similarly, Jackass Mountain, about twelve miles south of town, forces the inland moving air to lose its moisture and funnels the drier air northward through the canyon. As a result, Lytton is cold and dry in the winter, and has an arid, parched appearance throughout summer. In fact, it has recorded the highest temperature in Canada at 112<sup>0</sup> F.

### 3) Economy

Lytton has changed in its economic base from being a gold-seeker's boom town, to a railway construction nucleus, to a small quiet village with only its local commerce to keep it busy. The boom periods of the past, along with the anticipated waterways commerce of the 1800's gave Lytton a continual expectation of its own economic greatness. These expectations never came to fruition and Lytton has always been a place to take money from to spend elsewhere.

The present economy is not much different. Local commerce is made up of two general merchants, three service stations, three tourist motels, a bank, the hospital, one central hotel and restaurant, and an ever popular bar. As far as the railroad is concerned, there is no longer even a station house in Lytton, although there are a couple of work crews based in the area.

The largest employers are the hospital, a Native Indian Student Residence (soon to be phased out by the Federal Government), and a lumber company. Two schools employ about twenty people between them, but these teachers also seem to average fairly short stays in this community. Of the approximately 500 townspeople themselves, many are retired or self-employed. Of the retired group, most have spent the majority of their lives in this area.

The surrounding area is primarily ranching and small farm lands, and about three hundred non-Indian people occupy these areas. The balance of the rural area is made up of five or six Indian Bands, totalling about 1,100 people scattered on more than twenty reserves. Of these people, the social assistance roster runs high, with about fifty percent of the people on welfare, at least during the winter months. Almost no commercial agricultural crops are grown on the reserves anymore.

What does the future for the economy of Lytton appear to be? A small development of homes is currently underway to provide housing for about twenty five families. Most likely, however, these will be acquired by people already in the community, who are now living in either sub-standard homes or in trailers. It is not likely that the town will experience any new growth because of this development. Similarly,

on the reserves there is a chronic housing shortage. These factors, along with the almost total lack of jobs result in an out-migration of most of the young members of the labour force. For example, of seventeen youths completing high school in June 1977, none expected to find employment in the area.

This lack of anticipated economic expansion in the community, and the out-migration of young employables may have had an effect on the utilization of the hospital. It is a general assumption that when out-migration from a community is greater than in-migration, the population remaining in the community tends to have a higher morbidity than would otherwise be expected. With this outward movement from Lytton being primarily people in the employable range of age 18-45, there may be a resultant skewing of the age distribution. The degree of this skewing is not known, as census data is not aggregated in a small enough grouping to identify this community. If this skewing is the situation, then the utilization of the hospital may be expected to involve more pediatrics and geriatrics than in a more normally distributed population. This question is dealt with further in Chapter 5.

There is a large volume of tourist traffic passing by Lytton, due to its location on the Trans-Canada Highway. This means



little to the overall economy of the community, however, as these people are almost always only passing by. True, those enterprises located up the hill from town on the highway prosper from this trade, but this is only one motel, one garage, and a cafe. The Lytton area itself has little to offer the outdoorsman as there is little local fishing, and the hiking grandeur is overshadowed by more inspiring terrain elsewhere. All too often, the only reason a tourist spends much time in the Lytton area is either through misfortune or mistake.

There is little likelihood that much of this current economic picture will alter much during the next decade or two. If anything, the outflow of both capital and labour could result in an even further decline in the economic prosperity of the community, but this would of course be a gradual, rather than a dramatic change.

#### 4) Population

As noted, in its early days Lytton experienced booms of various sorts. At one time, around 1870, the number of people is reported to have been around 9-10,000. The community has swelled in size a couple of times since, but always it shrinks again, and always to about the same number of people as today. This is basically 450-500 persons within the village, about 300 non-Indians in the rural area,

and about 1,100 Native Indians living on their reserves. There have been minimal fluctuations from this level in the past half-century.

Similar to the economy, the population of the area is apt to change only very gradually over the next number of years. The out-migration of young employables is counter balanced by the fairly high birthrate, especially among the very young women of the community. This out-migration affects the age distribution of the area, and therefore may have some bearing on the types of cases handled by the doctor and the hospital.

## B. St. Bartholomew's Hospital

### 1) Background and Development

In 1893, the first St. Bartholomew's Hospital was built. Two factors led to this event, the first being the continuing susceptibility of the Native Indian people to the new diseases of the white man, and the second being the number of accidents associated with building the railroad. The first hospital burned down in 1920, and a second, larger facility was immediately constructed. The second hospital had 14 beds on the first floor, with the nurses' quarters upstairs. This building was then demolished in 1937 to make way for the construction of the present hospital building. The present hospital originally contained

more than 45 beds, and interestingly was built in the shape of one half of the letter "H" to allow expansion to double its size when the need arose (see floor plan, Figure 2.4.). The financial structure of the hospital was never sound, and partly due to this economic uncertainty, an endless stream of doctors, matrons, and nurses passed through the community.

The ownership of this hospital is unique in that it is the only remaining Anglican Church owned hospital in Canada. The Anglican Church provided the land and the money for the construction of the first hospital, but the church role has been diminishing since that time. With the advent of universal hospital insurance in 1966, the role of the church further dwindled to the point that it is now simply the owner of the site, and has little to do with the institution financially.

The Board of Directors of the hospital is also somewhat unique today as its membership is still appointed rather than elected. The church plays its major role in this arena, appointing five of the eight members of this board. This system is currently being reviewed however, and the hospital is in the process of being changed to a registered society with a community elected Board of Management.

The lack of cultural and recreational amenities in the area has also contributed to the early departure from the commu-

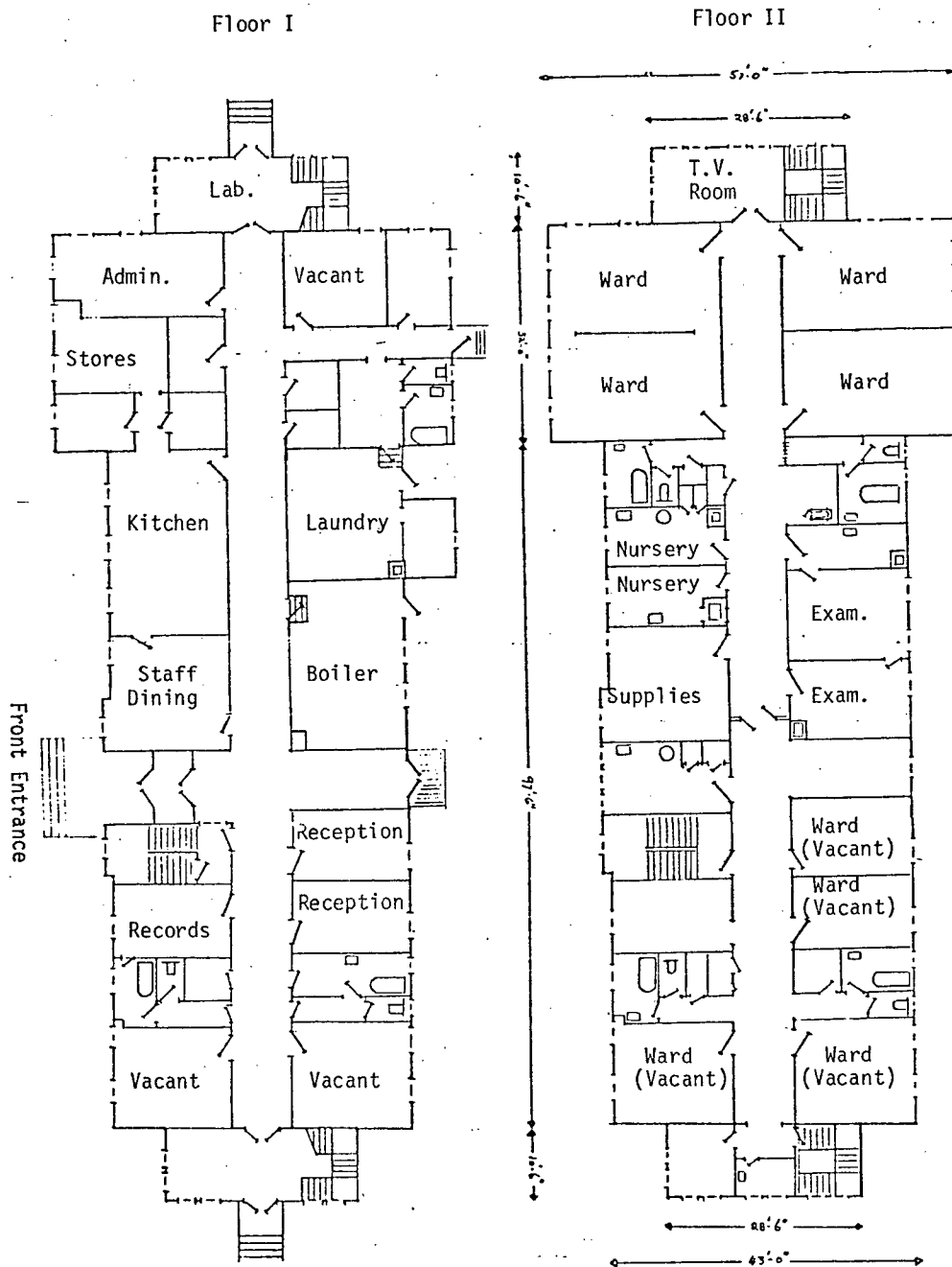


Figure 2.4. Floor Plan of St. Bartholomew's Hospital, Lytton, Indicating Space Utilization Effective July, 1977

nity of most doctors who have come there. This constant changing of physicians along with the instability of medical practice which resulted often meant difficult times for the hospital. In fact in the early 1950's the hospital was closed for a period of time due to inability to attract a physician. This was a very negative and frustrating experience in the community, but it should also be remembered that transportation to other health care facilities in other communities was much more difficult at that time.

The organizational structure of the hospital has followed traditional patterns for small hospitals. The appointed Board of Management oversees operations of the hospital through its chief executive officer, the administrator. There has characteristically been a matron, or head nurse, in charge of seven to ten nursing staff. Clerical, maintenance, kitchen and custodial staff round out the current staff at about 22 persons.

Filling the administrator's position in this hospital has often been almost as difficult as attracting physicians to the area, and this difficulty has on occasion led to somewhat questionable quality of administrative practices. Since April 1976, this hospital, and the Ashcroft and District General Hospital in Ashcroft, some 45 miles away, have a shared administration. One person splits his time

between the two locations.

One last aspect of this hospital which has helped it to survive as well as it has is the role of volunteers. The Women's Auxilliary to the Hospital has played an important role in providing equipment, supplies and some services for this hospital which otherwise would not have been available. This role is still an active one with the women providing a hospital based meals-on-wheels program, fund raising, and health education involvement.

## 2) Other Health and Social Services Available In the Community

St. Bartholomew's Hospital in Lytton is but one part of a set of health and social services which are available in the community. In addition to this hospital facility, there exist the following services at the present time:

- (a) One doctor with an office practice on Main Street;
- (b) One ambulance with full time, trained operator;
- (c) One provincial public health nurse, visiting from Ashcroft two days per week;
- (d) One dentist, visiting from Vancouver two days every second week;
- (e) One dietitian/nutrition counsellor from Kamloops, visiting two days per week;
- (f) One provincial social worker, visiting from Lillooet one day per week;

- (g) One provincial government probation officer, visiting from Lillooet one day per week;
- (h) One pharmacy, open only a few hours per week;
- (i) One optometrist, visiting from Chilliwack two days per month;
- (j) One federal government field nurse (public health nurse) resident in the community to work only with registered Indians on the reserves;
- (k) One full time, and four quarter time Community Health Representatives who work exclusively on the reserves. Their role is early detection, simple treatment and appropriate referral of cases;
- (l) One Indian Band welfare worker, who provides financial assistance and counselling to people on the reserves.
- (m) Public Health Inspection services based in Kamloops.

In addition to all of these there also exists a native home and school co-ordinator, a native family court worker, and an alcoholism counsellor is being sought for the reserves. All of the native health and social services are based in the Lytton Indian Band office on Main Street.

In the non-Indian community, there also exist three school counsellors, several clergy, and the R.C.M.P. detachment, all of whom are involved in health care at least in a preventive fashion. It is interesting to note that of the above listed services, not counting the native group, each

is offered from its own separate location in the community with the exception of the dietitian who works from the hospital, and the two services from Lillooet which share one office. This means that there are potentially eight different locations within the town where a person may have to go to receive health and social service attention.

Co-ordination of these services is virtually non-existent. A Youth Guidance Committee exists which is made up of several of the above persons, but its major function is the discussion of specific cases, not the broader areas of policy, administration, or planning of services. This committee itself is of uncertain stability and has a rather doubtful future at the present time. In addition, from the health care point of view, there is no representation on this committee from either the doctor or the hospital staff, but this seems appropriate considering the committee's present role.

One last note before leaving this review of related services concerns the role of the "shaman" or medicine man of the Indian people. Although most of the Indian people believe in the value of western scientific medicine, as provided through the hospital and doctor system, it would appear that use of these shaman is fairly common. It is difficult to know the extent of use as there seems to be a hushed



denial of this fact by the Indian people. Similarly, I have heard reports of the existence of these shaman from other white persons, but these accounts were all of a secondhand nature also, and none of the reports has been substantiated.

3) Relationship of St. Bartholomew's  
Hospital to the Health Care System

This community has experienced a continuing flow of physicians through the area. In the past ten years alone, there have been eight doctors who have practised in the area, although for three of those ten years there were two doctors. The present doctor has been in Lytton for two years, but he has expressed dissatisfaction with both his professional and social life in the community. This physician also stated his unwillingness to attempt to treat very complicated cases within St. Bartholomew's, so he refers a number of his patients to Ashcroft or Kamloops.

In the past, before the government had such a heavy involvement in the health care field, hospitals were left pretty much to plan for their own future. St. Bartholomew's, as was often typical of rural hospitals, seemed to view its own role as the provider of service for all of the in-patient requirements that might arise within the community. Of course, as technological sophistication of medical pro-

cedures developed, and equipment costs began to soar, many of these smaller hospitals found it increasingly difficult to meet their own expectations.

Today, this hospital is part of the much larger Kamloops Regional Hospital District, which is bounded virtually the same as the Thompson-Nicola Regional District shown on page 16. In this district, the Royal Inland Hospital in Kamloops is the major referral centre for all of the people within its area. This hospital also provides consultant services in the areas of administration, nursing, pharmacy, x-ray, and laboratory and other services to the smaller hospitals.

Although patients are fairly free to choose hospitals of their own liking, patients transferred out of St. Bartholomew's go primarily to Hope or Kamloops for continuing care. The hospital in Ashcroft was entirely reconstructed in 1972, making it a modern, well-equipped facility, but the complexity of cases which can be handled there does not warrant it becoming a focus of referrals from Lytton at present.

4) Physical Condition of  
St. Bartholomew's Hospital

The basic underlying fact is that this hospital is a forty-year-old building, and no amount of painting or redecorating will alter that fact. The building itself is a wood frame

structure, with old fashioned windows, fixed room sizes, and monotonous hallways. The floor plan is out-dated by today's hospital standards, (see diagram page 25) and is a hindrance in offering some aspects of modern medical care. Although there is in excess of 12,000 square feet of space, it is ill-used in the present circumstances.

The equipment in the hospital on the other hand provides a pleasant surprise. Most of the equipment of a patient-contact variety, such as beds, x-ray equipment, examination room facilities etc. is very modern, and presents quite a contrast with the building itself. Service equipment on the other hand, such as laundry facilities, cooking and office equipment is old and barely adequate.

As the principal of the high school in Lytton put it, "when the staff and clients enter into a bright and shiny building, that appearance shows up in their attitude. When staff and clients have to enter an older, duller, less well equipped facility, this too shows up in their attitude." It is unfortunate that St. Bartholomew's Hospital appears to fall into the latter category.

## CHAPTER 3

### LITERATURE REVIEW--RURAL HEALTH CARE AND THE RURAL HOSPITAL

This literature review covers six major areas relating to rural health care. These are:

- A. Organizational Structure of the Rural Health Care System
- B. Manpower Issues--Recruitment and Maintenance
- C. Quality of Care
- D. Geography, Topography and Distance--Effects on Health Care
- E. Ethnic and Cultural Minorities in the Health Care Setting
- F. Utilization--A Need/Demand Question
- G. Comment on Health Care Evaluation

Before developing the six sections above, two definitions from the literature are required. These are a definition of "hospital" and of "rural".

The World Health Organization in their monograph no. 21, "The Rural Hospital" (1, page 37), set out three pre-conditions which an establishment must fulfill in order to be considered a hospital. These are:

- 1) Hospitalization proper, where the patient is given a bed in a hospital for a certain length of time;

- 2) Out-patient clinic, where curative treatment is given;
- 3) Public health services, whose object is to improve the general health position and take preventive action against the so-called social diseases.

Fulfillment of only the latter two named above would constitute the basic functions of a health-centre by today's standards.

Taber's Cyclopedic Medical Dictionary (2, page H-56) simply defines hospital as an "Institution for medical and surgical treatment of the sick and injured."

Smith and Kaluzny (3) define what a hospital is by what it does. To this end, they propose that there are three ways of defining the "product" of a hospital. The first is the hospital product as a "relationship". This definition is based upon the feeling that health care should be a personal and individualized relationship between providers and patients, a relationship that is concerned with maximizing the individual's physical and mental well-being by increasing his control over the accomplishment of these ends. This definition has been receding, however, with the upsurge of the following two.

Their second definition is to look at the hospital product as an economic good. This places the output of hospitals in a similar category to any other service or good that can be purchased on the open market. In the health care field, it is the providers of service, not the consumers, who determine much of the quantity of service demanded, and this definition is therefore impractical.

The third, and most common product definition according to these authors is the view of hospital output as a professional service, open to control through collegial review and judgement.

For the purposes of this study, the more utilitarian W.H.O. or Taber definition will be relied upon.

What is meant by "rural" in this study? In 1955, the W.H.O. (1, page 11) stated that rural comprised "...all districts or localities with less than 2,500 inhabitants, ..." Similarly, the U.S. Census of Population is quoted as saying (4, page 26) "...rural people are those who live in places with fewer than 2,500 people or in the open country." These definitions are rather crude and fail to take into account many geographic, economic, social and other factors. Copp (4, 27-28) went on to say that:

Although the rural population is not principally agricultural, the agricultural population is found principally within it. Although rural incomes vary widely, a disproportionate share of low-income families live in rural areas. Although rural educational attainment varies, a disproportionate share of people with the lowest educational attainment live in rural areas. Although rural housing varies widely, a disproportionate share of sub-standard housing is found in rural areas. Likewise, rural areas are characterized by having a disproportionate share of the elderly.

This statement is also a generalization, but sheds greater light on the multi-dimensional problem of attempting to deal with "rural" health care as an homogenous subject. Indeed, it is not.

#### A. Organizational Structure of the Rural Health Care System

This section covers four sub-sections:

- 1) The Referral and Consultation Network
- 2) Emergency and Ambulance Services
- 3) Community Participation in the Health Service System
- 4) Home Care Programs

##### 1) The Referral and Consultation Network

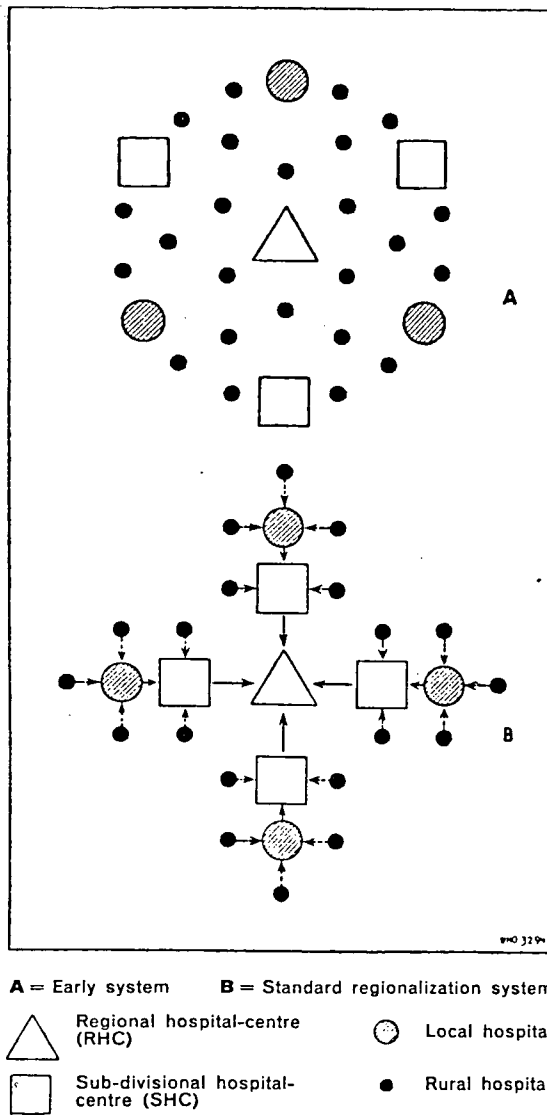
The organizational structure of the individual hospital and its hierarchical staffing arrangements is not the concern in this section. Rather, I have dealt here with a more macro view of the rural hospital in the broader health care system.

During the past half century, the medical, surgical, maternal and public health needs of a community have been greatly altered. The idea of regionalization of hospitals and of the entire health service system has been the result. Within such a system, all of the member institutions become part of an integrated whole. A stylized and oversimplified view of such a system may be seen in Figure 3.1.

This simplified regional system has two drawbacks: the isolation of the regional centre whose activities center

## THEORY OF THE RURAL HOSPITAL

Figure 3.1. Standard Organization of Hospital Services



around its very specialized functions; and the successive stages through which a rural patient must pass before admission to the regional centre. Avoidance of this latter problem involves referral rights from any of the smaller institutions directly to the institution of requisite com-



plexity to handle a particular patient's problem. Dr. Lee of McGill argues (5), stating that "... this is not a new concept, but to the extent that it is made into a conscious and deliberate process, unnecessary duplication of facilities and personnel can be avoided."

This depiction of regionalization seems very logical and complete, but it is not too easily implemented. Such a system would depend upon a communication system with a shared reservoir of knowledge. This reservoir does not exist to any great extent, partly due to the lack of faith on the part of both patients and professionals in newer data handling systems, even when used for routine information handling (6, page 266).

Efforts in several areas have been attempting to deal with these problems. In Oklahoma, nine hospitals have been tied together by co-operative communication and information lines. (7) These lines also serve as consultant and educational tools through the use of a teleconference system. In Lawrence County, Alabama, a model for health care services is based upon a "Cone of Need" concept. (8) This cone, or vortex has the larger healthy population at its broad end, with needs of more complex services diminishing in number towards the smaller end. This could be viewed as typical of any population, but in the Lawrence County system,

involving 27,000 people, constant monitoring of the health status of the majority of the population is maintained thus diminishing the need for dealing with many preventable problems. This is one example of the role of communications and referral in preventive health care. Gibson and Zetzman (9, page 74) however, feel that in actual fact, "... few programs have evolved for seeking out rural people with medical problems and directing them to sources of care. Consequently, rural residents often unknowingly allow chronic minor illness to progress into severe advanced diseases."

In the U.S., the American Hospital Association now provides substantial educational and informational services for the benefit of the rural hospital. (10) Models of rural health care management and services are often shared between many of their rural members. In 1971, the 24th National Conference on Rural Health met in Atlanta and concluded that, "Physicians are not needed in every hamlet, village or township." (11, page 1635) For reasons of professional consultational and referral, group practice is becoming more viewed as a potential means of attracting young physicians to rural practice. The concept combines several advantages, according to Wheeler (12, page 26) "... consultation, continuing education, high quality care. It offers the patient convenient and accessible treatment."

The organization of rural health care has also seen many projects based upon paramedical personnel as the prime deliverers of health maintenance services and primary medical care. Such projects have been reported on in Alaska, (13) New Mexico, (14, 15) Ontario, (16) and Newfoundland, (17) using family nurse practitioners. All of these projects utilize registered nurses with special training in patient observation and care, and represent co-operative efforts between the professions, the rural communities, and educational institutions in solving a nation wide problem. Most of these projects have concluded that high quality medical care can be provided by extending the medical resources concentrated in the urban areas.

The Community Health Centre is another organizational form which has been tried in many locations, and under several different names, as a means of meeting rural health care needs. The Community Health Centre is defined as "...a facility or intimately linked group of facilities, enabling individuals and families to obtain initial and continuing health care of high quality." (18, page 1) Every province in Canada now has some form of Community Health Centre in operation, and concern has been expressed that evaluation of such facilities should be undertaken in all provinces in a uniform fashion. (19)

Lastly, one of the major problems surrounding any developments in the rural health sector, is the problem of the people themselves who are the initiators of new programs. As Dr. Ande of Indonesia has stated (20, page 261) "... I think it is the duty of the leader of a project to do his best to designate successors. Without that precaution, projects run a real risk of folding up when their founders leave."

## 2) Emergency and Ambulance Services

The problem of emergency and ambulance services has traditionally had two major dimensions: the transport of patients to a facility; and the emergency treatment of such patients at the facility. In the past, voluntarism in most rural communities has been the organizational mode for their ambulance services. (21) Similarly, rural hospitals have often had poor emergency rooms, ill-prepared staff, and no formal system of emergency room record keeping.

Many areas have now seen the need to have ambulance services more fully integrated into the overall health services system. Such integration has usually involved several steps; legislation, establishment of communications systems, and suitable training programs are either developed or plugged into. (22, 23) In British Columbia for example, the recommendation was made that there should be uniform levels of

training of ambulance personnel as follows: (24) Level one--50 hours of Industrial First Aid, plus 80 hours of special mobile training. Level two--six weeks further training for holders of Level one. Level three--requires one year of training, and amounts to a fully trained paramedic.

The type of legislation sought usually deals with regulations for vehicle specifications and personnel requirements. The Ambulance Services Act of British Columbia (25) lists five such regulations covering standards of construction and maintenance of an ambulance; equipment and supplies; training of personnel; records system; and types of warning lights and sound producing devices used on an ambulance. These criteria apply on a province wide basis, whether urban or rural. Common to most such legislations is the concept that an ambulance should be "...able to render effective, immediate treatment in the unit." (26, page 806)

One major problem facing the rural emergency and ambulance service is that of staffing. Most often cited as a problem has been the lack of status, and the lack of development potential for such positions. The levels of training for ambulance personnel in B.C. has eased this problem to a large degree. Other efforts to solve this problem involve a different organizational structure, such as that found

in Tulari, California (27) where they set up a special services department directly responsible to hospital administration. This department is in charge of its own planning and as a result established six goals: 1. The improvement of emergency care, 2. provision of resources for health education, 3. certification for competence, 4. replication of the program, 5. establishment of economic stability, and 6. design of a life-support system. It is evident that this system goes well beyond the road ambulance and rural hospital emergency room environment.

Rural communities require a much different approach to emergency services than do urban areas. According to Waller: (28, page 1441)

Emphasis should be placed first on improving capability to respond to emergencies that threaten life and limb rather than on responding to the much larger number of less serious events, inadequate care of which results in inconvenience only... Emergency room nurses need better training, standard protocols for emergency response, and both nurses and ambulance personnel need frequent critique sessions to make up for the sparsity of real emergencies they see. Program evaluation must be an integral part of any improvement effort.

### 3) Community Participation in the Delivery of Health Care Services

Seipp stated (29, page 105) "...the rural...community constitutes the key to improvement of rural health con-

ditions." Success in community action depends upon understanding what community members value and how these are prioritized. The development of effective health services must take into account the professional and technical aspects of health care as well, and the problems of organizing and implementing health programs. Communities must become more self-reliant and self aware so that they may become more conscious of their health needs and through their own community strengths, deal with these health problems. According to Hatch (30, page 244) "The goal is to shift the locus of orientation from middle-class professional expectations and customs for the delivery of medical care to the identification of the cultural, social, and familial strengths present in the target community for the provision of health care." (*italics provided*)

The involvement of the consumer in the health services system is an inter-active process. As stated by Wells (31, page 2135) "Equal in importance to the contributions that consumers can make to the health planning enterprise, is the valuable educational efforts that these activities have on the consumer himself...Health Planning is an enterprise in which each individual and each group can certainly learn from the other."

Under the current "non-system" as it has been called by

Foulkes (24, page 111-3-1) the patient's needs have largely been ignored. The proposed system would recognize the patient as the customer of the "health care industry", and as such he must be the industry's prime concern. As Wheeler (12, page 26) pointed out,

A regional health system which is designed to assure adequate health services for all people must start with a focus on people and their health needs, and from this starting point build up a pattern of health services which will most efficiently meet these needs....If our concern is first for the people, and second for the providers of health services, we will see that the arrangements for health services must be convenient for the consumer of health services as well as for the providers of such services.

In many rural areas, local initiatives have attempted to deal with their local health care problems. All too often these initiatives have been directed at trying to preserve the crumbling medical care system, rather than at looking at the overall health care needs of the population. The attraction of physicians to rural areas through the construction of buildings, cash bonuses, government-supported education, and other means have often had minimal positive results. (32, page 109) In some cases, however, other incentives such as educational leave, subsidized housing, and physician salaries have proven very effective in recruiting physicians to isolated areas of true medical need. (33)



Several examples of local attempts to re-vamp the health services of rural areas are available. (34, 35, 11) All involve some aspect of planning, professional consultation, and community input. The community input is important for three major reasons according to Phillips. (36) First, it helps make a program that is sensitive to the needs and demands of that community. Second, it provides a community base for health education activities. Third, it provides a basis for unification of community action. Very important is the aspect of health education, for as Phillips pointed out, (36, page 36) "For a person to seek health care, he must perceive the need for such services."

A rural health care project carried out in Appalachia is very interesting because of its poignant lack of success, and the underlying reasons for this failure. (37) The rural community was having difficulty in recruiting physicians to service their area, so the community leaders approached the University of Kentucky Department of Community Medicine for help. They developed a system of primary care centres, staffed by specially trained physician's assistants, nurse practitioners, and other physician-extender personnel. These primary care centres differed from hospitals in three major ways. Firstly, they treated no in-patients. Secondly, a patient would not necessarily see a physician on each visit to the centre, and thirdly, all of

the providers of care at the centres were paid on a salaried basis rather than fee-for-service. As the primary care centres began to develop, the rate of hospitalization dropped and began to alarm the hospital board. Two physicians who had agreed to work in the centres opted instead for private practice in the area, and began referring patients to the hospital. Primary care centre volumes dropped, and finally they closed.

Important here are the reasons for the failure of this project. Firstly, there was failure on the part of the university in correctly assessing the original request from the community. "The community representatives had come to the university seeking help in recruiting physicians, and in saving their local hospital. They wanted doctors to see a large number of patients and keep their hospital full." The university interpreted the request as the need to develop a plan for what the community actually "needed" and therefore, really "wanted". (parentheses provided) As a result, the honesty and simplicity of the community's request was largely ignored. This misconception prevented an analysis of what might have resulted if their original request had been achieved.

To the community representatives, the university's proposal sounded initially valid and so they accepted it and participated in the early development of the proposed program. When

the two physicians came upon the scene to work for the centres the hospital board immediately recognized their original request, and moved very quickly in recruiting those physicians for office practice, fee-for-service medicine and filled their hospital with patients.

Economically, from the community viewpoint, a full hospital represented much more "outside" money coming into the community than did preventive health care or services offered by salaried paramedics in the centres. These nurse practitioners and physician's assistants were later shown to be poorly accepted by the community as there was little known about their qualifications or skills. Thus the hasty introduction of unknown forms of health care received poor acceptance, especially when the familiar form of direct physician care once more became available. The study group learned very thoroughly that the local social and economic base in the community is significantly involved in the rural health care problem and cannot be ignored.

#### 4) Home Care Services

The first step is to provide a definition of what is meant by adequate home care services. A definition prepared by a joint committee and endorsed by the American Hospital Association, the National Association of Home Health Agencies,

the National Council for Home-Makers--Home Health Aid Services and The National League for Nursing is as follows:

These services are provided under a plan of care which includes appropriate service components such as, but not limited to, medical care, dental care, nursing, physical therapy, speech therapy, social work, nutrition, home-maker--home health aid, transportation, laboratory services, medical equipment and supplies. (38, page 93)

Some understanding of the potential advantages of a home care program should be made at the outset to all those participating in the implementation of such a plan. The potential advantages to persons with long term health needs are: (38, 39)

1. These services meet the specific needs of the person at a given time.
2. They are focused on the individual in need of care rather than on groups of individuals whose needs may be disparate.
3. They make therapeutic use of the personal environment.
4. They extensively utilize well-trained, supervised para-professionals who increase the capacities of the professional staff.
5. These services increase the range of options so that inappropriate choices in treatment are not imposed.
6. These services fulfill the urgent wishes of the patient.
7. The society at large benefits because the costs of home health maintenance are much lower than those of nursing homes.

A major step in implementing a home care program would be to determine or establish some guide lines for the organi-

zational and administrative components of the system.

(40, 41) This should include a legally authorized governing body responsible for the operations of the program. There should be community and consumer representation on, or participation in the governing body. The administrative relationships and responsibility should be clearly defined and established. The governing body must delegate an administrator to look after the day to day functions, and qualified health professionals to implement the programs. Policies should assure effective implementation of all of the home care programs. There should be co-ordination with other health facilities and services being offered in the area, and lastly, there should be continuing evaluation of the ongoing program.

In looking at the program itself, (40, 41) there should be community input into the assessment of need and program planning, and there should be review and modification of programs to keep pace with these needs. Priorities should be established and written policies should be laid down. Accurate and up to date service records should be maintained. Case conferences should be held with all workers present who are providing service to the individual client. There should be a mechanism for ongoing review of quality of care of the program. Lastly, there should be continuing education of all personnel involved in the home care program.

Another aspect to be looked at would be the staff of this home care program. (40, 41) The services should be co-ordinated by a health care professional. There should be ongoing supervision, peer review or consultation for all professionals involved in the delivery of home care. Any service staff employed by the program should meet at least the minimum professional requirements of their different professions. The program should be administered by appropriate business and office personnel. The staff should include regular and formal use of consultants. There should be established personnel policies. There should be appropriate assignment of responsibilities to promote efficient and effective use of the existing staff. There should be ongoing professional or technical supervision to promote individual development of the staff. There should be an orientation period and continuing in-service training for all staff members, and lastly, there should be evaluation of all of the above to assure staffing of the program meets the continuing needs.

There should be established a utilization review under the auspices of a referral review committee. This committee would have these objectives: (42, page 12)

1. The evaluation of the appropriateness and effectiveness of care provided to the patients.
2. An assessment of the utilization and co-ordination

of the various disciplines involved in patient care.

3. Identification of gaps in services.
4. Provision of information necessary for program evaluation planning and staff development.
5. Provision for mechanism for resolution of problem cases.
6. This committee review would prevent dumping of patients inappropriately into home care programs. (40, page 628)
7. Would prevent unsafe or poor placements of patients into inadequate home care situations. (40, page 628)

As these philosophical and organizational guidelines are developed, the committee and administrative body could begin an education of patients, physicians and the community at large as to the benefits and responsibilities of a home care program. For example, in B.C., a portion of the home care program operates as a "hospital replacement" program in lieu of acute hospitalization of patients. In this province in 1975, 7,977 patients received approximately 80,000 home nursing and 7,000 other home care visits in lieu of hospital care for an average length of stay of 10.3 days with a total cost per patient of only \$135.00. This maintained a quality of care suitable to the needs of the patients at a cost of approximately 1/10 of the acute hospitalization of these patients. (43, page 47)

#### B. Manpower Issues--Recruitment and Maintenance

During the cold war of the late 60's, both East and West rushed

along to stockpile nuclear arms to the extent that each was able to destroy every opposing city at least ten times over. Conventional wisdom of the day suggested that arms stores should be reduced to the capacity to kill everybody only once. Art Buchwald took a different approach, however, simply saying that the bombs were not too big, but that our cities were too small and should be increased in size to match the capacity of the bombs.

What has this got to do with rural health care? The current North American high-technology, curative health care system is simply too big and too expensive for the country's sparsely populated areas. A Buchwaldian solution is simply that rural areas must grow, economically and demographically, and better medical care should automatically follow.

This rather facetious comment is summarized from an economist's look at rural health care, by Bauer. (44, page 26-27) What it shows, however, is also the conventional direction of wisdom in the health care field that if the quantity of health services could be increased in rural areas, then the health status of rural people would be higher. Whether this assumption is in fact true has become a topic of much discussion, and is touched upon in other parts of this literature review. Following the line of reasoning that more is better, several approaches to ease the maldistribution of health care professionals in the rural areas have been attempted. The majority of these have



dealt with physician distribution, several examine the role of the rural nurse, and others look at the proliferation of other health care providers. I shall examine these three individually.

#### 1) Physicians for Rural Health Care

Much has been written about the rural doctor shortage.

(46-50, 54) Studies have shown that doctors who grew up in a rural community are more likely to set up a rural practice than are urban reared doctors. (45, 46, 49) On the other hand, rural students are less likely to be admitted to medical school than are those from urban backgrounds. (47) Also, physicians with a small town background are more likely to choose general practice rather than a specialty, and therefore be more suited to a rural location. (45, 46, 50) Physicians' wives play a major role in their locational preferences, and wives of rural physicians are more likely to have a rural background. (48, page 103) Most of the physician distribution studies concentrate on "he" and "his" preferences, so at present, little is known about the locational choices of women in the medical profession. Location of medical school tends to influence location decisions also; those who train in urban places tend to stay in urban places. (45) Type of practice organization available also effects decisions, with an overwhelming majority of new physicians now preferring group practice. (45, 46, 49, 50)

Various professional reasons have been cited for reluctance to establish rural practices. These include fear of professional isolation, lack of access to consultant and specialist services, heavy workloads of rural physicians, and unpredictable and long hours of practice in rural locations.

(45) Lack of access to continuing medical education is also a negative aspect of rural practice. (49) To be attractive to a physician, a community must offer him economic security and the resources with which to enjoy his leisure time. (45) Communities which have actively recruited doctors through the medical association placement services have had some success in obtaining physicians, although many of the previous factors must be considered. (49)

Several studies and projects have suggested that through greater exposure to rural areas during medical school training, more rural location decisions would be made. (51, 52) These may be through preceptorships, "community medicine" projects, intern or medical student clinics, or other methods, but all seem to suggest a rotation of providers through the community. An editorial article in the Journal of the American Medical Association (53, page 1113) suggests that, "In order to give the public continuity of care, the unit should be staffed by mature physicians committed to the community rather than a succession of house officers and medical students." Steinwald and Steinwald (46, page 227) reported of such programs that,

"Few respondents indicated that preceptorship programs had exerted an influence on their practice location decisions."

In Ontario, a program of designating medically underserved areas coupled with physician subsidies, student bursaries, physician recruitment and community participation has eased the doctor shortage for many rural locations. (55, 56)

Slightly more than half of the students have honoured their commitment. Still unanswered are whether the physicians will stay and whether the health of the population will be improved.

Another Canadian program is that of the United Church owned hospitals of which there are seven, each located in a previously medically underserved isolated area. (57, 58)

Their organizational structure is similar in each hospital, with a two thirds community elected and one third church appointed board of governors, of which a church appointee cannot be chairperson. They have an active central medical co-ordinator for all of Canada who actively recruits their professional staff. Stressed in their efforts to attract and maintain quality health care providers are factors relating to personal and professional satisfaction. Their doctors, on salary, work in reasonably well equipped hospitals, sharing staff and diagnostic facilities. In all of their areas there are at least two physicians in practice, each signing a one or two year contract. Although many leave to return to larger centres, the average length of

stay for physicians has been 2.4 years. Of this turnover they feel it is not detrimental, rather the new graduates tend to keep the work up to date. Further attractions to physicians are provision of suitable housing, annual paid return to a medical education centre, and frequent visiting specialists and consultants.

Also noted is the importance of community involvement in the provision of services, and the decision-making surrounding these services. New and Hessler (61, page 254) feel "...that meaningful research can only be done when the community is involved in every step of the way." It is important when planning such endeavours that, "they cannot be imposed from without but must evolve from the recognized needs of the locality." (59, page 1268) In most rural locations it is also important to remember that in "...long term research in country practice...the general practitioner is the permanent point of reference for all that happens." (60, page 421)

## 2) Nurses for the Rural Sector

Nurses for isolated areas and rural hospitals have often been as difficult to recruit as have physicians for such locations. The factors of personal and professional satisfaction are largely the same as for the medical personnel, but the economic variable is greatly different. Nurses are

a salaried profession, and although this guarantees continuity of income not apparent with fee-for-service systems, seldom are there bonuses or locational grants and expense monies available. Why should a nurse accept or seek employment in adverse conditions for sums of money similar to what he or she could also make elsewhere? Although it is largely an ignored or ill-admitted actuality, the fact that nursing is a female dominated profession has left it far short of fulfilling its potential in the male-physician-dominated health services field. (62) The tendency for highly trained nursing professionals to locate in centres where they can use their sophisticated technical skills further accentuates the rural nursing care problem.

An attempt to encourage rural location choices has been undertaken in rural New York State where the School of Nursing has a Division of Studies in Rural Nursing. (63) Through this program, nursing students may choose field experiences in small hospitals, a nursing home, public schools, a medium-sized industrial plant, the public health nursing service, and a nursing school, all of which are located outside of the urban environment. The effect this has had on eventual location has been difficult to judge, however, as market factors of supply and demand appear to be the more prevalent determining condition.

A great many rural areas have been involved in experiments with expanded-role nurses or nurse practitioners. (64, 65, 66, 67) Common to all of these projects are aspects of special training, consultant physician linkages, and community involvement in planning. These, and similar projects have been mentioned earlier. Another aspect which they have in common is the sense of dedication which appears as a characteristic of participants in such programs. The fact that these nurse practitioners are given the responsibility to make medical judgements seems to be an attractive reward for the participants. Thus, increased job satisfaction can play a major role in the locational decisions a nurse has to make.

One of the major problems encountered when attempting to attract nurses to rural areas through the expanded-role method is the fear of "second-rate" medical care for some segments of the population. The Frontier Nursing Service of Kentucky (68) has found that "...properly trained and supervised paramedical personnel may be able to provide better care." The success of this frontier service has been dependent upon consistent governing principles:

(69, page 909)

A constant focus on the needs of the people in that community; the determination to take some care to the people, and make it possible for them to come for the rest; the awareness that a patient is more than a complaint-but is a whole person, in a whole

family, in a whole community; the conviction that people to be served are entitled, and quite able, to share in making the decisions affecting the way they will get that health care; the belief that so long as the cause is good, others from outside will want to help; and the belief that every nurse who has the opportunity will give even better care than she herself believes she is capable of giving.

### 3) Other Health Care Professionals

Dentists, opthamologists, and other traditional health service professionals consider similar criteria in their locational decisions as do physicians and nurses. (70, 71, 72) Those who choose rural practice tend to come from rural backgrounds, and have undergraduate and professional training in general areas. Family ties, geographical and recreational assets of an area are taken into account along with the particular lifestyle of the area. In fewer instances, the professional perceives a particular unmet need for his service within a specific rural area. None of these factors are sufficient without some assurance of economic security. In most instances, personal factors tend to override professional factors in choice of practice location.

The above factors have left the rural sector as devoid of dentists and other specialists as it is of physicians. In the United States, the Comprehensive Health Manpower Training Act of 1971 authorized the development of Area Health Education Centres (73) in an attempt to alleviate the rural

health professional shortage. In Minnesota, through this plan, third and fourth year dental students are placed with rural dentists for ten-week periods. The thought behind this program is that through increased rural exposure the young dentists will be more inclined to choose a rural practice location. Results of this project are at present incomplete.

In Saskatchewan, a province-wide, government sponsored dental care plan, using government trained dental nurses, provides free dental treatment to all children in the province between the ages of three and twelve. (74) This service assures equity of care for all residents, whether urban or rural, and assures a continued supply of qualified personnel through its selection and training program. This is an example of an area-wide need being met by an area-wide program. Its drawbacks are the need for appropriate legislation, and the confrontation which can develop with the existing service professionals.

#### C. Quality of Care in Rural Areas

The quality of health care provided in a rural area is of constant concern. If there are no health professionals in an area, and residents must travel long distances to seek care, there is a tendency to seek such care only for severe conditions, and many preventable chronic problems exist. A solo medical prac-



itioner on the other hand, working in isolation may fall behind and in many ways may provide lesser quality care for his patients, though he may be idolized by them, simply because he is there. New or relatively unknown providers of primary care, such as nurse practitioners, physician assistants are being tried in many communities, and of major concern is the quality of care which they provide.

First, what do I mean by "Quality" of care? Payne's definition is quoted here from the Ontario "Evaluation of Primary Health Care Services" report of 1976. (75, page 49) Quality of care is "...that level of excellence produced and documented in the process of diagnosis and therapy, based on the best knowledge derived from science and the humanities, and which eventuates in the least morbidity and mortality in the population."

Donebedian has proposed a classification of the measurement of quality: (76)

- a) Evaluation of structure--includes the physical facilities, organizational structure and qualifications of the personnel.
- b) Evaluation of process--assessment of the care provided, in relation to certain standards or norms.
- c) Evaluation of outcomes or end-results, in terms of health status and consumer satisfaction.

In our demand oriented health care system, it is quite possible for some individuals to get into the system and receive very expensive, sophisticated care, while others for whatever reason fail to get into the health care system at all. Thus, the quality

of care for some individuals may be quite high, while the quality rendered to the public as a whole may be much lower.

(77, page 265) Due to the disparity between the extent of urban and rural health care resources, this lower quality of care is often a part of the rural environment. This problem is often tackled through the principle of regionalization of services which has occurred in India, Brazil, Sweden, the Soviet Union, China, Canada and many other locations. (54) Through such an organization, the more difficult cases are sent from the peripheral facilities into the central ones, and supervision emanates from the centers outwardly. In this manner, equitable quality of care should be the result.

Interestingly, two studies in Ontario (78, 79) have indicated that although much inconvenience and difficulty are often encountered in seeking health care, persons from rural areas do manage to seek the care they need. The rate of utilization by rural residents was noted as being noticeably less than for urban residents, but the overall health status and satisfaction with services did not show any significant differences.

Quality of care has of course been under very close scrutiny in the programs where primary care is provided through nurse practitioners. In Saskatchewan, (80) Nova Scotia (81) and California (82) such programs have been evaluated. These have all shown patient satisfaction to be high, and that accuracy of diagnosis

and treatment by these practitioners also met expected standards. Similarly, Lewis (83, page 1236) noted that "...nurse practitioners could replace physicians in outpatient health maintenance clinics for the surveillance of chronic diseases without loss of quality."

D. Geography, Climate, and Distance--Effects on Health Care

Geographic and climatic considerations must be very carefully taken into account in planning rural health services if such services are going to realize their potential. (1) Underlying almost all rural activities is an adherence to the changing seasons. Farmers go through periods of intense labour, sowing, plowing and harvesting, alternating with periods of relative inaction. In a high technology farming country such as ours, during periods of high activity, rural health services can expect to be used mainly for accident and curative purposes. The treatment of chronic or long-term problems get left until later. Similarly, systematic case-finding or vaccination campaigns are best expected to succeed when the rhythm of the seasons and the nature of the work have consigned the people to relative inactivity. Different areas have very different rhythms, and it would be unwise to plan a province-wide activity for one time if the diversity of rural activities varied from fishing to forestry to crop-farming, each with its individual peaks of activity.

Knowledge of climatology is also important in determining the type of rural facility to build, and the technical equipment it should house. It is important to know when rainy seasons, snowfalls, landslides or the like are likely to hinder the transportation system between rural areas and the local service centres.

Research to deal with these types of problems have been tried in many areas. In 1973, the Department of Health, Education and Welfare in the U.S. identified "health service scarcity areas"-- defined as "geographic areas where health and related services in the area and contiguous area are not available to a substantial portion of the population." (84, page 73) This included a quantitative lack of health and related services, inaccessibility of existing services, and ineffective utilization of existing services.

In another study, Sauer (85, page 38) calculated the risk of disease and death on an age and sex adjusted basis for 509 metropolitan and non-metropolitan "State Economic Areas" in the U.S. The lowest five percent of these areas were made up of three urban, and twenty-two rural areas, all having lower than 12.72 deaths per 1,000. Twenty of these are in the west central states, having very low population densities. Of the twenty-five highest rate areas, all are east of the Mississippi River, 16 are in the Southeast, 4 are areas with a mining history,

and the other 5 are scattered metropolitan areas. Of the 16 in the Southeast, 9 of these are metropolitan, making a total of 14 metropolitan areas in the highest rate group.

In an article entitled "Surgery in the Small Hospital", (86, page 903) Shepherd has stated that small hospitals in isolated areas must continue to provide some surgical facilities, including emergencies, despite difficulties in maintaining high standards of personnel and equipment. This is only until an adequate and efficient communication and transportation system can be developed. If a small hospital is within reasonable time and distance of a distant hospital, then there is little justification, either economic or medical, for maintaining full surgical facilities.

E. Ethnic and Cultural Minorities  
in the Health Care Setting

In Canada, Section 91(24) of the British North America Act places legislative responsibility for Indians with the Parliament of Canada. Only Treaty Number 6, covering several plains Indians, specifically mentions medical care, but Canadian judicial decisions "...have concluded that the Treaty does not vest in the Indians covered by it a legal right to be served by free medical services." (87, page 51) The Federal Government has provided various services affecting the welfare of Indians, including hospital and medical care. Such services are under constant review.

The North American Indian, despite more than a hundred years of reservation life, has managed to maintain a perception of his world around him quite different from the mainstream of white man's perceptions. Duke Redbird, an Ojibway Indian, wrote,

The Indian believes it is intelligent to prepare your mind and body to experience hunger when it occurs rather than storing money or food in the hope that hunger will never be an experience that will have to be faced. The white man saves for a depression. The Indian prepares by learning to starve. (88, page 74)

With this widely disparate view of the world, including health care, can we expect the native Indian to fit our highly technical, specialized health services system? The current health status of our Indian population, and their rate of appropriate utilization of medical services would suggest not. In a study of the complementarity between traditional and modern health care, New (89) suggested that in almost every culture there are more services available than simply those of the physician-dominated system. In our own culture there are various kinds of doctors, dentists, clinical psychologists, health food experts, yoga teachers, meditators, spirit healers and so on. In the native Indian culture, they have access to these plus their own tribal medicines, herbal cures and practicing shaman. New found at least in some instances, that fear or distrust of the western medical system made it necessary for both scientific and traditional systems to exist side by side in the same area. (90)

Within this context, there is a special problem, and that is the dilemma of minority health workers. For example, "...in the case of Navajo employees, three sets of expectations seem to exist: 1) the demands required by the position in the Indian Health Service, 2) the role he performs in the sub-unit in which he works, and 3) the Navajo cultural traditions."

(91, page 741) Such a division can have serious consequences on their ability to function effectively as health workers.

In a two-part article in The Canadian Magazine, Grescoe tracks Native health care through a history of ignorance on both sides involving "...accidents, homicide, suicide, disease--and everywhere the spectre of alcohol." (92, page 4) He goes on to show how Native people in the North, in Manitoba and in Ontario are organizing themselves to take a more active interest in improving the deplorable state of their own health. Such endeavours will certainly be slow to take hold, however, as Grescoe reports that only 221 Canadian nurses are Indian, and only 8 doctors.

Recent studies have shown that lack of transportation and communications systems on the Indian reservations has impeded access to adequate health care. (93, 94) Organized government ventures have generally met with dismal failure, and it is now becoming evident that the self-help attitude may produce success with these problems as well.

Lastly, a project to assess the level of health status of a rural Navajo population has been reported. (95) It uses a computer-based ambulatory patient care reporting mechanism with discrete health status categories whose definitions are based upon specific clinical criteria. Quarterly printouts provide information to providers of service as to needs for patient follow-up, degree of clinic progress and health status indicators, and take some of the randomness out of coverage.

F. Utilization--A Need/Demand Question

Utilization of health care services is a complex function of perceived need, health status and resources available, plus a host of residual factors. Boulding has indicated that "no single concept of need exists, and especially no single concept of need for health services." (96, page 202) There are a number of indicators commonly employed to show the need for health care personnel and services. (97) The simplest of these indicators is the use of numbers. These may provide a useful benchmark, but in the main, numbers used alone are indicators only in the grossest sense. Use of numbers only for the purposes of prediction as acting on the assumption that what has happened in the past will continue to do so, and that it was the correct thing to have happened. A second set of indicators is found by comparing the number of health care personnel or services with the number of persons in the population. This relationship is then usually expressed as a ratio. Again, a benchmark is often



assumed, and a ratio below this amount indicates a health care need. The problem with this is that it assumes an equal need by all population groups. Hassinger (98) found that the ratio of physicians or hospital beds by residential designation is not very informative with regard to adequacy of services. Also, defining the population at risk may not be the easiest task as the basic political, geographical or census units may in fact have little similarity with the boundaries marking where the population goes for health services. Determination of what a utilization or staffing rate ought to be may be quite different from what the rate is.

In the American system, the need for services or personnel can be indicated by economic factors. In a health services system such as ours in Canada, however, where inequitable distribution due to economic reasons is not supposed to exist, this indicator is of little value. This is not to say that regions of economic disparity in Canada have equal access to care, but the differences are played down through our medical and hospital insurance system.

Geographic factors have often been used as indicators of need. Today, minutes from care, rather than miles, is a more accurate assessment as in an emergency, a crowded freeway can be as detrimental as a long country road. An efficient system for referrals could even further diminish the negative aspects of distance. Such an efficient system could conceivably better meet the needs

of many areas using existing personnel and facilities, thus altering our current concept of particular areas of need.

In a New Mexico study, Anderson (99) claimed four sets of factors influence the utilization of health services. These are demographic characteristics, organization of health services, ecological factors such as distance, and social-psychological factors. His study showed that economic factors played a lesser role than was expected in utilization rates; level of education has no effect; age has a negative direct effect; urbanization results in a slight increase; and when out-migration exceeds in-migration, the result is higher utilization among those that remain.

Sanchez and Bynum, (100) in another New Mexico study, suggest that need for health services is connected with four socioeconomic variations of rural subgroups. These are an illness index, a poverty index, an urbanization index, and a development index. Each of these indices is composed of a number of relevant indicators taken from existing data.

What this does is to take us full circle to Boulding's comment noted earlier, that no single concept of need for health services exists.

#### G. Comment on Health Care Evaluation

Evaluation of health care should take place from as many different

points of view as possible. For example, a clinician may be able to evaluate the technical accuracy of work performed in the clinical setting; a systems analyst may be able to assess the efficiency of overall programs; or a social anthropologist may be able to shed some light on the effects of the system on people, and the effects of people on the system. According to Avedis Donebedian however: "Unfortunately, very little information is available on actual assessments of quality using more than one method of evaluation concurrently." (101, page 639)

Very often, it is the patients themselves who may be the best judges of the effectiveness and degree of satisfaction which services may afford. In a large number of studies, the process of evaluation is not based on the opinions or reactions of the receivers of care, but rather on the opinions of the researchers or on medical outcomes. Again, the Donebedian article makes this problem very clear. (101, page 637)

The effectiveness of care...in achieving or producing health and satisfaction, as defined for its individual members by a particular society or sub-culture, is the ultimate validator of the quality of care. The validity of all other phenomena as indicators of quality depends, ultimately, on the relationship between those phenomena and the achievement of health and satisfaction.

The most obvious source of information regarding a patient's satisfaction would be directly from the patient. It is often the case that the patient's feelings or opinions on the matter are not solicited or not given much value. Similarly, many

indicators of quality of care may be hard to evaluate, such as emotional or psychological factors and preventive measures, and so these are often omitted from the evaluation process. According to Donebedian: (101, page 632)

Judgements of quality are incomplete when only a few dimensions are used and decisions about each dimension are made on the basis of partial evidence. Some dimensions, such as preventive care or the psychological and social management of health and illness, are often excluded from the definition of quality and the standards and criteria that make it operational.

## CHAPTER 4

### METHODOLOGY

#### A. Introduction

The methodology contains three main segments: survey methods, documentary analysis, and oral histories. The development of these methods evolved during the first months of the study in response to the requirements that were discovered through contacts with the community.

Underlying the survey methods and the oral histories was an identification of the actors in the health care scene in this community. As noted in Chapter 2, there are a great number of resident and visiting health and social services offered in this community. The area of concentration in this study is the role of the hospital, so it was pictured as being the central core of an onion. Each of the differing levels of influence on this hospital could then be represented as the layers which surround this central core, with positions of high influence at the centre, and diminishing outwards. (See Figure 4.1.) In this manner, six such layers or spheres of influence were discovered, composed of two main groupings, the providers of service and the potential consumers of service, with each of these

sub-divided into distinct sub-groups.

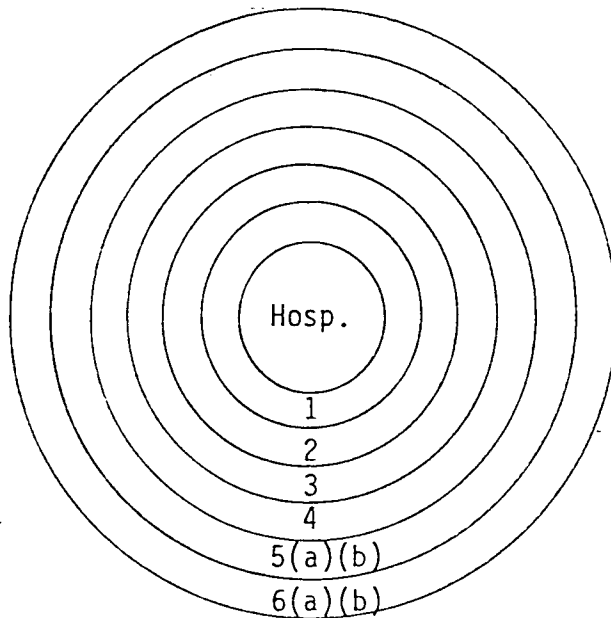


Figure 4.1. Spheres of Influence  
Around St. Bartholomew's  
Hospital, Lytton,  
British Columbia

1. Hospital Board
2. Hospital Staff
3. Youth Guidance Committee
4. Other Health Professionals
- 5.(a) Indian People in Public Life
  - (b) Non-Indian People in Public Life
- 6.(a) Indian People of General Community
  - (b) Non-Indian People of General Community

These groupings as numbered in Figure 4.1 were as follows:

#### Providers

1. The eight members of the hospital board
2. The staff of the hospital
3. The membership of the Youth Guidance Committee  
(see Chapter 2)
4. Other providers of health and social services

#### Consumers

- 5.(a) Native Indian people who hold some official position  
in the community, but not related to health care
- (b) Non-Indian people who hold some official position in  
the community, but not related to health care
- 6.(a) Native Indian people who are resident in the general  
community, but are not officially connected with public  
life of the community
- (b) Non-Indian people similar to group 6(a) above

Of these six groupings, 1. to 4. represent the providers, and 5. and 6. the potential consumers. Although the physician in the community falls into group 4, which included any providers of service not in groups 1 to 3, his influence on the hospital is much greater than placement in level 4 would imply. His input was further received in the oral histories section, so this did not present a problem. Group 5. included such persons

as village council members, band council members, school teachers and the like. It was separated into an Indian and non-Indian sub-group for the purposes of the study as I felt that the perceptions of health care needs and services might differ between the two groups. Group 6. included housewives, farmers, retired persons and other community members. This group was also separated into Indian and non-Indian.

The providers of care, or groups 1. to 4. were easy to identify. Selection of people for groups 5. and 6. was not so obvious. I formed a committee of six persons to nominate people to these groups. This committee consisted of two Hospital board members, one Indian, and one non-Indian; and four other community residents, each of whom had lived there for more than twenty-five years, and again divided equally Indian and non-Indian. The development of the sample and its rationale was explained to the committee members. They then nominated ten to twelve people for each group or sub-group. From these lists of names in each group, six or seven names were then randomly selected for the community survey.

## B. Survey Methods

### 1) Community Survey

The community survey technique was used for a number of reasons. Firstly, it provided a fairly comprehensive overview of attitudes and desires in the community regarding



health care. It afforded an opportunity to assess the relative satisfaction of residents with the hospital and to explore with them some avenues of change. In other words, this method gave the local people some degree of say in the quantity and variety of service which they felt they should have. One of the underlying goals of the study was to examine the value of this type of community input into the delivery of health services. (See Postscript on Method)

A second reason for using this type of information was the lack of continuity and reliability in the statistical data available. As noted in Chapter 2, the effect of eight doctors in the past ten years had a very marked effect on the utilization patterns of the hospital. To attempt future utilization predictions solely on the basis of numerical information which was so encumbered with subjective and qualitative overtones would have been potentially misleading. The information gathered from the community survey could provide increased understanding of the numerical information.

As noted in the introduction to this chapter, the community survey was conducted on a selected group of providers of services, and potential consumers of services. Fifty interviews were completed, twenty-five with each group. This number of interviews was selected because it was felt that this would provide a reasonable representation of community

attitudes, and because this was a realistic number of interviews to complete in the time available. The respondents in the survey came from various locations. On the providers side, the majority were residents of the Lytton area, but others were visiting professionals from Ashcroft, Lillooet, Kamloops and Vancouver. The potential consumers on the other hand were all from the Fraser and Thompson valley areas. These included people from as far as Spences Bridge on the Thompson River, Boston Bar on the south Fraser, and as far north as twenty-five miles towards Lillooet on the Fraser River. Also included, of course, were people from the West side of the Fraser River who, for several reasons encounter many unique problems in this community.

Two survey instruments were used in the community survey. (See Appendix II, (a) and (b). The survey of the providers of services had three main segments: a description of their own responsibilities, an examination of their perceptions of the hospital and other services available, and some indication of their perceptions of the health care services required by the community. The consumers survey asked about current perceptions of need, plus an evaluation of existing services and comments on satisfaction with these services. Basic demographic information was also gathered during the interviews. The two survey instruments contained many of the same questions to allow comparison of responses between the two major groups. (See Chapter 5.A.)

These interviews were completed during a seven week period in April and May, 1977, and were conducted in the respondent's choice of location in a fairly relaxed and informal manner. The interviews usually lasted for twenty minutes to half an hour, but in some cases if the person had a lot to say, the overall session took up to two hours. In such instances, the survey instrument was completed as early as was comfortably possible, and the balance of the time followed the pattern of the oral history further described in section D of this chapter.

A tape recorder was used in most of the interviews, but at the beginning of each session the respondent was given his/her choice of using it or not. As a result, forty-five out of the fifty interviews were recorded, the only refusals coming from the Native Indian consumer category.

## 2) The Comparative Questionnaire

This survey grew out of the need to understand how people of the community felt the local hospital compared to the services and facilities offered elsewhere. The questions were asked in two parts, the first concerning St. Bartholomew's Hospital only, the second asking the same questions about other hospitals (see Appendix II (c)). Only the responses from people who had been patients in other hospitals, as well as in St. Bartholomew's were compared.

The sample was composed of all patients discharged from St. Bartholomew's Hospital during May and June of 1977. Persons who were ready for discharge from St. Bartholomew's Hospital during this period were given this questionnaire to complete. As noted in the instructions, they were to record their own opinions, and they were not to receive assistance from hospital staff. They were then to return the completed questionnaire, in the sealed envelope provided, through the head nurse, to the researcher. In this manner, 27 questionnaires were completed of which 14 respondents had used other hospitals, and therefore were usable for the purposes of comparison.

### C. Documentary Analysis

#### 1) Information Maintained by St. Bartholomew's Hospital

The record keeping system of St. Bartholomew's Hospital was found to lack comprehensiveness. In-patient information was maintained for compilation of monthly reports, but this information was of such a general nature as to be of little value for this study. A sample of cases for 1976 was examined to determine what type of information was available on each patient record. A data retrieval form was designed with the help of the Medical Records Librarian from Ashcroft in order to obtain the information in a usable format. This was to provide the annual utilization rates according to age, sex, ethnic origin, address of

patient, diagnosis, and length of stay. In this manner, the catchment area for this hospital could be determined, and some indication of the types of patients which were being treated in this facility could be provided.

As St. Bartholomew's Hospital did not have a person with medical records expertise, the compilation of the above information was undertaken by the Ashcroft Medical Records Librarian throughout April and May. The collection of data for this study was only one facet of her duties at St. Bartholomew's Hospital, as she was attempting to bring the records up to date for hospital purposes as well. My original request was for data for the years 1971, 1973, 1975 and 1976, as I assumed this would give a reasonable basis for future projections. Unfortunately, due to the complexity of the search, and the cost of overtime for this person's work, the 1971 data was not made available to the study, although January to June 1977 figures were available.

Other information maintained by the hospital provided insights for the study. For example, the gross number of patient days, and the total number of patients per year were available for the period from 1959 to 1976. (See Table 5.C.1, Chapter 5) This information, examined along with the number of doctors in the community and the number of residents in the community, would reveal the overall

ratio of utilization to population over a period of time. This is assuming that the number of doctors available will affect the number of services provided.

## 2) British Columbia Hospital Plan Data

In March, this researcher visited Victoria to meet with members of the British Columbia Hospital Plan to discuss the information requirements of the St. Bartholomew's Hospital study. They were requested to provide utilization information for St. Bartholomew's Hospital according to age, sex, place of residence, ethnic origin, diagnosis and length of stay. As pointed out in Chapter 1, however, the smallest geographical areas for their computer-held records system are the school districts within the province. School district number 31, South Cariboo, encompasses not only St. Bartholomew's Hospital in Lytton, but the hospital in Ashcroft as well, so this data did not match the study area and could not be used.

British Columbia Hospital Plan was able to provide annual utilization rates for St. Bartholomew's according to age, diagnosis, and average length of stay, however, which was helpful in understanding the service mix provided by the hospital.

## 3) Medical Services Commission of British Columbia Data

To compare the utilization rates of the local hospital with

the utilization rates of the doctor in the community, the Medical Services Commission was contacted about their records of physician services. The request was simply for the gross number of patient visits to the doctor's office in Lytton during the period 1959 to 1976. This would coincide with the information available on hospital utilization during the same period. This could then be used to establish a ratio of hospitalizations to gross number of doctor's visits. This rough ratio could then be projected into the future, taking into account such factors as whether or not there were one or two physicians practising in the area, and changes in the population make-up. Unfortunately the Commission was unable to provide these physician utilization rates.

#### D. Oral History Methods

The development of this portion of the methodology evolved along with the onion idea previously explained in part A of this chapter. The use of this type of information gathering was undertaken for several reasons. First, all of the statistical information on utilization available from any of the sources was rather suspect due to the relatively small number of cases, and also because of the extremely small number of providers of health care. For example, during the period around 1970 and 1971, there were two physicians in the community who performed surgery in this hospital (no longer done

today) and who reportedly billed approximately double the average number of fee-for-service visits of doctors in similar locations elsewhere. At another time, in 1974, with only one doctor in the community, the number of patients seen reportedly dropped very drastically. The important factor here is not to qualify these reports of differences in the past medical practice, but to emphasize the potential effect of such differences on hospital utilization rates. In a location in which there are many physicians practising, these personal styles and preferences may average out over time, but with solo or single partnership practices, these effects can be profound. The use of the oral history technique pointed out such differences, and provided subjective notations to explain unexpected fluctuations in utilization rates.

The second major reason for using the oral history method was to be able to include valuable information which was not part of either the statistical methods, or the interviews and questionnaires. Information such as anecdotal comments on good or bad services could be collected, weighed and examined in this manner. A representative number of such histories was not sought, rather the information was used to develop new thoughts and discover previously hidden ways of looking at the problems.

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Information gathered in this manner came from the doctor, hospital



staff, hospital board members, clergy, Native Indian leaders, other providers of health and social services, and other community members. Also included were persons not of this community, but who, by nature of their expertise or background were valuable in providing other insights.

The points of discussion in the oral histories varied from one individual to the next, but usually involved aspects of need for care, quality of care and perceived satisfaction with the present system. Alternatives were usually discussed in terms of organizational, physical and financial possibilities and limitations. This information was then used along with results from the surveys to weigh the possible acceptance of the different alternatives which are presented in Chapter 8.

One last method of gathering information for this study was a high school class exercise. This was used because none of the other methods involved input from the younger members of the community in any way. The high school principal was approached regarding this exercise and a class of seventeen grade twelve students was given the opportunity to take part. The study was explained to them, and they were given the opportunity to work with the project or not. As one girl said, it would give them the chance to work on a real situation happening in their community, and the class voted unanimously to get involved. They were given the task of examining what health and social services existed at that time within the community, what were the actual health

care needs, and what alternative organizational framework might better suit these needs. The project ran for about two periods per week for four weeks, during which time they had a number of health and social service providers come to the class to explain their roles. The results of this exercise are given in the next chapter.

The appropriateness and effectiveness of these methods may be open to question. The Postscript on Method, looks at some of the advantages and disadvantages of this type of research, and some of the difficulties encountered by the researcher.

## CHAPTER 5

### FINDINGS

This chapter consists of the findings from each of the methods used to gather information for this study. These methods were:

- A. The Community Survey
- B. The Comparative Questionnaire
- C. Documentary Analysis
- D. Oral Histories

The findings from the Community Survey are presented in two main portions. Tables 5.A.1 to 5.A.7 relate to the composition of the survey respondents themselves, with the subsequent tables in part A presenting information on their perceptions of the health and social services in the Lytton area.

The results from the Comparative Questionnaire are presented in a similar fashion, with table 5.B.1 providing the composition of the respondent group, and Tables 5.B.2 and 5.B.3 relating to their responses on the questionnaire.

The Documentary Analysis section presents numerical information on the number and type of hospitalizations in Lytton, as well as general

information on utilization trends in relation to the physician makeup of the area. The number of acute hospitalizations for residents of the Lytton area is then compared with residents of the larger school district, of which Lytton is a part, and with the residents of the entire Thompson-Nicola Regional District.

The oral history method was used to fill in the many subjective gaps left in the numerical information. In this section, the several actors in the local health care system are quoted on their varied perceptions of that system.

#### A. The Community Survey

##### 1) The Sample

The respondents in the survey were made up of 25 providers of health or social service, and 25 potential consumers.

From the six groups identified in the methodology, the composition of the survey respondents appears in Table 5.A.1.

TABLE 5.A.1  
COMPOSITION OF SURVEY RESPONDENTS

Providers*		Consumers**	
Group	Number Surveyed	Group	Number Surveyed
1	7	5(a)	6
2	6	(b)	6
3	9	6(a)	7
4	3	(b)	6
Total	25	Total	25

\* In the providers category, 6 respondents were Indian people.

\*\* In the consumers category, 5(a) and 6(a) are Indian, 5(b) and 6(b) are non-Indian.

The age and sex groupings of the respondents in this survey are given in Table 5.A.2. This information is presented for both consumers and providers so that an understanding of the ages and sex of both categories is known, although only the consumer group need be representative of the population. As can be seen from the Table, the respondents in the consumer grouping are fairly evenly spread according to sex with 12 males and 13 females, and distributed about half under age 50 and half above 50. Although there were no respondents under age 20, the input from this age group was obtained for the study through the high-school exercise. This is explained in Section D of this chapter.

TABLE 5.A.2

AGE AND SEX COMPOSITION OF  
SURVEY RESPONDENTS

Providers									
Category	1		2		3		4		Total
Sex	M	F	M	F	M	F	M	F	
Age									
20-34				1	3	3	2		9
35-49	3			1		2	1		7
50-64	3		1	3		1			8
65+	1								1
Totals	7	0	1	5	3	6	3	0	25

Table 5.A.2-Continued

Consumers									
Category	5(a)		5(b)		6(a)		6(b)		Total
Sex	M	F	M	F	M	F	M	F	
Age									
20-34	1	1				3			5
35-49	1			1	2	1	1	1	7
50-64		2	3	1			1	3	10
65+	1		1		1				3
Totals	3	3	4	2	3	4	2	4	25

The respondents in the provider category are distributed quite differently. Only one, a member of the hospital board, is over 65, but this is as expected because of retirement. There are 11 females and 14 males in the provider group, but the females appear only in groups 2 and 3, the hospital staff and the Youth Guidance Committee. The hospital board of management is exclusively male, yet on the hospital staff, only the senior executive and two maintenance personnel are male, out of a total staff of about 22.

The religious preference and ethnic origin for the consumer group could potentially play a role in the person's willingness to use St. Bartholomew's Hospital. This is due to the fact that the hospital is owned by the Anglican Church, and there are five of the eight hospital board members appointed by the church. Table 5.A.3 gives the religious preference

for both the consumers and providers of service, according to ethnic origin of the respondents.

TABLE 5.A.3  
RELIGIOUS PREFERENCE ACCORDING TO ETHNIC  
ORIGIN OF SURVEY RESPONDENTS

Providers									
Category	1		2		3		4		Total
<div> <div>Ethnic Origin</div> <div>Religious Preference</div> </div>	Indian*	Non-Indian*	Indian	Non-Indian	Indian	Non-Indian	Indian	Non-Indian	
Anglican	1	5	1		1				8
Other		1		2	1	1			5
No Religious Preference				3	2	4		3	12
Total	1	6	1	5	4	5	0	3	25

Consumers					
Category	5(a)	5(b)	6(a)	6(b)	Total
<div> <div>Ethnic Origin</div> <div>Religious Preference</div> </div>	Indian	Non-Indian	Indian	Non-Indian	
Anglican	5	2	4	4	15
Other		3		1	4
No Religious Preference	1	1	3	1	6
Total	6	6	7	6	25

\* Due to the fact that the only major ethnic groups are Indian or non-Indian, this classification has been used. Only one respondent, the Chinese doctor, varied from this distinction.

Six of the seven hospital board members surveyed indicated Anglican as their religious preference, while only two of the remaining 18 providers gave this indication. Of these 18, 12 indicated no religious preference.

Of the 25 consumers surveyed, 15 indicated Anglican as their religious preference. Nine out of 13 Indian people surveyed are Anglican, the remaining four having no religious preference. Of the 12 people in the non-Indian consumer category, 6 are Anglican, 4 have other religious preferences, and 2 practice no religion.

The place of residence of the respondents was also recorded. Table 5.A.4 gives the place of residence for the provider group surveyed, and Table 5.A.5 depicts the residence location of the consumer category. The persons in the consumer grouping are all residents of the general Lytton community, so their residence location is presented differently than the providers.

TABLE 5.A.4  
RESIDENCE LOCATION SURVEY RESPONDENTS  
FROM PROVIDER CATEGORY

Residence Location \ Group	1	2	3	4	Total
Lytton	2	2	5	1	10
Within 5 miles of Lytton	2	2	1	1	6
Ashcroft		1	1		2
Lillooet			2		2
Kamloops	1	1			2
Other	2			1	3
Total	7	6	9	3	25



TABLE 5.A.5

RESIDENCE LOCATION OF SURVEY RESPONDENTS  
FROM CONSUMER CATEGORY

Residence Location \ Group	5(a)	5(b)	6(a)	6(b)	Total
Lytton		5	1	3	9
Less than 1 mile from Lytton	2		5		7
1 to 9 miles from Lytton	2		1	1	4
More than 10 miles from Lytton	1	1		2	4
West Fraser*	1				1
Total	6	6	7	6	25

\* The west side of the Fraser River is considered a distinct location, separate from the other locations listed.

Table 5.A.4 indicates that 10 providers live within Lytton, and 6 live within five miles of the town. The remaining 9 respondents are spread between Kamloops, Ashcroft and Lillooet, with two each; one in each of Spences Bridge and Boston Bar; and one resident in Vancouver.

Table 5.A.5 indicates that 20 out of 25 of the respondents live less than ten miles from the town of Lytton. Of the remaining 5 respondents, 4 live ten miles or more from the town, and one lives on the west side of the Fraser River. The distinction of a separate category for the West Fraser was made due to the problems specific to that location, even though some of the homes are only one or two actual miles from the town.

For survey respondents who live within the general Lytton community, their length of residence was also tabulated. For the purpose of this study, the general Lytton community was loosely defined as including anyone who identified themselves as such. This group therefore includes anyone from the neighbouring Indian Bands, plus other ranchers and farmers who view Lytton as their community. Table 5.A.6 indicates the length of residence in the community for both the provider and consumer survey respondents.

TABLE 5.A.6  
LENGTH OF RESIDENCE IN LYTTON COMMUNITY  
OF SURVEY RESPONDENTS

Length of Residence \ Group	Providers				
	1	2	3	4	Total
Less than 3 years		1	1		2
3-7 years		1	3	1	5
8-15 years	3	1		1	5
More than 15 years	1	1	2		4
Live outside of community	3	2	3	1	9
Total	7	6	9	3	25

	Consumers				
	5(a)	5(b)	6(a)	6(b)	Total
Less than 3 years		1			1
3-7 years			1	1	2
8-15 years	1			2	3
More than 15 years	5	5	6	3	19
Live outside of community					
Total	6	6	7	6	25

It is interesting to note that only 4 of 25 providers have been in the community more than fifteen years, whereas of the consumer group, this category has 19 out of the 25. All 4 of the providers resident longer than fifteen years are Indian people. Not evident from the Table is the fact that from both the provider and consumer groups, there are a total of 19 Indian persons in the survey. Of these 19, 15 have been more than fifteen years in the area, and 3 of the remaining 4 are married to persons who have been Lytton residents longer than fifteen years.

The consumer grouping of respondents was asked to indicate their total family earnings from all sources for one year. Table 5.A.7 presents this information.

TABLE 5.A.7  
INCOME LEVELS OF SURVEY RESPONDENTS  
FROM CONSUMER CATEGORY

Income \ Group	Group				Total
	5(a)	5(b)	6(a)	6(b)	
No income	-	-	-	-	0
Less than \$4,000/year	-	-	-	-	0
\$4,000 to \$10,000/year	5	1	4	-	10
More than \$10,000/year	1	5	3	6	15
Total	6	6	7	6	25

Eleven out of 12 non-Indian respondents indicated earnings above \$10,000. Only 4 out of 13 Indians indicated this level of income. Of the 10 people reporting \$4,000 to

\$10,000 per year, only one was not an Indian, and he was retired from active employment. Persons who are in receipt of pensions or social assistance generally receive more than \$4,000 per year, so it was not surprising to find no responses below that level.

Lastly, the consumer sample was asked whether or not they had any contact with the hospital. For those respondents that had a contact, they were asked when was the last contact and why. Responses to this set of questions is given in Table 5.A.8.

TABLE 5.A.8\*

TYPE OF CONTACT WITH HOSPITAL AND  
TIME OF LAST CONTACT FOR SURVEY  
RESPONDENTS IN CONSUMER SURVEY

Date of Last Contact \ Type of Contact	Indian		Non-Indian		Total
	Patient	Other**	Patient	Other**	
Within last 6 months	2		1	2	5
6 months to 1 year	6		2	1	9
More than 1 year ago	5		4	2	11
Total	13	0	7	5	25

\* All of the respondents reported some contact with the hospital.

\*\* This category was primarily people who had been to the hospital as a visitor on their most recent contact.

These responses show that 5 people of the 25 surveyed had contact with the hospital within the past six months, but only 3 of these 5 were as patients. The Indian respondents did not

report their last contact as a visit to a patient in any instance, whereas almost half of the non-Indian respondents did so.

## 2) Responses to the Survey

There were three groupings of questions asked in the community survey. These were questions asked of both consumers and providers of services, questions asked of providers only, and questions asked of consumers only.

The survey instruments for both providers and consumers contained identical questions asking the respondents to list all of the health and social services available in the Lytton area. Each respondent was given two examples; the doctor and the hospital. Table 5.A.9 indicates a comprehensive list of services available and the number of times each service was listed by the respondents. In each case, the possible number of times to be listed was a total of fifty.

The figures in Table 5.A.9 show that the Public Health Nurses, both Federal and Provincial, are the most often listed services. Of the total list, they were recorded 82% and 60% of the time respectively. The major difference in these figures being the responses from the Indian consumers category who named the Federal health nurse 12 out of 13 respondents, and the Provincial health nurse

only 4 out of the 13.

TABLE 5.A.9

LIST OF HEALTH AND SOCIAL SERVICES AVAILABLE, AND  
NUMBER OF TIMES LISTED, SEPARATED INTO  
CONSUMER AND PROVIDER RESPONDENTS\*

Service	Providers (N= 25)		Consumers				Total (N= 50)	
			Indian (N= 13)		Non-Indian (N= 12)			
		%		%		%		%
Dentist	15	60	1	7.5	7	58	23	46
Pharmacy	2	8	2	15	3	25	7	14
Ambulance	11	44	1	7.5	7	58	19	38
Public Health Nurse								
- Federal**	21	84	12	92	8	67	41	82
- Provincial**	19	76	4	30	7	58	30	60
Eye Doctor	9	36	2	15	4	33	15	30
Community Health Representative								
- Full Time	14	56	3	22.5	5	42	22	44
- 1/4 Time	8	32	2	15	0	-	10	20
Social Worker-Lytton Band	8	32	5	38	0	-	13	26
Social Worker-Province	11	44	5	38	6	50	22	44
Probation Officer	4	16	1	7.5	3	25	8	16
Court Worker	2	8	0	-	0	-	2	4
Nutritionist/Dietician	6	24	0	-	1	8	7	14
Eye, Ear, Nose & Throat	4	16	0	-	3	25	7	14
School Counsellor	7	28	0	-	2	17	9	18
Band Home and School Co-ordinator	3	12	0	-	1	8	4	8
Police	3	12	0	-	3	25	6	12
Meals on Wheels	3	12	0	-	2	17	5	10
T.B. X-Ray	0	-	3	22.5	1	8	4	8
The Church	2	8	0	-	1	8	3	6

\* In addition to the above totals, the St. John's Ambulance, the blood donor clinic, the Lytton Band court worker, and the coroner were each named once. The Lions Club, St. George's Student Residence, and Alcoholics Anonymous were named twice.

\*\* The Federal health nurse services only Registered Indians on the Reserve, and the Provincial health nurse covers all other persons in the area.

All of the other health or social services were listed less than 50% of the time from the total of 50 respondents. Specific attention should be drawn to the number of times the pharmacy was listed. Only twice by the 25 providers of service, and only 7 times overall. Similarly, the Community Health Representatives who work quarter time in early diagnosis and disease prevention on the west side of the Fraser were not listed at all by the non-Indian respondents. The Lytton Band Social Worker was not named at all by the non-Indian consumer respondents, and was listed only by one quarter of all the respondents.

It should also be pointed out that because the doctor and the hospital were cited as examples for this list, the number of times these would have been listed is not known.

This listing of services was immediately followed by a question regarding the importance to the community of each of the services named by the respondent, plus the doctor or hospital if the respondent wished. The respondent was asked to list his or her top five services, but in many instances, they listed fewer than five, so the total numbers indicated in the table do not add up to five times the number of total respondents. Table 5.A.10 presents the number of times each service was listed, and the frequency with which it was listed in each of the positions,

TABLE 5.A.10

THE NUMBER OF TIMES EACH SERVICE WAS LISTED  
ACCORDING TO ITS IMPORTANCE TO THE COMMUNITY\*

Service Order of Importance  Respondent Group	Doctor					Hospital					Public Health Nurse (Fed.)					Public Health Nurse (Prov.)				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Consumers: Indian	7	4	-	1	-	1	6	2	2	-	1	2	6	3	-	-	-	1	1	-
Non-Indian	11	1	-	-	-	2	7	-	3	-	-	3	2	2	-	-	1	1	1	-
Providers	16	6	1	1	-	2	14	5	1	-	4	2	9	1	-	2	1	7	2	-
Total/Level**	34	11	1	2	-	5	27	7	6	-	5	7	17	6	-	2	2	9	4	-
Total/Service***			48					45					35					17		

	Ambulance					Dentist					Band Social Worker					Provincial Social Worker				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Consumers: Indian	2	-	0	-	-	-	-	-	-	-	1	-	3	-	-	-	-	2	1	-
Non-Indian	-	-	4	-	-	-	1	3	1	-	-	-	-	1	-	-	-	-	-	1
Providers	1	-	5	-	1	-	2	-	2	2	-	-	2	2	-	-	-	2	2	-
Total/Level**	3	-	9	-	1	-	3	3	3	2	1	-	5	3	-	-	-	4	3	1
Total/Service***			13					11					9					8		

\* In addition to the figures appearing in the Table, the Band Community Health Representatives were listed twice in level 5, the Pharmacy was listed twice in level 5 and once in level 4, and the police, clergy and optometrist each received one level 4 vote.

\*\* This indicates the total number of times a service was listed, according to its position on the list.

\*\*\* This indicated the total number of times a service was listed at all levels out of a possible number of 50.



in the order of importance to the community.

Table 5.A.10 shows us that the people surveyed feel the importance of the doctor and the hospital, having listed them in 96% and 90% of their responses respectively.

These figures are possibly misleading however, due to the fact that these are the only two services that every respondent had the opportunity to list as these were provided as examples.

Following the doctor and hospital in order of importance are the Federal Public Health Nurse, the Provincial Public Health Nurse, and the Ambulance Service. The important point in these categories however, is the number of times they appear at level 3 or 4, having already noted the bulk of the 1 and 2 levels being given to the physician and hospital service. This shows us that of the level 3 in importance, these three services show 17, 9, and 9 ballots respectively.

The respondents were asked whether there are any health or social services not available in Lytton at the present time which they think should be made available. Nineteen out of the fifty replies indicated no services lacking. Nine people, all providers, felt there should be some kind of alcohol counselling program. Seven people, made up of two providers

and five consumers felt there should be some extended care services for the elderly in the area. Four replies of which only one was a provider said another doctor is needed, although some respondents did suggest this during other parts of the interview.

Home care services, mental health services, and youth services were each considered needed in three interviews. Family planning, speech therapy, and greater social services were suggested in two interviews each. More dental service, broader pharmacy services, physiotherapy and more exercise were each suggested once. It is interesting to note that of all the services suggested with three or fewer frequencies, providers of service made this suggestion in all but two of the cases. In fact, only three consumers from the Indian group gave any indication of greater need for any services.

Forty-eight out of fifty people stated that there were no health or social services currently being offered in Lytton which could be stopped. One provider of service said that one public health nurse would do, rather than one from the federal government, and one from the provincial. One respondent gave the response that he did not know whether any services could be stopped. One rather delightful retired Indian man, in response to this question, suggested that maybe the

local beer parlor could be closed down.

When asked if there were any services currently offered which could be offered less, 43 people responded no, and one did not know. Four of the respondents questioned the public health nursing service, stating that it could be streamlined or better co-ordinated between the two levels of government involved. Two of the respondents, both hospital employees, felt that laboratory and x-ray services could be lessened, and one of these also felt that a full-time ambulance operator was not required.

On the question regarding the major causes of health problems in the community, alcohol abuse was listed as the number one cause in 30 out of 50 interviews. Another 3 interviews placed it second or third. Nutrition was chosen as the major cause 3 times, but as the second leading factor 15 times. Accidents were cited by 7 persons, cleanliness by 6, communicable diseases by 5, child neglect by 4, and overcrowding by 3 people. Drug abuse, boredom, social issues, tuberculosis and the weather were each noted once as major causes of health problems. In some cases respondents listed only one factor, and in others up to four or five, so the total number is not a meaningful figure.

The remaining questions which were asked of both the providers

and consumers of service were related specifically to the hospital in Lytton. Two questions asked the respondents to rate the physical facilities of this hospital, and rate the quality of personal care provided by this hospital. The results of these questions are found in Tables 5.A.11 and 5.A.12.

Table 5.A.11 shows that almost half of the respondents rate the physical facilities of this hospital as good. Twenty-one of the responses, however, rate the facilities as either fair or poor, and only one person said they were excellent. Four persons felt they did not have enough knowledge of the conditions to be able to respond.

From the total ratings of both providers and consumers, it can be seen that almost half of those who responded, or 20 out of 42, considered the quality of personal care provided at this hospital was good. Nine rated the care excellent, but it should be noted that 5 of these ratings came from either hospital board members or hospital staff. None of the other provider categories rated the quality of care as excellent. Thirteen persons overall rated the quality of care as fair, and none rated it poor.

The providers of care were asked why they rated the quality of care as they had. Of the five ratings of excellent, more

TABLE 5.A.11

RATING BY SURVEY RESPONDENTS OF PHYSICAL FACILITIES  
OF ST. BARTHOLOMEW'S HOSPITAL, LYTTON

Respondent Category  Rating	Providers					Consumers*					Total of Providers & Consumers
	1	2	3	4	Total	5(a)	6(a)	5(b)	6(b)	Total	
Excellent	-	-	-	-	0	1	-	-	-	1	1
Good	5	2	4	-	11	2	4	2	5	13	24
Fair	2	2	2	2	8	2	3	3	1	9	17
Poor	-	2	1	1	4	-	-	-	-	0	4
No Response	-	-	2	-	2	1	-	1	-	2	4
Total	7	6	9	3	25	6	7	6	6	25	50

\* The (a) groups made up of Indian persons, and the (b) groups of non-Indians, have been placed side by side.

TABLE 5.A.12

RATING BY SURVEY RESPONDENTS OF QUALITY OF CARE PROVIDED AT  
ST. BARTHOLOMEW'S HOSPITAL, LYTTON

Respondent Category  Rating	Providers					Consumers					Total of Providers & Consumers
	1	2	3	4	Total	5(a)	6(a)	5(b)	6(b)	Total	
Excellent	2	3	-	-	5	1	-	2	1	4	9
Good	2	2	2	2	8	2	5	2	3	12	20
Fair	2	1	5	-	8	2	1	1	1	5	13
Poor	-	-	-	-	0	-	-	-	-	0	0
No Response	1	-	2	1	4	1	1	1	1	4	8
Total	7	6	9	3	25	6	7	6	6	25	50

personal care was noted twice, and positive staff attitude three times. Eight respondents rated the care good, with three saying it was because of staff attitude, three calling it simply good care, and two because the service was more personal. A further eight provider respondents rated the care as only fair, noting staff attitude four times, with poor quality of care, inconsistency and outdated nursing practice each stated once as the major reason.

The consumers were asked whether the quality of care in this hospital was better than, the same as, or not as good as expected. Fourteen of the twenty-five respondents said it was the same as expected. Three said better than, and three said not as good as expected. Four people gave no response, and one remained undecided.

Ten providers of care, and nine consumers felt the quality of care in the hospital had generally improved over the past few years. Similarly, ten providers and nine consumers thought the quality had remained the same. Five respondents in all felt quality had declined, and seven gave no response.

All of the people surveyed were asked to name the hospital of their choice if they had to have a relatively serious operation such as having their appendix out. They were told to assume that such an operation could be performed in the

Lytton hospital, although under the circumstances at the time of only one doctor, this was not so.

The Lytton hospital was chosen 10 times, 5 by each providers and consumers. Of the five providers, three were hospital board members, but none were hospital staff. Of the five consumers who chose Lytton, only one was an Indian person. The Kamloops hospital was chosen 21 times, 14 times by providers of care, and 7 times by consumers. The hospital in Hope was chosen by three of the Indian consumers group. Chilliwack hospital was chosen twice by providers, Lillooet hospital once, with all other votes going to various hospitals in the lower mainland. Eight out of thirteen respondents in the Indian consumers group chose hospitals other than Lytton or Kamloops. One respondent stated he would go wherever his doctor told him to go.

The respondents were all asked why they had chosen the hospital which they did. Of the people who chose Lytton hospital, seven said it was because it was close to home. Three said they had confidence in the present doctor, but each of these said that the community also needed another physician. The major reason given for choosing the Kamloops hospital was the adequacy of facilities and staff. This reason was given in 12 of the 21 responses. Others cited its nearness, their knowledge of Kamloops, or that their family doctor is in

Kamloops as reasons for choosing this hospital. The majority of reasons for choosing other hospitals were based on the respondents' previous experiences in each of these locations.

When the rating of quality of care from Table 5.A.12 is viewed in conjunction with the locational preferences for each respondent, some interesting points become clear. This is shown in Table 5.A.13.

Table 5.A.13 indicates that there were 9 people who rated the quality of care in the Lytton hospital as excellent, but only 2 of these, both non-Indian consumers, named this hospital as their choice of locations for care. Twenty people in all rated the Lytton hospital quality as good, but of these, only 4 chose it for their preference as a treatment location. Four out of five of the hospital staff rated the quality of care as good or excellent, but none of the staff chose this hospital on the location preference question.

All of the fifty people surveyed were asked why they thought the Lytton hospital was used less now than in the past few years. In response to this question, the providers of service primarily gave variations of three themes. One of these is the thought that as there were two doctors before, and only one now, the number of patients is bound to be less



TABLE 5.A.13

LOCATION PREFERENCES FOR HOSPITAL CARE, AS COMPARED WITH THE  
RATING OF QUALITY OF CARE IN ST. BARTHOLOMEW'S HOSPITAL  
GIVEN BY BOTH PROVIDER AND CONSUMER SURVEY RESPONDENTS

Providers of Services

Location Preference													
Rating of Quality	Group 1			Group 2			Group 3			Group 4			Total
	Lytton	Kamloops	Other	Lytton	Kamloops	Other	Lytton	Kamloops	Other	Lytton	Kamloops	Other	
Excellent	-	1	1	-	2	1	-	-	-	-	-	-	5
Good	2	-	-	-	2	-	-	1	1	-	1	1	8
Fair	1	1	-	-	1	-	1	3	1	-	-	-	8
Poor	-	-	-	-	-	-	-	-	-	-	-	-	0
Undecided or no response	-	1	-	-	-	-	1	1	-	-	-	1	4
Total	3	3	1	0	5	1	2	5	2	0	1	2	25

Consumers of Services

Location Preference													
Rating of Quality	Group 5(a)			Group 6(a)			Group 5(b)			Group 6(b)			Total
	Lytton	Kamloops	Other	Lytton	Kamloops	Other	Lytton	Kamloops	Other	Lytton	Kamloops	Other	
Excellent	-	-	1	-	-	-	1	-	1	1	-	-	4
Good	-	1	1	1	1	3	1	1	-	-	2	1	12
Fair	-	1	1	-	1	-	-	-	1	-	-	1	5
Poor	-	-	-	-	-	-	-	-	-	-	-	-	0
Undecided or no response	-	-	1	-	-	1	-	-	1	1	-	-	4
Total	0	2	4	1	2	4	2	1	3	2	2	2	25

at the present time. This was the answer from four of the providers. Four of these providers felt that the population is generally healthier now, or that preventive health care is helping people to stay healthy.

The major reason given by the providers for the declining use of this hospital is a combination of increasing mobility of the native-Indian population, and a dissatisfaction with the doctor. These issues date from the late 1960's when a doctor practicing in the community said that he "...wouldn't issue more than a prescription for Aspirin for somebody to take on a regular basis unless they were in the hospital." This was apparently due to the inability of many patients to follow treatment regimes once they were sent home. This attitude on the part of the doctor certainly must have had its effect on the number of patients in the hospital.

Since that time, eight different doctors have practiced in the community. These doctors have each had different levels of success, and different degrees of community acceptance. As one respondent put it,

Now, in the case of Dr. \_\_\_\_\_, there were so many obvious cases of tactlessness on his part that put people right off...but in the case of (the present doctor), because the load he's been under, perhaps he couldn't take the time that they felt they should have had, and when dealing with Native personalities, you've got to take time. If you try to rush them, they don't feel like they are being rushed, rather they feel they are being pushed.

One Native respondent, a member of the Lytton Band Council, felt the reason hospital admissions were fewer now was because the Native people have their own B.C. Medical Plan card, and have

...the right to choose our own doctors. I think most native families go out to Hope. They take their children, drive their own vehicles to Hope. Only the people that couldn't get out to Hope use the hospital here. The right to choose our own doctors came around 1969 or 1968.

Another Native person, speaking on this same topic said that some people didn't want to see the present doctor, "...there must be something in the way he talks to people." Another said, "Before, people usually only travelled out of town to see a specialist, but now a lot are going just to see doctors elsewhere."

One of the providers said, "I don't think that the health of the population is suddenly improved so much that they don't need a hospital anymore...It can only depend on what patients the doctor admits."

Perhaps the most significant statement of why patient days are down in this hospital came from the doctor himself. He said,

I think this is the reason why...I do what I can,  
I don't do what I can't.

The consumers group was also asked this question. Those in

the Indian grouping showed very different answers from those in the non-Indian groups. Seven of the 13 Indian respondents stated that either they did not like the present doctor, or that they felt many others did not do so. One person said,

His attitude bugs me. The kids would be really sick and he'd laugh and say what's the matter. You'd say the kid was sick, and he'd say nothing was wrong...He just didn't take the time to find out.

Several of the Indian people also stated mobility as a factor, and coupled with the absence of a doctor at all about 1973, patterns of seeking care outside this community became common.

With the Indian people, I'd say mobility. There's more care, so they're going out more. I think the majority had the same feeling as I had. When there was no doctor, you had to establish a family doctor, so at least you could see the same person all the time.

These people also mentioned lack of modern equipment in the hospital, earlier detection of illness, and a greater number of out-patients at the doctor's office as reasons for the declining patient volume in the hospital.

This last point, the out-patient treatment was also mentioned by two of the non-Indian consumers. One of these respondents said,

I think it depends upon the temperament of the

doctor. Some doctors prefer to keep their patients in hospital, while others prefer to treat them as office or outpatients. The tendency now is towards the latter, but I don't think the health standards are suffering because of this.

The last phrase used by this individual regarding health standards is a very important consideration, for our concern is not with filling the hospital, but with maintaining a healthy population.

The most frequent reason given by the non-Indian consumer group for the lower patient volume is because of only one doctor now as compared with two from 1969 to 1973. Five of the people surveyed felt this to be the major reason.

Four respondents felt the problem was that people were going elsewhere for their care. One even said that due to the large number of referrals out to a large centre with equipment to make the proper tests, many people now feel "...there's no use going to Lytton because they're only going to send me to Kamloops anyway." One man said, "Everyone here thinks bigger is better. I think I myself would pick something small."

One respondent summed it all up nicely,

Because I think there's only one doctor, so you don't get the surgery. And I think the people have lost faith. Well, you see in Lytton, we had Dr. \_\_\_\_\_ and Dr. \_\_\_\_\_. They left and then we had Dr. \_\_\_\_\_, and things started to slide

there because he was alone. Well then we had that other awful Dr. \_\_\_\_\_. He had a drinking problem so we got him out, and then we got \_\_\_\_\_ and he didn't stay very long, he didn't integrate very well. Then we went without for quite a while, until (present doctor), and there's only him, and I don't think he socializes either.

You see, Drs. \_\_\_\_\_ and \_\_\_\_\_ were skiers, and they didn't only take out of the community, they gave. They socialized and they helped with the ski club. We went to their house for parties. Some of the teachers and doctors went on a fishing trip...you know...contact, they were part of the community. I think a doctor has to integrate into the community.

Well, I wouldn't go to Dr. \_\_\_\_\_ so I switched over to Lillooet. I went to Dr. \_\_\_\_\_ here, but I wasn't that struck on him either...

Both the providers and the consumers were asked if they thought it would be a good idea to have several of the health and social services located together in one location. Those that said yes to this question were then asked where they would suggest. The results are shown in Table 5.A.14.

The figures in Table 5.A.14 show that 40 out of 50 respondents favour having services housed together in one location, and that these responses were fairly evenly spread between providers and consumers. The locational preferences for such a centralization of services were fairly evenly split between the hospital as the location, and the need to construct a new facility to house such a service. Interestingly, 4 out of 5

TABLE 5.A.14

RESPONSES OF PROVIDERS AND CONSUMERS WHEN ASKED  
IF SERVICES SHOULD BE LOCATED TOGETHER

Respondent Group Response	Providers					Consumers					Total Of Both Providers & Consumers
	1	2	3	4	Total	5(a)	6(a)	5(b)	6(b)	Total	
No	2	-	4	-	6	1	-	2	1	4	10
Yes	5	6	5	3	19	5	7	4	5	21	40
Total	7	6	9	3	25	6	7	6	6	25	50

CHOICE OF LOCATION INDICATED BY "YES" RESPONDENTS

Respondent Group Response	Providers					Consumers					Total Of Both Providers & Consumers
	1	2	3	4	Total	5(a)	6(a)	5(b)	6(b)	Total	
Hospital	2	2	1	3	8	1	1	4	1	7	15
Have to	3	2	1	-	6	2	5	-	4	11	17
Construct	-	2	2	-	4	1	-	-	-	1	5
Band Office	-	-	1	-	1	1	1	-	-	2	3
Anywhere in	-	-	1	-	1	1	1	-	-	2	3
Town	-	-	1	-	1	1	1	-	-	2	3
Total	5	6	5	3	19	5	7	4	5	21	40

listings of the Band office were by providers of service, and only once by the Indian consumer grouping. Similarly, this latter group chose the hospital only twice, but said there would be need to construct a new building seven times. One other respondent, a non-Indian, suggested that perhaps a diagnostic and treatment centre should be established on the reserve.

When asked why respondents had chosen "yes" or "no" to this question, several reasons were frequently given. Those in favour of locating together cited greater efficiency 7 times, better communication 12 times, closer together as better 4 times. The hospital was listed three times because it has so much spare room. Those who were against this concentration of services mentioned lack of privacy, too much traffic for one location, and the fact that people already know where to go. They also said that familiarity may breed contempt, and people, both patients and other workers may try to get others to do things for them, "...but it's nobody's job but their own."

The respondents were then told that the possibility existed for the doctor to move his office practice into the hospital, and would they think this would be a good idea. The responses to this question are given in Table 5.A.15.

This table indicates that a total of 35 out of 50 respondents



TABLE 5.A.15

RESPONSES OF PROVIDERS AND CONSUMERS WHEN ASKED  
IF DOCTOR SHOULD LOCATE IN HOSPITAL

Respondent Group Response	Providers					Consumers					Total Of Both Providers & Consumers
	1	2	3	4	Total	5(a)	6(a)	5(b)	6(b)	Total	
No	1	4	4	-	7	2	2	1	3	8	15
Yes	6	2	5	3	18	4	5	5	3	17	35
Total	7	6	9	3	25	6	7	6	6	25	50

are in favour of such a move. The only group which disapproved this action were the staff of the hospital, who showed a 4 to 2 response rate against the doctor moving into the hospital building.

Reasons given in favour of this move cited greater efficiency 12 times, saving the doctor's time 10 times, and better for emergency 7 times, with increase in hospital revenue, easier to reach doctor, and access to facilities each stated once. Those against this move said there was no room 3 times, the move wouldn't change anything 3 times, lack of privacy twice, and too far from other services twice. Two respondents felt there would be too many germs brought into contact with the in-patients. The fact that some people do not like to go to the hospital under any circumstance was given as the reason by two people. One person cited not enough parking at the hospital as a problem. Only one person thought this step might be too piecemeal and should not be taken now.

All of the people surveyed were asked whether geographic or climate conditions of the area could make access to health services difficult. Forty-one out of fifty thought conditions could make access difficult, and of these, thirty-three specifically mentioned problems unique to the west side of the Fraser River. Of the 25 consumers asked if they them-

selves had any difficulty gaining access to care, 20 said no, the other 5 stating no telephone, bad roads and no car as the major reasons. From the entire group of 41 who felt that some people may have difficult access to care, their reasons were as follows: 13 said no car, 12 because of the ferry being closed, 9 because of bad roads, and 8 because of no telephones. Three stated general winter conditions as the problem, and distance to referral centres was mentioned twice. Most of these problems are specific to the West Fraser area, but very few examples of other difficult access were given.

#### B. The Comparative Questionnaire

According to the comment on health care evaluation by Donebedian, cited in Chapter 3, the most relevant indicator of quality of care is the degree of satisfaction with services expressed by local users of such services. To this end, the Comparative Questionnaire was designed. During the latter part of May, and throughout June 1977, each patient in St. Bartholomew's Hospital was given a copy of this questionnaire shortly before their discharge. In this manner, 27 completed questionnaires were obtained, of which 14 were usable for the purposes of comparison, the remaining 13 patients having used only St. Bartholomew's Hospital. Interesting is the fact that during the period of approximately six weeks in which this questionnaire was to be given to patients, some 37 to 50 patients were discharged, depending upon the date the nurses actually began giving out the questionnaire. During

the month of June, 1977, alone however, the number of discharges was 37. When asked about this, the hospital staff replied that six patients had not returned forms given to them, but this left about 4 to 17 discharges unaccounted for during the questionnaire period.

The intent of the questionnaire was to gain a completed copy from every patient thereby avoiding sampling bias. Lacking the knowledge of which patients were given the questionnaire, and which were not, the results must be viewed as possibly containing some selective omissions.

#### 1) The Sample

The returned questionnaires indicated that 12 males and 12 females completed the questionnaire, with 3 giving no response to this question. (Again, for comparison, during the month of June, 1977, 24 males and 13 females were discharged. The actual number of discharges during the May portion of the questionnaire is unavailable.) In the sample, there were seventeen Indian respondents, and nine non-Indian. The age breakdown of this sample is given in Table 5.B.1.

The table shows that the male respondents were evenly split between Indian and non-Indian. During June however, of 24 males discharged, 16 were Indian and 8 were non-Indian,

TABLE 5.B.1

ETHNIC ORIGIN OF COMPARATIVE QUESTIONNAIRE RESPONDENTS,  
ACCORDING TO AGE AND SEX OF RESPONDENT

Age	Sex	Male			Female			Sex Not Indicated	Total Respondents
	Ethnic Origin	Indian	Non-Indian	Total	Indian	Non-Indian	Total		
19 or under		1	-	1	5	-	5	-	6
20-34		1	2	3	1	-	1	1(Indian)	5
35-49		3	1	4	2	-	2	-	6
50-64		-	3	3	1	1	2	-	5
65 or over		1	-	2	1	1	1	1(Non-Indian)	4
Age not indicated		-	-	-	-	-	-		1
Total		6	6		10	2		2	27

indicating a tendency to be selective of the respondent group.

This table also indicates that of twelve female patients, 10 were Indian, and 2 were non-Indian. Five of the female Indian patients were under 20 years of age.

## 2) The Responses

The questionnaire respondents were asked to rate the physical facilities of the hospital in Lytton. Table 5.B.2 shows the results.

TABLE 5.B.2  
RATING OF PHYSICAL CONDITIONS OF THE  
HOSPITAL IN LYTTON\*

Where Patient Rating	St. Bartholomew's Patient Only	Patient In Other Hospitals	Total
Excellent	2	5	7
Good	8	6	14
Fair	2	2	4
Poor	1	1	2
Total	13	14	27

\* This table is broken down into those persons who have been a patient in the Lytton hospital only, and those who have been a patient in another hospital within the past three years.

The respondents were also asked to rate the quality of personal care in St. Bartholomew's Hospital. The results are in Table 5.B.3.

TABLE 5.B.3

RATING OF QUALITY OF PERSONAL CARE IN  
THE HOSPITAL IN LYTTON\*

Where Patient Rating	St. Bartholomew's Patient Only	Patient In Other Hospitals	Total
Excellent	7	9	16
Good	6	5	11
Fair	-	-	-
Poor	-	-	-
Total	13	14	27

\* This table is broken down into those persons who have been a patient in the Lytton hospital only, and those who have been a patient in another hospital within the past three years.

The respondents were asked why they rated the personal care as they did. Almost all of the answers indicated a good staff attitude, a willingness of the staff to help, and a sense of caring. Only one comment was negative, suggesting that sometimes the staff didn't have the time to give the care needed by small children.

From the sample, the 14 patients who had been in a hospital other than only St. Bartholomew's were asked to compare the physical facilities and the quality of personal care they received. Seven said the physical facilities were better elsewhere, six said the same as the Lytton hospital, and one said he did not know. Eleven said the quality of personal care was the same in both hospitals that they had

been in, but three said the other hospital had offered better care. Of the three who said the care was better elsewhere, each had been to a different hospital. In total, ten other hospitals were named, with Royal Inland in Kamloops having been used by three of these patients.

### C. Documentary Analysis

#### 1) General Comments

There were three major sources of information regarding the utilization of the Lytton hospital. These were: British Columbia Hospital Plan data; Lytton hospital annual records; and utilization data prepared by the hospital staff specifically for this study. The B.C. Hospital Plan data covered the years 1972 to 1975, the annual records of the hospital covered 1959 to 1975, and the data specific to this study was provided for the years 1973, 1975, 1976, and January to June, 1977. Due to the complexity of the data specific to this study, and the time and staff constraints surrounding the preparation of this information, the 1974 material was omitted from this section. This information prepared by the hospital did not contain the length of stay per patient, so B.C. Hospital Plan information has been relied upon in this regard.

A caution in analyzing this data should first be put forward. All three sources gave figures for the actual number of cases



per year of acute hospitalizations at St. Bartholomew's Hospital. Both B.C. Hospital Plan and the annual records of the hospital also gave total patient days. The figures, as provided by each group, are given in Tables 5.C.1 and 5.C.2.

TABLE 5.C.1

NUMBER OF CASES PER YEAR OF ACUTE HOSPITALIZATION  
FOR ST. BARTHOLOMEW'S HOSPITAL, LYTTON,  
AS PROVIDED BY THREE SOURCES\*

Source \ Year	1971	1972	1973	1974	1975	1976	1977**
B.C. Hospital Plan	654	818	689	538	535	-	-
St. Bartholomew's records	681	859	716	602	564	553	-
Provided for study	-	-	672	-	553	565	460***

\* Blank spaces indicate information not provided.

\*\* 1977 information is from January 1, 1977 to June 1, 1977.

\*\*\* Actual number is 230 for one half of year. The number 460 is an estimate simply by doubling.

TABLE 5.C.2

TOTAL NUMBER OF PATIENT DAYS PER YEAR FOR ACUTE  
HOSPITALIZATIONS IN ST. BARTHOLOMEW'S  
HOSPITAL, LYTTON ACCORDING TO  
TWO SOURCES

Source \ Year	1971	1972	1973	1974	1975	1976
B.C.H.P.	6,336	5,730	4,972	4,436	4,063	-
Hospital records	5,908	5,644	5,177	4,970	4,096	3,582

Although the figures vary considerably from one source to another, there is a common trend throughout all of them.

This can be readily seen when the number of cases per year are plotted as in Figure 5.C.1.

Each of the sources of information indicate a continuing decrease in patient volume from 1972 onwards. As pointed out earlier, the 1977 figure is an estimate based upon one

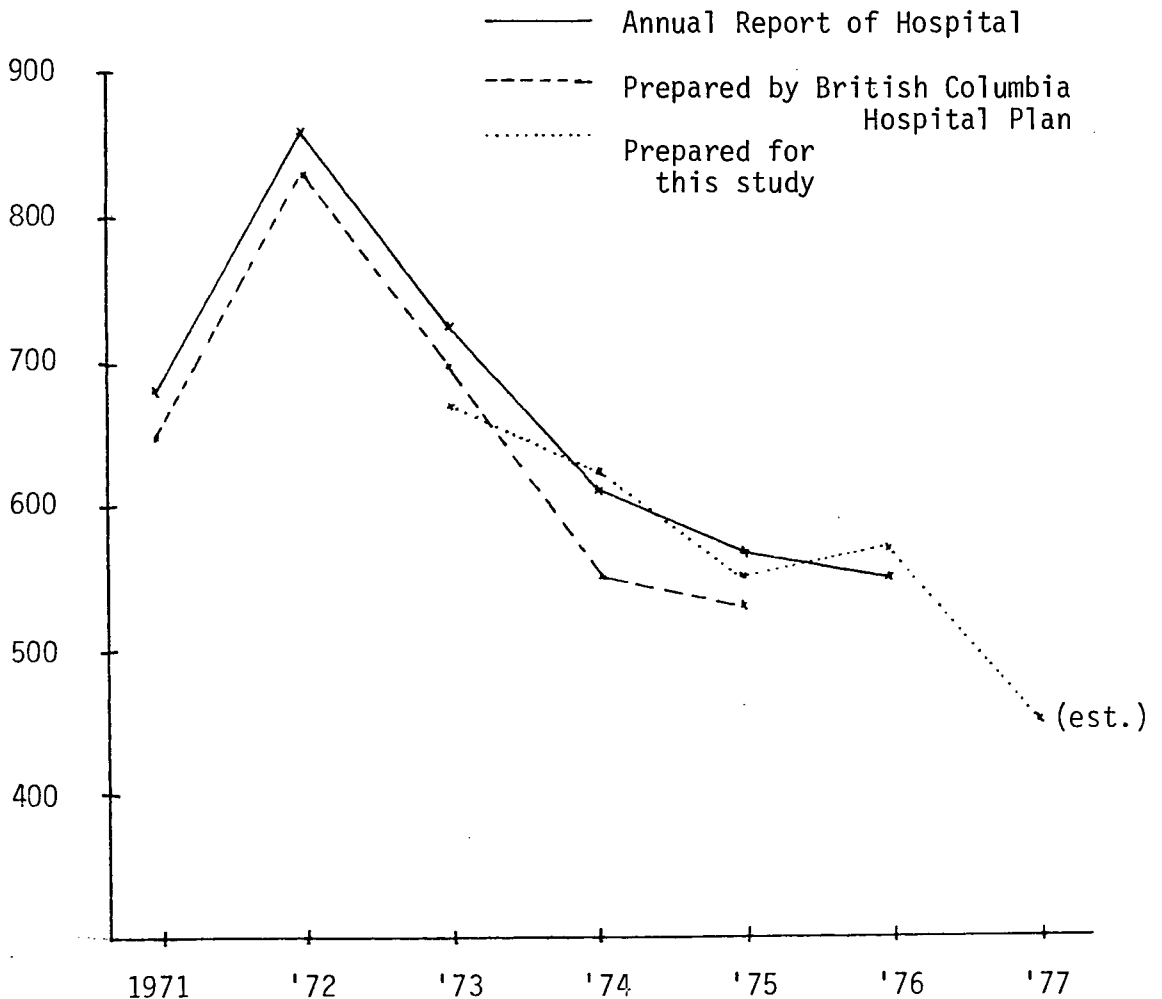


Figure 5.C.1. Number of Cases per Year in St. Bartholomew's Hospital, Lytton, 1971 to 1977

half year's information. This assumes that the number of cases for the first half of the year is likely to be similar in the second half. This assumption is based upon the findings from the years 1973, 1975, and 1976. This information is provided in Table 5.C.3.

TABLE 5.C.3

NUMBER OF ACUTE HOSPITALIZATIONS PER MONTH FOR  
ST. BARTHOLOMEW'S HOSPITAL FOR SELECTED  
YEARS, BASED UPON HOSPITAL  
PROVIDED INFORMATION

Year Month							
	1973	%	1975	%	1976	%	1977
January	53		37		57		36
February	63		41		47		46
March	56		38		53		40
April	62		41		42		35
May	52		40		52		36
June	56		41		50		37
Half Year Total	342	( 50.8)	237	( 42.9)	301	( 53.3)	230
July	63		52		46		
August	68		38		42		
September	46		42		46		
October	33		59		45		
November	60		49		42		
December	60		76		43		
Half Year Total	330	( 49.2)	316	( 57.1)	264	( 46.7)	
Total	672	(100.0)	553	(100.0)	565	(100.0)	

Table 5.C.3 indicates that no definite trend towards a greater number of hospitalizations in either half of the calendar year

has taken place during the years given. The only major difference occurred in December 1975 when 76 people were hospitalized, compared with 60 in December 1973, and 43 in December 1976. This difference did not show up in only one or two diagnostic groups, but was spread throughout several groups. The only difference worthy of note was for diseases of the respiratory system, the most frequent reason for hospitalization in all months, which in December 1975 showed 20 such cases compared with 13 and 9 for the same month in 1973 and 1976 respectively.

If the aggregate of all cases for the three years 1973, 1975 and 1976 is taken, we find 49% of the cases hospitalized in the first half of the year, and 51% in the second half. If this trend were assumed correct for 1977, with 230 cases representing 49% of the total, the estimate for the year would come to 470 cases rather than 460. This difference is not substantial, and the estimate of 460 cases is used in the balance of this report.

In a hospital the size of St. Bartholomew's in Lytton, with only one or two physicians in practice, the effect of the doctor's practice on the number of cases in the hospital can be great. Since 1969, there have been eight physicians in solo or partnership practice in Lytton. Their dates of practice, and the number of patient days per year from 1963

to 1977 are given in Figure 5.C.2.

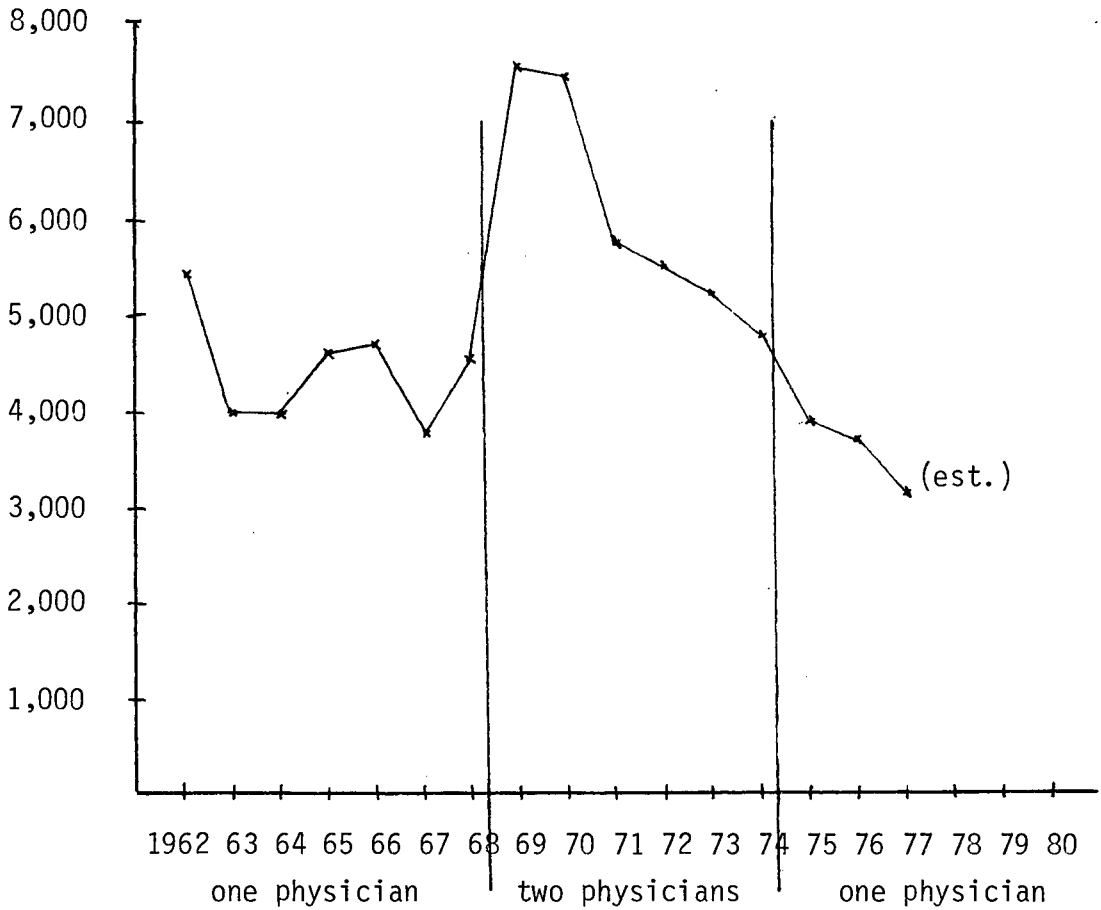


Figure 5.C.2 Dates of practice for physicians in Lytton, and number of patient days per year in St. Bartholomew's Hospital, 1962 to 1977.

Figure 5.C.2 requires some subjective notations as well.

The two doctors in the community from May, 1968, until July, 1971, set up this practice as their first in Canada. Information of a second hand nature provided to this study suggested that these physicians tended to hospitalize more patients, for a greater number of reasons, and for longer

periods of time than was the practice either before or after them. This obvious increase in patient days during these two years is not therefore indicative of epidemics or local disasters, and estimates of future utilization based on these figures should take these factors into account.

During the past fifteen years, the average number of patient days per year while there has been one physician in the community, is in the range of 4,400 to 4,450 days. With two physicians in practice, the average has been 6,500 to 6,550, although this figure will be misleading as explained above. During the partnership practice in 1971 and 1972, the average was about 5,570 patient days per year.

The number of patients hospitalized at any given time is dependent upon the medical judgement of the physicians in practice at that time. During the period from 1970 to the present date, the age, sex and ethnic composition of this community has undergone very little change, yet the number of people hospitalized and the total number of patient days were both noticeably higher with two physicians in practice. The estimated patient days for 1977 in Figure 5.C.2 are 3,090, based upon 460 cases at the 1976 average length of stay of 6.72 days.

## 2) Data Supplied by St. Bartholomew's Hospital

The age composition of the users of St. Bartholomew's Hospital is shown in Table 5.C.4 for the years 1973, 1975, 1976 and one-half of 1977. It can be seen from this table that although the absolute number of cases in each age group shows a general decrease, the relative number or percent for each age group has remained fairly constant. The most obvious decline is in the 15-44 age group, which has steadily dropped from 242 patients in 1973 to an estimated 138 in 1977. This is a reduction in relative frequency from 36% to 30% of total cases.

The sex of the patients during these years is also known. The number of cases of each sex, plus the percent of total admissions each year is given in Table 5.C.5.

The table points out that the number of females admitted per year has shown both an absolute reduction, from 363 in 1973, to an estimated 214 in 1977, and a relative reduction from 54% to 46.5% in the same period. Although the relative number of males has increased proportionate to the percentage drop for females, the absolute number of hospitalizations for males has also decreased from 309 in 1973, to an estimated 246 in 1977.

The ethnic origin of the patients was provided as either

TABLE 5.C.4

NUMBER OF ACUTE HOSPITALIZATIONS FOR ST. BARTHOLOMEW'S HOSPITAL,  
LYTTON, BY AGE GROUPS FOR SELECTED YEARS\*

Age Group \ Year	1973		1975		1976		January to June 1977 x 2 = Full Year Estimate	
		%		%		%		%
Under 1 year	65	( 9.7)	75	( 13.5)	70	( 12.3)	30 x 2 = 60	( 13.0)
1-14 years	194	( 28.9)	151	( 27.3)	171	( 30.3)	79 x 2 = 158	( 34.3)
15-44 years	242	( 36.0)	200	( 36.2)	177	( 31.3)	69 x 2 = 138	( 30.0)
45-69 years	114	( 16.9)	87	( 15.7)	93	( 16.5)	36 x 2 = 72	( 15.7)
70 years and over	57	( 8.5)	40	( 7.2)	54	( 9.6)	16 x 2 = 32	( 7.0)
Total	672	(100.0)	553	(100.0)	565	(100.0)	230	460 (100.0)

\* 1977 figures are estimates based on one-half year information.



TABLE 5.C.5

Year Sex	1973 %	1975 %	1976 %	January to June 1977 x 2 = Full Year Estimate %
Male	309 (46.0)	268 (48.5)	297 (52.6)	123 x 2 = 246 (53.5)
Female	363 (54.0)	285 (51.5)	268 (47.4)	107 x 2 = 214 (46.5)
Total	672	553	565	230 x 2 = 460

\* 1977 figures are estimates based on one-half year information.

Indian or non-Indian. For all of the Indian users, their Band was also noted. This information, along with population estimates for each group are given in Table 5.C.6.

Table 5.C.6 indicates that although both Indian and non-Indian utilization has dropped, the rates for the non-Indian users has shown the most dramatic change. The number of non-Indian patients has steadily declined from 289 in 1973, to an estimated 144 in 1977. This represents a relative decrease from 43.0% of all hospitalizations to 31.3%. The utilization for the Indian population has shown little absolute change in 1973 to 1977, with 383, 332, 360, and 316 patients per year indicated. Relative to total admissions per year, the Indian utilization has increased from 57.0% in 1973 to 68.7% estimated for 1977.

The utilization for Indians according to the location of their Band has also shown very little change in the four years provided. In most Bands, the absolute number of cases from 1973 to 1977 has dropped, but not exclusively in any particular location. The rate of decrease for Lytton Band has been less rapid than for other Bands, and residents of this Band have moved from accounting for 40% of the total utilization in 1973, to almost half the utilization for 1976 and 1977. Of all the Indian hospitalizations, Lytton Band has accounted for 71%, 64%, 77% and 69% for each

TABLE 5.C.6

NUMBER OF ACUTE HOSPITALIZATIONS FOR ST. BARTHOLOMEW'S  
HOSPITAL, LYTTON, ACCORDING TO ETHNICITY,  
AND BAND FOR SELECTED YEARS\*

Year Ethnic Origin	Population**	1973		1975		1976		January to June 1977 x 2 = Full Year Estimate	
			%		%		%		%
Non-Indian	800	289	(43.0)	221	(40.0)	205	(36.3)	72 x 2 = 144	(31.3)
Indian	1,215	383	(57.0)	332	(60.0)	360	(63.7)	158 x 2 = 316	(68.7)
Total	2,015	672		553		565		230 x 2 = 460	
<u>Band</u>									
Lytton	935	273	(40.6)	213	(38.5)	277	(49.0)	110 x 2 = 220	(47.8)
Sisca	114	23	( 3.4)	20	( 3.6)	13	( 2.3)	9 x 2 = 18	( 3.9)
Skuppah	26	4	( 0.6)	2	( 0.4)	3	( 0.5)	4 x 2 = 8	( 1.7)
Kanaka	60	19	( 2.8)	12	( 2.2)	14	( 2.5)	4 x 2 = 8	( 1.7)
Nicomen	30	2	( 0.3)	5	( 0.9)	2	( 0.4)	0 x 2 = 0	0
Boothrite	80	27	( 4.0)	23	( 4.2)	14	( 2.5)	13 x 2 = 26	( 5.7)
Cooksferry	N/A	14	( 2.1)	13	( 2.4)	7	( 1.2)	5 x 2 = 10	( 2.2)
Hazelton	N/A	4	( 0.6)	4	( 0.7)	1	( 0.2)	3 x 2 = 6	( 1.3)
Other	N/A	17	( 2.5)	40	( 7.2)	29	( 5.1)	10 x 2 = 20	( 4.3)

\* 1977 figures are based on one-half year information.

\*\* Population estimates as provided by the bands July, 1977. No known differences over past 5-6 years.

year provided.

The Postal Code for each patient is recorded upon admission. This information was used to provide some idea, other than Band location, as to where patients have come from to use St. Bartholomew's Hospital. This is provided in Table 5.C.7.

Table 5.C.7 indicates two major changes have been occurring. First, although the absolute number of cases admitted from a Lytton address has declined, these have shown a steady increase from 64.1% of all admissions to 81.3% estimated for 1977. The neighbouring communities of Boston Bar, North Bend and Spences Bridge have shown a drop from 22% to 12% of total utilization for the same period. Similarly, the three categories of Lower Mainland, Out of Province, and other B.C. locations have dropped from 12.6% to 6.1% of total hospitalizations.

The information provided by the hospital also gave the number of patients transferred out of St. Bartholomew's Hospital for 1973, 1975, 1976 and one-half of 1977. The figures show that more than 95% of the cases each year are maintained in the Lytton hospital. The major referral centre is the Royal Inland Hospital in Kamloops, taking 3% to 5% of the referrals each year. In no year indicated has more than one

TABLE 5.C.7

NUMBER OF ACUTE HOSPITALIZATIONS FOR ST. BARTHOLOMEW'S  
HOSPITAL, LYTTON, ACCORDING TO RESIDENCE LOCATION  
OF PATIENT FOR SELECTED YEARS\*

Postal Code Location	Year						January to June 1977 x 2 = Full Year Estimate	
	1973	%	1975	%	1976	%		%
VOK 1Z0-Lytton	431	(64.1)	397	(71.8)	438	(77.5)	187 x 2 = 374	(81.3)
VOK 1C0-Boston Bar	82	(12.2)	60	(10.8)	54	(9.6)	14 x 2 = 28	(6.1)
VOK 2C0-North Bend	17	(2.5)	9	(1.6)	4	(0.7)	1 x 2 = 2	(0.4)
VOK 2L0-Spences Bridge	49	(7.3)	34	(6.1)	19	(3.4)	13 x 2 = 26	(5.7)
VOK 1A0-Ashcroft	2	(0.3)	1	(0.2)	1	(0.2)	0 x 2 = 0	0
Kamloops	6	(0.9)	0	0	4	(0.7)	1 x 2 = 2	(0.4)
Lower Mainland	25	(3.7)	5	(0.9)	2	(0.4)	2 x 2 = 4	(0.9)
Out of Province	12	(1.8)	4	(0.7)	5	(0.9)	2 x 2 = 4	(0.9)
Other B.C. location	48	(7.1)	43	(7.8)	38	(6.7)	10 x 2 = 20	(4.3)
Total	672		553		565		230	460

\* Figures for 1977 are based on one-half year information.

patient been transferred to Ashcroft Hospital.

Information regarding the diagnostic grouping of cases was provided for this study as well, but the number of patient days was not. For this reason, the B.C. Hospital Plan data has been relied upon for this material. This is reported upon in the next section.

### 3) British Columbia Hospital Plan Data

The British Columbia Hospital Plan was contacted to supply data regarding the utilization of St. Bartholomew's Hospital, the acute hospitalizations for School District 30, South Cariboo, and for residents of the entire Thompson-Nicola Regional Hospital District. Table 5.C.8 presents this information by age groups.

It can be seen that 37.5% of St. Bartholomew's patients are in the 15-44 age bracket, compared with 46.5% and 48.5% for district of South Cariboo and the Thompson-Nicola Regional Hospital District respectively. The percentage of total days of stay for this 15-44 age group is 21.0% for St. Bartholomew's, 46.5% for South Cariboo, and 39.0% for Thompson-Nicola.

If the under 1 year age group, and the 1-14 year group are combined, we find 35.5% of St. Bartholomew's admissions, as

compared with 21.0% and 18.0% for the other two regions. The combined percentage of patient days for these two age groups is 31.5% for the Lytton hospital, compared with 15.0% for South Cariboo, and 10.5% for Thompson-Nicola.

By combining the last two age groups, we find that patients over age 44 make up 27.0% of the Lytton hospital cases, as compared with 32.5% and 33.5% for the two larger regions. These age groups account for 47.5% of the Lytton hospital days, 50.0% of the South Cariboo, and 50.0% of the Thompson-Nicola District days.

The B.C. Hospital Plan provided similar information for 1975 for the utilization by Indians only. Table 5.C.9 presents this information, giving number of cases and days, plus percent of total Indian admissions for each category. One aspect added to this table is the percentage of Indian admissions for each age group of the total admissions in that age group.

Table 5.C.9 indicates that one-half to two-thirds of the admissions from all age groups in St. Bartholomew's Hospital are Indian, compared with less than one-third for the South Cariboo District, and less than one-fifth of the admissions of the overall Thompson-Nicola Regional Hospital District. The total percentage of Indians admitted also shows a great

TABLE 5.C.8

ACUTE HOSPITALIZATION FOR ST. BARTHOLOMEW'S HOSPITAL, LYTTON, COMPARED WITH  
ACUTE HOSPITALIZATION FOR SCHOOL DISTRICT 30, SOUTH CARIBOO, AND  
THOMPSON-NICOLA REGIONAL HOSPITAL DISTRICT BY AGE GROUP, 1975

Age Group	St. Bartholomew's Hospital				School District 30, South Cariboo				Thompson-Nicola Regional Hospital District			
	Cases	%	Days	%	Cases	%	Days	%	Cases	%	Days	%
Under 1 year	51	( 9.5)	606	( 15.0)	99	( 5.5)	1,144	( 6.5)	555	( 3.5)	3,983	( 2.5)
1-14 years	139	( 26.0)	677	( 16.5)	290	( 15.5)	1,459	( 8.5)	2,339	( 14.5)	11,341	( 8.0)
15-44 years	202	( 37.5)	864	( 21.0)	858	( 46.5)	5,984	( 34.5)	7,719	( 48.5)	55,843	( 39.0)
45-69 years	96	( 18.0)	1,029	( 25.5)	430	( 23.0)	5,360	( 31.0)	3,967	( 25.0)	47,999	( 33.5)
70 years and over	47	( 9.0)	887	( 22.0)	169	( 9.5)	3,350	( 19.0)	1,337	( 8.5)	23,835	( 16.5)
Total	535	(100.0)	4,063	(100.0)	1,846	(100.0)	17,297	(100.0)	15,957	(100.0)	143,001	(100.0)

TABLE 5.C.9

ACUTE HOSPITALIZATION FOR ST. BARTHOLOMEW'S HOSPITAL, LYTTON, COMPARED WITH ACUTE  
HOSPITALIZATION FOR SCHOOL DISTRICT 30, SOUTH CARIBOO, AND THOMPSON-NICOLA  
REGIONAL HOSPITAL DISTRICT, BY AGE GROUP FOR INDIANS ONLY, 1975

Age Group	St. Bartholomew's Hospital						School District 30, South Cariboo						Thompson-Nicola Regional Hospital District					
	Cases	%	% of* Age	Days	%	% of* Age	Cases	%	% of* Age	Days	%	% of* Age	Cases	%	% of* Age	Days	%	% of* Age
Under 1 yr	29	( 9.0)	56.0	331	( 15.0)	54.5	34	( 7.5)	34.0	580	( 14.0)	50.5	111	( 9.0)	20.0	1,483	( 12.5)	37.0
1-14 yrs	85	( 27.0)	61.0	455	( 20.5)	67.0	101	( 22.5)	35.0	571	( 13.5)	39.0	255	( 20.0)	11.0	1,586	( 13.5)	14.0
15-44 yrs	122	( 39.0)	60.0	570	( 25.5)	66.0	190	( 42.0)	22.0	1,132	( 27.0)	19.0	554	( 44.5)	7.0	4,193	( 35.5)	7.5
45-69 yrs	50	( 16.0)	52.0	511	( 23.0)	50.0	88	( 19.5)	20.0	1,123	( 27.0)	21.0	234	( 19.0)	6.0	2,982	( 25.0)	6.0
70 yrs and over	29	( 9.0)	62.0	358	( 16.0)	40.5	37	( 8.5)	22.0	774	( 18.5)	23.0	93	( 7.5)	7.0	1,531	( 13.5)	6.5
Total	315	(100.0)	59.0	2,225	(100.0)	55.0	450	(100.0)	24.5	4,180	(100.0)	24.0	1,247	(100.0)	8.0	11,775	(100.0)	8.0

\* Percent of Indians per total admissions in each age group. For example, from St. Bartholomew's Hospital, in the Under 1 age group, 29 Indian admissions is 56% of the total of 51 admissions for this age group, taken from Table 5.C.8.



difference, being 59.0% for the Lytton hospital, 24.5% for South Cariboo, and only 8.0% of the Thompson-Nicola patients.

The sex of the patients hospitalized in both St. Bartholomew's and the South Cariboo District 30 for 1975 was also provided by B.C. Hospital Plan. This information is presented in Table 5.C.10, for all patients, and for Indians only.

Table 5.C.10 reveals that although in 1975, in all cases, males accounted for slightly less than half of the admissions, the total number of days of hospital care is slightly more than half for the males. The ratios for the Indian admissions vary only slightly from the total admissions.

Information regarding the utilization rates by Diagnostic Group was also supplied by B.C. Hospital Plan. The information available was for the years 1971 through 1975, so the number of cases for 1976 and 1977 for St. Bartholomew's Hospital have been added from the hospital held records. (See Appendix III)

The number of admissions and the number of days of stay for the diseases of the respiratory system have changed greatly for the Lytton hospital since 1971. Figure 5.C.3 presents the percentage of the number of days of stay for diseases of the respiratory system, of the total number of patient days

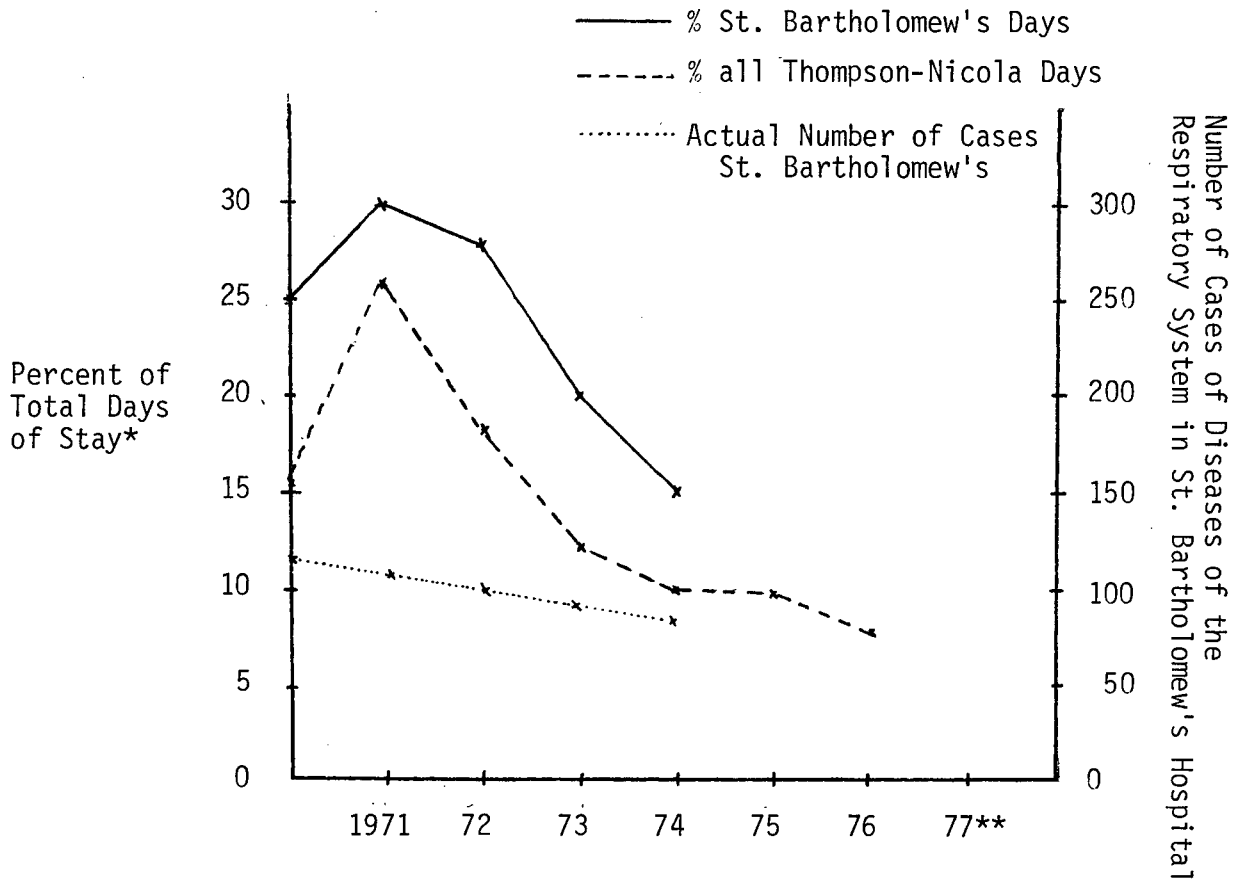
TABLE 5.C.10

ACUTE HOSPITALIZATION FOR ST. BARTHOLOMEW'S HOSPITAL, LYTTON,  
AND FOR ALL RESIDENTS OF SCHOOL DISTRICT 30,  
SOUTH CARIBOO BY SEX, 1975

Sex	St. Bartholomew's Hospital				School District 30, South Cariboo			
	Cases	%	Days	%	Cases	%	Days	%
Male	256	( 48.0)	2,172	( 53.5)	816	( 44.0)	8,879	( 51.0)
Female	279	( 52.0)	1,891	( 46.5)	1,030	( 56.0)	8,418	( 49.0)
Total	535	(100.0)	4,063	(100.0)	1,846	(100.0)	17,297	(100.0)

Indians Only

Male	150	( 47.5)	1,272	( 57.0)	202	( 45.0)	2,304	( 55.0)
Female	165	( 52.5)	953	( 43.0)	248	( 55.0)	1,876	( 45.0)
Total	315	(100.0)	2,225	(100.0)	450	(100.0)	4,180	(100.0)



\* The total number of days of stay for 1976 and 1977 are not known.

\*\* The 1977 figures for St. Bartholomew's Hospital are based on January to June 1977 rates

Figure 5.C.3 Percent of days of stay for Diseases of the Respiratory System for St. Bartholomew's Hospital, Lytton, and for all Residents of Thompson-Nicola Regional Hospital District, plus Number of Cases for St. Bartholomew's Hospital, years 1971-1977.

per year for St. Bartholomew's Hospital. This is compared with the similar percentage figures for all the residents of Thompson-Nicola Regional Hospital District, and with the total number of admissions for respiratory illnesses in

### St. Bartholomew's Hospital.

This graph reveals that in the Lytton Hospital, both the actual number of admissions for this diagnostic group, and the percent of days of stay for these patients, have shown a continuing decline over the past years. On the other hand, the figures for Thompson-Nicola district have also declined for this diagnostic group, but much less drastically.

Diagnostic Group 17, accidents, poisonings and violence, shows a reduction in the number of cases admitted to St. Bartholomew's, while this category shows a general increase in the entire Thompson-Nicola district. The number of days of stay in the Lytton hospital for this category has shown a gradual increase however, as has the larger district.

The average length of stay for patients in St. Bartholomew's Hospital, and for all residents of the Thompson-Nicola Regional District is shown in Table 5.C.11.

In St. Bartholomew's Hospital there has been a reduction in both the number of cases and the number of days for both Indians and all admissions since 1972. For residents of the Thompson-Nicola District however, while the total number of

TABLE 5.C.11

AVERAGE LENGTH OF STAY FOR ALL PATIENTS, AND FOR INDIANS ONLY, FOR  
ST. BARTHOLOMEW'S HOSPITAL, LYTTON, AND FOR ALL RESIDENTS OF  
THOMPSON-NICOLA REGIONAL HOSPITAL DISTRICT, FOR 1971-1975\*

Year	St. Bartholomew's Hospital						Thompson-Nicola District					
	All Hospitalizations			Indians Only			All Hospitalizations			Indians Only		
	Cases	Days	ALS**	Cases	Days	ALS	Cases	Days	ALS	Cases	Days	ALS
1971	654	6,336	9.69	333	4,016	12.06	14,270	121,792	8.53	1,286	13,628	10.60
1972	818	5,370	6.56	481	3,354	6.97	15,444	124,169	8.04	1,528	12,323	8.06
1973	689	4,972	7.22	416	3,322	7.99	16,530	128,569	7.78	1,393	11,776	8.45
1974	538	4,436	8.25	332	2,665	8.03	16,433	130,656	7.95	1,425	12,525	8.79
1975	535	4,063	7.59	315	2,225	7.06	15,957	143,001	8.96	1,247	11,775	9.44
1976	533***	3,582	6.72									

\* Figure for all hospitalizations for St. Bartholomew's indicated for 1976 also.

\*\* ALS means Average Length of Stay.

\*\*\* 533 is figure supplied from hospital annual records.

cases has dropped since 1973, the number of total days has risen each year. For the Indians only admissions for this district, the number of cases has fluctuated, but generally dropped since 1972, as have the number of days of stay.

In every year indicated, the average length of stay for Indians was higher than the stay for all admissions, with two exceptions. These were in 1974 and 1975 in St. Bartholomew's Hospital, when the average length of stay for Indians was less than that for the total cases treated. The present doctor began his practice in Lytton in May, 1974.

#### 4) Medical Services Commission of B.C. Data

The Medical Services Commission was requested to supply information regarding the volume of patients per year for each physician during their practice in the Lytton community. The intent was to use this material to make comparisons between the number of doctor visits, and the number of patients hospitalized for each period and each physician. In this way, the effect on hospital utilization of two doctors in the community, as compared to one could be more fully understood.

The Medical Services Commission keeps such information in the form of the physician profile, which is maintained on a calendar year basis, not on the basis of location of

practice. For this reason they were not able to supply any usable data.

D. Oral History Method

The doctor stated that he spent about 80% of his time on acute care, 15% on public health and communicable diseases, and 5% on other activities. He also said that,

Psychological buildup or health education of this area (Lytton) should be the most important thing because with most of the patients of mine, the acute illness should be prevented if they have better health education. With more preventive work, the acute illnesses wouldn't be so common, but with my own two hands I can't create that because 80% of my time is looking after acutely ill already...I would say that most of the illness around here is directly or indirectly related to alcoholism.

He went on to say that one of the main causes of alcohol abuse is because of the lack of jobs in the community, and that more than half of the people are on welfare. The lack of self-dignity is a major problem as a result of this reliance on financial assistance.

When asked about the importance of his position to the community, the doctor rated the public health nursing service, and social work, as more needed by the community than the physician was.

He said,

I would say most parts of B.C., except big cities which have full-time physicians, have maybe a kind of visiting physician...once or twice a week to look after the acutely

ill. If there were no hospital here today, chances of having a full-time physician is really minimum.

He went on to say that Lytton really shouldn't be a medical centre at all, that because there has been a hospital...He would favour admitting cases into a more modern, well-equipped hospital, rather than in the Lytton hospital under present circumstances. He felt that although the nurses on staff at the present time were well qualified, this has not always been the case in the two and a half years he has been there.

The doctor rated the physical conditions of the hospital as poor. The quality of care provided by the hospital he considered good,

...mostly because it's a small hospital and the relationships between the patient and the nurse are more close. In here we are almost all friends, and that kind of relationship breaks the ice...The level of nursing care is better, and we do what we can, and don't what we can't. I don't want to try to run out luck.

Organizationally, if the hospital is going to continue to exist, the doctor would like to see himself and other health and social agencies located together under one roof. He felt the hospital, with modification would be suitable for now, but that it should really be torn down to build another one.

The greatest amount of difference among the board members came when questioned about the organization of health services in



Lytton. When asked if several of the health and social agencies should be located together in one location, the responses were: two definitely opposed, two said yes, in the hospital, two said yes, definitely not in the hospital, and one said he hoped this current study would answer that question. On moving the doctor into the hospital building, five said yes, one said no, and one again abstained. Of the five that said yes, the increased efficiency and availability for emergency work were the most often cited, and one member noted the increased revenue for the hospital from such an arrangement. One of these people said,

Yes, I think it's a good idea. There's a psychological effect of walking into the hospital...You're not going to influence people into doing something against their will, so I don't think that they would think they were leaving themselves wide open for admission to hospital just by having to visit the doctor for a pill or something.

The hospital board member who did not favour moving the doctor's office into the hospital happened to be the one Indian person on the board. He said,

No, I don't think that's a good idea myself...A hospital is a hospital. When you get into having offices, you simply got to have another building...It's better to go see a doctor in his own office. People, if they see the doctor in the hospital, even if they're not sick, will feel that they have to go to the hospital if they see the doctor there. People don't particularly like to come to the hospital, unless they're really sick or are sent here by the doctor from his office.

This statement may in part be due to a long held Indian perception of hospitals as death houses. This is likely a much deeper and

more difficult area in which to effect change.

## CHAPTER 6

### DISCUSSION OF FINDINGS

The findings indicate that of the 25 respondents in the provider sample, 9 live outside of the immediate Lytton community. Four of these, the dentist, probation officer, social worker and the provincial public health nurse, offer services to the community which are not directly connected with the hospital. The remaining 5 positions, made up of 3 hospital board members, the visiting dietitian and the hospital administrator, are direct hospital services. The staff of the hospital who reside in the community provide basic nursing, maintenance and routine laboratory and x-ray services only. The positions of major control of this hospital, the chairman of the board and the administrator, both reside outside of the area. The combined effect of outside control, outside expertise, and only one physician in the community may encourage people to seek care elsewhere. The fact of having a board member in each of Spences Bridge and the Boston Bar area may have had a positive effect on this hospital, as approximately 6% of the cases per year come from each of these areas.

From the consumers sample, 20 out of 25 live in the general Lytton area. This corresponds with the 80% anticipated utilization rate for Lytton area residents for 1977.

The sample of both the provider and consumer groups indicates that the Indian people in this community tend to grow up and remain in the area, whereas the non-Indian respondents tend to represent a much more transient group. The general population of each of the Indian Bands in the area has remained relatively constant over the past decade.

This difference in the tenure of the residents may have an effect on hospital utilization. There are a large number of the Indian people in the community who have either remained in the area despite the lack of employment, or have returned having not been able to find or hold employment elsewhere. Many of the young employable Indians of the community have migrated to other areas where they can find work. This has been the situation in Lytton for many years, resulting in a population that has fewer people in the 15-44 year age group than in a normally distributed population. The remaining population in this age group, though fewer in relative terms, could be expected to have a higher rate of hospitalization because it is generally the healthier members of the community who successfully migrate. This anticipated higher utilization does not appear, however, as this age group accounts for only 37.5% of St. Bartholomew's hospitalizations, compared with 46.5% for South Cariboo, and 48.5% for the Thompson-Nicola District.

This lower rate of utilization may be influenced by two factors. Firstly, many of the people in this age group, particularly the

non-Indians, have come here for reasons of work. The school, hospital, railroad, R.C.M.P. and other employers who require professionally trained people recruit almost exclusively to these positions from outside the community. These people tend to be young and healthy, and stay for short periods, being replaced by someone else generally young and healthy. The rate of hospital utilization by these people would be expected to be low.

The second reason for the lower rate of utilization by this age group may not be related to ethnicity or tenure, but simply to the fact that this group is more mobile. The general rate of utilization for this age group is higher in both South Cariboo and the Thompson-Nicola Districts. Perhaps there is no reason to assume that the rate is any different for the Lytton area, but that the lower rate shown in St. Bartholomew's Hospital is indication that many of these people are going elsewhere for their care. This was also the indication when survey respondents were asked why they thought the hospital was used less. Almost half indicated that greater mobility encouraged people to go elsewhere.

The survey respondents were asked to list all of the health and social services available in Lytton. Of more than twenty services available, only two were listed by more than half of those questioned. This indicates a lack of awareness on behalf of most people as to what services are offered in the community. These services are offered from eight or more locations within the town. Many of these services are offered

only one or two days per week, and many have varying hours of service. It generally seems that if someone is in need of a service and does not know such a service exists, he or she must choose a known agency and rely upon a referral for the most appropriate care. The most often used locations for this drop-in type of approach have been the Lytton Band office, the doctor's office or the hospital. All three locations expressed concern over people expecting their staff to offer many services which their agency does not provide. It would seem that a listing of all services including location, days and times available, and telephone number, posted at two or three locations in town, and given to all service providers, could greatly reduce this problem in a short time.

Thirty respondents felt that the major health problem in the community is alcohol abuse. The doctor substantiated this by indicating that a very high percentage of his patients were treated for alcohol related ailments. Currently in the community there is no organized alcohol treatment program of any kind. Alcoholics Anonymous has been tried on a couple of occasions specifically among the Indian people, but has met with dismal failure. The Lytton Indian Band has approved a position for an alcoholism counsellor but at the time of writing, this was still vacant. Efforts to deal with this problem have continually suffered the fate of being either too piecemeal, or too small to deal with the magnitude of the problem.

In some co-operative manner, the problem of alcohol abuse should be

addressed by this community. Several options are open, but the emphasis must be on commitment and co-operation. Planning should take place at the community level, and involve both the Indian and the non-Indian communities. This should involve discussion of the needs and abilities of the community, and every effort should be made to reach agreement on major points. Decisions basic to the treatment of alcoholism would have to be discussed in the light of the specific Lytton situation. This would include whether the program would involve strictly A.A., counselling, medical help, or a combination of all three. Would the service be in-patient or out-patient, or both? If in-patient, could this be located within Lytton, and if so where? On this question the hospital board would have to evaluate the hospital's future orientation, and have some idea to what ends it would be put. No matter what program is pursued, the question of who will pay for it must be tackled. These questions cannot be approached at the present time, but it is evident that an alcoholism treatment service is required.

Several other people expressed the need for some type of services for the elderly in the community. The first organized service of this type was the recent development of the Meals-on-Wheels program in Lytton. Determination of need for other services for the elderly, who will pay for them, and so on must be made through co-operative efforts in the community.

From the utilization figures for St. Bartholomew's Hospital, we find that 7% to 9.5% of all hospitalizations from 1973 to 1977 were for

people age 70 or over. In 1975, the rate for the South Cariboo and Thompson-Nicola Districts were 8.5% and 7.5% respectively, so the Lytton figures do not indicate a uniquely high rate of need in this community compared to the norm. The provincial average for this age group in 1974 was approximately 15% of all cases.

The estimated need for extended care beds ranged from five to twelve by the community survey respondents. It was also stated that not only were there a number of people who needed such a service, there was a need due to cultural conditions. Many of the elderly Indian people speak only their Native language, and have seldom ventured beyond this community. It was felt by several people interviewed that the removal of these older people to distant centres, away from family and friends, tended to bring about a premature end to otherwise healthy individuals. An extended care facility within the community would alter this trend, and keep several elderly people within their familiar environment.

In 1975, there were 4,001 extended care beds in the province, with an additional 2,015 under construction or in the planning stages, according to the 1975 Annual Report of the British Columbia Department of Health.<sup>1</sup> This number of 4,001 beds is a rate of approximately one bed for every 600 population, and 6,000 beds is a rate of one for every 400 population. With a total population in the immediate Lytton area of 2,000 to 2,400 people, this indicates a need of 4 to 6 beds depending upon

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<sup>1</sup> Province of British Columbia: "1975 Annual Report, Department of Health", Queen's Printer, Victoria, 1976.



which rate per population is used. To be viable, and to provide an adequate program for its patients, an extended care facility should have a minimum of six to eight beds. At this number of extended care beds, one or two unused spaces can mean financial hardship to the institution. Under the present circumstances it would seem likely that patients for an extended care service in Lytton would have to be attracted from Boston Bar, Spences Bridge and possibly Lillooet before success of such a program could be assured.

Several people interviewed suggested that one area of need was to have a second physician in the community. For the past seven or eight years the Indian people have been free to choose any doctor they may wish, the same as anyone else who holds a valid B.C. Medical Plan card. One physician cannot be expected to be able to meet all the likes and dislikes of all the people in the community. The result appears to be that many of the residents are seeking care outside of the community. This was repeated several times in the interviews, and was borne out by the utilization rates provided from the various sources. For example, in St. Bartholomew's Hospital, eight diagnostic groups have shown continual reductions in numbers per year, while only two have shown a substantial increase. The diagnostic groups increasing are group (1) Infective and parasitic diseases, and (16) Symptoms and ill-defined conditions. Both of these diagnostic groups tend to result in fewer patient days per case than the average length of stay. These groups have shown a rise from a total of 47 cases in 1971, to an estimated 116 in 1977. This rate of increase is similar to the rate for the larger Thompson-

Nicola Regional Hospital District.

Of the eight diagnostic groups showing a reduction, their total number of cases has dropped from 558 cases per year of the total to 286 cases per year of the total cases in the Lytton hospital. Five of these eight groups result in higher than average length of stay in hospital on the provincial average. St. Bartholomew's admissions are therefore increasing for short stay admissions, but decreasing for a larger number of longer stay admissions. Seven of the eight groups showing a reduction in cases at St. Bartholomew's hospital have shown an absolute increase in the Thompson-Nicola District. Group (8), Diseases of the Respiratory System, has shown a reduction of about 13% for Thompson-Nicola, compared with an approximate 50% reduction in St. Bartholomew's.

There is no apparent reason to assume that the people in the Lytton area have become that much healthier than their counterparts in the rest of the Thompson-Nicola district, so the reasons for the differences in utilization rates must lie in other directions.

Earlier it was pointed out that while there were two doctors in the community, the rate of hospitalization was much higher than it had been before, or than it was after they left. We find that if the figures for utilization are looked at for 1975 onwards, avoiding the partnership practice dates, the eight diagnostic groups still show continual drops in their numbers in St. Bartholomew's.

It should be pointed out also that of the seven remaining Diagnostic Groups, all have held a fairly constant occurrence rate for St. Bartholomew's Hospital, while showing general increases in the Thompson-Nicola district.

If these people are not healthier, the most probable reason for the lower rates in the Lytton hospital is that people are seeking their care elsewhere. If a second physician were attracted to the community, the numbers of people in the local hospital would probably increase. The problem is that the rate of hospitalization is not the only determining factor in attracting a physician. A second doctor would have to feel that he could develop an active practice easily, to assure himself of financial security. At the present time, payments made by the B.C. Medical Plan to the local doctor are sufficient income for one physician, but it is questionable whether there is enough demand to support two fee-for-service physicians, without creating some artificial demand for medical care.

In addition to this, professional reasons are only part of the complex set of criteria upon which a physician will make his locational decision. Also included must be consideration of the cultural and social milieu of the community, recreation facilities offered, housing available, and so on, many of which are not strong points in Lytton's favour. These factors, coupled with an old hospital building, will make it difficult to attract and hold a second competent physician.

Putting people into hospital, and having them see a physician in private practice, are the two most costly means of access to health care from the overall health service system. Home care programs, and more active preventive public health programs could do much to increase the efficiency and effectiveness of the whole provincial health system. The implementation of a home care service, designed for hospital replacement or earlier hospital discharge would have the immediate effect of further reducing the already low number of patient days in the Lytton hospital. On the other hand, it would mean that potentially more people would be receiving care in their home community than is currently the case. Home care nursing has been found to deliver care of a high quality to people in familiar surroundings, allowing them to recover often more quickly than they would in a hospital setting. An added benefit of course, is that home care programs cost about one-tenth of institutional care.

The need for a more streamlined public health service in Lytton was mentioned by a number of people interviewed. Although the bureaucratic entanglements of having to deal with two major levels of government are many, they should not be considered insurmountable. The confusion as to which service they belong to, the federal or the provincial public health nurse, lies mainly with the potential recipients of these services. The two people offering these services at the present time are very clear as to what their services are, who they are for, and what bounds they work within. There is a fair amount of liaison between the two services, and they offer several of their services together. The problem is how to make the general community more aware

of the organizational structure of these services.

More active preventive programs, and earlier disease detection by the two public health nurses could be realized if they were able to function in these areas more freely. The implementation of a home care program, and greater community understanding of their services would contribute to this shift in focus for the public health nurses. The effect of better prevention of disease, and earlier detection would both further reduce the anticipated occupancy rate of the hospital. This would mean better health for the population in general, rather than poorer health which a high occupancy rate may suggest.

Other services which were suggested as needed to some extent in the Lytton area were youth services, mental health services, more dental service, broader pharmacy services, and physiotherapy. The implementation of any of these services would result in the greater well-being of the population, but it is not likely that their presence would have a direct effect on hospital utilization.

Accidents, especially highway accidents, have always played a significant part in the utilization of St. Bartholomew's Hospital. Actual figures for the number of motor vehicle accident victims are unavailable for this study, but some information is known. The ambulance service located in Lytton handled 97 calls from July 1, 1974 to June 30, 1975, of which about 70% were for road accidents. In the next twelve months there were 143 calls, and the July 1, 1976 to June 30, 1977 rate was 122 calls. In both 1976 and 1977, road mis-

haps accounted for about 70% of the calls. One would expect that with the increased utilization of the ambulance service, and the increased volume of highway accident calls, hospital utilization for accident categories would be rising. The opposite, a reducing rate of accident cases in this hospital is the reality. Three factors are involved in this situation. The first two have to do with the major highway running through the area. Lytton, as pointed out earlier, is situated at the meeting of the Thompson and Fraser Rivers. This setting has provided for particularly treacherous stretches of the Trans-Canada Highway both directions from the community. The volume of traffic along this route has been steadily increasing every year for the past decade or so. This increased volume would be expected to bring an increased number of accidents, which is the case as indicated by the increasing number of calls for the ambulance service. During the past decade, however, the highway itself has undergone vast improvements, and, coupled with the lower speed limit in the province for the past three years, the accidents which occur tend to be of a less serious nature. More accident victims are being treated as out-patients at the hospital, or are being seen in the doctor's office, but the number requiring in-hospital care has dropped.

The existence of the stabilized ambulance service has also made it easier for prompt transportation of patients to a major centre such as Kamloops, rather than having an accident victim admitted in Lytton, then transferred shortly afterward.

All of these factors, better roads, lower speed limits, and possibly

seat-belt legislation, will have the effect of further reducing hospital utilization in Lytton. The location, 67 miles from Hope through the Fraser Canyon, and 100 miles from Kamloops over equally difficult roads, means that the health care services in Lytton should be able to provide necessary care for almost any magnitude of emergency situation. Whether this should be acute care hospital beds, which may stand idle for a large part of the time, or emergency care only beds in a diagnostic and treatment centre is a question which is approached later.

The Community Survey, and the Comparative Questionnaire both asked respondents to rate the physical facilities and the quality of care provided in St. Bartholomew's Hospital. The results of these suggest that those who use the hospital, the respondents in the comparative questionnaire, generally feel more positive about the hospital than do the respondents in the community survey. Seven out of 27 in the comparative questionnaire rated the physical conditions excellent, whereas only one out of 50 survey respondents gave this rating. On the quality of care, 16 out of 27 said excellent in the questionnaire, compared with 9 out of 50 in the survey.

People involved directly with the hospital in their professional roles tended to be the most critical of the facilities. They generally felt the building was of a sufficiently out-dated design that it would not be suitable for an expanded role such as a community clinic, or even to adequately house the doctor in addition to its present role.

Sixteen out of the total of nineteen Indian people were against having several services offered from the hospital location, although 16 of the 19 were in favour of a concentration of services at some location. Eight of these felt that a new building would have to be built. Of the non-Indian respondents, 12 out of 24 who favoured a concentration of services, also favoured the hospital as the location. Only two of those suggesting the hospital were professionally involved with the hospital. Nine of the non-Indian respondents felt a new facility should be built.

In interviews beyond the community survey, the local Indian community leaders were in agreement that centralized services should not be located in the hospital. Similarly, five out of seven of the hospital board members did not suggest the hospital as an adequate place to house such co-ordinated services.

Thirty-five of 50 survey respondents were in favour of the doctor locating his practice in the hospital. Four of the 6 hospital staff in the survey were against such a move. The present doctor, hospital board members, senior hospital staff, and the Indian leaders generally indicated approval of this idea, but several felt that this represented a temporary or piecemeal solution. One hospital board member stated that he would hate to prematurely make the decision to do this, and have it haunt the hospital later.

What this means to the hospital is that there should be some clear direction for all of the services in the community before the hospital



makes any decision regarding locating the doctor, or any other service within the present structure. If there is a possibility that a community clinic type of operation could be established, either through construction of a new building or renovation of an old one, then that location would be the most appropriate place for the physician. It would appear that the placement of many services within the present hospital would be unwise under any circumstances. If there is no hope of getting the services together elsewhere, then it would seem appropriate to encourage the physician to locate within the hospital, and the other services could continue as they are.

One circumstance unique to this community however, is that there are a number of health and social services which are available to only certain members of the population. This is the Indian Health Service, and all of the social services offered through the Lytton Band Office. All of these services are available to registered band members only, and there is little problem with the people knowing what is available there or when it is available. It would serve little purpose to uproot this functioning service merely for the sake of having it located with other services. Any service which is available to the public at large should be given consideration when planning a co-ordinated service. Under these circumstances, it would seem perfectly feasible to have a community health centre offering a wide range of services available to the general public, situated in the same community as the present services offered through the Band Office.

If a new building could be constructed to house a community health centre, a logical location would be on the south side of the hospital grounds, adjoining the present structure. Before such a plan is approached, however, the hospital board must make decisions as to what services the hospital is going to offer in the future to this community.

The statistical data relating to the utilization of the Lytton hospital all point towards lower utilization rates for the future, given the same set of circumstances as presently exist. Although the three sources of information used for this project showed slightly different numbers of cases or days, the trends from all three sources were similar.

The residence of the users of the hospital reveals some interesting information. From the postal code given on admission, we find that patients with a Lytton address have decreased in number by about 12% from 431, to 374 patients per year. During the same period, patients from all other address locations have shown at least a 50% reduction. One result of this is that Lytton people now make up 81% of all admissions as compared with 64% in 1973.

These figures suggest that the catchment area for the hospital is becoming smaller than in the past. The reasons for this are probably a combination of factors. Firstly, the increased mobility of people in these other areas makes it less difficult for them to go further

for care if they choose to. Secondly, the better road conditions, particularly along the Trans-Canada Highway, also make it easier for people who live in North Bend, Boston Bar or Spences Bridge to seek care in a larger centre. Thirdly, the development of more sophisticated services in Hope may attract the Boston Bar and North Bend residents, while the new hospital in Ashcroft, or the variety of services available in Kamloops may be attractive to the Spences Bridge people. Other factors, such as the reduced number of serious road accidents, and the better ambulance service available in the community, have contributed to the reduction of cases who live in other B.C. locations or outside the province.

All of these factors are likely to continue to influence the rate of utilization of this hospital in the near future. The hospital should therefore be tailoring its services to the needs of the local community, plus the ability to handle emergency cases that may arise.

The present "local community" population is estimated to be around 2,000 persons, comprised of about 1,200 Indian people, and 800 non-Indians. It is unlikely that this population will show any total change during the foreseeable future. In fact, as unemployment insurance and social assistance become less readily available, and no new jobs are created, the total population of the area may show a decrease. On the other hand, new housing currently underway should provide about 25 new homes, but these will likely be taken up by people presently in the area but in unsatisfactory dwellings. Other new construction of office spaces and an apartment building may come about, but their effect on the total population projections for the

community would be minimal.

Discussions with both the British Columbia and Saskatchewan Hospital Services Plans suggested that a reasonable level of acute care beds would be approximately five beds per one thousand population. Therefore in an area such as Lytton with 2,000 people, the required number of acute hospital beds should be about ten. If a home care program were implemented, public health measures streamlined, and the local ambulance service used more towards its capacity, the number of acute care beds required would be even fewer. It would be feasible to transport all patients to Ashcroft or Kamloops at very little expense, and such a move would assure high quality care for patients, and provide extensive back-up services in the event of medical complications. The physician practicing in the Lytton community could seek hospital privileges at the hospital in Ashcroft or Kamloops and therefore assure his patients of continuity of care. The two main reasons given against such a move are the distance which people must then go to visit a hospitalized friend or relative, and the pride of ownership in the community of having historically had a hospital for many years. If these reasons are viewed from a purely medical and quality standpoint, they are not the critical factors upon which to base a decision. The very fact that people are generally becoming more mobile, and that the local travelling conditions are continually improving, would invalidate the first claim to some extent.

The pride of ownership and historical precedent problem is much more

difficult to rationally dispense with. As noted earlier, several people felt that a diagnostic and treatment centre in the community, capable of handling short stay emergencies, could provide services with no lack of quality of care for the people. If it is considered a possibility that hospital care be provided outside of this community, this would only seem advisable if it were assured that there would be the creation of a diagnostic and treatment centre, complete with an extensive home care program. Even though mobility and road conditions have greatly improved, Lytton requires a comprehensive health care service to meet the day to day medical needs of its residents.

## CHAPTER 7

### CONCLUSIONS

The purpose of this chapter is to determine what has been learned from the surveys, numerical information and other interviews that will provide the basis for decision-making in the community. This information base is laid out in three segments:

- A. What services should be available in the community?
- B. What services should the hospital provide?
- C. How should the hospital "fit" with the other health and social services?

#### A. What Services Should be Available in the Community?

The 50 respondents to the community questionnaire were asked to list all of the health and social services available in Lytton which they could think of, and then prioritize these in order of importance to the community. In this manner, the following eight services were listed in order of their importance: physician, hospital, public health nurse-federal, public health nurse-provincial, ambulance, dentist, and social worker and provincial social worker. Each of these received 8 or more votes of importance. Other services which were listed 3 or fewer times were the pharmacy, Community Health Representatives, police, clergy and optometrist. Only the first eight will be examined in detail.

##### 1) The Physician

The population size of the immediate community is probably

adequate to support one physician in a private practice setting. Based on a stable population, reducing rate of demand for local health services, the development of better prevention services and home care programs, and the increasing mobility of the population in general, it would be unwise to attempt to recruit a second full-time physician for this community, under the present organizational circumstances. A second physician, in an office practice on a fee-for-service basis, would weaken the economic stability of the medical service, and would not increase the number of hospitalizations to the point of making the hospital a financially stable institution.

This does not deny the fact that one physician in the community cannot provide service to the community 24 hours a day, seven days a week. Three alternatives are most readily presentable. Firstly, the community could attempt to encourage the part-time activities of a physician in this community. This could be accomplished by having a visiting physician one or two days per week from Ashcroft, Hope, or Kamloops. Arrangements could probably be made for payment of expenses plus regular fee-for-service to attract this level of coverage. This proposal would require little or no organizational change from the current situation.

The second alternative would be to introduce a primary-care

nurse practitioner into the community. Such a person, working under the direct supervision of the established physician, could be involved in diagnosis and minor treatment, as well as prevention and health maintenance. This would provide alternative after hours service to the present physician, and could extend the access to care without further burdening the doctor. If the nurse practitioner were to cover emergency care in periods of the physician's absence, procedures and policies for telephone supervision from Ashcroft or Kamloops would have to be developed. It would probably be advantageous if this nurse practitioner were an Indian person, although this would not be crucial. This alternative would require several organizational and policy changes from the current situation.

The third alternative for increasing the primary care coverage would be to attract a second physician into the community but make it a salaried position, responsible either to the hospital or to some other local board. By making the position a salaried one, it would reduce the tendency for the person to function in competition with the existing doctor. There would also be little incentive for this physician to over utilize the hospital, as there would be no economic impetus to do so. Under such an arrangement, this second doctor should be able to devote much more time to prevention and health education, and in fact the presence of this second doctor should free some of the time



for the existing physician to do the same. If in the future, the present private practice physician chose to leave the community, it would probably be advisable to attract a second salaried person. This is examined more fully in the section dealing specifically with the hospital.

This alternative would require a great amount of reorganization of the current situation, but has one major advantage over the other two. Provision could be made for annual paid leave for continuing medical education, thereby assuring high quality and modern care in the community. In addition, the second physician would provide a much needed colleague for the present physician who exists in relative professional isolation. This isolation is one of the many problems of rural solo practice, and one of the major reasons why physicians leave rural areas.

## 2) The Hospital

The hospital in Lytton was named as being important to the community by 45 of the survey respondents, made up of 5 votes for most important, 27 for second most, 7 for third, and 6 for fourth. Due to the complexity of the possible alternatives for this hospital, it will be dealt with exclusively in Section B of this chapter.

## 3) & 4) The Public Health Nursing Service, Both Federal and Provincial

The services provided in the area by the two public health

nurses were named a combined total of 26 times as third most important to the community. It was anticipated that the physician and the hospital would be chosen as first and second in importance, but the order of services after that was not known. Most of the respondents were aware of the public health nurses, and valued the service which they provide, but two major criticisms exist.

First, the split in services between the federal government nurse and the provincial government nurse was the most common complaint. The underlying reason for this split has its roots deep in Canadian history, and the situation is little likely to be altered in the Lytton area alone, as this similar division exists in all parts of Canada where the population of Indian people is relatively large. It is quite possible that there exists enough demand for public health services to have two full-time nurses in the area. Both of the nursing services considered this to be the case. The problem is that for registered Indians only, there is more than enough need for one nurse, but not enough for two. Similarly, the provincial public health nurse comes to the community two days per week, and there is demand for more service than this, but not enough for one full-time. A possible solution would be to locate two full-time nurses in the community, one on full salary from the federal government, the other splitting her professional time one-third in the native community, and two-thirds in the non-

native. This may be a tricky time-sharing arrangement at first, but as it became functional, it would have several advantages. It would provide for a much more organized liaison between the two services. It would provide broader coverage and avoid some of the current inability to act which these nurses encounter because of crossing boundaries. It would also make the service more visible, having the second nurse living in the community rather than visiting from elsewhere.

It should also be pointed out that this time-sharing arrangement could be divided on a two-thirds federal, one-third provincial responsibility for both nurses, and still provide the equivalent of two full-time positions. This would give both nurses the flexibility to deal with the Indian and the non-Indian people living in the area.

The second major criticism of the public health nursing service is the apparent haphazardness of their coverage. Many of the community respondents felt that there was little order in what the two nurses did in their day to day routine. This lack of continuity and direction is in fact not the case, but the fact that the service is perceived in this way may be detrimental to its effectiveness. The only public health services which appeared to this study as potentially lacking impetus were a health maintenance program, and the operation of the prenatal and well-baby clinics.

With a small and stable population such as exists in Lytton, it should be a fairly simple process to establish a system for the recall of community people for regular health maintenance checks. Using easily defined clinical categories, a regular periodic check of each person could prevent the occurrence of many of the chronic problems which are presented to the physician every week. The establishment of such a program would require a good deal of effort, but once in operation, its continued updating would become a routine matter.

The second area lacking in the public health service is that of the clinics. In an area such as Lytton, the importance of a prenatal or well-baby clinic does not occur to many of the young mothers. It is not enough for the nurses to advertise a clinic, and then sit through the scheduled clinic time with no one but themselves. At the present time, when this happens, the nurses have no choice but to later visit these people to assure that everything is O.K. In some manner, a method of encouraging greater attendance at the clinics must be found.

This leads to the last point regarding the public health nurses, the need to advertise, most of the confusion over which nurse does what, and most of the criticism of lack of direction in the nursing programs stem from a lack of knowledge in the community of what their public health nurses do and why they do it. An active program of public awareness and

health education would go a long way to solving some of these problems, even within the existing organizational structure.

5) Emergency and Ambulance Service

Thirteen of the survey respondents considered the ambulance service as of major importance to the community. As noted earlier, with the distance and geographic factors between Hope and Kamloops, Lytton needs access to an efficient and available ambulance service. The number of calls range between 100 and 150 per year, or an average of about three calls per week. This volume of calls makes it difficult to justify a full-time ambulance operator, but as long as some need exists, there is a responsibility to the community and to those passing by to provide an effective service.

The major area of potential saving is in secondary employment of the ambulance operator. Currently the position is financed solely by the Emergency Services Branch of the provincial government. If this person were employed on a part-time basis in another setting, the costs to the health system would be reduced while still providing the necessary service. A natural choice for such part-time employment would be in some capacity in the hospital. In this manner, efficiencies could be made in the hospital employee roster, and the ambulance operator would be readily accessible for most calls. It is understood that there is a potential conflict of union member-

ship from this type of arrangement, but precedents of this type do exist elsewhere in the province. In addition, a union would likely see the wisdom in having one person fill two part-time jobs, rather than no person filling no jobs. There should be some incentive for the present ambulance operator to make such a move, such as an economic gain from the combined part-time salaries.

Whether or not any of the above changes are made, the ambulance itself should be located on the hospital grounds as soon as possible, and all calls for this service should be directed through the hospital switchboard.

An aspect of emergency services not yet touched upon is the treatment of emergency patients in the hospital. There should exist a definite set of policies and procedures to be followed, both administratively and clinically, in the event of an emergency situation. Because the efficient handling of such emergencies requires developed skills, and because there is a lack of true emergencies to keep these skills up, there should be an in-service upgrading program in constant process. This would involve practice sessions in non-emergency situations, or visits by staff to active emergency departments.

#### 6) Dental Service

The dental service in Lytton is offered two days every two weeks, and is felt by many residents to be a valuable service.

People in the community, and the dentist himself, feel that there is further need to some degree for services, but certainly not a full-time dentist. The current demand for restorative dentistry could be greatly reduced if better habits of dental care were practiced in the community. The need exists for a health education program to deal specifically with this situation.

7) & 8) Social Work Services

There are two social work services offered in this community, the provincial Human Resources representative who visits twice weekly from Lillooet, and the full-time Band Welfare Administrator employed by the Lytton Indian Band. Both of these services operate fairly effectively, but often they encounter the division of responsibilities between Indian and non-Indian people, similar to the public health service. This division is not so profound between the social workers, however, as the Band representative offers primarily financial and counselling care, while the provincial counterpart has responsibility for statutory cases such as child neglect and family courts. Both of these services should continue to exist, and their current organizational set-up has few problems.

9) What Other Services Should be Available?

All other services which were listed by survey respondents

were not given a priority vote by more than three people. This does not mean that these services are unimportant. There were no existing services reported by the respondents as not necessary at all in the community.

Other services which should possibly exist in the community, as noted earlier, included youth services, family planning, hearing and speech services and physiotherapy. None of these require the creation of a new position, and may be implemented through other existing programs.

Other services of direct concern to the hospital include a home care - home nursing program; an alcoholism treatment program; and an extended care facility. Each of these could be offered directly through the hospital, but the quantity of need is only known for the home care service and an alcoholism program. Although some need for an extended care service exists, it is doubtful whether this is enough to establish a local program.

One project which should be undertaken immediately is the preparation of a list of all services to be permanently posted at two or three prominent locations in town, and possibly duplicated for insertion in everyone's post office box. This could also be handed out by each provider of health or social services. Thought should also be given



to the preparation of a pamphlet explaining the services of each of the health and social agencies in town. This would help both the providers and the consumers in more appropriate use of present services. The funding required for either of these projects would be minimal, and could be solicited from a local service club or the Women's Auxillary.

B. What Services Should the Hospital Offer?

The primary decision to be made by the hospital board is whether St. Bartholomew's Hospital will continue to offer full in-patient services, or change to an out-patient facility. These decisions are examined separately, looking at the various alternatives available with either choice.

1) Continued In-Patient Services

If this hospital is to continue to offer in-patient services for acute medical care, it has three options open: to become a larger facility, to remain the same size, or to become smaller. Existing trends in utilization point to the latter alternative, but the others are examined fully.

Before these alternatives are examined, however, factors which affect the rate of utilization are summarized. Firstly, whether there is one physician or two available in the community will have an effect on hospital utilization. During the 1970 to 1974 period when two doctors were in the community,

the number of patient days per year was between 5,500 and 7,500. This is an average occupancy rate of 15 to 20 patients per day. The number of patient days per year with one doctor are 3,500 to 4,000 days, or an average of 9 to 10 patients per day.

The increasing mobility of community residents, plus the improved condition of the highways in the area will continue to be a factor affecting hospital utilization. This factor will most likely increase in its effect over the next few years, resulting in still lower utilization rates.

Other services available or recommended for the community, such as more streamlined public health services, better health education programs, and the development of a home care treatment program each would raise the overall health status of the population, but have the effect of reducing hospital admissions.

The tendency towards fewer hospitalizations in St. Bartholomew's Hospital for Respiratory System ailments and accident victims is likely to continue. These diagnostic groups have previously been the mainstay of the hospital, making up one third to one half of all cases admitted.

If St. Bartholomew's is to continue to function as an acute

care facility, what size should it be?

- a) The hospital can become larger than it is at the present. None of the factors affecting utilization rates of the hospital suggest the need for a larger facility. Only the existence of a second physician is likely to raise the rate at which people use this hospital, but even then the capacity required would not exceed present space or rated occupancy levels. This is not considered a possible option.
  
- b) The hospital can remain the same size as at present. The current rated capacity of this hospital, at 27 beds, is simply too large for predicted rates of occupancy for the future. One physician will probably average 10 patients per day in this hospital, and two physicians would likely average about 15 per day, assuming present organizational circumstances would continue, and the physicians both existing on a fee-for-service basis. These occupancy rates result in about 35 to 55% of present rated capacity. This percentage occupancy rate is not a critical factor, but it does expose the hospital to increased scrutiny from funding sources to determine where economies can be made. Once a hospital has reached a certain minimum size, about 25 to 30 beds, further reduction in rated bed capacity is of little consequence because there is a lower limit of staff required to operate

a 24 hour in-patient institution. St. Bartholomew's has reached that lower limit of staff size, with the exception of a couple of positions where economies could be made.

The development of an extended care or alcoholism treatment program within the hospital would have an effect on the staffing requirements of this hospital, especially in the service and maintenance aspects. These programs could not be developed within the hospital at its present rated capacity.

- c) The hospital can become a smaller institution. If this hospital were to be rated at 15 to 17 bed capacity, there would be little direct effect on the day to day functions as compared to the present time. Using the figure of 17 beds, current utilization at 10 patients per day average would mean almost 60% occupancy rates, and 15 patients possible with two doctors would mean almost 90% occupancy level. The most immediate response to this suggestion has been that there are times when more than 17 beds are required. Under present circumstances, there are occasions when occupancy levels have gone as high as 20 patients. The question is if the hospital is rated at 17 beds, how can they handle 20 patients? The

answer is simply that some extra beds would have to be temporarily set up, and during that period, the occupancy rate would be about 115% of rated capacity. The number of staff required would not change during a short term of high occupancy such as this, because as pointed out earlier, there is a minimum staffing requirement below which a hospital cannot go. The number of nurses required by a 17 bed hospital used at 65% of its capacity is the same as required by a 27 bed hospital at 50% occupancy.

Under the present circumstances, it would be difficult for the hospital to provide additional services other than visiting specialist services or mental health counselling. Any of these would have to rely on visiting professionals from other locations.

If the rated capacity of the hospital were reduced to 15 or 17 beds, the introduction of other comprehensive services, such as the alcoholism or extended care services, would be more easily facilitated. Such services would probably share administrative, clerical, dietary and housekeeping services with the present hospital organization, but would provide new jobs for the treatment and day to day handling of these patients.

The placement of the physician in the hospital building should be approached cautiously, and should not be decided upon until a clear cut comprehensive plan has been decided upon by all health and social service agencies which offer services in this community. If, on the other hand, the hospital wishes to encourage a second physician into the community, on salary to the hospital, the natural location for his practice would be within the hospital building. If an out-patient community health centre were possible, it would then be no problem to locate this physician in that facility, the same as any other salaried professional. Two salaried physicians would of course be the same thing.

The present hospital building should not be considered as adequate to house a comprehensive set of services along the lines of a community health centre. This centralization of health and social services should only be embarked upon if a new facility can be built, or if an existing building can be adequately remodeled. As noted earlier, an obvious location for such a new facility would be on the south side of the present hospital building, adjoining the hospital structure. This could house all health and social services except those offered exclusively to the Indian population, which are better offered from the Lytton Indian Band office.

## 2) Out-Patient Services Only

The current utilization of the hospital, coupled with the increased efficiency of the ambulance service and better road conditions, make it quite feasible that the hospital could stop offering in-patient services altogether, except in the case of emergency holding of patients. Such an arrangement would mean patients would have to be hospitalized away from their own community, but the quality of medical care would probably be better, due to more sophisticated back-up facilities. The local physician could treat his own patients in the hospital in Ashcroft or Kamloops, assuring his patients continuity of care.

This alternative is possible, but should only be undertaken if the appropriate guarantees exist that a diagnostic and treatment centre type of alternative would be developed in place of the hospital. For a full description of diagnostic and treatment centres, prepared by the provincial government in 1970, please refer to Appendix IV. The hospital facility would then be free to be used for other treatment programs. The development of a home care program should also coincide with the development of the diagnostic and treatment centre.

One major drawback to this alternative is the problem of emergency medical coverage. While one physician exists, medical coverage 24 hours a day, 7 days a week is very

difficult. The possibility of attracting a second physician under any organizational framework, without a local hospital, would be greatly diminished. To provide adequate coverage, the nurse-practitioner alternative, explained earlier, employed by the diagnostic and treatment centre would have to be considered.

A last alternative for the hospital would be to close its doors completely. This would leave the resident services available to Indians only, several visiting services, the ambulance and the physician. Demand for services from the first three listed above would likely increase if the hospital were closed. Demand for local medical care would probably sustain itself over time, but if the current physician then left the community, the ability to attract another would be minimal. Access to medical care would therefore greatly diminish, and the health status of the local population would likely suffer. This solution should not be considered as an alternative by the hospital board.

C. How Should the Hospital "Fit" With Other Health and Social Services?

The "fit" of this hospital with other health and social services will be dependent upon the organizational structure of the hospital, and upon the number and type of services which the hospital will provide.



## 1) The Organizational Structure of the Hospital

There are several organizational options open to the hospital at the present time. This includes the present arrangement with church ownership and an appointed board of management. There could be church ownership with a community elected board. Or there could be public ownership of the hospital, with it functioning as a society, with a community elected board. There are other options possible, but one of the above three would seem most feasible. Other options might include the hospital becoming a satellite institution of the Royal Inland Hospital in Kamloops, or of the Faculty of Medicine at U.B.C., with governing and administrative responsibilities provided through either location. Another option would be to make the hospital an institution primarily for Indian people, and have it governed by the Indian Band Council. The three most feasible will be examined in detail.

- a) Church owned with appointed board. This is the existing structure of the hospital, and it has several strengths and weaknesses. Its major strength is that through church ownership, a vast array of services such as administrative, professional recruitment, advertising, legal and financial expertise should be available through the church as resources to this hospital. The fact that this is not presently the situation is unfortunate. The

major roles of the church at this time include ownership of the land, and appointment of five of the eight board members. The chairman of the board is presently the Bishop of the Diocese, who is resident in Kamloops. If the ownership is going to remain with the church, and if the board of management is to be appointed, two distinct changes should be made. Firstly, the chairman of the board should be a resident of the local community. Secondly, with a local population comprised of about 60% native Indians, one Indian representative on the eight member board is not satisfactory. The Indian Bands should be given the right to appoint at least three members in total to the hospital board. This would make a total of ten on the board, of whom three would be Indian people.

- b) Church owned with elected board. This would be an organization similar to that of the hospitals owned by the United Church of Canada. In these hospitals, the church appoints one third of the board membership, with the other two thirds elected from the community. The chairman of the board cannot be one of the church appointees, and is always a local resident. This organizational arrangement retains the strengths of church ownership, yet makes the hospital more of an agency responsible to the local community for its

actions.

- c) Public owned with elected board. This option makes the hospital more responsive to local community needs than with an appointed board, but loses some of the strengths which church ownership has to offer. A publicly owned hospital the size of St. Bartholomew's in Lytton could never hope to carry a strong voice on its own when negotiating with its funding sources. Church ownership, while stifling in some respects, would give some weight to the wishes expressed by this hospital.

As long as there is an appointed board of management of this hospital, it will continue to exist somewhat in isolation from the other health and social services in the community. If the number of appointees from the Indian Band was raised from one to three, this would help the relationship there, but still leave weak ties with other services. An elected board, on the other hand, whether the hospital is church or publicly owned, should be more responsive to the needs and demands of the other health and social services, and should therefore have a much better relationship with these services.

If the decision is made to encourage the doctor and

other agencies to locate together, then an elected board of management is the only acceptable alternative.

2) The Number and Type of Services  
Available Through the Hospital

If the hospital continues along its present course, or if it simply reduces its rated capacity, there will be little significant change in its current relationships with other agencies. This relationship is vague and ill-defined, but there has not been an urgent need for it to be otherwise. If the hospital retains its present structure and begins to offer additional services, the relationship with other services would require some change. There are several services which could be offered which would not change the in-patient nature of the facility, but would have an effect on the hospital's impact on the community. This would include such services as the home care service, an out-patient alcoholism counselling service, family planning, and health education services, all of which could be hospital based. With an expanded set of services available such as this, the relationships between the physician, hospital, Indian Band and other services would have to be formalized to some extent. Because the hospital and the Indian Band health and social services are the two most likely to be involved, plus of course the physician, it is recommended that plans to formalize these relationships should be jointly undertaken.

If the hospital changes drastically, and begins to offer in-patient services, such as extended care or alcoholism treatment, the relationship of this hospital to all other health and social services would require complete reconstruction. This would likely mean a wholly reconstituted board, with representation from all service interests.

A unique problem of the relationship between the hospital and other agencies will arise if either a nurse-practitioner or a salaried physician are brought into the community. The major problems anticipated in the introduction of a nurse-practitioner would centre around community acceptance of the concept, and acceptance by the rest of the professional community involved in the delivery of health and social services. These relationships could not be left to chance, but would have to be developed through a community awareness campaign, and a set of workable channels of professional liaison. The introduction of one salaried physician into the community would also have to be accompanied by some degree of public education. More importantly, the existing physician should be consulted and made part of the planning process to move in this direction.

The success of any changes which are undertaken by the hospital will be dependent upon the openness of the hospital board during the planning process. The hospital initiated

this present study, but the report should now become a discussion point within several organized groups in this community, and should be made available to local, regional and provincial health authorities. Each of these groups should be encouraged to comment and provide input into the process of change.

## CHAPTER 8

### ALTERNATIVES

Five major alternatives for the hospital are provided in this chapter.

These are:

- A. To continue the same as at present
- B. To reduce hospital capacity, and attract another primary health care worker
- C. To reduce hospital capacity, coupled with major organizational shifts
- D. To change from an acute care hospital to a diagnostic and treatment centre
- E. To close the hospital and offer no services

Each of these alternatives is examined according to the organizational structure required, and the services which would or could be provided. This is then followed by an examination of the strengths and weaknesses of each alternative from a medical, economic and social-political point of view. Each alternative is then discussed according to the planning and strategies required for implementation. Lastly, an estimate of the financial costs of the alternatives is presented for comparative purposes.

#### Alternative A

The hospital Would Continue the Same as at Present

##### 1) Organizational Design

The organizational and service components of this alternative

require little explanation. The hospital is church owned, has an appointed board, and offers acute care hospital services from a facility rated at 27 beds. Currently, there is one physician in the community, with an established private practice. Liaison between the hospital and all other health and social services is minimal and informal.

## 2) Strengths and Weaknesses

Medically, this alternative offers few positive aspects. The present solo physician cannot meet all the demands of the area, nor can complex medical services be offered, the result of which is that people are often referred elsewhere or seek their primary care elsewhere in the first place. In addition, emergency and after hours medical care is minimal due to the existence of only the one physician. The quality of care provided in the hospital is considered to be good at the present time, due primarily to the quality of nursing staff currently employed. The continual under-utilization of the hospital, and the lack of nursing challenge encountered has resulted in a high rate of turnover among the nursing staff.

One of the strengths of the present situation is that through church ownership, there are a number of resources, available at low cost or free, to which the hospital should have access. This includes legal work, special fund raising and staff



recruitment. This role of the church, both organizationally and economically, should be examined.

The low rate of utilization of the hospital in its present circumstances will make the attainment of capital funds very difficult, and expansion into different service areas would be as unlikely for financial reasons. Maintenance costs incurred in keeping the building entirely available as a hospital are also high in proportion to the number of patients served.

The existence of this hospital is a source of local community pride, as it has served the community for many decades. Under a universal system of health insurance, a small, out-of-date, under-utilized facility is not a source of pride at the broader level of the provincial program. Even at the local level, although no one stated a wish to see the hospital closed, there exists the recognition that changes must be made.

### 3) Implementation Strategy

The strategy for implementation of this alternative is simple. All that must be done is to submit the annual budget, look after the day to day affairs, and weather each crisis as it comes along. In terms of long range planning, this alternative does not reflect a positive and aggressive attitude, and places the hospital in a reactive position in response to changes.

## Alternative B

The Hospital Should Reduce Its Capacity to Seventeen Beds, and Attract Another Primary Health Care Worker

### 1) Organizational Design

Organizationally, this alternative can be set up in one of two ways. Firstly, the church could maintain ownership of the facility, and have the right to appoint some of the members of the board of management. Other board members would either be elected or appointed, but should represent the ethnic and cultural mix of the community. The chairperson of this board should be a resident of the local community. All board members should have a specified tenure, for example, 2 years, and should be allowed to serve only two terms in succession. Appointment or election should therefore be staggered to assume continuity.

The second alternative would be for the hospital to be publicly owned, and incorporated as a registered society.

Under this organizational design, there would be a wholly elected board, but again the chairperson should be a local resident, and tenure should be similar to the above. In both instances, women should be encouraged to seek representation on this board.

The organization of services from this facility would involve two major thrusts. Firstly, the existing physician should

locate his practice within the present hospital structure. Secondly, an additional primary health care provider should be hired, on a salaried basis, to work in the hospital setting. This person could be either another physician, or a family nurse-practitioner. If a physician is hired, he/she would work autonomous from, but in co-operation with, the present physician, and would be responsible to the hospital board. If a nurse-practitioner were hired, he/she would be salaried by the hospital, but would work under the direct supervision of the existing physician. In the case of having a nurse-practitioner, there would also have to be a formal link with Ashcroft or Kamloops medical centres to provide telephone supervision of this person during absences of the physician.

If the present physician should decide to move from the community, the hospital should endeavour to replace him with a salaried individual, responsible to the hospital.

## 2) Strengths and Weaknesses

Medically, this alternative has several strong points. Whether a nurse-practitioner or another physician is hired, there would be better 24 hours per day coverage for emergency medical care. By working from within the hospital setting, better patient contact could be maintained, and access to auxiliary diagnostic and treatment equipment would

be easier. In addition, people currently making the choice to obtain primary care elsewhere may be encouraged to seek their care locally if they feel they can receive high quality care from someone who is not overworked and therefore not in a hurry.

If a physician were hired by the hospital, he/she would provide the important aspect of a colleague to work and consult with the present professionally isolated physician. On the other hand, while a nurse-practitioner could not be involved in as much professional consultation with the present physician, he/she could begin laying the foundations for an active home care-home nursing treatment program.

The major weakness of this alternative from the medical standpoint is that liaison with all other health and social services would still be informal and unorganized. The hospital and medical services in this community would be more streamlined with little regard for the other agencies. This need not be the case of course, and during the planning for change in the hospital, other agencies can be invited to contribute. It is unlikely that this would develop into a meaningful dialogue, however, as each of these other services have their priorities to meet as well.

Economically, this alternative has several strong points. The

creation of a salaried position, either physician or nurse-practitioner, is a much lower expense to the overall provincial health care system than would be the establishment of a second fee-for-service private practitioner. The establishment of a second primary care worker would encourage people to seek their care more within the community, thereby enhancing the local economy in many ways.

The fact that either of these persons would be salaried would provide no incentive to hospitalize patients unless absolutely necessary. This would encourage the development of preventive health care, health maintenance and health education, each of which are much less costly forms of health care compared with acute hospitalization. If a nurse-practitioner were hired, the existing physician would be the only person allowed to admit and treat patients in hospital.

This alternative should only be undertaken if these primary health care workers could be located within the present hospital. This would increase the hospital revenue, and reduce some of its current maintenance and overhead costs. A point to be determined would be whether patients seeing the salaried physician would have to pay the out-patient utilization fee.

The organizational ownership of the hospital has little effect on the medical or economic well-being of the hospital, other

than the capacity for special fund raising existent with church ownership. If the church is to maintain this ownership, it should take a much more active interest and involvement in the hospital's activities. This would include assistance in professional recruitment, legal and economic advice, and public health education.

The weaknesses in church ownership are that at the present time it does not take an active interest in the well-being of this hospital, and that the church is slow to move, making the hospital not readily responsive to local needs. These weaknesses could be changed, firstly by having the church more actively interested, and secondly, by allowing a greater amount of community representation on the board. The presence of church appointees on the hospital board, even in a minority, would have a settling effect, assuring continuity.

Socially and politically, this alternative indicates a positive attitude toward hospital planning in this community. Its weakness is that it is hospital only in its orientation, and does not involve other health and social agencies which exist in the community.

This alternative may also run into difficulty in attempting to obtain a physician as a salaried person. While many physicians are very willing to work under such an organizational

framework, the position of the organized medical profession is that they should maintain the right to be paid on a fee-for-service basis. Several precedents of salaried service exist, and this should not present a major stumbling block.

The placement of a nurse-practitioner in the community, while readily acceptable as a salaried person, may represent a form of primary care not known in the community. To assure acceptance of this concept, if it were decided upon, would require an extensive local education campaign.

### 3) Implementation Strategy

Negotiations with the provincial government would be the point of entry into this alternative. During the past year, the hospital board sent initial inquiries to the provincial government regarding location of the present physician within the hospital. The response of the government was a suggestion to reduce capacity, and develop a plan for overall hospital building utilization. This present study has shown that the hospital building is not adequate for use for more complex services than the medical and acute care services which presently exist. The location of the primary medical care services in the lower north wing would seem advisable, using the south upper and lower floors for in-patient, plus x-ray, laboratory and kitchen services. This would leave the present upper north wing under-utilized, but the overall

use of the hospital would be enhanced. This upper north wing would not be satisfactory for a major service, but may be used for auxiliary services such as physiotherapy, counselling or home care offices.

It would be very important to the success of this alternative to involve the present physician in each step of the planning. It will be dependent initially upon him whether he will be willing to supervise a nurse-practitioner, or if he would work with a physician on a salary.

The hospital board should be willing to accept input from other local groups or individuals who may have contributions to make to the overall plan.

When the hospital board has determined that it wishes to pursue an alternative, such as this one, and it feels it has the support of the community, it should then present its case to the government, basing decisions and recommendations on as much medical, economic and social data as is available. Each point should be as pragmatic as possible, avoiding issues such as pride of ownership, history of the hospital, and so on. The general geographic, economic, and social climate of the Lytton area should be presented to lend credence to the arguments, but this information should be as factual and non-subjective as is possible. The proposal



should include information about other health and social services available plus figures relating to hospital and physician utilization trends, population trends, and forecasts for the future. All of these, except physician utilization, are contained in this report.

The process of change should not be expected to be an immediate one, but will likely take place over one or two years. The hospital should not demand or offer concessions until agreement has been reached on all major issues, including ownership, salaries, rated capacity, building utilization, and relationship with other health and social services. The hospital should resolve all of its own internal operations such as ownership, board composition and shared administration before it attempts to develop long range service goals in conjunction with the provincial government.

### Alternative C

The Hospital Should Reduce Its Capacity to Seventeen Beds, and a Community Health Centre Should be Constructed

#### 1) Organizational Design

Organizationally, the ownership and board representation issues are the same as in Alternative B. There could be either church or public ownership, with an appointed or elected board.

The major differences between Alternative B and this are

the relationships between the hospital and other health and social services, and the services provided from within the hospital.

This alternative requires the construction of a facility to house all or most of the health and social services offered in this community. It is suggested that the most suitable location would be adjoining the hospital building, immediately to the south of the present structure. The organizational relationship between the board of management and the other services housed in this facility would be as landlord and tenant. The services to be housed in such a facility would include all existing health or social services, plus all future services, except those which are available to registered Indians on reserves only. Those services should continue to be offered through the Lytton Indian Band office, but formal organizational bonds should exist between the Indian only services and the other services available in the area.

This facility would in effect be a Community Health Centre, and would house the existing physician and either a nurse practitioner or salaried physician as explained in Alternative B, plus the other publicly offered health and social services. If the present physician chose to leave the community, he should be replaced by a second salaried person. To

encourage qualified and competent professionals to locate in this community, incentives should be offered in the form of travel and re-location money, provision of adequate inexpensive housing, paid vacations, and annual paid study leave. In effect, this alternative incorporates most of the organizational and service components presently existent in the hospitals owned by the United Church of Canada.

The reduction of rated bed capacity of the hospital to seventeen beds, and the construction of a Community Health Centre facility would free much existing space in the hospital for use in some other major program. The most need for such a program is in the alcohol treatment area, although some degree of need for extended care services also exists. The decisions regarding this aspect of the service component should be made following open community discussions. The hospital board could take the lead in initiating such discussions with other health and social service providers and other interested groups.

## 2) Strengths and Weaknesses

This alternative has all of the strengths of Alternative B, with two important additions. Firstly, the creation of the Community Health Centre would provide for co-ordination of services which has not previously existed. Appropriate referral, consultation and decision-making would be expedited,

making the total health and social service system in the community more efficient. This efficiency should be accompanied by a program evaluation of each of the services in order to establish appropriate priorities for future development.

Secondly, adequate space would be made available to house a much needed alcoholism treatment program, or an extended care service.

The major weakness of this alternative is that it will require very extensive planning and negotiating for its implementation. In addition, with most services presently renting space elsewhere in the community, removal to new quarters of all services at once could cause an economic blow to the current landlords in the town.

Medically, or from the point of view of the health status of the total community population, this alternative has the most to offer. Economically, it requires a substantial initial investment, but the costs to the health care system should be reduced over time. This would be especially true if a reasonably successful alcoholism treatment program could diminish the impact on the medical care utilization that the present chronic alcoholism has promoted. This economic gain may not appear as an absolute reduction, but in a decrease

in the rate of escalation. The effects may also become evident if people can become more productive members of the community and stimulate some local economic growth.

From a social/political standpoint, this alternative is also very attractive. The community can maintain its hospital and receive co-ordinated health and social services of a high quality. From the broader health care system point of view, this alternative should be attractive despite its initial financial costs, because it will emphasize health education, preventive health care, and health maintenance, rather than a total reliance on expensive curative care.

### 3) Implementation Strategy

The strategy is similar to that of Alternative B. The community, interested groups, and other health and social services should be involved in planning discussions from the start. Negotiations then with government should be based in fact and informed community opinion. Perhaps most importantly, Dr. Don Watt, the Medical Co-ordinator of the United Church Hospitals in Canada, should be retained as a consultant to the board, and his advice sought on many administrative, planning and negotiating problems. If this alternative is chosen as an appropriate plan for the hospital, but it becomes evident that construction of a new

facility is impossible, it would be easy to modify the plan to fit into Alternative B. Similarly, if plan C were accepted, but deferred for one or two years, most of the aspects of Alternative B could be implemented, in readiness for the construction of the Community Health Centre.

#### Alternative D

The Hospital Would Discontinue In-Patient Services, but a Diagnostic and Treatment Centre would be Established

##### 1) Organizational Design

The ownership issue in this alternative would be the same as in B or C above. The church could maintain ownership, or the service could be organized as a registered society. Board representation could be either by appointment or election. Similar to those explained earlier, the chairperson should be a local resident, and there should be fixed terms of office.

The service component of this alternative offers the greatest amount of change from the current situation. In-patient services would be discontinued, and all patients requiring acute hospital care would be transported to a facility such as the hospital in Ashcroft, Kamloops or Hope. Because of the geographic boundaries of the Thompson-Nicola Regional Hospital District, the choice would likely be either Kamloops or Ashcroft. To meet the needs for diagnostic and out-patient

care, a diagnostic and treatment centre would be established. (For a full description of diagnostic and treatment centres, prepared by the B.C. Hospital Insurance Service, see Appendix IV.) The development of this diagnostic and treatment centre would be exactly the same as the development of the community health centre in Alternative C. All health and social services available in the community, except those for registered Indians only, could be housed in the centre, which could either be built on the property of the present hospital similar to Alternative C, or anywhere else in town. With no in-patient services being offered, there would be vast amounts of space within the hospital building to establish services such as alcoholism treatment or extended care. Similar to Alternative B or C, a second primary health care worker should be hired by the board of management, but in this case, it would be most appropriate that the position be that of a nurse-practitioner, as no in-patient services would be offered.

This alternative should only be considered if a home-care nursing program were implemented, with the provider of this service resident in the community and offering a full-time service. The public health nursing services should also both be strengthened to provide more and better health education and preventive health care.

## 2) Strengths and Weaknesses

The strengths of this proposal, from a medical point of view, are that persons requiring in-patient care could be easily transported to an outside facility where they would receive high quality care with a more comprehensive array of professional and technical backup services. The local physician could gain admitting privileges at such hospital, and assure his patients continuity of care. With the implementation of the home care-home nursing program, many people could receive care in their own environment who might otherwise require institutional care. This diagnostic and treatment centre would also provide for co-ordination of services similar to Alternative C.

Economically, the establishment of this diagnostic and treatment centre would require as much initial funding as would the facility in Alternative C. Costs of patients treated in a hospital would drop as they could be discharged to the home care program earlier. Transportation costs for patients would rise significantly, but transportation to the correct facility of patients requiring in-patient care should be a part of the overall program.

The hospital building, now empty of in-patients, would be wholly available for an alternative treatment program, but neither an alcoholism treatment centre or an extended care



service would require as much space as would become available. These two services would not be compatible for co-existence in the same building, so it is likely that the present structure would remain under-utilized.

From a social/political viewpoint, the closing of an acute care hospital is a very touchy issue. The establishment of a diagnostic and treatment centre would ease this loss to the community, but its positive attributes would likely be overshadowed by the loss of the hospital, and the loss of several employment positions in the community. From the broader viewpoint beyond this community, this alternative has its positive points. It assures the availability of high quality in-patient care, while meeting the local medical needs in the community. Discounting the high initial capital costs, it would provide an economical health care service to the community compared with the present situation.

### 3) Implementation Strategy

The planning involved in this alternative would require most of the same steps as in Alternative B, except that a greater amount of local public education and explanation would be required.

## Alternative E

The Hospital Would Discontinue In-Patient Services,  
And No Other Services Would be Developed

### 1) Organizational Design

The ownership question and services offered under this alter-

native would be very simple, in that nothing would be owned, and no services would be offered by the hospital. The local physician may or may not wish to continue to provide medical services from his private practice location. Other health and social services would continue to function as they may please.

## 2) Strengths and Weaknesses

There are no obvious strengths to this alternative, other than a purely economic one in that one fairly old, inefficient hospital would have been dropped from the system.

Medically and socially, this alternative has no redeeming features, and it should not be considered. Only if other services become available in the community, such as those explained in Alternative D, should the hospital feel socially comfortable about closing its doors.

## Cost Estimates of Alternatives

As stated at the beginning of this chapter, a comparison of the financial costs of each alternative is examined following the presentation of the alternatives. This comparison is presented in order to assist the reader in weighing the alternatives to make decisions as to what services St. Bartholomew's Hospital in Lytton is best able to afford to offer to the community.

Table 8.1 provides some rough estimates of revenues and expenditures

for each of the five main alternatives that have been presented. These figures are rough estimates only, but the relative cost differentials between the choices available are fairly accurate. These cost estimates were obtained from British Columbia Hospital Plan, and other provincial agencies.

Several explanations of this table are necessary. In Alternative A, the number of acute patient days estimated for 1977 are 3,500, or about 10 patients per day. At \$110.00 per patient day, this will result in a revenue of \$385,000. The salary estimates in this alternative are based on January 1, 1976 rates supplied by the British Columbia Hospital Services Plan, and the British Columbia Medical Services Commission. The projected financial position at year-end 1977 is a deficit of \$49,500.

There are externalities to be considered with this alternative, as there are with each of the other alternatives. In this instance, several people seek their health care including acute hospital care outside of the immediate community. This produces both revenues and costs outside the Lytton area which the hospital is presently unable to attract back to the community.

In Alternative B, with two primary health care workers, the estimated patient days are 4,500, resulting in \$495,000 in revenue. Additional revenues are generated through the rental of space within the hospital, consisting of \$2,500 from the physician, and \$1,000 from the hospital

TABLE 8.1

ESTIMATES OF REVENUES AND EXPENDITURES FOR EACH  
ALTERNATIVE PRESENTED IN CHAPTER 8

	A	B	C		D		E
	(As is Now) With ADC of 10	Second Physician Located in Hospital, With ADC of 13	CHC With ADC of 13		Diagnostic and Treatment Centre, No In-Patient Care		(Closed-No Services)
			Ext. Care (8 Beds)	Alcohol (10 Beds)	Ext. Care (8 Beds)	Alcohol (10 Beds)	
<u>Revenues</u>							
Per Diem Acute @ \$110/Day	385,000	495,000	495,000	495,000	-	-	-
Ext. @ \$25/Day	-	-	53,000	-	53,000	-	-
Aic. @ \$35/Day	-	-	-	127,000	-	127,000	-
<u>Rent</u>							
Phys. @ \$7/sq.ft.	-	2,500	2,500	2,500	2,500	2,500	-
Other @ \$3/sq.ft.	-	1,000	5,500	5,500	11,000	11,000	-
Sale of Other Services, Other Agencies and Out-Patient Revenue	28,500	30,000	30,000	30,000	30,000	30,000	-
Cafeteria	6,000	6,000	8,000	8,000	4,000	4,000	-
Total Revenue	419,500	534,500	594,000	663,000	100,500	174,500	0
<u>Expenditures</u>							
Salaries:							
- acute care	373,000	414,000	414,000	414,000	80,000	80,000	-
- ext. care	-	-	42,000	-	42,000	-	-
- alcoholism	-	-	-	133,000	-	133,000	-
Operating Costs							
Maintenance/Heat/Electric	96,000	101,000	130,000	130,000	90,000	90,000	20,000
Total	469,000	515,000	586,000	677,000	212,000	303,000	20,000
(Deficit) or Surplus	(49,500)	19,500	8,000	( 6,500)	(111,500)	(126,500)	(20,000)
<u>Capital Costs</u>							
Construction	-	-	4,000 x 50 = 200,000		4,000 x 50 = 200,000		-
Renovations	-	1,000 x 20 = 20,000	4,000 x 5 = 20,000		4,000 x 5 = 20,000		-
Total	-	20,000	220,000		220,000		-

based ambulance service. The salary component of this alternative includes a salaried physician at \$49,000 per year, but the total is then reduced by \$8,000 as the saving resulting from employing the ambulance operator part-time in the hospital.

This alternative, by providing a more comprehensive and versatile medical service from within the hospital would tend to draw back to this community a percentage of those people currently seeking care elsewhere. This would have a positive effect on present revenues, but not without an effect on the revenues lost to the other communities. Similarly, the increased use of this hospital would also mean increased operating and maintenance costs. If an active home-care program were developed, the hospital days may again show a decrease, but this would not likely be as drastic as the decreases presently being experienced.

The capital costs of implementing Alternative B would be minimal, and are estimated as renovations to 1,000 square feet of space at an average cost of \$20.00 per square foot.

In Alternative C, the revenues from acute hospital care would be the same as in Alternative B at \$495,000. If the Extended Care facility was established with 8 beds at \$25.00 per patient day, an additional \$53,000 revenue would be generated. In this alternative, more hospital space in the hospital would be rented to community service agencies, providing \$5,500 annual revenue from this source. Salaries involved in

this alternative would be the same as in B, with an additional \$42,000 for staffing the extended care unit.

If in Alternative C an Alcoholism treatment unit were established rather than an Extended Care facility, the revenues would be somewhat different. An estimate of 10 patients at \$35.00 per patient day would produce \$127,000 in annual revenue. The Alcoholism treatment unit would also cost about \$133,000 in additional salaries.

Alternative C offers the most comprehensive set of services, and generates the most flow of cash through the system. At the present time, however, the local physician estimates about 70%-80% of his patient contact is alcohol related. If an active alcoholism treatment program could be implemented, along with better prevention and earlier diagnosis, the number of alcohol related illnesses could be expected to decrease over time. This decrease may show itself in increased productivity of the local people, but also in a drop in utilization of hospital beds.

This alternative also suggests that most health and social services available should be located together in the one community health centre. This would have the effect of reducing the revenue of several local property owners who currently receive rent from these agencies.

The development of the alcoholism or extended care program would mean

six to eight additional jobs in the community, representing up to \$150,000 in increased incomes to be spent locally. This could also have an effect on the housing development of the area.

The capital costs of this alternative would be \$220,000 calculated for the construction of the Community Health Centre, at \$50.00 per square foot for 4,000 square feet, and renovating 4,000 square feet at \$5.00 per square foot for the alcoholism treatment centre. These capital costs would be incurred only at the implementation stage of this alternative.

In Alternative D, there are no in-patient services offered, so revenues are limited to either the patient days from the Extended Care program or the Alcoholism Treatment unit. Similarly, salaries would be greatly reduced as the requirements would be obviously less. In this alternative the staffing for the Community Health Centre has been based upon the need for two clerks, two registered nurses, one home care nurse, and one nurse practitioner as the second primary care worker. The nurse practitioner's salary is estimated at \$16,000 per year, and this figure could be used for salary estimates for Alternatives B and C as well, rather than the \$49,000 for the salaried physician.

This alternative results in the largest deficit of all of the options provided, and from the community viewpoint may be rejected on these grounds. Considering Lytton as part of the greater health care system, this alternative may be financially a superior one. In the

other alternatives, the government is spending roughly \$300,000 more on salaries than in this alternative. If the in-patient load required by Lytton residents could be absorbed by Kamloops, Hope and Ashcroft, with little or no staffing implications in those centres, the deficit produced locally may be well offset by the gross savings in salaries spent by the larger health care system. This deficit could then possibly be covered by subsidies from the provincial government which would realize a net savings of the difference between the salaries no longer spent in Lytton, and the amount of the subsidy.

The discontinuation of in-patient services would mean a loss of approximately twenty jobs to the community, although possibly half of these would be taken up with the staffing of the Diagnostic and Treatment Centre, plus the Alcoholism or Extended Care service. The overall effect would be a net loss of disposable incomes within the local community, and a probable movement of persons from the area. The capital costs would be the same as in Alternative C.

Alternative E would produce no revenue for the community, and until the building was suitably disposed of would require minimum maintenance. The major economic effects of this alternative would be the loss of \$370,000 in salaries from the Community, and the costs of transporting all patients requiring hospital care to other centres.

### Summary

From the strengths and weaknesses provided for each alternative, it



is evident that Alternative C represents the optimum which this community could hope for. That alternative should therefore likely be its goal. Alternatives B or D represent positions which the hospital and community could shift towards while pursuing the more comprehensive plan. Alternatives A and E are not considered acceptable.

At this point, it would be prudent to suggest that a sixth alternative could also be possible. This alternative has not been fully explored, and could represent an area which might be undertaken for further study. This alternative is included here merely to bring the reader's attention to the fact that this option has been attempted elsewhere, and to provide a reference for those who might wish to pursue this option further.

This alternative would see the hospital, in effect, taken over by the University of British Columbia Faculty of Medicine, with all medical and consultant staff serving the Lytton Community through a scheduled rotation of visits from the teaching facility in Vancouver. The St. Bartholomew's Hospital In Lytton could become a teaching arm of the Faculty of Medicine, with the rotation of qualified resident physicians taking their turn as part of their formal education process. Patients requiring complex treatment not available in Lytton could be transferred to the teaching hospitals in Vancouver for continuing care.

Several precedents for this type of organizational homework exist

in Canada. For example, in 1970, the University of Manitoba, Faculty of Medicine assumed the responsibility for the administration and staffing of the medical clinic in Churchill, Manitoba (103, page 170). They found that much of the existing health care problem, similar to the situation in Lytton, stemmed from an inappropriate model for delivery of acute medical services, and from a multiplicity of agencies offering health or social services within the area. The inappropriate acute care model, so engrained in urban trained physicians, requires that the local population adhere to fairly strict concepts of work and time, which are presently quite alien to many of the native and rural residents of the Lytton area. This sixth organizational mode would allow some exposure to this rural environment for several new physicians who would not otherwise gain this experience.

The multiplicity of agencies apparent in Lytton has been mentioned earlier, but certainly seems to parallel the situation and the problems which had existed in Churchill, Manitoba. The main problems are those of authority and communication. Decision making powers of any policy or program consequence are generally removed some distance from the local community to several centres located in regional offices of one kind or another. This suggested alternative would still see the powers removed to a distance, but in this case to only one location, the University.

From the medical point of view, this alternative is very attractive.

It offers a continuity of modern, qualified service to the local community, while at the same time providing a valuable experience to physicians who may wish to locate in other rural areas. From an economic point of view, this is an expensive organizational format, but the costs would be born partly by the University, the government and the local community. Organizationally, this choice would be difficult to implement. The church would have to give up its traditional role in the hospital's affairs, the shared administration situation would have to be resolved, and the functions and composition of the present Board of Directors would be greatly altered. None of these problems need be considered insurmountable, however, and this alternative may become the only viable choice for the future, other than the no-service option given in Alternative E.

As noted in the previous chapter and in the strategies sections of these alternatives, there are several things which can take place immediately, no matter which alternative, if any, is decided upon. This would include the placement of the ambulance on the hospital property and the channeling of all calls through the hospital switchboard. The ambulance operator could be hired on a part-time basis in the hospital, thereby saving hospital costs, and a portion of his present salary paid by Emergency Services Branch. A listing of services could be posted in town and distributed in the mail to the general public, and a description of the services could be provided to each person working in the health or social field. People can be made aware of some of the alternatives facing the hospital and

the other services, so that the topic can become a matter of public conversation and the general attitude of the community can be gauged. Lastly, the hospital board of management can gain clarification on shared administration, board representation and the role of the church in the affairs of this hospital. Once these have been determined, then the path is clear to submit proposals.

## CHAPTER 9

### GENERAL APPLICABILITY

A question which remains is whether or not this study has revealed anything new? Do the findings and conclusions agree or disagree with those of other researchers? Can the results from this single case study be generalizable for wider application? The literature review looked at six major areas concerning rural health care.

These were:

- A. Organizational Structure of the Rural Health Care System
- B. Manpower Issues--Recruitment and Maintenance
- C. Quality of Care
- D. Geography, Topography and Distance--Effects on Health Care
- E. Ethnic and Cultural Minorities in the Health Care Setting
- F. Utilization--A Need/Demand Question

In part A, the organizational structure of rural health care, several researchers were shown to have found that rationalization of health care services is good in theory. Few programs have evolved, however, which seek out and direct rural people with health care problems through the system efficiently to appropriate sources of care. This study in the Lytton, British Columbia area has also found this to be a problem. Very often, local residents presented themselves at one

agency or another, only to find that their problem was someone else's responsibility or that the service person visited Lytton on a different day. A result is that local residents often allow chronic minor illnesses to remain unchecked with the potential for development into advanced diseases.

In many small communities, researchers have found that the rarity of true emergencies has resulted in poor emergency policies and procedures in both rural hospital emergency departments and rural ambulance services. For example, in emergency departments of some small hospitals, there is no set routine for handling the emergency patient. Most patients who present themselves for emergency care suffer little more than aggravating delays as a result of poor emergency room practices. These same delays may be very important, however, when dealing with a true emergency patient. Similarly, rural ambulance services tend to provide a large portion of their service to patients whose condition may be considered "urgent" rather than "emergent". A lack of real emergencies results in ambulance operators who may become less responsive in such situations. Similar problems to these have evidenced themselves in Lytton. On some shifts in the hospital, there are no nurses available with training in the operation of emergency patient monitoring units. There is no routine for handling emergency patients which is practiced periodically to insure that all key roles are understood by the personnel responsible for those roles. The ambulance service, though staffed by a qualified operator, depends heavily on volunteer

assistance, most of whom have had no training in emergency care routines.

A number of studies have examined methods of involving the community in the process of making decisions regarding the availability of health care services in the local area. Several such attempts at community involvement have failed, partly due to lack of direction and slowness of action resulting from ill definition of the problem and lack of understanding of possible courses of action which may be taken.

This present study was undertaken at the request of the members of the local hospital Board of Management, who could see clearly enough into the future to realize that the very life of their hospital was at stake. During the period of research on this project, and while the community survey was being conducted, a quiet awareness regarding the seriousness and the complexity of the problem grew in the community.

Following the submission of the report to the hospital Board, a public meeting was held in Lytton to discuss the implications of the report, and to plan a strategy of action. This public meeting attracted almost one quarter of the entire community, and resulted in the organization of a committee to carry resolutions from the meeting forward to government. This committee has since become responsible for the operation of the hospital.

No mass meetings or public announcements were made in the beginning regarding the problem or the study. The hospital Board did not ask for a plan, but rather for a range of optional plans from which decisions could be made. In this respect, this study has been somewhat unique. When the public meeting was held, most of the facts surrounding the delivery of health services were already known. The public was able to hear and see hard information, and be participants in making some well founded decisions about what course of action should be followed. The review of the literature did not reveal other studies where this strategy for community involvement in the decision making process had been employed. In this respect, this study has provided hope where other community involvement attempts have failed.

The problem of recruiting and maintaining competent trained health services manpower is a familiar theme running through many studies on rural health care. In Lytton, the same problem exists, with seven physicians in as many years having served the area, and an endless job of replacement of hospital nursing staff. One exception to this finding, and reported in the literature, was the experience of the hospitals which are owned and operated by the United Church of Canada. It appears that they offer two distinct differences. Firstly, they have a centrally co-ordinated recruitment plan for all of their hospitals, along with above average benefit packages for their personnel. More importantly, however, may be the difference in implicit commitment to service which seems to be demanded



by most rural communities. Usually, small hospitals attempt to attract a physician and their nurses with the hopes that they will stay forever in the community. The fact that they don't stay becomes a frustration to the hospital and to the community, and also often results in a feeling of guilt on the part of the leaving professional. In the United Church Hospitals, service commitment is concrete, at one or two year contracts, and it is expected that the professional person will move on after a short period. This is not viewed as negative, but rather as an injection of fresh ideas and skills into what could otherwise become a relatively stagnant environment. This stagnation has often been found to be one of the main reasons why health care professionals leave rural practice. The United Church Hospitals seem to have realized this and have turned this problem into one of their assets.

Many studies have shown that the quality of health care available in the rural community may not be as high as it is in more densely populated areas. Part of this problem has been related simply to the distance factors involved in the rural setting. As noted in Chapter 5, it was found to be common in this community for minor chronic ailments to remain unchecked revealing themselves at a later stage as a preventable major health problem. In this respect, this study has agreed with most other studies on the effects of geography and distance.

Ethnic and cultural minorities have been variously studied in the

health service field. Very often, the findings of these studies indicate that different perceptions of need exist, which are then exhibited as different rates of demand for health services. In Lytton, with a very high ratio of Indian to non-Indian people, this has also been found to be the case. Native Indian perceptions of hospitals as death houses, and distrust of city-trained health care professionals has been found to exist as much in Lytton as it does in other study areas.

Perhaps the single most significant contribution to be made by this study is the development of a particular planning strategy for small communities. A great deal of research was conducted, and possible options spelled out before the community at large was asked to become involved in the process of making decisions. Perhaps this may be an appropriate strategy for addressing the problem of inaction at the community level, which may often be caused by a lack of clear direction.

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## APPENDICES

### APPENDIX I - Original Letter to University Requesting Study

### APPENDIX II - Survey Instruments

- (1) Community Survey instrument used in this study with the "providers" category of respondents.
- (2) Community Survey instrument used in this study with the "consumers" category of respondents.
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### APPENDIX III - Acute Hospitalization Tables

- (1) Acute Cases and Corresponding Patient Days for St. Bartholomew's Hospital, Lytton, by Diagnostic Group and Year, 1971 to 1977.
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- (3) Acute Cases and Corresponding Patient Days for Residents of the Thompson-Nicola Regional Hospital District, by Diagnostic Group and Year, 1971 to 1975.
- (4) Indians Only - Acute Cases and Corresponding Patient Days for Residents of the Thompson-Nicola Regional Hospital District, by Diagnostic Group and Year, 1971 to 1975.

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- (1) Description of a Diagnostic and Treatment Centre, prepared by British Columbia Hospital Insurance Services, May 1970.
- (2) Revisions of above, 1974.
- (3) Sample job descriptions in a Diagnostic and Treatment Centre.

APPENDIX I

Original Letter to University Requesting Study

## APPENDIX II

### Survey Instruments

- (1) Community Survey instrument used in this study with the "Providers" category of respondents.
- (2) Community Survey instrument used in this study with the "Consumers" category of respondents.
- (3) Comparative Questionnaire used in St. Bartholomew's Hospital.

Community Survey instrument used in this study with  
the "Providers" category of respondents

THE UNIVERSITY OF BRITISH COLUMBIA  
2075 WESBROOK MALL  
VANCOUVER, B.C., CANADA  
V6T 1W5

Department of Health Care and Epidemiology  
FACULTY OF MEDICINE  
HEALTH SCIENCES CENTRE

ST. BARTHOLOMEW'S HOSPITAL STUDY

CONSENT FORM

I have been made aware of the study being done on health services in the Lytton area. It is my understanding that if I choose to take part in an interview for this study, none of the information which I give will be used in any manner, written or otherwise, which would allow me to be identified by other members of the community. I understand that I may choose not to answer some of the questions if I prefer, and also that I may end this interview at any time during the questions. Lastly, at any time after the completion of this interview, if I wish, I may request that my responses be destroyed or given to me to use as I see fit.

After giving consideration to the above conditions, I hereby give my consent to take part in this questionnaire.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Witnessed: \_\_\_\_\_

HEALTH CARE SERVICES QUESTIONNAIRE OF PROVIDERS  
 LYTTON COMMUNITY STUDY  
 SPRING, 1977

Name \_\_\_\_\_

Group - A Bi Bii Biii

Sex: \_\_\_M \_\_\_F

Ethnic Origin: \_\_\_\_\_ Native  
 \_\_\_\_\_ Non-Native

Date \_\_\_\_\_

- (1) In relation to health care in the Lytton area, your role is as a \_\_\_\_\_. Will you tell me what your main duties and responsibilities are.
- (2) Will you list these duties in order of the time spent on each. Start with the duty involving most of your time, the second, and so on. Also tell me what percent of your time is spent on each.

_____	____%
_____	____%
_____	____%
_____	____%



- 2 -

- (3) Of the services which you offer (or the duties you perform), which do you feel is the most important? and the second and the third?

1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_

- (4) What factors do you think are the major causes of health care problems in the Lytton area today?

\_\_\_\_\_ nutrition  
\_\_\_\_\_ cleanliness  
\_\_\_\_\_ alcoholism  
\_\_\_\_\_ accidents  
\_\_\_\_\_ other, specify \_\_\_\_\_  
\_\_\_\_\_

- (5) Do you think there are any particular problems (such as distance, weather, etc.) which may make access to health care difficult in the Lytton area? \_\_\_\_Yes \_\_\_\_No.

\_\_\_\_\_ roads bad/blocked  
\_\_\_\_\_ ferry closed  
\_\_\_\_\_ no telephone  
\_\_\_\_\_ no car  
\_\_\_\_\_ other, specify \_\_\_\_\_  
\_\_\_\_\_

- (6) Are there adequate services available in Lytton to deal with the health problems of the community? \_\_\_\_Yes \_\_\_\_No.  
If no, explain.

- 3 -

- (7) There are many health related jobs in Lytton. Will you list as many of these jobs as you can, and for each job listed, tell me what services they offer.

\_\_\_ doctor  
\_\_\_ dentist  
\_\_\_ pharmacist  
\_\_\_ ambulance  
\_\_\_ public health nurse - federal  
\_\_\_ public health nurse - provincial  
\_\_\_ eye doctor  
\_\_\_ band community health workers  
\_\_\_ social worker - band  
\_\_\_ social worker - provincial  
\_\_\_ probation officer  
\_\_\_ court worker  
\_\_\_ nutritionist/dietician  
\_\_\_ other, specify \_\_\_\_\_  
\_\_\_\_\_

- (8) Of all of the health care services available in Lytton, which do you feel are the five most important to the community? I would like you to tell me the most important first, then the next most important, and so on.

1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_  
4. \_\_\_\_\_  
5. \_\_\_\_\_

- 4 -

- (9) Are there any health or social services not offered in Lytton which you think should be available? Yes No.  
If yes, list:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- (10) Let's say you have to have a fairly serious operation such as having your appendix out. Think of this as a non-emergency that should be done within two or three weeks time. If you had a choice of any hospital in B.C. where would you prefer to have the operation done?

\_\_\_\_ Lytton  
\_\_\_\_ Ashcroft  
\_\_\_\_ Kamloops  
\_\_\_\_ other, specify  
\_\_\_\_ undecided  
\_\_\_\_ where the doctor told me to go...where would  
you prefer he told you to go? \_\_\_\_\_

- (11) Why would you choose this hospital?

- (12) How would you rate the physical facilities of the hospital, such as rooms, equipment, and so on?

\_\_\_\_ excellent  
\_\_\_\_ good  
\_\_\_\_ fair  
\_\_\_\_ poor  
\_\_\_\_ no response

- 5 -

(13) How would you rate the quality of personal care provided at the hospital today?

- ☐ excellent
- ☐ good
- ☐ fair
- ☐ poor
- ☐ no response

(14) What are the main factors that make you rate the quality of care in this hospital as \_\_\_\_\_?

(15) Do you live in the Lytton area?

- ☐ Yes, how long? \_\_\_\_\_ years
- ☐ No, where do you live? \_\_\_\_\_

(16) How long have you been working in the health field in the Lytton area? \_\_\_\_\_

(17) In the time that you have lived or worked in this community, do you think the quality of care in the hospital here has generally improved, stayed the same, or declined?

- ☐ improved
- ☐ stayed the same
- ☐ declined
- ☐ don't know

- 6 -

- (18) The hospital in Lytton now handles fewer patients than it did in the past. Why do you think the hospital is used less?
- (19) Right now in Lytton, most of the people who provide health services have their own separate offices in town. Would it be a good idea to have some of the health care agencies offering their services together in one location? ☐ Yes ☐ No. Why or why not? Where? \_\_\_\_\_.
- (20) There is a possibility that in the near future the doctor's office may move into the hospital building. Do you think this would be a good idea? ☐ Yes ☐ No. Why or why not?
- (21) Can you suggest any other changes in the health field that might be of benefit to the people of the Lytton area? ☐ Yes ☐ No. If yes, what?
- (22) Do you think there are any health care services now offered in Lytton that could be stopped? ☐ Yes ☐ No. If yes, what?

- 7 -

- (23) Are there any health care services that should be offered less than they are now? ☐ Yes ☐ No. If yes, what?
- (24) On this list, what age group are you in? Just tell me the number of the category.
1. ☐ 19 and under
  2. ☐ 20-34
  3. ☐ 35-49
  4. ☐ 50-64
  5. ☐ 65 and over
- (25) Do you have a particular religious preference? ☐ Yes ☐ No. If yes, what is it?
- ☐ Anglican  
☐ other Protestant  
☐ Roman Catholic  
☐ other, specify \_\_\_\_\_
- (26) Do you have any other comments at all that you would like to make? ☐ Yes ☐ No.
- (27) Lastly, do you have any questions about any part of this interview, or about the study in general?

Community Survey instrument used in this study with  
the "Consumers" category of respondents

THE UNIVERSITY OF BRITISH COLUMBIA  
2075 WESBROOK MALL  
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Department of Health Care and Epidemiology  
FACULTY OF MEDICINE  
HEALTH SCIENCES CENTRE

ST. BARTHOLOMEW'S HOSPITAL STUDY

CONSENT FORM

I have been made aware of the study being done on health services in the Lytton area. It is my understanding that if I choose to take part in an interview for this study, none of the information which I give will be used in any manner, written or otherwise, which would allow me to be identified by other members of the community. I understand that I may choose not to answer some of the questions if I prefer, and also that I may end this interview at any time during the questions. Lastly, at any time after the completion of this interview, if I wish, I may request that my responses be destroyed or given to me to use as I see fit.

After giving consideration to the above conditions, I hereby give my consent to take part in this questionnaire.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Witnessed: \_\_\_\_\_



HEALTH CARE SERVICES QUESTIONNAIRE OF CONSUMERS  
LYTTON COMMUNITY STUDY  
SPRING, 1977

Name \_\_\_\_\_

Group - a b c d

Ethnic Origin: \_\_\_\_\_ Native  
                                \_\_\_\_\_ Non-Native

Date \_\_\_\_\_

- (1) Have you had any experience of any kind with the hospital,  
either through yourself, or your family or close friends?  
\_\_\_\_\_ Yes \_\_\_\_\_ No. If Yes, ask "When was that?"
- (2) How would you rate the physical facilities of the hospital,  
such as rooms, equipment and so on?
- \_\_\_\_\_ Excellent  
\_\_\_\_\_ Good  
\_\_\_\_\_ Fair  
\_\_\_\_\_ Poor  
\_\_\_\_\_ No response
- (3) How would you rate the quality of personal care given in  
the hospital?
- \_\_\_\_\_ Excellent  
\_\_\_\_\_ Good  
\_\_\_\_\_ Fair  
\_\_\_\_\_ Poor  
\_\_\_\_\_ No response

- 2 -

(4) Is this quality of care...

- ☐ better than expected
- ☐ the same as expected
- ☐ not as good as expected
- ☐ undecided

(5) How long have you lived in this community?

- 1. ☐ less than 3 years
- 2. ☐ 3 to 7 years
- 3. ☐ 8 to 15 years
- 4. ☐ more than 15 years
- 5. ☐ no response

(6) Since you have lived in this community, do you think the quality of care in the hospital here has generally improved, stayed the same, or declined?

- ☐ improved
- ☐ stayed the same
- ☐ declined
- ☐ don't know

(7) Let's say you have to have a fairly serious operation such as having your appendix out. Think of this as a non-emergency that should be done within two or three weeks time. If you had a choice of any hospital in B.C. where would you prefer to have the operation done?

- ☐ Lytton
- ☐ Ashcroft
- ☐ Kamloops
- ☐ other, specify \_\_\_\_\_
- ☐ undecided
- ☐ where my doctor told me to go...where would you prefer he told you to go? \_\_\_\_\_

- 3 -

(8) Why would you choose this hospital?

(9) The hospital has two major services, the patients in the hospital, and the outpatient services. Can you think of any other service offered at the hospital? \_\_\_Yes \_\_\_No.

\_\_\_x-ray

\_\_\_lab

\_\_\_well baby clinic

\_\_\_dietician

\_\_\_eye doctor

\_\_\_other, specify \_\_\_\_\_

\_\_\_\_\_

(10) There are other health services available in Lytton other than just the doctor and the hospital. Will you tell me all of the health care jobs that you know about in Lytton? These can be anything to do with health or social services.

\_\_\_dentist

\_\_\_pharmacist

\_\_\_ambulance

\_\_\_public health nurse - federal

\_\_\_public health nurse - provincial

\_\_\_eye doctor

\_\_\_band community health workers

\_\_\_social worker - band

\_\_\_social worker - provincial

\_\_\_probation officer

Continued...

- 4 -

☐ court worker  
☐ nutritionist/dietician  
☐ other, specify \_\_\_\_\_  
 \_\_\_\_\_

- (11) Of all of the health care services available in Lytton, which do you feel are the five most important to the community? I would like you <sup>to</sup> tell me the most important first, and then the next most important, and so on.

1. \_\_\_\_\_  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 4. \_\_\_\_\_  
 5. \_\_\_\_\_

- (12) Are there any health care services not available in Lytton right now which you think should be available? ☐ Yes ☐ No.  
 If yes, list: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

- (13) What do you think are the major causes of health problems in the Lytton area today?

☐ nutrition  
☐ cleanliness  
☐ alcoholism  
☐ accidents  
☐ other, specify \_\_\_\_\_  
 \_\_\_\_\_

- 5 -

- (14) Have you ever had any problems of any kind (such as distance, weather or anything) which made it difficult for you to seek medical care? ☐ Yes ☐ No.

If yes, what are these problems?

☐ roads bad/blocked  
☐ ferry closed  
☐ no telephone  
☐ no car  
☐ other, specify \_\_\_\_\_  
 \_\_\_\_\_

- (15) Do you feel that other people in the area might experience difficulty seeking medical care? ☐ Yes ☐ No.

If yes, for what reasons?

☐ roads bad/blocked  
☐ ferry closed  
☐ no telephone  
☐ no car  
☐ other, specify \_\_\_\_\_  
 \_\_\_\_\_

- (16) Have you ever received any health service at home?  
☐ Yes ☐ No.

If yes, how long ago? \_\_\_\_\_ years.

From whom? ☐ doctor  
☐ public health nurse - federal  
☐ public health nurse - provincial  
☐ other, specify \_\_\_\_\_  
 \_\_\_\_\_

- 6 -

(17) The hospital in Lytton now handles fewer patients than it did in the past. Why do you think the hospital is used less?

(18) Right now in Lytton, most of the people who provide health care have their own separate offices in town. Would it be a good idea to have some of the health care agencies offering their services together in one location? ☐ Yes ☐ No. If yes, where \_\_\_\_\_

Why or why not?

(19) There is a possibility that in the near future the doctor's office may move into the hospital building. Do you think this would be a good idea? ☐ Yes ☐ No.

Why or why not?

Now I would like to ask you some questions about yourself.

(20) On this list would you please tell me what age group you are in. Just tell me the number of the category.

1. ☐ 19 and under
2. ☐ 20-34
3. ☐ 35-49
4. ☐ 50-64
5. ☐ 65 and over
6. ☐ no response

- 7 -

- (21) Do you have a particular religious preference? \_\_\_\_Yes \_\_\_\_No.  
If yes, what is it?

\_\_\_\_Anglican  
\_\_\_\_other Protestant  
\_\_\_\_Roman Catholic  
\_\_\_\_other  
\_\_\_\_no religious preference

- (22) Which of the following categories best describes your total yearly family income from all sources? Just tell me the correct category number.

1. \_\_\_\_no income  
2. \_\_\_\_less than \$4,000  
3. \_\_\_\_\$4,000 to \$9,999  
4. \_\_\_\_over \$10,000  
5. \_\_\_\_no response

- (23) Can you suggest any changes in the health field other than those we've mentioned that might be of benefit to the people of the Lytton area? \_\_\_\_Yes \_\_\_\_No. If yes, what?

- (24) Do you think there are any health care services now offered in Lytton that could be stopped? \_\_\_\_Yes \_\_\_\_No. If yes, what?

- (25) Are there any health care services that should be offered less than they are now? \_\_\_\_Yes \_\_\_\_No. If yes, what?

- 8 -

(26) Do you have any other comments at all that you would like to make? ☐ Yes ☐ No.

(27) Lastly, do you have any questions about any part of this interview, or about the study in general?



Comparative Questionnaire used in  
St. Bartholomew's Hospital

**ST. BARTHOLOMEW'S HOSPITAL, LYTTON, B. C.**  
(DIOCESE OF CARIBOO)

St. Bartholomew's Hospital is currently conducting a study of its services to determine what changes could be made to best meet the needs of the community. As a patient of this hospital, we would like your help in looking at these services.

The following questions have been prepared to obtain your opinions about the services here. It is your own opinion that counts, so please fill out the answers on your own without the help of the hospital staff or other patients. All responses are strictly confidential and you need not sign your name to the form. Please place the completed questionnaire in the envelope provided and leave it with the nurse in charge. I will be collecting all of the forms near the middle of June to look at the results.

My name is David Goldsmith, and as a student in Health services Planning at U.B.C. in Vancouver, I have been given the opportunity to conduct this study. If you have any questions that you would like to ask me about this project or about this questionnaire, please ask the nurse, and she will let me know to come and see you. Thank you very much for your help with this study.

For the parents of young children in this hospital, we would like your opinions also. If you are filling this out as a parent or guardian of a patient, please indicate.

Questionnaire completed by: \_\_\_\_\_ patient.  
\_\_\_\_\_ parent or guardian  
of patient.

( 1 )

1. How would you rate the physical facilities of this hospital, such as the rooms, equipment and so on?

\_\_\_\_\_ Excellent.  
\_\_\_\_\_ Good.  
\_\_\_\_\_ Fair.  
\_\_\_\_\_ Poor.  
\_\_\_\_\_ Don't Know.

2. How would you rate the quality of personal care which you have received in this hospital?

\_\_\_\_\_ Excellent.  
\_\_\_\_\_ Good.  
\_\_\_\_\_ Fair.  
\_\_\_\_\_ Poor.  
\_\_\_\_\_ Don't Know.

3. What are the reasons you have chosen the answer you did in question 2?

4. Have you been in any other hospital in the past three years? \_\_\_\_\_ yes / no \_\_\_\_\_

(If yes, please answer questions 5 to 8, if no, then skip to question 9).

5. What hospital were you in?

6. How do the physical facilities of that hospital compare with St. Bartholomew's?

\_\_\_\_\_ Better than St. Bartholomew's.  
\_\_\_\_\_ The same as St. Bartholomew's.  
\_\_\_\_\_ Not as good as St. Bartholomew's.  
\_\_\_\_\_ Don't Know.

## APPENDIX III

Acute Hospitalization Tables\*

- Table 1. - Acute Cases and Corresponding Patient Days for St. Bartholomew's Hospital, Lytton by Diagnostic Group and Year, 1971 - 1977.
- Table 2. - Indians Only - Acute Cases and Corresponding Patient Days for St. Bartholomew's Hospital, Lytton, by Diagnostic Group and Year, 1971 - 1975.
- Table 3. - Acute Cases and Corresponding Patient Days for Residents of the Thompson-Nicola Regional Hospital District by Diagnostic Group and Year, 1971 - 1975.
- Table 4. - Indians Only - Acute Cases and Corresponding Days for Residents of the Thompson-Nicola Regional Hospital District by Diagnostic Group and Year, 1971 - 1975.

\* 1971 - 1975 data supplies by British Columbia Hospital Services Plan.

1976 and 1977 data obtained from St. Bartholomew's Hospital Records.

TABLE 1  
ACUTE CASES AND CORRESPONDING PATIENT DAYS FOR ST. BARTHOLOMEW'S HOSPITAL,  
LYTTON, BY DIAGNOSTIC GROUP AND YEAR  
1975-1977

Diagnostic Group	1971		1972		1973		1974		1975		1976	Jan. to June 1977 x 2 = Full Year Estimate
	Cases	Days	Cases	Days	Cases	Days	Cases	Days	Cases	Days	Cases	Cases
1. Infective and parasitic diseases	22	156	27	271	16	102	37	230	55	317	42	28 ( 56)
2. Neoplasms	5	89	3	17	4	56	8	119	11	287	3	1 ( 2)
3. Endocrine, nutritional and metabolic diseases	7	157	7	101	4	49	7	96	5	60	0	4 ( 8)
4. Diseases of the blood and blood-forming organs	7	33	5	56	4	107	2	11	3	6	3	0 ( 0)
5. Mental disorders	19	478	13	66	25	153	23	95	27	100	24	11 ( 22)
6. Diseases of the nervous system and sense organs	28	276	41	332	30	262	23	278	25	295	26	7 ( 14)
7. Diseases of the circulatory system	44	1,081	36	553	38	717	48	842	32	568	37	13 ( 26)
8. Diseases of the respiratory system	152	1,561	261	1,618	191	1,381	114	890	102	668	102	37 ( 74)
9. Diseases of the digestive system	47	233	63	251	62	313	44	369	41	220	29	9 ( 18)
10. Diseases of the genito-urinary system	31	192	32	243	35	220	26	117	31	181	27	16 ( 32)
11. Complications of pregnancy, childbirth and the puerperium	60	326	73	313	48	221	36	190	52	195	47	16 ( 32)
12. Diseases of the skin and subcutaneous tissue	35	445	52	617	28	262	32	378	16	217	48	10 ( 20)
13. Diseases of the musculoskeletal system and connective tissue	14	464	12	139	12	104	8	84	1	7	7	0 ( 0)
14. Congenital anomalies	1	1	0	0	0	0	0	0	0	0	0	0 ( 0)
15. Certain causes of perinatal morbidity and mortality	0	0	0	0	2	23	0	0	0	0	12	7 ( 14)
16. Symptoms and ill-defined conditions	25	94	48	198	43	211	30	115	35	180	53	30 ( 60)
17. Accidents, poisonings and violence; supplementary classifications	157	750	145	595	147	791	100	622	99	762	105	41 ( 82)
Total	654	6,336	818	5,370	689	4,972	538	4,436	535	4,063	565	230 (460)
Average Length of Stay		9.69		6.56		7.22		8.25		7.59	6.72*	

\* 1976 Average Length of Stay provided by hospital annual records. Indicated 3,582 days, with 533 cases = 6.72 A.L.S. (using 565 cases, the A.L.S. would be 6.34)

TABLE 2

INDIANS ONLY\*-ACUTE CASES AND CORRESPONDING PATIENT DAYS FOR ST. BARTHOLOMEW'S HOSPITAL,  
LYTTON, BY DIAGNOSTIC GROUP AND YEAR  
1971-1975

Diagnostic Group	1971		1972		1973		1974		1975	
	Cases	Days	Cases	Days	Cases	Days	Cases	Days	Cases	Days
1. Infective and parasitic diseases	14	121	13	210	12	84	21	168	30	192
2. Neoplasms	1	10	1	12	0	0	2	35	1	10
3. Endocrine, nutritional and metabolic diseases	4	65	1	3	3	46	4	74	4	57
4. Diseases of the blood and blood-forming organs	4	7	3	50	3	99	1	1	0	0
5. Mental disorders	8	386	6	35	18	127	12	57	21	87
6. Diseases of the nervous system and sense organs	18	229	29	266	25	226	17	183	17	92
7. Diseases of the circulatory system	20	589	24	365	23	417	26	475	18	324
8. Diseases of the respiratory system	100	1,262	186	911	142	1,067	89	358	62	471
9. Diseases of the digestive system	21	157	33	194	42	258	31	264	30	192
10. Diseases of the genito-urinary system	14	107	15	108	19	122	13	77	18	122
11. Complications of pregnancy, childbirth and the puerperium	27	169	41	181	21	98	20	102	29	101
12. Diseases of the skin and subcutaneous tissue	22	295	43	519	21	201	26	325	10	183
13. Diseases of the musculoskeletal system and connective tissue	9	143	3	15	6	41	6	61	0	0
14. Congenital anomalies	0	0	0	0	0	0	0	0	0	0
15. Certain causes of perinatal morbidity and mortality	0	0	0	0	1	7	0	0	0	0
16. Symptoms and ill-defined conditions	5	31	23	141	25	115	13	67	23	127
17. Accidents, poisonings and violence; supplementary classifications	66	445	60	344	55	414	51	418	52	267
Total	333	4,016	481	3,354	416	3,322	332	2,665	315	2,225
Average Length of Stay		12.06		6.97		7.99		8.03		7.06

\* On and Off Reserve Registered Indians only

TABLE 3

ACUTE CASES AND CORRESPONDING PATIENT DAYS FOR RESIDENTS OF THE THOMPSON-NICOLA  
REGIONAL HOSPITAL DISTRICT BY DIAGNOSTIC GROUP AND YEAR  
1971-1975

Diagnostic Group	1971		1972		1973		1974		1975	
	Cases	Days	Cases	Days	Cases	Days	Cases	Days	Cases	Days
1. Infective and parasitic diseases	456	3,142	502	3,072	535	3,128	587	3,361	523	3,421
2. Neoplasms	627	8,213	579	7,295	705	8,579	686	7,749	710	9,679
3. Endocrine, nutritional and metabolic diseases	197	2,274	269	2,809	262	2,957	295	2,926	299	3,199
4. Diseases of the blood and blood-forming organs	98	623	99	845	125	801	101	695	93	698
5. Mental disorders	672	8,055	681	8,165	774	8,232	812	8,700	782	8,315
6. Diseases of the nervous system and sense organs	476	5,052	561	5,287	552	4,545	614	5,526	559	4,442
7. Diseases of the circulatory system	941	13,624	1,002	13,435	1,226	15,431	1,236	14,477	1,295	18,314
8. Diseases of the respiratory system	2,145	14,117	2,290	13,969	2,184	13,467	1,929	11,073	1,861	11,648
9. Diseases of the digestive system	1,496	13,197	1,554	13,457	1,607	13,111	1,694	14,725	1,684	14,194
10. Diseases of the genito-urinary system	1,739	9,660	1,920	8,732	2,131	10,713	2,045	10,358	1,494	11,880
11. Complications of pregnancy, childbirth and the puerperium	2,118	11,623	2,331	12,259	2,368	11,775	2,186	10,985	2,196	11,670
12. Diseases of the skin and subcutaneous tissue	178	1,466	205	2,055	205	1,547	246	2,314	215	2,095
13. Diseases of the musculoskeletal system and connective tissue	449	7,247	515	7,542	573	8,049	654	8,890	631	10,056
14. Congenital anomalies	154	1,662	149	1,778	148	1,441	192	1,836	191	1,829
15. Certain causes of perinatal morbidity and mortality	2	32	11	79	8	147	8	113	17	230
16. Symptoms and ill-defined conditions	346	1,701	360	1,670	490	2,330	553	2,755	632	3,264
17. Accidents, poisonings and violence; supplementary classifications	2,176	20,104	2,416	21,720	2,637	22,316	2,595	24,173	2,775	28,067
Total	14,270	121,792	15,444	124,169	16,530	128,569	16,433	130,656	15,957	143,001
Average Length of Stay		8.53		8.04		7.78		7.95		8.96

TABLE 4

INDIANS ONLY\*-ACUTE CASES AND CORRESPONDING PATIENT DAYS FOR RESIDENTS OF THE  
THOMPSON-NICOLA REGIONAL HOSPITAL DISTRICT BY DIAGNOSTIC GROUP AND YEAR  
1971-1975

Diagnostic Group	1971		1972		1973		1974		1975	
	Cases	Days	Cases	Days	Cases	Days	Cases	Days	Cases	Days
1. Infective and parasitic diseases	76	744	64	538	63	419	86	720	74	789
2. Neoplasms	10	90	14	285	12	72	14	192	9	72
3. Endocrine, nutritional and metabolic diseases	16	239	7	64	13	217	21	217	11	201
4. Diseases of the blood and blood-forming organs	5	17	9	127	13	167	5	20	3	16
5. Mental disorders	41	704	49	336	50	363	73	503	69	332
6. Diseases of the nervous system and sense organs	83	906	100	852	81	639	85	746	66	478
7. Diseases of the circulatory system	55	1,089	67	872	90	1,332	83	947	65	882
8. Diseases of the respiratory system	330	3,010	437	2,922	339	2,630	280	1,785	236	1,945
9. Diseases of the digestive system	105	1,045	111	1,060	141	1,387	146	1,498	98	815
10. Diseases of the genito-urinary system	62	552	51	300	77	710	92	372	66	715
11. Complications of pregnancy, childbirth and the puerperium	148	811	179	942	137	755	113	591	139	654
12. Diseases of the skin and subcutaneous tissue	50	556	71	837	34	263	52	572	39	493
13. Diseases of the musculoskeletal system and connective tissue	19	527	24	403	26	299	37	593	35	590
14. Congenital anomalies	6	193	16	431	8	139	16	260	10	344
15. Certain causes of perinatal morbidity and mortality	1	23	3	21	1	7	2	25	6	118
16. Symptoms and ill-defined conditions	28	165	46	226	57	292	53	273	49	271
17. Accidents, poisonings and violence; supplementary classifications	251	2,957	280	2,107	251	2,085	267	3,211	272	3,060
Total	1,286	13,628	1,528	12,323	1,393	11,776	1,425	12,525	1,247	11,775
Average Length of Stay		10.60		8.06		8.45		8.79		9.44

\* On and Off Reserve Registered Indians only



## APPENDIX IV

An explanation of Diagnostic and Treatment Centres, prepared by British Columbia Hospital Insurance Service in May 1970. This is supplemented by updated information and two possible job descriptions. This material is for information only.

DIAGNOSTIC AND TREATMENT CENTRESPREAMBLE

The Diagnostic and Treatment Centre is a facility designed for service in a community with a stable population of approximately 2,000 to 2,500, which would be capable of supporting a resident physician. The provision of such a facility to a community will enable the physician to undertake an emergency and ambulatory hospital practice which, up to the present time, has been enjoyed only by larger communities with acute general hospitals.

FUNCTION - DIAGNOSTIC AND TREATMENT CENTRES

The function of these centres is related to the following areas of health care:

1. Physician's office practice if provision of a suite is made in the centre;
2. Elective outpatient procedures including patient examination, assessment, and treatment; laboratory and radiological and other investigations;
3. Minor surgery as defined in Chapter IV of B.C.H.I.S. Manual;
4. Emergency services rendered within 24 hours of an accidental injury;
5. Day care surgical services;
6. Patient holding services;
7. Inpatient services;
8. Public health services.

## 1. Physician's Office Practice

No definition of function is given in this review since it may vary from one physician to another, and, in any event, the physician's suite is a separate entity within the centre and not provided as a Hospital Insurance benefit.

In normal circumstances only one suite should be planned in the centre for physician services, and when the general population or the physician population outgrows this space then the physician's office should be relocated elsewhere in the community, and the suite used to accommodate the other developing services of the clinic.

It is clear that the physician should pay for the space in the centre which is being utilized for his office practice. This may be paid in the form of rent to the operators of the centre either by the physician, or by industry or the community as a form of subsidy to attract a physician to an outlying area. This rental should cover capital costs and operating costs such as heat, light, housekeeping, maintenance, etc. The physician should be responsible for providing staff to properly undertake his practice, as well as office equipment, furnishings, medical and surgical and all other supplies which would ordinarily be required in an office practice. The physician's income would be derived from private accounts, the British Columbia Medical Plan, or through some contractual arrangement with the community or a company. His income would not be provided or supplemented

by the Hospital Insurance Service.

2. Outpatient Services

3. Minor Surgery

4. Emergency Services

These classifications of patient care are presently provided in the emergency and outpatient department of acute general hospitals. They are considered to be appropriate functions for diagnostic and treatment centres, thereby providing this type of hospital service to small communities. Payment by a British Columbia resident would be \$2.00 except where the patient came to the centre expressly for a laboratory, radiological, or other non-Hospital Insurance benefit procedure, in which case no \$2.00 charge would be made but a total charge for the service would be made to the patient or his insuring agent. With regard to the insured benefits to which a qualified resident is entitled in any of these three categories of care, reference should be made to Chapter IV of the B.C.H.I.S. Manual.

It is considered that a \$2.00 charge to the patient will help to ensure that routine office practice procedures are not performed in the "hospital" portion of the centre when both the "hospital" and the physician's office are provided in the centre.

5. Day Care Surgical Services

A definition for this service is described in Serial Letter 68-6, as well as in Chapter IV of the B.C.H.I.S. Manual where the insured benefits are also outlined.

The provision of this type of service in a diagnostic and treatment centre is dependent, in the majority of cases, upon the presence of two physicians since most day care surgical cases require a general anaesthetic. Non-explosive gases must be used when providing anaesthesia in a diagnostic and treatment centre.

#### 6. Patient Holding Services

In the centre connected by a good all-weather road to an acute general hospital, and where the travel time would not exceed one-and-a-half hours, only emergency (medical, surgical, obstetrical, and traumatic) patients should be retained in the centre. Retention of these patients should only continue until the condition has stabilized and safe transfer to the general hospital can be accomplished. It is not considered appropriate to admit inpatients to the centre on an elective basis, nor will payment be made by the Hospital Insurance Service for such admissions.

#### 7. Inpatient Services

With regard to the facilities located in a totally isolated community, there should be provision for inpatient care, but such facilities should be designated as hospitals rather than diagnostic and treatment centres. Provision of this type of facility would be a departure from general policy and could only be accepted in unusual circumstances. In such a situation it should not be the intention, however, to duplicate all of the inpatient services provided at an acute general hospital,

but rather to provide inpatient services for mild illnesses and accidents and minor surgical procedures. The following examples provide a general outline of the services and types of patient which would be appropriate for inpatient care:

- (a) Paediatric and adult medical cases involving minor infections of the upper respiratory tract, the gastrointestinal tract, the genito-urinary system, and of the skin. It is not considered that serious medical conditions, such as acute myocardial infarctions, or cerebrovascular thrombosis, should receive more than initial treatment at the diagnostic and treatment centre, and then should be transferred at the earliest possible date to the acute general hospital for definitive care.
- (b) With respect to paediatric and adult injuries, the majority of these who require inpatient care could be handled quite satisfactorily at the diagnostic and treatment centre, but injuries of a serious nature requiring more sophisticated x-ray, laboratory and operating room facilities, should be transferred for further care at the earliest possible date.
- (c) It is not considered that elective surgical procedures requiring full operating room facilities, together with general anaesthesia, should be carried out in the diagnostic and treatment centre. It is clearly understood, however, that minor procedures could be quite satisfac-

torily performed together with the type of procedure defined for Day Care Surgical Services, provided the second physician is present in the community if a general anaesthetic is required.

- (d) Maternity patients will, of course, have to be provided with emergency services when such conditions as vaginal bleeding, premature labour, etc., present themselves, but in cases where a pregnancy is progressing toward its normal conclusion, arrangements should be made to have the patient transferred for delivery at the acute general hospital. Without adequate access to blood bank facilities, adequate anaesthesia, etc., it is not felt that routine obstetrical service should be electively performed in a diagnostic and treatment centre.

#### 8. Public Health Services

Multi-purpose areas should be provided in the diagnostic and treatment centre for the provision of public health services. It is considered that a community at approximately the 2,000 to 2,500 population level would require part-time public health services for inoculation programs, prenatal clinics, public health and sanitation services, etc., and that these functions should be performed from the diagnostic and treatment centre. In addition, travelling dental clinics should be provided with office and treatment space in this centre.

Capital costs and operating costs for this space and service would be subject to review at the time of planning for the



diagnostic and treatment centre.

The centre could be owned and operated by a regional hospital district, a local society, or a general hospital located elsewhere. Regardless of ownership, however, the operation of the unit should be closely integrated with a general hospital. The general hospital could provide the services in such functions as general administration; business, accounting, and personnel services; purchasing and supply services (including pharmacy and laundry); laboratory and x-ray supervision. Physicians using the centre should be a part of the medical staff of the general hospital, and this staff should undertake the quality control of the medical work carried out in the centre. Review of credentials and appointment to the general hospital medical staff should be a prerequisite to practise in the centre.

May 8, 1974

SUMMARY OF AVAILABLE INFORMATION ON  
DIAGNOSTIC AND TREATMENT CENTRES

The only facilities in British Columbia classified and functioning as Diagnostic and Treatment Centres are at Houston and Gold River.

A. Functions

1. Elective outpatient procedures including patient examination, assessment and treatment, laboratory and radiological investigations.
2. Minor surgery as defined in Chapter IV of B.C.H.I.S. Manual (attached).
3. Emergency services rendered within 24 hours of an accidental injury.
4. Patient holding services for emergency patients only if travelling time to an acute general hospital does not exceed 1½ hours.
5. Physician's office practice. Physician pays rental for space and is responsible for providing his own staff, furnishings, equipment and supplies (i.e. his income would not be provided or supplemented by the Hospital Insurance Service).
6. Public health services such as immunization programs, prenatal clinics, travelling dental clinics, etc.

B. Administration

Diagnostic and Treatment Centres may be owned and operated by a

local society, by the regional hospital district or by a general hospital located elsewhere.

It is desirable for the operation of the unit to be closely integrated with a general hospital which could provide such services as:

- general administration
- business, accounting, personnel
- purchasing and supply (e.g. pharmacy, laundry, medical-surgical supplies)
- laboratory and radiological supervision
- quality control of medical services (with physicians using the Diagnostic and Treatment Centre being members of the general hospital's medical staff).

### C. Staffing

#### 1. Administrative

The administrative functions can be performed in several ways:

- (a) by an on-site administrator;
- (b) by a "shared" administrator, i.e. one who also is responsible for the administration of another agency (general hospital or another Diagnostic and Treatment Centre);
- (c) by a nurse-in-charge who has the responsibility for the overall administration of the Diagnostic and Treatment Centre including the provision of nursing services.

C. Staffing (cont'd.)

2. Medical

At least one physician must be on the staff and in the immediate vicinity of the Diagnostic and Treatment Centre.

3. Nursing

There should be at least one registered nurse on staff and graduate nurse coverage must be provided whenever there are patients in the Diagnostic and Treatment Centre. The total number of nursing personnel will be affected by the number of non-nursing duties (e.g. lab, x-ray, administration) they will be required to perform.

4. Radiological and Laboratory

For a small volume, these duties may be performed by a nurse with adequate special preparation. Laboratory and x-ray technologists can be employed when the work volume justifies these positions. In either case, there must be supervision and back-up services provided (e.g. by a pathologist and radiologist on the staff of a general hospital).

5. Pharmacy

This service can be incorporated in the responsibilities of the registered nurse with the guidance and support of the pharmacy and purchasing departments of a general hospital. Purchase orders for narcotics and control drugs must be signed by a physician.

6. Laundry

This service should be contracted out, either locally or to a general hospital.

7. Dietary

This service should be contracted out to a local agency (e.g. restaurant or catering service). Prepared meals could be served by nursing personnel.

8. Housekeeping

One person employed on a regular half-time basis should be adequate.

9. Clerical/Reception

One person employed five full days per week would be required to perform the clerical/reception functions in the Diagnostic and Treatment Centre.

MAY 8, 1974

JOB DESCRIPTION GUIDE

NOTE: This is a guide ONLY, intended to assist staff to develop a job description specific to their particular agency.

POSITION TITLE: Head Nurse, Diagnostic and Treatment Centre

DEFINITION OF POSITION TITLE:

Is a professional nurse who is responsible to the administrator for the provision and management of nursing services. (She may also be assigned laboratory and/or x-ray duties).

QUALIFICATIONS:

PROFESSIONAL

A graduate of an accredited school of nursing, and preferably currently registered with the provincial nurses' association.

Broad nursing experience with demonstrated clinical ability in out-patient/emergency/operating room work.

Experience with demonstrated ability in the management of a nursing unit.

PERSONAL:

RESPONSIBILITIES

1. Develops standards of nursing care and uses these to assess the

quality of nursing service and the performance of nursing personnel.

2. Develops nursing policies and procedures for the guidance of staff giving nursing care.
3. Plans with the administrator, medical staff and other hospital staff for the provision of patient care.
4. Develops job descriptions for all categories of nursing staff.
5. Develops and implements a system for recruitment, appointment and dismissal of nursing personnel.
6. Prepares the annual budget requests for nursing services and administers the approved nursing budget.
7. Promotes nursing staff development (e.g. through in-service education).

AS INDICATED:

1. Gives direct nursing care to patients.
2. Assists doctor(s) with medical procedures.
3. Performs basic laboratory and diagnostic x-ray procedures, with adequate special preparation.
4. Orders, controls and dispenses pharmacy supplies. A physician's signature is required on purchase orders for narcotic and control drugs and on individual patient prescriptions.
5. Prepares the annual budget requests for non-nursing areas (e.g. laboratory, x-ray, pharmacy) for which she/he is responsible,

and administers the approved budget.



JOB DESCRIPTION GUIDE

NOTE: This is a guide ONLY, intended to assist staff to develop a job description specific to their particular agency.

POSITION TITLE: Administrator/Head Nurse, Diagnostic and Treatment Centre

DEFINITION OF POSITION TITLE:

Is a professional nurse who is responsible to the Board of Management for the total, efficient management of the Diagnostic and Treatment Centre.

QUALIFICATIONS:PROFESSIONAL

A graduate of an accredited school of nursing, and preferably currently registered with the provincial nurses' association.

Broad nursing experience with demonstrated clinical ability in out-patient/emergency/operating room work.

Successful completion of an approved course in administration with experience at the department head level.

PERSONAL:RESPONSIBILITIES:

1. Assists the Board of Management with the development of philosophy and objectives for the Centre that are in harmony with the needs

and resources of the community.

2. Assists the Board of Management with the development of administrative policies to facilitate the achievement of the Centre's objectives.
3. Is responsible to the Board for the day to day management of the Centre in accordance with the policies established by the Board.
4. Guides staff in the development of standards by which the quality of service and the performance of personnel can be appraised.
5. Develops and actively promotes a plan of organization which facilitates effective communication and utilization of personnel.
6. Develops personnel policies and job descriptions for all categories of staff.
7. Determines staffing, supply and equipment needs for the Centre, and establishes a program to meet these needs.
8. Prepares the annual budget requests for the Centre and administers the approved budget.
9. Serves as the communication link between the Centre's staff and the Board of Management.
10. Maintains good public relations with the community.

## POSTSCRIPT ON METHOD

When this study was initially proposed, I assumed that in a relatively small community such as Lytton, there would be a few obvious strengths, a few obvious problems, and by doing an easy amount of counting and additions, I could come up with some snappy solutions for whatever was ailing their health care system. The closer I examined the problems, however, the less clear and more subjective the potential answers became. By comparison with a much larger system of health services, such as is offered in any urban centre, the problems in the Lytton area are not necessarily different or fewer, but rather are either exaggerated or minimized due to the population density and total number of people involved in the health and social services network.

For example, in the course of this project I spoke at some length with virtually every person who is professionally involved in some aspect of health or social service in the Lytton community. Twenty-five of these people were formally interviewed, while about another ten or twelve were met with more casually. This degree of contact was very valuable in discovering future service goals, present service priorities and opinions about problems which may exist in the system. In a study of a larger community, this degree of contact would become impossible unless vast amounts of time and money were available for this portion of the research.

Twenty-five interviews were also conducted with potential consumers of health care, who were chosen on a basis of a stratification within

the community as explained in Chapter 4. This number of consumer respondents is about one percent of the local community population. In a larger centre, with for example, two hundred thousand population, a one percent interview rate would require that two thousand interviews be completed.

The suggestion here therefore, is that this method of using two similar survey instruments on the providers group, and a consumers sample, represents a more comprehensive study than would be practical in a larger area. Of course, there is a minimum population size below which this one percent ratio of interviews should not be adhered to. For example, in a community of four hundred, it would not be wise to interview only four of the potential consumers of care. In the present study, however, twenty-five interviews seemed adequate to gain a feel of general community wants, yet was small enough to be do-able in the time provided.

One drawback to this type of information gathering is that a researcher, after spending many days and weeks in the study community, may fall prey to thinking in agreement with community's wishes, rather than maintaining a sense of unbiased objectivity. The time required to complete the number of interviews in this study involved much social as well as professional contact with the local residents. In the case of this study, these contacts were primarily positive, and a continual desire to help these people obtain all they could, rather than what would be most appropriate for the community, was an unconscious threat to my sense of objectivity. This problem was never very

acute, and quickly faded as I remained out of the community. An interval of about six weeks lapsed between the last community contact and the preparation of the report, so that full objectivity had been regained. This may be an important aspect to research and reports of this nature.

In a much larger community than the one under study, statistical data would probably be able to offer a great deal of reliable information related to age and sex composition of the population and utilization of various health services. In this community, however, statistical records were hand maintained, incomplete, and unavailable through the larger provincial system. Had all of this information been available, it would have been possible to do this study almost completely from an armchair, and present a report that would include verification for all predictions and suggestions. This would have been a much easier method for the researcher, but would have been based on some fragile assumptions. For example, in a large health care system, the actions of one professional results in very little overall effect. In a small system, such as the health services in Lytton, the actions of one individual may alter the entire future course of services, and therefore alter the statistical information which would be made available. It is only when the wealth of subjective information is known in a community such as Lytton, that meaningful interpretation of the statistical information can be carried out.

The comparative questionnaire in this study lacked control, so little importance was given to the results. It was desirable to have a

completed questionnaire from each patient discharged during a specified period of time. The questions were such that the answers could reflect negatively upon the patient care provided in the hospital, yet the only method of assuring a questionnaire would be given to each patient was to seek assistance from the nursing staff. Sixty numbered, identifiable questionnaires and envelopes were left at the nursing station, with each to be completed by a patient. It was hoped that in this way, all responses would be turned in by the nurses for analysis. Unfortunately, not all patients discharged were given questionnaires, and not all questionnaires given out were returned to the researcher. No explanation of the missing questionnaires was provided, other than to say that some of the patients had taken them home, but it could not be remembered who these patients were. This was out of approximately thirty patients in the month of June, or an average of one per day. Analysis of the questionnaires which were turned in generally revealed a very positive attitude toward this hospital, and none revealed a negative attitude. It is possible that a sampling bias had resulted because of the missing questionnaires.

The oral histories portion of the method was the least definable of the methods used. When the surveys were being conducted, or the statistics analyzed, the processes involved were clearly evident. Oral histories, on the other hand, came to mean any conversation with community residents which might include relevant information. Initially, this quantity of material became unwieldy, but it soon became clear as to who in the community would be most likely to know information and would have an understanding of the goals of the study. In

this way, several key figures in the community contributed a great deal to the study through relatively informal discussions. These contributions were primarily on points requiring clarification which had come up in the interviews or the numerical information, but much original information was also discovered in this way.

If I were to undertake a study of this type again, would I do it in the same way? For the most part, yes. The time required for completion of such a project would likely be much less, because a large amount of the initial stumbling around that accompanied this study would not exist. Identification of the actors in the system would be accomplished much more quickly, and sources of other information would be more readily known, having gone through the process once. If the community to be studied were more than double the size of this one, however, I think some serious modifications to the method would have to be made.