IMPLICATIONS OF PHYSICIAN MANPOWER PLANNING IN CANADA
FOR THE FAMILY PHYSICIANS OF BRITISH COLUMBIA

by

JOHN CHARLES VARLEY
M.D., The UNIVERSITY of TORONTO, 1953

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE

in
THE FACULTY OF GRADUATE STUDIES
DEPARTMENT OF HEALTH CARE AND EPIDEMIOLOGY
FACULTY OF MEDICINE

We accept this thesis as conforming
to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA
SEPTEMBER, 1980

© John Charles Varley, 1980
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the Head of my Department or by his representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of **Health Care and Epidemiology**

The University of British Columbia
2075 Wesbrook Place
Vancouver, Canada
V6T 1W5

Date **October 10, 1980**
ABSTRACT

The work content and style of practice of family physicians in British Columbia has been evolving since the second world war. Since the late sixties, a reassessment of the role of family physicians has been underway, both in Canada and the United States. Primary health care has recently been given greater recognition in North America. The development of family practitioners' tasks in the last twenty years is reviewed from the point of view of a practitioner.

In Canada, the health care system has been changing since the forties, as a result of a series of federal-provincial agreements. It had become apparent that, despite constitutional deeding of health care to the provinces, federal incentives and funding were required to develop an appropriate nationwide system of health care. What was a joint private enterprise and local community sponsored health care system in the thirties, has now become a complex government-funded operation. Government involvement in third party payment schemes, for doctors particularly (the last of a series of national health insurance programs), has changed the relationship of doctors to their patients, because both became subject to the new rules of the
Medical Care Act of 1967.

Government involvement in payment for services has led to questions about accountability for spending. Subsequently, this led to the need for better planning, especially health manpower planning, which began to be considered very important in the early sixties. At that time, the Royal Commission on Health Services examined the prospects of bringing physicians' services and allied health manpower services to all Canadians.

The attempts to plan physician manpower in Canada and British Columbia in the sixties and seventies are considered and criticized. Conclusions are drawn regarding the prospects for future manpower planning for primary care to be given by family practitioners in British Columbia.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE PAGE</td>
<td>i</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>iv</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>vi</td>
</tr>
<tr>
<td>CHAPTER 1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>CHAPTER 2. DEVELOPMENTS IN THE WORK OF PRIMARY CARE PHYSICIANS IN BRITISH COLUMBIA</td>
<td>8</td>
</tr>
<tr>
<td>1. THE BROAD BACKGROUND</td>
<td>8</td>
</tr>
<tr>
<td>2. PRIMARY PHYSICIAN'S PERSPECTIVE ON TODAY'S MEDICAL TRIAD</td>
<td>14</td>
</tr>
<tr>
<td>a. THE PUBLIC/MEDICAL PROFESSION EQUATION</td>
<td></td>
</tr>
<tr>
<td>b. THE CHANGING REFERRAL SYSTEM</td>
<td>16</td>
</tr>
<tr>
<td>c. SOCIAL LABELLING ACTIVITY BY PHYSICIANS AND ITS APPROPRIATENESS</td>
<td>19</td>
</tr>
<tr>
<td>d. PUBLIC EXPECTANCY: THE TWENTY-FOUR HOUR MAN</td>
<td>23</td>
</tr>
<tr>
<td>e. PERSONAL RESPONSIBILITY OF PATIENTS</td>
<td>27</td>
</tr>
<tr>
<td>f. THE TEAM APPROACH TO HEALTH CARE</td>
<td>29</td>
</tr>
<tr>
<td>g. MEDICINE AND SOCIETY IN RECIPROCITY</td>
<td>33</td>
</tr>
<tr>
<td>h. REDEFINITION OF THE FAMILY PHYSICIAN</td>
<td>37</td>
</tr>
<tr>
<td>CHAPTER 3. THE CANADIAN HEALTH CARE SYSTEM</td>
<td>41</td>
</tr>
<tr>
<td>1. THE EVOLUTION OF THE FEDERAL-PROVINCIAL SYSTEM OF HEALTH CARE</td>
<td>41</td>
</tr>
<tr>
<td>2. DOCTORS' ATTITUDES TO THE HEALTH CARE SYSTEM</td>
<td>42</td>
</tr>
<tr>
<td>3. ACCOUNTABILITY AND CONTROLS</td>
<td>45</td>
</tr>
<tr>
<td>4. MANPOWER DEVELOPMENTS</td>
<td>52</td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS (CONT.)

**CHAPTER 4. HEALTH PLANNING ACTIVITIES**
- 1. ENTREPRENEURIAL "PLANNING", OR THE "NON-SYSTEM" .................................................. 53
- 2. EMERGENCE OF GOVERNMENT PLANNING PROCESSES IN CANADA AND BRITISH COLUMBIA ................... 59
- 3. EMERGENCE OF MEDICAL MANPOWER PLANNING PROCESSES: AN INTERNATIONAL MOVEMENT ............ 64
- 4. RATIONAL, BUREAUCRATIC, AND ADVOCACY PLANNING .................................................. 72

**CHAPTER 5. A CRITICAL EVALUATION OF THE PLANNING PROCESS**
- 1. IDEOLOGICAL DIFFERENCES AND THEIR EFFECT ON PLANNING .................................................. 80
  - a. ENTREPRENEURIAL ATTITUDES AND PROBLEMS ........................................................................ 80
  - b. CORPORATE OR RATIONAL PLANNERS' ATTITUDES ............................................................... 83
  - c. CONSUMER ADVOCACY .......................................................................................................... 91
- 2. RATIONAL PLANNING AND POLICIES ...................................................................................... 94

**CHAPTER 6. ANALYSIS OF CANADA'S MAJOR HEALTH PLANNING PROJECT TO DATE**
- 1. INTRODUCTION ..................................................................................................................... 97
- 2. BACKGROUND ....................................................................................................................... 97
- 3. PROBLEM DEFINITION .......................................................................................................... 98
- 4. METHODOLOGY ..................................................................................................................... 99
- 5. TOTAL METHOD COMMENTS AND CRITICISMS ..................................................................... 102
- 6. DEFINITION OF FAMILY PRACTICE ..................................................................................... 108
- 7. CONCLUSIONS AND POSSIBLE SOLUTIONS ........................................................................ 116

**CHAPTER 7. CONCLUSIONS FOR HEALTH PLANNING** ................................................................. 119

**BIBLIOGRAPHY** ..................................................................................................................... 128

**APPENDIX** ............................................................................................................................. 139
ACKNOWLEDGEMENT

I take this opportunity to thank my professor, stimulus, and friend, Dr. Anne Crichton, for her considerable help in moving me to complete this thesis. Without her effort I would not have achieved its completion. I would also like to thank Dr. D. O. Anderson for his guidance when he was head of the Manpower Research Unit at U.B.C. In addition, I would like to thank Dr. Annette Stark, present head of the Manpower Research Unit, and Dr. David Hsu, for their help. Finally, a special word of thanks to Robert Stevens for his strenuous and diligent effort in the preparation of the manuscript and copies.
CHAPTER ONE

Introduction

There has been a demand to increase the numbers of primary care physicians in North America in the last twenty years. The reasons for this are complex, and can only be appreciated by taking an overview of multiphasic developments. These reasons are explored in Chapter Two, which is also concerned with examining the work pressures and ambiguous roles of family practitioners in the seventies. In addition to the pressures from manifold technological developments in medicine and social responses to them, Canada has legislated into existence a national health insurance scheme since the last world war. The injection of government monies, first into hospitals and later into third party payment schemes to pay doctors' fees, has had profound effects upon the health care delivery system. Pressures exerted by these third party payers on practising physicians are examined, and the physicians' points of view explained.

The legislation which has had this impact is explored in Chapter Three as a preliminary to discussing the development of health manpower planning activities.
in Canada, and in the western world generally, in Chapter Four.

A Royal Commission, which reported in 1964, commissioned a special study on Medical Manpower before recommending general acceptance of the medical care plan which had been proposed in the forties (Heagarty, 1943), and implemented in the province of Saskatchewan in 1962. It was realized that the introduction of third party payment schemes funded by governments would necessitate manpower planning, since questions of rights to health care had begun to be raised. Although this right is now taken for granted in Canada, the Americans have not yet reached agreement on this principle. The Royal Commissioners made recommendations about the necessity for increasing medical manpower supplies, and suggested that more medical schools should be opened and existing schools expanded.

However, there was a special problem for Canada at this time, since Canada became a staging post in an international flow of professional migrants (McGregor, 1971; Butter, 1972). The inflow and outflow of physicians has now subsided, but it has been a problematic factor in medical manpower planning, because any attempt to control physicians' activities has resulted in threats to move on to other countries, thus creating potential problems of even more uneven distribution of medical services. Even though attempts
were made in British Columbia to govern practice sites chosen by new immigrant physicians, in the hope of achieving better and more even distribution throughout the province, the regulations promulgated by the College of Physicians and Surgeons of British Columbia were declared illegal by a challenge carried to the Human Rights Commission. Other countries have also had physician manpower problems, although the issues differ according to their particular payment systems, their capacity to produce physicians, and their patterns of immigration and emigration (U.S. Bureau of Health Resources Development, 1974; Petersdorf, 1975).

The development of health manpower planning activities in Canada was also affected by the vast increase in the monies pumped into tertiary education in Canada during the post-war years. By the middle of the sixties, the federal government had agreed to provide special grants to educational institutions for building facilities for teaching research in health care. The necessity for considering planning not only for medical manpower, but for all health manpower, began to be recognized (Robertson, et al.). Federal and provincial conferences, ad hoc commissions and standing committees, began to be called together in the late sixties to work on the distribution and mix of health professionals. As well, questions of accountability were beginning to surface, e.g. were Canadians getting value for money in
their health services, and were the services being properly organized and controlled? A Task Force on the Costs of Health Care reported in 1969. Various reports are reviewed in Chapter Four.

While there has been a considerable effort to tackle manpower planning issues by these groups, they have had to recognize that their power is quite limited. The Canadian health care system is not, under present agreements, closely controlled by governments. It is, rather, a continually renegotiated partnership between professional service providers, community institutions such as hospitals or voluntary health agencies, and government. However, government, by means of control of payment mechanisms, has the clout with which to institute changes in the system, if they do not, in so doing, evoke too many reactionary forces in the general public as well as the medical profession. Doctors are currently on the defensive in terms of bargaining financial concessions from governments - the same governments who are now aware of the rising percentage of yearly budgets that are consumed by health care. These provincial governments have been involved with the assumption of more responsibility for payment of medicare in their respective provinces because of the federal desire to withdraw from open-ended sponsorship of medicare costs. There have been various trade-offs, with federal funds channeled into provincial coffers to
meet medicare costs now assumed by the provinces. However, provincial governments tend to view these funds as part of their general revenue, and as such, they are subject to the demands of other cabinet portfolios and departments for dollars. There is thus developed an innate resistance to open-ended provincial funding for health care costs. This resistance is seen in negotiations between various provincial governments and their respective medical associations in discussing terms of fee increases. More and more, a spirit of confrontation is being created in place of the previous cooperative participation atmosphere in health care delivery.

The medical profession is so involved with defensive posturing to prevent further erosion of its now financial status, that they seem to have little effectiveness in health planning (A. Crichton). This would appear to suit government particularly well, as they have more and more tended to exclude the profession from participation since the days when Medicare was being planned and the physicians' organizations were excluded from the preliminary meetings. Governmental control of planning without strong medical profession input would seem logical for controlling costs of new technological advances. Cost control is the number one priority in these times as regards health care budgets. The control of planning, of course, dovetails nicely with
policy, which itself is determined by many political factors distinct from medical needs and costs. The medical care providers, who were complete risk taking entrepreneurs until third party payment schemes were introduced, have continued to bargain for involvement in service provision on their own terms, but more and more as a rear guard action. Financial pre-eminence for doctors is no longer looked upon as an immutable and just fact by the public. Rather, because of media reporting and changing attitudes and values, the public feels that high salaries may even be inappropriate. There is little public support evidenced for the doctors when they bewail their slipping economic status.

Physicians have attempted to ensure that any changes introduced into service organizations do not effect their conditions of work adversely. Apart from their resistance to new structures of organization and the introduction of substitute personnel, there are intra-professional rivalries. The medical profession is not a monolithic group. Within it there are many sectorial interest groups. Because of these rivalries, effective medical manpower planning for a primary physician service for the eighties is not likely to be easily achieved.

A critique of the medical manpower planning process in Canada and British Columbia is presented in Chapter Five. The difficulties of applying planning
techniques to the organization of an improved primary health care service are considered in Chapter Six. Conclusions regarding the application of manpower planning to primary care services are drawn in the last chapter.
CHAPTER TWO

Developments in the Work of Primary Care Physicians in
British Columbia

1. The Broad Background

British Columbia has a higher percentage of primary care physicians than the rest of the provinces (Clute). There has been a trend to upgrade the status of the Canadian family physician with the establishment of departments of family medicine in medical school faculties. The continuing education programs and certification programs of the Canadian College of Family Physicians have served the same purpose. The reasons for wanting to improve primary care services are quite complex, and can only be understood by taking a long view of medical education and health service organization.

Canada's physicians and their service organization are strongly influenced by proximity to the United States. Frinkerstein has traced four stages in the development of United States medical education which occurred in response to that society's concern about
their medical services. These developments were followed quite closely by similar developments in Canada. The four periods he distinguished were: a. the beginnings of medical school development in the nineteenth century; b. the post-Flexmer period from 1910, when the schools responded to the criticism of their standards in a report published by the Carnegie Foundation (movement was then made to improve the scientific training of general practitioners); c. the specialist training period, beginning about 1925, when attempts began to be made to respond to the increased development of medical technology; and d., the community medicine era, beginning about the mid sixties, which was one answer to the demand for less technical specialization and for the provision of more comprehensive holistic health care.

Canada has always had more primary care physicians per population unit than has the United States (Clute). The specialist training which, in the course of time, has resulted in most American citizens having to select their own specialists because of the absence of general practitioners (Stevens), did not affect Canada in quite the same way at the same time. Canadian general practitioners were not downgraded in their status to the same effect (although specialists were more highly regarded), because of the different social conditions in a widespread, thinly populated country. Although Canada
had grown from three to eleven million people between Confederation in 1867 and the Second World War, it was not until the postwar years that large numbers of immigrants were admitted to double that population by 1971. As well, the distribution of population between urban and rural settlements gradually changed, and larger populations began to inhabit the metropolitan centres which had become predominant by the seventies. In the immediate postwar years, there was less demand for tertiary care specialists than for general practitioners, backed up by general internists and general surgeons who were relatively isolated in the larger centres. It was not until the sixties that a demand for subspecialists really began to emerge and a more complex referral system evolved.

As well, Canada served as an entry point for large numbers of immigrant physicians leaving Europe for North America and Australia. There was an influx of physicians in the early fifties fleeing from the British National Health Service set up in 1948. Eckstein and others have explained how the general practitioners were quite hostile to the establishment of that service and how the major concessions were made to the specialists. Consequently, the immigrants were often general practitioners with bad experiences with, and strongly negative views about socialized medicine. Or alternatively, the immigrants, if young doctors, would
be those with dimmed educational prospects due to cost cuts introduced from 1951 onwards. At that time, the reality of financing costs of the British Health Service began to strike home to the government. The government began to move more slowly than had been their original intent, in providing specialist training posts for ex-servicemen.

Butter has explained how Canada was often used as a "parking lot" for new immigrants for a few years until they became established in North America. Some then joined those Canadian medical graduates who aspired to subspecialist careers and who sought further training in the United States. Others, having learnt how to operate in a fee-for-service system, moved on from the provinces where they had landed (the Prairies and the Maritimes), to the larger centres of population or the warmer climates of the United States. Some, of course, stayed in Canada, and many of these moved to Ontario and British Columbia, where working and social conditions seemed more attractive. The movement through Canada slowed down considerably at the time of the Vietnam war, not only because young physicians were liable to be called up, but because of the growing consciousness of the existence of the border and the differences between the two countries.

In summary, it appears that Canada was also affected by the general trends identified by
Frinkerstein, but with time lags, adjustments to fit Canadian circumstances, and a strong input of British-trained general practitioners who counteracted the American influences with their own. The special nature of the professional immigrants who were attracted to the country and decided to stay there has been an important factor in British Columbian medical decision-making.

In the chapter which follows, the decision by federal and provincial governments to assume responsibility for developing a national health insurance scheme in the postwar era will be considered in some detail. The last of the programs in this scheme was that of Medical Care, in which governments agreed to provide funding to meet physicians' fees for service to their patients. The introduction of a third party payment scheme supported by government funds had been accepted in principle by Canadian doctors in 1943 (Heagarty). In fact, doctors were instrumental in introducing and establishing many prepaid medical schemes in the various provinces, including British Columbia, where the Medical Services Association was the largest carrier. There were several others, including Medical Services Incorporated for smaller employers, and the credit union prepaid scheme, C.U.& C. The linking of various provincial plans across the country to provide portability was done by the establishment of the
Trans Canada Medical Plan. Patients paying a payroll deduction for their health care, employers paying a portion or all of the medical plan fee, and doctors accepting a certain percentage of their fee schedule, all became indoctrinated into the ideology and method of third party prepaid medical care. In British Columbia, the government established S.A.M.S. – Social Assistance Medical Services – with a tight rein on the budget, so much so, that doctors often had to accept only 50% of their fee schedule. To this day, the physicians in British Columbia feel they did not and do not get due credit for their role in the establishment of prepaid health care in the province (the scoffers claim the doctors were just out to secure their own incomes). The plans had gradually been expanded over time to cover the majority of people in the province.

The federal government did not offer to introduce a comprehensive service like the British National Health Service in the postwar period, but proposed to introduce four programs gradually. By the time that the last program, Medical Care (or Medicare) began to receive attention, the doctors were in a far stronger economic position than they had been in 1943, but they were uncertain of their role and the inherent implications of government involvement.

The first province to introduce Medicare, Saskatchewan (in 1962, by the New Democratic Party
Socialist], suffered a bitter doctors' strike (Badgley and Wolfe), and the manifestation of this strike was that the Royal Commission on Health Services, 1961-1964, felt it had to negotiate with the profession to determine its attitude and intentions regarding Medicare's establishment. The doctors later became more wary when the government refused to let them appear, even as observers, at the planning conferences leading to the establishment of Medicare - this despite their experience and growing expertise in prepaid medical plans. One would wonder if the federal government felt it would be politically unwise to involve doctors in the establishment of a medicare scheme that might turn out to be an income bonanza for them.

The effect of the decision to proceed with a national scheme in 1968 upon the primary physicians of British Columbia, is considered now.

2. Primary Physician's Perspective on Today's Medical Triad

a. The Public/Medical Profession Equation

In the shift from a relatively simplistic dyad between the physician and the patient, to a more complex group triad involving patient, physician, and government as third party payer, the public concept of the
physician and the physician's concept of the public has changed. A bureaucratic third party presence can shrink the sensitivity of the original dyadic relationship, when conflict with that third party arises over issues about which the medical profession is most sensitive, such as the fee structure and pattern of practice surveillance.

Eric Berne, the originator of transactional analysis, defines the unit of social intercourse as a transaction. Inherent in a transaction is an equilibrium: a two-way flow, much in the manner of a chemical reaction. Instead of electron shifts, however, we find in medical practice that there is a giving and receiving of information, services, and payments. The equation is compounded by the addition of a third party, especially when that party is a government, or its agency. Governmental departments often seem to act under a blanket of authoritarianism, using rules and regulations which cover their motivations, policies, and reasoning. This strong third party force is inherently a challenge to, and suspect by, the free-wheeling spirit of entrepreneurship of the practitioner — one who had become accustomed to the sanctity of a private dyadic relationship.

For that relationship, the patient carried a degree of responsibility manifested by his contribution to the payment of the physician's fee. Under present
conditions, the general public feels that the service is free, and, as such, tends to abuse service as well as take it for granted. Physicians miss the attitudinal set that the payment of a fee or utilization fee seems to instill. Opponents of utilization fees decry the use of the same because, they state, it denies access to the system to those who need it most: the poor and the elderly (Wildavsky, Aday). However, the provincial government in British Columbia has no hesitation in applying a utilization fee, and recently, has increased substantially all utilization fees, including those of the elderly in the extended care institutions. These fees have been noted by Justice Hall in his 1980 report, (Canada, 1980).

b. The Changing Referral System

As the public has grown more accustomed to medicine, more knowledgeable about medical developments, more secure in their medical 'rights', there has been a concomitant shift in the nature of their attitude to the general practitioner and also to the specialist. More often the family practitioner is viewed not as the instrument of the family's healing processes, but as a stepping-stone to their ultimate service instrument, the specialist. Because of these attitudinal shifts, the patient often arrives in the office firmly convinced of the accuracy of his/her self-diagnosis, unwittingly judgemental as to the inadequacy of the family
practitioner to handle his/her case, and strong in his/her demand for and right to a specialist.

Attitudinal changes as noted above, are not just confined to the public. The specialists are often guilty of the same bypassing of the attending physician when seeking consultations for a patient for problems outside their own area of care. This specialist-to-specialist short-circuiting of the customary and professionally-approved referral system leads to further diminution of the stature of the family physician. The process finds its ultimate professional definition in the closed hospital, where the family practitioner has no status, no staff position, and no control of the patient's consultants. The deficiencies of such hospital-based medical care programs, with their natural emphasis on complicated treatment medicine, are well recognized.

The referral system is often approached by observers of the health care system with suspicion. There is a feeling that referral mechanisms are powerful instruments, often poorly understood, perhaps constructed with elements akin to subterfuge, and all the while bearing their own mystique which is difficult to penetrate. The plain truth is that the referral system in Canada, as a cornerstone policy of Medicare, is in disarray. It needs to be redefined, modified, adjusted, and brought into the reality of today's
practices. The leap-frogging of the family practitioner's status and services by public and specialists alike, has led to, and will produce, even greater erosion of the referral system in Canada, one of the underpinnings on which our present Medicare program is based.

The logical ultimate step for patients is to totally bypass the family practitioner and to make their own appointments with the specialist of their own choosing. In fact, this is now commonplace. Patients phone or appear requesting referrals for consultant appointments which are already pending or even past. In the United States, Fox notes that "The more sophisticated and affluent American tends to bypass the general practitioner, making his own provisional diagnosis and going straight to the expert...". It is interesting to note that in British Columbia, the Medical Services Plan has recently granted to physicians and their families the right to seek specialist care without a referral. Is this special status or really the thin edge of the wedge to a totally non-referred, unlimited consultant-access system? The logical extrapolation of these changes is for the public to define their own tertiary care provider. Will this ever be really appropriate? Will the public ever be so sophisticated as to make valid judgements in defining their referral care? What are the ensuing costs apt to
be? The re-definition of the referral system was one question underlying the need for a Health Services Review '79, (Canada, 1980).

c. Social Labelling Activity by Physicians and its Appropriateness

Patients have been accustomed to consult doctors about more than physical symptoms. In his book on social control, Watkins discusses professionals, such as physicians, as gatekeepers and social controllers for society. He notes the passing of the priest from his pre-eminent central role as an interpreter and controller of society, to a more peripheral role for similar functions but only for adherents to their specific doctrines. In the priest's place he poses the medical profession. He quotes Greenwood's definition as to the five distinct characteristics of a professional:

i. The command of a systematic body of knowledge.

ii. Professional authority.

iii. The sanction of the community.

iv. A regulative code of ethics.

v. The professional culture.

In his discussion of the second characteristic, he elaborates on the role of professional authority in the certification of illness as a social function, by
labelling activity, i.e. 'what is to count as illness'. His interpretation of this area of social operation is more applicable to Britain, but is becoming increasingly appropriate in Canada, as sick benefits proliferate with a multitude of varying conditional requirements. The role of the doctors 'chits' in testifying to illness may well be of significance in Britain as an important part of a physician's function, but not likely from the physician's perspective. Mackenzie, in a discussion of the National Health Service as a Political Institution, suggests that the general practitioner's office (in Britain) is no more than a sorting and dispatching room and an issuing point for official chits. In Canada, this task is most likely to be regarded as onerous by physicians - an outcome of red-tape and paperwork - and not as an important or desirable part of medical practice. Most physicians do not undertake their training with a view to becoming a bureaucrat. In fact, the Canadian Medical Association issued a directive advising physicians not to issue sick slips for absence of less than five days. Many sick slips are used by employers as a deterrent to abuse of sick benefits, or by insurance companies providing the sick time payment. These items are hammered out between the unions and the employers at bargaining time, but the use of the physician as their policeman is inappropriate. The unions and the employers should delegate to themselves
this watchdog function.

The constraints placed on a physician as he certifies an illness are often such as to render the process meaningless. Many patients present documentation as a fait accompli, after the fact of their illness—often an illness for which they have not sought, required or received medical attention, and sometimes for no illness at all. The physician is hard pressed to query their document's accuracy or validity, because to do so he may appear parental, and may also appear as the advocate for the insurance company or employer, and not as one's medical counsellor.

Those members of the public who have accumulated sick leave or other health benefits are so aware as to how the system operates and their rights to certain payments, that they are, in effect, their own labellers, should they decide to avail themselves of their accrued benefits.

Thus, sick leave benefits are often not used for actual illness by workers, but are viewed as a fringe salary payment that can, and should, come to them as an inherent right. The physician's position in this area is really insignificant in terms of his total function. He is used as a medical bureaucrat, much as one uses a municipal clerk to obtain a building permit.

One would also query the pre-eminence attributed to the medical profession by the author in terms of
social labelling and gatekeeping, as a replacement for the priestly function. Just as the priest has moved more peripherally from a central social control function, so has the advent of health planning by governments moved the physician more peripherally into a strictly service component of health care, well away from central planning and policy making. "Government," Mackenzie says, "is where the burden of decision comes to rest...given the ethical and institutional principles of the health service, there is built into it an antiphony between the power and responsibility of medical care in action at the periphery, [and] the power and responsibility for resource allocation at the centre". With this shift, the physician's role is more likely to be viewed from its utilitarian technical function. Such a perspective of medical function fits with the change in this century on the emphasis on the technology of medical practice, as opposed to the art of medicine. The explosion of knowledge, with its resultant ability to cure disease, as opposed to the art of learning how to cope with and endure disease, has shifted the emphasis in a perspective of the physician away from that of a sage and friend, to that of a technical adviser and performer:

"God and doctor we like adore,
But only when in danger, not before;
The danger o'er, both are alike requited;
God is forgotten and the doctor slighted.

Robert Owen, Epigram"

As such, his social control function is more circumscribed than Watkins realizes.

Again, when the same author enters into the area of certification of mental illness as an important labelling function, he is out of touch with today's reality, even though his article was written only in 1975. The stress on community-based mental health clinics with a preventive function, to avoid mental hospital committal by physicians, outdated his ideas by a decade. Along with preventive community clinics, the very idea of 'labelling' someone took on a certain repugnance with the rise of individualism in the 1960's. Labelling people was not consistent with the idea of achieving one's identity. The stereotyping of patients at a fixed stage of development or illness came to be viewed as inconsistent with the process of self-realization. Thus mental health labelling is, in essence, a very shrunken role for practitioners, both in terms of their dislike for such a function, and in terms of its importance.

d. Public Expectancy: The 24 Hour Man

There is a dichotomy in the public attitude
towards physicians, with a traditional antagonism towards organized medicine, whilst viewing one's individual practitioner favourably. Remnants of a paternalistic thinking linger along with the newer concepts of the doctor as a fallible man. Definitions of primary care, as well as principles for the development and operation of a comprehensive health care plan for the province of Ontario (the Mustard Report: "Evaluation of Primary Health Care Services, the Ontario Council of Health), embrace some of the characteristics of the ever-present, old-time benevolent medical figure. These definitions state what the proponents feel is beneficial and desirable for the public. They delete mention of the economics, practicability, or need for substantiating such services, with those services being made available twenty-four hours a day, seven days a week. Such a principle is taken as a given. No mention is made of the effect on, or the attitude of, the providers of twenty-four hour, seven days a week service. The reality is that no practitioner can give such full time coverage except in isolated areas or for specific time spans. Utilization of hospital emergency departments for non-emergent care outside of office hours is a natural spin-off of such accessibility, and, as such, weakens the doctor/patient dyad, because the attending physician is often bypassed. Increasingly, the public has become the definer as to what constitutes an
emergency. This is a natural development in a 'free' system.

Let us examine this twenty-four hour, seven day work week recommendation, because there are subtleties included therein that are not readily obvious. This definition of primary care is really a role prescription as described in role theory by Miner. Is it valid? Does the public require twenty-four hour a day care? What other service is available on such an extensive basis? Such a service is understandable for an emergency, but the word emergency is not utilized in the definition. As we have noted, the public is defining the word more and more liberally. Banking, postal service, government offices, social services, courts, legal services, supermarkets, department stores, and many other components of the service system do not provide such coverage. All-embracing statements such as these are deficient in that they cast all the responsibility on the primary care provider, and none on the person requesting care. Thus, under a 'free' system (as the public unconsciously and incorrectly defines Medicare in Canada), abuses appear. The arrival in the evening or even after midnight in the emergency departments of minor or non-recent afflictions best treated by the application of doses of common sense, is not unusual. It does not lead to greater responsibility by patients for their own health. Rather, it leads to
an over-dependency on medical care as enunciated by Ivan Illich. The existence of free twenty-four hour coverage leads to the evolution of twenty-four-hour-a-day out-patient departments, and a practice style that can best be described as dealing with trivia. Cadillac services do not lead to cost containment. Often laboratory and x-ray technicians have to be called into the hospital, as well as physicians, to perform services that could be more efficiently delivered in the daytime. The same arguments apply to the delivery of care at a time when the patient is free from his responsibilities at the end of the work-day. This does not happen in any other form of governmental or quasi-governmental service. Is medical care so sacrosanct that it should happen in health care delivery? Patient convenience factors interpreted as accessibility principles do not lead to a higher quality of medical care; but rather they do lead to a higher volume and likely to abuses of the system. Patient contributions in terms of effort to obtain appropriate scheduling, is one form of psychological co-insurance, or if one will, commitment (Kastner). Such co-insurance will be a positive force in preventing devaluation of the services provided: human services are provided by fellow humans who can be effectively made into objects when they are viewed as utilitarian mechanistic technical service components. Howard and Strauss discuss this well in Humanizing
Health Care (see also Schaeffer).

If we also examine the seven day week proposal, we find that it flies in the face of the contemporary work week reality. Hospitals exist as part of the general social fabric of today. As such, their staffs are unionized, so that the economics of hospital management preclude many areas of the hospital from operating on a seven day week program: operating rooms are closed on weekends for elective bookings and are open only for emergency cases; occupancy rates fall on weekends; many laboratory tests are not available; administrative staff is mostly off on weekends. The seven day week option provides the same basis for abuse as does the twenty-four hour day usage. As such, it is a paraphrase on the fulfillment of Parkinson's Law: services sought by the public will rise to the level of those freely provided and always available. The Parkinson-style proposition means the inordinate use of facilities at times not necessary or economical.

e. Personal Responsibility of Patients

While on the one hand there are attempts to get "more" and "better" access to medical care through the processes described above, there has been another trend in response to Illich's call for greater personal independence for health and to increase patients' freedom from professional dominance. This trend has been encouraged by the Lalonde Report, A New Perspective
on the Health of Canadians, 1974. The report was sponsored by the Federal Minister of Health and Welfare (Lalonde), and encouraged Canadians to take more responsibility for their own lifestyles and environment:

"Better to hunt in fields, for health unbought
Than fee the doctor for a nauseous draught
The wise, for cure, on exercise depend;
God never made his work for man to mend."

(John Dryden 1700)

The response to this report and to a program called 'Participaction' has been unexpectedly enthusiastic, and has led many people to take more interest in their own fitness. While some think this may lead to greater independence from the need for continual consultation with physicians, others have noted the increase in sports injuries.

Some general practitioners have responded to this movement by setting up practices focussing on health promotion and preventive care, such as the Western Centre for Preventive and Behavioral Medicine in North Vancouver, B.C., where emphasis is placed on stress management as a preventive function. Holistic health care, now an 'in' concept, is not really new for primary care physicians. The family doctors are able to obtain a time-comprehensive and family-comprehensive perspective of a patient which goes beyond the acute care crisis treatment focus. A more fully holistic
approach is possible now because of the availability of the services of many allied health professionals such as physiotherapists, dietitians, optometrists, accupuncturists, etc. (College of Family Physicians of Canada: Allied Health professional's Role; also M. Martin). The argument about who is the logical director of a comprehensive approach to a patient's health care will now be considered.

f. The Team Approach to Health Care

Is there merit in the foregoing discussion of the interaction of the patient and the doctor? Quite likely there is, because essentially the area of interaction can be termed a dyad, which, by definition, is a group of two, a couple, a pair (The Random House Dictionary of the English Language). To what kind of a primary care person, specialist or team member will the patient most likely relate? The essence of the intimate human interaction required for rewarding medical care, is called involvement - given by a warm, friendly, personal therapist. Glasser, in his discussion of Reality Therapy in the Identity Society, emphasizes involvement as the first principle. There are inherent uncertainties in one-to-team relationships that would tend to move the patient to seek out one therapist of that team as his intimate relating contact. Under our present system of health care, and in the forseeable
future, the usual intimate contact person will continue to be the physician. We need to therefore define the nature, working philosophy, and training program for the person we envisage as fulfilling the role. If the team is represented as being eminently satisfactory as the contact unit, one may well be reminded of the old fable of the elephant as viewed by the several blind men.

This is not to deny the necessity of the team approach in many of the complex problem cases seen today. There is no argument: the team is here and it will stay. However, a component of the team should be one who is involved, empathetic, available, confidante in nature, continuing in his care and in dialogue with the patient, well past any crisis situation. The person most suitable, best educated and trained for that position at present, and likely for the next generation, is the family practitioner.

The case for adjunctive medical providers working under the family doctor in the provision of primary services at a more reasonable economic cost, has been put forward. In Canada this idea hinged on the nurse practitioner, a registered nurse who received further training in outpost medicine or in community medicine and/or tutelage under a family practitioner (Boudreau, 1973, Wittmer, Dugas, Imai). So far, this type of program has been of mixed success (Roemer), despite favourable local experiences (Spitzer).
The reasons for this lack of success are many. The doctors viewed the new expanded role for the nurse as a threat to their security and certainly to their economic position (Spitzer). Their fears were substantiated by the submission of the Canadian Nursing Association to the Second Hall Inquiry - Health Services Review '79 - wherein the nurses stated that doctors should be placed on salaries, with abandonment of the fee-for-service principle; and by their own elaboration of the expanded role of the nurse, wherein many family practitioner functions would be taken over by the nurses.

Family practitioners' attitudes towards these allied nurse health practitioners, who, perhaps with a doctor could be considered a 'mini-team', have, in general, been so negative as to preclude the doctors from having insight into the advantageous possibilities of such an arrangement. There is no doubt that the dental profession has prospered by the utilization of allied dental health professionals. In the case of doctors, their fears of losing professional status have mitigated against tapping this potentially economic and functional resource.

Another reason for the apparent failure of nurse practitioners would be the lack of a well documented role prescription for them, energetically and reassuringly advocated by a government interested in
instituting a major change in the present system. As the public is basically happy with the present method of health care delivery, and as the doctors are against changing it, there is no large groundswell of public opinion on which a politician or planner could depend when advocating change. The Burlington Randomized Trial of the Nurse Practitioner (Spitzer) indicated there were savings of hospital bed days by reduction of the numbers of admissions with the use of allied medical practitioners such as the nurse practitioner.

Nurse practitioner anesthetists do not exist in Canada despite the large numbers who practice that specialty nearby in the United States. When we consider midwives, we find very few of them in Canada as compared to Britain, the only exception appearing to be the Northern Nurse Program for isolated outpost midwifery. Medical specialists have resisted the development of this category of health care worker (Roemer). As will be seen later, in a discussion of the Requirements Committee Report of the National Committee on Medical Manpower Planning, a review of the obstetrical submission reveals that development of the new role of the nurse/obstetrician will depend on the concomitant development of new payment methods. The inferences gained from analyzing the obstetrical report in a discussion of the boundaries of obstetrics, and of growth assumptions for that specialty, are that they
envisage the development of the nurse/obstetrician's role at the expense of shrinking considerably the role of the family practitioner in that same function. Not a rewarding prospect for family practice!

g. Medicine and Society in Reciprocity

Medicine, organized and individual, is not as insulated from the society around it as health care planners would seem to infer. In his introduction to *Doctors and Doctrines*, Blishen states: "Since the medical care system is an integral part of society, the relationship between them is reciprocal; changes in medical care may have repercussions for the structure of society."(p.3).

Physicians are not immune to the developing concepts in society any more than any other group. In fact, because of their generally higher intelligence level, they are apt to be more sensitive to these changes, in spite of the constraints of their organizations to maintain a power base. Medical organizations such as the British Columbia Medical Association are not without their so-called rebel factions, or radical elements. The effect of such groups - defined as dissidents when they stay within the organization - has been to induce change. Indeed, they are often very effective instruments of change in the organization. Conflict inevitably results, but the sum
effect is that such organizations remain more sensitive and attuned to the changes in the society around them.

Physicians flow in the mainstream of life with everyone else, and often it is the public that has the greatest difficulty in accepting the present-day reality of a doctor, with more frequent weekends off and shorter work weeks and avocations. Medical personnel collide with all the problems of life and appear to suffer inordinately from social dysfunctional consequences (Short: *Psychiatric Illness in Physicians*).

In the existing shortened work weeks that the general population enjoys, the physician also exists. The reciprocity alluded to earlier by Blishen again is applicable. As contemporary society moves to a more hedonistic, recreational, weakened work ethic culture, so does the physician. He is now aware that excessively prolonged hours toiling before the medical mast is not healthy for his marriage, his children's social maturation processes, or for his physical or mental well-being. He may work excessive hours initially in the early phases of developing his mental medical data bank, his career status and his economic base, but he knows, or should have been made aware, that these portions of his total existence are not enough to sustain him for endless years of dedication. His professional medical career maturation imbricates phasically with his socio-familial development.
The thermodynamic concept of entropy can be applied to physicians as they progress through their professional lives. That is to say, their entropy equals the amount of energy available from a physician to work in the health care delivery system. The work available energy of a physician at any time in his career, i.e. the entropy vector, if plotted on a coordinate grid of years in his career versus his work activity level, say in hours per week, would be seen to be the summation of the various vector forces in his life. As these vectors strengthen and weaken and change direction over time, their integrated summation would represent the usually-applied medical care work energy. This energy output plateaus and falls off earlier in physician's professional lives due to the confluence of many present-day forces.

One force appears to be the progressive income tax which serves as a disincentive to many professionals, medical and otherwise, in terms of working beyond the social norm to enhance income status. The strong income-levelling effect of progressive income tax, so desirable from the socialist viewpoint, has, as its price tag, the suppression in part of professional productivity. Many professionals would rather use their time for recreation or other business pursuits, than be working under the curve of decreasing cost/benefit ratios, spending excessive hours in patient care.
Income tax proscription of medical motivation wreaks its own diseconomies.

The natural history of surgical careers is shorter than those engaged in other medical areas, likely the result of many factors, one of which, no doubt, is the stress level involved. A comparison could be made to commercial airline pilots, who retire at age sixty.

Another force affecting medical careers is perceived to be the intervention of a bureaucratic, generally unyielding and insensitive third party in the doctor/patient relationship. Submission to bureaucratic rules and red tape; to increased demands for medico-legal documentation and court appearances; as well as acceptance of a common public portrayal that doctors' incomes are too high, suggests qualities that do not meld easily with a personality that has been characterized as a decision-maker for patients' lives, diagnoses and treatments. Removing the medical mystique from physicians, with the associated de-emphasis on the physician as a cultural, moral, and social figure to respect, has its repercussions not only on the public, but on the profession itself. Shrinkage of professional satisfactions, social status, and relative incomes may auger the development of later second careers for medical personnel in the future, much in the manner of armed services personnel and other professionals. The foreshortening of medical careers
would lead to a lesser economic return for the public, from their investment in the education and training of physicians.

Another force to be considered when calculating a physician's 'entropy' - or perhaps, as more usually called: his productivity - is the rise of individualism, paralleling the new awareness of governmental and authority-figure fallibility following Vietnam and Watergate. Recent medical graduates, interns and residents have shown a surprisingly organized strength in practicing self-determination as much as possible to achieve better working hours and better pay. The indentured Industrial Revolution type of approach to intern and resident training, will no doubt succumb to the awareness of these physicians to the existence of a greater dimension to their lives than that of medicine alone. As for those already in practice, group practice or shared-call systems are the logical outcome of their desire for more time off for family and leisure pursuits.

h. Redefinition of the Family Physician

It is not altogether surprising that the family physician is confused about his role today. A physician, with his years of scientific and clinical training, does not take readily to having himself viewed as a mere booking agent or chit signer. There appears
to be some necessity for a clearer definition of the primary care physician, his function, and attendant training programs.

A definition of primary care was given in the Report of the Health Planning Task Force (the Mustard Report). It states:

"Primary care includes not only those services that are provided at first contact between the patient and the health professional but also responsibility for promotion and maintenance of health care and for complete and continuous care for the individual including referral when required...The functions of health personnel in the primary care group include prevention, health promotion, health maintenance, consultation, education, diagnosis, treatment and rehabilitation... ."

The above definition was accepted by the Task Force on Evaluation of Primary Health Care Services, 1976, by the Ontario Council of Health. It is interesting to note that there is no mention made of procedural items in the list of functions of primary health care personnel. It is also interesting to consider the Minority Report of the Task Force on the Evaluation of Primary Health Care Services written by Dr. Edward Glazier. He notes that there was only one full-time fee-for-service practising physician on the committee: himself. He felt the composition of the committee led to 'predetermined conclusions [that] could have been established prior to the first meeting'. In
other words, he felt the definition of primary care function, as given by the others on the committee, was just a reflection of their own particular biases, and, as such, not appropriate. Specialist study groups "have been criticized as 'incestuous' on the ground that each specialty is biased in defining its functions and underestimates the scope of work feasible for the general practitioner." (Roemer and Roemer).

We are left then with the problem as to who is the most appropriate group to define primary care:

- medical schools, with their nearly totally specialist staffs, often in the ivory tower of academia, without intimate knowledge of the happenings in the medical trenches;

- the clustered specialists, under the umbrella of the Royal College, seeking expanded borders so that family practice becomes a residuum of their requests (as evidenced by the reports from the National Committee on Physician Manpower Planning);

- authoritarian health planners, who are not physicians, secluded away in the administrative branch of government;

- the family practitioners themselves, with the inherent difficulties of viewing a wider perspective while engrossed in the dilemma of defending shrinking practice boundaries and prestige.

There are many problems in a redefinition. The
problem touches most of the other branches of medicine. It will be reassessed in detail in Chapter Six.

The selection of candidates for training as primary care physicians with hopefully greater resistance to social disease; with a wider background in the social sciences; with a broader concept of identity, as elaborated by Glasser; with the introduction in medical schools of more realistic curricula germane to the needs of today; - all impinge on the medical manpower planning process.
CHAPTER THREE

The Canadian Health Care System

1. The Evolution of the Federal-Provincial System of Health Care

For Canada, the development of an integrative health care system may be viewed in four stages, each roughly comparable to a decade, from the 40's to the 70's. The forties saw the beginning of the ideas of social planning. The fifties saw the growth of hospitals by means of the granting of capital costs for construction from the federal government in 1949. This hospital phase of the fifties was strengthened by the introduction of a comprehensive national hospital insurance program (the Hospital Insurance and Diagnostic Services Act of 1957), spurred by the Saskatchewan example of 1949. The sixties can be characterized by the planning for, and the institution of, a nation-wide Medicare health insurance system in 1967 (the Medical Care Act), embracing the concepts of the Hall Royal Commission on Health Services in 1964. The seventies were concerned with the rationalizing of the whole health care system, alterations in the funding responsibilities, accentuation of personal
responsibility for health by Lalonde's report, and worry over cost containment. The Federal-Provincial cost-shared programs are described in the Canada Year Book, and this description is reproduced in the Appendix, 1.

2. Doctors Attitudes to the Health Care System

As described in the previous chapter, the Canadian Medical Association was partly bought into the planning of a national health insurance scheme by Dr. John Heagarty, chairman of the committee of enquiry which reported in 1943. The C.M.A. fully supported the federal government's move to become involved in the funding of health services for the Canadian people at that point in time. Because it took such a long time to sort out the constitutional complexities of operationalizing such a scheme, and to raise sufficient funding to pay for all the programs, these were introduced gradually. By the time the last program (Medical Care) was started, nearly twenty years had passed and times had changed for the physicians. In 1943 they were very conscious of the hard times which all Canadians had had in the thirties. They were also aware of the shortage of cash to pay for professional services; of bad debts which could not be collected; of great income insecurity. Now in the early sixties, the
privately organized prepayment schemes for hospital and medical care, introduced before the war but not well supported then, had become well established. Most of these plans were now run by non-profit organizations. The doctors themselves had promoted the Trans Canada Medical Plans in the early fifties, in order to increase their assured incomes and to provide better service. The coverage of the population provided by these plans had grown steadily over the years following the earlier growth of prepaid hospital insurance (Taylor, Shillington).

While there was strong support from the medical profession for the first three programs, i.e. national health grants, hospital construction grants, and hospital operating grants, a confrontation between the government of Saskatchewan and the doctors of that province followed the government's decision to introduce a provincial Medical Care Scheme in 1962. The events of this confrontation have been described by several analysts (Tollefson, Badgley and Wolfe, and McTaggart), and it is not proposed to recount them here. What was important was the atmosphere of suspicion and mistrust which has persisted for years since then, despite formal agreements to proceed with the operationalizing of Medicare programs. Equally important were the ambiguities of these agreements which never clarified whether physicians were subsidized entrepreneurs, or in
contract with the governments. The "Saskatoon Agreement" modified the payment mechanism for doctors so that they could define their own method of payment in any of four ways:

a. Direct Commission payment to the doctor.
b. Payment of the doctor by an approved agency.
c. Payment of the doctor by the patient, who is then reimbursed by the Commission. The doctor may charge more than the official fee schedule, with the patient being responsible for the difference. This is the most important payment method granted, in terms of subsequent developments in the health care system of Canada, because it legalized balance billing, and thus served as a model for future agreements between the provinces and the medical profession. The agreement thus guaranteed freedom in the money arrangements between patients and doctors.

d. Salary payments to the doctor by the Commission.

(This issue has come to the surface again as a major point of principle in the controversy over balanced billing which was referred to the Health Services Review '79). The doctors of Saskatchewan felt that their rights to balance bill and to opt out of the system were entrenched in their original agreement with the
government of Saskatchewan, such agreement serving as a model for other provincial governments and for Medicare nationally.

The issue is that of medical autonomy. While no one could argue that doctors should have complete discretion over clinical decision-making, the organization of services is arguable, and argued by other groups who have power, such as funding bodies. One mechanism which has been used to prevent open confrontation between the professions and the governments is the use of buffer groups to provide anonymity, such as the use of insurance carriers was felt to do in the sixties (as established in the Saskatoon Agreement), or to negotiate resolutions of differences such as the use of regional planning boards to control the development of hospital facilities at the community level.

3. Accountability and Controls

As pointed out in the previous chapter, government involvement in the funding of services has inevitably led to concern with issues of accountability for quality and costs. Because quality control has to be left to the professionals, various voluntary mechanisms such as hospital accreditation programs have arisen to exert an influence on in-hospital quality control. Because of the extensive data accumulated in the Medicare tapes,
quantity data governing all aspects of a physician's performance are readily available. The data on a particular physician can be compared to data on a large group of similarly practising physicians in a designated area (a norm of practice is decided on by a peer group). If his performance shows a statistical swing from the norm of two standard deviations or more, in any particular facet of his practice, he is then answerable to the Patterns of Practice Committee of the Medical Association in British Columbia. Because quality is intermeshed with quantity when the time constraints of a physician are considered, there is a quality surveillance mechanism that emerges from review of the Medicare data. A third quality control mechanism is that produced by the College of Physicians and Surgeons in regard to ethics. Finally, a new force for quality performance (as opposed to quality control), is the upsurge in emphasis on continuing medical education. Although such programs are at present voluntary in British Columbia and Canada, there is a trend emerging in the United States and Canada (Roemer and Roemer, pp. 92) to make a certain amount of continuing education a requirement for continued practice, by the licensing authority of the state or province. This trend will dovetail with the new stress on the appropriateness of periodic relicensing for physicians. Continuing medical education is the major effort of the College of Family
Physicians of Canada in an effort to upgrade both the status and performance of family physicians (see the Appendix re definition of a Certified Family Physician). Continued membership in the College requires the performance of a defined minimum of continuing medical education credits per year. Certification by the College requires the applicant to pass a set of examinations, much in the manner of would-be specialists when they write the qualifying examinations for the Royal College of Physicians and Surgeons. The effect of these various educational efforts is apt to be more productive of quality practice than surveillance mechanisms because they emphasize a positive parameter to professional performance.

As regards cost control, the failure of provincial governments to control hospital construction planning after 1949 led to rigid rules being established regarding hospital operation cost-sharing in the Hospital Insurance and Diagnostic Services Act of 1957. Despite these rules, hospital costs continued to escalate.

The provincial professional medical groups, having agreed to come into Medical Care programs in the mid-sixties following the Royal Commission enquiry, decided that they must set up their own economic controls over members, in order to escape bureaucratic scrutiny and to encourage proper practice methods. They
have established their own methods of examining patterns of practice, as mentioned earlier. They have been careful to keep group control over members' clinical activities in response to the information collected from government data banks. In this manner, they have been much more successful in the control of their members than other professional surveillance groups, such as the Law Society have been over lawyers, where there is no data bank backup resource for statistics by which to demonstrate possible over-servicing or other practice deviations from the norm.

Nevertheless, in the 1970's, following the Federal Task Force Report on the Costs of Health Care in 1969 (which reviewed hospital data only, because Medicare data was not then available), the emphasis on cost containment has grown. Similar problems exist in the United States health care system (Time, May 28th., 1979). The Task Force produced many recommendations, but the most important of these were:

a. Amend the funding arrangements from an open-ended to a close-ended system.

b. Consider possible new organization structures such as Community Health Centres (Hastings Report, 1972) and the use of nurse practitioners (Boudreau, 1973).

c. Treat more patients outside of hospitals.

The change in the funding of services was brought about
in 1977 with the passing of the Established Programs Financing Act. Details of the changes are given in the Appendix.

The natural outcome of a was to exert pressure on physicians' incomes, keeping them from rising in pace with the inflationary trends of the seventies. This led to more confrontation in the dialogue between provincial medical associations and provincial governments when the time came to renegotiate fee increases. Governments tended towards global budgeting (as Saskatchewan had initiated), so that in the allocation of an increase of medical dollars, the various professional medical groups were left to fight it out as to how the pie was divided. This led to some differential inequities, but, as experience accumulated, attempts were made to iron out inequalities. Experiential data on the differences between specialists and generalists and specialists and specialists, were reviewed to obtain a certain consensus as to what appropriate differentials should be. The difficulty with the emphasis on physicians' incomes as being the ultimate and most visible target where controls should be exerted, is that physicians' incomes are one of the smaller items when the total budgetary allocation of funds for national and provincial health care is considered. It is the fact of their media and public prominence that makes physicians' incomes so readily attackable.
New organization structures as mentioned in b. above, were promoted vigorously and tried in many areas. However, they have only achieved a modicum of success. There was naturally some resistance to these efforts from the medical profession, but as the profession had been moved peripherally, as mentioned earlier, from a central authoritarian role to a more service centred function, their resistance was readily overlooked in the implementation of the Hastings Report. Community Health Centres (see Crichton and Anderson) need physicians to perform medical functions as employees, and the psychological set of physicians in the country, taken as a whole, has not been to regard themselves as employees subject to lay control by a health centre manager or board of directors. Many squabbles naturally ensued, such as confrontation in Regina in 1973, when the centre's total complement of doctors resigned en masse, even though they were community health centre oriented in philosophy, because of what they considered was interference in their principles of practice by the health centre's board of directors. The use of nurse practitioners and that experience to date has been alluded to earlier, p. 30.

Item c. above has been the most effective measure for cost containment as new funds were provided for out-patient services. Many hospital bed days have been saved, with the attendant cost reduction, by the use of
day care surgery. Even then, the provincial government had to be pushed initially to broaden the scope of day care surgery by the medical profession, as a method of reducing its waiting lists for elective procedures. Government commitment to out-patient or out-of-hospital care can still have some spotty areas when new technology (with attendant costs) arises. Witness the difficulty in the establishment of and government approval of ultra-sound diagnostic equipment in the offices of private radiologists in British Columbia. This resistance existed despite waiting times for out-patient hospital ultra-sound diagnostic services extending to several weeks. No doubt the resistance to the establishment of such services in radiologists' offices centred on the problem of how much cost would be generated, and how controls would be applied. This natural governmental resistance to new technology, because of attendant unpredictable costs, is softened by the earlier and overwhelming acceptance of many new procedures and techniques by the adjacent United States medical care system, with the resultant information flow to Canada.

Community health care programs such as Home Care and Long Term Care have been developed in British Columbia by health and social service departments. Their cost care merit arises from the savings attained by giving home care to patients who would otherwise
require a bed in a hospital, (Crane).

4. Manpower Developments

Since physicians have distributed themselves initially in those areas with the most facilities and most attractive social and climatic amenities, these areas have tended to become medically congested first. As opportunities decreased in those areas, primary care physicians and those in the major specialties have generally fanned out from the cities to the middle and far north of British Columbia.

It has been felt, however, that this entrepreneurial development may not be the most effective use of professional skills. Since government has become responsible for paying the bills, it has wanted to control distribution and mix of physician manpower and to consider where substitutions might be made. The next chapter is concerned with the development of health manpower planning activities.
CHAPTER FOUR

Health Planning Activities

1. Entrepreneurial "Planning", or the "Non-System"

With the formation of professional associations, certain rules of conduct were agreed upon. These rules, or professional ethics, can be regarded as a first attempt to bring order into a free entrepreneurial situation in which individual medical practitioners worked without any controls - a situation in which 'quacks' and other medical deviants were able to compete for patients. The ethical code of the professional groups has regulated the advertising of services, the referral of patients, the confidentiality of patient information, and prevented the splitting of fees, and established a mode of behaviour for physicians. As a result of enforcing this code, more organized patterns of service began to evolve. Although these might not be regarded as planning, in the same sense as that word is used today, nevertheless, they had the effect of establishing a system of health care which was regulated to suit the practitioners of nineteenth century medicine. E.C. Hughes has described how, in a simple dyadic relationship, the concept of 'free choice of
doctors' working within the professional ethical code, was thought to provide sufficient control over practitioners' behaviour. In more severe illnesses, when a health care team was used to treat patients, consultants would be called in, or nurses and pharmacists would be able to ensure that mistakes were caught. The rules set out the way these relationships should be conducted.

However, early in the twentieth century, it became clear that the controls established by the professional associations were not, in themselves, adequate. As Fuchs and others have pointed out, there is too much room for discretion by entrepreneurs. Roemer's Law, as it has come to be called, states that 'the more beds and the more surgeons available, the more surgical operations will be performed'. McEachern went from the Vancouver General Hospital to the American College of Surgeons in 1918 to develop voluntary hospital accreditation procedures, in order to control some of the more obvious abuses and to bring more order into hospital organization. In Canada, L.O. Bradley was instrumental in the introduction of accreditation procedures to which the Catholic Hospital Association gave strong support. This development, in turn, obliged the municipal hospitals to conform to accreditation standards as the concept gained force. Gradually, the most obvious exploiters of the public were brought into line through
peer reviews, or they were driven into the rural areas, where controls were less strict and where the small communities were glad to get professional help on any terms.

In North America, all physicians gradually sought to gain hospital admitting privileges, so that they could guide their patients through complete episodes of illness. This was in contrast to some European countries such as Britain, where the general practitioner handed over his patients to the specialists for in-patient care. The physicians applying for privileges usually had their records and credentials reviewed and approved by the hospitals' credentials committees before being accepted. Gradually, some hospitals became referral centres at the secondary or tertiary level, and in these, general practitioners began to feel squeezed out as certain conditions were set for their work, e.g. the amount of surgery they could do would be restricted, or they might have to conduct their surgical operations under certain safeguards such as having three doctors present. However, the right to have hospital privileges for all was strongly fought through public inquiries in Saskatchewan and Ontario, when attempts were made to exclude some general practitioners. It was now generally recognized that 'free choice of doctor' was, by itself, an insufficient control - that patients were
not able to assess the quality of care that they were given - and that peer reviews were essential. These have not been extended to office work but solely to hospital activities. As mentioned earlier, there is some quality component accruing from the analysis of quantity Medicare data on office practices.

By the 1950's, the development of medical technology was so rapid that academic leaders began to become concerned, not only about basic curriculum planning, but also about the maintenance of competence. A study by Clute and others showed that only forty percent of the doctors in Nova Scotia and sixty percent of the doctors in Ontario met the minimum standards set by observers sent to look at their office procedures. Clute proposed that this situation should be remedied through improvement of continuing medical education. The College of Family Physicians was established to pursue such educational endeavours.

In general, standard-setting has been left to the Colleges of Physicians and Surgeons and to the hospital accreditation programs. The provincial hospital associations have helped to develop consulting programs on medical records, inventories, bookkeeping, etc. Provincial and federal governments have also established some professional consultancy activities within their Hospital Insurance departments. In British Columbia, joint specialized committees also exist, consisting of a
varied group of medical representatives plus a government representative, in order to advise the government on technical matters and equipment purchases for such as the renal and continuing cardiac care committees.

One cannot deny that enterprising individualism has provided day to day medical services, as well as many outstanding achievements in the service component of health care delivery. The media, in reporting news events, often accent the calamities, as reporting on the hum-drums daily performance of usual tasks is not newsworthy. Similarly, appraisers of health care, seeking to invoke changes in the system, too often accentuate the deficiencies without granting adequate due to the existing system or "non-system". "Non-systems" are undoubtedly systems of their own with ill-defined linkages and boundaries as we understand them. The fact of the matter is that most of the public is well satisfied with the delivery of health care as presently constituted. The observers of the system, on the other hand, look at the quality of health care delivery by indices such as mortality rates, life expectancy, peri-natal mortality and morbidity, and feel that Canada's inferior position per these indices relative to other countries, is undesirable (World Health Organization. Annual Statistics).

The entrepreneurs, with a long history of dyadic
doctor/patient relationships dominating their viewpoints, have been more concerned with providing a high standard of care for their individual patients than with social issues relating to the distribution of care and costs for all citizens. The major push for better planning in these two sectors came from governments when the rising costs of health services came into question. As Judge has pointed out, it is governments that provide funding but professionals who provide services, and there is a distinction between their attitudes to financial and service rationing processes.

In Canada, while there was concern about funding right from the beginning of the establishment of health care institutions, it was not until the postwar years that governments became committed to extensive funding, and it took them a long time to realize just what their commitments meant. The Task Force on the Costs of Health Care was not set up until 1969, after all the national health insurance had been legislated into existence, if not completely implemented (Quebec Medicare was implemented in 1970).

Concern about costs leads to concern about social planning, which has to be developed into an operational mechanism. There are always time lags in implementing remedies. The planning mechanisms developed by the professional groups' hospital associations and the academic institutions did not seem to the government to
be adequate to deal with efficiency or value for money (Abel-Smith), although they might be coping with effectiveness or standards (Cochrane). Certainly, they were less concerned with coordination and integration of the various parts of the service because of their interest in individuals, than were governments after they became involved in funding, for the latter had to consider social needs.

2. Emergence of Government Planning Processes in Canada and British Columbia

Governments of Canada became involved in planning public health services following nineteenth century British examples. This planning was, at first, heavily influenced by the Public Health Act, 1875, which laid down the lines for Canadian development of social health care. Similarly, governments had to provide care for the mentally ill, when the local committees could not cope with that problem. In this they were more influenced by the American models.

In the second decade of the twentieth century, the Saskatchewan government became involved in hospital planning which had previously been considered a matter for voluntary or municipal effort. The government was obliged to respond to demands for legislation authorizing joint participation of two or more
municipalities. Gradually, the citizens of Saskatchewan became more and more involved in seeking legislation to improve health services, such as the municipal doctor program, started in 1916 as a social lever to attract doctors to low-income rural areas (Roemer and Roemer).

When the C.C.F. (Cooperative Commonwealth Federation) Party was elected to power in Saskatchewan in 1944, it had a mandate to legislate comprehensive health care for all, in accordance with its campaign platform (Lipset). T.C. Douglas and his cabinet moved to bring in health planners from the United States to develop a social program for the province. The Sigerist Plan (1944), had begun to be implemented on a regional basis, Swift Current being the first region chosen for this, when it was overtaken by federal planning for national health insurance in 1948.

The federal plans for national health insurance were described in the previous chapter and also in the Appendix, 1. Because of the complexities in reaching agreement between the federal and provincial governments, and because health services were seen as a means to greater social security as well as having their own ends, the logics of the Sigerist Plan were not applied at the national level. The national health grants for public and mental health program development and for public hospital construction (1949), spread health services more evenly across Canada, created
numerous jobs, stimulated small community businesses, and were seen to be an integrating factor for national unity, rather than a technically sound health care plan.

It must be recognized, that at this time, the provincial governments were unable to do their own health planning effectively. While British Columbia commissioned its Associate Deputy Minister, George Elliott, to prepare a public health plan in 1952, it had to bring in consultants from Minnesota to prepare a hospital and health manpower plan for the province (James A. Hamilton and Associates, 1949). When these consultants returned to Minnesota, there were no civil servants able to follow through, and it was not until some time later that a hospital insurance department was developed to deal with hospital operating funding. Many years later (1969), health manpower planning became a matter for government to consider. The need for proper planning services was gradually accepted. Regional hospital districts were set up in 1966 to control hospital facility developments. In 1972 the N.D.P. (New Democratic Party) government of British Columbia commissioned an inquiry by Dr. R.G. Foulkes into the health needs of provincial residents, and his proposed plans to meet these needs. This inquiry was completed in 1973, but the report was couched in such socialistic philosophical terms, and was so antagonistic to the doctors' position, that the Minister of Health had to
call it an 'advisory' document to the government, rather than a policy document of the government, in order to placate the service providers.

Foulkes had been influenced by the plans written for other provincial governments, particularly those of Quebec (Castonguay/Nepveu, 1970) and Manitoba (White Paper, 1972). Ontario had also received a series of studies made by the provincial advisory health council, and had commissioned studies on the health professions (Healing Arts, 1971) and regionalization (Mustard, 1974). Nova Scotia had engaged private consultants to develop a plan for Cape Breton, and other Maritime governments such as Prince Edward Island, had sought consultant help from the federal government to develop better plans.

The conflict between those interested in "quality" issues and those interested in "cost" issues came to a head in the seventies (Baker, Cochrane). The economists and financers worry that the health machine is a gluttonous consumer of an increasing share of the gross national product, and must therefore be curtailed. 'Cost containment of health care' are the key words from the seventies.

There is no doubt that the newer technical advances in medicine are expensive. Computerized axial tomography installations, for example, average about 750,000 dollars. The savings accrued from the avoidance
of invasive techniques and unnecessary operations have to be estimated and entered on a balance sheet before one can obtain a true cost appraisal of such devices. Coronary bypass surgery is an expensive procedure that has added to the quality of life of many patients, if not so much to their longevity. Valuations on the changed quality of their existence as viewed by the patients, are difficult to derive. Are these quality considerations any less valid than those statistical indicators of quality used by the critics in the evaluation of the present system? Patient awareness of modern medicine's capabilities is easily attained through those same media representatives whom we decry when they report medical news with what we regard as biases. The fact is that we cannot live without both the positive and the negative aspects of media reporting. Similarly, we cannot live without the positives and the negatives evolving from technological advances in medicine. The media do not allow us to live in a vacuum re advancing knowledge in the medical field. The demand of the public for chances to avail themselves of newer technologies will turn to political action if they feel adequate attempts to procure such advancements are not made. Can any administrative bureaucrat predict adequately and evaluate the cost/benefit ratio and economics of any particular medical advance? It is easy for retrospective analyzers such as Cochrane
(Effectiveness and Efficiency) to pontificate on deficiencies in the fashion of Ivan Illich. Pervasive fields of negativism re newer medical technologies will not produce advances in the state of medicine. We have ample evidence of this in Canada, when, for the sake of uncertain economies, funding for the National Research Council was curtailed by the Trudeau government in 1976. Research was curtailed to the point where we became dependent on the United States system for new advances. Yet this is the same system we point the finger at as an example of a "non-system", entrepreneurial, ad hoc, inadequate method of health care. We cannot have the advantages of the advances in medicine without being prepared to bear some of the costs. Medicine has always been an evolving, trial and error science. Explorations in medicine cost money - no less so than explorations for oil (which costs we are willing to accept and write off). Planners of government budgets may have to review their priorities in order to accommodate the increased costs of health care delivery, or face the unpleasant political prospects of a second-rate health care system. Unfortunately, the obvious person to be adjusted in maneuvering the economics of the system is the doctor.

3. Emergence of Medical Manpower Planning Processes: an International Movement
Medical manpower planning is neither an art nor a science; rather, it is an emerging social movement of relatively recent origin. Scattered beginnings of such planning were noted as early as 1883, when Bismarck introduced compulsory health insurance for Germany. His motivation was two-fold. Primarily, he wanted to defuse political unrest threatening his new empire. Secondly, he wanted to promote economic and social equality. This dualism of purpose is still with us today, i.e. the sought for goals of both altruism and self-preservation, so that developments in the health care system in any country, must always be viewed from the context of both an idealistic maturation of social justice in the national conscience, and from the more pragmatic political expediency route of a government attempting to retain control, through the development of legislation sensitive to the emerging aspirations of its population.

This is not to say that the two processes are either counterpoised or synchronized. They are intermeshed in a complicated relationship, as are the formal official goals and the operative goals of any organization, as enunciated by Miner. In the Saskatchewan Medicare crisis of 1962, as in Bismarck's day, the duality of purpose was evident. Both goals were used in the government's stand against strong resistant-to-change power groups in the population (Badgley and Wolfe).
Developments in health planning in Canada did not proceed apart from changes in other countries with similar social planning principles and interests. The communication processes between countries were enhanced in the post World War II period by a proliferating world literature on social and health planning, and latterly by the development of computerized libraries, with immense search potentials for relevant information. The process of the emergence of a health system conscience, as a part of a total system of social planning, was evident by international conferences such as the Pan American Conference on Health Manpower Planning held in Ottawa in 1973. The World Health Organization was also a substantial force in the promotion of health planning, especially in emerging nations. Methodologies employed in various countries do have common characteristics, despite variations in local application and technique.

These common elements existing in a health care and social welfare system have been emphasized by Blanpain, Delesie and Nys in their book on the development and features of the health insurance and resources in five European countries.

Abel-Smith drew attention to the pressing international issues in medical manpower planning in his study of the migration of physicians. As explained in Chapter Two, Canada is greatly affected by the migration of doctors not only in and out of the country, but
within its own borders, between the provincial jurisdictions which were set up in the nineteenth century (Anderson et al). At that time, the colleges of physicians and surgeons were delegated the responsibility for controlling admissions to the registers of practitioners, along with disciplinary powers over the proper professional behaviour of their peers.

Apart from the comments and suggestions about manpower which were made in the provincial plans of 1949 - plans which were not well followed through because of lack of planners and administrative control over the delivery system by governments - little seems to have been done until the situation was reviewed by the Royal Commission on Health Services (Hall Report), 1961-1964. Judek's special report, Medical Manpower in Canada, 1964, on physician manpower has already been mentioned. The recommendations in this report led the Royal Commission to propose further development of medical education in Canada.

By 1969, the issue had become that of health manpower planning, as educators became aware of the numbers of allied health professionals being produced by the universities and community colleges, in addition to physicians. A National Health Manpower Conference was called in 1969 in Ottawa to bring out the issues for discussion, and a follow-up conference was held in 1971
(Second National Health Manpower Conference, Ottawa). A Health Manpower Directorate was established, along with the development of a Health Manpower Bibliography.

A National Committee on Physician Manpower Requirements for Physicians in Canada was formed in 1971, and federal-provincial meetings began to be held. The Report of the Requirements Committee which was submitted to the National Committee mentioned above, is analyzed in detail as part of this thesis submission. Considerable physician input into the Requirements Committee Report enabled it to be regarded as a valuable backup document.

Dr. D.O. Anderson, of the University of British Columbia, who had been active in health planning since 1959, was invited to represent the province on the National Health Manpower Committee. A Health Manpower Planning Unit was established in the office of the Coordinator of Health Sciences at the University of British Columbia, subsidized by government, but academically independent.

As mentioned above, there was a Pan American Health Manpower Planning Conference held in Ottawa in 1973, and the report of that conference provides important documentation on the state of the art at that time.

Meanwhile, in 1972, the Social Credit government which had been in power for years in British Columbia,
was replaced by an N.D.P. government which decided to make some new moves in health service organization in the province. Among these moves was the establishment of the British Columbia Medical Centre (B.C.M.C.), whose primary objectives were to coordinate existing teaching hospital activities and to develop a new tertiary care teaching hospital. However, the secondary objective of health manpower planning soon became predominant, as Dr. Anderson started to develop data banks on the health professionals in the province.

The N.D.P. government was defeated in the election in 1975, and the B.C.M.C. Act was repealed by the returning Socreds. While Dr. Anderson continued to represent the province on the National Planning Committee, provincial manpower planning was slowed down temporarily until the new government officials had time to take stock. The University of British Columbia unit continues to be given government contracts, but these are geared to evaluation, back-up research, and data-providing functions, rather than planning. Dr. A. Stark, who now is responsible for the unit - Dr. Anderson left in 1976 - is consulted by Health Department officials on a regular basis. The province has its own representative now, plus one other on the National Committee for Health Manpower Planning.

In 1975, provincial government concern about health manpower planning seems to have passed to the
Ministry of Education, headed by Dr. Patrick McGeer, a University of British Columbia neurology professor. In 1978 an advisory committee on health manpower was commissioned by a Health Department report. This committee was under the chairmanship of an ex-Socred Minister of Health, Wesley Black. Representation was widespread on the committee, with Dr. David Bolton, head of Medicare, representing the provincial government, Dr. F.N. Rigby, executive director of the British Columbia Medical Association, and Phyllis Whittmore of the British Columbia Hospitals Association. However, when this committee reported in 1979, its report was not made public for six months, and then was quickly buried by the government, because its findings did not fit in with McGeer's own broad general policy direction, namely: to increase medical school enrollment. Black's report had argued that there were already more than enough physicians in British Columbia, and that recruitment should be cut back.

Presently in British Columbia, data gathering and health planning activities are still carried on regularly. The largest and most comprehensive collection of data, entitled Rollcall '79, is published by the Division of Health Services Research and Development, Health Services Centre, University of British Columbia. The subtitle is: 'A Status Report of Health Personnel in the Province of British Columbia'. 
The report describes twenty-eight health personnel groups, detailing numbers, rates, and rates of change in each group's manpower stock. *Rollcall '79* is the fourth such report, the reports being issued every two years. It is used by the provincial Health Manpower Working Group for planning, as well as by the licensing and registration bodies of various provincial professional groups. This report is specific for British Columbia, examining health manpower planning in each Regional Hospital District with consistent, standardized data.

Planning activities are carried out by the Provincial Health Working Group, which meets monthly, discussing each allied health manpower group. The National Working Group meets twice a year to discuss medical manpower, and is attended by two provincial representatives, as well as by Dr. A. Stark, head of the Research and Development Unit, as an observer. The western provinces also have a manpower discussion group for allied health professionals, and they also meet twice a year.

On the national scene, discrepancies exist between various sectors of the country in terms of their medical manpower needs and policies. The Maritimes still require more doctors and look for continued immigration flow of qualified personnel. The west, on the other hand, does not want or need more doctors, and would prefer to have immigration of physicians to Canada.
restricted. This, in turn, would lead to a more secure position for the various medical faculties in terms of funding and expansion. At the present time there is no consensus or tacit agreement between the Immigration Department of the federal government and the various colleges of physicians and surgeons of the provinces.

4. Rational, Bureaucratic, and Advocacy Planning

The national committee on physicians manpower was influenced by international attempts to bring more rationality into the planning process. A large volume of literature was accumulating on the subject. The Aspen Systems Corporation Health Manpower Planning Methods and Technology, Series I defined health manpower planning in the following way:

"...a process whereby goals, objectives, priorities, and activities for health manpower development are determined in a systematic fashion, in order to ensure that health manpower resources, both current and future, are adequate to meet the requirements for the delivery of health services to a population."

This definition is encompassing, explicit, and appropriate. Definitions by themselves, however, cannot stand alone as a beacon determining the course of planning. The deficit in such a definition is that it fails to take into account the political policy factors and how they impinge on the planning process, as illustrated above with B.C.'s action on the Black
Report.

In Confrey's paper, "The Political Aspects of Health Manpower Planning", presented to the Pan American Conference on Health Manpower Planning, he said:

"Virtually all activities associated with health manpower planning program administration are conducted within a political setting and pervaded by political forces... Improvement of health manpower represents a proposal for social change, and engenders political debate, compromise, and accommodation, the reconciliation of divergent viewpoints."

This outcome is the penultimate end point of planning, of which planners should always be conscious, when their planning efforts eventually meet the reality of government policy. T.L. Hall said in 1972:

"The planner's desire to disassociate himself from the political process reflects a misunderstanding of his primary responsibilities, which have been succinctly defined, as first, "the illumination of choices for the political decision-maker," and second, as a natural consequence of the first, the "persistent restraint and prevention of the foolish, the wasteful, and the cynical."

Confrey later states that "political decisions are made primarily in terms of value judgements, rather than on the basis of scientific criteria.". Political value judgements are more global in perspective than any particular issue under discussion, because they inevitably encompass more than the parochialism of that particular issue. When B.C.'s actions in filing the
Black Report are viewed in the above context, one is better able to understand them, even though perhaps opposed to the actual decision to bury the document. So when one talks of rationality planning, one always has to ask, "whose rationality?"

Apart from the above comments, rational planning methodologies did seem to be a rational outcome of attempts to improve the efficiency and effectiveness of health care. Particularly in the United States, a number of health planners had become involved in developing models of manpower planning. Hall's efforts serve as a land mark for the study of health methodologies. His four methods for estimating health manpower requirements are:

a. Economic method, which is concerned with the costs of health services and how much governments and the individuals are willing to pay.

b. Health needs method: the determination of the population's needs are made by health professionals and then the needs are converted to manpower requirements. This method was defined in 1941 by George Bernard Shaw in the preface to *The Doctor's Dilemma*:

"
...make up your minds how many doctors the community needs to keep it well. Do not register more or less than this number; and let registration constitute the doctor a civil servant with a dignified living wage paid out of public funds."

c. Health manpower: population ratio method
hinges on what ratio of manpower to population will be needed to meet the population's health care needs.

d. Service targets methods: relates to defining certain targets and then defining the subsequent manpower requirements to meet those targets.

Hall stressed two major points in his analysis. Firstly, that in any health manpower study, the data, analysis, and projections for supply factors should be in balance with those for the demand factors. Secondly, the methodology adopted for any country has to be specific for its unique situation, and that often more than one method is required. For detailed analysis of Hall's methods see the reprint of his table in the Appendix, 1. Underlying any study method was the need for accurate, reliable data, based on standardized definitions. Altenderfer stressed this feature in her paper, "Analytical and Data Needs for Health Manpower Planning", 1976. Canada was fortunately in a much better position than the United States was for obtaining accurate utilization data because of the copious Medicare tapes' information. Definition standardization was an early portion of the criteria developed for the study of Canadian health manpower needs by the Requirements Committee of the National Committee on Physician Manpower.

Levine and Kahn in the United States wrote of the role of operations research in their paper on health
manpower models. They listed four constraints on operations research when applied to health manpower studies:

a. fragmented studies
b. fragmented funding
c. limited scope of studies
d. inadequate attention to psychosocial factors.

It is apropos to compare their remarks on psychosocial factors to comments made earlier in this thesis concerning the human factor of physicians and to the policy-making of government discussed previously. To quote:

"... the health field is a very human industry... it is surprising to see how often operations research studies in health manpower proceed as if they are dealing with inanimate objects whose behaviour is standardized and predictable."

In his paper on conditions for the development of health models, Testa stressed two points:

a. the multiplicity of health decision makers, and

b. the epidemiology of disease processes afflicting the population of a country.

Among American authors developing methodological approaches to the study of medical manpower, Nathan, Lave, and Reinhardt developed varying methods, to which the reader is referred for more detail. Mathematical models have also been employed.
Chorney, in his presentation to the Pan American Conference on Health Manpower Planning, entitled "Mathematical Models and Health Manpower", described four mathematical models:

a. Analytical-algebraic models attempt to simplify real problems, reducing them to equations which can be handled mathematically. They have had limited success, and then only in certain specialized areas of health manpower study.

b. Econometric models, which rely on statistics to validate causal relationships in the health care system, then develop historical longitudinal analyses or cross-sectional analyses to attempt to verify hypotheses. The weakness of these models is the uncertainty of the future repeating the past, and in the economic analysis ignoring the social components of the health care problem.

c. Simulation models are abstractions of real systems, employing probability techniques and using computers as a basic tool to 'run' experiments on the model, instead of on the system itself. They are useful in making manpower projections using defined variables. However, they too have inherent possible defects, in that the computer program may have undetected errors, and that the real world may not be accurately quantifiable.

d. Numerical experimentation is a variation of
simulation models avoiding probability techniques but using equations derived from explicit hypotheses to feed the computer. These models are useful in the selection of one of several courses of action for the decision-maker.

As the Canadian National Committee tried to propose national solutions to the problems, the members began to recognize that there were constraints imposed by the politicians (such as described above), and by the bureaucrats, who had to manage the continuity of the system. Advocacy groups also had their say in the matter (e.g., Podair).

Alford, reviewing health planning activities in New York, has drawn attention to the different ideological positions of the parties involved in the planning there, and has argued that this has led to 'dynamics without change'. He identified entrepreneurs, corporate planners, and community health advocates as having different basic ideologies which were difficult to reconcile, and which resulted in failure to agree on plans.

Before going further, it may be useful to consider the ideological position of the entrepreneurs in Canada, and their resistance to the planning process; to also consider the feasibility of rational planning by corporate planners; and to examine consumers' expressions of demand, or how consumer planning could be
developed.
CHAPTER FIVE

A Critical Evaluation of the Planning Process

1. Ideological Differences and Their Effect on Planning

a. Entrepreneurial Attitudes

Ideological biases in viewing present systems are also inherent in their advocacy positions for future changes (problems of advocacy bias are well illustrated in the Minority Report of the Task Force on the Evaluation of Primary Health Care Services, by Dr. Edward Glazier).

Friedson and others have examined the process of the transcendant international phenomena of medical elitism, a process which for generations made physicians and scientists grow accustomed to the conviction that health care was their proprietary jurisdiction. This semi-isolation of the medical profession from the mainstream of emerging health, social, and economic developments in each country, has helped to typecast the profession in the role of reactionaries, in the perceptions of health planners. The public view that the profession as a whole was interested more in the maintenance of the status quo and their incomes, rather
than in the expediting of an improved health care delivery system, has been a factor in prejudicing the public against organized medicine.

This reaction was emphasized by events surrounding the doctors' strike in Saskatchewan in 1962. The general conviction of national and international critical observers in the aftermath of that event was that the doctors had abandoned their social and medical ethics (Badgley and Wolfe). The striking doctors would contradict this conclusion by asserting that they had provided emergency services, and that, in their view, they were within their rights to strike. This, of course, fits with the entrepreneurial or even trade union approach. The apparent abandonment of their medical ethics, epitomized in the public eye by the Hippocratic oath, was self-evident to most of the population.

The abandonment of their social ethic was not so clear. The criteria surrounding 'Emerging Propositions' have been elaborated by Hall, Land, Parker and Webb, in Change, Choice, and Conflict in Social Policy.

These criteria focus on the legitimacy, the feasibility, and the support for an issue. The Saskatchewan government met all these criteria in proposing a provincial medicare plan, except for the support aspect. The noisy resistance of the media and, of course, fanatic pressure groups, created a false
atmosphere of non-support; actually, the silent public majority was sympathetic to the government position. The government's legitimacy criteria were never at stake. However, organized medicine in Saskatchewan seemed blind to that fact. The denial of the legitimacy of the parliamentary process by an organized, militant group of doctors, educated by public funds and enjoying the benefits of a wealthy social status, seemed to remove much of the old style paternalistic concept of the medical profession. Similarly, there was not much sympathy for the Quebec specialists when they resisted the introduction of Medicare in 1970 (Taylor). The present-day view of organized medicine, as contrasted with physicians as individuals, has been accentuated by the resistance, in our American neighbour, of the American Medical Association to the development of a comprehensive health care system in the United States.

The entrepreneurial jurisdictional approach to medical practice is not a characteristic limited to countries such as Canada and the United States. Blanpain reports the emergence of this trait when Soviet-trained feldschers were loaned to Arab countries in the Middle East. There would seem to be certain innate characteristics of medical practitioners, plus a developmental attitude arising during intern training (given the right setting), that results in the type of doctor produced by our society (Coker). Sigerist, in
The Physician's Profession Through the Ages, states:

"...the physician's position in society is never determined by the physician himself but by the society he is serving."

Mc Keown states:

"It is widely recognized that doctors acquire their concept of practice from their clinical teachers and that when they leave the teaching hospital they are determined to do the kind of work they saw as students."

The basic personality characteristics frequently are of the obsessive-compulsive type (Myckatyn, Miles) in individuals who are endurance and achievement oriented (Parlow, Rothman). The setting influences on the production of an abundance of specialists and sub-specialists seeking higher professional status, an expert knowledge of a finite body of training, and the attendant material rewards, are well known (Hiestand and Ostow, Magraw, Petersdorf, Relman, and others). Unfortunately, as Macgraw says, 'Ordinarily in medical school he [the medical student] has no readily available model of the general practitioner with which to identify... '. Perkoff, in 1978 noted that latterly, in spite of the lack of a role model, there has been a resurgence of interest and an increasing number of undergraduates turning to family practice training.

b. Corporate or Rational Planners' Attitudes and
Problems

The corporate or rational planners make the assumption that it is possible to calculate the needs for physicians and to project plans for correcting the present maldistribution of physicians. Maldistribution is of two types:

i. geographical. A review of the literature concerning factors influencing practice location of professional health manpower is given in Josephine Arasteh's report to the U.S. Department of Health and Welfare.

ii. specialization. The mix of different kinds of service providers (see Their and Berliner, Colwill, Relman).

Rational planners believe they can calculate how many physicians should be able to provide care for the majority of people in accordance with the financial capacity of the country now and in the future. Their plans will also take account of rising health care costs absolute, and as a percentage of the G.N.P.

It is recognized in health manpower assessments and projections that there are methodology problems, but certain solutions are proposed. The first set of problems concern fuzzy definitions. Topics such as 'health' and 'needs' are variably interpreted depending on the perception of the observer. Standardization of definitions is desirable and has been attempted (Katz).
The World Health Organization definition of health was promulgated and generally accepted. It is as follows:

"a state of complete physical, mental and social well-being and not merely the absence of disease".

Health has also been defined elsewhere as the 'optimal personal fitness for full, fruitful, creative living' (Cushman). Needs have been categorized as either true or perceived. The perceived needs of a population in fact approximate the demand of that population for health care. Another definition that requires careful standardization is that of physician or nurse or lab technician, etc. Variations from country to country or from one part of the country to another, in the functions and qualifications of various categories of health care workers can cause definition difficulties. Enumeration of a specific group, such as physicians, can in itself be difficult once the definition has been derived. In Canada, there are three possible listings of physicians:

i. The colleges of physicians and surgeons' licensing from the various provinces are totalled.

ii. The Canadian Medical Directory.

iii. The Medicare utilization tapes.

It is important to know which listing is likely to be the most accurate and comprehensive data source.

A second methodology problem concerns the lack of experts in the field. Hopefully, with the passage of
time, and with more accumulated experience, this deficit will be rectified.

Third is the problem of limitations of the literature. Health planning is a relatively new venture for nations, with health manpower planning being even more so. A body of world literature has accumulated, but in a particular country, the health problems require the application of specific solutions, which have not been honed by previous experiences as yet.

Fourthly, there is the problem of multiple methodologies and the difficulty of devising the most appropriate method or combination of methods for the problems at hand. The four methods for assessing and projecting physician manpower requirements are those enunciated by Hall, as follows:

i. The economic demand method:

"The various needs expressed both by individuals and societies are so numerous that it is impossible to meet them all. This omnipresent duality 'numerous needs - few resources' dictates that choices must be made. The purpose of economics is precisely to find the mechanisms governing these choices." (Sackett).

ii. The health needs method (Schonfeld)

iii. Physician/population ratios (Canada. Report of the Requirements Committee)

iv. The service targets approach (see the
Appendix 4 of Hall's table detailing each method. Often no method will meet all the requirements demanded by the problems of a particular country. In addition, the method adopted has to be compatible with the political tenor of the country.

The fifth methodology problem centres on the lack of good indicators. There is a lack of adequate parameters for measuring effectiveness. Quality is interwoven with quantity in assessment of results of treatment. The previously mentioned fuzzy definition of health implies that health planners are aiming for a target that is not clearly in focus. The World Health Organization (W.H.O.) concluded that for use in the international comparison of data, only three indices were rated sufficiently comprehensive:

i. The expectation of life at birth and at one year of age,

ii. the crude death rate, and

iii. the proportional mortality ratio.

These indices, although adequate for international comparisons, are relatively insensitive to the conditions applying in the health services industry in Canada. The W.H.O. also concluded that, because of the unambiguity of mortality statistics, they were useful in assessing the health of a population and in evaluating the effectiveness of measures used to help improve that population's health. But again, mortality statistics
are, at best, crude indicators of health.

A sixth methodology weakness is the human factor, with its inherent unpredictability when relating to the assessment of diagnostic or treatment measures or any other facet of the health service operation requiring a measure of non-quantifiable personal judgement. Difficulty of reduplication of results reflects this weakness.

The seventh point to consider in the evaluation of methodology weaknesses is the difficulty in the application of economic laws to health care services and their planning. In this area, standard economic rules and definitions often seem to be inoperable because of the inherent differences in the health care market as opposed to normal market conditions. For example, input and output factors are not readily definable because of the lack of adequate measurement indices. The data obtainable for economic study purposes is often inappropriate or of poor quality. Because of input/output vagueness and the data inadequacies mentioned above, it is impossible to make an economic evaluation as to the efficient use of resources. Finally, the physician and his actions make economic analysis difficult. First, the physician has the ability to control both his demand and supply curves. Second, in using health system resources, many physicians feel their choice criteria and the financial
resources available to them are limitless. This attitude means the values ascribed to medical objectives by physicians overwhelm those values given to economic considerations. The difficulties of supply and demand analysis in such an economically perplexing industry as health care were described by Klarman. The physician's monopolist position and the use of barriers to entry to the health care system, render analysis more difficult and inconclusive. Reinhardt's table describing alternative models of physician pricing is included as the Appendix, 5.

Given the aforementioned problems in developing an effective health care system methodology, nonetheless solutions have been offered to the various weaknesses as follows:

Definitions and terminology could be largely standardized by consensus of groups, international for certain world-wide applications, and trans-Canadian for definitions pertaining to the specifics of our own particular health care system. The inadequacies of determining the exact numbers in the medical work force and other allied health fields is hopefully becoming a thing of the past, by means of the computer with its nationwide linkages. Annual upgrading of physician numbers will be possible if information concerning the professional activities was a requirement of their annual relicensing. Use of the social insurance numbers
of physicians would be useful in preventing double counting of physicians on the move. A similar computer system on a national basis could be used for keeping accurate tallies of interns and residents. Such an up to date assessment would considerably reduce the lag-time in effecting changes in medical training programs when it became evident that there were excessive or inadequate numbers of a particular group required to meet changing demands for services.

In terms of the total numbers of physicians required for the country, it has been proposed that a 'reasonable' quality of health care be sought for the population, and that the numbers of physicians should be sufficient to provide that 'reasonable' quality (Requirements Committee Report: Page 19, Part 1). So soon again the problem of fuzzy definitions arises!

Regarding the relative lack of experts in dealing with methodologies for analyzing health care and physician requirements, it is suggested that we move to develop such experts in our country as a prima facie need for rationalization of the health care system. The basic requirement to do so, is to provide adequate funding, the responsibility for which should be jointly provincial and federal.

Literature limitations on methodology are declining as the world and national bodies of information accumulate in computer retrieval libraries.
The total time of existence of health care planning is so short, relatively, that it mitigates against a collection of comprehensive background sources and data sufficient to meet our needs.

In analysis of the Requirements Committee's problem with the lack of good indicators, several solutions were proffered by stating several general assumptions, as follows:

i. No large areas of unmet needs existed in the base years of data collection.

ii. Perceived need equals demand (compare with Marc Lalonde's statement in A New Perspective on the Health of Canadians, p. 41).

iii. The deficit of unrendered necessary services equals the unnecessary services rendered.

iv. The utilization data indicates real need.

The weaknesses in such assumptions are self-evident.

As regards the human factor of unpredictability in methodology, the consensus is that we have to live with it. A similar statement applies to the inadequacies in the application of economic laws to health care system analysis, but hopefully, we will gain some benefit from our experience to date.

c. Consumer Advocacy

As pointed out above, consumers in Canada have shown considerable ambivalence in their attitudes
towards planning of health services. On the one hand, they respond to questionnaires about patient satisfactions in a positive manner, but they become less trustful of organized medicine (see *Macleans*, September 29, 1980. Page 46). As well, at the end of the sixties, a number of groups in the population, such as women and young people, followed American radicals in protesting about traditional primary health care services, setting up health collectives or other alternatives, or going to emergency departments instead of doctors' offices. But, on the whole, consumers have not been well organized to make demands, despite the existence of some voluntary planning agencies. S.P.A.R.C. (Social Planning and Research Council) of British Columbia has been an active body, but it has tended to focus on omissions or deficits in the provision of care, rather than being too critical of existing service organization.

On a larger perspective, Etzioni stated that our society must find ways to make large social organizations more responsive to the personal needs of consumers and employees. Podair, in his book *The Consumer's Guide to Good Health*, elaborates the deficits of the American system as seen by the consumer, and points out ways whereby the consumer can be sure to attain good health care. The *Consumer Reports*, a monthly publication, has numerous high quality articles on health care, including one on how to select and
evaluate a doctor. The American Hospital Association in 1972 formulated a 'bill of rights' for patients, and suggested it be posted in every hospital to encourage the acceptance of its concepts. This "Statement on a Patient's Bill of Rights" is included in the Appendix, 6.

Consumer philosophy is most aptly summated by a modern TV medical hero, Alan Alda (Hawkeye Pierce of M*A*S*H) when he spoke at a physicians' commencement at Columbia University, May 1979, as follows:

"Be skilled, be learned, be aware of the dignity of your calling. But please don't ever lose sight of your own simple humanity... Put people first. And I include in that not just people, but that which exists between people. Let me challenge you. With all your study, you can read my x-rays like a telegram. But can you read my involuntary muscles? Can you see the fear and uncertainty in my face? Will you tell me when you don't know what to do? Can you face your own fear, your own uncertainty? When in doubt, can you call in help?

Will you be the kind of doctor who cares more about the case than about the person? ("Nurse, call the gastric ulcer and have him come in at three.") You'll know you're in trouble if you find yourself wishing they would mail in their liver in a plain brown envelope.

Where does money come on your list? Will it be the sole standard against which to reckon your success? Where will your family come on your list? How many days and nights, weeks and months, will you separate yourself from them, buried in your work, before you realize that you've removed yourself from an important part of your life? And if you're a male doctor, how will you relate to women? Women as patients, as nurses, as
fellow doctors - and later as students?

Thank you for taking on the enormous responsibility that you have - and for having the strength to have made it to this day. I don't know how you've managed to learn it all. But there is one more thing you can learn about the body that only a non-doctor would tell you - and I hope you'll always remember this: the head bone is connected to the heart bone. Don't let them come apart."

2. Rational Planning and Policies

In 1976 the author was responsible for developing a project of requirements for physicians in Canada, with special reference to British Columbia, for the Health Manpower Working Group of the Province of British Columbia. He summarized the boundaries, assumptions and biases which were inherent in each Task Committee report and reviewed the reports, using general practice and surgery as examples. Amongst other comments, he noted that:

a. few medical groups adequately defined their field or set limits on their boundaries, and

b. few accepted the need for allied health professionals.

He reviewed in detail the method used to calculate workloads. The findings were discussed with the Health Manpower Working Group. In discussion, it was noted that the times to perform various activities might be
inappropriate, substitution of other workers had not been considered, and there was no lid placed upon total number of activities.

He then compared the ratios proposed with those which presently existed in the Province of British Columbia. Overall, if the ratios proposed by the Requirements Subcommittee for 1981 were applied then to the Province, there would be 3,744 doctors required. At the time, there were 4,484 doctors in practice - an oversupply, by the very generous ratios, of approximately 700 doctors. By using a very crude projection of the actually observed annual rate of change in doctors from 1974 to 1975 in the Province of British Columbia, it might be estimated that, by 1981, there could be 4,760 doctors in practice in this Province, or an oversupply of 1,000.

The data showed that the practice in British Columbia of adhering to current ratios may be quite inappropriate, but it also indicated a fallacy in the Physician Requirements' methodology in that, since the physicians in the Province of British Columbia already exceeded optimum ratios and were busy and financially productive, clearly there were alternative ways including an increase in the fees or an alteration in the patterns of practice in which physicians could be busy and would continue to meet increasing demands for their services. A summary of these findings form part
of the Appendix. Also included are workload tables for general/family practice and surgery, taken from the Requirements Committee Report.

While the Health Manpower Working Group continues its activities, there has been less conviction that rational planning will provide more than rough guidelines for action, since the new government came into office and took stock of the situation. The activities of the Minister of Education, Dr. McGeer, were discussed above. The report of the Working Party for Wesley Black, set up by the Health Department, was buried because it did not fit in with the technological education policies which Dr. McGeer had decided to pursue.

Some hope for rational planning inputs is given by David Donnison, who has agreed that decisions by government are likely to be incremental and based on trade-offs most of the time, but if a standing plan should exist, there is a likelihood that it will influence the thinking of the politicians who are engaged in trading-off, in the absence of other strong persuasions.

A detailed analysis of the planning process used in the Requirements Committee Report of 1975 to the National Committee on Physician Manpower is given in the next chapter.
CHAPTER SIX

Analysis of Canada's Major Health Planning Project to Date

1. Introduction

The utilization of time, data and consultant resources combined to make the Report of the Requirements Committee in 1975 a state of the art document for health planning. Despite the Report's shortcomings, it serves as a basis from which new strategies can be developed in the assessment of physician manpower needs. With that in mind, a detailed analysis and query of the Report, made subsequent to the study carried out for the Health Manpower Working Group by the author (see the Appendix), will now be given. In this analysis, 'family practice' is considered the equivalent of, and is used interchangeably with, the term 'general practice'.

2. Background

The National Committee on Physician Manpower in
1972 undertook to "develop criteria and make recommendations regarding future requirements for physicians in the various disciplines in Canada.". This project was to ensure a more appropriate mix of the various medical disciplines for the needs of the Canadian people than had heretofore taken place.

Accordingly, the National Committee established in April, 1973, the Requirements Committee on Physician Manpower. The latter committee, by the creation of working parties in each medical discipline, supplemented by resource personnel from the Department of National Health and Welfare, sought to establish a methodology whereby optimum present and future needs in each discipline could be estimated. Once all the individual working party reports in each discipline were filed, it remained then to appraise them individually and in total, to ascertain their cumulative effect if they were to be instituted. The purpose of this study, then, is to consider the following problem:

3. Problem Definition

Given the various reports of the medical manpower working parties, how would one evaluate their findings, considering the assumptions and the methodology? How would one deal with the overlap of group boundaries to
arrive at a rational prediction of future needs for each discipline? If the working party proposals were implemented, what would be the impact on British Columbia in terms of numbers and cost?

4. Methodology

The approach utilized was to initially organize a group of physicians in each specialty to study the problem of manpower planning in their respective disciplines on a national level. Experienced, knowledgeable physicians were recruited. Detailed knowledge of the technology, training, practice methods, etc., of each group was made available in this way to help ensure the accuracy in assessing and interpreting utilization data, and in making projections of future needs. Each working party was assisted by resource personnel from the Department of National Health and Welfare. A working manual was developed to assist the groups in their work.

The methodology utilized involved two basic approaches: the calculation of health needs, and the calculation of physician/manpower ratios. Realization of the difficulties inherent in the field of health planning was evident by the discussion of problems and assumptions presented in Part I of the Report of the
Requirements Committee. Such discussion does not, of course, preclude comment and criticism from others outside the program. The criticism and comment offered in this review is presented in an effort to evaluate the validity of the reports and to assess their total impact if their recommendations were implemented.

The methodology actually utilized consisted of the Delphinian Method and the physician workload method. Variations were employed by certain disciplines. The Delphinian Method is that of garnering a consensus by the collection of informed experienced opinions. The consensus is a weighted judgement of probabilities. The physician workload method capitalizes on the abundant data available in Canada by virtue of two fortuitous circumstances:

a. universal prepaid medical coverage, and

b. the fee for service payment method for physicians.

The prepaid medical care insurance claims, i.e. utilization data, can be analyzed to determine the specifics for each particular type of service rendered in a given year. The base years of 1971-72 were selected because the utilization data was first generally available from that time period. The projection year chosen was 1981, because it coincides with the next census, and because it represents a time for evaluation of the predictions that is not too far
The details of the physician workload method are as follows. The types of services rendered by physicians were first standardized into fourteen groups to help ensure uniformity of data across the country. The various disciplines then assigned a unit time (average) in minutes for the reasonable performance of each specific type of service rendered by their specialty. By multiplying the unit time by the total number of services of a specific type performed in a stated year by the doctors of that specialty (available from utilization data), the workload in hours per year can be calculated for that specialty in performing house calls or office visits, etc. Their total year's workload is available by adding up the time spent for each of the fourteen categories. This is the total workload per year per specialty, in hours per year or hours per week for a selected work week year. The general assumption here is that all doctors are overworked in terms of hours per week that they work. An optional work week of 48 hours and work week year of 46 weeks was adopted by most groups to calculate the optimal number of physicians which should have been available to render the services given in the base years.

Using these optimum numbers of physicians in the base years and taking into consideration population
trends, as well as likely future developments, a calculation of optimum numbers of physicians required for each specialty can be developed for 1981. This methodology thus arrives at an optimum demand calculation for 1981.

The supply calculations combine the present number of active medical practitioners in each specialty, immigration factors and attrition factors, and the projected optimal number required for 1981, in a formula (the Manseau-Mo Cheung Formula) to arrive at a calculation of the number of new annual graduates needed to meet the projected 1981 optimums. By comparing the present number of annual graduates in each specialty with the projected annual number required to attain the 1981 optimum levels, a measure of the shortcomings or excesses of each training program can be estimated. Necessary corrective measures could then be undertaken to correct imbalances.

5. Total Method Comments and Criticisms

The availability of large amounts of utilization data raises the intriguing question as to who is best qualified to utilize such data in making projections for future physician needs. The unstated assumption of this method is that physicians are the best qualified. Let
us now examine that assumption.

Should physicians engage in health manpower planning at all? Manpower planning is, after all, a form of peer review. The hospital accreditation program has been the catalyst in the promotion of peer review by physicians, leading to the establishment of committees in hospitals, such as surgical tissue, medical audit, infection, etc., for improvement in the quality of medical services rendered. The record in Canada after about sixty years of operation of the accreditation program is that less than 50% of Canadian hospitals are accredited. Physician enthusiasm for and acceptance of such peer review processes has thus been less than overwhelming. Is it logical that physicians should be the prime peer reviewers in physician manpower planning?

Economic theorists hold that physicians, by their unique relationship with the health care consumer, control the demand placed on health services (Sorkin, Fein). If this is true, are the same medical personnel the most appropriate group for doing their own manpower planning? Presently, physicians are a major part of the medical care system, but are not determinants in total, despite their strong power base. Does the partial role of the physician in the present health system make it apropos that he is accorded sole participant status in total planning for future physician numbers? Can physicians effectively remove their biases against new,
alternative forms of health care delivery to become unbiased planners? Can they effectively plan for new types of participants in the rendering of care, when such planning threatens their status quo economically and otherwise?

On the other hand, would it be logical to move to the extreme opposite in the selection of physician manpower planners? In other words, would the same statistics be more appropriately utilized by an expert citizen group, making their own assumptions in determining methodology and conclusions? Would their assumptions be valid and acceptable by medical groups and specialties? Would the mere existence of such a non-medical determinant group be recognized and legitimized by the medical profession? Not likely. The spectre of total bureaucratic control of future physician needs would be an anathema to organized medicine.

What then, are the alternatives? Another possibility would be one of a role of partial determination in medical manpower planning for both the medical profession and the citizens. Physicians have been slow to incorporate citizen representation on their various boards and associations. Is such an insular role justified and appropriate, especially for physician manpower planning, with its inherent widespread linkages in the community? Would medical technical advice lead
to more logical conclusions when put into the context of a non-medically dominant planning committee? Would balanced conclusions, considering the total health care system, be more likely in a joint participation type of planning committee? Would such a committee be a reality or would expert medical input be apt to take over and dominate the committee?

Consideration of the three types of planning committees mentioned above, i.e. all physicians; all citizen; or physician input into citizen-dominated committee, raises enough uncertainty to lead to rejection of them all. Would it not be more logical to design a committee with strong physician input but with an appropriate measure of informed citizen input as well? The solitary self-determination role of medicine in the past, although legislatively granted, seems inappropriate in the context of today's health care system. Formerly closed-system membranes have been rendered permeable by the advent of more effective media, a better educated and more medically sophisticated public, third party payment methods involving governments, ballooning health care costs, and many other factors. In light of these permeating factors, selection of an all-medical planning process seems anachronistic. Granted, other input was present in the Requirements Committee project from the Department of Health and Welfare. However, this was
more as technical advisors, and not at all in the role of representatives of the public interest and need.

In conclusion, a major criticism of these documents and their validity, arises from the fact that they represent the views of a private interest group, physicians, who, by their very status-maintaining defensive posture, are not likely to give a balanced picture of the future medical needs of the country as a whole, without some complementary input from representatives of the general public health consumers.

Having thus 1 jumped for citizen input into medical planning, let us consider the present status of participation by the general public in determining medical manpower planning. By and large, citizen input is achieved only through various levels of government activity in the health care field. This is usually accomplished by funding mechanisms in specific sectors of the health care system. Thus, governments fund university medical training programs, intern and residency programs, research programs, medicare payments, hospital insurance payments, public health, etc. The dominant characteristic of involvement by government is the lack of integration of funding mechanisms and programs. Admittedly, part of the problem of non-integration stems from the inadequacies of the British North America Act as it applies to the present day situation in the delivery of health care.
The Act allocates responsibility for health care to the provinces, but the reality of today's economics demands federal participation.

The Physician Manpower Requirements Committee provides an integrative approach for one facet of the health care delivery system. The concept is national in scope. It relates to university training programs, public demand for health services, alternative delivery mechanisms of health care, immigration, physician distribution, etc. Why then was not more public involvement solicited for this planning process? Is public participation deemed to be appropriate, informed enough, interested enough? Given the answer to the above questions is yes, it would still be necessary to determine how consensus for public participation could be reached. Would surveys be appropriate when one considers their expense and the obvious problems in initiating valid reliable surveys? Is the public so satisfied with the present system as to prefer to be a non-participant in medical manpower planning?

For the specialties, the public may not be so well informed or so sure as to what their desires are in terms of medical manpower planning. Over the last few years, there has been a groundswell of public support for the general or family type of practice in their lives, after thirty years of post World War II concentration on the specialties. Could the public
wants be ascertained in regard to what they see the role of the family practitioner encompassing? Would the general public be more reliable in determining the nature of the family practitioner than the various specialty groups, with their own specific areas of interest, that dominate the medical schools and their programs. How far should the wants of the public be considered apart from economic reality? Should the public be allowed to determine for themselves just who should give primary care? Is the public aware of the nation's health needs as opposed to the public's demands on the health care system? Should the public pay a premium for selecting a primary care delivered by specialists vs. primary care delivered by general practice? Can the country afford primary care delivered by specialists? These questions demand some role by the public in the elaboration of appropriate answers. These same questions all hinge, as well, on the medical manpower planning process.

Public participation may have been a difficult idea to institute in the carrying out of the tasks of the Requirements Committee, but its very absence weakens the strength of the results of the Requirements Committee's labours.

6. Definition of Family Practice
The second major flaw in the methodology relates to the definition of family practice. Granted, a Requirements Committee Report on Family Practice was formulated, just as the various specialties had reported. Nonetheless, the common attitude prevailing in the reports of those specialties bordering general practice is that it is appropriate and proper to pre-empt certain functions that general practice obviously does, when the utilization data are reviewed. The style of gaining these new functions could best be compared to expropriation procedures by government. Is such a method of role definition of family practice necessarily the best or most appropriate to fill the health care needs of Canada for family practice? Admittedly a great deal of role ambiguity has surrounded family practice in Canada. Some of this fuzziness of role came from the lack of a politically strong national organization for general practice. The facts are that it was difficult for general practice to have assumed strong leadership in the face of a weak power base. Family practice was at the bottom of the medical power structure. Even though family practitioners constitute half of the national physician workforce, the determinants of who they are and how they will function are largely in the hands of other medical power groups, i.e. the specialties.
Thus we find that the power of the medical sub-groups is the largest determiner of the role of family practice, and does not necessarily parallel the public interest or desire. This situation gives rise to curious circumstances, such as the internal medicine group (in their working party report) predicting the need for more of their own numbers in the expanding role of training larger numbers of family practitioners in the university medical schools. Why would it not have sprung to mind that more family practitioners were needed to train the larger required numbers of family practitioners predicted for 1981? Departments of family practice were slow in evolving in medical faculties in many universities, the University of British Columbia being one of the last to do so. Did it not seem incongruous to be involved in the medical training of part of a group of physicians representing half of the nation's physicians, and not have had a department of general practice? Obviously, the power facts of the medical training grounds obviated the need to defend against maintaining such incongruities.

Thus, the power of specialty groups in control in medical schools of universities and on the active staffs of hospitals, determines, for the most part, the nature of family practice. At the same time, the organized specialty groups are nibbling at the boundaries of general practice as it is presently constituted, to
further restrict and modify its role. Given the various specialty working party reports on physician manpower, can a summation of these same committees' roles and boundaries, subtracted from the whole of medical care delivery, adequately describe general practice? Is general practice a specialty residuum surrounded by constantly shrinking boundaries? This negative type of approach as to what constitutes general practice makes one wonder if general practice is viable under such circumstances.

The present new graduate in medicine has been moulded in the image the medical school specialist envisages. Does this new image of the graduating family practitioner malfit the model of family practice as portrayed by the utilization data? Is this utilization model of family practice outmoded but still lingering as a vestigial remnant, by virtue of grandfather clauses embodied in the older members of family practice? On the other hand, is the university medical educator model of general practice apt to be any more appropriate than that displayed by utilization data? In effect, what we are asking is who should be the architect of the model of general practice? Allocation of the function of model making exclusively to various specialty groups in the medical schools with their vested interest position seems to be outmoded. The graduate presently being produced for family practice is one concerned more with
ambulatory care, with the psycho-social aspects of medical practice and with more emphasis on non-procedural items and preventive medicine. Is such a model in keeping with the public interest? Has the public had any input into the determination of such a model, and indeed, would such input be appropriate? As the ultimate consumer of health care, it would seem to be fitting that the public participated to some extent in the determination of the general practice model.

How could such participation come about? The most appropriate starting point would be on the selection committees for candidates seeking to enter medical school. Committees for selection of future doctors have been even more sacrosanct than other medical bodies in terms of public entry for decision-making. Should such powers be vested solely in the hands of the medical educator? What has been their modus operandi and track record to date? Basically, the selection method utilized in most schools, with few notable exceptions such as McMaster University, has been based solely on academic achievement by the pre-medical candidate. Selection of candidates is difficult, but does choice of a method based on the expediency of the academic achievement selection process, lead to appropriate types of future doctors? The predilection and preoccupation of academia for and with academic achievement biases them in choosing a selection method. Are such closed
system biases apt to be in the best public interest? Again, is this then not a proper area for entry of the public? Would not a more balanced view of the characteristics desired in the medical product of our medical schools result from greater public participation in the selection process? The track record, previously mentioned, has been to turn out excellent doctor-technicians who, is spite of their original motivational orientation, undergo, during their period of medical training, an attitudinal restructuring leading to their ultimate emergence as medical entrepreneurs (Blanpain). Can the economics, and indeed, should the economics of our health care system afford more of such a medical product?

Another aspect of this whole process remains to be considered here. It concerns wastefulness. Many more applications for medical school positions arise than there are positions to be filled. The selection process recruits a candidate of high intellect and achievement. Is it appropriate when those selected finally graduate, to have nearly fifty percent of the new doctors enter a branch of their profession that may become reduced almost to the role of a medical triage referral worker? Is such an outcome a proper exploitation of the new family practitioner's training and talents? Could we not turn out a less well trained health care worker to deliver such a service? If the spirit of future general
practice is captured by a description such as 'medical triage referral worker', would not a surrogate form of medical practitioner be more appropriate and economical? Down playing and down grading the role of family practice can only ultimately lead to the need for a less well trained primary medical care deliverer. If this is indeed the trend along which medical schools are moving, should the medical specialties also rendering primary care cling to that role aspect so tenaciously, as evidenced in several of the reports of the working parties? Are there not contradictory attitudes voiced in several of the reports of those groups giving both primary and secondary care? On the one level, they seek to lessen the role of the family practitioner as described in discussion of their own specific tasks and boundaries, yet, on the other hand, they seek to maintain the right to give primary care. Take the report of the obstetrics and gynecology working party for example. In their rather limited discussion of a new nurse-obstetrician (midwife) role, the group can see the possibility of allocating to such a worker the majority of normal deliveries. The group then renders unto themselves all abnormal deliveries. The role of the family practitioner in such an arrangement is not mentioned. Is that kind of oversight likely to lead to a valid description of family practice?

It would seem then, in spite of its lesser status
in the medical schools and in the eyes of the specialty groups, that general practice remains the linkstone or focal point in any program of health manpower planning that is valid. General practitioners do, after all, constitute nearly half of the medical manpower of the country. Is it appropriate that the destiny of general practice be in the hands of assorted specialty groups exclusive of the public interest or input? Common sense would tell us otherwise. Why then has not general practice held a larger role in the universities' training programs? No doubt, part of this problem is attitudinal on the part of the specialist medical school educator who controls the training process.

What are the outcomes and products of our processed medical school inputs? They are specialists and family practitioners. Those who opt for family practice are not likely to linger long in a field with severely shrinking horizons and limited duties. Although general practice makes economic security easily attainable, the unrest created by a feeling of frustration and misapplication of one's talents, will ultimately lead to opting for a specialty training program. The higher the percentage of physician members that achieve specialist status, the more the market principles of economics will lead to greater competition in the delivery of those same primary services that the specialist working parties still espouse. Can we afford
Cadillac delivery of primary health services? Extrapolation of present trends could lead to a future wherein all medical graduates become specialists, delivering the trio of primary, secondary, and tertiary care, whilst sharing primary care delivery with a lesser health worker. The family practitioner would be effectively eliminated in such a schema. Is this outcome appropriate and in the best interests of the health care-consuming public? Is it logical, given the traditional place of the family physician?

7. Conclusions and Possible Solutions

What are the alternatives? Could the family practitioner be trained to competently cope with a larger, more rewarding role than seems possible at present? Only such a role will ensure his survival in the future. Could we restrict eventually the role of specialists to that of consultants? Would not such a role be more efficient and rewarding, not only to the doctor himself, but to the public? Can a specialist, providing primary care, likely for economic reasons, adequately provide secondary and tertiary care? If payment mechanisms were altered appropriately, could we not encourage more specialists to act as consultants only?
University training programs for engineers practice streaming techniques for splitting into specialties after the second basic year, so that various engineering specialties, such as civil, metallurgical, and mechanical, are being developed during the last two years of the undergraduate program. A streamed program for medical specialties would, however, take another four years. Would not this earlier streaming in medicine result in considerable economic saving, while turning out well trained specialist-consultants who have opted early for their own particular area of specialized knowledge? Restructuring of medical school curricula into optional style programs after the basic two years, could result in the unloading of much unnecessary deadweight learning. Many items of medical school curricula retain their positions by virtue of tradition and the tenure of their teachers. The particular courses are not necessarily appropriate or requisite for every would-be graduate specialist. The proper allocation of such courses to the appropriate specialist programs would eliminate many inefficiencies that would likely be disclosed if proper cost/benefit analyses for courses were constructed. The family practitioner would also benefit from such a program, no doubt emerging after the four-year portion of streamed program learning as a specialist in his own right.

Returning finally to the concept of physician
manpower allocation and the requirements for physicians in Canada, it would seem logical to eventually use the ultimate experience of the working parties and their appropriate methodologies for insertion into the medical streaming process after the second of the two basic years. Here then could rational allocation of manpower resources be made. The resulting specialty medical products, including family practitioners, would be more attuned to the changing health care needs of the Canadian people, and more in keeping with their economic capabilities.

Having considered the broader issues of physician manpower planning as raised by the Requirements Committee Report, and having demonstrated the many linkages such a program has in the health care system, we will now turn to the conclusions of this thesis on medical manpower planning, in Chapter Seven.
CHAPTER SEVEN

Conclusions for Health Planning

1. General

a. The premise of health manpower planning is that maldistribution of physicians, both by numbers and by mix, leads to the deprivation of access to health care, and as such, constitutes a social injustice which requires early remedies by planners and governments.

b. Health resource planning, of which health manpower planning is a part, is not a refined art or technique, and therefore is subject to trial and error, financial responsibility for which must be part of the government role as a moulder of the system.
c. Medical manpower planning can proceed and coexist with the spirit of freedom of choice in choosing a professional career, such freedom being part of the fabric of a democratic society.

d. Intervention policies, designed to invoke changes in the health care system, require careful advance evaluation to ensure that they do not evoke negative changes.

e. Health manpower planning is an integral part of the allocation of health resources, but it should be remembered that personnel resources are human factors, not inanimate technical resource components.

f. Governments enjoying the political advantages accruing from a health care system which has general public approval and acceptance, must be prepared to adequately fund such a system, or else face the political consequences inherent in
the provision of a second-rate method of health care.

\textbf{g.}

Just as acceptance of political policy decisions not in agreement with planning conclusions is part of the planner's mandate, so also may be necessary the acceptance by planners of the socio-medical reality of the resistance and opposing position of the prime deliverers of health care, the physicians.

\textbf{2. Canada}

\textbf{a.}

Planning for the allocation of health resources of Canada is necessary in order to achieve rationality in an industry consuming an increasingly larger portion of the Gross National Product (see the Appendix, 7).

\textbf{b.}

A corollary of our belief in the right of patients to health care in Canada, is that the
health care bureaucracy thus created should have as one of its underlying principles, the humanizing of health care delivery (Schaeffer).

c. Physician manpower planning is one portion of total health personnel planning, but within the present and foreseeable context of our health care system, such physician planning is likely to remain the key item.

d. Allied health personnel planning is necessary for the efficient allocation of these resources, and for the institution of any contemplated role changes in the future functions of various health personnel.

e. Under our present constitution, and likely in any projected constitutional change, health care is, and will remain, a provincial jurisdiction, so that pluralism will continue to be a factor in decision-making for the allocation of health
personnel resources.

f. Education of medical personnel is such a central item in medical manpower planning, that the university training programs for physicians should be seconded to appropriate health departments of the provincial governments to better ensure that the supply of health personnel is in balance with the demands generated by the system.

g. Evolutionary changes in the health care delivery system in Canada should be encouraged, rather than the use of disruptive total system ("revolutionary") changes.

h. Canada, or any other nation, will ultimately develop the kind of doctor it wants; the results achieved by using an unplanned evolutionary process are not likely to be efficient or even necessarily appropriate.
3. Fee-For-Service System

a. Despite the negative effects of the fee-for-service system of payment of physicians, there are "no panaceas leading to a perfect payment mechanism" (Wolfe and Badgely).

b. Two overlooked benefits of the fee-for-service payment mechanism are the enormous amounts of detailed data generated by the medicare utilization tapes for health system analysis, and the present existence of a high-quality medical care system that evolved under a fee-for-service method that is often reproached without a viable alternative being offered.

c. Changes in the fee-for-service payment mechanism as advocated by Justice Hall in his second report, constitute a shift from the basic concepts of our present health service system,
and, as such, will create spin-offs in the medical manpower planning process that are indefinable.

4. Family Physicians

a.

The family practitioner/general practitioner group, accounts for nearly fifty percent of the medical manpower personnel of Canada, so that personnel resource planning for this component, is a key issue for any planning venture.

b.

Ascribing the definition of family practice to being that residuum resulting after the expropriation of functions by the expanding boundaries of various specialty disciplines, is not a creative or integrative approach, and, as such, will lead to debasement of family practice.

c.

Given the costs, time, and resources needed to train family physicians, the prescription of an
abbreviated role function for family practitioners will lead to fewer numbers of physicians seeking the role, and also to the elaboration of an increasing number of specialists, themselves doing primary health care delivery.

5. British Columbia

a.
British Columbia, by virtue of its climate, its geography, and its social amenities, as exemplified by a less traditional, freer, western-style professional spirit, is attracting a large number of physicians, which, in turn, is altering the physician/population ratios to the point where some control over the total number of physicians practicing here will be necessary.

b.
It is irrational for British Columbia to attempt physician and allied health manpower planning without due consideration for the context of our interwoven national health service system existing in a free society.
British Columbia will continue to have the ability to decide the type of primary health care and specialist providers it desires, given that national standards for physicians' education and qualifications ought to continue to be applicable.
BIBLIOGRAPHY

(ADDENDUM p.138)


Butter, I.: The migratory flow of doctors to and from the United States. in *Medical Care*, Jan-Feb 1971, pp.17-31.


Canada. *Canada's National- Provincial Health Program*


Consumer Reports. Mount Vernon, N.Y.: Consumers' Union of the United States.


Crichton, Anne O. J.: The shift from entrepreneurial to political power in the Canadian health care system. in Social science and Medicine, Jan 1966, pp.59-67.


Donnison, David Vernon: Ideologies and policies. in *Journal of Social Medicine*, #2, 1972, pp.97-117.


Evans, Robert G.: Does Canada have too many doctors?...Why nobody loves an immigrant physician. in *Canadian Public Policy*, v.2, Spring, 1976, pp.147-160.


Freidson, Eliot: *Professional dominance: the

Fuchs, Victor R.: The contribution of health services to the American economy. in Milbank Memorial Fund Quarterly, October, 1966.


Martin, Margaret: Colleagues or competitors? a study of the role of five of the professions supplementary to medicine. London: Bell, 1969.


Myckatyn, M. M. [and] Miles, J. E.: A profile of


Riley, Susan: Doctors in crisis. in MacLeans,
September 29, 1980.


Spitzer, Walter O.: A strategy for evaluation of


Testa, Mario: Health models: conditions for their development. (paper presented at the Pan American Conference on Health Manpower Planning) Ottawa: 1973


University of British Columbia. Office of the Coordinator, Health Sciences Centre. Division of
Health Services Research and Development: 
Rollcall '79: A status report of health personnel 
in the Province of British Columbia  

Watkins, C. Ken: Social control. 

Wildavsky, Aaron: Doing better and feeling worse: the political pathology of health policy. 


ADDENDUM


British Columbia Ministry of Health; Report of the Advisory Committee on Medical Manpower, Victoria, Queen’s Printer, 1979. (Black Report)

Canada, Department of National Health and Welfare Report of the Committee on Nurse Practitioners, Ottawa, Queen’s Printer, 1973. (Boudreau)


## APPENDIX


3. Definition of the Certified Family Physician.  


5. Alternative Methods of Physician Pricing, Uwe Reinhardt.  


Constitutional responsibilities in the health field

Government involvement in health care services in 1867, at Confederation, was minimal. For the most part the individual was compelled to rely on his own resources and those of his family group, and hospitals were administered and financed by private charities and religious organizations.

The only specific references to health in the distribution of legislative powers under the British North America Act allocate to Parliament jurisdiction over quarantine and the establishment and maintenance of marine hospitals, and to provincial legislatures jurisdiction over the establishment, maintenance and management of hospitals, asylums, charities and charitable institutions in and for the province, other than marine hospitals. In 1867 this latter reference probably was meant to cover most health care services. Since the provinces were assigned jurisdiction over generally all matters of a merely local or private nature in the province, it is probable that this power was deemed to cover health care, while the provincial power over municipal institutions provided a convenient means for dealing with such matters. Thus provision of health care services has been traditionally acknowledged as primarily a provincial responsibility. But a measure of responsibility in health matters has been expressed over the years in many federal programs and policies.

Federal-provincial co-operation

Since the federal and provincial governments share responsibility for dealing with health matters, a formal structure has been established for federal-provincial co-operation. It comprises the following: conference of ministers of health; conference of deputy ministers of health; federal-provincial advisory committees on institutional care services, community care services, health promotion and lifestyle, environmental and occupational health and health manpower. The conferences of ministers and deputy ministers of health involve matters of promotion, protection, maintenance and restoration of the health of the Canadian people. Normally, the conference of ministers meets annually and the conference of deputy ministers twice a year. The five advisory committees facilitate the work of the ministers and deputy ministers, and assist them in achieving objectives, identifying major issues and solving problems. They may set up groups to deal with particular subjects requiring more detailed study.

1. Reproduced by permission of the Minister of Supply and Services Canada
5.4 Federal health services

The national health and welfare department is the principal federal agency in health matters. It is responsible for the overall promotion, preservation, and restoration of the health of Canadians, and for their social security and social welfare. The department acts in conjunction with other federal agencies and with provincial and local services. The provincial governments actually administer health services. Although the patterns of health services are similar, their organization and administration vary from province to province.

Other federal agencies which carry out specialized health functions include, for example, the health division, Statistics Canada, which gathers health and vital statistics, the veterans affairs department, which administers hospitals and health services for war veterans, and the agriculture department, which has certain responsibilities for health aspects of food production.

Branches of the national health and welfare department are responsible for health protection, medical services, health programs, long-range health planning and fitness and amateur sport. The Medical Research Council supports research in health sciences in Canadian universities and affiliated institutions.

In the health and welfare department, an integrated program protects the public against unsafe foods, drugs, cosmetics, medical and radiation-emitting devices, harmful microbial agents and technological and social environments, environmental pollutants and contaminants of all kinds, and fraudulent drugs and devices.

Medical services include health care and public health services for registered Indians, Inuit and all residents of the Yukon Territory and Northwest Territories, as well as quarantine and regulatory services, immigration medical services, public service health, a national prosthetics service, civil aviation medicine, disability assessment and emergency health and welfare services. Long-range health planning assesses the orientation of health services and the organization of resources.

The fitness and amateur sport branch encourages excellence in Canada’s athletes and participation of all Canadians in activities oriented toward fitness and recreation. The health programs branch administers federal aspects of Canada’s two major health programs, hospital and medical insurance; supports health care delivery system and resource development; undertakes health promotion; and both supports and conducts research.

5.4.1 Health care

Medical care. Before the establishment of government-administered medical insurance, voluntary prepayment arrangements to cover the cost of physicians’ services had developed in public and private sectors. By the end of 1968, basic medical or surgical coverage, or both, were being provided to about 17.2 million Canadians, 82% of the population. Voluntary plans in the private sector covered about 10.9 million, or 52%, and public plans covered 6.3 million, or 30%. By 1972 all 10 provinces and the two territories had met the criteria stipulated under the Medical Care Act as conditions for federal cost-sharing, and virtually the entire eligible population was insured for all required medical services plus a limited range of oral surgery. Members of the Canadian Armed Forces, the Royal Canadian Mounted Police, and inmates of federal penitentiaries whose medical care requirements are met under alternative provisions are excluded. Services by physicians that are not medically required, such as examinations for life insurance, services covered under other legislation, such as immunization where available through organized public health services, and services to treat work-related conditions already covered by worker compensation legislation are not covered.

Comprehensive coverage must be provided for all medically required services rendered by a physician or surgeon. There can be no dollar limit or exclusion except on the ground that the service was not medically required. The federal program includes not only those services that have been traditionally covered as benefits by the health insurance industry, but also those preventive and curative services that have been traditionally covered through the public sector in each province, such as medical care of
Health 201

patients in mental and tuberculosis hospitals and services of a preventive nature provided to individuals by physicians in public health agencies.

The plan must be universally available to all eligible residents and cover at least 95% of the total eligible provincial population (in fact the plans cover over 99%). A uniform terms and conditions clause is intended to ensure that all residents have access to coverage and to prevent discrimination in premiums because of previous health, age, non-membership in a group, or other considerations. If a premium system of financing is selected, subsidization in whole or in part for low-income groups is permitted. It has been left to the individual province to determine whether its residents should be insured on a voluntary or compulsory basis. Utilization charges at the time of service are not precluded by the federal legislation if they do not impede, either by their amount or by the manner of their applications, reasonable access to necessary medical care, particularly for low-income groups. The plan must provide portability of benefit coverage when the insured resident is temporarily absent from the province and when moving residence to another participating province. The provincial medical care insurance plan must be administered on a non-profit basis by a public authority that is accountable to the provincial government for its financial transactions. It is permissible for provinces to assign certain administrative functions to private agencies.

These criteria leave flexibility with each province to determine its own administrative arrangements for the operation of its medical care insurance plan and to choose the way in which it will be financed, that is, through premiums, sales tax, other provincial revenues, or by combination of methods.

Federal financial contributions to the provinces prior to April 1977 were based on half of the national per capita cost of the insured services of the national program, excluding administration, multiplied by the number of insured persons in each province. A 1976 amendment to the act established a ceiling of 113% on the per capita increase of the federal contribution for the fiscal year 1976-77.

Hospital insurance. The Hospital Insurance and Diagnostic Services Act which took effect on July 1, 1958, was designed to make available to all eligible residents a wide range of hospital and diagnostic services, subject to medical necessity, at little or no direct cost to the patient, thereby removing financial barriers to adequate care which existed for many residents prior to the introduction of the program.

Under the act, contributions by the federal government are authorized for programs administered by the provinces providing hospital insurance and laboratory and other services in aid of diagnosis.

The program incorporates five general principles: comprehensiveness of services; universal availability of coverage to all eligible residents; no barriers to reasonable accessibility of care; portability of benefits; and public administration of the provincial programs.

Facilities covered under the program include general, rehabilitation (convalescent), and extended care (chronic) hospitals together with specialized hospitals such as those providing maternity or pediatric care. The program may also cover diagnostic services in non-hospital facilities. Specifically excluded under the program are tuberculosis hospitals and sanatoria, hospitals or institutions for the mentally ill, and nursing homes, homes for the aged, infirmaries or other institutions whose purpose is to provide custodial care.

In development of hospital insurance legislation, existing traditions were maintained as far as possible. The pattern of hospital ownership and operation that existed before the act came into force was retained and provincial autonomy was not infringed. Consequently, even 20 years later, almost 90% of the beds covered by hospital insurance are located in facilities owned and operated by voluntary bodies and municipalities. The policy of provincial autonomy allows each province to decide on methods of administration and of financing its share of program costs while still ensuring a basic uniformity of coverage throughout the country. All provinces and territories have participated since 1961. Details of services provided are in Section 5.5.1, Provincial health insurance plans.
Insured in-patient services must include accommodation, meals, necessary nursing service, diagnostic procedures, most pharmaceuticals, the use of operating rooms, case rooms, anesthesia facilities, and radiotherapy and physiotherapy if available. Similar out-patient services may be included in provincial plans and authorized for contribution under the act. All provinces include a fairly comprehensive range of out-patient services.

The individual may select the hospital in which he will be treated provided his physician has admitting privileges, and the only limit to the duration of insured services is the extent of medical necessity. Moreover, during a temporary absence, coverage is portable anywhere in the world for in-patient services, and in the case of most provinces for out-patient services also, although such benefits are subject to provincially regulated maxima for rates of payment and length of hospital stay as set out in the summary of provincial programs.

Provinces may include additional benefits in their plans without affecting the federal-provincial agreements. Some provincial hospital plans provide additional services such as nursing home care and these are also mentioned in the provincial program summaries. These additional services are not cost-shared under hospital insurance.

The principles of universal availability of benefits to all eligible residents and portability of benefits are reflected in provisions of each provincial program. For many years, about 99% of all eligible residents have been insured persons. Although provincial plans in general stipulate a waiting period of three months, coverage may continue from the province of previous residence. First-day coverage is generally provided for the newborn, immigrants, and certain other categories of persons without prior coverage in other provinces. A health insurance supplementary fund has been established for residents who have been unable to obtain coverage or who have lost coverage through no fault of their own.

Until March 31, 1977 the federal government contributed approximately half the cost of insured in-patient and out-patient services for Canada as a whole. This included payments to Quebec under the Established Programs (Interim Arrangements) Act effective January 1965. The formula provided proportionately larger contributions in those provinces where per capita costs were below the national average and vice-versa.

Provinces may raise their portion of insurable costs as they wish, provided that access to services is not impaired. All provinces finance their share in whole or part from general revenue.

Established programs financing. Late in 1976, following several years of negotiations, the provinces and the federal government agreed to new financial arrangements for medical care and hospital insurance, among other fiscal matters. This led to the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977, assented to on March 31, 1977, containing consequential amendments to the Medical Care Act and the Hospital Insurance and Diagnostic Services Act. Commencing April 1, 1977, federal contributions to the established programs of hospital insurance, medical care and post-secondary education are no longer directly related to provincial costs, but take the form of the transfer of a predetermined number of tax points, and related equalization and cash payments. Total federal contributions, in general terms, are now based on the current escalated value of the 1975-76 federal contributions for the programs in question. The tax room vacated by the federal government permitted the provinces to increase their tax rates so as to collect additional revenue without necessarily increasing the total tax burden on Canadians. The yield from the new provincial taxes will normally increase faster than the rate of growth of the Gross National Product (GNP). The cash payments are conditional upon the provincial health insurance plans meeting the criteria of the federal health insurance legislation. At the outset, the cash payments will approximate the value of the tax room transferred, and be in the form of per capita payments calculated in accordance with the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act, 1977. These per capita payments will be escalated yearly in accordance with changes in the GNP, and adjusted gradually over time so that all provinces at the end of five years will be receiving equal per capita cash contributions.
Also under the act as of April 1, 1977, the federal government is making additional equal per capita cash contributions yearly to the provinces to contribute toward the costs of certain extended health care services.

**Health resources fund.** The Health Resources Fund Act of 1966 provided $500 million over 15 years (1966-80) for financial assistance in planning, acquisition, construction, renovation, and equipping health training and research facilities. Up to 50% of eligible costs of approved projects are supported by federal contributions. Of this total, $400 million is allocated to provinces on a per capita basis, $25 million is further allocated to the Atlantic provinces for joint projects, and $75 million for health training and research projects of national significance.

**Professional training program.** This program provides about $2.3 million a year to the provinces for training health and hospital personnel. Two types of training are funded by the federal government: bursaries for one academic year or longer, and short courses for up to three months. Assistance may also be given to the holding of, and attendance at, provincial and national conferences with emphasis on health manpower planning and development.

**Health services for specific groups.** Through medical services branch, the national health and welfare department provides or arranges health services for persons whose care is by custom or legislation a federal responsibility. Indians and Inuit, as residents of a province or territory, are entitled to benefits of medical care and hospital insurance. These insured benefits are supplemented by the branch, which helps in arranging transportation and obtaining drugs and prostheses. A comprehensive public health program provides dental care for children, immunization, school health services, health education, and prenatal, postnatal and well-baby clinics. A native alcohol abuse program funds locally-run programs. Since Indians and Inuit comprise only 1.0% of the population and are distributed widely throughout Canada, a network of specially designed health facilities operates in almost 200 communities. Increasing numbers of Indians and Inuit are being trained and employed in public health and medical care programs to facilitate understanding and health activities in the communities.

With the exception of insured hospital and medical care programs, administered by the governments of the Yukon Territory and Northwest Territories, the national health and welfare department has for many years managed health services for all residents of the two northern territories. These comprise a comprehensive public health program, special arrangements to facilitate interstation communication, and the transportation of patients from isolated communities to referral medical centres. Several university groups provide, on a rotation basis for specified zones, medical personnel and students. Their activities are financed through government contracts and medical care insurance.

As of January 1978, departmental facilities included six hospitals, three health stations and nine health centres in the Yukon Territory and four hospitals, 39 nursing stations, six health stations and eight health centres in the Northwest Territories.

Under the Quarantine Act, all vessels, aircraft, and other conveyances and their crews and passengers arriving in Canada from foreign countries are subject to inspection to detect and correct conditions that could introduce such diseases as smallpox, cholera, plague and yellow fever. Quarantine stations are located at major seaports and airports. The branch enforces standards of hygiene on federal property including ports and terminals, interprovincial means of transport, and Canadian ships and aircraft.

Medical services branch determines the health status of all persons referred by the employment and immigration commission for Canadian immigration purposes. It also provides or arranges health care services for certain persons after arrival in Canada, including immigrants who become ill en route or while seeking employment. The branch is responsible for a comprehensive occupational health program for federal employees in Canada and abroad. This includes health counselling, surveillance of the occupational and working environment, pre-employment, periodic and special examinations, first aid and emergency treatment, advisory services and special health programs. Increased attention is given to pre-retirement and stress.
The department advises the ministry of transport on health and safety in Canadian civil aviation. Regional and headquarters aviation medical officers review medical examinations, participate in aviation safety programs, and assist in air accident investigations. There is close liaison with authorities in foreign aviation medicine, with standards usually based on international agreements.

Prosthetic services assists in prosthetic and corrective rehabilitation under agreements with most provinces and with the veterans affairs department, and provides a national focal point for related expertise. Discussions have been held on a plan to transfer this activity to provincial control.

Medical services physicians provide an assessment and advisory service to the employment and immigration commission on claims for benefits under the sickness and maternity benefit plan. The Canada Pension Plan maintains its own disability assessment service.

Emergency welfare services is responsible for a national capability, embracing government and welfare related non-government agencies of essential welfare services in any type of emergency in Canada.

In an effort to improve communication through new technology, the branch has participated in telemedicine experiments, with Moose Factory and Kashechewan, Ont. receiving direct consultation on medical and surgical matters through television.

The magnitude of health problems posed by environmental pollution has resulted in a number of activities. The environmental contaminants program is studying effects of mercury pollution from coast to coast. Other environmental contaminants such as cadmium, arsenic and mirex are of growing concern.

Provincial and local health services

Regulation of health care, operation of health insurance programs and direct provision of some specialized services rest with the provincial governments; some health responsibilities are delegated to local authorities. Although provinces generally assign primary responsibility for health to one department, the distribution of function varies from one province to another. Some provinces have combined health and social services within the same department. Others maintain liaison between departments responsible for these related services.

In a number of provinces, health insurance programs are administered by semi-autonomous boards or commissions, or by a separate department. Some report directly to a minister of health; others are under the jurisdiction of a deputy minister. Several provincial health insurance programs are operated directly by health departments.

In each province both institutional and ambulatory care for tuberculosis and mental illness are provided by an agency of the department responsible for health, with increasing attention to preventive services. Programs related to other particular health problems such as cancer, alcoholism and drug addiction, venereal diseases and dental conditions have been developed by government agencies, often in co-operation with voluntary associations. A number of provincial programs serve specific population groups such as mothers and children, the aged, the needy and those requiring rehabilitation.

Environmental health, involving education, inspection and enforcement of standards, is frequently shared by health departments and other agencies.

Public health or community health units are among the most decentralized. Some are responsible for local health education, school health and organized home care. Although local and regional involvement in health services has been concentrated in hospital planning and some public health aspects, several provinces have inaugurated district and regional boards.
5.5.1 Provincial health insurance plans

Following is a summary of provincial health insurance plans. These cover benefits provided in accordance with the program criteria of the federal Hospital Insurance and Diagnostic Services Act and the Medical Care Act. Additional benefits are provided generally on a limited basis. Some such features of certain plans are: dental care for children, prescribed drugs for the elderly and persons with some particular illnesses, some services of health professionals other than physicians, some sight and hearing aids and rehabilitation services. The federal government is not contributing under federal health insurance legislation toward the costs of these additional benefits. However, it contributes toward the costs of certain health services under the extended health care services program such as nursing home and adult residential care, home care (health aspects) and ambulatory health care services.

This summary gives only the highlights of provincial plans and refers to the programs which were in effect on January 1, 1977. Standard medical and hospital benefits are listed, together with additional benefits. Information on details of the plans and on recent changes in coverage, premiums and authorized charges, if any, may be obtained from the provincial agencies responsible.

Except as otherwise indicated, there were no premiums or authorized charges. The provisions for assistance vary from province to province.

The summary does not include many services which are provided by provincial health departments on a universal basis (such as health unit services, institutional care for tuberculosis and mental patients, venereal disease control, some home care programs), nor does it include details of programs for social service recipients.

British Columbia. Medical care benefits: all medically required services of medical practitioners and certain surgical-dental procedures undertaken by dental surgeons in hospitals. Additional benefits: optometry, chiropractic, naturopathy, physiotherapy, podiatry, orthotic treatment and services of Red Cross nurses, special nurses and the Victorian Order of Nurses, orthodontic services for harelip and cleft palate. Free prescription drug program for residents 65 and over, and a universal pharmacare plan effective June 1, 1977 which protects individuals from financial hardship as a result of high prescription drug expenses.

Premium per month: single, $7.50; two persons, $15.00; family of three or more, $18.75. The premiums are those for persons who do not qualify for premium assistance on account of limited income.

Hospital in-patient benefits: standard ward and all approved available services. Out-patient: emergency services, minor surgical procedures, day care surgical services, out-patient cancer therapy, psychiatric day care and night care services, day care rehabilitation services, narcotic addiction services, physiotherapy services, diabetic day care, and specified out-patient psychiatric services in designated hospitals, dietetic counselling services; cytology services operated by BC Cancer Institute and renal dialysis treatments in designated hospitals.

Out-of-province benefits: (in-patient) during a temporary period of absence that ends at midnight on the last day of the 12th month following the month of departure from province; maximum stay of 12 months unless otherwise approved; referral, if approved by deputy minister.
SUMMARY

Report of the Requirements Committee
National Committee on Physician Manpower

REQUIREMENTS FOR PHYSICIANS IN CANADA
WITH SPECIAL REFERENCE TO BRITISH COLUMBIA

May 10th, 1976

John C. Varley, M.D.
<table>
<thead>
<tr>
<th>BOUNDARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRESENT</strong></td>
</tr>
</tbody>
</table>
| General/Family Practice (G.P./F.P.) | 1. Primary Care  
2. 23% of major fracture repairs  
3. 10% of varicose vein surgery  
4. 15% of appendectomies  
5. 30% of tonsillectomies  
6. 65% of confinements  
7. 11% of Caesarian sections  
8. 32% of anaesthetics  
9. ECG, X-ray interpretation | 1. Envision all Primary Care as ideally the exclusive responsibilities of General/Family Practice  
2. Anticipate more and more of primary contact services will be provided by FF/GP's  
3. Increased teaching research and administration | Internal Medicine  
General Surgery  
Pediatrics  
Obstetrics gynecology  
Anesthesia  
Nurse practitioner | Consultants to no longer give primary care. Restriction of presently performed surgical-obstetrical-anaesthetic services. |
| Internal Medicine  
Global term including all subspecialties except Neurology and Dermatology | 1. 85% on a referral basis.  
2. 15% direct access by patients  
3. Take over of seriously ill patients as GP/FP's move more to care of ambulatory patients  
4. Internal overlap between general internists and subspecialists  
5. More internists in education of certified family physicians | General Practice  
Other Internists  
Pediatrics | I.C.U. Care  
Seriously ill care Practising both as consultants and general practitioners |
### BOUNDARIES

<table>
<thead>
<tr>
<th>PRESENT</th>
<th>ANTICIPATED</th>
<th>ROLE SHARED WITH</th>
<th>CONFLICTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatrics</td>
<td>1. Conception to Adolescence. 2. Primary care - a) 10% of 0 to 17 year age primary care. b) 50% of work done is in primary care. 3. Secondary care. 4. Tertiary care. 5. Long term chronic disabilities</td>
<td>1. More consultation. 2. Less primary care, but a continuing primary care function. 3. More subspecialization with internal overlap e.g. neonatology. 4. No surgical services. 5. More genetic counselling. 6. More community paediatricians</td>
<td>General/family practice</td>
</tr>
<tr>
<td>BOUNDARIES</td>
<td>PRESENT</td>
<td>ANTICIPATED</td>
<td>ROLE SHARED WITH</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>-------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>Anaesthesia</strong></td>
<td>1. Nerve blocks - 20%</td>
<td>1. Intensivists</td>
<td>1. General practice</td>
</tr>
<tr>
<td></td>
<td>2. Surgical anaesthesia (68%)</td>
<td>2. Ideally all anaesthetics should be given by anaesthetists</td>
<td>2. Allied health personnel - anaesthetic technicians</td>
</tr>
<tr>
<td></td>
<td>5. Pain relief problems</td>
<td>5.</td>
<td>5.</td>
</tr>
<tr>
<td></td>
<td>7. Varicose vein injections</td>
<td>7.</td>
<td>7.</td>
</tr>
<tr>
<td><strong>Psychiatry</strong></td>
<td>Psychoses</td>
<td>1. Travelling teams to rural areas</td>
<td>General practice</td>
</tr>
<tr>
<td></td>
<td>Neuroses</td>
<td>2. Psychogeriatric services</td>
<td>Nurses</td>
</tr>
<tr>
<td></td>
<td>Personality problems</td>
<td>3. Sub specialization</td>
<td>Social workers</td>
</tr>
<tr>
<td></td>
<td>Psychogenic reactions</td>
<td>4. Community centre work</td>
<td>Psychologists</td>
</tr>
<tr>
<td></td>
<td>Mental Retardation</td>
<td>5. Reduced mental hospital work-load</td>
<td>Programs</td>
</tr>
<tr>
<td></td>
<td>Administration, Research, Teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Orthopaedic Surgery</strong></td>
<td>1. Orthopedic services Ontario, April '72 - 40% (23% - surgical specialists) (38% - family physicians)</td>
<td>1. Joint replacement surgery</td>
<td>General practice</td>
</tr>
<tr>
<td></td>
<td>2. Alberta 1970 - 21% of orthopaedic specialists time spent on surgery outside their specialty</td>
<td>2. More fracture work obtained by lesser role of G.P.'s and general surgeons</td>
<td>General surgeons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.</td>
<td>Internists, surgeons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.</td>
<td>Plastic surgeons</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.</td>
<td>Orthopaedic technicians</td>
</tr>
<tr>
<td><strong>Urology</strong></td>
<td>1. Care of adrenals, urinary tract, male reproductive tract</td>
<td>1. Exclusive care of adrenals</td>
<td>Neurologists</td>
</tr>
<tr>
<td></td>
<td>2. Teaching, administration</td>
<td>urinary tract, male reproductive tract</td>
<td>Vascular surgeons</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Endocrinologists</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Gynecologists</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Family physicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nurses, gu. technicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>General surgeon - urologists</td>
</tr>
</tbody>
</table>
# BOUNDARIES

<table>
<thead>
<tr>
<th><strong>Otolaryngology</strong></th>
<th><strong>Dermatology</strong></th>
<th><strong>Allergy and Clinical Immunology</strong></th>
<th><strong>Plastic Surgery</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRESENT</strong></td>
<td><strong>ANTICIPATED</strong></td>
<td><strong>ROLE SHARED WITH</strong></td>
<td><strong>CONFLICTS</strong></td>
</tr>
<tr>
<td>1. Problems of ear, nose, throat, larynx, plus neck, bronchi, oesophagus, also maxillofacial</td>
<td>1. Continuing primary contact</td>
<td>Neurology</td>
<td>Audiology and vestibular problems</td>
</tr>
<tr>
<td>2. 25% non-referred work i.e. primary contact</td>
<td>2. Implantable hearing aids</td>
<td>General and plastic surgeons</td>
<td>Cancer of head and neck</td>
</tr>
<tr>
<td><strong>PRESENT</strong></td>
<td><strong>ANTICIPATED</strong></td>
<td><strong>ROLE SHARED WITH</strong></td>
<td><strong>CONFLICTS</strong></td>
</tr>
<tr>
<td>1. Skin mucous membranes, venereal disease</td>
<td>1. 50% of patients non-referred, i.e. have primary access</td>
<td>General practice</td>
<td>General dermatology</td>
</tr>
<tr>
<td>2. Exclusive treatment list</td>
<td>2. Exclusive treatment list</td>
<td>Internists</td>
<td>Systemic dermatoses</td>
</tr>
<tr>
<td>a) hospitalized patients</td>
<td></td>
<td>Surgeons</td>
<td>Surgical lesions</td>
</tr>
<tr>
<td>b) life-threatening eruptions</td>
<td></td>
<td>Allergists</td>
<td></td>
</tr>
<tr>
<td>c) Chronic disabling skin diseases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) systemic therapy required</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) all occupational dermatoses with 1 week loss of work</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PRESENT</strong></td>
<td><strong>ANTICIPATED</strong></td>
<td><strong>ROLE SHARED WITH</strong></td>
<td><strong>CONFLICTS</strong></td>
</tr>
<tr>
<td>1. Diagnostic and treatment allergy services</td>
<td>1. 20-30% work primary contact (non-referred)</td>
<td>General Practice</td>
<td>Not much contact</td>
</tr>
<tr>
<td>2. Allergy treatment 1972-3</td>
<td>2. Continued similar role</td>
<td>Internists</td>
<td></td>
</tr>
<tr>
<td>a) B.P./F.P.'s 77%</td>
<td></td>
<td>Pediatricians</td>
<td></td>
</tr>
<tr>
<td>b) Internists 11%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Pediatricians 9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Clinical Immunology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- one competent to direct a service or research immunology laboratory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PRESENT</strong></td>
<td><strong>ANTICIPATED</strong></td>
<td><strong>ROLE SHARED WITH</strong></td>
<td><strong>CONFLICTS</strong></td>
</tr>
</tbody>
</table>
## DATA SUMMARY, FEE-FOR-SERVICE WORKLOAD\(^{(a)}\), FULL-TIME FEE-FOR-SERVICE PHYSICIANS, DISCIPLINE OF GENERAL/FAMILY PRACTICE

<table>
<thead>
<tr>
<th>Services/year</th>
<th>Service times (minutes)</th>
<th>Actual workload (hours/year)</th>
<th>Distribution of workload physician/year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>total per physician</td>
<td>direct indirect</td>
<td>total per physician</td>
</tr>
<tr>
<td>1. Consultations</td>
<td>148,192 16 30 15 45</td>
<td>111,144 12</td>
<td>0.5</td>
</tr>
<tr>
<td>2. Complete examinations</td>
<td>5,338,132 560 30 15 45</td>
<td>4,003,599 420</td>
<td>18.6</td>
</tr>
<tr>
<td>3. Office visits</td>
<td>38,817,352 4,071 12 4 16</td>
<td>10,351,201 1,086</td>
<td>48.0</td>
</tr>
<tr>
<td>4. Hospital visits</td>
<td>11,323,948 1,188 5 5 10</td>
<td>1,887,324 198</td>
<td>8.8</td>
</tr>
<tr>
<td>5. Home visits</td>
<td>3,559,822 373 10 25 35</td>
<td>2,076,563 218</td>
<td>9.6</td>
</tr>
<tr>
<td>6. Major surgery</td>
<td>190,767 20</td>
<td>190,767 20</td>
<td>0.9</td>
</tr>
<tr>
<td>7. Minor surgery</td>
<td>1,159,393 122 15 10 25</td>
<td>483,080 51</td>
<td>2.3</td>
</tr>
<tr>
<td>8. Surgical assistance</td>
<td>334,966 35</td>
<td>334,966 35</td>
<td>1.5</td>
</tr>
<tr>
<td>9. Obstetric services</td>
<td>193,329 20</td>
<td>579,987 60</td>
<td>2.7</td>
</tr>
<tr>
<td>10. Anaesthesia</td>
<td>675,158 71</td>
<td>843,947 88</td>
<td>3.9</td>
</tr>
<tr>
<td>13. Other diagnostic/therapeutic services</td>
<td>8,358,487 877</td>
<td>696,541 73</td>
<td>3.2</td>
</tr>
<tr>
<td>14. Miscellaneous services</td>
<td>TOTALS 70,099,546 7,353</td>
<td>21,559,209 (\div) 2,261 (\div) 100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Based on service times attributed by the working party on physician manpower requirements for the discipline.
### DATA SUMMARY, FEE-FOR-SERVICE WORKLOAD \(^{(a)}\), FULL-TIME FEE-FOR-SERVICE PHYSICIANS, SPECIALTY OF GENERAL SURGERY

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Services/year</th>
<th>Service times (minutes)</th>
<th>Actual workload (hours/year)</th>
<th>Distribution of workload physician/year %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>per physician</td>
<td>direct</td>
<td>indirect</td>
</tr>
<tr>
<td>1. Consultations</td>
<td>446,258</td>
<td>265</td>
<td>35</td>
<td>15</td>
</tr>
<tr>
<td>2. Complete examinations</td>
<td>492,641</td>
<td>293</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>3. Office visits</td>
<td>2,134,864</td>
<td>1,268</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>4. Hospital visits</td>
<td>1,045,798</td>
<td>621</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5. Home visits</td>
<td>134,639</td>
<td>80</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>6. Major surgery</td>
<td>486,677</td>
<td>289</td>
<td>200</td>
<td>85</td>
</tr>
<tr>
<td>7. Minor surgery</td>
<td>226,651</td>
<td>135</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>8. Surgical assistance</td>
<td>57,243</td>
<td>34</td>
<td>95</td>
<td>30</td>
</tr>
<tr>
<td>9. Obstetric services</td>
<td>6,574</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Anaesthesia</td>
<td>7,477</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Other diagnostic/</td>
<td>880,786</td>
<td>523</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>therapeutic services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Miscellaneous services</td>
<td>7,779</td>
<td>5</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>TOTALS</td>
<td>5,927,387</td>
<td>3,521</td>
<td>4,582,515</td>
<td>2,722</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Based on service times attributed by the working party on physician manpower requirements for the specialty.
## PROJECTIONS FOR PHYSICIAN MANPOWER FOR CANADA FOR 1981

### WORKING PARTY PROPOSALS COMPARED TO REQUIREMENTS COMMITTEE RECOMMENDATIONS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Physicians (W.P.)</td>
<td>Deficit or Surplus from base years</td>
<td>Number of Physicians (R.C.)</td>
</tr>
<tr>
<td>General/ Family Practice</td>
<td>16,937</td>
<td>-1,930</td>
<td>1:1,440</td>
</tr>
<tr>
<td>Medical Specialties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>3,193</td>
<td>-823</td>
<td>1:7,700</td>
</tr>
<tr>
<td>Dermatology</td>
<td>375</td>
<td>-125</td>
<td>1:65,300</td>
</tr>
<tr>
<td>Neurology</td>
<td>288</td>
<td>-86</td>
<td>1:85,000</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>1,340</td>
<td>-575</td>
<td>1:18,200</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>1,984 to 2,497</td>
<td>-370 to 9,800</td>
<td>2,225</td>
</tr>
<tr>
<td>Surgical Specialties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Surgery</td>
<td>2,234</td>
<td>-156</td>
<td>1:11,000</td>
</tr>
<tr>
<td>Cardiovascular: Thoracic</td>
<td>210</td>
<td>-35</td>
<td>1:117,000</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>147</td>
<td>-11</td>
<td>1:166,700</td>
</tr>
<tr>
<td>Obstetrics: Gynecology</td>
<td>1,577</td>
<td>-402</td>
<td>1:15,500</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>887</td>
<td>-107</td>
<td>1:27,600</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>490</td>
<td>-75</td>
<td>1:50,000.00</td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>186</td>
<td>-261</td>
<td>1:30,000</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>245</td>
<td>-73</td>
<td>1:100,000</td>
</tr>
<tr>
<td>Urology</td>
<td>489</td>
<td>-94</td>
<td>1:50,000</td>
</tr>
<tr>
<td>Other Specialties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaesthesia</td>
<td>1,781</td>
<td>-177</td>
<td>1:13,742</td>
</tr>
<tr>
<td>Totals</td>
<td>32,993</td>
<td>-5,360</td>
<td>32,693</td>
</tr>
</tbody>
</table>

A. National Committee on Physician Manpower, Requirements for Physicians in Canada, Part III

March 1, 1976. B. Fee-For-Service Physicians. C. N.A. = Not Available
### CURRENT (1975) PHYSICIAN MANPOWER RATIOS APPLIED TO B.C.

**CURRENT B.C. POPULATION - 2,409,515**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General/Family Practice</strong></td>
<td>1:1068</td>
<td>1:1440</td>
</tr>
<tr>
<td><strong>Internal Medicine</strong></td>
<td>1:9259</td>
<td>1:8000</td>
</tr>
<tr>
<td><strong>Dermatology</strong></td>
<td>1:62500</td>
<td>1:89000</td>
</tr>
<tr>
<td><strong>Neurology</strong></td>
<td>1:83333</td>
<td>1:85000</td>
</tr>
<tr>
<td><strong>Paediatrics</strong></td>
<td>1:19231</td>
<td>1:118260</td>
</tr>
<tr>
<td><strong>Psychiatry</strong></td>
<td>1:12048</td>
<td>1:12300/9800</td>
</tr>
<tr>
<td><strong>Surgical Specialties</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Surgery</strong></td>
<td>1:9524</td>
<td>1:10630</td>
</tr>
<tr>
<td><strong>Cardiovascular:Thoracic</strong></td>
<td>1:200000</td>
<td>1:124000</td>
</tr>
<tr>
<td><strong>Neurosurgery</strong></td>
<td>1:111111</td>
<td>1:116670</td>
</tr>
<tr>
<td><strong>Obstetrics:Gynecology</strong></td>
<td>1:19232</td>
<td>1:115900</td>
</tr>
<tr>
<td><strong>Ophthalmology</strong></td>
<td>1:20408</td>
<td>1:28000</td>
</tr>
<tr>
<td><strong>Otolaryngology</strong></td>
<td>1:45455</td>
<td>1:50000</td>
</tr>
<tr>
<td><strong>Orthopaedic Surgery</strong></td>
<td>1:29412</td>
<td>1:50400</td>
</tr>
<tr>
<td><strong>Plastic Surgery</strong></td>
<td>1:100000</td>
<td>1:104800</td>
</tr>
<tr>
<td><strong>Urology</strong></td>
<td>1:45455</td>
<td>1:50000</td>
</tr>
<tr>
<td><strong>Other Specialties</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Anaesthesia</strong></td>
<td>1:13514</td>
<td>1:3742</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>3827</td>
<td>3228/3278</td>
</tr>
</tbody>
</table>

A. Rolcall 75, Report R:1, Division of Health Services Research and Development, Health Sciences Centre, University of British Columbia


C. Non Post-Graduate Physicians in British Columbia

D. Number of Physicians excluding Interns and Residents. (Interns and Residents = 15% of Physicians in 1974).
### PROJECTED PHYSICIAN MANPOWER RATIOS APPLIED TO B.C. FOR 1981

(PROJECTED 1981 B.C. POPULATION = 2,821,700)

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Rollcall 75 Data</th>
<th>Working Party</th>
<th>Future Optimal</th>
<th>Requirements Committee</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratios</td>
<td>Nos.</td>
<td>Ratios</td>
<td>Nos.</td>
<td>Ratios</td>
</tr>
<tr>
<td>General/Family Practice</td>
<td>1:1068</td>
<td>2642</td>
<td>1:1440</td>
<td>1960</td>
<td>1:1440</td>
</tr>
<tr>
<td>Medical Specialties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>1:9259</td>
<td>305</td>
<td>1:7700</td>
<td>366</td>
<td>1:8200</td>
</tr>
<tr>
<td>Dermatology</td>
<td>1:62500</td>
<td>45</td>
<td>1:65300</td>
<td>43</td>
<td>1:65000</td>
</tr>
<tr>
<td>Neurology</td>
<td>1:85333</td>
<td>34</td>
<td>1:85000</td>
<td>33</td>
<td>1:90000</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>1:19231</td>
<td>147</td>
<td>1:18260</td>
<td>155</td>
<td>1:20000</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>1:12048</td>
<td>234</td>
<td>1:12300 to 229</td>
<td>1:9800</td>
<td>1:11000</td>
</tr>
<tr>
<td>Surgical Specialties</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Surgery</td>
<td>1:9524</td>
<td>296</td>
<td>1:11000</td>
<td>257</td>
<td>1:11000</td>
</tr>
<tr>
<td>Cardiovascular:Thoracic</td>
<td>1:200000</td>
<td>14</td>
<td>1:117000</td>
<td>24</td>
<td>1:117000</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>1:111111</td>
<td>25</td>
<td>1:166700</td>
<td>17</td>
<td>1:166700</td>
</tr>
<tr>
<td>Obstetrics:Gynecology</td>
<td>1:19231</td>
<td>147</td>
<td>1:15500</td>
<td>182</td>
<td>1:17500</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>1:20408</td>
<td>138</td>
<td>1:27600</td>
<td>102</td>
<td>1:28000</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>1:45455</td>
<td>62</td>
<td>1:50000</td>
<td>56</td>
<td>1:50000</td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>1:29412</td>
<td>96</td>
<td>1:30000</td>
<td>94</td>
<td>1:30000</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>1:100000</td>
<td>28</td>
<td>1:100000</td>
<td>28</td>
<td>1:100000</td>
</tr>
<tr>
<td>Urology</td>
<td>1:45455</td>
<td>62</td>
<td>1:50000</td>
<td>56</td>
<td>1:50000</td>
</tr>
<tr>
<td>Other Specialties</td>
<td>1:13514</td>
<td>209</td>
<td>1:13742</td>
<td>205</td>
<td>1:13742</td>
</tr>
<tr>
<td>Anaesthesia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>4484</td>
<td>3807</td>
<td>3866</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### PROJECTIONS FOR PHYSICIAN MANPOWER FOR B.C.

Calculated from Data from "Rollcall 75"

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Non Post-Graduate Physicians</th>
<th>Non Post-Graduate Physicians per Demi-Million</th>
<th>Estimated Annual Rate of Change 1974-1975</th>
<th>Annual Rate X 6 years to 1981-%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General/Family Practice</strong></td>
<td>2254</td>
<td>466</td>
<td>4.36%</td>
<td>26.25%</td>
</tr>
<tr>
<td><strong>Medical Specialties</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>260</td>
<td>54</td>
<td>5.26</td>
<td>31.56</td>
</tr>
<tr>
<td>Dermatology</td>
<td>39</td>
<td>8</td>
<td>14.71</td>
<td>88.26</td>
</tr>
<tr>
<td>Neurology</td>
<td>25</td>
<td>5</td>
<td>19.05</td>
<td>114.3</td>
</tr>
<tr>
<td>Paediatrics</td>
<td>125</td>
<td>26</td>
<td>5.04</td>
<td>30.24</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>201</td>
<td>42.5</td>
<td>5.24</td>
<td>31.44</td>
</tr>
<tr>
<td>Surgical Specialties</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Surgery</td>
<td>-252</td>
<td>52.5</td>
<td>-1.56</td>
<td>-9.36</td>
</tr>
<tr>
<td>Cardiovascular:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thoracic</td>
<td>13</td>
<td>2.5</td>
<td>8.33</td>
<td>50</td>
</tr>
<tr>
<td>Neurosurgery</td>
<td>22</td>
<td>4.5</td>
<td>-4.35</td>
<td>-26.1</td>
</tr>
<tr>
<td>Obstetrics:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gynaecology</td>
<td>125</td>
<td>26</td>
<td>3.31</td>
<td>19.86</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>118</td>
<td>24.5</td>
<td>4.42</td>
<td>26.52</td>
</tr>
<tr>
<td>Otolaryngology</td>
<td>55</td>
<td>11.5</td>
<td>3.92</td>
<td>23.52</td>
</tr>
<tr>
<td>Orthopaedic Surgery</td>
<td>82</td>
<td>17</td>
<td>5.13</td>
<td>30.78</td>
</tr>
<tr>
<td>Plastic Surgery</td>
<td>25</td>
<td>5</td>
<td>8.70</td>
<td>52.2</td>
</tr>
<tr>
<td>Urology</td>
<td>53</td>
<td>11</td>
<td>-3.64</td>
<td>-21.84</td>
</tr>
<tr>
<td><strong>Other Specialties</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaesthesia</td>
<td>178</td>
<td>37</td>
<td>2.30</td>
<td>13.8</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>3827</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### ASSUMPTIONS

<table>
<thead>
<tr>
<th>SPECIALTY</th>
<th>DEFINITION ASSUMPTIONS</th>
<th>PRIMARY CARE OR CONTACT</th>
<th>SERVICE PATTERN ASSUMPTIONS AND DATA</th>
<th>OPTIMUM AVERAGE WORK YEAR</th>
<th>OPTIMUM AVERAGE WORK WEEK</th>
<th>OPTIMAL WORK FORCE PHYSICIAN/POPULATION RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>General or Family Practice</td>
<td>Ideal system has primary care as exclusive responsibility of GP/FP</td>
<td>Counselling and psychotherapy services cannot be averaged for a unit of service. Micro errors in average service time estimates cause large manpower distortions when applied to high volume services such as office visits.</td>
<td>One who received over $20,000,000 for year.</td>
<td>44 working weeks</td>
<td>49 hours (Ideal - 40 hours)</td>
<td>1:2276</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>Global care of diseases and disorders of internal structures of adult body excludes dermatology &amp; neurology</td>
<td>Presently population is under-serviced by 12%</td>
<td></td>
<td>46 working weeks</td>
<td>48 hours</td>
<td>1:8000</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>Health care from conception to adolescence</td>
<td>Difficulty separating primary from secondary care</td>
<td></td>
<td>46 weeks</td>
<td>48 hours</td>
<td>1:18260</td>
</tr>
<tr>
<td>Obstetrics and Gynecology</td>
<td>Total health care of women related to reproduction and reproductive organs</td>
<td>Have or less than standard</td>
<td></td>
<td>46 weeks</td>
<td>48 hours</td>
<td>1:15900</td>
</tr>
<tr>
<td>General Surgery</td>
<td>Surgical and non-surgical treatment of potentially surgical conditions in Ontario - 10% of income of general surgeons comes from general practice</td>
<td>Direct vs indirect service time components. Time tended to be on low side</td>
<td></td>
<td>45 weeks</td>
<td>55 hours</td>
<td>1:10630</td>
</tr>
<tr>
<td>Anæsthesia</td>
<td>Prevention of pain and life support. Not an institutional service</td>
<td>Quebec average of 61 minutes average anæsthetic time in community hospitals (70 minutes in teaching hospitals)</td>
<td></td>
<td>45 weeks</td>
<td>54 hours in community hospital. 57 hours in a teaching hospital</td>
<td>1:13742</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>Diagnosis and treatment of psychoses, neuroses, personality problems, psycho- genetic reactions</td>
<td>Only 50% of psychologists are P.T.P.P.S., remainder on salary oressional basis</td>
<td></td>
<td>45 weeks</td>
<td>48 hours (35 to 48 hours clinical)</td>
<td>1:12336 to 1:9800</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td>Diagnosis and treatment of musculo-skeletal system conditions in majority should be referred except for emergencies</td>
<td>Alberta 1970: 70% of time on orthopedic, 20% on surgery outside their specialty. Ontario 1972: Orthopedic surgeons did 40% of orthopedic services</td>
<td></td>
<td>46 weeks</td>
<td>45 hours</td>
<td>Approximately 1:50000</td>
</tr>
<tr>
<td>Urology</td>
<td>Diseases of urinary tract and the male reproductive system</td>
<td>Data inadequate because Ontario and Quebec omitted from surgical workload tables. Non-standardised costing</td>
<td></td>
<td>46 weeks</td>
<td>52 hours</td>
<td>1:48595</td>
</tr>
</tbody>
</table>
### Growth Assumptions

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Training Program Changes</th>
<th>Increase of Primary Specialty Contact</th>
<th>Growth Factors</th>
<th>Allied Health Personal</th>
<th>Boundary Changes</th>
<th>Total Number of Doctors</th>
<th>Graduates to Affair Tarbut</th>
</tr>
</thead>
<tbody>
<tr>
<td>General or Family Practice</td>
<td>Larger. More certified family practitioners. More of primary services should be used should come to as consultants.</td>
<td>Population growth of 11.7%. New group practitioners.</td>
<td>Only as complementary role, not as substitution.</td>
<td>None</td>
<td>No changes except for more primary contact</td>
<td>1975</td>
<td>452</td>
</tr>
<tr>
<td>Internal Medicine</td>
<td>New subspecialization. Depends on training of GPs.</td>
<td>Primarily as consultants.</td>
<td>11.7% population growth.</td>
<td>None</td>
<td>Perhaps more primary contact for general internists if United States trends adopted.</td>
<td>3193</td>
<td>210</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>New subspecialization in genetics. Maintained</td>
<td>Used for primary secondary care.</td>
<td>11.7% population growth. New health care delivery pattern.</td>
<td>Against pediatric nurse-practitioners except for remote areas and neonatal intensive care.</td>
<td>Minor. No surgical role in surgery.</td>
<td>1540</td>
<td>77</td>
</tr>
<tr>
<td>General Surgery</td>
<td>One third of new certificates are P.M. O.S.-s. Subspecialty training will increase.</td>
<td>Role primarily except for group as consultants, maintain some primary care contact.</td>
<td>Population growth of 11.7%. Shift G.P. surgery to general surgeons.</td>
<td>Suggest operating room technicians for surgical assistants.</td>
<td>Assume G.P. surgery. Health care delivery patterns will not cause change in future.</td>
<td>2234</td>
<td>96</td>
</tr>
<tr>
<td>Anesthesia</td>
<td>None</td>
<td>As consultants only.</td>
<td>Population growth of 11.7%. Increased training of anaesthetics.</td>
<td>Law priority for all anaesthetics. T.P.G.'s to be provided by train in anaesthetics.</td>
<td>Reduced anaesthetic practitioners.</td>
<td>1781</td>
<td>103</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td>Unchanged</td>
<td>As Consultants</td>
<td>Population growth 15%. Reduce waiting period for appointments. Increased demand for minor conditions. Aging populations.</td>
<td>Open to possibility.</td>
<td>Loss orthopedics by general surgeons and by G.P.'s.</td>
<td>836</td>
<td>40-40</td>
</tr>
<tr>
<td>Urology</td>
<td>Delapidate urological training for immigrant surgicai urologists.</td>
<td>Little</td>
<td>Increased renal transplant.</td>
<td>Rare use specialized, especially in clinical.</td>
<td>Consolidation of present boundaries.</td>
<td>489</td>
<td>30</td>
</tr>
</tbody>
</table>
EDUCATIONAL OBJECTIVES FOR CERTIFICATION IN FAMILY MEDICINE

The College of Family Physicians


The particular function of the certified family physician has been described by the College of Family Physicians:

"A Certified Family Physician shall be skilled in establishing and maintaining relationships with patients and associates which facilitate maximally, the provision of health care. He shall be skilled in sensing and formulating all health problems and investigating and managing common health problems. He shall be able to arrange through consultation and delegation, the provision to patients of those elements of health care which are better provided by other health professionals. He shall be technically competent at those procedures commonly required in primary care. He shall provide for a constantly available health service to persons regardless of their age or problem. He shall select for patients, those preventative and screening procedures, as well as methods of investigation and management, which are established as worthwhile. He shall continuously review and up-date his competency and be capable of assessing pertinent research."
### Table 8-1
Major Methods for Assessing and Projecting Manpower Requirements

<table>
<thead>
<tr>
<th>Method</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Prerequisites and Appropriate Country Situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional standards</td>
<td>Fullfills health ethic of providing services according to need; provides ultimate or maximum goal for the provision of services</td>
<td>Continued wide divergence among experts on &quot;best&quot; methods to treat many disease conditions; Apt to result in costly projections of service requirements; Far in excess of ability to provide them</td>
<td>Requires sophisticated data and technical expertise; Of greatest use in countries with large public sector and active government commitment to improving and shaping health services delivery</td>
</tr>
<tr>
<td>Physician-population ratio</td>
<td>Easy to use and interpret; Data requirements usually modest and not very sensitive to errors</td>
<td>Easy to select unrealistic ratios resulting in major errors in economic and manpower policies; Provides little insight into the dynamics of demand; With primary emphasis on manpower, little attention may be given to health services</td>
<td>Of greatest use in countries with public or private sectors, reasonably adequate health services delivery system, and limited planning resources</td>
</tr>
<tr>
<td>Economic-demographic</td>
<td>Tends to produce economically realistic projections; Probably provides a good estimate of minimum growth in demand and ensures that the level of future satisfaction at least equals present satisfaction</td>
<td>May be complicated and costly, and requires sophisticated data; Does not necessarily take into account the quality of services or their relevance to the health problems of the country; May neglect consideration of ways to improve manpower productivity</td>
<td>Requires sophisticated data and technical expertise in some areas; Of greatest use in countries with large private sector; Limited government involvement in the provision of health services</td>
</tr>
<tr>
<td>Service targets</td>
<td>Permits a disagreed approach in which the most suitable methods and standards are used for each component activity of the sector; With primary emphasis on &quot;services,&quot; not &quot;manpower,&quot; attention focused on productivity and efficient resource utilization; Facilitates closer adjustment to delivery to needs and demands</td>
<td>Prone to having standards based more on desires than on reality, leading to major policy errors; High degree of statistical expertise may be required to sue successfully</td>
<td>Modest data and planning capability requirements; Of greatest use in countries with activist government policies toward development and provision of health services; Adequate governmental control over health services delivery system</td>
</tr>
</tbody>
</table>

# APPENDIX 5.

## ALTERNATIVE MODELS OF PHYSICIAN PRICING

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fees clear the market for physician services</td>
<td>Fees do not clear the market for physician services</td>
</tr>
</tbody>
</table>

### I

**Physicians Are Price Takers**

- The physician sells his services in a competitive local market and reacts to market-determined local fee schedules.

- There are price ceilings, which are set by third party payers, and the individual physician reacts to these fees.

### II

**Physicians Are Price Setters**

- The physician enjoys a monopoly in the market for his services and sets his fees as a single (fixed fee schedule) or price discriminating (sliding-scale fee schedule) monopolist.

- The physician takes whatever cases he likes, organizes his practice to suit his tastes, and sets his fees so as to generate a given target income, related, presumably, to the locality.

---

APPENDIX 6.

STATEMENT ON A PATIENT'S BILL OF RIGHTS

Affirmed by the Board of Trustees
November 17, 1972

The American Hospital Association presents a Patient's Bill of Rights with the expectation that observance of these rights will contribute to more effective patient care and greater satisfaction for the patient, his physician, and the hospital organization. Further, the Association presents these rights in the expectation that they will be supported by the hospital on behalf of its patients, as an integral part of the healing process. It is recognized that a personal relationship between the physician and the patient is essential for the provision of proper medical care. The traditional physician-patient relationship takes on a new dimension when care is rendered within an organizational structure. Legal precedent has established that the institution itself also has a responsibility to the patient. It is in recognition of these factors that these rights are affirmed.

1. The patient has the right to considerate and respectful care.

2. The patient has the right to obtain from his physician complete current information concerning his diagnosis, treatment, and prognosis in terms the patient can be reasonably expected to understand. When it is not medically advisable to give such information to the patient, the information should be made available to an appropriate person in his behalf. He has the right to know by name, the physician responsible for coordinating his care.

3. The patient has the right to receive from his physician information necessary to give informed consent prior to the start of any procedure and/or treatment. Except in emergencies, such information for informed consent, should include but not necessarily be limited to the specific procedure and/or treatment, the medically significant risks involved, and the probable duration of incapacitation. Where medically significant alternatives for care or treatment exist, or when the patient requests information concerning medical alternatives, the patient has the right to such information. The patient also has the right to know the name of the person responsible for the procedures and/or treatment.

4. The patient has the right to refuse treatment to the extent permitted by law, and to be informed of the medical consequences of his action.

5. The patient has the right to every consideration of his privacy concerning his own medical care program. Case discussion, consultation, examination, and treatment are confidential and should be conducted discreetly. Those not directly in-
volved in his care must have the permission of the patient to be present.

6. The patient has the right to expect that all communications and records pertaining to his care should be treated as confidential.

7. The patient has the right to expect that within its capacity a hospital must make reasonable response to the request of a patient for services. The hospital must provide evaluation, service, and/or referral as indicated by the urgency of the case. When medically permissible a patient may be transferred to another facility only after he has received complete information and explanation concerning the needs for and alternatives to such a transfer. The institution to which the patient is to be transferred must first have accepted the patient for transfer.

8. The patient has the right to obtain information as to any relationship of his hospital to other health care and educational institutions insofar as his care is concerned. The patient has the right to obtain information as to the existence of any professional relationships among individuals, by name, who are treating him.

9. The patient has the right to be advised if the hospital proposes to engage in or perform human experimentation affecting his care or treatment. The patient has the right to refuse to participate in such research projects.

10. The patient has the right to expect reasonable continuity of care. He has the right to know in advance what appointment times and physicians are available and where. The patient has the right to expect that the hospital will provide a mechanism whereby he is informed by his physician or a delegate of the physician of the patient's continuing health care requirements following discharge.

11. The patient has the right to examine and receive an explanation of his bill regardless of source of payment.

12. The patient has the right to know what hospital rules and regulations apply to his conduct as a patient.
APPENDIX 7.

Distribution of Total Government Spending

Data source: Consolidated Government Finance, Statistics Canada

Changes in Government Expenditure Shares

Data source: Consolidated Government Finance, Statistics Canada