# HEALTH CARE REVIEW

# Final Report

May 1996

# EXECUTIVE SUMMARY

# HEALTH CARE REVIEW

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# SECTION 1

# EXECUTIVE SUMMARY

## 1. INTRODUCTION

### 1.1 BACKGROUND

Bermuda does not have a nationalised health system. The system presently in place is made up of both public and private sectors. It should also be noted that although Bermuda's present health-care system is a "marriage" between the private sector and Government-funded clinics and subsidies, there are additional organizations at work in the community, which bear a heavy burden of care for the sick, house-bound, mentally and physically challenged or suffering from alcohol or drug abuse. There are numerous charities which are funded almost entirely by public donations from flag days and other fund-raisers. Examples of just some of these are: The Women's Hospital Auxiliary, Lady Cubitt Compassionate Association (L.C.C.A.), Meals on Wheels, P.A.L.S., Allan Vincent Smith Foundation, Friends of the Hospice, Salvation Army, Coalition for the Protection of Children, S.T.A.R. and the Committee of 25 for Handicapped Children.

Responsibility for health falls under the jurisdiction of the Ministry of Health and Social Services. The Ministry is mandated to promote and protect the health and well-being of the island's residents and is charged with assuring the provision of health care services, setting standards and providing co-ordination of the system. The Ministry has responsibility for health planning and evaluation but there is no central health planning co-ordination agency. The Ministry also has responsibility for the island's hospitals. These are administered by the Bermuda Hospitals Board, a statutory body appointed by the Minister. Public health services on the island are provided by the Ministry, through the Department of Health.

The health care system is financed by a variety of mechanisms:

i) private insurers;
ii) Government; and
iii) directly by the consumer.

Legislation introduced in the 1970's required that all employers provide minimum benefits (the standard hospital benefit) to all employees. The employer was given the right to recover 50% of the cost of this health coverage to the employee. In actual fact, most employers have instituted insured health programmes with coverage far in excess of that required by law and in most cases, employees enjoy major medical coverage and in some cases, dental insurance. Bermuda's present system can be considered first class when compared with other jurisdictions and one might ask why is it being reviewed.

### 1.2 REVIEW RATIONALE

The need for a review was in response to community concerns regarding the escalation of health care costs and the negative perception of the quality of health care afforded to residents.

In September, 1993 a Cabinet committtee consisting of the Minister of Health and Social Services and the Minister of Finance appointed a steering or sub-committee, chaired by Senator Oughton, to review the current health care system in Bermuda.

From this Sub-Committee four Task Groups were established as follows:

(i) Health Care Needs Assessment Task Group - Responsible for assessing the adequacy of health status and health resource utilization data in Bermuda and developing a set of health status indicators for the community;

(ii) Quality of Care Task Group - Responsible for identifying a process for assessing the accessibility, availability, efficiency, delivery and affordability of community based and institutional health services;

(iii) Financing of Health Care Task Group - Responsible for developing recommendations that will result in the current or a modified health care financing system meeting health care costs, whilst ensuring that quality is maintained and the needs of the community are met at an affordable cost; and

(iv) Health Care Costs Task Group - Responsible for reviewing the cost of health care services in Bermuda, presently and historically, and develop recommendations aimed at controlling the rate of cost increases.

## 1.3 TERMS OF REFERENCE

The purpose of the Health Care Review, appreciating the physical and economic resources of the island, is to determine whether the system:

i) satisfies the health care needs of the population;

ii) is cost effective;

iii) is efficient; and

iv) provides an appropriate minimum level of care that is accessible to and affordable by all residents, with due regard to age, income and health status.

and to make recommendations where necessary, especially where recommendations might optimise the delivery of health care services. The intent was, where feasible to implement recommendations as the Review progressed, rather than wait for publication of the final Report. As examples, among the recommendations already implemented since the inception of the Review are:

a) improved services for abused spouses at the Emergency Room, K.E.M.H.;

b) management restructuring at St. Brendan's Hospital resulting in a number of improvements including more frequent patient clinical reviews, a community mental health programme etc.; and

c) the implementation of a Pilot Programme for Home Care for the elderly by the Bermuda Hospitals Board.

## 1.4 OVERVIEW

### 1.4.1 Historical Perspective

Health expenditure in Bermuda accounted for 8% of the Gross Domestic Product (GDP) in 1993. In 1996 the figure is nearly 9%. (For comparisons with other countries' expenditure on health-care, expressed as a percentage of their G.D.P. please see the Finance Task Group report). Government subsidizes health care. During the period 1993-94 the costs of running the Health Department including grants to the two hospitals in the form of subsidies for geriatric care, indigent, youth, aged, prescription drugs and out-patient categories accounted for $52.7 million. An analysis of health insurance premiums, now and in the future, as part of the family budget, are contained in Appendix I.

Over the past decade the cost of health care has increased more than 100%. During the same period, the cost of living index rose by 65%. In 1993 the average household spent approximately $2,700 per annum on health care - more than double the figure in 1982. Health insurance premiums accounted for 63% of this figure. It is anticipated that health care costs and the demand for health services will continue to rise at a higher rate than the economy which is predicted to mature and grow more steadily.

Medical expenses will continue to absorb an increasing share of household expenditure. However, there is a limit to the financial burden that families and governments can bear. It is essential, therefore, that guiding principles and policies be established to manage the health care system and control health care costs.

### 1.4.2 Need to control health care costs and factors increasing costs

As outlined above, the cost of health care in Bermuda has increased much faster than the economy. Bermuda is not alone, as most developed countries in the world have had a similar experience.
There is no doubt that Bermuda's health care system is of a high standard. The island's population of 60,000 is similar in size to that of a small town in the U.S.A. However, local facilities and health care would, in many instances, be superior to that found in a similar small town.

The high standard of living that Bermudians have come to expect naturally includes their health care and more emphasis today is placed on the quality and value of life and the demand for better medical services. However, like everything else there is an ever increasing price to pay. Some factors having an impact on cost are:

i) Advances in medical technology and improvement in overall medical services;

ii) Consumer expectations: people are far more health conscious than they were twenty years ago. They want the best services, the best doctors and nurses and they want their caregivers and medical facilities to use "state-of-the-art" technology regardless of cost;

iii) Maturing population: persons over the age of 65 account for 11% of the present population in Bermuda. It is anticipated that this will grow to 14% by the year 2001;

iv) Increases in medical malpractice insurance costs: this has not hitherto been a major cost for hospitals and doctors in Bermuda. However, with worldwide increases in malpractice lawsuits, the local medical profession will face significantly higher costs in the near future. It should be noted that local insurance companies do not write malpractice insurance;

v) Consumers' lack of awareness of medical costs: when a major portion of an individual's medical expenses are paid by insurance, neither the patient nor the health care provider has much incentive to control costs;

vi) Catastrophic and terminal illness: extremely expensive and long term treatments for such illnesses as cancer, heart surgery and many others are just some of the causes of increased medical costs. With future medical advances and technologies, the costs will continue to escalate; and

vii) Cost shifting: to a great extent true costs of local in-patient hospital care, especially the cost of care in the intensive care unit (I.C.U.) is shifted and charged for on the out-patient facilities. Although this cost shifting has a zero effect on the local hospital's overall revenue, it creates an artificial fee environment for entities existing outside the hospital, but providing similar services to some of those provided by the hospital.

A further complication contributing to the cost is the over-utilization of the Emergency Department at the King Edward VII Memorial Hospital, at a higher cost, for treatment of ailments that could be dealt with at a general practitioner's office. This highlights the need for evening clinics or access to the family doctor outside normal office hours of 9 am. - 5 pm.

As a first step to controlling costs, the Finance Task Group reviewed and documented in chart form the existing system of how Bermuda's health-care system is financed. This is discussed in more detail in their report.

## 1.5 BERMUDA HEALTH COUNCIL

When considering the requirements for a well-managed and well-structured health care system it was found that the present local system is fragmented. It consists of a number of organizations, institutions and registered bodies, each of which in their own right give yeoman service to Bermuda's health system. However, there is no central body in place that can monitor all of these groups and thereby define a clear picture of just how well the overall system is being managed. In addition, there is no unified, central collection of data to aid assessments and future projections.

Several options were considered to put controls in place to protect the needs of the patient, to monitor the cost of the treatment, or vice versa establish whether in fact, the system is being abused and thereby contributing to the costs of the system (see Appendix II, Executive Summary for a summary of the advantages and disadvantages of each proposed option.)

The recommended option is for the establishment of a Bermuda Health Council (B.H.C.) as suggested in the report of the Care Costs Task Group (see Section 4). The proposed mandate for the B.H.C. will be to ensure necessary health care services are available to all residents of Bermuda, provided at a reasonable cost to the community, ensuring that services provided are of a high quality and generally ensuring that the health needs of the population are met, encouraging and promoting a healthy community. This, the committee believes, will ultimately lead to a better managed and more disciplined health system.

## 1.6 HEALTH CARE PHILOSOPHY

### 1.6.1 Introduction to Philosophy

It is essential that Government has a philosophy for its health care system which would outline the overall objectives. The following are five basic objectives of Bermuda's overall health care philosophy.

i) To nurture a healthy nation by promoting good health;

ii) To promote personal responsibility for one's health and avoid over-reliance on Government subsidy or medical insurance;

iii) To provide good, affordable basic health care services to all residents;

iv) To rely on competition and market forces to improve service and raise efficiency; and

v) To intervene indirectly in the health care sector only when necessary and where market forces fail to keep health care costs down.

### 1.6.2 Promotion of Good Health

We must continue to emphasize health education and disease prevention programmes. We need to encourage the population to keep fit, adopt healthy lifestyles and use medical services judiciously. For example, patients should see their family doctor first before consulting specialists. We must also encourage physicians in the private sector to set up more family clinics or group practices according to standards set by Government. Employers, unions and individuals have to play their roles, as these objectives can not be achieved by Government efforts alone.

The health of a nation is affected by many factors, not just the numbers of physicians, nurses, hospitals, dentists and other health-care personnel. Some of the greatest strides in health-care during the twentieth century have been because of the improved supply of adequate sewage systems, clean drinking water, better housing, immunization programmes, better nutrition, greater awareness of the dangers of cigarette smoking, cholesterol levels etc.

The Quality of Care Report refers to the responsibility of both physician and patient for prescribing and taking medications safely and on a timely basis, thereby lessening the possibility of iatrogenic poisonings.

### 1.6.3 Personal Responsibility

We owe it to ourselves individually to keep fit and healthy and encourage others to do so. To strengthen the sense of personal responsibility, the health care system must give individuals the information that will educate them to stay healthy, make informed decisions, save medical expenses and work in partnership with health-care providers to improve health and lower costs. A patient already pays for at least part of the cost of health care services through insurance premiums, taxes, co-insurance deductibles and directly for uninsured services. Therefore it is in everyone's best interest to see that these costs are kept to a minimum.

### 1.6.4 Good, affordable basic health care

The pursuit of excellence is a national challenge. Our medical services have built up an international reputation for excellence. The Bermuda Hospital Board's management role has guided both hospitals, King Edward VII Memorial Hospital and St. Brendan's to international accreditation standards. However, Bermuda is heavily dependent on overseas professional back-up. Therefore the two sources of medical services must be kept in balance, the pursuit of excellence must always be subject to what Bermudians can afford. Bermuda should not aim to be a centre of medical excellence in all fields but should seek to excel, within the resources allocated, in areas that reflect the island's needs and priorities.

We can not avoid rationing medical care, implicitly or explicitly, as funding for health care will always be finite. There will always be competing demands for resources, whether the resources come from Government, offshore or from individual citizens. Using the latest and best medical technology is expensive and trade-offs among different areas of medical treatments, equipment, training and research are unavoidable. When public funds are involved, decisions will have to made as to which patients will benefit most from an expensive treatment and whether Government can afford to provide this treatment. To obtain the most from a limited health budget, we need to exclude "extravagant" treatments i.e. those which are not sufficiently cost effective to belong to the basic health package available to all. We must allocate resources according to rational priorities so that they can do the most good for the largest number of people.

The Government has promised Bermudians access to affordable basic health care services. This basic package will reflect good up-to-date health care practice, but it will not provide the latest and best of everything. The medical treatment provided will be cost-effective and of proven value. The basic package will evolve as medical science improves and as society decides what it can afford. Today, major surgical operations such as renal transplants for patients meeting certain health criteria have become part of the basic health care package. Heart and liver transplants have not.

With growing affluence and rising expectations, some Bermudians will want more medical care than the Government can provide in the basic package. It is expected that such individuals would obtain additional insurance to cover extra requirements. At present most people carry major medical insurance. Once again it will be necessary to maintain a balance between what Government should provide and what the individual must supplement via private health insurance. We should not prevent people from obtaining more health care services or insurance if they are prepared to pay.

### 1.6.5 Health Services and market forces

To the extent possible, we must rely on competition and market forces to impel providers to run efficiently, improve services and offer patients value for money. If Bermuda's health system ignores the cost of the resources used, it will become wasteful and bloated and deliver poor services to the patient. However, market forces alone will not suffice to hold down the cost of health care services and produce an efficient system. For humane reasons, destitute persons who can not afford to pay should not be deprived of basic health care.

Health care is an instance of market failure as health care services are, to a significant extent, supply-driven. Supply creates its own demand. More competition and supply of medical services may drive costs up instead of down.

When a third party pays for all or part of the care provided, which is usually the case, doctors have few incentives to moderate the care they provide and may prescribe treatment which is not absolutely

necessary. Secondly, ill and worried patients and their families depend on physicians to advise them on the treatment needed. They are not fully informed, dispassionate consumers who can make objective choices among competing alternatives. Health care providers are therefore in a position to influence the demand for their services and thereby evade the usual discipline of the free market.

### 1.6.6 Medical Insurance

In unregulated markets, medical insurance services develop naturally. Individuals can not predict when they will fall ill so insurers seek to pool risks to protect themselves against the uncertainty of an expensive bout of illness. Unfortunately, unregulated health insurance suffers from three problems. (Please see also Care Costs Report, Section 4.1.)

#### 1.6.6.1 Diseconomies of small scale

Competing insurance companies each have their own administrative and marketing overheads. Administrative costs must be kept to a minimum as a percentage of the total health care expenditure (for example, in the U.S.A. it consumes a hefty 22%, while in Bermuda the estimate is 10%).

#### 1.6.6.2 Moral Hazard

Insurance based health systems reduce the cost to the individual at the point of treatment. In the long run, this removes the incentive for the individual to stay healthy or to minimise his or her use of health care services.

#### 1.6.6.3 Adverse Selection

Insurance companies are free to choose those whom they wish to insure, leaving high risk groups without insurance cover. This creates a serious problem of equity.

### 1.6.7 Timely Intervention

We can not therefore allow market forces alone to structure our health system. The Government has to intervene to prevent over-supply, moderate demand and create incentives to keep health care costs under control. In addition, Government should regulate the provision of facilities, health provider manpower and the flow of funds. Specifically it must manage directly all aspects of the health care system. For this purpose, it is proposed that a Bermuda Health Council (B.H.C.) be established whose mandate would be:

- To ensure necessary health care services are available to all residents of Bermuda and provided at a reasonable cost to the community;
- To ensure consumers of health care services are provided with quality of care and the health needs of the population are met; and
- To encourage, educate and promote a healthy community.

## 1.7 BASIC MEDICAL CARE PACKAGE

The standard hospital benefit outlines the basic medical coverage presently required by law. In many instances, especially for those who do not have good insurance coverage, the standard hospital benefit falls short of what might be considered in today's world as being reasonable coverage.

In addition, there are many instances when individuals, who do not have sufficient medical coverage, seek levels of medical care which in due course lead to expensive subsidization by Government. (According to the Care Costs Report in 1993, 10% of Bermuda's adult population had no health insurance cover and 74% had major medical coverage. The remainder therefore, had only limited health insurance cover.)

Without a basic medical package there is no ceiling to the amount of medical care which patients might want or to the costs which could be incurred by Government.

An outline of the proposed Basic Medical Package is contained later in the report. The purpose of this package is to define what medical services would be offered by the Plan, that are accessible to and affordable by all residents, recognizing that this would not prevent people from obtaining medical services beyond the basic package. It would be considered part of the duty of the proposed Bermuda Health Council to keep this basic medical health package under review (new drugs, procedures, equipment, technology etc.) and social and economic changes. The Council would consult with hospitals, medical professionals, insurance providers, consumers and other experts when doing so.

## 1.8 COMMON PERCEPTIONS

The committee's investigations uncovered a number of public perceptions which have had a negative impact on the system for example:

### 1.8.1 Health insurers are accused of "ripping off" the community.

Our review indicates this does not take place nor is there any price fixing between insurers. In fact each insurance company sets its premiums with their clients based on their own claims experience with each client or client group. These premiums can vary greatly and can also vary from client to client. Healthy competition is the order of the day.

### 1.8.2 Physicians' fees

It is perceived that physicians' fees are too high, that there is no standard fee structure in place, and therefore fees should be regulated.

The total cost of physician's services submitted to local health insurers rose a significant 42% during the three year period 1990-1993. Cost of living index during the same period rose by 9.9%. We are not saying that physicians have raised their individual fees by this amount. In fact, physician fee increases have more or less been in line with the cost of living index. There have, however, been a number of other factors that have contributed to this dramatic increase in cost - most of which stem from consumer's increased expectations. Some of these are:

i) Increasing number of services being performed in the doctor's own office;

ii) Over utilization of services;

iii) Patients tending to shop around for best possible care; and

iv) More specialists advice being sought versus general practitioner care.

### 1.8.3 Increasing use of private laboratory and diagnostic facilities

It is perceived that these may be over-utilized and also that certain private laboratories are unfairly treated and placed under closer scrutiny than others. This can easily be overcome by implementing regulatory procedures of scrutiny similar to those found in other jurisdictions and applying them equally to all installations operating in Bermuda.

### 1.8.4 Concern over high cost of prescription drugs

There is a perception that with one major supplier drug prices are fixed and should be controlled. In addition, the high cost of prescription drugs to senior citizens on fixed incomes is cause for concern. The whole question of prescription drugs is being actively reviewed by the Committee and is addressed as a separate section of the Care Costs report (Section 4.3.F).

These escalating costs both domestically and overseas are of major concern. It is clear that increases significantly above the rate of inflation will, in the long term, be unsustainable.

### 1.8.5 Lack of Confidence in Local Health Care System

Another area of concern is a perceived lack of confidence in the local health care system which has in turn led to increasing requests for treatment overseas, with accompanying increased costs, even though adequate services are available locally. Bermuda is a small community and one small hiccup in the system is very quickly magnified and passed throughout the country. The consumer in Bermuda needs and wants to believe in the local health care system and the system needs the support and faith of the consumer, if it is to grow successfully.

## 1.9 SENIOR CITIZENS

Another major area requiring urgent review is the care of the elderly. At present, there are many in both physical and financial need. With the continuous growth in this age group, extensive and urgent attention to the problem is needed. It has been indicated that 15-20% of all acute and extended care beds in the King Edward VII Memorial Hospital are occupied by persons who could be housed elsewhere. This equates to in excess of $5 million each year being spent on individuals who could be better cared for, at less cost in a nursing home or home health care environment. The majority of this $5 million is presently being funded by Government subsidy but with the senior citizen population continuously growing, this cost will continue to escalate. In other sections of this report, recommendations will be made to effectively deal with this concern such as:

- Nursing care on a stepped down and less costly basis than the present hospital's acute care ward for those who do not require acute care;
- Promotion of private enterprise to extend and/or supply additional nursing homes;
- Establishment of criteria and regulations for acceptance into a nursing home and a closer monitoring of the standards of such facilities;
- Provision of financial assistance and training to those families providing home nursing are (presently not an insured benefit); and

- The need for the recently amended legislation to be rescinded which requires that payroll tax be paid on those salaries of home health care professionals e.g. private nurses. This works contrarily to using home medical care at a reduced cost than acute care.

## 1.10 MENTAL HEALTH

Mental health care in Bermuda is also under active review and suggestions are contained in other sections of this report. The Bermuda Hospitals Board recently implemented a complete study of the overall operation and procedures at St. Brendan's Hospital. This was basically a management audit and is just one step in the modern day approach towards ensuring that facilities and operations are efficient and keeping abreast of changing times, positioning the operation to move into the next century. The Hospitals Board is to be commended for this progressive action, the results of which although not made public, are already being implemented.

The last decade has seen an increase in the numbers of counsellors and psychologists practising in Bermuda, including employee assistance programmes, the need for which has increased in response to the increased stress and strains of modern life. The Psychological Practitioners Act should be passed in order to acknowledge the professional status of this group of health-care providers, as is the case in other jurisdictions.

## 1.11 LEGISLATION

In addition to the above, both Quality of Care and Care Costs reports have mentioned the need for increased legislation. In fact, a number of pieces of legislation are presently in draft or final form, some of which have been included in this year's Throne Speech. The Health Care Review Sub-Committee would strongly urge that the passing of these pieces of legislation be given a high priority and hope that as many of these legislative acts can be enacted before the end of the current 1995/96 Parliamentary Session.

Psychological Practitioners Act - new
Bermuda Hospitals Board Act 1970 - review and update
Mental Health Act 1968 - review and update
Nurses Act - review and update
Professions Supplementary to Medicine Act 1973 - review and update
Public Health (Nursing Home) Regulations - review and update
Protection of Children Act 1943 - review and update

## 1.12 PREVENTATIVE HEALTH CARE AND THE CONSUMER'S ROLE

As outlined in the first two objectives of the proposed health care philosophy, we must refer to the responsibility of the consumer or health care user. One of the most important components of any health care system we believe, is the responsibility of the consumer and in this we include preventative care. Consumers should be charged with being personally responsible for their health by:

a) Making healthy lifestyle choices;

b) Preventing disease;

c) Being informed about treatments;

d) Being aware of the costs of the system; and

e) Using health care services wisely.

To involve consumers in a significant way in health care decisions, education must be in place outlining programmes and policies which will enable the consumer to make reasoned choices about their health and then follow them through. (Please see also Needs Assessment Report, Section 5.6.1.3 & 5.6.1.4.)

## 1.13 HOME CARE

Reference has been made in several of the Task Group reports to the need for increasing home-care or non-institutionalised care. The Sub-Committee received a number of reports on home-care from organizations who had been investigating this concept and the following are quotations from one of them which succinctly outlines some of the issues where it is believed home-care can be of benefit.

"Historically the home care provider has had a relatively small impact on the health-care system, especially in managing the system.....However, home care has the potential for playing a major role in controlling and managing tomorrow's health-care delivery system....This increase in home care utilization has not been anticipated by many managed care plans and home care providers as they contract for home care services. In some cases, it has been a stumbling block in negotiations as the experienced home care provider tried to negotiate for increased home care budgets and capitation rates, while the payer tried to limit the budgets at historical levels. Overall health-care costs tend to decline, sometimes dramatically, as the delivery system becomes more intensely managed....

The use of home care services is another way care can be shifted to a lower cost setting. In many instances, patients can be directly transitioned to home care after a shortened or eliminated hospital stay, leading to a signficant reduction in costs. In other instances, home care can be used prior to admission to reduce the institutionalised recovery time....A more effective approach utilizing home care services includes a caregiver visit to the patient's home a month prior to admission (to hospital)....With advance preparation the patient is able to become more mobile, more quickly following surgery and return home several days earlier, perhaps as much as four days.....It is clear from this effort that significant health-care management advances are possible with the strategic use of home-care services. These advances include the use of home-care services before, oftentimes during and after other health-care services are delivered."*

The Health Care Review commends the initiative of the Bermuda Hospitals Board in commencing a Home Care Pilot Project. This is a "three month project designed to demonstrate the quality of care can be delivered to selected clients in their homes and that home care is a cost-effective alternative to hospital care." **

*"The Emerging Role of Managed Home Care" by David V. Axene and Dennis J. Hulet: Milliman and Robertson Inc., November 1995.

** Home Care Pilot Project brochure published by Bermuda Hospitals Board, February 1996.

## 1.14 GENERAL CONCLUSIONS

### 1.14.1 General

This review, together with many discussions with health care professionals and interested parties has been intense and widespread. Whilst our present system can be considered first class, there are signs that more needs to be done to keep up with rapidly growing and changing requirements. The effects of escalating costs, an increasing number of elderly, and ever-advancing technology are exerting tremendous pressure on the system.

We are now looking forward to an important period of transition when it will be necessary to look beyond the kinds of services we have relied on and develop a system that balances a wider range of methods of health care delivery and that uses our resources more effectively and economically.

One of the key principles should be to provide a health care system with reasonable access to quality care at an affordable price to everyone. We all have a stake in the system - consumers, health care providers and Government and we have to change the way we think about health care.

Everyone must start using, providing and managing services as effectively and economically as possible.

During the course of the review, approximately forty individuals have been involved in the collection and analysis of data which has lead to a number of wide-ranging, long and short-term recommendations designed to have a serious and positive impact upon the quality, delivery and costs of health care in Bermuda. This very large body of work will require an implementation team to turn recommendations into reality.

Far too much commitment, sincerity and energy has been put into this Review for it to be under-valued and under-utilized. It requires the attention of a permanent board or council.

### 1.14.2 Keeping people healthy and closer to home

Our objective should be to keep people healthy - out of institutions and in the community as much as possible. Out-patient and community health care clinics allow people to remain more self-sufficient, receiving care close to home.

### 1.14.3 Choices for consumers, providers and Government

Consumers should be aware of the choices open to them and the kinds of treatment available. They should also understand the various costs of the system, to help them use it wisely. Consumers should also take advantage of opportunities to live healthily to help them to stay healthy.

Health care providers and Government have an obligation to understand the implications of any given treatment, its effectiveness and the costs attached to it. There should be a clear indication of positive outcomes in the use of sophisticated high technology which, in many cases, is very expensive.

Government's role in evolving a better system should be to lead and manage change, through the Bermuda Health Council, while collaborating with consumers and health providers. Incentives for involving these two groups in that process and ways of encouraging more effective and economical use of services must be developed. Generally speaking we consider there are three options:

i) The current system with improvements;
ii) The current system with improvements with an enhanced home care programme; and
iii) The current system with improvements, an enhanced home care programme plus an effective preventative care programme.

It is the opinion of the Health Care Review Sub-Committee that the third option is in the best interests of Bermuda and has the long-term potential to provide affordable health-care.

## 1.15 KEY RECOMMENDATIONS

The following are the key recommendations put forward by the four Task Groups. It is not intended that this a comprehensive summary of all the Health Care Review's recommendations. These are included in full under Section 7 of this report, referenced by Task Group.

### 1.15.1 Quality of Care Task Group

Recommends that:

a) The revised Mental Health Act be passed into law as soon as possible;

b) The regulations governing Nursing/Rest Homes currently in draft form be passed in law as soon as possible. They are comprehensive and will address many of the issues and commissions found in the Review;

c) A committee of nursing home staff be set up to prepare standards of care that would be implemented in all rest homes;

d) Alternative care for the elderly presently in acute care wards be reviewed by insurance companies with the objective of reducing costs e.g. home care costs, which should be an insured benefit;

e) Greater public awareness and education takes place on such diverse topics as wellness and prevention, understanding health insurance policies, self-medication, pharmaceutical drugs (how, when and why to take them, are there any generic equivalents etc.), the workings of the hospitals (demystifying the institution), living wills, children having children, proper nutrition, more sympathetic treatment and interaction with H.I.V. positive patients; and

f) Guidelines are formulated and implemented for all private laboratory and diagnostic facilities. A review of the legislation and guidelines should include: certification of laboratory/diagnostic facilities, continuing education of staff, certification and testing of equipment, quality control of testing methods, infection control and health and safety standards. Existing legislation governing laboratories and diagnostic facilities needs to be revised.

### 1.15.2 Care Costs Task Group

First and foremost this Task Group recommends the establishment of the Bermuda Health Council (B.H.C.) After it has been established the B.H.C. must:

a) Review the expansion of the H.I.P. to reflect the health needs of Bermuda (Bermuda Health Plan);

b) Mandate employers to extend the revised Bermuda Health Plan (B.H.P.) to retirees;

c) Establish quality control standards/criteria for all locally approved providers;

d) Establish approved providers of health-care services in Bermuda and the approval of fees for services rendered by the approved providers;

e) Establish approved providers for overseas care and provide internal support to the medical profession; and

f) Develop/adopt medical protocol standards which must be adhered to by approved providers.

Realistically, the establishment of the B.H.C. and its legal framework for existence will probably take up to two years. Short term priorities which could be adopted quickly (within 1 year) and help to reduce health costs and/or improve standards and availability of care:

1) Bermuda Medical Society (B.M.S.), Health Insurers Association of Bermuda (H.I.A.B.) and Bermuda Dental Association jointly develop reasonable fees for all services provided within the doctors'/dentists' offices and private laboratory/diagnostic facilities. These fees, once established, be published and placed in all doctors'/dentists' offices/facilities;

2) The Bermuda Hospitals Board review its method of establishing charges and adjust to reflect true costs of services;

3) B.M.S., H.I.A.B. and Bermuda Hospitals Board work jointly together to establish overseas preferred provider organizations for Bermuda who will provide both external and internal support to our medical care system;

4) Mandate that employers continue previous health insurance benefit coverage to their retirees;

5) Bermuda Hospitals Board to establish an intermediate care ward for patients needing less intensive care than that provided in a regular acute care ward;

6) Extend the current standard hospital benefit to include limited cover of a stepped-down intermediate care ward of K.E.M.H;

7) Institute an island-wide asthma campaign to provide educational awareness in order to reduce unnecessary hospitalization costs, particularly among child admissions;

8) Review and possibly expand the role of the K.E.M.H. pharmacy in order to provide for the needs of Bermuda and promote the use of generic drug equivalents;

9) The Pharmaceutical Association and B.M.S. be requested to jointly develop and make available to the public, educational material concerning the use of generic drugs;

10) A committee be formed to closely investigate the costs and practices associated with dentistry in Bermuda;

11) The legal use of Bermuda Relative Value Schedule (B.R.V.S.) be mandated for all services rendered by medical/dental professionals when such services are being provided in the hospital setting; and

12) Insurance industry statistics be obtained for 1994, 1995 and subsequent years in similar or same format as done by Health Care Costs Task Group to achieve continuity and permit analysis of trends.

### 1.15.3 Needs Assessment Task Group

This group made recommendations in a number of areas relevant to the collection and analysis of health data and the use and dissemination of health information, as follows:

a) The Department of Health should examine its roles and responsibilities with regard to community health assessment. It should assess its capacity to provide information and data analysis to policy makers (i.e. the Minister and Cabinet) with periodic information and data analyses concerning priority health problems, using a standardized process such as APEX/PH;

b) Using a standardized format, such as the Assessment Protocol for Excellence in Public Health (APEX/PH), the Department of Health should conduct a community health assessment process on a regular basis. Every two years is recommended;

c) Develop a comprehensive integrated Public Health Information System (PHIS), linking vital records, hospital data and disease surveillance systems;

d) Appoint a steering committee to oversee the P.H.I.S. The committee should include representatives from the public health service, the Hospitals Board, the Department of Statistics, the Registrar General's office, as well as health care providers;

e) The P.H.I.S. should include systems for the surveillance of administrative data, birth defects/ disabilities, selected behavioural risk factors, selected cancers, communicable diseases of public health importance, selected non-communicable (chronic) diseases, injuries and accidents, occupational illnesses and injury, vaccine-preventable diseases and vital statistics. In addition, it should provide for pharmacological surveillance; and

f) The Department of Health and the Hospitals Board should explore the feasibility of a computer network linking the hospitals, health care providers (physicians) and the public health service.

### 1.15.4 Finance Task Group

This group made a number of recommendations relating to the financial structuring of Bermuda's existing health care systems as follows:

a) The role of the Hospital Insurance Commission should be re-defined, especially as it relates to hospitals. There is a pressing need to revise the Hospital Insurance Act so that the H.I.C. has a wider representation, meets regularly and consults with private insurers and other groups such as the Bermuda Hospitals Board.

The H.I.C. should make annual reports to the Minister of Finance, as provided in the Act. Actuarial assessment of premiums should be made public for use by all stakeholders in the system, including private insurers who have contributed information towards the assessment.

The mandate of the H.I.C. should be re-examined with consideration being given to broadening the function of the H.I.C. and amending the standard health benefit package to include preventative and home health care measures.

b) The subsidy for the aged should be expanded to bring all benefits up to 100%. This would enable the reclassification of those indigent who are over the age of 65 years to be included in the aged category and receive 100% benefit. This in turn would decrease the indigent subsidy by the aged component and simplify the administration of this subsidy.

c) Indigent persons should be enrolled in H.I.P. with the monies currently paid as subsidies diverted to paying the H.I.P. premiums instead. This would allow greater flexibility and less reliance on hospital out-patient treatment for the indigent. An insurance card should be issued to indigent persons to allow them to access insured benefits, including doctors' visits.

d) Determination of indigence should be transferred from the Bermuda Hospitals Board to the Department of Financial Assistance to avoid duplication of effort and to centralise administration.

e) The Youth Subsidy should be removed, with any youth who may be indigent transferred to the indigent subsidy category. Private insurers and H.I.P. would increase premiums by a small amount to cover children whose parents are employed and covered by at least the standard health benefit. It is further recommended that this subsidy be the subject of an actuarial review. Abolition of the youth subsidy would contribute towards the cost of increasing the aged subsidy to 100%.

f) Establish a "stepped-down" care unit at K.E.M.H. and undertake an actuarial study to determine projected costs of long-term care and home care. It is further recommended that the Geriatric Assessment Programme team's responsibilities be extended.

g) The current system for financing catastrophic care including reliance on such charities as the L.C.C.A. needs to be re-examined. It is recommended that the role of the Mutual Reinsurance Fund be rationalised with catastrophic care being financed through the M.R.F. and paid for by premium assessment from private insurers and H.I.P. (as already happens with funding for hospice, dialysis etc.)

g) The Finance Task Group endorses the need for the creation of the Bermuda Health Council and recommends that Government immediately takes steps to establish the authority to meet its mandate as defined by the Care Costs Task Group. It is recommended that the B.H.C. not report to a specific minister but have the freedom of action to achieve its mandate.

The mandate of the B.H.C. would include revision of the standard benefit giving due consideration to increasing emphasis on preventative care and home health care, examination of such issues as visiting overseas specialists, managed care, preferred provider organizations and increased level of consumer education and awareness. It is recommended that the B.H.C. approve a scale of fees which would be published annually and which doctors would be required to display in their offices.

## 1.16 Acknowledgements

The Health Care Review would like to thank all those people who have been involved or contributed in any way to the production of this Report. They have given of their time and dedication over a sustained period and without their help this Report would not have been possible. A full list of those organizations and individuals is appended under "Acknowledgements" together with Section 2 of the Report which lists those members who served on the Sub-Committee and its four Task Groups

A special word of thanks is due to three members of the Department of Management Services - Mr. Arthur Wade, Mrs. Brenda Dale and Mrs. Susan McCullagh-Bailey who have provided, during the period of the Review, the co-ordination, research, writing, design and editing so necessary for a comprehensive report.

## GENERAL ACKNOWLEDGEMENTS

The Health Care Review is indebted to a number of individuals and organizations who gave their valuable input, advice and recommendations to the work of the Review team. We acknowledge and thank them for their help as without it, our Report would not have had such a comprehensive scope.

Admiralty House Seniors Organization
Adolf Luttke, Corange Ltd.
Agape House (Mrs. Hilary Soares)
Age Concern
Allen Vincent Smith Foundation
Mrs. Shirley Andrews, Andrews Associates
Bermuda's Professions Supplementary to Medicine
Bermuda Dental Association
Bermuda General Agency
Bermuda Hospitals Board
Bermuda Medical Council
Bermuda Medical Society
Bermuda Nurses Association
Bermuda Pharmaceutical Association and retail pharmacists
Bermuda Physically Handicapped Association
Bermuda Psychological Association
Bermuda T.B., Cancer and Health Association
Liz Boden, The Nurses Practice
Coalition for the Protection of Children
Department of Social Insurance
Department of Statistics
Eric Clee, Merck, Sharpe and Dohme
Mrs. Barbara Frith
Health Insurers Association of Bermuda
Health Watch
Hospital Insurance Commission
Mrs. Margo Johnston
Lady Cubitt Compassionate Association (L.C.C.A.)
Massachusetts General Hospital - Dr. Peter Slavin, Dr. Mortimer Buckley, Mr. David Jones
Mr. Tyler Moniz
P.A.L.S.
Portuguese Bermuda Organization
S.T.A.R.
Women's Advisory Council
Women's Resource Centre

Health Care Consultants

Milliman and Robertson Inc.
Watson Wyatt Worldwide

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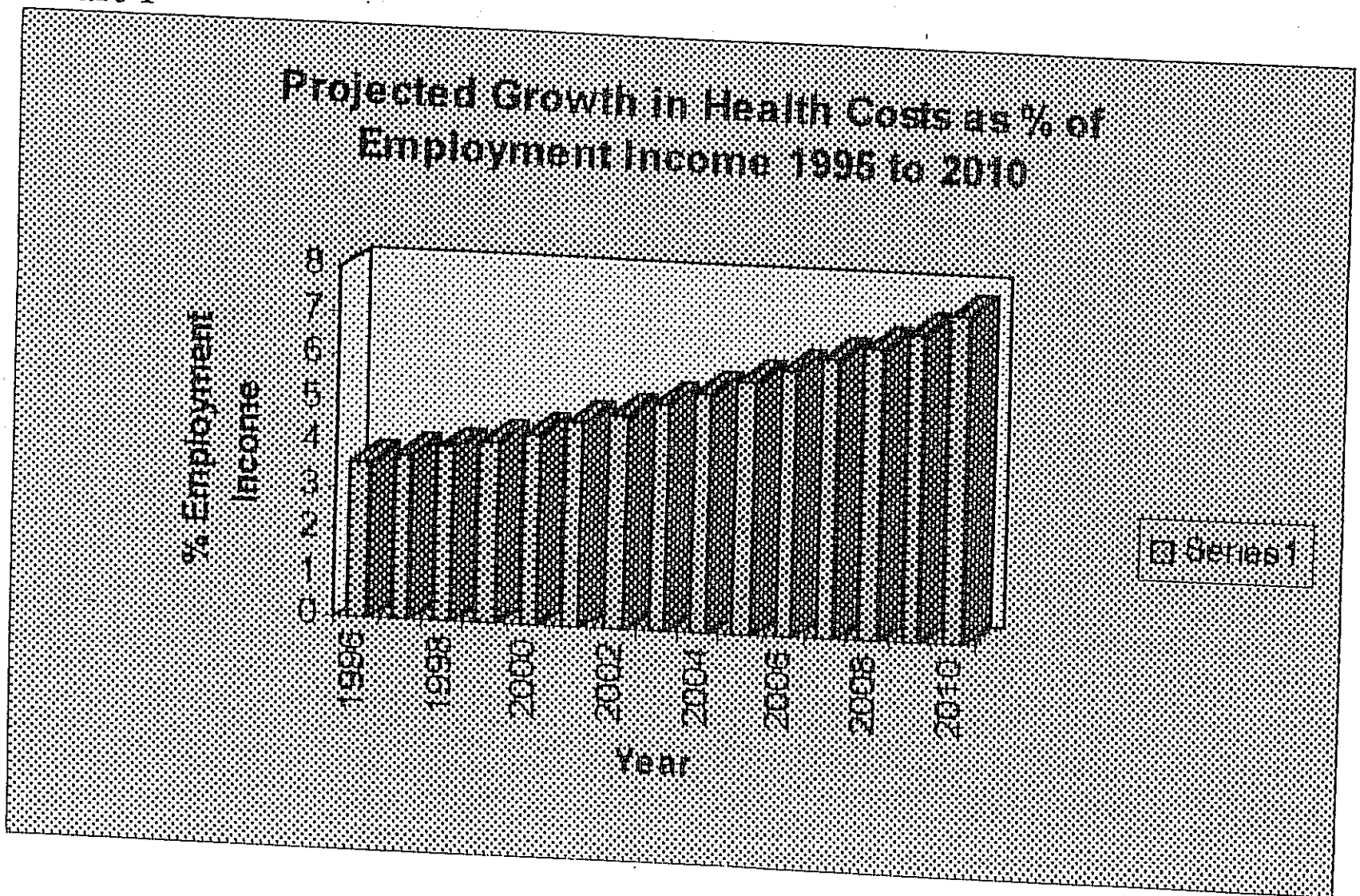
The projections in this chart have been made based on the assumption that employment income will continue to increase at the rate of 2.5% per annum, with insurance premiums and other health-related costs increasing at the rate of 8% per annum, which is the historical perspective.

Chart 1



APPENDIX II

# HEALTH CARE REVIEW - COMPARING UMBRELLA ORGANIZATIONS

| ORGANIZATION OPTION | ADVANTAGES | DISADVANTAGES |
|---|---|---|
| 1. Creation of Bermuda Health Council (new body) | • Better overall control through co-ordination of health care organizations and services.<br>• Revitalized management as new.<br>• Able to address major overall problems in comprehensive form by promotion & direction of what services are needed.<br>• Format represents all the stakeholders.<br>• Avoids "turf protection"<br>• Improves inter-stakeholder communications<br>• Ensures continuity of records and integrated database<br>• Could replace existing bodies whose functions are defunct<br>• Establishes accountability.<br>• Monitors cost & use of services in appropriate manner. | • Increased cost (although funded through M.R.F.)<br>• Appearance of increased bureaucracy |
| 2. Hospital Insurance Commission renamed and/or revamped Health Care Insurance Commission | • Existing body which has some legislative backing<br>• Has the appearance of making use of an existing organization and giving it a "new life." | • Has difficulty in fulfilling current mandate, would expansion change that?<br>• Has appearance of extending Government bureaucracy.<br>• Does not represent broad spectrum of stakeholders.<br>• Could be seen as expanding existing "turf protection" |

| | | |
|---|---|---|
| **3. Revamped Bermuda Hospitals Board** | • Eliminates creation of any new body.<br>• Avoids another level of organization.<br>• Already major component of health care function with existing international standing and accreditation. | • Has enough on its plate already - expansion could lead to over-loading.<br>• Expansion could lead to accusations of "turf protection." |
| **4. Expansion of Ministry of Health and Social Services** | • Increases Ministry's resources to accomplish better monitoring, data collection and recommendations for health care of the community. | • Seen as expanding Civil Service and more bureacracy.<br>• Eliminates "arms-length" relationship and reduces objectivity.<br>• Eliminates/compromises possibility of consumer and other stakeholder input. |
| **5. Establishment of Health Insurance Commission, Health Professions Licensing Board and Health Authority** | • Formalises and co-ordinates present ad hoc system.<br>• Provides focus on three specific areas of concern<br>• Takes away from hospital focus<br>• Spreads and has potential to reduce costs | • Further fragmentation of system - three tiers of organization instead of one<br>• By having each of three organizations reporting to the Ministry of Health, narrows the focus<br>• Could be seen as expansionsist in the context of Civil Service. |

Notes:

1. All of the above umbrella organizations will require new or amended legislation to effect its mandate.

2. Fundamental to the effective operation of any umbrella organization is the need for an integrated, co-ordinated database of information. The lack of such a system proved time-consuming in obtaining meaningful data to meet the purposes of the Health Care Review.

3. For details of the rationale, mission statement, mandate, executive board and responsibilities of the B.H.C. or another option see Section 4.4 of the Health Care Costs Task Group report (extract attached.)

# HEALTH CARE REVIEW

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## 2.1 BACKGROUND AND MANDATE

In September 1993, the Minister of Health, Social Services and Housing, the Honourable Quinton Edness, announced the formation of the Health Care Review Sub-Committee. The Sub-Committee was formed in response to community concerns regarding the escalation of health care costs and the quality of health care afforded to residents in Bermuda. The Sub-Committee was given the responsibility to undertake a review of Bermuda's health care system and, appreciating the physical and economic resources of the island, determine whether the system:-

a) Satisfies the health care needs of the population;

b) Is cost-effective;

c) Is efficient and

d) Provides an appropriate minimum level of care which is accessible to and affordable by all residents (with due regard for age, income and health status).

The Sub-Committee is to make recommendations where necessary, especially where recommendations might optimize the delivery of health care services. The membership of the Sub-Committee is as follows:-

| | |
|---|---|
| Senator Alfred Oughton | Chairman |
| Dr. Ian Fulton | Deputy Chairman |
| Mrs. Judy Panchaud-White | Chairperson, Health Care Costs Task Group |
| Mrs. Sheila Manderson | Chairperson, Quality of Care Task Group |
| Mr. Carlyle Musson | Permanent Secretary, Ministry of Health and Social Services |
| Mr. Roger Titterton | Chairman, Health Care Finance Task Group |
| Dr. John Cann | Chairman, Health Care Needs Assessment Task Group |
| Mrs. Joan Dillas-Wright | Nursing representative |
| Mr. Eugene Carmichael | Consumer representative |

Ex officio:

| | |
|---|---|
| Mrs. Brenda Dale | Secretary, Department of Management Services |
| Mr. Arthur Wade | Department of Management Services |
| Mrs. Susan McCullagh-Bailey | Recording Secretary, Dept. of Management Services |

Four separate Task Groups have been established to focus on specific areas of concern in addressing the key areas as follows:-

| | | |
|---|---|---|
| Quality of Health Care | - | Chairperson, Mrs. Sheila Manderson |
| Health Care Costs | - | Chairperson, Mrs. Judy Panchaud-White |
| Health Care Needs Assessment | - | Co-chairmen, Dr. John Cann & Dr. Ronald Lightbourne |
| Financing of Health Care | - | Chairman, Mr. Roger Titterton |

## 2.2 MEMBERSHIP AND OBJECTIVES OF QUALITY OF CARE TASK GROUP

### 2.2.1 MEMBERSHIP

| | | |
|---|---|---|
| Mrs. Sheila Manderson | (Chairperson) | Director, Bermuda Hospitals Board |
| Mr. Eugene Carmichael | | Johnson & Higgins - consumer representative |
| Ms. Patricia Daly | | Bermuda Quality Awareness Team - consumer representative |
| Mrs. Joan Dillas-Wright | | Director of Nursing & Patient Services St. Brendan's Hospital |
| Ms. Jackie Lightbourne | | Chief Nursing Officer, Community Nursing Services |
| Dr. Burton Butterfield M.D. | | |
| Dr. Ewart Brown M.D. | | |
| Mrs. Marisa Sharpe | | Infection Control Practitioner, King Edward VII Memorial Hospital |
| Mr. Aldwin Savery | | Manager, Patient Relations & Quality Management, Bermuda Hospitals Board |
| Mrs. Brenda Dale | | Department of Management Services |
| Mr. Art Wade | | Department of Management Services |
| Mrs. Susan McCullagh-Bailey | | Recording Secretary |

### 2.2.2 OBJECTIVES

To develop standards and recommend a process for the ongoing treatment of the availability, accessibility and efficiency of community-based and institutional health services in Bermuda.

1. Develop minimum standards relating to the accessibility of basic preventive, primary and secondary health services in Bermuda.

2. Recommend specific outcome measures to assess the effectiveness of health services in Bermuda.

3. Define the major health programmes in Bermuda (e.g. mental health, long-term care, maternal chief health, emergency and pre-hospital care, palliative care, acute care, health promotion and disease prevention) and develop recommendations for the ongoing evaluation of their effectiveness.

4. Recommend mechanisms to facilitate a "customer" focus for continuous quality improvement efforts within the health care system.

5. Recommend minimum health manpower requirements (both numbers and qualifications) required to meet basic health service needs.

6. Recommend a mechanism for the ongoing assessment and quality improvement of all health services in Bermuda.

## 2.3 MEMBERSHIP AND OBJECTIVES OF HEALTH CARE COSTS TASK GROUP

### 2.3.1 MEMBERSHIP

| | |
|---|---|
| Mrs. Judy Panchaud-White (Chairperson) | Vice-President, B F & M Ltd., |
| Dr. William Cooke M.D. | Former Chief of Staff, King Edward VII Memorial Hospital |
| Dr. Roger Wong M.D. | |
| Mr. Gordon Ashford | Lady Cubitt Compassionate Association |
| Mr. Eugene Blakeney | General Secretary, Bermuda Public Service Association |
| Mrs. Lynanne Bolton | Pharmacist, White & Sons Ltd. |
| Mrs. Brenda Dale | Department of Management Services |
| Mr. Art Wade | Department of Management Services |
| Mrs. Susan McCullagh-Bailey | Recording Secretary |

### 2.3.2 OBJECTIVES

This group has the responsibility of reviewing the costs of health care services in Bermuda and developing recommendations aimed at controlling the rate of cost increases.

1. Collect historical data on all factors contributing to the cost of health care.

2. Review historical data and project trends for the future.

3. Make recommendations concerning the percentage of Gross Domestic Product (G.D.P.) which should be spent on health care services and the distribution of funding between the various services. (This objective was eventually transferred to the Health Care Financing Task Group.)

4. Develop a framework for the establishment of reasonable fees for services rendered outside the hospital setting.

5. Make recommendations to contain the rate of growth of health care costs; in particular in such areas as overseas medical care, catastrophic illness, prescribed drugs and local medical costs.

6. Determine what facilities/equipment, medical services etc. need to be upgraded in Bermuda and develop proposals to correct these deficiencies.

One objective was added to this Task Group:

7. Make recommendations for a universal health care plan for Bermuda residents.

## 2.4 MEMBERSHIP OF HEALTH CARE NEEDS ASSESSMENT TASK GROUP

### 2.4.1 MEMBERSHIP

| | |
|---|---|
| Dr. John Cann M.D. ) | |
| Dr. Ronald Lightbourne M.D. ) | Co-chairmen |
| Dr. Brenda Davidson M.D. | Senior Medical Officer, Department of Health |
| Mrs. Janet Smith | Chief Statistician, Department of Statistics |
| Mrs Lucille Parker | Director of Nursing, King Edward VII Memorial Hospital |
| Ms. Cyrlene Wilson | Hospitals Statistical Analyst |
| Mrs. Marlene Christopher | Registrar General, Bermuda Government |
| Mrs. Brenda Dale | Department of Management Services |
| Mr. Art Wade | Department of Management Services |
| Mrs. Susan McCullagh-Bailey | Recording Secretary |

### 2.4.2 OBJECTIVES

The primary purpose of the Needs Assessment Task Group was to assess the adequacy of health status, health resource and utilization data in Bermuda, and to develop a set of health status indicators for the community as follows:-

1. Assess the adequacy of existing surveillance and data collection designed to
   a) Give a demographic profile of the community,
   b) Monitor conditions contributing to morbidity and mortality on the island,
   c) Identify significant health problems in the population, risk factors and contributing factors,
   d) Monitor health manpower and
   e) Monitor health resource utilization.
2. Identify significant gaps in health data collection.
3. Document local health resources and support systems.
4. Complete a community health assessment and recommend a process for ongoing assessment.
5. Recommend health goals and objectives for the community.
6. Develop a set of health status indicators for the island.
7. Recommend model systems for data collection and disease surveillance.

## 2.5 MEMBERSHIP AND OBJECTIVES OF FINANCING TASK GROUP

### 2.5.1 MEMBERSHIP

| | | |
|---|---|---|
| Mr. Roger Titterton | (Chairman) | Partner, Deloitte & Touche |
| Mr. John Rayner | | Actuary, Hospital Insurance Commission |
| Mrs. Annarita Woolridge-Marion | | Director of Finance & Administration, King Edward VII Memorial Hospital |
| Mr. Donald Scott | | Assistant Financial Secretary, Ministry of Finance |
| Mr. Nick Warren | | Manager, Somers Isles Insurance Co. Ltd. |
| Mrs. Brenda Dale | | Department of Management Services |
| Mr. Arthur Wade | | Department of Management Services |
| Mrs. Susan McCullagh-Bailey | | Recording Secretary |

This Task Group is responsible for developing recommendations relating to the appropriate scope of a basic health insurance package, the role of the Hospital Insurance Commission and the roles of the public and private sectors in financing health care.

### 2.5.2 OBJECTIVES

To develop recommendations that will result in the current or a modified health care financing system meeting health care costs (as considered by the Care Costs Task Group) whilst ensuring that quality (as proposed by the Quality of Care Task Group) is maintained and the needs (as proposed by the Needs Assessment Task Group) of the community are met at an affordable cost. The following six specific objectives are addressed as part of this overall objective:-

1. To review the role and functioning of the Hospital Insurance Commission.

2. To develop recommendations concerning insurance and government funding for long-term and home health care.

3. To examine the use of health care services which are available in Bermuda and recommend changes where appropriate.

4. To consider the transfer of responsibilities for determining medical indigency from the Bermuda Hospitals Board to the Ministry of Health and Social Services.

5. To examine reimbursement of physicians in primary care, internal medicine, surgery and diagnostic services and recommend changes where appropriate.

6. To review the current health care financing system and recommend improvements and determine suitability for financing future needs.

# HEALTH CARE REVIEW

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**Appendix 1 - Home Care Pilot Project, Bermuda Hospitals Board brochure**

# SECTION 3

## QUALITY OF HEALTH CARE TASK GROUP

### 3.1 PURPOSE/OBJECTIVES

The purpose of the Quality of Care Review Task Force was to develop standards and recommend a process for the on-going assessment of community based and institutional health services in Bermuda. The desired outcomes for this review were:

- To develop minimum standards relating to the accessibility of basic preventive, primary and secondary health services in Bermuda.
- To define the major health programmes in Bermuda and develop recommendations for the on-going evaluation of their effectiveness.
- To recommend mechanisms to facilitate a 'customer' focus for continuous quality improvement efforts within the healthcare system.
- To recommend health manpower requirements to meet basic health service needs.
- To recommend a mechanism for the on-going assessment and quality improvement of all health services in Bermuda.

### 3.2 METHODOLOGY

The Task Group was subdivided into four sub-groups with responsibility for gathering data about the health programmes and services that currently exist. The sub-groups included examination of primary and basic medical care, mental health, special-interest groups, and manpower. The intent for each group was to gather as much information as possible from the customers and providers of healthcare services in order to determine where gaps exist.

Information was gleaned from one-on-one interviews, special-interest group meetings, a town hall meeting, written submissions, surveys, and site visits to hospital and community-based facilities and providers. A list of major concerns and issues was generated from the data collected, together with recommendations for improvement.

### 3.3 MEMBERSHIP

Quality of Care Task Force - Reports to The Chairman, Steering Committee
Chairperson: Mrs. Sheila Manderson, Executive Director, Bermuda Hospitals Board

Members:

Ms Jackie Lightbourne, Department of Health, Chief Nursing officer, Bermuda Government
Ms. Patricia Daly, Managing Director, Performance Consultants International
Mrs. Joan Dillas-Wright, Director of Nursing and Patient Services, St. Brendan's Hospital
Dr. Burton Butterfield, MD
Dr. Ewart Brown, MD
Mrs. Marisa Sharpe, Infection Control Practitioner,KEMH
Mr. Aldwin Savery, Manager, Patient's Relations & Quality Improvement, Bermuda Hospitals Board
Mr. Eugene Carmichael, Asst. Vice President, Johnson & Higgins (Bermuda) Ltd.
Mr. Art Wade, Department of Management Services
Mrs. Brenda Dale, Department of Management Services
Mrs. Susan McCullagh-Bailey, Recording Secretary

## 3.4 EXECUTIVE SUMMARY

### 3.4.1 Defining quality health care

In the absence of the existence of a clear vision for the health care system in Bermuda, the Task Force set about defining Quality Health Care as they understood it. Quality Healthcare is defined as care that is accessible, timely, affordable and acceptable to the community. It is care which assists patients to achieve and maintain their optimal state of health and well-being.

Quality Health Care:

- Consists of a continuum of care that is provided through collaboration and coordination of in-patient, out-patient, and home care services;
- Emphasizes prevention and health promotion as well as treatment of disease processes;
- Reflects a patient's individual personality, needs, and accountabilities;
- Provides for patient and family involvement in decision-making about the patient's care;
- Is provided by caring professionals who effectively communicate with each other and with the patient;
- Is provided in environments that comfort patients and support the healing process; and
- Demonstrates care-giver proficiency and clinical excellence.

### 3.4.2 Issues/concerns

Issues and concerns have been received through a multitude of sources. Some are factual and some are perceptual. Regardless, in order to reinforce confidence in the health-care system, they must be addressed. The following are aspects that have been identified for improvement.

#### 3.4.2.1 Primary/Basic Medical Care

- There are gaps or inadequacies in insurance coverage especially as it affects the Island's seniors.
- There is a perceived lack of accountability throughout the system. Patients want protection through legislation.
- There is a lack of confidence in the local system due to personal or widely publicized negative experiences of others. There is also a commonly held belief that provider conflict of interest is a large problem, i.e. doctors in politics and as advisors/shareholders in insurance companies.
- Accessibility to both specialist and general practitioner's care is too limited. Waiting times in G.P.'s offices, as well as the Emergency Department for non-trauma complaints are too long.
- The accessibility and availability of primary care services provided by the Department of Health are limited, (i.e. they are not open at times convenient for families. Currently 8.30 a.m.- 4.45 p.m. Monday through Friday). Males and adolescents are under-served by these clinic services.

- The availability of specialists such as an allergist, dermatologist, neurologist, and an ear, nose and throat (ENT) specialist needs to be improved in order to reduce the need for overseas travel.

- Malpractice premiums are escalating in Bermuda (10 times the rate in the U.K.). There is concern that this may have a serious impact on recruitment of qualified physicians from overseas, including specialists. This trend could result in the practice of defensive medicine by physicians with resulting increases in the cost of healthcare as fees are increased to offset the increased malpractice premium costs.

### 3.4.2.2 Special Populations

Women's health care needs are not adequately addressed, eg. inequitable insurance coverages, treatment options other than hysterectomies for gynecological disorders are not readily available.

There tends to be under-diagnosis of depression in women.

There needs to be greater public education support and empathetic treatment of HIV positive patients.

The incidence of child abuse and its impact on the health of the society needs to be addressed.

There needs to be a continuum of services planned and provided for the elderly as an alternative to institutionalized care.

Minimal standards for nursing and rest homes need to be developed and monitored.

Some relief needs to be provided for the high costs of prescription medications for the elderly.

There are no standards for the establishment or operation of laboratories and other privately-run diagnostic facilities.

### 3.4.2.3 Hospitals

Greater emphasis needs to be placed on ensuring appropriate utilization of hospital beds and speedier discharge processes, particularly for the elderly.

There needs to be a drug-testing policy in place for all hospital personnel to ensure the safety of all who use the facilities and services of the hospitals.

### 3.4.2.4 Mental Health

#### a) Treatment/Care Delivery

The range of treatment modalities need to be expanded to include psychotherapy for the emotionally and behaviourally-disordered. The availability of counselling for substance abuse and marital problems (a source of great stress and depression) is limited.

There is no in-patient programme for treatment of mentally-ill children or adolescents. Many are sent abroad at considerable expense.

There is a need for a dedicated unit for the treatment of acute medical and behavioural problems in the psychogeriatric population so that undue utilization of in-patient care beds caused by irreversible conditions is prevented.

#### b) Quality Issues

Services provided are fragmented. Collaboration between the private and public health-care sectors is very limited.

Credentialling of community psychotherapists/counsellors who provide mental health services is also very limited.

#### c) Accessibility

Insurance coverage is presently provided by all major companies except Government Employees' Health Insurance (GEHI). The degree and range of coverage differs significantly.

Access to psychological and psychiatric services is limited because of lack of appropriate referrals. This may be attributed to a certain degree to professional bias, subjectivity, or lack of awareness of available resources.

### 3.4.2.5 Manpower

As there is no ideal healthcare system or community, it is difficult to accurately assess the manpower needs. i.e. what is the number of physicians and other healthcare professionals needed for the population base?

A survey of physicians indicated that most are not working at full capacity, yet there is a perception that the elderly and the indigent are under-served.

Based on current trends in the provision of services, the Bermuda Nursing Association projects a need for more nurse gerontologists, psychiatric community nurses, nurse practitioners for primary care prevention and education, nurses skilled in substance abuse treatment and therapy modalities, and nurse educators to assist in preparing Bermudians for college-based nursing programmes.
(See also Section 5, Needs Assessment Report, Page 31)

### 3.4.3 Options for action

#### 3.4.3.1 Primary/Basic Medical Care

Improve primary care clinic access by providing evening clinics utilizing flexi-time for staff. Allow clinics to be used in the evenings to provide counselling, mental health services, and health education programmes. Expand the services provided by those clinics to include health promotion and prevention programmes and include males and adolescents as clients.

Review and revise health care insurance policies to support coverage for seniors and teens as well as out-patient treatment modalities such as home-care, short-term counselling and psychotherapy services.

Develop and implement minimal standards for the management, maintenance, and care provided by nursing/rest homes. Establish a review body to ensure compliance with standards.

Develop guidelines for the establishment and operation of laboratories and other diagnostic facilities. Standards should include the management and disposal of infectious and bio-hazardous wastes.

Decrease the trends towards institutionalized care for the elderly by providing resources that will assist community/family care givers in providing care in the home.

#### 3.4.3.2 Manpower

Keep track of Bermudians studying in the healthcare professions abroad and their intentions to return to Bermuda.

Relax policies to allow needed specialists access into Bermuda on a full-time or interim basis as needed. This should be done based on the availability of Bermudian physicians.

Take a new look at the care and method of delivery of healthcare to the elderly and indigent population and utilize nurses skilled in gerontology, psychiatry, and nurse practitioners to provide an alternate method of delivering healthcare.

#### 3.4.3.3 Mental Health

1) Update the Mental Health Act.

2) Provide a coordinated and comprehensive community mental health system that includes:
   - an in-patient treatment programme for mentally-ill children and adolescents
   - counselling and short term psychotherapy services
   - case management of the chronically mentally-ill
   - the establishment of a dedicated unit for the treatment of acute medical and behavioural problems in the psychogeriatric population
   - provision for a drop-in centre for mentally ill patients in the community.

3) Establish a regulatory board for the credentialling of the mental health service providers.

4) Finalise draft legislation for psychologists.

### 3.4.4 Summary/Conclusion

Bermudians, based on their experiences in the major healthcare facilities abroad, are demanding a very high standard of healthcare at home. It is the consensus of the Quality of Care Task Group that while the general quality of health services provided here is good, there are many gaps in the current system, as evidenced by the issue statements. One of the issues that was repeated throughout the process was the lack of focus on prevention and wellness.

It is our hope that the information gained from this review can be utilized to develop a healthcare system that not only provides affordable, high quality medical care, but one that promotes good health and disease prevention as well.

### 3.4.5 Next steps

This report summarizes the issues, makes recommendations for further work and development and highlights progress made on various recommendations (in progress and completed). Continuous quality improvement is an on-going process.

The only effective way to facilitate a customer focus as a means for continuous quality improvement of services, is to periodically and regularly seek the customer's input and feedback about the care and services they receive. One way of accomplishing this is to:

a) Develop a set of standards for healthcare delivery that relate to the statements defining quality health care, ie. accessibility, timeliness, acceptability, and affordability;

b) Utilize data and feedback from customers based on these standards to continuously improve the system; and

c) Monitor and evaluate the healthcare outcome from the system:

i) Is there a measurable increase in survival/quality of life?

ii) Is there measurable improvement in the health status of the population?

iii) Is there a measurable growth in confidence in support of the local system?

## 3.5 CONSUMER FOCUS

### 3.5.1 Introduction

As part of the Government of Bermuda's probe into the quality and delivery of health care services generally, a customer focus was determined to be necessary to evaluate the level of acceptance and comfort that the public have in the local system.

### 3.5.2 Strategy and Methodology

In order to develop a customer focus our strategy has been to go directly to members of the public to obtain from them their perceptions of, and experiences within the local health care system. We invited the following organizations and special interest groups to make written submissions:

Health Watch, Women's Resource Centre, Women's Advisory Council, The Coalition for the Protection of Children, The Portuguese Bermuda Organization, The Bermuda Physically Handicapped Association, S.T.A.R., Allen Vincent Smith Foundation, P.A.L.S., Admiralty House Seniors, and Age Concern.

In addition, a public "Town Hall" meeting was held at the No. 1 Passenger Terminal, Front Street on September 15th, 1994 at 8 pm. This was attended by 100 persons and was successful in contributing a substantial collection of constructive thought. A follow-up opportunity was made available on September 18th, through the Shirley Dill radio talk Show, "What, When, Where" over Radio VSB 1450. Again, this was quite successful.

Other data gathering efforts were made through literature review, group research, the distribution of a questionnaire, through an invitation to the public to write to the Committee, and by several meetings with PTA groups, AIDS sufferers, and a variety of individuals.

### 3.5.3 On-Going Measurement of Customer Satisfaction

Based on accepted quality principles, we must measure the level of consumer satisfaction with regards to public health on an on-going basis. We must be objective and consistent in our measurements of the health care system. We must focus on the need for continuous quality improvement in all levels of health care.

### 3.5.4 Need for objectivity and consistency in measurement of quality levels

Our benchmark for standards of quality care should be wide-reaching, but also within reach, (i.e. we should consider the issues/limitations of being an island and compare ourselves with other island nations, but also continue to place our hospital under accreditation measures acceptable to US/Canadian standards to ensure a high quality rate of compliance.) One method of measuring non-compliance and/or areas for improvement would be to use consumer questionnaires and thus obtain their feedback on a regular basis.

Questionnaires need to be made available to every member of the community receiving health care to ensure their feedback is heard on all issues relevant to their health care experience. Responsibility needs to be given to patients/consumers to give regular feedback. This needs to be stressed as a two-way process, as only then can our health care system steadily improve.

**It is recommended that** *a questionnaire be developed to cover such areas as:*

- *treatment (with dignity and respect) of the patient*
- *accurate and timely diagnosis of patients*
- *time frame in which services are rendered*
- *total quality of service: front office assistance*
- *doctor's and nurses treatment*
- *accuracy and understanding of invoice*
- *privacy in treatment and records*

Such questionnaires should be made available at all clinics, doctor's offices, both hospitals, including the Emergency Department, and all other health care facilities in Bermuda.

### 3.5.5 Need for the Bermudian consumer to have faith in the system of health care

Consumers in Bermuda need and want to believe in the local health care system, and the system needs the support and faith of the consumer in order to grow.

### 3.5.6 Support for an "umbrella" organization

Thus, we support a recommendation made by the Care Costs Task Group that an umbrella organization be established to assist the Ministry of Health in the many aspects of the management of the country's health care programmes. One of the mandates of such an organization could be to oversee the public relations aspects of health care.

Thus, the questionnaires (as described above) could be delivered to the proposed umbrella group for collation, evaluation and action as appropriate.

### 3.5.7 Accountability awareness and complaint resolution

There is a widely held perception in Bermuda that the average patient and his family have no real recourse against medical malpractice. As the population become more sophisticated in the area of health management, this factor is becoming one of the prime motivating forces driving more and more people off the island into health care environments where there are apparently greater incentives for the health care professional to exercise the highest standards of diligence.

In our view, this is perhaps the most serious public relations problem facing the medical community and health-care system in Bermuda today.

***Recommendation***

*We recommend to the Ministry of Health and Social Services that a special committee or umbrella group consider a resolution to this problem which we imagine will consist of a mix of voluntary and legislative initiatives.*

### 3.5.8 Need for further studies

The following range of recommendations included in this report seek to establish a starting point for action and are only limited by the practicality of a working document and the constraints of time in the collection of data. For instance, the area of Mental Health could not be considered from a patient's

perspective at this time. However, a future study must focus on this topic. There are also many more issues which must eventually be addressed. A customer focus within the aforementioned umbrella organization could ideally respond to such concerns as a matter of routine.

We have included as part of this report much valuable information, in separate appendices, which should be considered along with the Report proper.

### 3.5.9 Caring for Bermuda's children

#### 3.5.9.1 Need to upgrade present clinics

The plant and facilities of our network of public clinics are ageing, and are in need of modernization. Privacy and comfort for patients, and improved facilities, equipment and work space for staff and professionals should be part of an on-going, long-term plan for Government's capital works program. Costing for such capital projects is not available at this time.

#### 3.5.9.2 Response to child abuse

The problem of physical and sexual abuse of children in this community is as bad, if not worse, than other similarly developed countries. For example, current estimates indicate that between 20 and 30% of all women, and 3 to 10% of males, have been victims of sexual abuse as children. As a social issue, this has a profound effect on the likelihood that these children will be able to lead normal, healthy, and productive lives.

As a healthcare issue, the evidence is overwhelming that these children will be the bigger drain on the healthcare system as adults. They are statistically far more likely to become addicts or alcoholics, more likely to suffer chronic physical or mental health problems, and more likely to inflict pain or injury to others.

The cost of identifying and treating children who have been abused is minimal when compared with the impact of the resulting maladaptive behaviours on both the individual and the society in general.

We have been made aware of child abuse cases which have been unsuccessful in court, or have not even been prosecuted because the necessary evidence from the professional was either not available or was inconclusive because the professional was asked to make a judgement on the basis of photographs rather than examination of the child himself/herself.

*Recommendation*

*It is absolutely essential that when a child is brought to the Emergency Department of the hospital with symptoms that suggest physical or sexual abuse, that a trained professional examine the child within 24 hours.*

#### 3.5.9.3 Extension of Child Protection Team of Social Services

The Child Protection Team creates the appearance of a well functioning unit following model protocol adopted from one of the leading children's hospitals in Canada. The Team, however, is only as good as the resources it has at its disposal.

At the moment, after the initial stage, the cases are passed on to the Department of Social Services to follow-up. Unfortunately, the Department and its social workers are so grotesquely overworked already, with caseloads that permit little but crisis intervention, that the kind of follow-up necessary is virtually impossible to achieve.

We believe that the most likely avenue for success in this area would be to expand the outreach capability of the Medical Social Work Department so that the necessary follow-up will be more likely to occur. This also ensures some level of continuity for the clients.

*Recommendation*

*Consideration should be given to allowing the social workers at K.E.M.H. to follow through with required treatment to child abuse victims and their families.*

**3.5.9.4 More stringent monitoring of nursery and day-care facilities**

Bermuda's children attend day-care and nursery facilities in record numbers. They are especially vulnerable if these facilities are not carefully monitored by well qualified people armed with a set of regulations that require a high standard of care.

*Recommendation*

*The Department of Health & Social Services should make it a priority to adopt the recommendations contained in the Coalition for the Protection of Children's Task Force Report on the Development of Regulations Governing the Operation of Bermuda's Nursery Schools and Day Care Centers." ( Please see separate appendix - Coalition for the Protection of Children - Recommendation #5 which is available on request.)*

**3.5.9.5 Executive Summary of Coalition for the Protection of Children's submission**

The Coalition submitted an extensive document, which we feel is well researched and presented. This is available upon request, as stated above, in a separate appendix to the Health Care Review report. In addition to the excerpts quoted above, their submission covers such areas as poverty and the effect on the family; school lunch programmes; early pregnancies; abuse within the family unit; abuse of drugs, including alcohol; and preserving the family unit through The Homebuilders Model.

*Recommendation*

*We recommend that this submission be considered in its entirety and the recommendations contained therein be adopted.*

**3.5.9.6 Insurance coverage for unemployed teens, including teenage mothers.**

We have found that at an early age people start to fall through the cracks. Teenagers who cease to be full time students are often not covered under their parent's policies as dependants, and until they become employed they are a group of people who generally go without coverage. As an added factor these are the years when such young people tend to be very active in sports. It is also a period when women are greatly at risk of becoming mothers. Insurance coverage is most likely the furthest thing from their minds.

*Recommendation*

*We recommend that as part of established public awareness programs members of the public need to be reminded that teenagers who are not full time students, and who are not employed, need to be covered under an independent policy of insurance such as HIP or Major Medical. Such individuals are not normally covered as dependents under their parent's policies; special arrangements must be made.*

### 3.5.10 Senior citizens

#### 3.5.10.1 Avoidance of institutionalized care where possible.

Senior citizens are people who have spent many years in their homes where they have made themselves comfortable among the many objects that provide familiarity and warmth. In many cases they will have actually built their homes with their own skills and by their own hands. To be taken from such surroundings in the golden years of one's life must surely be a great wrenching and dissecting experience which society should make every attempt to avoid. (King EdwardVII Memorial Hospital launched a pilot home-care project in February 1996, which the Health Care Review consider a positive step in this direction.)

*Recommendation*

*We recommend that efforts be re-focussed on methods whereby seniors can live out their years of retirement in the comfort and security of their own homes, away from institutional life. The use of live-in geriatric aides under strictly controlled circumstances would avoid the opportunity for elder abuse and should be explored. The cost incurred by insurance companies for institutional care could be offset against this less costly option.*

#### 3.5.10.2 Study of expanded insurance coverage for seniors

Seniors, who are usually on a fixed income, generally find that they have greatly reduced insurance coverage after age 65, which is when they will most likely need the generous limits that they enjoyed as young people. They often fall victim to the need for expensive maintenance medication with no way to recover the costs.

*Recommendation*

*We recommend that this aspect be made the focus of a special study aimed at addressing this very large gap in coverage. As someone put it, "We are the future, the future is us." Three sources of funding in some combination should be considered: Government, insurance and personal savings.*

#### 3.5.10.3 Discounts for dental care for seniors

Seniors, as a rule, do not have any coverage for dental care, and the dental association makes no allowances for discounts to seniors.

*Recommendation*

*We recommend that dental cover be considered as part of a HIP subsidy, and that a senior's discount be negotiated with the Dental Association by the Ministry of Health.*

### 3.5.11 Education

#### 3.5.11.1 Cautions for taking medication for the first time

A substance when taken internally which promotes healing is a medicine; but for some people even commonly prescribed medications can have the opposite effect.

*Recommendation*

*We recommend that doctors and pharmacists include advice to their patients when taking a medication for the first time that it would be prudent to take only a small fraction of the normal dosage to test for allergic reactions since there appears to be no other simple test that can be taken. The object is to lessen the probability of iatragenic poisonings.*

#### 3.5.11.2 Community education courses on insurance policies

Many policyholders are ill-informed about the benefits available to them. As a consequence they experience missed opportunities to make claims thereby resulting in very real cash costs. Perhaps more important is the fact that the policyholder has certain legal rights under his health contract about which he should be fully informed.

*Recommendation*

*We therefore recommend that as part of the curriculum of community education a course be taught in "Understanding your health insurance plan and policy". At the same time other policies could also be included such as auto, homeowners, and life policies.*

#### 3.5.11.3 Printed guidelines on self medication

There is much mismanagement of medications which are taken in the home setting as patients often do not take their medications safely and on a timely basis. Patients need to have access to much more information that is now routinely available.

*Recommendation*

*We recommend that doctors and pharmacists provide printed materials to include helpful hints as to how to create a system to ensure that medications are taken on time, and do's and don'ts outlining when, or what not to eat and drink with medications. More to the point, patients need to be warned about side effects of their medications and the dangers of taking more than one medication at a time, including mixing alcohol with prescribed drugs.*

#### 3.5.11.4 Quality time spent between doctor and patient

Patients are asking for more information on their particular condition so as to be able to take responsibility for their own health and welfare. There is far more awareness in the Bermuda of 1995 than even ten years ago. Generally individuals realize that they have to take responsibility for their own health, and many people are very well read. Their visit to their care provider should be more of a partnership than has been the case in past years.

For some people their definition of Quality of Care is dependent on how much time is taken in educating the patient on matters relevant to his/her condition.

*Recommendation*

*We recommend that doctors allow more time with each patient in discussing the patient's condition and its prognosis.*

3.5.11.5 Annual open house at hospitals and accreditation system to demystify same

For most people who have never been admitted to the hospital setting there is a natural fear of the unknown which can only be eliminated through familiarity that comes through seeing for one's self how the institution works. Fear is erroneous perception, and education is the cure.

*Recommendation*

*We recommend that the recent "Open House" held at King Edward VII Memorial Hospital be continued as an annual event to de-mystify the institution. In addition, the international accreditation that the hospitals earn should serve to build confidence in the minds of the public. We feel therefore that efforts should be made to fully explain such merits in the context of international medical practice.*

3.5.11.6 Doctors mandated to attend off-island seminars and conferences

Whether fairly or not, an often heard complaint from the public is that local doctors do not keep current enough in basic care. It would appear that not all local doctors take the time to ensure that they have a working knowledge of new and modern practices and techniques. Meanwhile, through the medium of cable and satellite television members of the public are aware of such advances.

*Recommendation*

*We recommend therefore, that doctors must be mandated to attend annual off-island medical seminars and conferences in order to ensure that they are kept current. Patients should also be kept informed that their physician is making the effort on their behalf. Such initiatives should help to increase confidence.*

3.5.11.7 The important work of the Government dietitian

The work that is being done by the government dietitian is vital in that knowledge is imparted which is essential in the management of one's own health maintenance. This work should continue and receive the full support of the government and the public.

3.5.11.8 Living Wills

Emphasis should be placed upon educating the public with respect to Living Wills as considerable difficulties and emotional hardships can be avoided by having such a document, properly executed, in place should certain critical circumstances be encountered.

3.5.11.9 Suffering with AIDS

Bermuda is currently in the grasp of the scourge of an AIDS epidemic. Unfortunately the problem appears to be getting a lot worse with scarcely any family in Bermuda unaffected in some way. Yet patients recall the harsh treatment they receive from members of the public who tend to be judgmental

first and foremost. In many ways, similarities can be drawn with the early days of cancer before an enlightened public accepted this disease.

To assist AIDS patients through their already difficult passage, an awareness program should be implemented to promote understanding, compassion and tolerance, and to alleviate the suffering that AIDS patients are made to undergo as a result of public ignorance and discrimination.

### 3.5.11.10 Adoption of a policy to reduce the incidence of Children having Children

Children having children is a topic covered by The Coalition for the Protection of Children in their excellent submission. This is an ongoing problem with wide ranging implications that merits the full attention of every parent and teacher in our community.

This is the very source of a wide range of problems in later life, including abused and neglected children, spousal abuse, abuse of drugs, and violence in general within the family. Young people who are forced into early marriage because of pregnancy grow up resentful, aware of their missed opportunities for adventure and educational growth.

*Recommendation*

*We support the Coalition for the Protection of Children's recommendation, dealing with steps that can be taken to reduce teenage pregnancy in the future as follows. "In order to reduce the rate of teenage pregnancy, it is necessary to make a realistic commitment to imroving the life prospects of young people. This means starting early by expanding job opportunities and re-training; providing services and resources to strengthen family functioning; prevention of academic failure and development of competence; providing sufficient school resources and widening the safety net of social services to encompass families at increased risk".*

### 3.5.11.11 Children having children

There is an association between very young parenthood and the likelihood that the resulting children are at risk of abuse or neglect. The earlier the pregnancy, the more likely the prospective mother is to have come from a disadvantaged family, living in chaotic conditions, where her mother is besieged by the stress of economic survival.

Very often these disadvantaged young girls have grown up emotionally neglected and lack of personal sense of mastery and self esteem. They see only minimal prospects of a decent job and they have little reason to postpone parenthood. These young women feel that they have very little else to offer except

their bodies in return for badly needed affection and look forward to the prospects for emotional gratification and empowerment that they feel a baby can offer.

By contrast, the higher a young girl's education expectations, the more secure her economic circumstances, the more positive her self esteem, the more likely she is to avoid early pregnancy.

Similarly, young men with negative educational experiences, low self esteem and low aspirations, are three times more likely to be early fathers. The prowess demonstrated by fathering a baby can serve as a powerful consolation for lack of skills, education and job prospects.

Many of these powerful antecedents to early pregnancy have been put in place long before a youngster reaches adolescence. In fact, most of the strongest determinants of early teen pregnancy take place before the age of 10 (e.g. low self-esteem, chaotic living conditions, mother also an unmarried teen etc.)

If we want to be successful in ensuring that our children become adults before they become parents, it is time to move beyond family planning and appeals to morality and even last minute attempts at family life education in secondary schools. As important and as necessary as these approaches are, they fail to address the root of the problem. Young teenagers need more than just the capacity to delay childbearing, they need the motivation. This motivation comes from a sense of emotional well-being, hope and positive life options. The best contraceptive is a real future.

*Recommendation*

*In order to reduce the rate of teenage pregnancy it is necessary to make a realistic commitment to improving the life prospects of our young people. This means starting early by:*

*(a) Expanding job opportunities and job re-training for parents;*

*(b) Providing services and resources to strengthen family functioning. A description of this program called "homebuilders" or "family preservation programming" accompanies this report;*

*(c) Placing much greater emphasis on the development of competence and the prevention of academic failure through nurturing, stimulating early child care and universally available "head-start" pre-school programs;*

*(d) Providing schools with sufficient resources to identify and address the problems that children have, both in the classroom and at home; and*

*(e) Widening our safety net with increased services to families and children at risk.*

### 3.5.12 Women's health issues

#### 3.5.12.1 Introduction

The following statistical profile shows the percentage of women by age group who consider health issues vital:

| | | |
|---|---|---|
| 16 to 20 year age group | - | 63% |
| 21 to 35 year age group | - | 79% |
| 36 to 50 year age group | - | 82% |
| 51 and over age group | - | 68% |

The Women's Advisory Council put forward in their written submission such concerns as mammography and ultrasound, consumer education, patient rights, insurance coverage and maternity benefits, eye examinations, mental health and depression, and substance abuse by women.

Faith in the local system is generated mainly through knowledge of the positive aspects. Consequently, public assurance that mammography and ultrasound procedures and equipment, as well as the general plant and facilities, meet international current standards is essential. The accreditation which the hospital has succeeded in achieving is supposed to provide just such comfort.

### 3.5.12.2 Exemption of Maternity Benefits from Pre-Existing Conditions Clause

Consumer education, assertiveness, and patient's rights and responsibilities are points which the Women's Advisory Council share with many other groups in the community. There is one area where women are unique. That is the area of insurance coverage for maternity benefit.

The problem arises with the Pre-Existing Condition clause which is present in most, if not all health policies. Fundamentally, coverage for maternity benefits is claimable from the policy under which the policyholder was covered at the time of conception. There are women who are being denied coverage as conception occurred while they were out of work and otherwise not covered by their husband's policy if they are married women.

It may be argued that if the individual took the necessary steps to ensure that they were covered at all times by a policy of insurance, which admittedly they should do, then the possibility of pregnancy will rank no greater a concern than any other claimable event. However, pregnancy is unlike any other physical condition. The condition carries with it the sanctity of life and family, whether within or without the bounds of marriage. As a practical matter if the purpose for the new insurer is to deny coverage for the sake of the bottom line that goal is easily circumvented by family planning on the part of the insured.

Perception has it that insurance companies do not intend for this group of people who are now falling through the cracks to go without coverage. There is a moral dilemma and a social stigma which holds the insurance companies out to be the villain in these cases. Consequently, adverse public relations are the end result when the whole problem can be avoided by exempting maternity benefits from the Pre-Existing Conditions clause.

*Recommendation*

*Because of the special place in which society holds the creation of human life, and because pregnancy is not an illness, we recommend that maternity benefits should be exempted from the usual policy clause that excludes coverage for Pre-existing Conditions.*

### 3.5.12.3 Under-treatment of certain illnesses in women

A general perception among many people is that women are under-diagnosed and under-treated for certain conditions such as heart disease, stress, general depression, and post-partum distress, which has led to death in some cases.

As times have changed and women are competing more equally in the work place with men in both white and blue collar professions, women are also reaping the unwanted side effects of stress related disabilities. It is therefore essential that our perceptions as to which diseases women are mostly subject, keeps pace with reality to ensure that women are diagnosed and treated accordingly.

*Recommendation*

*We recommend that all of Bermuda's physicians place these matters high on their agenda for discussion and awareness.*

### 3.5.12.4 Over- use of hysterectomies

A major concern exists wherein a very significant number of women who have had hysterectomies are troubled with doubts over the absolute necessity for their operations.

*Recommendation*

*Given that there is nothing that can realistically be done about the past, we recommend in the future that data collected be used to verify and support future decisions and that particular care be taken to ensure that patients are convinced of the necessity for the removal of their uterus.*

### 3.5.13 In-hospital care

#### 3.5.13.1 Invalid patients problems

Mealtimes for patients who are unable to feed themselves, such as the elderly, invalids, and certain AIDS patients, often presents an intolerable situation which is beyond the nurse's ability to adequately address.

*Recommendation*

*We recommend that The Bermuda Hospitals Board should study this problem to find reasonable solutions, which might include placing some of the responsibility upon the patient's family and support group.*

#### 3.5.13.2 Continuity of care

If the patient's chart provides the continuity factor in the management of the patient's care, it therefore follows that entry of current information, and diligence in referring to such information is crucial.

*Recommendation*

*We recommend that the Bermuda Hospitals Board place such emphasis on the continuity of care so as to virtually eliminate the "change of shift" explanation for untoward incidents.*

#### 3.5.13.3 Patients to know the names of attending professionals

Patients have expressed a dislike of being treated in hospital by people whose names are seldom revealed to them in a manner in which they can be recalled. This adds to the mystery of the experience and even suggests that it is part of a deliberate attempt to keep the patient ignorant, especially in the event of untoward outcomes.

*Recommendation*

*We recommend that, as part of the admitting and discharge process, the patient be made aware, preferably in writing, of who their attending physicians and nurses are. This would be helpful, as in most cases we hope that patients would wish to write personalized letters of appreciation to their caregivers.*

#### 3.5.13.4 Measurement of patient satisfaction

Measurement of patient satisfaction within KEMH at present appears to be limited by man-power and time constraints. However, in order to develop a proper and full picture of the delivery of services every discharged patient must have the opportunity to make input, and that input should then be evaluated and followed up and acted upon. We believe that to undervalue this aspect of patient care is to invite future avoidable problems.

*Recommendation*

*We recommend that, as part of the normal discharge kit for each patient, a questionnaire be included to allow the patient to critique services rendered.*

### 3.5.13.5 Testing for drug abuse

There is much concern in the community at this particular time regarding the matter of abuse of drugs, including alcohol, in the workplace. We think that calls for drug testing of workers who hold sensitive positions of trust and responsibility are both prudent and sensible. Health care workers are placed under great stress and strain on a daily basis, and the potential for damage by a doctor or nurse who is functioning under the influence of drugs is immense. We imagine that the Executive of the Bermuda Hospitals Board are aware of such problems as this is not something new in the medical world. We also imagine that consideration has been given to a drug testing policy within the Hospitals.

It must be pointed out that, in anticipation of resistance and cries of invasion of privacy, that responsible major local corporations such as the Bermuda Electric Light Company and Esso, have had in place a policy of drug testing throughout their organizations which are now endorsed by their staff.

*Recommendation*

*We recommend that a policy of testing of employees and practitioners be adopted and implemented by the Board for the safety of all who use the facilities and services of both KEMH and St. Brendan's Hospitals.*

### 3.5.13.6 Outpatient Clinic care

Comment from those who use this facility on a regular basis is that patients are processed with too much haste thus giving the impression of assembly line production. We are reminded that, notwithstanding the social position in the community of some of the patients who are referred to the clinic, they are all humans who expect quality time for their health problems.

We are also made aware of the dilemma of the physicians in attendance who often find themselves swamped by patients.

*Recommendation*

*We recommend that the Bermuda Hospitals Board take note of the concerns of both the patients and doctors with respect to the administration of quality care in the Outpatients Clinic. Mutually satisfactory solutions need to be found within the Hospital's budgetary constraints.*

### 3.5.13.7 Addiction to Prescription Drugs

Another comment concerns the apparent ease with which prescriptions are given. It is alleged that as a result a number of people are addicted to legally prescribed drugs. Should this be true it would not be isolated to Bermuda, nor for that matter would it be anything new. We mention it here as the topic came up in our research for a fresh new review, especially in light of the community's awareness of the abuse of illegal drugs.

*Recommendation*

*We recommend that physicians simply take note of the situation and examine the role that each individual practitioner may play as an enabler.*

### 3.5.13.8 Need for special families for certain Physically Disabled Persons

Some members of the Physically Disabled community need care and facilities which goes beyond that which Summerhaven can provide. In particular those people who are paralyzed from the neck or waist down have extraordinary needs which are not now being properly met. As a result they deteriorate.

We surmise that in order to put in place the environment that is needed to respond to the needs of these patients the cost would likely be prohibitive to build locally. Thus it may involve the necessity of having to place such patients abroad in facilities which cater to large enough numbers.

*Recommendation*

*More study is required on this topic.*

### 3.5.13.9 Physiotherapy problems

Some of the categories of people requiring physiotherapy are stroke, heart attack, accident victims, and the otherwise permanently disabled. Physiotherapy seems to be over-extended and unable to provide as much time as patients think is necessary for their rehabilitation. We endorse the **recommendations** of The Bermuda Physically Handicapped Association as follows:

*(a) Additional therapists should be brought on line to improve the patient to therapist ratio;*

*(b) A system of mobile physiotherapy be introduced along the lines of the district nurse, structured to cover the East End and the West End of the island. This could absorb some of the fracture work presently being done at KEMH which would allow more quality time to be spent at the hospital for others.*

### 3.5.14 General

### 3.5.14.1 Accessibility

Many people have commented that it is important to carefully choose the time that one can become ill as most doctor's offices are closed by the early evening, and are not open at all on the weekends and public holidays. Thus accessibility to primary care has been a problem for a very long time. The Emergency Department is therefore expected to fill the void, which it does usually under very trying circumstances for all concerned.

*Recommendation*

*We recommend that primary care accessibility should be pursued with the objective of providing service availability seven days a week, and to include evening hours by encouraging at least one doctor's office to maintain clinic style walk-in service, after hours in the West End, the Central parishes, and in the East End. This would take the strain off the Emergency Department. Alternatively, have the government clinics work on a flextime schedule, and include men as well as women and children as eligible patients for all primary ills.*

### 3.5.14.2 More choice of Specialists

An often repeated complaint is that the island suffers from a lack of choice of specialists services. It is generally understood that due to our small size it may not be practical to expect to have several specialists competing with each other by setting up permanent practices here, but an alternative idea is mooted below.

*Recommendation*

*We recommend that serious consideration be given to the development of a program of visiting specialists to the island to forego the need for patients to travel abroad.*

### 3.5.14.3 Better Time Management in Doctor's Offices

There is a great and pressing need for better time management in doctor's offices to reduce the great wastage of time spent by patients in the waiting room. As Bermuda has evolved into the international market place that it has, many members of the public are as busy as the doctors themselves. For such patients proper time management is essential.

*Recommendation*

*We recommend that all physicians take note that patients are including in their perception of Quality Care the burden placed upon their time in waiting to see the doctor, as well as the quality of the time spent with the doctor.*

### 3.5.14.4 Establishment of mini-emergency rooms at East and Western ends of island

Consider the establishment of mini emergency rooms at either ends of the island to receive and stabilize trauma and other cases. The need for this is obvious as currently the first response comes from the Emergency Department at KEMH by ambulance. To get to the patient the ambulance has to travel at very high speeds on roads that have become so congested that each trip is an endangerment to other road user's lives, as well as the emergency team. At the time of review, there is only one ambulance in operation, as the other two or three are out of operation due to traffic accidents, principally caused by the need for such high speed.

*Recommendation*

*We recommend that consideration be given to the establishment of mini-emergency rooms at either ends of the island to receive and stabilize trauma and other cases.*

### 3.5.14.5 Development of freedom of choice

Patients are seeking freedom of choice as to whom to commend our bodies for repair. A good analogy is made between the flexibility available when having our cars, motorcycles, and home appliances repaired. Many people have more than one motorcycle or appliance, and in any event these are things that can be replaced. Yet, there is often a fairly wide choice to whom we may turn for assistance. Should we make a choice that leads to dissatisfaction in such an outcome, it generally does not have the same significance as an unsatisfactory outcome in health care.

Having said that we find ourselves as patients often facing a situation where someone else insists on making our choice for us, while at the same time not being prepared to share in any untoward results.

*Recommendation*

*It is recommended that educational programs be put in place to ensure the consumer is well-informed and therefore able to make choices on affordable options for medical coverage. The protocol of going through the general practitioner (gate-keeper) who in turn will refer to the appropriate specialist should be reinforced.*

### 3.5.14.6 The Patient as Number One

As obvious as it may seem in a profession which caters exclusively to the well being of the human body, the human being is the top priority. But it seems that often the patient get lost in the shuffle of new technology, departmental and personal needs. We believe that personnel need to be reminded everyday why they trained and sacrificed, and they need to be reminded just who is a patient.

*Recommendation*

*We recommend the promotion of a "Patient is Number One" mindset through the employment of posters placed strategically throughout the hospitals and in practitioners' offices.*

### 3.5.14.7 Attitudes

One of the more distressing complaints which came forward out of the various submissions was that of personal attitudes of some doctors, nurses, and even general health care workers. Such comments as "arrogant, seemingly uncaring, unsympathetic, and condescending" were heard over and over. We realize that this condition is not only limited to Bermuda, but is encountered all over the world. However, this in no way excuses or condones those who exhibit such behaviour.

Perhaps it will help to bear in mind that the very respect that such an exhibition presumably is supposed to engender is lost and defeated, perhaps forever. What is more it is very confrontational.

*Recommendation*

*We recommend that all who may be guilty of such practices take note that patients are completely disgusted with such attitudes and are likely to react quite negatively.*

### 3.5.14.8 Second Opinions

Doctors have to accept that patients owe to themselves a debt of due diligence which sometimes will be reflected in the request for a second opinion. It may be patently obvious to the physician that an irreversible procedure is mandated, but the patient needs to be convinced to achieve the peace of mind. He deserves support while he goes through the process of determining for himself.

*Recommendation*

*We recommend that physicians, particularly surgeons, assume that every patient about to undergo an amputation is entitled to at least two opinions. Where consultations are routinely done we suggest that the patient be made aware that a conference has been conducted on his behalf.*

### 3.5.14.9 Home Help, particularly for the terminally ill

The Patients Assistance League Service (P.A.L.S.) have observed through their experience that there are insufficient trained aides to serve the community's needs of providing baths, light meals, some light housekeeping, and much needed companionship to the patient and relief to the family for those patients who are well enough to be at home. In this regard there would appear to be an under-developed industry that could employ many of our unemployed former hotel workers.

Funding appears to be the main stumbling block as insurers exclude coverage for what they term custodial or palliative care. In many cases the only alternative is hospitalization, for which insurers will pay the full per diem rate. A revision of insurer's coverage to include such palliative care would surely result in a better "bottom line" for them, and most importantly, provide more quality support for the patient and his family as he makes his difficult transition.

***Recommendation***

*We therefore recommend that insurers reconsider their position with respect to Home Care with the objective of enlarging the scope of coverage as outlined above.*

### 3.5.15 Palliative care

### 3.5.15.1 Agape House

Agape House opened in 1991on the site of the King Edward VII Memorial Hospital to provide care and services to terminally ill patients. The intent was to control the symptoms that made life unpleasant or painful and allow them to take charge of their own lives. The hospice has 12 beds of which 2 or 3 may be occupied by patients suffering from A.I.D.S. at any given time. Currently they run an occupancy rate of approximately 50%.

The Hospice's annual budget of $700,000 provided through the Mutual Reinsurance Fund is subsidised by the Friends of the Hospice who receive public donations and promote fund-raising activities to support additional services for the patients and their families, such as those provided by a volunteer co-ordinator, bereavement counselling and Hospice chef.

There is a perception by the public that the Hospice may be occupied by A.I.D.S. patients only. This may be the reason for the reluctance of some patients to be cared for there. The lack of education and/or understanding of palliative care by medical personnel and the public in general, leads to the under-utilization of the Hospice services.

Patients in the acute care setting are not referred to the Hospice by the physicians and care-givers, and their families decline to have them transferred there. This situation frequently changes when the benefits accrued to the patient are explained to them.

### 3.5.15.2 Patients Assistance League Service (P.A.L.S.)

P.A.L.S. was the "brain-child" of Hilary Soares and started in 1980 as a volunteer group to provide home care to cancer patients.

Five registered nurses trained in oncology have a case load of approximately 100 home care patients at any one time. The nurse counsellor has approximately thirty-six patients of her own at any one time.

There is a perception in the community that P.A.L.S. provides services mainly to those who face imminent death.

The services provided by P.A.L.S. are free of charge. In 1995 P.A.L.S. operated on a budget of approximately $400,000 most of which is derived from memorial and general donations.

Patients generally are referred to P.A.L.S. through the Oncology Department of the King Edward Memorial Hospital. This may be changed however, as many potential beneficiaries of the service are discharged long before the Tumour Registry is aware of them. They are also referred by the general practitioner, surgeon or consultant. The decision to use P.A.L.S. is that of the patient and family. P.A.L.S. is never involved if the patient objects.

P.A.L.S. patients are getting younger and need different kinds of support. One of the five nurses provides counselling services to families in the home or to their children at school when requested to do so by the school counsellor.

### 3.5.15.3 Observations and Conclusions

1. There is a great need for ongoing education of medical personnel and the community in general on palliative care and the services currently provided by Agape House and P.A.L.S.

2. It is the general perception that this lack of knowledge and fear of death leads to under-utilization of the palliative care services currently provided.

3. Palliative Care seminars provided thus far have lasted approximately one week and have been poorly attended by physicians and nurses alike.

4. The protocols for referral to these services are not consistently applied, particularly between King Edward VII Memorial Hospital and Agape House.

5. There is good communication between the providers of care for these patients (i.e. K.E.M.H., Agape House, P.A.L.S. and Department of Health District Nurses) but very little with physicians.

6. Health insurance companies generally do not support home-care services. If they do, it is the exception rather than the rule.

***Recommendations***

1. *That a Palliative Care Association be formed for the purposes of developing cooperative strategies for palliative care services but ensuring that identity and mission of individual groups is not diminished or lost.*

2. *That Palliative Care education be provided for medical personnel, physicians and the community in a format and time-frame that accommodates their schedules and learning needs.*

3. *Previous studies in other jurisdictions indicate that for every 50 hospital beds there should be one hospice bed. This suggests that Agape House beds can be reduced from 12 to 8. Current occupancy rates support this premise.*

4. *It has been projected that the incidence of cancer will increase. Therefore the demand for home-care services will also increase. A co-ordinated plan for the care of these patients should be developed collaboratively by all care providers currently involved with palliative and home-care services i.e. P.A.L.S., Agape House, district nurses and K.E.M.H. representatives. (P.A.L.S. have indicated that there is no social worker in the community setting and that P.A.L.S. nurses deal with many social problems.)*

5. *Referral protocols should be established between K.E.M.H., Agape House and P.A.L.S. Once established these should be consistently followed.*

6. *That health care insurance policies should include home-care coverage as an optional benefit.*

## 3.6 OUTCOME MEASURES

### 3.6.1 Summary

To determine the quality of the health care delivery system in Bermuda, a number of primary, acute and long term care, as well as diagnostic facilities, were reviewed over several months. These facilities included government clinics, the Hospitals and their auxiliary units (e.g. the Dialysis Unit, Psychiatric OPD etc), rest homes and day centres, skilled nursing facilities, counselling establishments and medical laboratories.

Data from a variety of sources was analysed, including questionnaire responses, together with information from site visits, staff interviews, review of facility records and legislation governing these health facilities and services.

Our study revealed that while there is a high quality of health care delivered in many facilities in Bermuda, there are gaps in the services, and an under-utilization or over-utilization of facilities. Additionally, there are deficiencies in standards set and met, but, even more revealing, is the fact that for some facilities and services, there are neither Government regulations nor standards governing the services.

There is need therefore for action on these points.

### 3.6.2 Primary care - Government clinics

There are four Government Clinics in operation namely, Hamilton, St. Georges, Somerset and Warwick. They are governed by the Public Health Act 1949 and they serve primarily the health care needs of women and children.

Antenatal, postnatal, "well baby", immunization and dental clinics are conducted weekly. Home health care to mothers and babies and school health care is also provided. Services are also provided through the clinics to the Prisons, the Learning Disabled, Residential Care facilities as well as to persons with Sexually Transmitted diseases and HIV/Aids.

The Clinics operate Monday to Friday 8.30 a.m. - 4.45 p.m. (Hamilton) and are staffed by doctors, dentists, health visitors and community nurses.

The Quality of Service is measured by a review of statistics, clinic attendance, programme evaluation, client surveys and audits.

**Concerns Issues/Gaps in the Government Clinics:**

- Needs of adolescents are not met
- Male population not served (except for those in prison or who have sexually transmitted diseases)
- Clinics are under-utilized especially in the evenings
- Clinics can play a vital role in health promotion and disease prevention
- Clinic staff noted more can be done for the local clinic community e.g. blood pressure screening/monitoring, health education, handle minor emergencies
- Can operate "Free Clinic" or minimal charge clinic for those in need
- Clinics need to advertise their services - public not always aware

### 3.6.3 Private laboratories

The six private laboratories currently known to be operating in Bermuda are: Central Diagnostics, Family Medical Services, Hamilton Medical Laboratory, Woodbourne Medical Laboratory, Bermuda Health Care Services and C&S West.

Central Diagnostics has one full time and one part time staff member. The laboratory is operated by a board certified medical technologist.

The testing equipment is not fully automated. Quality control standards are used to measure efficiency of their testing methods.

Hamilton Medical Laboratory has two staff members. It is operated by a board certified medical technologist. There is no automated equipment. Certain specimens are therefore sent to KEMH or abroad for testing.

Medical technologist must be Board certified and be registered with the Supplementary to Medicine Board locally in order to practice in Bermuda.

**Concerns/Issues in Private Laboratories:**

- There are no regulations that require certification of private laboratories or equipment
- There are no regulations that require continuing education of staff. (Recertification is not a Board requirement abroad or locally.)
- There are no regulations that require all Labs have a certain standard of equipment
- Under the Standard Regulations Act, drafted by the Health Insurance Commission, the Hospital Insurance Plan (HIP) covers in and out patients using hospital laboratory facilities. HIP does not apply to those clients who use private laboratory facilities.
- There is no medical technologist on the Health Insurance Commission
- There are no infection control guidelines implemented within the community (including private laboratories) pertaining to universal blood and body fluid precautions and the handling and disposal of biomedical waste.

### 3.6.4 Hospital (K.E.M.H.)

#### 3.6.4.1 Legislation

The King Edward VII Memorial Hospital, an acute care facility catering to 225 patients is governed by the Bermuda Hospitals Board Act 1970 and operated by a government appointed board. The funding of the hospital is fee for service based. Care for children, the elderly and indigent is covered by Government subsidy.

#### 3.6.4.2 Management/Staffing

The day to day management of the hospital is conducted by a Joint Management Team headed by an Executive Director. Staffing levels of the various clinical, service and support departments are reported to be adequate. In-service education is regularly provided for all staff including medical.

#### 3.6.4.3 Structure/Amenities

The Hospital management and staff are applauded for consistently seeking to upgrade the facility.

#### 3.6.4.4 Quality Assurance

A number of quality assurance activities are used by the hospital to monitor and evaluate patient care. These include: Infection Control, Health and Safety Management, Utilization Review, Standards, Audits, Critical Indicators, Focus Reviews and Risk Management.

The hospital is accredited by the Canadian Council on Health Services Accreditations. Additionally, external surveys are used to assess specific areas. Recent improvements have been achieved in Clinical Records, the Operating Room, and Laboratory Services. Another survey is planned for the surgical Division. During the past two years, the Board has adopted a Quality Management Philosophy and recent initiatives to strengthen the Utilization and Risk Management programmes are noted.

#### 3.6.4.5 Programmes

Apart from the regular hospital service, special programmes offered by the hospital include: Haemodialysis, Diagnostic Services, Clinical Dietetics, Substance Abuse Treatment, Rehabilitation, Speech Therapy, Hospice, Orthopedic and Limb and Brace Clinic.

#### 3.6.4.6 Concerns/Issues

- Discharge Planning
- Waiting time in the Emergency (for admission)
- Over-utilization of Emergency Department for non-urgent cases
- There is little or no concurrent reviews of clinical records to establish appropriateness of admission
- A process needs to be established that allows for the systematic review of patient care outcomes
- Ancillary services are not participating in the utilization management programme

- The condition of elderly patients on acute ward deteriorate further due to the lack of specific rehabilitative care
- The number of elderly admission to the hospital is unlikely to diminish in the near future
- The operational hours of the physiotherapy department and limb and brace clinic is not always suitable for patients
- Chiropody is not a standard service and is used extensively in diabetic care, extended care unit and the St. Brendan's Hospital
- The number of non-urgent cases seen in the Emergency Department is reportedly on the increase
- The continuing training of the Emergency Medical Technician ought to be pursued
- The behaviour of patients undergoing detoxification on acute wards are often distressing for patients and staff
- Home care may be a viable option for the hospital in freeing up acute beds

### 3.6.5 Long term care facilities - rest homes

A total of eighteen facilities providing care services to the elderly were reviewed, these included five Parish rest homes, ten private rest homes, two day centres (attached to rest homes) and two skilled nursing facilities.

#### 3.6.5.1 Legislation

All Nursing Homes (public and private) must be registered under the Public Health Act 1949 which provides for the application of Regulations governing the operation of the Nursing Home as well as the inspection of the Home by a Medical Officer of Health. (N.B. Regulations are in Draft Form, waiting passage into law).

#### 3.6.5.2 Management/Staffing

The Rest Homes are operated by Owners, Parish Councils, Boards and Government. The day to day operation of the Rest Homes are carried out by Matrons who report to these authorities. There is variation in how this was done. Some Matrons prepared written reports on a monthly or quarterly basis, others attended meetings periodically, still others had little or no direct contact with the authorities. Most Matrons expressed the need for more involvement of the authorities in the operation of the Homes, particularly, the Parish Councils.

Generally, the staffing levels were adequate. Sixty percent of the Homes were managed by qualified nurses (Registered or Enrolled). However, the Matrons often had to work long hours and were on call 24 hours. There was little or no relief staff in many Homes to allow for attendance at community based education programmes. The majority of the auxiliary staff had completed the Geriatric Aide programme at Bermuda College and enjoyed their work with the elderly.

There was no vacant beds in any of the Homes, in fact there was a waiting list for many of them.

All residents looked well cared for and many expressed satisfaction with the Home they were in.

### 3.6.5.3 Funding

The funding of Rest Homes is on a fee-for-service basis, the source of which is Government Pension, Social Assistance or the private means of the resident or his or her family. A few homes complained of late payments, particularly from Government.

### 3.6.5.4 Physical Structure/Amenities

Generally, the physical structure of the homes were maintained in good repair, some homes were single storey while others were two storey. One home had a lift and few had wheel chair accessibility. Resident accommodation included apartments (in a few homes), shared or single rooms, few with call bells.

Living space and bathrooms were generally adequate, except in one Parish Home which had cubicle bedrooms, but this home is scheduled for renovation. The kitchens, dining and sitting rooms in most homes were good as were the grounds, which included well kept gardens where residents could sit.

### 3.6.5.5 Quality Assurance/Safety

All homes had a philosophy of care (most not written but verbalized by staff), that reflected the independent functioning of the resident, and the provision of a homely environment. The residents were therefore required to be ambulant, and independent in their day to day functioning or require minimal assistance. This is assessed by the matron on admission.

There are no standards in operation although a few homes had guidelines for the staff with respect to daily routines, meals and medication.

Record keeping was minimal and pertained to the resident's personal data, medical problems and medication only.

There was also little documentation on risk management issues such as falls, infection control measures, fire procedures or emergencies in most homes. Few homes had smoke detectors in all areas.

### 3.6.5.6 Programmes/Activities

Barring Westmeath with its Day Programme, very few homes provided regular activities. All homes had televisions and radios. Some staff engaged residents in exercises, games and walks. Few homes had buses in which residents would be taken on outings or to community based activities for senior citizens. A lack of transport was often cited as the reason for reduced activities as well as the fact that there is no Senior Centre in the East End of the island. Many homes are visited by church and other community groups and a small proportion encouraged young children to visit ("adopt a grandmother program").

### 3.6.5.7 Medical Coverage

All residents are required to be assessed by their General Practitioner or the Geriatric Assessment Team prior to admission. Following this residents are seen as required by their GP or at the Indigent Clinic. When the residents health declined and they became less independent, alternative accommodation was found (or they remained in KEMH).

3.6.5.8 Concerns/Issues of Rest Homes

- There was an expressed need for more regular medical coverage.
- Increased Physiotherapy Services required for Homes. Only one community based physiotherapist available at time of investigation.
- The high cost of drugs for the elderly is a major concern.
- The import duty charged for equipment and bulk supplies to the nursing homes was thought to be exorbitant.

3.6.6 Long term care: skilled nursing facilities

The Extended Care Unit (KEMH) and Lefroy House were reviewed. The facilities are operated by the Bermuda Hospitals Board and Government respectively. Legislation under the Hospitals Act governs their operations.

3.6.6.1 Management/ Staffing

The day to day management of the facilities are carried out by Senior Nurse Executives who report to Nursing Directors.

Staffing levels are appropriate with a mix of qualified nurses, trained auxiliary nurses and support staff as well as Volunteers. Inservice education is provided for all staff who also have input into the operation of the facilities.

N.B. Both facilities have day programmes, offer respite care and have waiting lists.

3.6.6.2 Funding

Funding of both facilities is by Government who receive pensions contributions towards the care of patients. A small percentage is retained by the facility for a comfort allowance for the personal needs of the residents.

3.6.6.3 Physical Structure/Amenities

The physical structure and amenities in each facility are excellent as is the Quality Assurance and Safety Programmes. Ongoing mechanisms for review of care was evident.

3.6.6.4 Quality Assurance/Safety

Quality Assurance and Safety Committees were operational in both facilities.

3.6.6.5 Programme/Activities

Residents enjoy a wide variety of unit based and community programmes organized by the Activities Coordinator in each facility. Buses are available to transport the residents.

### 3.6.6.6 Medical Coverage

Medical coverage at the E.C.U. is excellent while those at Lefroy House could be improved, as could Physiotherapy Services.

### 3.6.6.7 Concerns/Issues of the Skilled Nursing Facilities

- Increasing number of elderly people occupying acute beds at great cost in KEMH
- With increasing number of elderly people in the community, consideration should be given to the provision of financial support to families (e.g. insure the elderly, provide a care allowance for family members willing to stay at home and look after their elderly parent).
- Need for an aggressive education campaign to general public regarding their responsibility to their elderly relatives other than institutionalization
- There is need for an Intermediate Care Facility for the elderly in Rest Homes or hospital who become less independent but who do not require skilled nursing facility. Also, for residents on E.C.U. who have been rehabilitated to a minimal to moderate assistance level.
- There is need for to review financing for Home Care Services for the elderly

### 3.6.7 Day centres

#### Pembroke Day Centre

Small centre catering to 12 clients per day operating from 8:30 a.m. to 5:00 p.m. at a cost of $20 per day. Several activities are provided including bus outings. There are two full time staff - both Geriatric Aide trained, with one functioning as a domestic staff.

During the new year, the Centre was given a new bus and a full time bus driver. Pembroke Rest Home uses the bus twice a week.

The number of clients in the Day Care Centre has risen from 1 to 15 clients, eight of which are Alzheimer clients. A strong concern is that there is the need for another staff member, preferably a domestic so that the geriatric aide could utilize her skills and assist in patient care.

#### Westmeath Day Programme

This was originally set up for 25-30 clients from the community but with few responses, it is well supported by the Westmeath residents. The program is conducted by a qualified occupational therapist. The program has a wide range of activities to suit the interest of the residents. There is a small bus to transport residents to the various community based activities for the elderly.

#### Facility Based

It should be noted that most of the rest homes provided day care services for 3-5 clients who were included with the residents.

## 3.7 MENTAL HEALTH SERVICES

Mental Health Services in Bermuda is provided by St. Brendan's Hospital and its auxiliary departments as well as by private psychiatrist psychologist, employee assistant programmes, and counselling agencies in the community.

### 3.7.1 St. Brendan's Hospital

#### 3.7.1.1 Legislation

St. Brendan's Hospital is operated by the Bermuda Hospitals Board and is governed by he Bermuda Hospital Board Act 1970 and the Mental Health Act 1968.

#### 3.7.1.2 Management/Staffing

The day to day operations of the hospital, with the various departments and services are delegated to a management team who reports to the Chief of Psychiatry.

Staffing appears to be adequate but needs to be substantiated by a Patient Classification System. Currently there are multi-disciplinary teams which include doctors, psychologists, nurses, social workers, occupational therapists, pharmacists, recreational therapist, chaplain, volunteers and support staff.

#### 3.7.1.3 Funding

Funding of St. Brendan's is through a Government Grant, however some revenue is realized through the 30 day/per annum insured benefit for patients requiring acute psychiatric care.

#### 3.7.1.4 Physical Structure/Amenities

Generally, the physical structure and amenities provided for patients are adequate except for the locked unit (Adams) which is scheduled for closure or renovation as soon as the new secure annex is completed. The hospital is currently downsizing (moving clients into Group Homes) and consequently there is a number of vacant units which are under consideration for alternative use. There is, however, an institutional appearance in the common areas. The Community Mental Health Teams are operating out of cramped quarters in the old Psychiatric OPD.

#### 3.7.1.5 Quality Assurance/Safety

A Utilization Management program has been established at St. Brendan's which has input from the psychiatrist.

There are, however, no admission discharge criteria or risk profiles in use - these are highly necessary in such a facility. A Safety Committee meets regularly to monitor risk issues. Policies and procedures guide staff in their day to day operations, but "Standards of Care" and "Practice Guidelines" for all professionals need to be developed.

Record keeping is reasonably good - all patients have a plan care.

### 3.7.1.6 Programmes/Activities

In-hospital programmes include acute care treatment, rehabilitation, psychogeriatric care and learning disability care. The Occupational and Industrial Therapy Department augments clinical care.

Out-patient services are provided by three multidisciplinary Community Mental Health Teams. These services include: crisis intervention, assessment, treatment, home visits and consultation, and individual and group therapy. Residents and clients enjoy a myriad of in-hospital and community based activities throughout the year, organized by Recreational therapy staff.

Additionally, a Child and Adolescent Out Patient Service is provided. The service is well organized and supported. In patient treatment for the population in Bermuda is not available.

The hospital has 3 (three) buses and 4 cars for the transport of patients.

### 3.7.1.7 Medical Coverage

This is most adequate with three adult and one child psychiatrist plus two resident doctors.

### 3.7.1.8 Private Mental Health Services

Currently the psychiatrists and general practitioners are the gatekeepers for mental health services in Bermuda.

While services are provided by several counselling agencies, there are no government regulations governing services provided by these para-professionals.

### 3.7.1.9 Issues/Concerns

- There is need for skilled psychotherapist in the out patient clinic or Community Mental Health Services for public clients who need to be able to talk about their problems rather than be prescribed pills
- There is a lack of skilled and qualified counsellors, especially marriage counsellors. Marital problems are often times the cause of depression and/or psychiatric symptoms
- There is a general lack of skilled qualified individuals providing counselling and/or therapy
- Child and Adolescent in-patient treatment is non-existent. Currently children are sent overseas at tremendous cost. (The success rate of this is questionable.)
- There is a need for a day centre for the learned disabled

## 3.8 RECOMMENDATIONS

### 3.8.1 Government Clinics

***It is recommended that:***

1. *The Public Health Act governing Clinics be revised to include services to adolescents and males as well as Primary Prevention and Health Promotion Programmes, and Minor Emergencies.*

2. *Flexi-hours be extended to all clinics to facilitate access.*

3. *Other health care professionals be allowed to utilize the clinics in the evenings to provide services e.g. Mental Health Clinics, Counselling and Health Education Programmes.*

### 3.8.2 Private laboratories and Diagnostic Facilities

***It is recommended that:***

1. *A regulatory body consisting of, but not limited to, laboratory technicians be established to formulate and implement guidelines for all private laboratory and private diagnostic facilities.*

*Guidelines should include: certification of laboratory, continuing education of staff, certification and testing of equipment, quality control of testing methods, infection control and health and safety standards.*

2. *The Hospital Insurance Act be reviewed and consideration be given to include private laboratories that meet regulatory standards.*

3. *The composition of the Hospital Insurance Commission should include representation from laboratory staff.*

4. *All Community Health facilities including private laboratories and private diagnostic facilities should follow the existing biomedical waste protocol used at KEMH.*

### 3.8.3 King Edward VII Memorial Hospital

***It is recommended that:***

1. *A system for monitoring each patient be developed from the door of the Emergency Department to the ward, to prevent unnecessary delay in the Emergency Department. (This recommendation is in the process of being implemented.)*

2. *An off-site non-urgent clinic for use by the community be established in conjunction with the Department of Health and Social Services.*

3. *The hours provided for physiotherapy and the limb and brace clinic on evenings and weekends be expanded.*

4. *Chiropody service be established as a standard benefit to provide foot care for patients.*

5. *In conjunction with the National Drug Authority, non-urgent detox beds in the community be established.*

### 3.8.4 Long term care facilities: rest homes and skilled facilities

***It is recommended that:***

*1. The regulations governing Nursing (Rest) Homes, currently in draft form, be passed into law as soon as possible. They are comprehensive and will address many of the issues and omissions found in the review.*

*2. A regulatory body be set up to conduct surveys of the rest homes to determine compliance to regulations.*

*3. A Senior Centre be set up in the East End of the Island to accommodate the elderly.*

*4. Additional physiotherapy service be provided in the community. This should be covered by insurance or a small charge made.*

*5. Medical coverage of the rest homes and Lefroy House be improved so as to provide regular review of the health status of the residents.*

*7. Prescription charges for seniors be exempted, reduced or covered by insurance.*

*8. A committee of home staff be set up to prepare standards of care that would be implemented in all rest homes.*

*9. "Pooling" of transport resources (bus pool) be examined to facilitate residents in all homes taking advantage of the Seniors Community Programmes. Alternatively, a bus could be assigned to the Seniors Day Centres to pick up residents from homes for a small fee or charge.*

*10. A Peer Support group of Nursing Home Staff and Skilled Nursing Facilities be formed for sharing and exchange of ideas as well as educational opportunities.*

*11. Duty charges for equipment and bulk supplies to nursing homes be reviewed with a view to reducing costs.*

*12. Alternative care for the elderly be reviewed by insurance companies with the objective of reducing costs e.g. Home Care costs. This should be an insured benefit. (K.E.M.H. have instituted a three month Pilot Home Care Programme details of which are given in the Bermuda Hospitals Board leaflet attached as Appendix 1).*

### 3.8.5 Mental Health services

***It is recommended that:***

*1. The revised Mental Health Act be passed into law as soon as possible.*

*2. A regulatory body be established to ensure that appropriate credentialing of mental health service providers.*

*3. A six to eight bed child and adolescent inpatient treatment facility with classroom attached be established.*

*4. A club house/drop in centre for the mentally ill be established as an alternative to their hanging out in the street.*

*5. Psychiatrists and general practitioners continue to be the gate keepers for the psychologists and para-professionals providing counselling services as the latter do not have diagnostic capabilities.*

*6. The mental health teams be relocated from their cramped location in the Psychiatric Outpatient Department.*

*7. Satellite mental health clinics be established at either end of the island and run by specially trained nurse practitioners.*

*8. A day centre be established for the learning disabled.*

*9. The Quality Assurance Program at St. Brendan's Hospital be strengthened by*

*(i) Risk utilization Programme (combined with KEMH), and*
*(ii) Practice Guidelines and Standards of Care.*

*10. Workload measures be implemented at St. Brendan's Hospital to ensure cost effectiveness and efficiency of staff resources.*

*11. Consideration be given to increasing the 30 day assistance coverage for psychiatric care.*

### 3.8.6 Customer Focus

***It is recommended that:***

*1. There be more accountability throughout the system. Patients want protection through legislation. Also feedback from consumers should be used to improve, monitor and evaluate the system.*

*2. That insurance coverage for seniors and teens be revised, especially for teenage mothers.*

*3. Perceived conflicts of interests should be resolved e.g. physicians engaged in politics and as advisors/shareholders in health insurance companies.*

*4. Ways and means should be found of decreasing the waiting time at both physicians' offices and the Emergency Room.*

*5. Consideration be given to providing consumers with more accessability to specialist care.*

*6. The impact that child abuse has on the health of society should be addressed.*

*7. Pregnancy be deleted from the pre-existing condition clauses contained in most health insurance policies.*

### 3.8.7 Manpower

*It is recommended that:*

1. More specialists be allowed access to Bermuda on either a full-time or part-time basis.

2. More nurses skilled in gerontology, psychiatry and substance abuse therapy, nurse practitioners, nurse researchers, nursing educators and tutors, be employed.

3. Efforts are made to keep track of Bermudian physicians training abroad and their intentions of returning to practise in Bermuda.

## 3.9 CONCLUSION

On the basis of the information presented, it is clear that there is room for improvement particularly in long term care facilities. If, however, the recommendations are implemented, there is no reason to believe that these areas in the Bermuda Health Care System could not be made to maximize the quality of care for its citizens. It has now become clear that the quality of health care cannot be left to chance and now requires systematic planning to ensure that resources, both financial and human are rationalized in such a manner that its citizens health is not jeopardized.

* You will be given an Attendance Sheet to record the hours of care you receive from your Home Care Aide. Please complete it each time your Home Care Aide visits. Your signature will indicate that care has been given for the time stated.

* Your Home Care Staff are employees of the Bermuda Hospitals Board (BHB) and as such must not accept personal payment or gifts from you.

* All Home Care Staff have a BHB identification card. Always ask to see this card before allowing anyone into your home.

* The BHB cannot be responsible for any accidental breakage of your personal property or possessions incurred by the Home Care staff while working in your home. Please refer to the Home Care Pilot Project Agreement.

* Please tell the Home Care Coordinator if you need to cancel the service, giving as much notice as possible; i.e. if you have a doctor's appointment etc. Otherwise, unnecessary concerns might be raised about your welfare.

* Complaints can be dealt with simply and quickly by contacting the Home Care Coordinator. If you are unhappy with the quality of the home care you receive you can either:

  * telephone yourself, or if that is difficult
  * ask someone else to do it for you.

If the Home Care Coordinator visits you tell her about the problem and she will help you sort it out.

## QUALITY ASSURANCE

*To insure that you receive the best possible support the Home Care Pilot Project will constantly seek to improve its services. We will provide:*

* *Reliable and trained staff.*
* *Regular monitoring of your care and supervision of staff.*
* *Prompt action to deal with complaints*
* *Protective clothing for staff*

**********

## HOME CARE COORDINATOR

*TAIWO GEORGE, R.N.*

*TEL: 236-2345 EXT. 1440*

*******

## PROJECT MANAGER

*MRS. JANICE HOLLIS, A.C.S.W.*
*MANAGER, DEPT. OF HOSPITAL SOCIAL WORK*

*TEL: 239-2037*

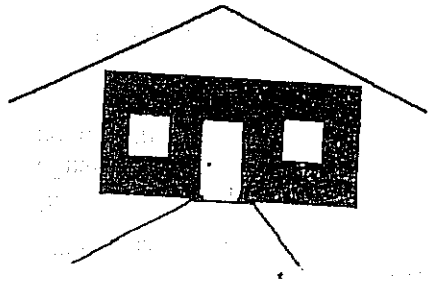
*IN CASE OF EXTREME EMERGENCY AFTER 4:30 P.M, PLEASE CONTACT THE HOME CARE COORDINATOR OR MANAGER THROUGH THE HOSPITAL SWITCHBOARD AT 236-2345.*



BERMUDA HOSPITALS BOARD

KING EDWARD VII MEMORIAL HOSPITAL

# *HOME CARE PILOT PROJECT*



*A 3 MONTH PROJECT DESIGNED TO DEMONSTRATE THAT QUALITY CARE CAN BE DELIVERED TO SELECTED CLIENTS IN THEIR HOMES AND THAT HOME CARE IS A COST-EFFECTIVE ALTERNATIVE TO HOSPITAL CARE*

APPENDIX 1

* KEMH inpatients who are

* at least 65 years of age.

* entitled to Government's Aged Subsidy.

* medically stable and fit for discharge.

* resident of any parish with the exception of Sandys & St. Georges.

* unable to manage on own without some type of supportive care

* have available support . i.e. family, friend, neighbor or significant other..

* willing to try home care and participate in caregiving as required or as appropriate.

* have a safe home environment conducive to receiving/giving necessary home care services.

.* immobile or of limited mobility but transferable with one person.

* have available Health Insurance, Government Financial Assistance or own resourcees to cover expense of necessary supplies.

## Services Offered

* will be provided daily until 10 p.m.

* will be in collaboration with and complementary to existing Home Care Services provided by the Department of Health., e.g. Home Resource Aides & District Nursing;

* will include: Assessment & Management, Bathing Assistance, Bladder & Bowel Management, Ulcer Care, Medication & Nutrition Management, Physical Rehab,

* will be funded initially by the Bermuda Hospitals Board

## Service Providers

A **HOME CARE COORDINATOR &**

**HOME CARE AIDES**- employees of the Bermuda Hospitals Board.

**********

### *What does the Home Care Coordinator do?*

The Home Care Coordinator plans, directs, oversees and assists with providing Home Care for the elderly in accordance with physician's orders & in collaboration with various health care professionals & family members.

### *What does the Home Care Aide do?*

The Home Care Aide carries out the tasks that have previously been agreed to by the Home Care Coordinator in discussion with you. These will mainly include assisting clients with activites of daily living, e.g. bed baths, dressing, reminders to take medication. The Home Care Aide will carry out this work in the time available provided it is safe and they do not put themselves or others at risk.

### *How will I know what the Home Care Aide should do?*

The Home Care Coordinator will decide in discussion with you how much time is required for each visit to give you the care that you need. The Home Care Aide will be with you for the amount of time stated in the Care Plan for each visit. They will visit on the particular days and times that you need help.

### *What do I do if my needs change?*

If your needs change unexpectedly the Home Care Coordinator will review the service you receive as soon as possible. Additionally the Home Care Coordinator will routinely review your care each week with a view to reducing the care your receive as your condition improves or as you and your family adapt to your new situation at home.

In the event the Home Care Staff find you in need of medical attention your doctor as well as your family will be contacted as soon as possible.

### *Will I have to pay?*

As stated earlier the Home Care Services are presently provided free of charge by the Bermuda Hospitals Board. You will, however, be required to pay for any dressings, equipment or medication needed to assist with your care. Your ward's Medical Social Worker can advise you on where and how to puchase items at a reasonable price, if necessary. In addition your ward's Physio or Occupational Therapist will advise you on rental of appropriate equipment for home use.

### *What are your responsibilities?*

* You are expected to provide reasonable materials amd safe equipment for the Home Care Staff to use.

* If you or any of your household have been exposed to an infectious disease, such as measles or chickenpox, please inform the HCC as soon as possible.

# HEALTH CARE REVIEW

# HEALTH CARE COST TASK GROUP

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# SECTION 4

# CARE COSTS TASK GROUP

## 4.1 EXECUTIVE SUMMARY

The Health Care Cost Task Group was provided by the Steering Committee with the following broad objectives to consider:

1) Collect historical data on all factors contributing to the cost of health care;

2) Review historical data and project trends for the future;

3) Make recommendations concerning the percentage of Gross Domestic Product ("GDP") which should be spent on health care services and the distribution of funding between the various services. (This objective was eventually transferred to the Health Care Financing Task Group);

4) Develop a framework for the establishment of reasonable fees for services rendered outside of the hospital setting;

5) Make recommendations to contain the rate of growth of health care costs; in particular in such areas as overseas medical care, catastrophic illness, prescribed drugs and local medical costs; and

6) Determine what facilities/equipment, medical services, etc. need to be upgraded in Bermuda and develop proposals to correct these deficiencies.

One objective was added to this Task Group:

7) Make recommendations for a universal health care plan for Bermuda residents.

When attempting to achieve our objectives, it became clear to our Task Group that the facts we wish to review were not obtainable from any one agency. We, therefore, found it necessary to solicit information from the following sources:

- Bermuda Hospitals Board
- Bermuda Medical Society
- Bermuda Medical Council
- Bermuda Dental Association
- Bermuda Pharmaceutical (Retailers and Wholesalers) Organizations
- Professions Supplementary to Medicine
- The Health Insurance Industry
- Various Government Departments

We would like to sincerely thank all of the organizations that assisted us in our endeavors. We would like to also thank the members of our Task Group, listed below, for the time they provided to help us produce our Report:

Mrs. Judy Panchaud-White (Chairperson)
Dr. William Cooke
Dr. Roger Wong
Mrs. Lynnann Bolton
Mr. Gordon Ashford
Mr. Eugene Blakeney

Ex officio: Mr. Art Wade, Dept. of Management Services
Mrs. Brenda Dale, Dept. of Management Services
Mrs. Sue McCullagh-Bailey, Dept. of Management Services

As a result of information gathered, we have been able to ascertain how various segments of health care costs have escalated since 1990 and have made various recommendations to contain those costs. Costs for the period 1990 - 1993 were examined and the overall results are as follows:

### 4.1.1 Summary of Total Health Care Costs for Period 1990 - 1993

**OVERALL HEALTH CARE COSTS AS % OF BERMUDA'S GROSS DOMESTIC PRODUCT**

(Millions 000)

| Source | 1990 | 1991 | 1992 | 1993 | Cumulative % Increase |
|---|---|---|---|---|---|
| Hospital Board (All Revenue) * | 59.9 | 64.5 | 69.0 | 73.0 | 22% |
| Local Medical Profession & Supplement to Medicine and misc. health expenses: # | | | | | |
| a) Surgical, Anesthesia and visits by doctor at hospital | 4.3 | 5.1 | 4.9 | 6.0 | 40% |
| b) Doctors office visits costs | 5.2 | 6.0 | 7.0 | 8.9 | 71% |
| c) Private labs, diagnostic costs performed in doctor's office or lab | 1.0 | 1.1 | 1.3 | 1.3 | 30% |
| d Other medical related expenses ## | 3.0 | 4.2 | 5.1 | 5.7 | 90% |
| Total of (a) - (d): | $13.5 | $16.4 | $18.3 | $21.9 | 62% |
| Drugs - All (prescribed & non-prescribed) | 5.1 | 5.5 | 5.9 | 6.5 | 28% |
| LCCA (not collectible from Insurers) | 1.0 | 1.3 | .7 | 1.2 | 20% |
| Overseas Costs ** | 10.1 | 16.1 | 19.5 | 19.7 | 95% |
| Department of Health (all services) * | 8.5 | 8.9 | 9.3 | 9.7 | 14% |
| Government grants and individual payments for Rest Homes *** | 7.2 | 7.4 | 7.6 | 7.8 | 8% |
| Dental (private) ### | 10.9 | 12.1 | 13.0 | 15.7 | 44% |
| *TOTAL COSTS*: | 116.20 | 132.2 | 143.3 | 155.5 | 34% |

* Based on Hospital Board's fiscal year; based on Government Fiscal year.

\# To arrive at this number, the total insurance companies claims submitted amounts were used, however, since insurance company covers approximately 90% of population, the insurance returns were, therefore, grossed up to allow for 10% uninsured population.

\## Item (d) will include a certain amount of prescription drugs submitted to Insurers for payment. Separation of this number is not known.

** Insurance companies claims submitted costs used, however, numbers grossed up by the percentage of persons without overseas coverage (approximately 26%).

\### These costs estimated based on numbers of persons insured for dental. Insurance companies' returns grossed up to reflect uninsured population (approximate number of dental insured is 26% in 1993; 24% in 1992; 21% in 1991; and 19% in 1990).

*** 1993 numbers were made available, however, previous years' numbers were not accessible, therefore, for this Report we have discounted 1993 cost by 2.5% p.a. to arrive at approximate historical costs.

### 4.1.2 Health Care Costs as percentage of Gross Domestic Product

| | 1990/1991 | 1991/1992 | 1992/1993 | 1993/1994 |
|---|---|---|---|---|
| Gross Domestic Product: (based on actual rather than factor costs) | 1,592.4m | 1,634.9m | 1,697.9m | 1,840.2m * (provisional) |
| Health Care Costs % GDP: | 7.3% | 8.1% | 8.4% | 8.5% |

* 1993/1994 provisional number indicates escalated expansion over previous year. If 1993/1994 GDP was in line wit previous years' growth of approximately 4% p.a. the health care costs as percentage of GDP would be 8.8%.

### 4.1.3 Expected Escalation in Health Care Costs 1994 - 2000

Section 4.3.4 of our Report projects costs out to year 2000. The projections are based on the medical inflation which has occurred between 1990 - 1993 and it has been assumed that if history continues unchanged, the cost of health care in this decade will increase by 204%. Further, it should be noted that during this same period certain aspects of health care such as overseas costs are projected at 828% whilst hospital and doctors care is projected at 435% for this 10 year period.

### 4.1.4 Summary of Major Recommendations

Our Task Group recognizes that the rate of escalation of health care costs has to be reduced. The increases of the recent past are not acceptable and we should not have to spend an ever-larger proportion of our productive resources to meet the health care needs of Bermuda. Moreover, unless we find a way to control health care costs, it will be very difficult to provide access to medical services for the 10% of Bermuda's population which does not have any form of health cover or the costs associated with our aging population and the shrinking workforce as we move into the 21st Century.

We believe it is possible to reduce the rate of increase in health expenditures, but the task will not be easy. There is no simple solution. Solutions that can work will require changes in fundamental attitudes and expectations that both providers and consumers bring to the health care system. Physicians and other providers must be prepared to alter their styles of practice, using the best of medical research and knowledge as compiled by medical experts as a guide for determining the range of acceptable practice. Consumers have to be prepared to accept the reality that when they choose to utilize more services and more expensive services, they must pay more. They have to realize that choices have to be made within constraints. Cost containment cannot be achieved if the delivery and financing system places no constraints on providers or consumers, imposes no penalty for unnecessarily costly use of medical resources, and provides no reward for making efficient choices.

There is much room to make medical delivery more efficient, since the evidence produced in western societies show that many services that patients receive have no significant medical benefit and may, in some instances, be harmful. But to accomplish that objective will require both consumers and providers to change their behaviour in ways that may not always be easy to accept. The outcome, however, will be more than cost containment; it will be better quality care. Patients will get the kind of care that is *appropriate* for their situation, neither more nor less than they need. The proposed Bermuda Health Package must be constructed to ensure the appropriate behaviour is achieved.

The health care system we envisage for the future will be different, but the change will be an evolution, not a revolution. Bermudians will not be prepared to throw out current systems, a system that has worked well for most Bermudians and replace it with a highly centralized, unproven governmental system. A non-governmental system encourages innovation and provides a degree of flexibility and responsiveness that no single centralized government system can provide. Yet our present system has major problems that demand attention.

We believe that the path to that solution can be found through the development of an umbrella Bermuda Health Council providing managed care delivery systems via its Bermuda Health Package. The present delivery system is composed of a host of providers, working more or less independently and without any formal mechanisms for coordinating the delivery of care. Such an arrangement is inefficient and not best for the patient.

## Managed Care

There is no coordinated approach of managing the patient's care. Moreover, because the predominant fee-for-service reimbursement system rewards providers in proportion to the amount of services they prescribe, the economic incentives encourage expensive patterns of medical practice. Without monitoring, oversight, or constraints, such an arrangement is bound to produce high-cost care.

Because it is an evolving concept, there is no single definition of managed care. Most insurers involved in implementing managed care systems would agree that they draw from the following features:

- rigorous utilization review;
- monitoring and analysis of medical practice patterns;
- utilization of primary care physicians and perhaps other caregivers as patient case managers;
- channelling patients to high quality, efficient providers;
- quality assurance programs; and
- reimbursement systems which make physicians accountable for the cost and quality of medical services.

The underlying principle is that someone is responsible for managing and integrating the whole range of services the patient needs. The fundamental objective is to assure that services are appropriate, affordable, provided efficiently, and provide high quality medical care.

Although inadequate management of patient care is a major cause of cost escalation, continued progress in implementing managed care depends on other changes as well, better mechanisms are required to assess new technologies, not only for their medical efficiency but also for their cost effectiveness. Medical knowledge needs to reach the stage where there is broad agreement on what constitutes the range of acceptable medical practice for various conditions. In other words, society needs to make an investment in technology assessment and in the development of practice guidelines and medical protocols. Public policies that influence the supply of medical practitioners and facilities need to be designed to assure that the supply is matched to need.

The **recommendations** that make up the bulk of this report are designed to reduce health care cost by promoting the changes just described by:

## Bermuda Health Council

a) *Establishing a Bermuda Health Council (BHC) whose mission will be to "ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community. Emphasis will be to ensure consumers of health services are provided with high quality of care, and that their health needs are met and to encourage and promote a healthy lifestyle throughout the community."*

b) *By mandating the BHC with the primary responsibilities to:*

   i) *Coordinate and integrate all health care services (both locally and overseas) to ensure delivery of services are provided in the most cost efficient manner.*

   ii) *Recommend changes to the health care delivery system in order to contain health care costs without jeopardizing quality of care.*

   iii) *Facilitate the establishment of quality control standards, certification, recertification and licensing requirements of all approved providers of the proposed Bermuda Health Plan ("BHP") and of other providers who are rendering valid and approved medical/dental care in Bermuda.*

   iv) *Recommend approval of any new service to be covered by the BHP. Non-approved services will not be funded under the BHP.*

v) *Monitor the total health care costs of the health care services and ensure the growth is reasonable and manageable when compared with Bermuda's consumer price index.*

vi) *Promote and develop health prevention and wellness programmes to build healthier lifestyles of Bermuda's residents.*

vii) *Develop outcome measurement studies.*

viii) *Develop/adopt medical protocol standards to contain unnecessary investigations and treatments.*

ix) *Facilitate the establishment of overseas Preferred Provider Organizations ("PPO") for overseas health care and ensure a total managed care approach is adopted. The Council become the "gatekeeper" to determine the medical necessity of overseas care.*

x) *Provide direction and management of the use of visiting specialists to the Island.*

xi) *Sanction fees for services rendered in the local hospital after such fees have been approved by the Bermuda Hospitals Board and after consultation with BMS and HIAB.*

xii) *Approve reasonable fees for all approved health care services rendered outside of the hospital setting after consultations with the various approved providers and interested parties.*

xiii) *Approve the required maximum health premium rate to provide the defined levels of cover of the proposed BHP after consultation with the insurance industry and other interested parties. The determination of the maximum premium rate will be based solely on sound actuarial data and advice.*

c) *Mandating the newly established BHC to develop a Bermuda Health Plan (BHP) which will be available to all (replacing the existing hospital insurance plan). The emphasis of the Plan is to ensure all residents of Bermuda have access and receive affordable health care coverage which aims to control the individual's financial exposure to needed health services whilst ensuring that their health care needs are met. Emphasis will be placed on the promotion of health wellness and the benefits provided by the Package will be established to meet this objective. Briefly, the Package will:*

i) *Provide universal cover to all at an affordable price.*

ii) *Promote wellness.*

iii) *Promote the use of intermediate hospital care, acute home health care and nursing care in lieu of hospital confinement.*

iv) *Recognize only approved providers for reimbursement of services.*

*<u>Other Recommendations</u>*

d) *Providing for necessary overseas medical care through the use of the Mutual Reinsurance Fund (MRF) for persons who do not have access to major medical insurance.*

e) *Reviewing the role/mandate of the Hospital Insurance Commission and determine its future role in light of the formation of the Bermuda Health Council.*

f) *Requiring the Bermuda Hospitals' Board to:*

i) *Restructure its charging system to charge the appropriate per diem costs for in-patient care at all levels so that the in-patient charges fully cover operating costs.*

*ii) As a result of (i) above, reduce accordingly the Hospital's out-patient fees.*

*iii) Review and shorten where appropriate their average length of in-patient stay per diagnostic grouping.*

*iv) Establish a skilled nursing facility at the hospital for transfer of patients who need less care than acute care, but who are not medically able to be discharged.*

*g) Requiring employers to provide the Bermuda Health Plan to their retirees after certain criteria are met.*

*h) Instituting an island wide asthma education campaign in order to reduce hospital in-patient cost in this area.*

*i) Promoting the use of group medical practices so that cost efficiencies and extended hours of operation are available to the patient.*

*j) Funding long term chronic care cost of the elderly by the establishment of a similar scheme as that being proposed for the Island's National Pension Scheme. That is, monies be invested today to meet the projected long term care costs of individuals as we move into the 21st century.*

*k) Monitoring and establishing guidelines concerning the ownership of private facilities providing medical services to ensure that the facilities are not over utilized by doctor(s) who are financially involved in the ownership of such facilities.*

*l) Carrying out an in-depth review of the practices and procedures of the dental care industry by the proposed BHC as a result of the significant costs in this area.*

*m) Ongoing statistics be collected, in particular, from the insurance industry.*

*n) Establishing a National Drug Formulary (possibly by extending the Hospital Pharmacy) in order to reduce prescription drug cost in the future and to reduce the reliance on the one main drug wholesaler in existence in Bermuda who currently supplies approximately 75% of all drugs.*

*o) Encouraging the use of generic drugs by ensuring the primary wholesaler of drugs to stock a full range of generic substitutes that are not protected by patents.*

*p) Promoting public education about the use of generics.*

*NB: With regard to points b(xii) and c(iv), our Task Group proposes two alternatives for consideration:*

*a) i) Approved providers, in order to retain their approval must not be able to charge in excess of the approved fees of the B.H.P.*

*ii) Providers who are not approved will not be reimbursed at all for services rendered to an insured of the B.H.P.*

***or***

*b) i) Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for services rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees.*

*ii) Approved fees be published annually and doctors be required to publish their own fees and display them in their own offices.*

Alternative (a) would contain costs more effectively, however, alternative (b) would provide the consumer with greater choice, but would not contain costs as effectively

## 4.2 FACTORS AFFECTING HEALTH CARE COSTS

Before one can contain health care for the future we must understand the factors affecting the cost of health care. These factors are:

- Medical advances, new technologies
- Consumers' expectations
- Maturing population
- Cost shifting
- Increases in medical malpractice insurance
- Consumers' lack of awareness of medical costs
- Fraudulent claims
- Catastrophic and terminal illnesses
- Inappropriate medical care
- The current fee-for-service system

Briefly, these factors have affected health care costs in the following manner:

### 4.2.1 Medical Advances, New Technologies/Procedures

Approximately 3% - 5% of U.S. medical inflation rate is as a direct result of the above. Bermudians are quite well versed with the services provided in the U.S. and these services are actively sought and demanded. Major medical insurance plans must include an allowance in their premium structure to reflect U.S. experience and this has affected overseas care. To a limited extent, advances in medicine, new technologies, etc., have also affected on health costs incurred locally.

### 4.2.2 Consumers' Expectations

Needless to say, the consumer wants the best and expects to receive the best. People are far more health-conscious today than, say, 20 years ago. People want the best services and many people will seek out the best doctors. They want their doctors to be the ones who use "state of the art" technology and they expect the cost of the premier health care they receive to be covered by insurance, no matter how high the cost might be. They also expect to be able to exercise the freedom to visit the doctor and/or hospital of their choice and to go as often as they like - at no additional cost to them.

### 4.2.3 Maturing Population

Bermuda's population is ageing and it is doing so at a rapid rate. Between 1950 and 1970, Bermuda's elderly population, those aged 65 years and over, accounted for 6% of the Island's population. In 1980, the elderly represented 8% of the population and in 1991 their share had increased to 9% of the total population. Between 1950 and 1991, Bermuda's total population increased by 56%. However, during the same time period, the elderly population increased by 153%, a growth rate that was more than 2.5 times greater than average growth rate for the total population. By the year 2011, the elderly segment is expected to account for 12% of Bermuda's total population. This ageing of Bermuda's population is reflected in the median age of the population which was 25 years in 1950 and 32 years in 1991. As a result, medical care will be in even greater demand into the future. See *Appendix 6* for a Projection of Bermuda's Population.

### 4.2.4 Cost Shifting

To a great extent "true" costs of local in-patient hospital care is shifted and charged for on the out-patient facilities. Although this "shifting" has a zero effect on the local hospital's overall revenue it creates an artificial fee environment for entities existing outside of the hospital, but providing similar services to that of the hospital.

### 4.2.5 Malpractice Insurance Costs

Although this has not been a major cost issue for hospitals and doctors in Bermuda in the past, it now appears that because of worldwide increases in malpractice law suits, the local medical profession will have significantly higher costs in the future.

### 4.2.6 Consumers' Lack of Awareness of Medical Costs

When a large part of a person's medical expenses is paid by insurance, neither the patient nor the health care provider has much "incentive" to control costs. Because of how the traditional insurance plan operates, insured patients have become insulated from the true costs of their medical expenses.

### 4.2.7 Fraudulent Claims

In the U.S. it is estimated in excess of 10% of their insurance payments represent fraudulent claims. In Bermuda, there is no indication as to what this figure maybe for us, however, we would be deceiving ourselves if we take the view it does not exist.

### 4.2.8 Catastrophic & Terminal Illnesses

Extremely expensive and long term treatments are increasing. Transplants, heart surgery, cancer, AIDS, neo-natal care are just some of the major causes of large medical costs and with ongoing future medical advances and technologies, the costs will continue to escalate.

### 4.2.9 Inappropriate Medical Care

Many services that patients receive have no significant medical benefit and may, in some instances, be harmful. Justification for the request of various tests, procedures, etc., by medical providers are not backed and supported by medical protocol standards, therefore, unnecessary costs are being incurred.

### 4.2.10 The Current Fee-For-Service System

The fee-for-service system which currently exists provides little incentive for medical providers to be concerned about cost. In fact, the fee-for-service system rewards medical providers for providing more, not less. So as long as the amount medical providers earn is determined by the amount of services they order for their patients, it will be difficult to keep health care costs from rising. The problem is not just with the minority of physicians who are consciously trying to maximize reimbursement by manipulating the system in their favour. Non-economic incentives - the desire to please patients and to convince them that they are getting high-quality treatment, the pressure to reduce uncertainty, the desire to use the newest and best technology - push even the most scrupulous physicians in the direction of doing more rather than providing only necessary and effective care.

## 4.3 DETAILED ANALYSIS OF HEALTH CARE COSTS

The Health Care Cost Task Group sought data from the following organizations:

1) Bermuda Hospitals Board

2) Bermuda Medical Society

3) Health Insurance Industry

4) Bermuda Dental Association

5) Pharmaceutical Wholesalers & Retailers

6) Professions Supplementary to Medicine

7) Various Government Departments

We sincerely thank all parties who participated in the various questionnaires and/or meetings. Without their input we would not have been able to achieve our objectives.

### 4.3.1 LOCAL MEDICAL COSTS

#### 4.3.1.1 HOSPITAL COSTS

i) *Out-Patient Hospital Costs*:

As you can ascertain from Section 4.1 (A) of this Report (data obtained from the Hospital's Annual Reports) , the local Hospital costs is the largest segment of medical costs (47%). This is not unexpected but what is of concern is that hospital out-patient costs has increased by 40% during 1990 - 1993. The trend towards more services being provided on an out-patient basis follows along contemporary practices. However, current charges for out-patient hospital services appear high when compared with North America, while our in-patient daily rates are significantly lower than our western counterparts. This is acknowledged by the local Hospital and we quote from the Hospital's submission "charges for in-patient services are significantly below their true costs. This is particularly true in the case of intensive care. Some out-patient diagnostic services are priced higher than they should be. It must be recognized that the capacity of King Edward to carry out accurate cost accounting is constrained by rapid changes in technology and limited manpower." It is further recognized by the hospital that the Director of Finance establishes charges on the basis of a comprehensive review of costs and that the establishment of an accurate ICU rate should be established in order to reduce out-patient charges.

Please note from *Appendix 1*, the Government grants have decreased by approximately 9% after allowing for CPI during this period.

*Recommendations*

With the increasing trend to use out-patient hospital facilities, and based on the Hospital's Board acknowledgment that its in-patient fees are being subsidized by its out-patient charges, our Task Group recommends a complete review of the Board's pricing practice. *We do not recommend that the current per diem (all inclusive) rate be dropped in favour of a per item fee, however, we do recommend that the per diem rate charged fairly reflects the services being provided. The overall in-patient services should be priced to sustain the services being provided. The out-patient fees will need to be overhauled to ensure the fees charged reflect the cost of the service provided.*

The practice of relying on out-patient services to subsidize the in-patient aspects of the hospital must cease as it creates a false environment and causes many other inequalities in the private health care system. For example, privately run diagnostic and lab facilities feel justified by charging fees equivalent to that of the hospital but who, of course, do not have any high patient intensive in-patient costs to offset.

ii) ***In-Patient Hospital Costs:***

We have studied the Hospitals In-Patient costs. Costs increased by 17% during 1990 - 1993 period.

It was estimated by the Hospital that during the hospital's 1992/93 fiscal year, approximately 15% - 20% of all acute and extended care beds were occupied by persons who should have been housed elsewhere. Using the 1992/1993 public ward acute care charge of $436/day and an extended care rate of $169/day, this equates to an annual cost of $4,010,328 of acute care charges (15% of 224 beds x $436/day x 365 x 75% occupancy rate) plus $877,716 (15% of 102 beds x $169/day x 365 x 93% occupancy rate) for the extended care. Therefore, an approximate total of $4.9 million was spent to house persons at the King Edward, when in the Hospital Board's estimation, these persons could be better cared for in a nursing home or home health care environment.

It would be our opinion that the majority of this $4.9 million* is being funded from the following sources:

- Mutual Reinsurance Fund (MRF) - long stay patient fund which provides coverage for extended acute care charges beyond 60 days confinement
- Indigent subsidies from Government
- Extended care subsidies from Government

* In relation to current costs at the hospital (1993/1994), this figure is approximately $5.4 million.

***Recommendations***

*Appendix 2* attached to our Report displays current daily charges (1994) of long term care facilities with average prices ranging from $39 - $115. Our estimate of $5.4 million of revenue being spent inappropriately at the King Edward could accommodate approximately 10 times the numbers of persons currently being paid to be kept at the acute care facility, if one uses an average daily cost of $50.00 for a nursing home facility vs. $500/day at KEMH.

1) *It is our opinion that significantly improved value and quality of care could be provided if these monies were provided to nursing homes and the promotion of home health care. It would be our recommendation that Government consider establishing an ambulatory health care program which would come under the proposed Bermuda Health Council.*

2) *Immediate steps to improve hospital costs in the short term are:*

   a) *A ward of the Hospital be converted into an intermediate care unit which would provide nursing care on a stepped down and less costly basis than the Hospital's acute care ward.*

   b) *Promotion of private enterprise to extend and/or supply additional nursing homes, however, the bed availability and the necessity of a nursing home facility over home care be closely monitored. Further, criteria for nursing home acceptance be established.*

   c) *Provision for financial allowances to families for home nursing care.*

   d) *Extension of the Department of Health district nursing to assist with home care.*

3) *Another area of concern is that our hospital's average length of in-patient stay, as per the attached International Classification of Diseases categories is greater than the United States, (see attached Appendix 3). It would be our recommendation that the hospital and the medical profession be challenged to shorten their length of stay per*

*diagnostic grouping. Bermuda's in-patient length of stay will decrease if concrete steps are taken to ensure patients are discharged when medically able rather than allowing patients to remain hospitalized because of possibly inadequate home health care. Again, savings from acute care stay could be used to fund the home health care costs.*

*Unfortunately, the role and impact of the Hospital Insurance Commission (HIC) has possibly contributed to the extended lengths of stay and the possible misuse of the hospital's acute care facilities. The HIC's role has focused on funding of hospital services. If persons are discharged from hospital for home care and/or institutionalized nursing homes, the various subsidies administered by the HIC are not extended to this alternative care, even though such care is less expensive and provides improved quality of care to meet patients' needs. Rigid legislative approach, as provided by the HIC, is obsolete as monies must be managed to provide the most appropriate care for the patient.*

*The ongoing viability of the HIC should be closely examined by the proposed Bermuda Health Council.*

4) *The Hospital Board kindly submitted a detailed report of acute care discharges for the period 1/4/92 - 31/3/93. Appendix 4 summarizes the major diagnostic groupings. One area which appears exceedingly high is the number of discharges (288 for the year) for respiratory disease affecting children. Possibly this is an area the community could focus on health prevention education as a high majority of these discharges reflect asthma and asthma related problems. The funding of the hospital costs is primarily derived from child hospital subsidies.*

5) *It is our understanding that the Bermuda Hospital Board's fees and the expansion of additional services must be approved by the Minister of Finance and the Hospital Insurance Commission. It is our recommendation that the Hospital Board would report and seek approval in the future from the proposed Bermuda Health Council.*

### 4.3.1.2 LOCAL PHYSICIANS' COSTS

The Bermuda Medical Society's members were surveyed for their input on various issues. One of the questions sought declaration of gross income. Data was received from 64% of active members. The information received was grossed up statistically to provide gross receipts of $8.3 million for 1990 and $11.3 million for 1993 (an increase of 36%). However, comparison of these numbers with the insurance industry's' returns, show the insurance industry with higher costs. Since we received 100% returns from the insurance industry, their numbers have been used. Please note that the insurance industry numbers do not include doctor's costs for the uninsured/underinsured population.

Section 4.1 (A) illustrates the various health costs for the period 1990 - 1993. As mentioned above, local doctors' costs are obtained from the insurance industry statistics. Total costs of services during the period 1990 - 1993 rose a significant 57% (1990 - $9.5 million vs. $14.9 million by 1993 based on items 2(a) and (b) of Section 4.1 (A) The greatest segment of physician services which has escalated is in the area of services rendered in the doctor's office. This portion of care rose from 5.21 million to 8.9 million or 71% during the 1990 - 1993 period. Surgical/anesthesia and doctors' visits rendered at the hospital increased from 4.3 million in 1990 to 6 million by the end of 1993 - a 40% increase. During this period, surgical unit values increased by 9.3%. The above mentioned increases are alarming, in particular when one also takes into account that the population as a whole has not significantly altered, but remained at approximately 59,000.

**Factors**

What factors have contributed to this dramatic growth? Our Task Group proposes the following contributing factors:

a) Increase in the numbers of doctors serving a stagnant population. During the period 1990 - 1993 the number of doctors practicing in Bermuda grew 17.3% vs. a 0% movement in population during this period.

b) Increasing number of services being done in the doctor's own office.

c) Increasing number of services being performed by surgeons/anesthetists, e.g., pain management by anesthetists.

d) Over utilization of services by doctors and/or patients.

e) Patients "shopping" around for their perceived best possible care.

f) More primary care being provided by specialists rather than by general practitioners providing primary care.

g) Possible high cost of unnecessary follow-up care and inappropriate care being provided/required by doctors.

*Recommendations*

Recommendations to contain future medical costs, in particular, with regard to the cost of services rendered in the doctor's office:

1) *The Bermuda Medical Council's membership and terms of reference be reviewed. The Bermuda Medical Council should consist of a nonpartisan chairperson appointed by the Minister of Health, two consumer advocates and three representatives from Bermuda Medical Society. We recommend the Medical Council be empowered to:*

   i) *Recommend and advise the proposed Bermuda Health Council on needed medical facilities, visiting specialists and doctors required for the Island.*
   ii) *Establish and handle all disciplinary procedures.*
   iii) *Establish and monitor quality control standards pertaining to registration, recertification and educational improvement requirements.*

2) *The approval of reasonable fees for approved services of the Bermuda Health Plan will be performed by the Bermuda Health Council after consultation with BMC, BMS and HIAB.*

3) *A medical provider in order to be accepted as an approved provider must agree to:*

   i) *Charge the fees established as reasonable by the BHC.*
   ii) *Meet all licensing/recertification requirements of the BHC.*
   iii) *Meet all medical protocol and practice guidelines established by the BHC.*
   iv) *Other requirements as deemed necessary by the BHC.*

4) *Reasonable fees together with a listing of doctors' actual charges will be published annually for protection and information for the consumers of medical care.*

5) *The need of visiting specialists and permanent non-Bermudian medical personnel shall be determined by the proposed Bermuda Health Council with the Council holding the work permits. The Medical Council will provide input to the BHC; however the BHC shall have the power to make final decisions.*

6) *The patient's own general practitioner must refer patients for access to other approved providers if needed.*

7) *Encourage routine doctors visits and routine follow-up care to be provided by qualified nurse practitioners where appropriate.*

8) *Promote the establishment of group practices in order to reduce operating costs of running individual practices and to provide extended hours of operation.*

9) *Ensure treatment practices of medical providers meet standard medical protocol standards established by the Bermuda Health Council, whether they are or are not approved providers.*

*NB: With regard to (3), our Task Group proposes two alternatives for consideration:*

*a) i) Approved providers, in order to retain their approval must not be able to charge in excess of the approved fees of the BHP.*

*ii) Providers who are not approved will not be reimbursed at all for services rendered to an insured of the BHP.*

*or*

*b) i) Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for services rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees.*

*ii) Approved fees be published annually and doctors be required to publish their own fees and display them in their own offices.*

Alternative (a) would contain costs more effectively, however, alternative (b) would provide the consumer with greater choice, but would not contain costs as effectively.

## 4.3.1.3 PRIVATE LABORATORY/DIAGNOSTIC FACILITIES

This is a relatively small segment of local medical costs with submitted insurance claims rising from $1 million in 1990 to $1.3 million by end of 1993. However, it follows closely with overall increases in physicians' costs by increasing 30% during this period. Our Task Group's role, and we believe that of all task groups, is to review and put forward recommendations as to how the health care system serves the consumer. To devise such recommendations, the following questions need to be addressed:

1) Is the service required/needed for Bermuda?

2) How should fees be established for the services?

3) What quality standards should be established to ensure that a consistent, high-quality service is provided?

4) How should these services be financed?

### Current Position

Our understanding of the current situation is the following:

1) Services which are available outside of the hospital setting are: private physiotherapy and speech therapy, private nursing, private lab facilities and diagnostic and x-ray facilities, psychological and counselling services and all the various services provided by the doctor in his/her office, i.e. routine lab tests, manipulations, etc.

2) Speech and physiotherapists are registered under Professions Supplementary to Medicine Act.

3) Psychologists/counselors - no registration is in place under the Professions Supplementary to Medicine Act or under the Medical Practitioners' Act.

4) Chiropractors - no registration is in place either under the Professions Supplementary to Medicine or under the Medical Practitioners' Act.

5) Private laboratory and diagnostic facilities are not registered or licensed and we do not believe there are any quality control standards in place to monitor level of equipment, methods used, etc.

6) Laboratory technicians are registered under the Professions Supplementary to Medicine Act.

7) Diagnostic/X-ray facilities - not aware of any licensing or registration in place with the exception of possibly antiquated legislation pertaining to the Radiation Act.

8) No standards exist for the quality of the diagnostic equipment or who is entitled to read/interpret the results e.g. an ultrasound can be performed in a private facility but it is not required that the test result be interpreted by a licensed radiologist and/or be performed by ultrasoundgrapher.

9) All facilities/services outside of hospital setting establish their own fees for services they provide; however, the Health Insurance Association establishes its own "reasonable fees" and all insurance payments made by members of the HIAB are in accordance with their own fee guide. The fees are established in conjunction with the various medical suppliers. In practice, the majority of private facilities will use the same fee schedule for determining their prices. However, private facilities are not required to use HIAB schedule in order to obtain reimbursement.

10) The HIAB has historically used the Canadian Ontario Fee Schedule and the California Fee Schedule as their guide for establishment of fees. These schedules assess values by a complexity and utilize a time weighted approach.

11) Whenever new facilities/services are established in Bermuda there tends to be the outlook by the private facility/service provider that they should be entitled to charge the same fee as the Hospital for similar service. However, the hospital is staffed 24 hours with high overhead expenses and it's budget is calculated on a global basis. This "belief" has led to numerous conflicts between insurers and the owners of private facilities and service providers.

12) No requirements exist to determine if private facilities/services are needed by the community.

13) No requirements exist to avoid and/or reduce possible abuse or misuse of private facilities/services which are owned or controlled by the doctors who are ordering the tests and/or services. North American experience has shown increased utilization of services in those geographical areas where the requesters of the services are also the financial benefactors.

*Recommendations*

*Proposed Bermuda Health Council would be responsible for overseeing all health services and needs for Bermuda. The Council's role would be to:*

*1) Approve quality assurance standards, registration and re-certification standards for:*

*(i) all Medical, Dental and Professions Supplementary to Medicine Act, as defined.*

*(ii) all major medical equipment utilized in Bermuda, outside of the hospital setting.*

*(iii) the interpretation and accuracy of all diagnostic test results performed outside of the hospital setting.*

*(iv) all persons providing psychological and counseling services and other medical related services to the public which currently do not fall under the Professions Supplementary to Medicine Act. The Council will need to define what areas should be classified as providing medical related services and which should be accepted as approved providers under the proposed Bermuda Health Plan.*

*2) Approve reasonable fees for services rendered to the public for the procedures approved by the Council. Determination of fees must take into account complexity and length of time needed for the procedures/services. The possible adoption of an overseas fee schedule should be assessed to determine the relative value of the services/procedures.*

3) *Plans for the establishment of new diagnostic and other health care facilities and major services must be submitted to the Council. The Council will determine the necessity of the facility or major service for the community and advise on the financing of any approved additional services.*

4) *Monitor the financial ownership of private facilities operating outside of the hospital setting to ensure that facilities are not over utilized by doctor(s) who are financially involved in the ownership of such facilities. This can be controlled by:*

   (i) *Doctors not prescribing the use of their own facilities to their own patients; or*

   (ii) *Placing a maximum on the number of referrals in any one year by the doctor to his/her own diagnostic facilities, e.g. no more than 20% of total patients per year can be referred by doctor(s) who have a financial interest; or*

   (iii) *Reviewing the utilization of the facilities and tests performed on an annual basis with the Council empowered to challenge unusual utilization frequencies and take necessary corrective steps such as its removal as an approved provider.*

## 4.3.1.4 DENTAL COSTS

### Summary of Dental Questionnaire

There were less than desirable response by the dentists to the questionnaire. As a result, much of the data was insufficient to provide accurate statistics. This was most apparent in the cost analyses.

Projected cost figures had to be used from the relatively small percentage figures (less that 30%), that were provided by the health insurance industry returns.

### General Comments

Review of the data suggested that the dental profession provided a good quality service, which adequately met the needs of the community, but at an exorbitant price.

There was a rare need for referral abroad for dental treatment.

### Costs

Dental costs are based on the insurance industry's returns as the returns from the Dental Association were not meaningful. The estimated dental costs for year 1990 was $10.9 million and by 1993 was $15.7 million, an increase of 44%. It is alarming that these total dental costs of $15.7 million arising from the private sector exceeds the total of local medical costs of $14.9 million and $9.7 million of costs for services rendered by Department of Health.

### *Recommendations*

1) *Due to the estimated very high costs of private dentistry in Bermuda the Bermuda Health Council, as a priority, establish a special committee to thoroughly investigate the practices and procedures of the private dental industry.*

2) *Reorganization of the Bermuda Dental Board with representation from the Dental Association, the Ministry of Health, the Consumer and the insurance industry. The Dental Board should report to the Minister of Health through the Bermuda Health Council (BHC).*

*The mandate of the Dental Board should be:*

*a) To evaluate and coordinate all issues relating to dentistry in Bermuda.*
*b) To advise the Bermuda Health Council on future needs of the profession, local and foreign.*
*c) To review ethical guidelines for the practice of dentistry in Bermuda.*

*3) Investigate the feasibility of setting up a reliable, good quality dental laboratory facility in Bermuda or as an alternative, establish a preferred, reasonably priced, quality overseas laboratory for the completion of all laboratory needs.*

*4) Encourage the training of Bermudians as dental technicians and dental assistants.*

*5) Consider reducing Custom Duty allowances of dental equipment and materials in order to reduce dental costs.*

*6) Review the current dental fee guidelines being used in Bermuda for the establishment of fees.*

## 4.3.1.5 PROFESSIONS SUPPLEMENTARY TO MEDICINE

Review of the returns submitted from the various Professions Supplementary to Medicine provided the following comments from the responses received:

Replies Received

| | | |
|---|---|---|
| Medical suppliers | 3 out of 4 replies received | 75% |
| Dieticians | 1 out of 2 replies received | 50% |
| Physiotherapists | 3 out of 8 replies received | 37.5% |
| Nursing Services | 3 out of 3 replies received | 100% |
| Private medical laboratories | 3 out of 5 replies received | 60% |
| Speech pathologists | Nil out of 3 submitted | |
| Medical services | Nil out of 2 submitted | |
| Optometrists | 3 our of 5 replies received | 60% |

General Comments

Vast majority of replies where comments are called for:

- greater preventative measures are needed;
- more education of consumers/patients;
- less reliance on institutional care but more home-care backed up by district nurses, nursing aides;
- simple procedures being performed by nurses at less cost than fees charged by doctors;
- exemption of customs duty on certain medical supplies; and
- insurers to take the lead in reimbursing costs of preventative measures, earlier detection and continuity of care

## 4.3.1.6 PRESCRIBED DRUGS

There was a 100% response to the questionnaire from both retail and hospital pharmacies and drug wholesalers.

**Results of Pharmacy Questionnaire**

### 4.3.1.6.1 Local Medicine Costs

Gross receipts from the legitimate drug industry in 1993 were approximately $6.5 million, up 28% from 1990. Of this, Schedule 3 (prescription) drugs accounted for $5 million (in 1993), having increased 29.6% since 1990, with the largest yearly increase being 12.77% between 1992 and 1993. There is no reason to expect this trend to reverse.

Over the same period the total number of prescriptions (Rx) dispensed increased by 7.3%, despite a transfer to Schedule 4A of a significant number of drugs that formerly required a prescription. There was also a year, 1992, when the total number of Rx dispensed actually fell. That was a very bad year for Bermuda economically and it is felt that people simply could not afford to have some Rx filled that year.

The average cost for a Rx was:

$21.20 in 1990
$21.70 in 1991
$23.75 in 1992
$25.62 in 1993

Unofficially, the average cost for a Rx is considered to be about $30.00 at the moment of which the dispensing fee is $14.00.

### 4.3.1.6.2 Factors Concerned in the Increase of Prescription Numbers

1) An increase in the number of family doctors and specialists practicing in Bermuda has made it easier to get appointments and therefore more Rx are written. Also, when specialists become involved they often change the medication originally prescribed by the family doctor, resulting in more than one Rx for the same condition.

2) Increasingly busy lifestyles leave people with less time for good health practices such as home cooked, nutritious meals (especially breakfast), regular exercise and sufficient rest, therefore, resistance to infections is reduced, among other things.

3) Increasingly stressful lives lead to an increased demand for mood-altering drugs such as tranquilizers and anti-depressants.

4) On the other hand, there are many people striving to keep fit at all costs, leading to an increase in joint injuries, etc., requiring anti-inflammatory drugs.

5) There is increased consumer expectation of "a pill to heal all ills" . . . patients are not satisfied if they leave the doctor's office without an Rx.

### 4.3.1.6.3 Factors Concerned in the Increase of Prescription Costs

1) The increased (and now common) prescribing of very expensive brand name drugs with worldwide patents still in force (i.e., no generic equivalent drugs available) for high blood pressure, high cholesterol, depression and other illnesses.

2) Certain pharmacies are unable to obtain some generic drugs from abroad due to their supplies being provided by a sole local wholesaler.

3) Some doctors not prescribing economically, for example:

a) Inappropriate quantities of drugs prescribed depending on condition being treated.

b) Expensive new antibiotics prescribed as routine first-line treatment.

*Recommendations*

1) *Look into the establishment of a Bermuda National Drug Formulary (similar, but more extensive than the one now in use at the King Edward Hospital ).*

2) *Review the Bermuda Patent Laws and bring them into line with England in the first instance, particularly with regard to the "license of right" which must be sold by the original manufacturer to a generic manufacturer if requested to do so after three years.*

3) *Recommend a change in the Pharmacy and Poisons Act (standard Rx form) to encourage greater generic prescribing by doctors.*

4) *There is only one prescription drug wholesaler in Bermuda. This company is also the sole supplier of pharmaceuticals (except Merck, Sharpe and Dohme which is a manufacturer with distribution facilities in Bermuda) to the five Bermuda Drug Company pharmacies. Together the latter dispense 45.6% of the total Rx dispensed in Bermuda. The other retail pharmacies are independent and can (and do) import pharmaceuticals and other drugs independently. However, these pharmacies buy approximately 50% of their drugs from the local drug wholesaler, so it can be estimated that this wholesaler supplies approximately 70% - 75% of the Schedule 3, 4 and 4A drugs used in Bermuda. Thus it is important that Government via the Bermuda Health Council:*

a) *encourage this wholesaler to stock a full range of generic substitutes to drugs that are not protected by patents.*

b) *encourage this wholesaler to do more research to obtain cheaper prices on brand name drugs from either the USA, Canada or the UK as the independent pharmacies do.*

c) *encourage this wholesaler to buy brand name drugs from their wholesalers overseas when this results in a cheaper price than available directly from the manufacturer.*

d) *investigate the reasons for the sole wholesaler having such a high markup. From the examples shown in Appendix 9, it appears to average over 50%. Average food wholesale markup in Bermuda is between 20% and 30%.*

5) *The Pharmacy Council, together with the Bermuda Pharmaceutical Association should educate the public about the potential cost savings of generic drugs so that they can encourage their doctors to write the Rx in order to allow generic substitution if available.*

6) *The professional bodies above should embark on an education program to educate the public as to the role of the pharmacist as drug expert. They should ask questions about correct use of their medicines so they can get the best possible results from them, so decreasing the likelihood of needing another Rx for the same problem.*

7) *Encourage the practice of preventative medicine to increase wellness of mind and body.*

8) *Encourage doctors to prescribe more economically, e.g.,*

a) *Prescribe generically where possible.*

b) *Short trial of an expensive drug to establish suitability, followed by a larger refill quantity.*

c) *A 3 month supply of long term medication is cheaper than 3 refills of a 1 month supply, once suitability is established (one dispensing fee instead of three). This excludes birth control pills which have 1 fee per 3 months' supply.*

d) *Doctors must be educated as to the costs of some common Rx drugs compared with expensive alternatives.*

#### 4.3.1.6.4 Factors Affecting Cost Increases and Associated Recommendations for Schedule 4 Drugs

Schedule 4 drugs are those sold over-the-counter, but require the presence of a pharmacist.

Money spent on Schedule 4 drugs increased 13% from 1990 to 1993. This increase probably reflects more advertising on cable television and an increased "pills for every ill" thinking.

There are several generic equivalents of Schedule 4 products available but sales are low. Public education could increase awareness of these. However, brand loyalty is high due to advertising. Once customers are shown the saving, they are usually enthusiastic but not always.

#### 4.3.1.6.5 Schedule 4A Drugs (Available without a Prescription Directly from the Pharmacist)

The amount of money spent on Schedule 4A drugs greatly increased by 48% from 1990 to 1993 due to the switch from Rx to over the counter ("OTC") of many drugs such as anti-fungals, certain topical antibiotics and anti-diarrheals. This switch probably decreased Rx drugs costs but since more people are self-diagnosing and buying the remedies themselves, the end result is the same. Educating people to ask the pharmacist for OTC remedies for minor ailments may decrease the number of doctors visits and subsequent Rx written.

*Recommendation*

*Doctors should be informed on which drugs are now OTC so they can recommend the patient purchase these rather than write a Rx for a Schedule 3 drug that would have similar effect.*

#### 4.3.1.6.6 Other Recommendations to Rationalize the Cost of Health Care in Bermuda

1) *Pharmacy Owners to reconsider the flat dispensing fee and either:*

   a) *Substitute a 2 or 3 tiered fee depending on the cost of the drug, or*

   b) *Consider a % markup on the cost of the drug plus a small professional fee*

2) *Privatize Government Dispensaries - such as the T.B. and Cancer Association (diabetic supplies), Baby and Women's clinics, the Mental Health out-patient clinic, etc.. Government could negotiate with the pharmacies with a reduced fee if necessary. This could decrease Government payroll and increase convenience for the clients who would be able to take advantage of longer opening hours of neighborhood pharmacies, etc.*

   (See *Appendix 9*, Pharmacy Questionnaire - Prescribed Drugs Commonly Dispensed, for drug data. Results obtained from Hospital pharmacy have been excluded from minimum drug prices to obtain fair comparison between retail pharmacies.)

N.B.: It should be noted that it is nine months since the prices quoted in *Appendix 9* were obtained. Since that time we are pleased to report that there has been a reduction in the price of at least four regularly dispensed prescription drugs via the local wholesaler and a commitment to obtaining better prices from wholesalers/manufacturers or generics where possible.

## 4.3.2 OVERSEAS MEDICAL COSTS

As you can see from Section 4.3.3, overseas health care costs based on the insurers returns and grossed up to reflect percentage of population not insured for major medical insurance has increased from $10.1 million to $19. 7 million during the period of 1990 to 1993. This represents a 95% increase in costs during this time period.

The most significant increase in overseas claims in terms of dollar amounts and percentage increases are in the areas of (a) claims in excess of $100,000, and (b) in the $25,000 - $50,000 ranges.

Further, the number of persons travelling overseas has increased from 2,248 in 1990 to 4,003 during 1993 (based on insurance company returns). From the responses received from the Bermuda Medical Society (BMS), it appears a very small percentage of persons going abroad are actually referred. Based on the BMS's statements, during 1990 - 1993, an estimate of 1,500 referrals were made during this period vs. 13,307 persons travelling abroad for care as indicated by insurers.

On average 82% of the insured adult population has some form of major medical insurance for each year 1990 - 1993, or approximately 74% of the adult population are insured for some form of major medical cover (see Section 6).

### 4.3.2.1 Factors Affecting Overseas Costs

It is our view that the following factors have contributed significantly to the escalating cost of overseas care:

a) Vast majority of persons travel to the United States for medical treatment. Medical costs in the United States have increased on average at 15% per annum during this time period.

b) Persons are not referred to any one area for treatment. Patients tend to travel to areas referred by their respective doctors and/or where relatives/friends may reside. As a result, no volume discounts or significant savings can be negotiated. Further, no strong ties are developed with local doctors, therefore, possible unnecessary, expensive ongoing care is being received in the U.S. when such care can be monitored in Bermuda at less cost. Further, patients may not be receiving care in the most appropriate and economic setting.

c) Lack of confidence in local medical profession and/or hospital facilities may have had an impact on the numbers of persons travelling abroad, however, the numbers of persons travelling abroad in 1993 decreased from the high in 1992, but it is too early to determine if this will continue downwards.

d) Lack of adequate skills/diagnostic facilities available locally.

*Appendix 8* summarizes the primary medical reasons necessitating overseas care with cost in excess of $25,000. The two major contributing causes are cancer patients and cardiac related problems.

With regard to claims costs less than $25,000 ($8.14 million in 1993 - (insurers' returns grossed up for 26% population who do not have major medical insurance), the medical reasons for seeking overseas care is shown in *Appendix 8.* These claims represent 41% of all overseas claims. We believe this is an area where costs can be reduced by the increased use of visiting specialists and/or improved facilities and doctors' skills here in Bermuda. Further, of the total number of insured persons going abroad, the vast majority (92% of claimants) incurred claims less than $10,000.

*Recommendations*

After review of the insurance companies' statistics together with responses received from the local medical profession and the Hospitals Board about overseas care, we propose the following recommendations to help control and provide improved quality of care to residents of Bermuda:

a) *Preferred provider organizations (PPO) be established for overseas referrals. The PPO network selected should be negotiated for the entire population of Bermuda. By so doing, it will afford the Island with fee reductions based on volume. The majority of doctors responding to this query were in favour of a PPO network, with the provision that quality of care and convenience of patients not be sacrificed.*

b) *As a result of (a), the network selected should be required to provide liaison between the local medical profession and overseas Providers. This will ensure that the maximum care which can be provided locally is provided. Overseas expertise be used in conjunction with local expertise to ensure patients' quality of care is provided.*

c) *In conjunction with PPO network, contract with overseas medical case management organization(s) for the review and monitoring of overseas care to ensure the patient is returned home as soon as medically possible for the continuation of care.*

d) *An alternative of (a) to (c) attempt to negotiate capitated approach for overseas medical care. That is, contract with hospital/physician network to provide care unavailable in Bermuda at a per enrollment fee basis rather than fee for service basis.*

e) *The proposed Bermuda Health Plan will restrict overseas health care payments to its Bermuda equivalent cost if persons are not medically referred and accepted by the proposed Health Council as requiring overseas care.*

f) *The Bermuda Health Council or a sub-group of the Council become the "gatekeeper" for overseas care needs.*

g) *The following procedures, presently carried out overseas, were presented by the Bermuda Medical Society for review by the Cost Task Group as to whether or not it may be cost effective to provide the services in Bermuda. Our Task Group has discussed each recommendation and our findings are as follows:*

i) *Interventional Cardiologist - Although numerous persons are sent abroad it was deemed not desirable to employ or arrange for a visiting cardiologist to Bermuda as we do not have the sufficient support facilities to provide the necessary patient care should any complications arise during surgical procedures.*

ii) *Interventional Radiologist - This was deemed viable and we recommend the Hospital Board seek on staff an Interventional Radiologist.*

iii) *Neurologist - It is our understanding that Dr. Keith Chiappa (Bermudian practicing in the U.S.) would be prepared to visit Bermuda on a regular basis and this avenue should be explored.*

iv) *Additional Urologist/ENT Specialist - Our Task Group did not feel a need exists in this area, however, the existing local Urologist and ENT specialists must be asked to arrange their own locums when they arrange their holidays. Unfortunately, this may not currently occur; as a result, persons may seek the care overseas.*

v) *Additional Eye Surgeon - Was not deemed necessary as Dr. Maguire and Dr. Hamza currently service the Island.*

vi) *Vascular Surgeon - Recommendation that existing general surgeons, in particular the younger ones, be encouraged to educate themselves in these procedures.*

vii) *Dermatologist - Two doctors currently visit the Island on a regular basis.*

viii) *Gastroenterologist - One doctor currently visiting the Island on regular basis, therefore, a further one not deemed necessary.*

ix) *Asthma/Allergist Specialist - Possibly needed here as no visiting specialists currently arranged and there is a high incidence of asthma and allergies in Bermuda.*

*x) Oncologist - Possibly needed, however, if overseas PPO network is established then advice on ongoing cancer management can be obtained from PPO network to local internists.*

*(i) - (x) above should be reviewed by the proposed Bermuda Health Council.*

*h) In order to assist with the organization of visiting specialists' needs, a feasibility study should be conducted to determine if Bermuda could negotiate with any one large organization (such as Mayo & Cleveland Clinics as an example) to establish a satellite office in Bermuda to meet our needs. Alternatively, the PPO network contracted with for overseas care, provide needed services locally.*

*i) Provide, if cost effective, additional equipment locally to provide diagnostic services. The BMS and the Hospitals Board suggested the following needs be considered. Our Task Group reached these conclusions:*

*i) Exercise Thallium Testing -- Equipment is available but local cardiologist not trained to use. It is our understanding that an additional cardiologist is being sought by Dr. Marshall to assist him and it would be our recommendation that the additional cardiologist possess the skills to compliment those of Dr. Marshall.*

*ii) Coronary Angiography -- Not recommended by Task Group as necessary surgical and support facilities are not available here.*

*iii) MRI -- An overseas center has already been established to handle referrals from Bermuda (Shields in Boston). It is our understanding the Hospital Board is currently doing a feasibility of a "mobile" MRI being located in Bermuda. The costs of such a facility will need to be weighed up against needs.*

*iv) Laser Gynecological Surgery -- Consideration of upgrading of local skills and equipment may be necessary.*

*v) Carotid Doppler Studies (non-invasive) -- The Hospital Board should seek the equipment so that the service can be provided locally.*

As recommended previously, Bermuda Health Council should determine the needs of the Island in these various areas. Public perception of the BMS and/or insurance companies control in the area of overseas referrals and visiting specialists must be improved. This could be achieved via the formation of the Bermuda Health Council. 28 of the doctors responding to the BMS survey supported the use of a Review Board or Council, however, 21 respondents indicated that the referring specialist should make the ultimate decision.

### 4.3.2.2 Catastrophic Claims (in Excess of $100,000)

Overseas claims received by insurers which were in excess of $100,000 increased from a total of $528,213 (4 persons) to $2.5 million (10 persons) in 1993. The average insured claim submitted rose from $132,053 in 1990 to $250,620 in 1993.

With the proper adoption of preferred provider organizations and managed care, the average claim cost could be controlled.

### 4.3.2.3 Reinsurance of Catastrophic Claims

As far as we can ascertain all private health insurers have their own reinsurance treaties in place to provide for catastrophic medical costs. Each insurer's actuary will determine the company's "comfort level" with regard to their individual retention levels. From discussions held, it is our understanding that the Government Health Plan ("GEHI") does not have reinsurance protection in place and this has led to certain large claims having to be met entirely from GEHI funds and/or possibly from Government consolidated Funds.

*Recommendations:*

a) *It would be our recommendation that Government negotiates its own reinsurance arrangements in order to provide security for GEHI's funds. There seems little justification for the insurance industry/GEHI to pool their catastrophic premium locally to provide catastrophic cover for the insured population.*

b) *We suggest all insurers and self-insured programs be required to report annually and provide proof of their reinsurance protection levels to the proposed Bermuda Health Council.*

### 4.3.2.4 Catastrophic Claims for Uninsured/Underinsured Population

It is being proposed that all residents of Bermuda should have access to overseas catastrophic cover without such persons being medically underwritten for insurance cover. If this is implemented, the existing reinsurance treaty arrangements of insurers will not extend to such high risks.

*Recommendations*

*Bermuda will have to reinsure its own uninsured, uninsurable segment of the population, possibly through an extension of the existing Mutual Reinsurance Fund in order to provide some level of protection for the uninsured/underinsured population.*

## 4.3.3 OVERALL HEALTH CARE COSTS AS % OF BERMUDA'S GROSS DOMESTIC PRODUCT

(Millions 000)

| Source | 1990 | 1991 | 1992 | 1993 | Cumulative % Increase |
|---|---|---|---|---|---|
| Hospital Board (All Revenue) * | 59.9 | 64.5 | 69.0 | 73.0 | 22% |
| Local Medical Profession & Supplement to Medicine and misc. health expenses: # | | | | | |
| a) Surgical, Anesthesia and visits by doctor at hospital | 4.3 | 5.1 | 4.9 | 6.0 | 40% |
| b) Doctors office visits costs | 5.2 | 6.0 | 7.0 | 8.9 | 71% |
| c) Private labs, diagnostic costs performed in doctor's office or lab | 1.0 | 1.1 | 1.3 | 1.3 | 30% |
| d Other medical related expenses ## | 3.0 | 4.2 | 5.1 | 5.7 | 90% |
| Total of (a) - (d): | $13.5 | $16.4 | $18.3 | $21.9 | 62% |
| Drugs - All (prescribed & non-prescribed) | 5.1 | 5.5 | 5.9 | 6.5 | 28% |
| LCCA (not collectible from Insurers) | 1.0 | 1.3 | .7 | 1.2 | 20% |
| Overseas Costs ** | 10.1 | 16.1 | 19.5 | 19.7 | 95% |
| Department of Health (all services) * | 8.5 | 8.9 | 9.3 | 9.7 | 14% |
| Government grants and individual payments for Rest Homes *** | 7.2 | 7.4 | 7.6 | 7.8 | 8% |
| Dental (private) ### | 10.9 | 12.1 | 13.0 | 15.7 | 44% |
| *TOTAL COSTS*: | 116.20 | 132.2 | 143.3 | 155.5 | 34% |
| Gross Domestic Product: | 1,592.4 | 1,634.9 | 1,697.9 | 1,840.2 (provisional) | |
| Health Care Costs % GDP: | 7.3% | 8.1% | 8.4% | 8.5% | |

* Based on Hospital Board's fiscal year; based on Government Fiscal year.

\# To arrive at this number, the total insurance companies claims submitted amounts were used, however, since insurance company covers approximately 90% of population, the insurance returns were, therefore, grossed up to allow for 10% uninsured population.

## Item (d) will include a certain amount of prescription drugs submitted to insurers for payment. Separation of this number is not known.

** Insurance companies claims submitted costs used, however, numbers grossed up by the percentage of persons without overseas coverage (approximately 26%).

### These costs estimated based on numbers of persons insured for dental. Insurance companies' returns grossed up to reflect uninsured population (approximate number of dental insured is 26% in 1993; 24% in 1992; 21% in 1991; and 19% in 1990).

*** 1993 numbers were made available, however, previous years' numbers were not accessible, therefore, for this Report we have discounted 1993 cost by 2.5% p.a. to arrive at approximate historical costs.

## 4.3.4 PROJECTION OF HEALTH CARE COSTS BASED ON 1990 - 1993 EXPERIENCE

(Million $)

| Source | 1990-1993 Avg. Increase | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | Cumulative % Increase |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hospital Board (All Revenue) | 6.81% | 59.9 | 64.5 | 69.0 | 73.0 | 78.0 | 83.3 | 89.0 | 95.1 | 101.6 | 108.5 | 115.9 | 93% |
| a) Surgical, Anesthesia and visits by doctor at hospital | 11.74% | 4.3 | 5.1 | 4.9 | 6.0 | 6.7 | 7.5 | 8.4 | 9.4 | 10.5 | 11.7 | 13.1 | 205% |
| b) Doctors office visits costs | 19.62% | 5.2 | 6.0 | 7.0 | 8.9 | 10.6 | 12.7 | 15.2 | 18.2 | 21.8 | 26.1 | 31.2 | 500% |
| c) Private labs, diagnostic costs performed in doctor's office/lab | 9.14% | 1.0 | 1.1 | 1.3 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 1.9 | 2.1 | 2.3 | 130% |
| d) Other medical related expenses | 23.86% | 3.0 | 4.2 | 5.1 | 5.7 | 7.1 | 8.8 | 10.9 | 13.5 | 16.7 | 20.7 | 25.6 | 753% |
| Total of (a) - (d): | 17.50% | 13.5 | 16.4 | 18.3 | 21.9 | 25.8 | 30.5 | 36.1 | 42.8 | 50.9 | 60.6 | 72.2 | 435% |
| Drugs - All (prescribed & non-Rx) | 8.42% | 5.1 | 5.5 | 5.9 | 6.5 | 7.0 | 7.6 | 8.2 | 8.9 | 9.6 | 10.4 | 11.3 | 122% |
| LCCA (not collectible from insurers) | 6.27% | 1.0 | 1.3 | 0.7 | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 90% |
| Overseas Costs | 24.94% | 10.1 | 16.1 | 19.5 | 19.7 | 24.6 | 30.7 | 38.4 | 48.0 | 60.0 | 75.0 | 93.7 | 828% |
| Dept. of Health (all services) | 4.50% | 8.5 | 8.9 | 9.3 | 9.7 | 10.1 | 10.6 | 11.1 | 11.6 | 12.1 | 12.6 | 13.2 | 55% |
| Government grants & individual payments for Rest Homes | 2.70% | 7.2 | 7.4 | 7.6 | 7.8 | 8.0 | 8.2 | 8.4 | 8.6 | 8.8 | 9.0 | 9.2 | 28% |
| Dental (private) | 12.93% | 10.9 | 12.1 | 13.0 | 15.7 | 17.7 | 20.0 | 22.6 | 25.5 | 28.8 | 32.5 | 36.7 | 237% |
| **TOTAL COSTS:** | 10.20% | 116.2 | 132.2 | 143.3 | 155.5 | 172.5 | 192.3 | 215.3 | 242.1 | 273.5 | 310.4 | 354.1 | |

Part 1

## 4.3.5 ANALYSIS OF INSURED POPULATION BY HEALTH COVERAGE & HEALTH CLAIMS SUBMITTED VS. PAID AMOUNTS BY INSURANCE

### INSURED ADULT POPULATION VS. TOTAL ADULT POPULATION

(Assuming all persons 17 years are in the work force)

| | | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|
| A) | Insured Population | 39,401 | 40,210 | 40,971 | 41,614 |
| | Total Adult Population (17 years and over) | 45,179 | 45,644 | 45,900 | 46,140 |
| | % Insured | 87.2% | 88.1% | 89.3% | 90.1% |
| B) | Insured Adults with Major Medical Coverage | 32,500 | 33,250 | 33,812 | 34,134 |
| | Total Adult Population (17 years and over) | 45,179 | 45,644 | 45,900 | 46,140 |
| | % Insured for Major Medical | 72% | 72.8% | 73.7% | 74% |
| | % Insured for Major Medical of Insured Population | 82.5% | 82.7% | 82.5% | 82% |
| C) | Insured Adults with Dental Cover | 8,668 | 9,601 | 10,904 | 11,940 |
| | Total Adult Population (17 years and over) | 45,179 | 45,644 | 45,900 | 46,140 |
| | % of Insured for Dental | 19% | 21% | 24% | 26% |
| D) | Persons 65 Years and Over Who are Insured For Some Form of Health Benefits | 4,890 | 4,913 | 5,269 | 5,551 |
| | Adult Population 65 Years and Over | 5,313 | 5,396 | 5,500 | 5,620 |
| | % Insured | 92% | 91% | 96% | 99% |

Part 2

## INSURANCE INDUSTRY RETURNS

Based on the health insurance industry returns, the following statistics were compiled.

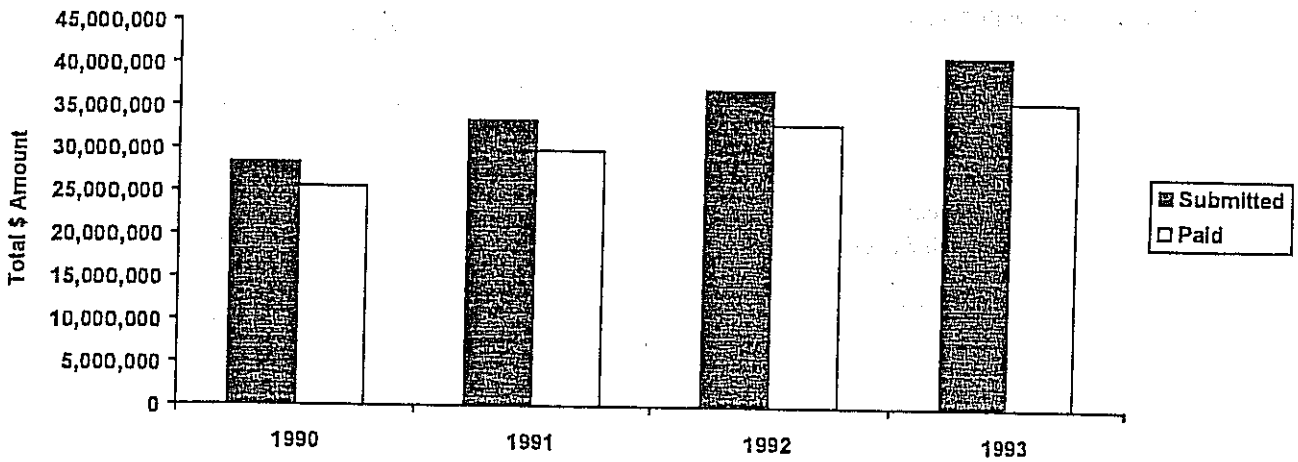
It should be noted that private insurance plans generally provide on a paid basis approximately 90% of the claimed cost for locally incurred expenses whilst for overseas claim costs are reimbursed at approximately 79% of expenses incurred.

## TOTAL $ VOLUME OF HEALTH CLAIMS SUBMITTED TO AND PAID BY HEALTH INSURANCE: (NET OF HIC)

Local Private Ins. Industry & Self Adm. Plan

| | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|
| Submitted: | 28,297,100 | 33,288,358 | 36,834,423 | 40,798,290 |
| Paid: | 25,498,430 | 29,772,512 | 32,913,754 | 35,578,748 |
| Percentage Paid: | 91% | 90% | 90% | 88% |
| Percentage of increase from submitted Claims: | 100% | 117% | 130% | 144% |

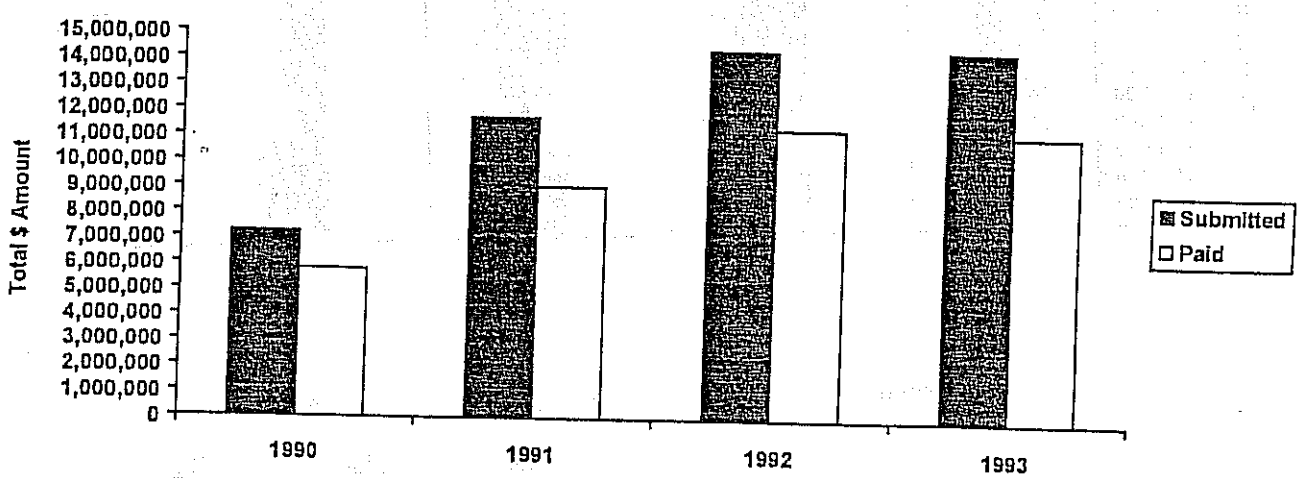
**Total $ Volume of Local Private Insurance Industry & Self Adm. Plan Claims submitted compared with claims paid 1990 - 1993**



Overseas Medical claims (Net of HIC)

| | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|
| Submitted: | 7,210,746 | 11,722,577 | 14,375,329 | 14,374,396 |
| Paid: | 5,778,840 | 9,027,368 | 11,351,355 | 11,154,618 |
| Percentage Paid: | 80% | 77% | 79% | 78% |
| Percentage of increase from submitted Claims: | 100% | 162% | 199% | 199% |

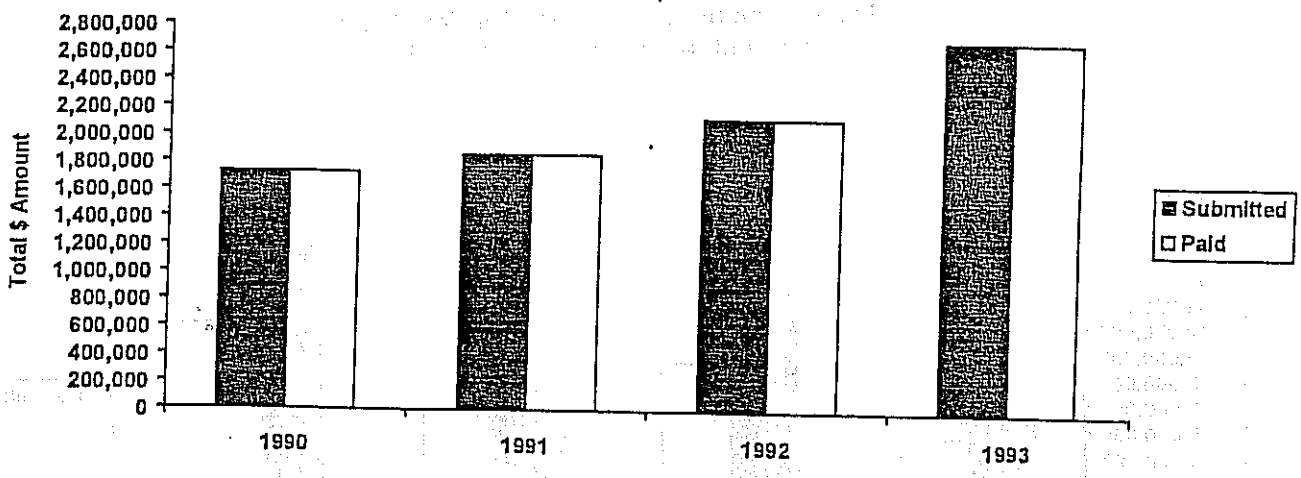
Total $ Volume of Overseas Medical Claims
Claims submitted compared with claims paid
1990 - 1993



Hospital Ins. Commission - Ins. Plan (Local Claims)

| | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|
| Submitted: | 1,728,724 | 1,855,946 | 2,121,760 | 2,695,381 |
| Paid: | 1,728,724 | 1,855,946 | 2,121,760 | 2,695,381 |
| Percentage Paid: | 100% | 100% | 100% | 100% |
| Percentage of increase from submitted Claims: | 100% | 107% | 122% | 155% |

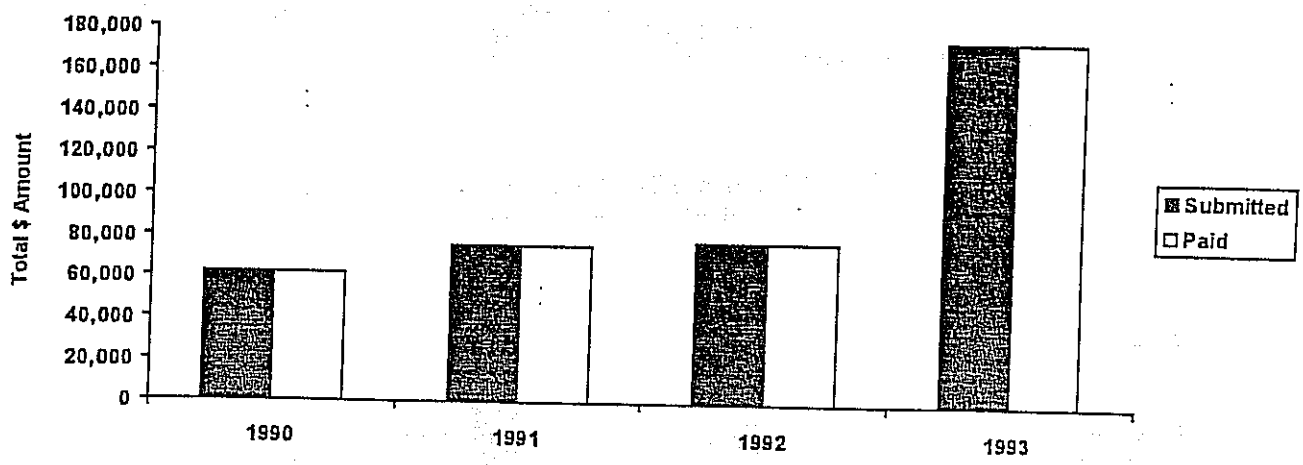
Total $ Volume of Hospital Ins. Commission - Ins. Plan (Local Claims)
Claims submitted compared with claims paid
1990 - 1993




Hospital Ins. Commission - Ins. Plan (Overseas Claims)

| | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|
| Submitted*: | 61,375 | 75,355 | 77,455 | 174,515 |
| Paid: | 61,375 | 75,355 | 77,455 | 174,515 |
| Percentage Paid: | 100% | 100% | 100% | 100% |
| Percentage of increase from submitted Claims: | 100% | 122% | 126% | 284% |

Total $ Volume of Hospital Insurance Commission - Insurance Plan (Overseas Claims)
Claims submitted compared with claims paid
1990 - 1993

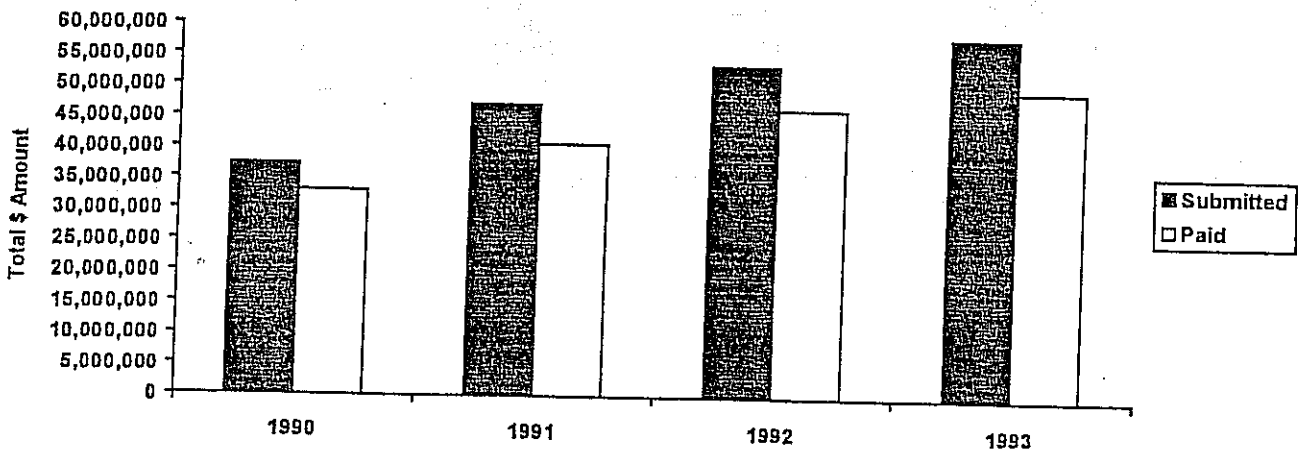



* These numbers are not realistic as overseas costs will be substantially higher than paid amount which are paid based on local charges.

Total Local, Overseas & HIC (local & overseas) Claims

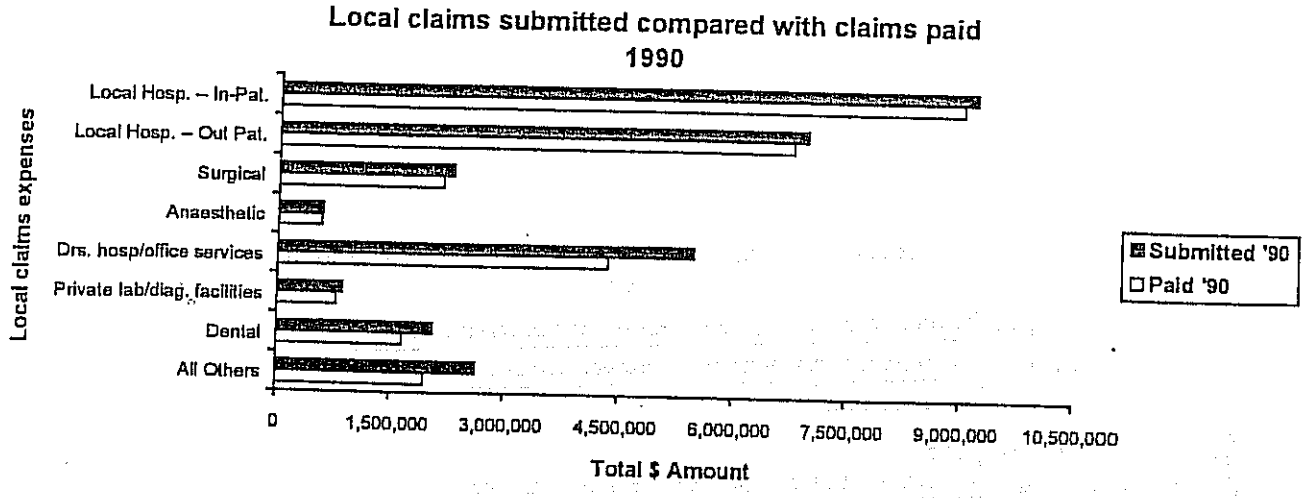
| | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|
| Submitted: | 37,297,945 | 46,942,236 | 53,408,967 | 58,042,582 |
| Paid: | 33,067,369 | 40,731,181 | 46,464,324 | 49,603,262 |
| Percentage Paid: | 89% | 87% | 87% | 85% |
| Percentage of increase from submitted Claims: | 100% | 126% | 143% | 156% |

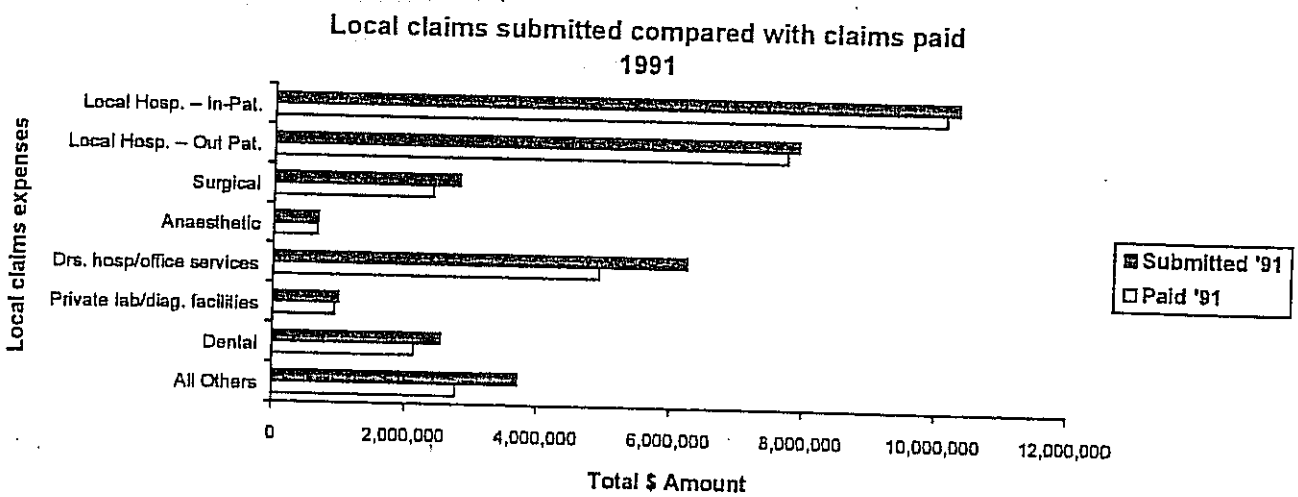
**Total $ Volume of Local, Overseas and HIC Claims**
**Claims submitted compared with claims paid**
**1990 - 1993**

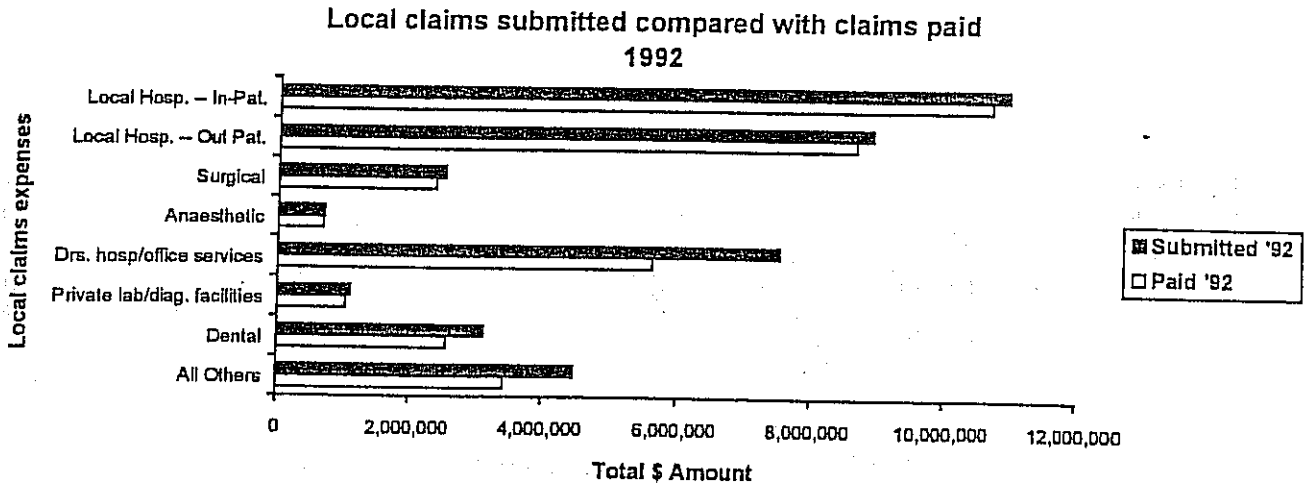


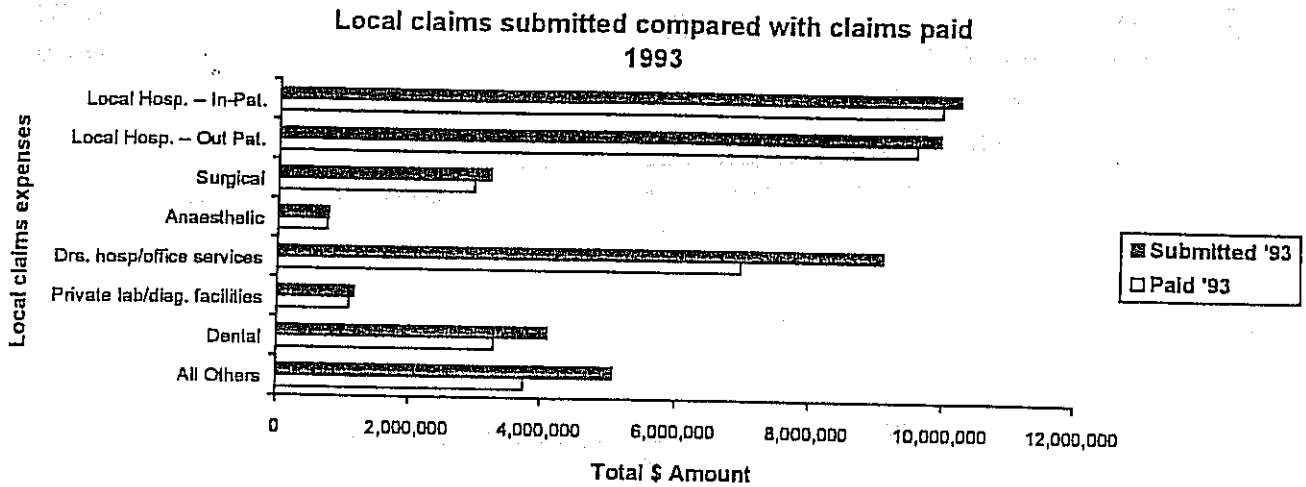
Detailed breakdown of Health Insurance Claims Submission and Payments, broken down by type of claim and location (i.e., local vs. foreign):

| | 1990 | | 1991 | | 1992 | | 1993 | |
|---|---|---|---|---|---|---|---|---|
| | Submitted '90 | Paid '90 | Submitted '91 | Paid '91 | Submitted '92 | Paid '92 | Submitted '93 | Paid '93 |
| Local Hospital – In-Pat. | 9,169,433 | 8,995,578 | 8,995,578 | 10,120,338 | 10,945,882 | 10,684,401 | 10,220,144 | 9,940,147 |
| Local Hospital – Out-Pat. | 6,945,097 | 6,771,466 | 7,891,219 | 7,714,486 | 8,907,291 | 8,661,963 | 9,922,260 | 9,568,795 |
| Surgical | 2,305,890 | 2,163,160 | 2,794,782 | 2,397,959 | 2,523,432 | 2,380,602 | 3,198,268 | 2,960,402 |
| Anaesthetic | 590,892 | 578,322 | 673,794 | 660,691 | 706,193 | 687,589 | 762,158 | 742,608 |
| Drs. hosp/office services | 5,473,032 | 4,338,824 | 6,231,144 | 4,908,548 | 7,528,542 | 5,611,837 | 9,096,544 | 6,953,848 |
| Private lab/diag. facilities | 851,437 | 778,379 | 993,291 | 931,184 | 1,108,962 | 1,033,013 | 1,161,370 | 1,084,455 |
| Dental | 2,063,307 | 1,648,978 | 2,548,005 | 2,130,478 | 3,124,945 | 2,549,748 | 4,081,080 | 3,284,482 |
| All Others | 2,626,735 | 1,952,447 | 3,705,336 | 2,764,774 | 4,470,937 | 3,236,360 | 5,051,846 | 3,739,392 |



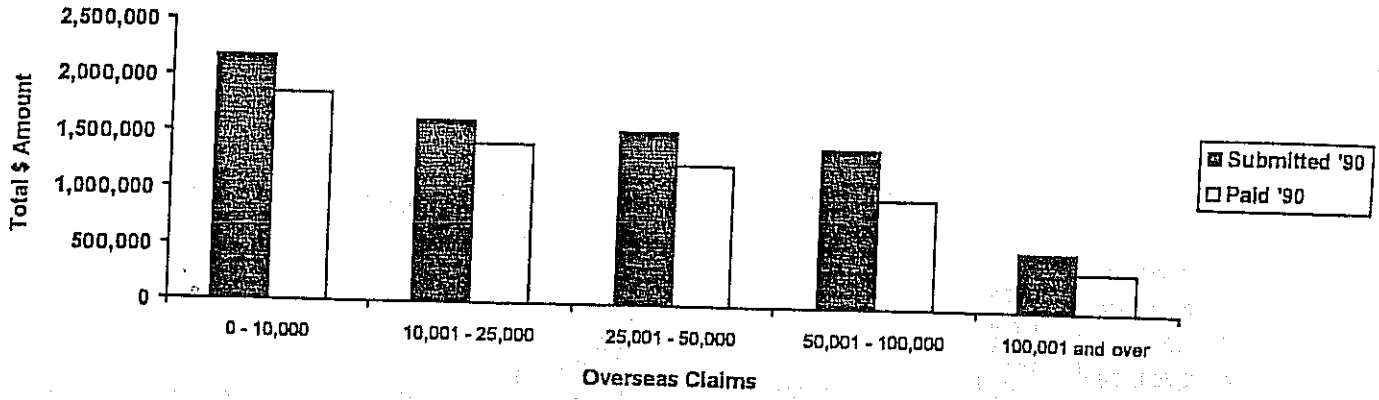

Local claims submitted compared with claims paid
1992
Local claims expenses
Local Hosp. – In-Pat.
Local Hosp. – Out Pat.
Surgical
Anaesthetic
Drs. hosp/office services
Private lab/diag. facilities
Dental
All Others
0
2,000,000
4,000,000
6,000,000
8,000,000
10,000,000
12,000,000
Total $ Amount
Submitted '92
Paid '92


Local claims submitted compared with claims paid
1993
Local claims expenses
Local Hosp. – In-Pat.
Local Hosp. – Out Pat.
Surgical
Anaesthetic
Drs. hosp/office services
Private lab/diag. facilities
Dental
All Others
0
2,000,000
4,000,000
6,000,000
8,000,000
10,000,000
12,000,000
Total $ Amount
Submitted '93
Paid '93

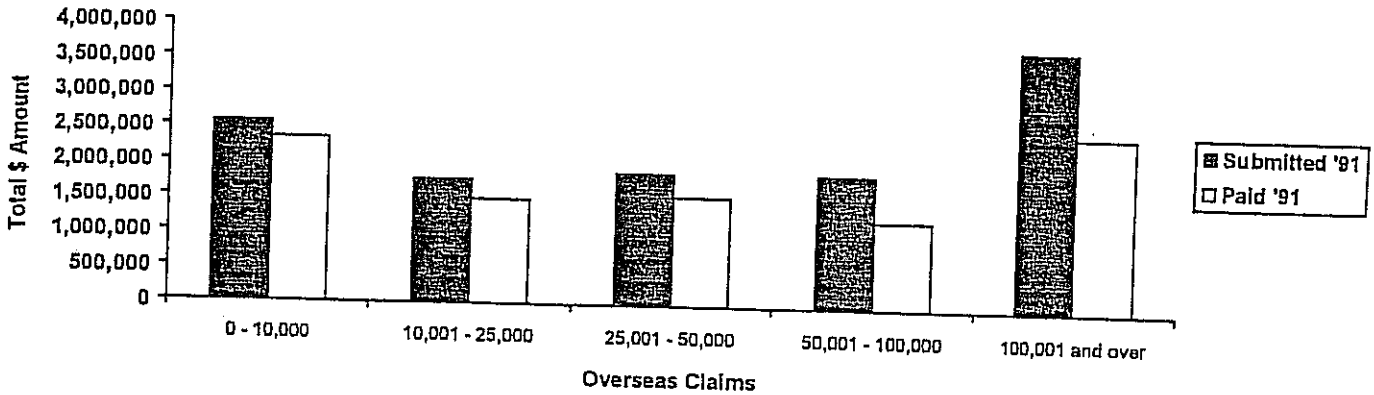
## Overseas Medical Claims
(by claim ranges)

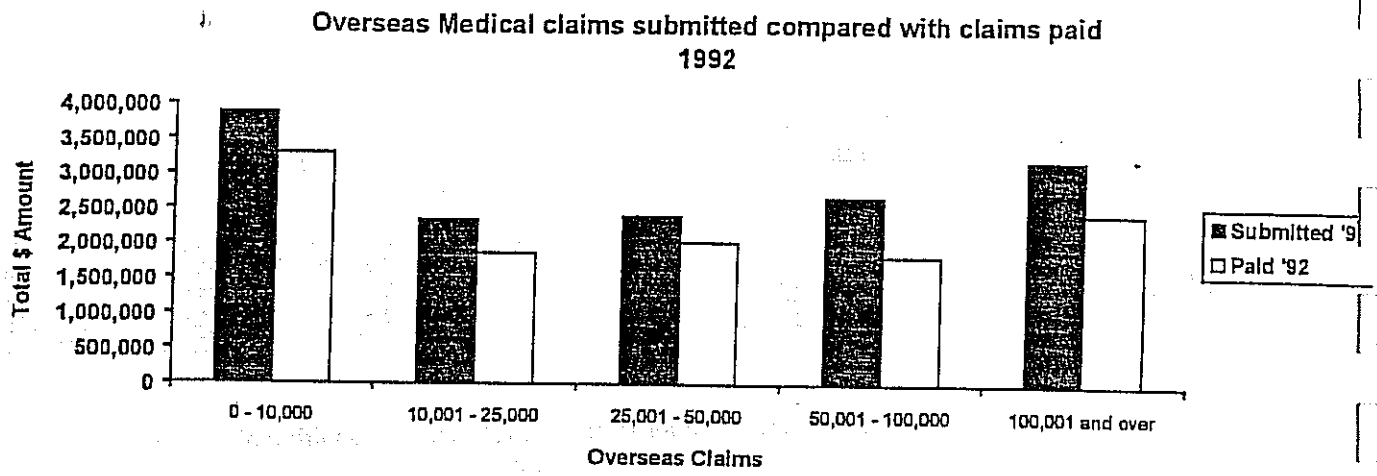
| | 1990 | | 1991 | | 1992 | | 1993 | |
|---|---|---|---|---|---|---|---|---|
| | Submitted '90 | Paid '90 | Submitted '91 | Paid '91 | Submitted '92 | Paid '92 | Submitted '93 | Paid '93 |
| 0 - 10,000 | 2,171,335 | 1,846,947 | 2,561,189 | 2,334,876 | 3,868,064 | 3,294,825 | 3,770,474 | 3,052,508 |
| 10,001 - 25,000 | 1,613,191 | 1,415,457 | 1,762,288 | 1,481,141 | 2,338,681 | 1,856,117 | 2,422,594 | 2,075,202 |
| 25,001 - 50,000 | 1,542,197 | 1,249,283 | 1,881,103 | 1,551,445 | 2,388,985 | 2,029,589 | 3,420,567 | 2,719,325 |
| 50,001 - 100,000 | 1,417,185 | 972,711 | 1,886,991 | 1,243,187 | 2,664,586 | 1,822,563 | 2,429,256 | 1,563,853 |
| 100,001 and over | 528,213 | 355,817 | 3,706,361 | 2,492,074 | 3,192,468 | 2,425,716 | 2,506,021 | 1,918,245 |

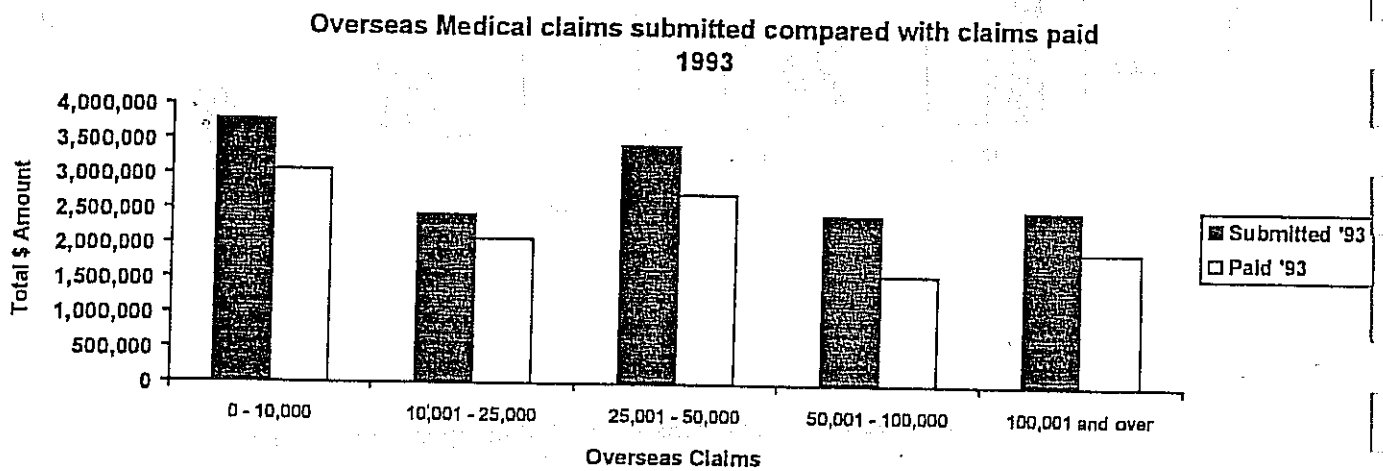
Overseas Medical claims submitted compared with claims paid
1990




Overseas Medical claims submitted compared with claims paid
1991




Overseas Medical claims submitted compared with claims paid
1992
Total $ Amount
4,000,000
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
0 - 10,000
10,001 - 25,000
25,001 - 50,000
50,001 - 100,000
100,001 and over
Overseas Claims
Submitted '9
Paid '92


Overseas Medical claims submitted compared with claims paid
1993
Total $ Amount
4,000,000
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
0 - 10,000
10,001 - 25,000
25,001 - 50,000
50,001 - 100,000
100,001 and over
Overseas Claims
Submitted '93
Paid '93

## 4.4 FORMATION OF BERMUDA HEALTH CARE COUNCIL

(To be read in conjunction with the attached functional chart)

### 4.4.1 INTRODUCTION

Having regard to the Terms of Reference of the Steering Committee appointed to health care in Bermuda, the Health Care Costs Task Group proposes an umbrella group is required and that a Bermuda Health Council be formed.

### 4.4.2 REASONS FOR UMBRELLA ORGANIZATION – PROPOSED BERMUDA HEALTH COUNCIL

Factors necessitating the formation of an umbrella group such as the Bermuda Health Council are the need to:

a) Coordinate the comprehensive delivery of medical services.

b) Control, promotion and direction of what services are needed for Bermuda and who should provide the needed services.

c) Ensure coordination of health services.

d) Monitor costs and use services in most appropriate manner.

e) Establish and enforce accountability and/or outcome measures.

f) Place emphasis on health prevention and wellness programmes.

g) Place emphasis on providing medical care in the home health care/ambulatory care/intermediate care facilities rather than institutionalized acute care.

### 4.4.3 Mission of the Bermuda Health Council

The Minister of Health establishes a Bermuda Health Council ("BHC") which should be a non-governmental body whose mission is to "ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community. Emphasis will be to ensure consumers of health services are provided with high quality of care, and that their health needs are met and to encourage and promote a healthy lifestyle throughout the community."

### 4.4.4 Mandate of the Bermuda Health Council

In order for the Bermuda Health Council to discharge the several functions it will need to have a membership that adequately reflects consumer interest, provider expertise and the community's best interest. The Bermuda Health Council will have to be established by Act of Parliament and charged with the responsibility of developing, coordinating and delivering a comprehensive Healthcare system and a specified package of benefits to all residents. The Bermuda Health Council membership should have members selected by consumer organizations and by the various provider organizations, Insurance Industry, (stakeholders) as well as several appointed by the Minister. It is expected that the Minister would appoint the Chairperson and Deputy Chairperson.

The members of the Council should function in their private capacities rather than as representatives of the organizations through which they are appointed. The philosophy has to be unselfish commitment to developing the best possible health system for Bermuda. Stakeholders should not serve as lobbyists for their parent organization. They should be lobbyists for the common good of Bermuda residents. The Bermuda Health Council will have the authority to control the healthcare system in Bermuda, along certain parameters defined by Government through the Minister of Health. It should not be frozen into a legislative straight-jacket, but should be allowed to evolve as circumstances change, providing it operates within its mandate.

The Bermuda Health Council must be seen as non-governmental, responsive to the community, and supported by Government healthcare provider organizations and the insurance industry.

### 4.4.5 Executive

The Council would appoint an Executive Director who should be trained and experienced in Health Policy and Administration and he/she should be assisted by a part-time medical advisor. These officers would require professional support staff. The Council will require an adequate operational budget:

**Funding of Executive & Support Staff Costs**

We estimate that approximately six posts are required as follows:

Executive Director
Medical Officer (part-time)
Financial Officer (part-time)
Executive Secretary
Research Development Person

It is estimated that salary costs and related personnel costs may be in the order of $500,000.

Suggested ways to fund this expense are:

a) By use of MRF -- based on total adult population of 46,140 (17 years and over - 1993) an additional 87¢ per month or $10.40 per annum would need to be added to the MRF to fund operational expenses of the BHC.

b) Consideration could be given to replacing Hospital Insurance commission role by the Council, therefore, possible savings could be achieved within Government Social Insurance Department and these savings could be used to offset costs.

### 4.4.6 Bermuda Health Plan ("BHP")

The BHC will devise an affordable BERMUDA HEALTH PLAN ("BHP") which will define a standard Healthcare package that should be available to all Bermuda residents. It will be the responsibility of the BHC, supported by it's Executive, to develop and promulgate a BHP within one year of its establishment. The Plan, once devised, should be made available to all and be affordable by all and would replace the existing "standard benefits" under the Hospital Insurance Act.

### 4.4.7 Bermuda Health Council (B.H.C.) Responsibilities

The BHC will be responsible for:

a) Coordinating and integrating all health care services (both locally and overseas) to ensure delivery of services are provided in the most cost efficient manner.

b) Recommending changes to the health care delivery system in order to contain health care costs without jeopardizing quality of care.

c) Facilitating the establishment of quality control standards, certification, recertification and licensing requirements of all approved providers and other providers of medical and dental care.

d) Recommending approval of any new service to be covered by the BHP. Non-approved services will not be funded under the BHP.

e) Monitoring the total health care costs of health care services and ensuring the growth is reasonable and manageable when compared with Bermuda's consumer price index.

f) Promoting and developing health prevention and wellness programmes to build healthier lifestyles of Bermuda's residents.

g) Developing outcome measurement studies.

h) Developing/adopting medical protocol standards to contain unnecessary investigations and treatments.

i) Investigating, monitoring and advising on any issue that may impact on health care in Bermuda.

### 4.4.8 Healthcare Programmes

Healthcare services can be divided into personal health care on the one hand and public health care on the other. Personal Healthcare programmes are delivered to individuals and public health care has the community as a whole as it's client and would be provided by the Department of Health. Consideration to be given to transfering any personal services currently being run by the Department of Health to personal health care and provided by approved providers.

#### 4.4.8.1 Personal Health Care

4.4.8.2 Ambulatory Health Care Programme ("AHC") reporting to the BHC, will be established with its primary focus being the coordination of acute ambulatory care within the community. Emphasis should be placed on the general practitioner being the "gatekeeper" for the coordination of services required locally for their patients. There should be a distinction made between acute medical care and chronic long-term care. With the latter, we would propose a separate programme.

4.4.8.3 A Long-term Care Programme ("LTC") reporting to BHC will be established and be responsible for chronic care needs of the elderly and permanently disabled persons. Its primary functions will be to oversee the programmes needed for home health care and long-term care facilities to meet the needs of this group.

There will be a need for the LTC and Ambulatory Health Care (AHC) to discuss mutually common needs (e.g., the acute care patient which becomes chronic.)

#### 4.4.8.4 Bermuda Hospitals Board ("BHB")

Hospital care will be provided through the Bermuda Hospitals Board ("BHB") with the King Edward VII Memorial Hospital being responsible for acute care, emergency care, and some appropriate ambulatory care services. St. Brendan's Hospital will have responsibility for it's community psychiatric programme in addition to hospital psychiatric care.

#### 4.4.8.5 Overseas Medical Care ("OMC")

Necessary Overseas Medical Care ("OMC") will be part of the BHP but funded via the Mutual Reinsurance Fund for those persons who cannot obtain the insurance coverage. The gatekeeper will be the Executive of the BHC assisted by the physicians involved in a particular patient's care and appropriate referees. Steps should be taken to establish a preferred provider organization arrangement for both hospital care and ambulatory care in the appropriate overseas jurisdictions together with the appropriate case management of overseas patients.

The need for visiting specialists/surgeons would be coordinated and approved by the BHC.

#### 4.4.8.6 National Drug Commission ("NDC")

A scheme addressing our misuse of drug problem through the National Drug Commission ("NDC") will be responsible for drug use prevention and treatment services in an ambulatory and detoxification centre setting. The cost of these programs to be funded via the Council Partners.

#### 4.4.8.7 Outcome Results Analysis

The BHC Executive will establish an Outcome and Results Analysis ("ORA") group so that the performance of various providers and programmes can be judged as beneficial or not. Activities which cannot be shown to improve outcome should be discontinued and not covered by the BHP.

#### 4.4.8.8 Medical Protocol Standards

The BHC Executive will establish medical protocol standards and these standards must be adhered to by approved providers of the BHP and non-approved providers of medical/dental care.

#### 4.4.8.9 Public Health

Public health should remain the responsibility of the Department of Health and it's main activities will be in the areas of prevention, appropriate clinics, and disease surveillance.

#### 4.4.8.10 Finances

The BHC will monitor the growth in health care costs as a percentage of GDP and ensure costs remain affordable and reasonable. The BHC must analyze the cost being incurred within the various health care segments and advise on changes needed to control future costs.

It is envisaged that the health care system continues to be financed via government subsidies, insurers and the consumers.

It is likely that many persons in the community will wish benefits in excess of those of the BHP and there should be no objection to the provision of such services nor the provision of insurance coverage for them.

#### 4.4.8.11 Approved Providers

The BHC will approve providers from the private sector, from voluntary agencies, and from government departments. The approved provider, governed by legislation, will be entitled to deliver those services which are part of the BHP in a reliable manner and at a fee approved * by the BHC for payment under the BHP. Approved providers must be licensed, registered and fulfill any recertification requirements in order to be approved and must adhere to all medical protocol/guidelines established.

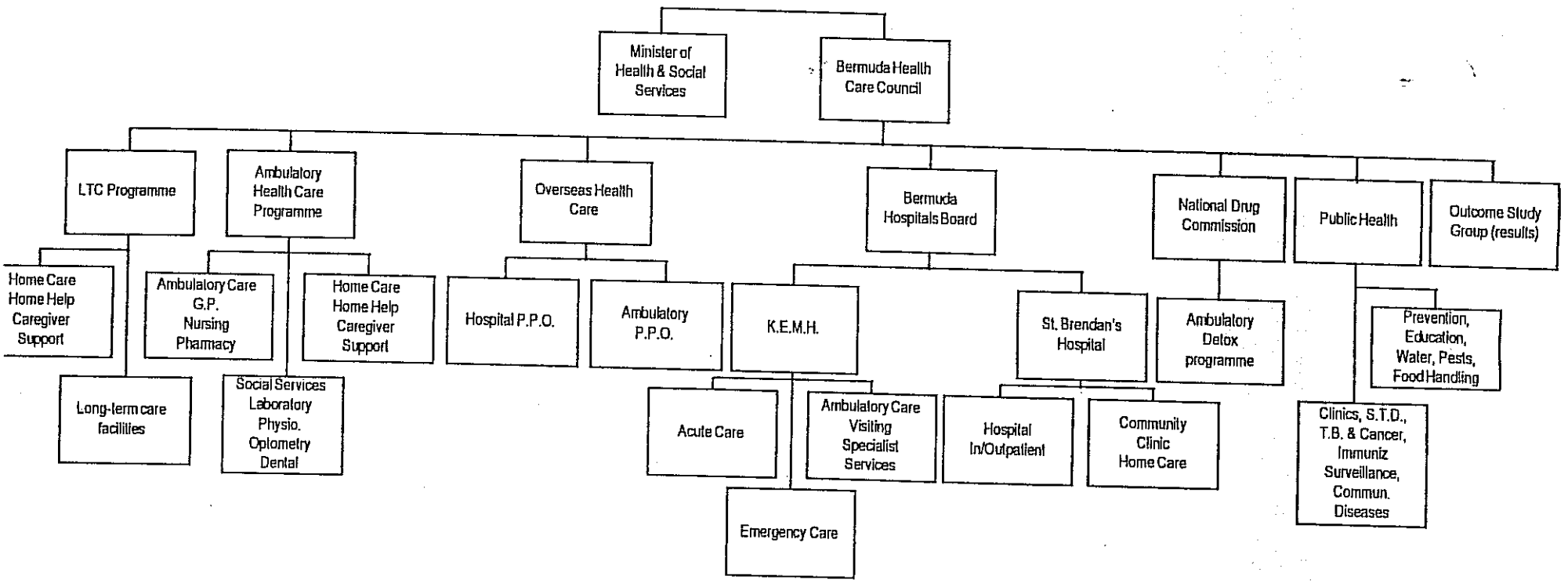
BHC will encourage via its approval process the establishment of group practice associations of providers for the East and West End of the Islands and the central parishes. The formation of such practices could assist with controlling costs (e.g., clinical costs would be shared), however, more importantly, provide the consumer with the medical attention when needed because such practices must be manned on a daily basis.

*No common agreement from our Task Group on whether or not an approved provider can charge the patient fees in excess of those approved. (See previous note under Section 4.1.)

### 4.4.9 CONCLUSION

The pattern of increasing costs for health care in Bermuda, coupled with inappropriate use of institutional services and the lack of less expensive community services, requires the development of a comprehensive and integrated delivery system. It is suggested that a single entity is necessary to design and supervise an affordable health care delivery system. It is believed that the above recommendations are a suitable framework for the development and achievement of the Steering Committee's objectives.

# BERMUDA HEALTH CARE COUNCIL FUNCTIONAL CHART




Bermuda Health Council would be charged by the Minister of Health and Social Services to develop a comprehensive health care package (B.H.P.) for Bermuda's residents; and would assign to approved providers the various components of the "package", in an integrated manner and hold providers accountable for quality.

Ambulatory Health programme would be charged with managing patient care through the community health services, which it has integrated and which provides for an arrangement for paying for such services.

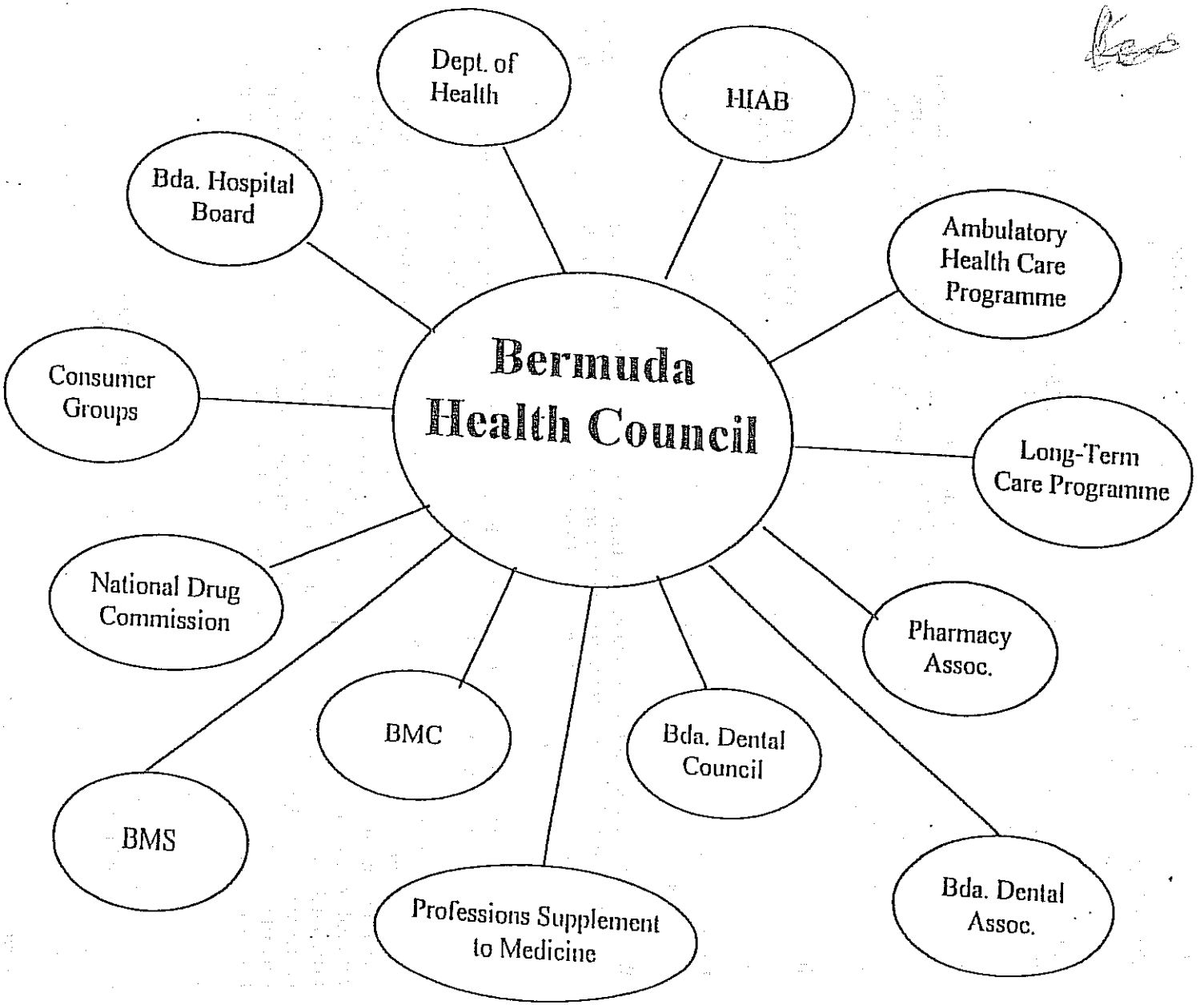
Long-term care programme would be charged with managing chronic care needs of the elderly and permanently disabled persons.

Bermuda Hospitals Board continues to manage the hospitals.

Public Health removes itself from the area of personal health care, with the exceptions indicated on the chart.

Non-approved services are not paid for out of the "package" funds.

# Stakeholders of the Bermuda Health Council



## 4.5 DRAFT PROPOSAL OF THE BERMUDA HEALTH PLAN PACKAGE

The primary purpose of the Bermuda Health Plan is to ensure all residents of Bermuda have access and receive affordable health care coverage which aims to reduce the individual's financial exposure to needed health services whilst ensuring that their health needs are met. Emphasis is placed on the promotion of wellness and the benefits provided by the Plan will be established to meet this objective.

Although the Plan will define the health services to which all residents of Bermuda should be entitled , it will not prohibit people from obtaining services beyond those provided by the Health Plan. However, such services will be outside of the scope of the Plan and provided by supplementary insurance.

It is recognized that as at the end of 1993, approximately 90% of the population of Bermuda are already insured for at least the Hospital Insurance Plan provided by the Department of Social Insurance. Therefore, approximately 4,600 adults appear to be uninsured, uninsurable or indigent. Further, approximately 74% of the adult population had some form of major medical insurance protection at the end of 1993. Therefore, approximately 12,000 adults are without additional insurance protection for overseas health care costs.

It is further recognized that the current structure of the Hospital Insurance Act and that of the commercial health insurance policies does not necessarily provide the emphasis on promotion of wellness and community health care versus institutionalized care.

Emphasis will be placed on the general practitioner being the "gatekeeper" to the services available within the approved provider network.

With the above in mind, it is felt desirable to redefine the standard Health Plan that should be available for all. Further it is recognized that financial arrangements must be implemented to provide the same health package to those individuals who are not currently employed/insured if all residents of Bermuda are to receive and have access to the same basic level of care, without discrimination.

It is being recommended that BHC be involved in the setting of the fees paid and possibly charged for the benefits recognized by the Plan and the establishment of the corresponding premiums to provide the benefits of the Plan.

The Health Plan philosophy will reflect good up-to-date medical practice. It will contain essential and cost effective medical treatment of proven value without which the patient's health and quality of life will be significantly compromised. The treatment will be delivered without frills by trained personnel using appropriate facilities. It will exclude non-essential or cosmetic services, experimental drugs and techniques whose effectiveness is not yet proven. In deciding how to treat individual patients, doctors must be guided by treatment protocols, which set out the standard practice in given circumstances. Such protocols help doctors to avoid ordering unnecessary investigations and treatments, and are especially useful where the treatments are not of proven clinical effectiveness or will not improve the patient's quality of life significantly.

Examples of such situations are:

- Aggressive treatment of incurable diseases where there is no chance of survival;
- Long term life support for severely brain damaged patients with no chance of recovery; and
- Intensive care for very premature babies who are unlikely to survive and whose long term prospects, even if they survive, are uncertain.

It would not be practical to list all the items which should be contained in the Bermuda Health Plan as it will cover a large part of the practice of medicine, however, a broad outline of the benefits of the Plan is as follows:

## 4.6 THE PROPOSED BENEFITS OF THE BERMUDA HEALTH PLAN

### 4.6.1 Section A: Health Wellness/Prevention Programmes:

To be provided by the Department of Health* as currently available and funded by Government:

- Birth control
- Obstetric care as well as pre and post maternity care
  - Child care
    - Well baby care
    - Immunization programme
    - Dental care - fluoride, school dental exams, preventive dental care

* The role the Department of Health plays in the rendering of personal health care should be REVIEWED by the proposed BHC. It should be determined if it is cost effective for such services to be provided by the Department of Health versus the use of private facilities.

Further, the Department of Health medical/dental professionals must meet all certification, quality requirements as imposed on the private sector if personal health care is to be provided.

To be provided via the National Drug Commission and funded by Council Partners:

- Stop smoking programmes
- Drug and alcohol prevention/education programmes

### 4.6.2 Section B: Acute Ambulatory Care - Basic Health Cover:

To be provided by the Health Insurance Plan provided via Department of Social Insurance (extending the existing Hospital Insurance Plan offered by the Department - see *Appendix 10* for current plan)

- Acute in-patient hospital care at the public ward level., limit number of days to 60 per calendar year (days in excess of 60 fall under MRF)
- Out-Patient hospital services as currently defined by the Act
- Home health nursing care in lieu of hospital confinement - subject to a maximum number of days and or dollar limit (acute care only) and subject to approved fees of BHC. #
- Intermediate in-patient nursing care facilities - subject to a maximum number of days and/or dollar limit per calendar year. (acute care only) #
- Acute psychiatric care at the St. Brendan's - calendar year limit of 30 days. (as per current Act)
- Artificial limbs and appliances - limit to lifetime maximum of $10,000. (as per current Act)
- Surgical, anesthetic benefits payable in accordance with BRVS but subject to calendar year limit of $1,500. **
- Obstetrical pre- and post-natal care payable in accordance with BRVS. #
- Medical benefits for doctors visits in and out of the hospital setting paid in accordance with approved fees established by the BHC; however, the benefit should be subject to a calendar year maximum of $750.00. **

Preventive Healthcare: #

- Selective medical examinations such as pap smears, mammography for women* (currently covered by Act)
- Selective medical examinations for men*
- Eye examinations for men and women*

* These programs must follow updated guidelines to support cost/benefit outcome measures. We suggest the Canadian guidelines be examined for possible implementation. If this is not done, unnecessary costs will be incurred. To illustrate the importance of clear protocol standards, please see *Appendix 5* for an example of current practice in Bermuda concerning screening for cancer of uterine cervix.

\# Additional benefits added to the existing Hospital Insurance Plan.
** Represents improved values of benefits currently provided in the Hospital Insurance Plan.

### 4.6.3 Section C: Catastrophic & Medically Necessary Overseas Medical Care:

- Overseas care recognized only if rendered in an approved Preferred Provider network and provided for on a managed care basis.
- Overseas care must be approved before departure from Bermuda and must meet all the necessary criteria for acceptance under the Plan.
- Overseas care must be recognized as only life threatening and essential care and the necessary criteria must be carefully defined by the BHC in order to avoid excessive and unnecessary costs in this area.
- Lifetime maximums must be placed on this section. A suggested lifetime maximum regardless of age is $100,000.*
- Internal overseas hospital daily limits be established to meet the daily costs of the PPO network facilities adopted by BHC.
- Overseas medical/surgical costs be recognized by the Plan at the 50% percentile range of the Health Insurance Association of America (HIAA) fees or some similar data base.

* Certain transplants will exceed this limit. The limit for transplants will need to be higher but should be determined after discussion with PPOs.

It is suggested that Section 3 be funded via the Mutual Reinsurance Fund for those persons who do not have access to major medical insurance. This implies that all insured persons and their employers will pay an additional cost to fund the claims costs of Section 3. However, it will provide access to all, without reliance on charitable organizations.

**Exclusions:**

- Cosmetic surgery
- Sex operations
- In-vitro fertilization treatment
- Experimental treatments
- Experimental drugs
- High cost methods of investigation and treatment where effective cheaper alternatives are available
- Transplants which are medically inappropriate for recipients
- Certain counselling services such as marital
- Futile therapies
- Unconventional therapies

Please note that chronic long term care is not covered by the proposed structure. Therefore, the majority of extended costs incurred by the elderly population would not be covered by the Plan. (e.g. extended nursing/home health care, etc.)

### 4.6.4 FUNDING

The benefits of the Plan Package will need to be funded from various sources such as Government, insurance premiums and by individuals. It will need to be defined as to which entities would be the most suitable funding vehicle for various aspects of the Package to be affordable to all residents and accessible by all.

## 4.6.5 LONG TERM (CHRONIC) CARE

- Nursing homes
- Rest homes
- Home help
- Custodial
- Long-term Psychiatric Care

We have purposely omitted from the Health Care Package, long term (chronic) residential care of the elderly and the chronically infirm.

***Recommendations:***

*This is not intended to imply that there is not a need to protect these individuals, however, with the demographics of Bermuda's ageing population it is our view that the cost to fund this residential care would be prohibitive if placed on the shoulders of the work force in terms of additional premiums and/or surcharges.*

***It is recommended that:***

*The cost of nursing home/rest home/home help care services continue to be met (as currently) by Government and the individuals for the short term. However, for the long term, we would suggest that individuals be encouraged/required to fund their long term care needs (as must be done for their retirement income) from an early age. Monies should be set aside and invested wisely so that, when needed, such funds can be used to fund chronic long term nursing care. Based on projected longevity, costs, etc., projections can be performed and funding established at various ages in order to target the capital sum required to fund the projected long term care costs. This concept could be done in conjunction with the proposed National Pension Scheme.*

## APPENDIX 1

**Total Revenue – Bermuda Hospitals Board** ($ in millions)

| | 1990/1991 | 1991/1992 | 1992/1993 | 1993/1994 | % Increase |
|---|---|---|---|---|---|
| In-patient | 26.8 | 28.7 | 28.8 | 31.4 | 17% |
| Out-patient | 15.1 | 17.3 | 20.4 | 21.2 | 40% |
| Extended Care Unit | 4.7 | 4.5 | 5.8 | 6.4 | 36% |
| Government Grants | 13.3 | 14.00 | 14.00 | 14.1 | 6% |
| | 59.9 | 64.5 | 69.00 | 73.0 | 22% |
| CPI | 6% | 4.4% | 2.7% | 2.5% | 15.6% |

## APPENDIX 2
## Long - Term Care Facilities in Bermuda as at 1st March, 1994

| Facility | Phone | Matron | Total Beds | Total Occup. | Rate per day |
|---|---|---|---|---|---|
| PARISH REST HOMES | | | | | |
| Devonshire | 292-1378 | Mrs. Brice | 11 | 6 | $26 |
| Lorraine | 236-5152 | Mrs. Evans | 21 | 18 | $50 |
| Pembroke | 292-1864 | Mrs. Dears | 23 | 18 | $60 |
| St. George's | 297-0754 | Mrs. Crane | 12 | 10 | $13 |
| Sandy's | 234-1673 | Mrs. Riley | 13 | 13 | $16 |
| PRIVATE NURSING HOMES | | | | | |
| Golden Serenity | 236-4626 | Mrs. Pamplin | 13 | 13 | $53 |
| Mangrove Lake | 293-3269 | Mrs. Crockwell | 14 | 14 | $59 |
| Matilda Smith | 236-2958 | Mrs. Simmons | 20 | 20 | $43 |
| Mon Reve | 234-2242 | Mrs. Ellis | 7 | 6 | $53 |
| Ocean Court | 238-1741 | Mrs. Southern | 13 | 13 | $115 |
| Packwood Home | 234-1459 | Mrs. C.Simmons | 28 | 28 | $79 |
| Pine Tree Place | Phone No | Unobtainable | | | |
| Shady Rest | 234-0613 | Mrs. Burch | 7 | 4 | $39 |
| Simons Rest | 238-0851 | Mrs. Simons | 5 | 5 | $57 |
| Westmeath | 295-2451 | Mrs. Gibson | 29 | 29 | $46 |
| Whispering Hope | 238-3875 | Mrs. Jones | 6 | 6 | $49 |
| Yellow Roses | 297-2966 | Mrs. Griffith | 9 | 8 | $49 |
| GOVERNMENT | | | | | |
| Lefroy House | 234-0525 | Mrs. Swan | 57 | 55 | $45 |
| HOSPITAL | | | | | |
| Extended Care, K.E.M.H. Upper | Ext. 1435 | Mrs. Glasgow | 35 | 35 | $177 |
| Extended Care, K.E.M.H. Lower | Ext. 1487 | Mrs. Simmons | 39 | 38 | $177 |
| Alzheimer Unit | Ext. 1546 | Mrs. Smith | 30 | 27 | $177 |

Notes:

1. Upon contacting the above homes, rates were quoted per week, per month and per day -- the per day rate for ease of comparison has been standardised.

2. Parish Rest Homes sometimes charged by percentage of pension received by occupants, e.g. Devonshire Rest Home charges 2/3rd. of pension and Sandy's Rest Home charges 3/4 of pension.

3. Lorraine Home charges five different rates depending on whether the occupant is a parishioner of Warwick and/or lives in the old or new wing.

4. Matilda Smith home offers day-care at $100 per 5 day period.

5. Ocean Court facility are self-contained units along the lines of condominiums -- 2 or 3 occupancy per unit - with help available - nearer to the concept of sheltered accommodation and seemingly more luxurious than others.

6. Westmeath has several rates depending on old wing or new wing, self-contained apartment used as accommodation.

7. Whispering Hope used to have 8 beds but Health Department asked them to reduce to 6.

8. Mrs. Burch of Shady Rest felt that there was a good case for a convalescent unit -- a kind of halfway house -- of say 20 beds with rehabilitation facilities which would release the acute care beds and help, for example, amputees to adjust to life in the community, whether in a rest home or not.

**Actual Rates Quoted**

| | | |
|---|---|---|
| Devonshire Rest Home | | $780 per month |
| Lorraine Home | Warwick parishioner | $42 per day |
| | Non-Warwick parishioner | $50 per day |
| | Old wing - Warwick | $20 per day |
| | Old wing - Non-Warwick | $25 per day |
| | Semi-private | $35 per day |
| Pembroke Rest Home | | $60 per day |
| St. George's Rest Home | | $400 per month |
| Sandy's Rest Home | | $480 per month |
| Golden Serenity | | $1600 per month |
| Mangrove Lake | | $1800 per month |
| Matilda Smith | | $1300 per month |
| Mon Reve | | $375 per week |
| Ocean Court | | $3500 per month |
| Pine Tree Court | number unobtainable | |
| Shady Rest | | $1200 per month |
| Simons Rest | | $400 per week |
| Westmeath | New wing - single | $1404 per month |
| | Old wing - single | $1275 per month |
| | Self contained apt. | $2105 per month |
| Whispering Hope | | $1500 per month |
| Yellow Roses | | $1500 per month |
| Lefroy House | | $45 per day ($10 per day - daycare) |
| ECU - Upper, Lower and Alzheimer | | $177 per day |

## APPENDIX 3

**Length of Stay in Selected Countries for Selected Disease Categories** (Days)

| International Classification of Disease Categories | Bermuda | United States of America |
|---|---|---|
| Pulmonary tuberculosis | 34.0 | 13.9 |
| Malignant neoplasm of trachea, bronchus and lung | 14.2 | 8.8 |
| Breast cancer | 10.8 | 7.1 |
| Prostate cancer | 15.0 | 7.2 |
| Diabetes Mellitus | 22.7 | 7.6 |
| Alcoholic psychoses | 5.0 | N/A |
| Alcohol dependence syndrome | 10.2 | 10.7 |
| Inflammatory disease of eye | 9.7 | 3.9 |
| Cataract | 5.5 | 1.7 |
| Otitis | 2.2 | 2.6 |
| Rheumatic fever | 1.5 | 9.1 |
| Hypertension | 7.1 | 5.6 |
| Acute Myocardial Infarction | 9.4 | 8.9 |
| Pneumonia | 10.4 | 7.8 |
| Pneumococcal pneumonia | 10.0 | 7.7 |
| Bronchitis | 3.5 | 3.6 |
| Asthma | 3.7 | 4.8 |
| Ulcer of stomach/small intestine | 14.9 | 7.1 |
| Appendicitis | 4.5 | 4.8 |
| Hernia of abdominal cavity | 4.3 | 3.0 |
| Cholelithiasis | 5.4 | 6.9 |
| Nephritis | 14.2 | 11.0 |
| Calculus of kidney and ureter | 5.7 | 3.6 |
| Cystitis | 7.5 | 6.0 |
| Normal delivery | 3.5 | 2.4 |
| Major puerperal infection | 12.0 | 4.3 |
| Infections of the skin | 8.9 | 7.3 |
| Other inflammatory disease of the skin | 4.5 | 6.7 |
| Osteoarthrosis | 14.8 | 10.2 |
| Intervertebral disc disorders | 5.3 | 6.9 |
| Respiratory distress syndrome | 12.5 | 23.6 |
| Hemolytic disease and jaundice | 3.3 | 7.0 |
| Fracture of neck or femur | 40.0 | 14.2 |
| Sprains and strains of back | 1.0 | 5.6 |

## APPENDIX 4

### ACUTE CARE DISCHARGES APRIL 1992 - MARCH 1993

| Age Group | Endo. Nutrit. | Genito/ Urinary | Digest. | Nerv. Sys./Sense Org. | Resp. Disease | Cong. Abnor. | Musc. | Preg. | Injury | Circ. | Sympt. | Neopl. | Infect. Paras. | Mental Disord. | All Other | Total Disch. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0-1 | 1 | 4 | 33 | 10 | 67 | 6 | 4 | 0 | 17 | 1 | 32 | 0 | 12 | 0 | 15 | 202 |
| 1-14 | 7 | 27 | 81 | 40 | 288 | 18 | 21 | 4 | 131 | 3 | 80 | 3 | 28 | 3 | 25 | 759 |
| 15-19 | 4 | 14 | 19 | 4 | 27 | 0 | 5 | 114 | 82 | 1 | 17 | 2 | 4 | 0 | 18 | 311 |
| 20-34 | 13 | 87 | 114 | 27 | 87 | 4 | 75 | 940 | 239 | 27 | 74 | 9 | 29 | 6 | 79 | 1810 |
| 35-49 | 30 | 117 | 137 | 27 | 91 | 2 | 103 | 172 | 187 | 121 | 74 | 76 | 52 | 35 | 36 | 1260 |
| 50-64 | 32 | 59 | 132 | 28 | 75 | 1 | 76 | 0 | 107 | 194 | 94 | 111 | 50 | 16 | 18 | 993 |
| 65-74 | 36 | 45 | 82 | 40 | 67 | 0 | 32 | 0 | 43 | 168 | 57 | 93 | 9 | 7 | 21 | 700 |
| 75-84 | 19 | 40 | 49 | 41 | 74 | 2 | 43 | 0 | 52 | 175 | 65 | 52 | 8 | 16 | 18 | 654 |
| 85 + | 9 | 12 | 22 | 10 | 17 | 0 | 5 | 0 | 33 | 88 | 38 | 14 | 2 | 4 | 2 | 256 |
| TOTAL | 151 | 405 | 669 | 227 | 793 | 33 | 364 | 1230 | 891 | 778 | 531 | 360 | 194 | 87 | 232 | 6945 |
| % of Total Discharges | 2.17% | 5.83% | 9.63% | 3.27% | 11.42% | 0.48% | 5.24% | 17.71% | 12.83% | 11.20% | 7.65% | 5.18% | 2.79% | 1.25% | 3.34% | 100.00% |

## APPENDIX 4 (cont.)

### Acute Care Discharges From K.E.M.H. -- April 1992 - March 1993

*Observations*

1. Pregnancy accounts for 53.1% discharges in the 20 - 34 year age group and 36.9% in the 15 - 19 year age group.

2. Although "Congenital Abnormalities" is a small classification, there appears to be a dramatic increase between 0 - 1 and 1 - 14 age groups.

3. Digestive problems, injuries and poisonings, respiratory diseases account for 59% of babies discharged 0 - 1 age group. The same three categories also account for 66% of age group 1 - 4.

4. It was not surprising that neoplasms (tumors/cancers) and circulatory problems increased with advanced age group. Neoplasms in the 50 - 64 age group account for 31% of the diagnosis. Similarly, the 50 - 64 age group account for 25% of all circulatory cases.

5. Although not broken down into individual diagnoses for the purposes of this chart, the respiratory disease category is very high for children under 14 years. A more in-depth analysis of figures (not shown) showed that this is probably due, in the main, to asthma and allied diseases. In the 1-14 group (288 out of 759) accounted for 38% of all discharges.

6. Approximately 7% of all discharges are undiagnosed "symptoms"; this percentage rises in the under-14 category.

7. Digestive disorders category show at nearly 10% of the total discharges - this category accounts for many diseases including ulcerative colitis, appendicitis, diseases of the stomach, mouth, duodenum, enteritis, hernias, etc.

8. 20 - 50 age group show as being more susceptible in the injury/poisons category. This group would probably have the highest mobility and the category would include car and bike accidents, fractures and injuries from sport, accidents in the home, domestic violence/abuse, open wounds (including those sustained from criminal attacks, e.g. stabbing) and poisoning/overdoses of drugs or other toxic substances. The 20 - 34 and 35 - 49 age groups account for 48% of all injuries and poisonings. This is in proportion to the percentage of the population - half the population are 20 - 50 in age.

9. Mental disorders increase considerably in the 35 - 49 age group - 41% of total discharges in this category - although overall percentage of total discharges is still low.

*Notes to Data*

a) Although "Blood and Blood Disorders" was a grouping included in the statistics received from K.E.M.H., there was only a total of 96 discharges in all age groups for the year. These have, therefore, been included in the "All Others" category.

b) There is some inconsistency in the data presented, e.g., the Analysis by Diagnoses - Age Category 15 - 19 years chart shows figures different in many categories on the chart from those shown in break-down by code and major category.

| | | | | | |
|---|---|---|---|---|---|
| e.g. | Respiratory Diseases | on chart..... | 19 | on category breakdown..... | 27 |
| | Circulatory Systems | on chart..... | 27 | on category breakdown..... | 1 |
| | Digestive problems | on chart..... | 14 | on category breakdown..... | 19 |
| | Genito-urinary | on chart..... | 114 | on category breakdown..... | 14 |
| | Pregnancy | on chart..... | 5 | on category breakdown..... | 114 |

Similarly, a new chart for the Endocrine, Nutritional Category chart Analysis by Age Group for All Acute Care Discharges has been sent by Ms. Margo Johnston, Statistical Analyst for the Bermuda Hospitals Board as the previous one had an error in the sixth graph of the last section.

## APPENDIX 5

### Screening for Cancer of Uterine Cervix

The American Cancer Society recommends that all women undergo three or more annual smears, starting at the onset of sexual activity, or at 18 years of age, then less frequently at the discretion of the physician. Canadian and British authorities recommend a first smear when initiating sexual activity, or 18 years, a repeat in one year, and if both are negative, a repeat every 3 - 5 years.

In the 1991 census, the female population of Bermuda age 15 years, or more, totalled 14,416.

In 1993, the Cytology Department of KEMH processed 11,035 pap smears, at $34.00 each, for a cost of $375,190.00.

Enquiry of gynecologists and general practitioners indicates the office charge for the examination ranges $30 - $40. Therefore, an additional cost of $386,225 is incurred (at $35.00 per examination). Therefore, the 1993 pap smears cost slightly in excess of $750,000.

In 1993 there were 20 CIN III smears requiring definitive investigation, at a cost of $37,500.00 per positive smear. In 1993 there were four proven carcinomas of cervix, a screening cost of $187,000 per diagnosis of carcinoma.

In 1994 there were six proven carcinoma of cervix and using 1993 smear totals (1994 not available) the screening cost per diagnosis would have been $125,000.00 per carcinoma.

The number of smears in 1993 equals 45% of the Bermuda female population, age 15 years or more.

If all our women were screened every three years 33 1/3% would be done each year (8,138) for $561,522.00. If screened every 5 years, 20% would be done each year (4,883) for $336,927.00

In the USA only 12 - 15% of women routinely undergo screening.

The percentage of Bermuda women having pap smears is not known, but many are not screened.

The 1993 yield of positive pap smears was 0.18%. The 1993 yield of carcinoma of cervix was 0.036%. These yields are so low because our women (those being screened) are being screened too often.

A reasonable guideline would be:

"First pap smear when the woman becomes sexually active, or 18 years of age, whichever comes first, then a repeat in one year, and if both smears are negative, a repeat smear every three to five years."

## APPENDIX 6

**Projections of Bermuda's Population of 2031**

| Age Group Description | Age Group | 2011 | 2021 | 2031 |
|---|---|---|---|---|
| All Ages | | 61,885 | 60,440 | 57,390 |
| Pre-school population | 0 - 4 | 3,664 | 3,665 | 3,409 |
| School population | 5 - 19 | 11,182 | 10,387 | 10,186 |
| Labour force - new entrants | 20 - 29 | 9,600 | 9,236 | 8,249 |
| Labour force - mature | 30 - 39 | 9,886 | 9,982 | 9,400 |
| Labour force - experienced | 40 - 64 | 20,087 | 18,466 | 16,439 |
| Retirees, seniors | 65+ | 7,467 | 8,702 | 9,707 |
| Proportion aged 65+ | | 12% | 14% | 17% |
| Retirees as % of labour force | | 19% | 23% | 28% |

Source: Department of Statistics

**Bermuda population - Age Structure and Changes**

| Age Group | Census Total 1950 | 1970 | 1991 | % Change 1950-1991 | Projection 2011 |
|---|---|---|---|---|---|
| All Ages | 37,403 | 42,640 | 58,460 | 56 | 61,885 |
| Under 5 | 4,863 | 4,664 | 4,051 | - 17 | 3,664 |
| 5 to 16 | 8,664 | 12,687 | 8,765 | 1 | 8,922 |
| 17 to 24 | 5,004 | 6,926 | 6,667 | 33 | 6,511 |
| 25 to 44 | 10,695 | 15,449 | 21,606 | 102 | 19,815 |
| 45 to 64 | 5,899 | 9,262 | 11,975 | 103 | 15,507 |
| 65 and over | 2,135 | 3,342 | 5,396 | 153 | 7,467 |
| Median age | 25 | 27 | 32 | | 37 |

Source: Department of Statistics

## APPENDIX 7

**Consolidated Breakdown by Diagnosis of overseas Claims Paid Exceeding $25,000 - 1993**
*(Data Extracted From Section 1E of the Insurers' Returns)*

| | Number of Cases | ($) | % of Total Overseas Care | Average Claim ($) |
|---|---|---|---|---|
| **Overseas Care - Claims $25,001 - $50,000** | | | | |
| Cancer Treatments | 29 | 1,014,768 | 17.3 | 34,992 |
| Cardiac Surgery/Cardiac Disease | 18 | 615,207 | 10.5 | 34,178 |
| Aneurysms and CVA (Stroke)/CVD | 3 | 126,756 | 2.2 | 42,252 |
| Orthopedic Surgery (Hip & Spinal) | 7 | 249,528 | 4.2 | 35,647 |
| Premature Babies | 2 | 57,016 | 1.0 | 28,508 |
| Miscellaneous | 17 | 594,272 | 10.1 | 34,957 |
| Sub-Total Overseas Care -- $25,001 - $50,000 | 76 | 2,657,547 | 45.2 | 34,968 |
| **Overseas Care - Claims $50,001 - $100,000** | | | | |
| Cancer Treatments | 5 | 329,340 | 5.6 | 65,868 |
| Cardiac Surgery/Cardiac Disease | 8 | 594,637 | 10.1 | 74,330 |
| Aneurysms and CVA (Stroke)/CVD | 3 | 219,397 | 3.7 | 73,132 |
| Orthopedic Surgery (Hip & Spinal) | 2 | 126,330 | 2.1 | 63,165 |
| Transplants & Complications | 3 | 172,627 | 2.9 | 57,542 |
| Miscellaneous* | 5 | 306,419 | 5.2 | 61,284 |
| Sub-Total Overseas Care -- $50,001 - $100,000 | 26 | 1,748,750 | 29.8 | 67,260 |
| **Overseas Care - Claims $100,001 +** | | | | |
| Cardiac Surgery/Cardiac Disease | 1 | 100,454 | 1.7 | 100,454 |
| Aneurysms and CVA (Stroke)/CVD | 1 | 132,008 | 2.2 | 132,008 |
| Orthopedic Surgery (Hip & Spinal) | 1 | 106,101 | 1.8 | 106,101 |
| Premature Babies | 2 | 719,431 | 12.2 | 359,716 |
| Transplants & Complications | 1 | 411,810 | 7.0 | 411,810 |
| Sub-Total Overseas Care -- $100,001+ | 6 | 1,469,804 | 25.0 | 244,967 |
| **Total Overseas Care** | 108 | 5,876,101 | 100.0 | 54,408 |
| **Summary of Overseas Care - All Claims over $25,000** | | | | |
| Cancer Treatments | 34 | 1,344,108 | 22.9 | 39,533 |
| Cardiac Surgery/Cardiac Disease | 27 | 1,310,298 | 22.3 | 48,530 |
| Aneurysms and CVA (Stroke)/CVD | 7 | 478,161 | 8.1 | 68,309 |
| Orthopedic Surgery (Hip & Spinal) | 10 | 481,959 | 8.2 | 48,196 |
| Premature Babies | 4 | 776,447 | 13.2 | 194,112 |
| Transplants & Complications | 4 | 584,437 | 9.9 | 146,109 |
| Miscellaneous* | 22 | 900,691 | 15.3 | 40,941 |
| **Total Overseas Care** | 108 | 5,876,101 | 100.0 | 54,408 |

N.B.* Miscellaneous includes all other claims which have not been allocated to specific categories. As such, claims for gall stones, pancreatitis, colon and liver disorders, hepatitis, anemias, etc., are included here.

Consolidated Breakdown by Diagnosis of overseas Claims Paid Exceeding $25,000 - 1993 (Cont.)

*Memorandum:*

When reviewing the overseas claims paid it is important to remember that:

1) Some claims will have resulted while policy holders became ill while traveling.

2) A large majority of claims were for treatment which could not have been received in Bermuda -- such as by-pass surgery, radiation therapy/cancer treatments, transplants and treatment of premature babies.

3) Companies who supplied data for the above analysis would approximate 92.0 - 95.0% of all claims paid. This figure was arrived at after a review of the annual claims report forming part of the "Government Statistical Returns by Insurers".

4) This analysis was restricted to 1993 since several respondents could not provide details of claims paid for the years 1990 - 1992. Furthermore, no attempt was made to devise projections for this missing data. Secondly, it was not possible to analyze the overseas claims by emergency and necessary versus elective categories since only one of the respondents could provide the data -- and then only for 1993.

## APPENDIX 8

**Overseas Claims Paid Under $25,000 Range – The Medical Reasons Necessitating the Overseas Care**
**(Data obtained from Insurers' Returns)**

1) Chemotherapy drugs not available in Bermuda/Radiation therapy
2) Consultations with various specialists not available locally, e.g. rheumatologists, allergist, neurologist, hematologist
3) Diabetic review
4) Executive/overall check-ups
5) Heart catheterization/angioplasty
6) Knee surgery (microsurgery)
7) Laryngoscopies
8) Lithotropsy
9) Microsurgical techniques to avoid conventional surgery
10) Minor eye surgery, detached retinas
11) Minor reconstructive/plastic surgery
12) MRI testing
13) Partial mastectomies
14) Treatment while traveling, i.e. skiing/car accidents, chest pain, appendicitis, toothaches, fever and influenza.

*Note*: The categories above are those reported by the respondents.

## APPENDIX 9
## SUMMARY OF ANALYSIS OF 25 COMMONLY PRESCRIBED/DISPENSED DRUGS

| | Minimum Price | Maximum Price | Average | Std Dev. | % Std Dev. |
|---|---|---|---|---|---|
| Ventolin Inhaler | $3.32 | $7.59 | $6.13 | $1.57 | 25.6% |
| Zantac 150mg | $22.60 | $37.35 | $33.26 | $6.24 | 18.7% |
| Isordil 10mg | $1.01 | $4.25 | $3.00 | $1.21 | 40.4% |
| Inderal 40mg | $1.58 | $12.88 | $9.38 | $4.23 | 45.1% |
| Hydrodiuril 25mg | $1.00 | $8.00 | $4.50 | $2.45 | 54.4% |
| Augmentin 250mg | $0.75 | $15.73 | $10.94 | $6.04 | 55.2% |
| Indocid 25mg | $4.02 | $7.40 | $6.55 | $1.69 | 25.8% |
| Adalat 10mg | $11.97 | $29.24 | $19.20 | $6.55 | 34.1% |
| Naprosyn 500mg | $19.60 | $49.69 | $29.67 | $10.70 | 36.0% |
| Aldactone 25mg | $3.80 | $11.00 | $7.45 | $2.69 | 36.1% |
| Augmentin Paed. Susp. | $2.05 | $9.85 | $7.45 | $2.69 | 36.1% |
| Nordette | $3.75 | $6.75 | $6.17 | $1.00 | 16.2% |
| Beconase Nasal Spray | $6.30 | $9.85 | $9.08 | $1.30 | 14.3% |
| Ceclor 250mg Tabs | $0.85 | $28.98 | $14.88 | $7.96 | 53.5% |
| Moduretic Tablets | $14.30 | $16.00 | $14.58 | $0.69 | 4.8% |
| Zovirax 200mg Tabs/Caps | $33.68 | $53.20 | $45.18 | $9.04 | 20.0% |
| Mycostatin Oral Susp. | $3.00 | $9.94 | $7.02 | $3.22 | 45.9% |
| Bactrim DS Tabs | $1.52 | $6.76 | $5.29 | $1.85 | 34.9% |
| Amoxil 250mg | $1.40 | $7.89 | $3.01 | $2.74 | 91.3% |
| Capoten 25mg | $5.42 | $38.65 | $29.74 | $12.96 | 43.6% |
| Lasix 40mg | $0.96 | $11.42 | $8.56 | $4.07 | 47.6% |
| Eryped 400/SCC Susp. | $6.31 | $9.79 | $8.97 | $1.49 | 16.6% |
| Isoptin SR 240mg | $102.48 | $139.99 | $129.25 | $15.52 | 12.0% |
| Sinequan 25mg | $3.42 | $8.00 | $5.84 | $1.49 | 25.4% |
| Voltaren 50mg | $29.50 | $47.50 | $42.17 | $8.16 | 19.4% |

## APPENDIX 10

### SOCIAL INSURANCE DEPARTMENT
**Hospital Insurance Commission**
**Health Insurance Plan Benefits**

For you information: with effect from 1st April 1995 the Hospital Insurance Plan provides insurance coverage for the following medical and hospital benefits:

| Benefits | Maximum | Amount (approximate) |
|---|---|---|
| Hospital-inpatient (public ward) | no maximum | - |
| Hospital - outpatient services | no maximum | - |
| Psychiatric hospital | | |
| St. Brendan's only | | - |
| inpatient | 30 days per year | - |
| outpatient | no maximum | - |
| Surgery - in hospital | 70 units | 935.00 |
| Anaesthetist - in hospital | 20 units | 355.00 |
| Medical - doctor's in-hospital visit | 20 units | 425.00 |
| doctor's home visit | 4 units | 67.00 |
| doctor's pre-admission consultation | - | 85.00 |
| Artificial limbs and appliances | - | 10,000.00 |

**Note:**

For medical services the amount payable to the doctor is based on approved rates for the specialist and non-specialist doctors at the time of treatment.

### SOCIAL INSURANCE DEPARTMENT
**Hospital Insurance Commission**
**Health Insurance Premiums**

Premium rate payable under the Government Health Insurance Plan. **Effective 1st April 1996**

(i) Premium rate - $86.00 per month. The weekly and monthly rates are as follows:

| | Employee's rate not exceeding | Employer's rate not less than | Total rate |
|---|---|---|---|
| (weekly) | $9.92 | $9.93 | $19.85 |
| (monthly) | $43.00 | $43.00 | $86.00 |
| **For the non-working spouse** | | | |
| (weekly) | $9.92 | $9.93 | $19.85 |
| (monthly) | $43.00 | $43.00 | $86.00 |

(ii) Premium rates for persons over the age of 65 years not eligible for Government subsidy - $278.00

(iii) Minimum payment - one month's premium.

# HEALTH CARE REVIEW

# NEEDS ASSESSMENT REPORT

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# SECTION 5
# NEEDS ASSESSMENT TASK GROUP REPORT

## 5.1 PURPOSE

The primary purpose of the Needs Assessment Task Group was to assess the adequacy of health status, health resource and utilization data in Bermuda, and to develop a set of health status indicators for the community.

## 5.2 MANDATE

Specific objectives for The task group interpreted its mandate to require a comprehensive review of existing health information systems and databases on the island as well as an assessment of the health information needs of a redesigned and restructured health system.

### 5.2.1 Objectives

This review as set by the task group included:

i. Assess the adequacy of existing surveillance systems and data collection designed to:

- give a demographic profile of the community,
- monitor conditions contributing to morbidity and mortality on the island,
- identify significant health problems in the population along with risk factors and contributing factors,
- monitor health manpower; and
- monitor health resource utilization.

ii. Identify significant gaps in health data collection.

iii. Document local health resources and support systems.

iv. Complete a community health assessment and recommend a process for on-going assessment.

v. Recommend health goals and objectives for the community.

vi. Develop a set of health status indicators for the island.

vii. Recommend model systems for data collection and disease surveillance.

### 5.2.2 Outputs

Outputs for this process as determined by the group were to include:

i. A descriptive review of the islands' health system.

ii. Recommendations for disease prevention and health promotion objectives for the island.

iii. Recommendations for community health status indicators.

iv. Recommendations for a national disease surveillance system for the island.

v. Recommendations for a vital statistics reporting system.

vi. Recommendations for monitoring health manpower needs.

vii. Recommendations for assessing health care resource needs.

viii. Recommendations for monitoring health care utilization by target groups.

ix. Recommendations for health surveys.

## 5.3 METHODOLOGY

### 5.3.1 Workplan

In order to meet their objectives and desired outputs, the members of the Task Group determined a workplan and agreed to:

i. Review the existing collection and analysis of morbidity and mortality statistics through the hospitals, the Department of Health and the Statistical Department.

ii. Review existing systems for the collection and analysis of vital statistics through the Registrar General's Office, the Statistical Department and the Department of Health.

iii. Review surveillance for both communicable diseases and non-communicable diseases and chronic conditions.

iv. Review linkages and information sharing between the hospitals, the public health service, and other agencies.

v. Review models for community health assessment and identify a specific process for community assessment for utilization by the Department of Health.

vi. Review models for disease surveillance and health data collection.

vii. Review models for health goals and health status indicators.

### 5.3.2 Sub-groups

The Task Group formed four sub-groups. Those groups included community assessment, information and surveillance, vital statistics, goals and objectives and manpower. Each sub-group gathered information from literature reviews, document reviews and key informant interviews (KII). Each sub-group identified issues and concerns specific to its area and developed recommendations for further action for consideration by the larger group. The Task Group held round table discussions to assess the information that was collected, to review existing information systems and databases on the island and to assess the capacity of each of the major agencies identified to collect, analyse and disseminate health information and statistics.

## 5.4 MEMBERSHIP

Needs Assessment Task Group - Reports to the Chairman, Steering Committee

| | |
|---|---|
| Co-Chairpersons: | Dr. John W. Cann, Chief Medical Officer, Bermuda Government |
| | Dr. Ronald Lightbourne, Physician (Private Practice) |
| Members: | Mrs. Marlene Christopher, Registrar General, Bermuda Government |
| | Dr. Brenda Davidson, Senior Medical Officer, Bermuda Government |
| | Mrs. Brenda Dale, Management Services Officer, Bermuda Government |
| | Mrs. Margot Johnston-Rego, Statistical Analyst, Bermuda Hospitals Board |
| | Mr. Art Wade, Management Services Officer, Bermuda Government |
| | Mrs Janet Smith, Chief Statistician, Bermuda Government |
| | Ms Cyrlene Wilson. Statistical Analyst, Bermuda Hospitals Board |
| Recording Secretary: | Ms. Susan McCullagh -Bailey |

## 5.5 EXECUTIVE SUMMARY

### 5.5.1 Overview

The overall goal of any health system is to improve the health status of the individuals and the community it serves. In order to improve community health status, it is important to systematically define and characterize the community, identify community health problems, develop strategies and implement programmes to address priority health problems, and monitor the impact of interventions and outcomes. Integrated public health information systems are essential for assessing the health status of the community, evaluating the effectiveness of the health system and prevention programmes, and monitoring progress towards health goals and objectives. Accurate health information is needed to effectively plan and monitor health services.

Government has a legal responsibility for the safety, health and well-being of the community. The Department of Health has primary responsibility for protecting the public health and should play a unique role in community assessment, the development of healthy public policy, administration, health protection, health promotion and quality assurance. Specifically, the Health Department has responsibility for :

- community assessment, i.e. measuring health status, identifying community health concerns, causal and contributing factors, and priorities for action to address these;
- investigating and controlling diseases and injuries;
- promoting a safe and healthful environment, i.e., clean water and air, safe food and facilities;
- providing public health laboratory services to identify health risks;
- measuring performance, effectiveness and quality of the health system;
- assuring access to personal health services; and
- mobilizing the community for action on health issues;
- promoting healthful lifestyles for individuals and the community.

A comprehensive public health information system is essential, for the public health system to perform these functions. It must have the on-going capacity to anticipate, monitor and respond to health problems in the community. Good surveillance data are needed to guide public health practice. Effective public health practice requires: an accurate assessment of the public's health; definition of public health priorities; development and implementation of research and public health programmes to improve health, and evaluation of these programmes.

A community health assessment can be helpful in focusing attention on health goals and the identification of priority health problems. A comprehensive well conducted assessment can help to provide information on the demographic characteristics and the health status of the community, an inventory of available health resources and services, information on utilization of these services and the economic impact of health care on the community. A community health assessment can also provide information characterizing the health behaviour of the community. In addition, it can serve to identify the major health problems affecting the community, identify priority areas for attention and develop an action plan to address identified needs. Finally a community health assessment can serve to measure the impact of agreed interventions and public health actions on the health status of the community.

The development of health goals, appropriate disease prevention and health promotion objectives, and indicators are critical to monitoring changes in the health status of the population, measuring the impact of the health system on health outcomes and assessing the efficiency and effectiveness of the health system. Uniform measures are necessary to monitor health status and measure health outcomes.

The health status of the island's residents can be tracked and analyzed through appropriate surveillance systems; the information collected can be used to help the community to identify priority health problems and determine strategies to address these problems.

### 5.5.2 Current Situation of Health Information

Currently, the principal sources of health information in Bermuda, (summarised in *Appendix A*, page 27) are the vital events registration system (births, deaths and marriages), the hospital data system, and various disease reporting systems. Additional sources of health data on the island include the Census Survey, and surveys conducted by government agencies (Education, Finance, Labour, Home Affairs and Public Safety, Health and Social Services), QUANGOS such as the National Drug Commission, and health-related organizations such as the Bermuda Diabetes Association.

Existing surveillance systems designed to give a demographic profile of the community are adequate. Vital statistics are collected through a variety of mechanisms and from a number of sources. The collection and analysis of information on vital events is coordinated through the Registry General. Registration is considered to be complete, and the data collected is of high quality .

Data collection systems designed to monitor conditions contributing to morbidity and mortality on the island are inadequate. However, some existing systems for data collection are considered to be adequate. The Mortality Surveillance System (MSS) collects information on all deaths on the island to provide information on mortality and mortality patterns. Reporting is complete and the information obtained is considered to be of good quality and accurate. A critical assessment of morbidity surveillance suggests that there is room for improvement. The Notifiable Diseases Surveillance System (NDSS) collects information on all notifiable diseases and conditions for control purposes. Occupation-related conditions are not included in the list of notifiable diseases. The reportable diseases are primarily infectious.

Little information is available on the prevalence of behavioural and environmental risk factors. There is no systematic process in place to collect information from adults on the island on their health behaviours and preventive health practices. Limited data collection takes place in the schools and provides some information on school-aged children and adolescents.

There is no formal system in place for monitoring the overall health manpower needs of the island. The Department of Health maintains a database on existing health resources including health human resources. This database, however, provides information on the total number of active health practitioners but does not indicate gaps or deficiencies in the numbers of practitioners required.

An integrated, comprehensive system for monitoring health resource utilization on the island does not exist. Hospital utilization data is readily available and accurate. Information on utilization in the private sector is not generally available.

### 5.5.3 Gaps in Health Data Collection

There are significant gaps in health data collection. As noted, data on health behaviors and preventive practices is limited or not available. Information on the impact of chronic conditions and acute health conditions such as road traffic accidents and occupational injuries, on the community is not readily available or collected. Data is not collected to assess the outcomes of health-care services and procedures, access to health care services or consumer satisfaction with care.

### 5.5.4 Conclusions/Recommendations

The island lacks a comprehensive, integrated health information system. Limited health information is available to guide health planning and inform policy-makers. Current approaches to public health surveillance are fragmented and are not adequate to address current or potential new challenges to public health

The Needs Assessment Task Group made recommendations in a number of areas relevant to the collection and analysis of health data and the use and dissemination of health information. These recommendations include the following:

#### 5.5.4.1 Vision, Goals and Objectives

***The Ministry of Health and Social Services should:***

*i. Assure development of a clear vision statement for the island's health system;*

*ii. Take the lead in developing a set of health goals for the island, and*

*iii. Take steps to secure a commitment to the vision for health and the health goals developed for the island from all stake-holders, including:*

- *the general public*
- *health care providers and professional organizations*
- *advisory groups*
- *the hospitals and other human services agencies, and the government*

### 5.5.4.2 Community Health Assessment

*The Department of Health should:*

i. *Assure and facilitate completion of a community health assessment;*

ii. *Facilitate the identification of priority health-problems based on the results of the community health assessment;*

iii. *Develop a public health plan for the island based on the result of the community health assessment and the identification of priority health problems;*

iv. *Develop a set of health promotion and disease prevention objectives for the island;*

v. *Develop a process to monitor health promotion and disease prevention objectives and identify significant gaps;*

vi. *Develop a set of health status indicators for the island - these indicators should be outcome measures rather than process measures;*

vii. *Use a standardized format, such as the Assessment Protocol for Excellent in Public Health (APEX/PH), the department should conduct a community health assessment process on a regular basis. Every two years is recommended;*

viii. *Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to set priorities.*

ix. *Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to develop strategies to address priority health problems.*

### 5.5.4.3 Capacity/Infrastructure

**The Department of Health should:**

i. *Examine its roles and responsibilities with regard to community health assessment. It should assess its capacity to provide information and data analysis to policy makers (i.e. the Minister and the Cabinet) with periodic information and data analyses concerning priority health problems, using a standardized process such as APEX/PH;*

ii. *Assess its technical capability to collect, analyse, interpret, and disseminate health data;*

iii. *Assess its capacity to monitor established health goals and identified disease prevention and health promotion objectives;*

iv. *Assess its technical ability to conduct periodic health surveys;*

v. *Evaluate its access to epidemiological expertise to provide for the interpretation of health data. The department should consider formal arrangements with an external public health agency; and*

*The Registrar General should assess the capacity of the Registry General to collect and analyze health data in a timely manner.*

5.5.4.4 Public Health Information System

***The Ministry of Health and Social Services should** take the lead in developing a comprehensive integrated Public Health Information System (PHIS) linking vital record, hospital data and disease surveillance systems.*

***The Minister of Health and Social Services should*** appoint a Steering Committee to oversee the PHIS. The committee should include representatives from the public health service, the Hospitals Board, the Statistical Department, the Registrar General's Office, as well as health care providers.

***The PHIS Steering Committee should:***

i. *Manage the development and operation of quality data management systems.*

ii *Manage linkage of health information systems in both the public and private sectors.*

iii. *Assure appropriate data-sharing, and data-transfer between the Department of Health, the Bermuda Hospitals Board, the Registry General and the Statistical Department. The Committee should set standards for data-transfer and use and recommend standards for data collection.*

iv. *Develop an integrated data plan for health assessment involving the vital records, hospital data and disease surveillance systems.*

v. *Recommend standards for the collection, analysis and reporting of data used in the community health assessment process.*

vi. *Include systems for the surveillance of administrative data, birth defects/disabilities, selected behavioral risk factors, selected cancers, communicable diseases of public health importance, selected non-communicable (chronic) diseases, injuries and accidents, occupational illness and injury, vaccine-preventable diseases and vital statistics. In addition, it should provide for pharma co-surveillance.*

***The Department of Health should:***

i *Maintain a database on health facilities, human resources, health services and health related organizations.*

ii. *Together with the Hospitals Board explore the feasibility of a computer network linking the hospital, health care providers (physicians) and the public health service.*

iii. *Maintain a computerized management information system that allows for the analysis of administrative, demographic, epidemiological and service utilization data, to provide information for planning and evaluation purposes.*

iv *Enter into formal agreement with the Hospitals Board, the Statistical Department and the Registrar General, concerning the collection, use and transfer of health data; these agreements should be reviewed at least biennially.*

v. *Assure the collection and dissemination of information, based on a sample of the population, on health behaviors, and preventive practices. Behaviour risk factor surveys should be instituted using a standardized format such as the Behaviour Risk Factor Surveillance System (BRFSS) developed by the Centres for Disease Control (CDC).*

vi. *At least every five years convene a round-table discussion with key individuals and organizations involved in public health to review their goals, their perceptions of their roles, authority and needs. This group should include:*

- *other government agencies*
- *interest groups and professional associations*
- *the hospitals and other potential stake-holders.*

### 5.5.4.5 Dissemination of Health Information

*The Registrar General should produce quarterly vital statistics reports.*

*The Department of Health should:*

i. *Produce annual reports on the health status of the population.*

ii. *Disseminate information on health data to the public on a regular basis through a newspaper column or a regular newsletter;*

iii. *Make health information and data available to interested community groups and organizations for their health related activities (i.e. Allan Vincent Smith Foundation, Diabetes Association);*

*The Chief Medical Officer should:*

i *Produce annual "Report Cards" on the health status of children and the elderly; (see Appendix*
N, *page 56)*

ii. *Compile an annual listing of health-related information systems and databases maintained in the community (i.e. Cancer Registry).*

## 5.6 OVERVIEW OF HEALTH CARE NEEDS

### 5.6.1 Health-care system

It is generally accepted that a comprehensive health care system should provide certain essential health care services including

- public health and preventive medicine;
- emergency medical care;
- acute care or non-emergency care;
- in-patient or hospital care;
- long-term care and rehabilitation;
- mental health

These may be categorized as health promotion, disease prevention and health maintenance services and treatment of diseases and rehabilitation.

Traditionally, the health system has been considered to consist of two components:

- the public health system and
- the personal health system.

The goal of the health system is to improve the health status of both individuals and the whole population. Public health differs from the personal health care system by its focus on population groups rather than on individuals and its emphasis on disease prevention and health promotion and health protection. The personal health system focuses on the treatment of disease and seeks to cure illness and to maintain health.

Acute care rather than disease prevention or health promotion have been the major focus of the health care system. However, there is growing recognition of the importance of disease prevention as an effective means of improving health status. Attempts to shift the focus of the health system from medical care to health care, from curative medicine to preventive medicine and from illness to wellness have lead to a greater emphasis on clinical preventive services and to increased monitoring and assessment of the effectiveness of medical practice and clinical interventions, particularly preventive measures.

Efforts to reform the health system have focused on two main areas: controlling health system costs; and ensuring access to basic health care services. It is increasingly clear that attention must also be focused on improving the health status of the population as a whole. To improve the health status of the whole population, the health system must ensure a reasonable standard of care for everyone.

Strategies developed to refocus the health system and to target health outcomes and improvements in health status have concentrated on :

- restructuring the personal health system;
- strengthening the public health system; and
- enhancing the infrastructure of the health system through the development of integrated health information systems.

### 5.6.1.1 Public Health

There have been several analyses of public health and its role in the health system, during the past two decades. Four major reports from the National Academy of Sciences in the United States have called for a stronger public health system. In 1988, the Institute of Medicine (IOM) published a report, The Future of Public Health, which defined the mission of public health as fulfilling society's interest in assuring conditions in which people can be healthy. According to the report, public health aims to generate organized community effort to address public health priorities and to apply scientific and technical knowledge to prevent disease and promote health. The goal of public health is prevention of disease, injury, disability, and premature death. To carry out its mission, the public health agency must have an effective administrative structure in place, with good financial and personnel management systems.

The focus of public health is population-based prevention. Prevention includes:

- primary prevention which reduces the susceptibility or exposure to health threats (i.e. immunizations, health education, health promotion).
- secondary prevention, which most often detects and treats disease in early stages. (i.e. mammography to detect breast cancer),
- tertiary prevention, which alleviates some of the effects of disease, injury or disability. (i.e. surgery, physical therapy, medication).

A report of the Core Functions Project, Health Care Reform and Public Health, suggests that the reformed health care system can be envisaged as a pyramid. At the pyramid's base are public health and population-based programs aimed at disease prevention, health protection, and health promotion. Resting on the base

in ascending tiers are: primary health care services for individuals, including clinical preventive services; secondary health care services; and, finally, tertiary health care services. (See *Appendix B*, page 38)

The IOM report identified three core functions of public health:

- assessment,
- policy development, and
- assurance.

These three functions are all linked in an on-going process.

1. Health assessment includes the collection, analysis, and dissemination of information on the health of the community, including health status measures and community health needs, population groups at greatest risk, health care services, and resources.

2. Assessment leads to policy development, a process of considering alternatives for action. Public health policy development involves making decisions about the relative importance of health problems.

3. The assurance function involves responsibility for ensuring that individuals and groups get the services needed to achieve agreed-upon health goals, by providing services directly, or by encouraging private sector actions.

The U.K. government outlined its proposals for development of a health strategy for England in a report, Health of the Nation. It identified three similar roles for local health authorities in the U.K. - assessment, assurance and quality assurance.

#### 5.6.1.2 Essential Public Health Services

A number of essential public health services have been identified. These include:

- conducting a community diagnosis;
- preventing and controlling epidemics;
- providing a safe environment;
- measuring performance, effectiveness and outcomes of health services;
- research; and
- mobilizing the community for action.

To effectively deliver these services, public health agencies must have the capacity for community health assessment, the development of public health policy, administration, health promotion, health protection, quality assurance and community empowerment. Community health assessment requires the capacity to develop, and operate health information systems designed to collect, analyze and monitor health data. In addition it requires the capability to conduct community assessments.

Public health policy is established with the involvement of many groups and individuals, including government, non-governmental organizations and health-related community groups, health care providers and public health professionals. Public health agencies must have the technical ability and resources to provide decision makers with accurate health information and analyses of specific health issues and problems. To carry out its mission, the public health agency must have an effective administrative structure in place, with good financial and personnel management systems.

### 5.6.1.3 Health Promotion

Health promotion includes health education and the fostering of healthful living conditions and lifestyles. Public health agencies must have the capacity to communicate health information to individuals , health care providers and the community as a whole. In addition they must have the ability to work with other agencies and the community on an on-going basis to assure the implementation of health promotion programmes to address health risk factors and positive health behaviors.

### 5.6.1.4 Clinical Preventive Services

Clinical preventive services include screening tests for the early detection of diseases, immunizations and prophylactics to prevent disease, and health education and counselling to modify risk factors that lead to disease.

Preventive services for the early detection of certain health conditions have been associated with substantial reductions in morbidity and mortalilty; many of the major causes of morbidity and mortality can be prevented, or postponed by immunizations, healthful lifestyles, or detected early through screening tests and treated effectively.

In general, preventive services should not be used unless they have been demonstrated to be effective. Ineffective interventions may be costly and in some cases, harmful. There is basic agreement among most authorities about recommendations for most types of preventive care. The Canadian Task Force on the Periodic Health Examination (CTEPHE), appointed by the Canadian Government, developed criteria to assess the quality of research evidence on clinical preventive services and examined preventive services for over 78 health conditions in 1979. Its recommendations were updated in 1994 in the "*Canadian Guide to Clinical Preventive Health Care.*" Starting in 1984, the U.S. Preventive Services Task Force (USPSTF) commissioned by the U.S. Public Health Service, made scientific assessments and developed recommendations on preventive services. Its recommendations were first published in 1989 as the "*Guide to Clinical Preventive Services.*" Important findings from the USPSTF can be summarized as follows:

- interventions that address patients' personal health practices are vitally important; effective interventions that address personal health practices are likely to lead to substantial reductions in the incidence and severity of the leading causes of diseases and disability;
- the clinician and the patient should share decision-making; and
- for some health conditions, community-level interventions may be more effective than clinical preventive services.

Public health surveillance is critical to the assessment function (see *Appendix C*, page 39). Public health surveillance may be defined broadly as the ongoing systematic collection, analysis, interpretation, dissemination, and use of health information. A public health surveillance system may be defined as a comprehensive system for public health surveillance based on a network of data systems that provide information on the population, health conditions and the health system. This includes information on:

- morbidity, mortality and disability from acute and chronic conditions; and injuries;
- occupational risk factors associated with illness and premature death;
- environmental risk factors;
- personal (behavioral) risk factors;
- health services (preventive and treatment);
- health services costs; and
- health care resources (i.e.,manpower).

A variety of data sources are essential to a comprehensive, integrated public health surveillance and information system and should include population surveys, birth and death certificates, clinical records, as well as laboratory and administrative data. Routine surveillance data can be collected from a number of data systems, including notifiable diseases, vital statistics, registries, health surveys and administrative data systems.

The objectives of a surveillance system include:

1. detecting health problems in the community (including determining the magnitude of the problem); detecting outbreaks or epidemics;
2. documenting the spread of health problems;
3. providing quantitative estimates of the magnitude of morbidity and mortality;
4. describing the clinical course of disease;
5. identifying potential risk factors;
6. epidemiological research; and
7. assessing control and prevention activities.

In addition, a surveillance system can serve to detect changes in health practice and to facilitate planning.

A surveillance system may be evaluated to determine whether it serves a useful public health function and whether it meets stated objectives. An evaluation may focus on a number of areas, including:

- the public health importance of the condition(s) under surveillance;
- the system (objectives, case definitions, components and operation);
- the usefulness of the system;
- the systems attributes (simplicity, flexibility, acceptability, sensitivity, predictive value, representativeness and timeliness); and
- the resources used to operate the system.

### 5.6.1.5 Health Goals

The development of health goals, appropriate disease prevention and health promotion objectives, and indicators are critical to monitoring changes in the health status of the population, measuring the impact of the health system on health outcomes and assessing the efficiency and effectiveness of the health system. A number of countries have developed strategic plans to improve the health status of their citizens. National health goals and objectives have been established by Australia, WHO European region, the US and the United Kingdom as well as a number of other countries.

In 1977 the Health Assembly of the World Health Organization resolved that the main social target for governments and WHO should be "the attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life". The Assembly approved a definitive global strategy for health for all by the year 2000 and has subsequently established global targets for health and global indicators.

The US Public Health Service adopted a goal setting strategy in 1979. The report, Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention concluded that further improvements in health for the US population were most likely to be achieved through disease prevention and health promotion rather than through increased medical care services. It recommended goals by age groups and recommended action in five priority areas: smoking, high blood pressure, alcohol consumption, nutrition, and physical activity.

Healthy People 2000 established four national goals;

- to prevent unnecessary disease and disability,
- to achieve a better quality of life,
- to reduce disparities in the health status of minority populations, and
- to achieve better access to preventive services for all Americans.

The report identified 365 objectives for the year 2000. A companion document, Healthy Communities 2000: Model Standards, provided a tool for communities to adapt national objectives from Healthy People 2000 to their local needs.

In 1991, The Health of the Nation, set out proposals for a health strategy for England. It recommended five key areas for immediate action and targets for the year 2000 and beyond.

Health status measures are important for identifying problem areas and for monitoring progress towards health goals and health promotion and disease prevention objectives. There are various measures of health status. Conventionally, the health status of populations have been measured using vital statistics and mortality rates. There are few established, positive measures of health.

Standard guidelines for clinical preventive services have been established. Breslow and Somers proposed a life-time health monitoring programme, incorporating health goals and professional services for 10 age groups. The Canadian Task Force on the Periodic Health Examination was established in 1976 to review the effectiveness of clinical preventive services. The US Preventive Services Task Force published its Guide to Clinical Preventive Services in 1989. It recommends more than 100 preventive interventions for 60 target conditions.

### 5.6.1.6 Community Health Assessment

A community health assessment can be helpful in focusing attention on health goals and the identification of priority health problems. A comprehensive well conducted assessment can help to provide information on the demographic characteristics and the health status of the community, an inventory of available health resources and services, information on utilization of these services and the economic impact of health care on the community. A community health assessment can also provide information characterizing the health behaviour of the community. In addition, it can serve to identify the major health problems affecting the community, identify priority areas for attention and develop an action plan to address identified needs. Finally a community health assessment can serve to measure the impact of agreed interventions and public health actions on the health status of the community.

There are two approaches to community assessment. The first relies heavily on active community participation. The second approach provides for an initial assessment by professionals with follow-up consultation with the community.

A community assessment can take many different forms. A simple assessment entails a basic review of existing data. An intermediate assessment involves a basic review of existing data and a brief survey of key community informants, while a comprehensive assessment includes a review of existing data plus a detailed survey of key community informants, health care providers and the community.

There are several models of the community health assessment process, including the Assessment Protocol for Excellence in Public Health (APEXPH), Planned Approach to Community Health (PATCH), and Healthy Cities. Effective models contain the following elements:

- an assessment of the community's organizational structure;
- community participation (in setting priorities and in problem solving);
- an assessment of the community's health needs using science-based data;
- a process for setting priorities in light of community resources;
- the development and implementation of intervention strategies; and
- monitoring and evaluation.

A community health assessment may involve several phases (See *Appendix D*, page 40). The first phase involves development of a community health profile and entails the collection of data and information on the community, including demographic data, information on health care resources and health status indicators. The second phase involves an assessment of self-reported health behavior, development of a community health resource inventory, and an economic impact assessment. The third phase focuses on using the information collected in the previous two phases to prioritize community health needs. This may be accomplished through a number of different methods. The fourth phase involves the development of a community action plan. The final phase entails the implementation and evaluation of community health interventions.

## 5.7 CURRENT SITUATION

### 5.7.1 Existing Surveillance and Health Data Collection Systems

Existing surveillance and health data collection systems on the island include: vital statistics, notifiable diseases, mortality surveillance and hospital administrative data systems (See *Appendix E*, page 41.) Additional sources of information include the Census Survey, and reports published by the Ministry of Finance and the Statisticians Office.

### 5.7.2 Vital Events Registration

The existing vital events registration system provides for the collection, analysis and dissemination of basic data on vital events on the island.

The Registrar General is responsible in law for the civil registration of vital events consisting of all births, deaths and marriages. The reporting of vital events is mandated under a number of statutes, including:

Registration (Births and Deaths) Act, 1949
The Marriage Act, 1944
Matrimonial Causes Act, 1974
Adoption of Children Act, 1963
Merchant Shipping Act, 1979 - The Merchant Shipping (Return of Births and Deaths) Regulations, 1980

Vital events are reported through a variety of mechanisms. All births must be registered within a specified time-frame. The Registrar General's Office follows up on all outstanding registrations through direct contact with the parents of the newborn. All deaths must be certified by a physician and registered within a specified time frame. Death certificates are forwarded to the Registrar General. Marriage Officers are required to notify the Registrar General of all marriages. The divorce records of the Supreme Court Registry are utilized by the Registrar General's Office to determine divorce rates for the island.

The Department of Health and the Bermuda Hospitals Board both collect some vital statistics along with the Registrar General. The Hospitals Board only collects data on vital events such as births and deaths occurring within the hospitals. The raw data is captured on the GTE MIRA inpatient abstracting system, processed by CIHI in Canada and returned to the Board in report form on a monthly, quarterly and annual basis. Data are tabulated and graphed. Simple rates are calculated and assessed for trends and to detect changes in patterns.

The Registrar General publishes an annual report, The Annual Report of the Registrar General which contains raw data on selected vital events. The Statistical Department incorporates information on vital events in it's annual publications, the Bermuda Digest of Statistics, Facts and Figures, the Review of Birth Statistics and the Review of Death Statistics. The Department of Health utilizes raw data on deaths and births to produce vital statistics for transmission to the Pan American Health/World Health Organization.

Information obtained from this system is used to support other surveillance programmes. It is also used for prevention and control of notifiable diseases.

### 5.7.3 Mortality Surveillance System

The Mortality Surveillance System (MSS) (*see Appendix F*, page 44) collects information on all deaths on the island to provide information on mortality and mortality patterns. The system is operated under the Public Health Act, 1949

All deaths must be certified by a physician within a specified time-frame. Death certificates are forwarded to the Registrar General; copies of these reports are sent to the Chief Medical Officer. The pathologist for the Bermuda Hospitals Board provides copies of all autopsy reports to the Chief Medical Officer. Coroners' reports are also forwarded to the Chief Medical Officer.

Basic demographic information, date of death and similar data are collected for all deaths. Health department staff obtain additional information as needed on a case-by-case basis. Data are edited for accuracy and validity.

Data are sent to appropriate government agencies (i.e., Statistical Department ) who in turn forward reports to international agencies (United Nations). The Department of Health also forwards reports to international health agencies ( PAHO/WHO).

Reports are reviewed on a case-by-case basis and coded according to the International Classification of Diseases (ICD-9) developed through WHO. Cases are tabulated by age, sex and cause of death and death rates are calculated. Annual summaries are completed. No attempt is made to link information from death certificates for infants with birth certificates, or information on maternal characteristics.Based on simple analyses, assessments of rates according to age, sex , race and specific cause of death are made.

Data is disseminated through the Surveillance Report. An annual report is forwarded to international agencies (i.e., United Nations, PAHO/WHO). Data is used to monitor long-term trends, to identify differences in rates within subgroups of the population.

### 5.7.4 Notifiable Diseases Surveillance System

The Notifiable Diseases Surveillance System (NDSS) (*see Appendix G*, page 45) collects information on all notifiable diseases and conditions for control purposes. Occupation-related conditions are not included in the list of notifiable diseases. The reportable diseases are primarily infectious.

The reporting of selected conditions is mandated under the Public Health Act, 1949.

Health-care providers are required to report notifiable conditions to the Chief Medical Officer within specified time frames. Laboratories and the infection control practitioners (ICPs) at the two hospitals also transmit reports of notifiable diseases to the Department of Health. Standard reporting forms are utilized by ICPs. A clerk in the department calls sentinel physicians on a weekly basis to obtain reports of all notifiable conditions seen in the previous week (physicians may report conditions to the department via telephone or standard forms).

Basic demographic information is collected for all conditions. Additional information is collected on a case-by-case basis as needed. Data are entered manually and edited for accuracy and validity.

Reports are reviewed on a case-by-case basis to determine the need for action. Reports are forwarded to appropriate staff of the department for action (i.e., nurse epidemiologist, environmental health officers, community health nurses.)

Data is tabulated, graphed and analysed to detect unusual patterns. Annual summaries are prepared. Data is disseminated through the Surveillance Report. In addition monthly reports are forwarded to the Caribbean Epidemiology Centre (CAREC). Information collected is used for the prevention and control of notifiable diseases.

### 5.7.5 Hospital Data Systems

The hospital data systems include both administrative and clinical systems. Information on inpatients is collected from the acute care hospital, the hospice and the Extended Care Unit and reported in some detail. Inpatient information is collected from discharge records and entered into computerised data systems (WANG/KEAMED and GTE/HMRI/AS/400 Data Systems). Information is coded according to the International Classification of Diseases (ICD-9). Outpatient information is collected using manual systems and is not coded and computerised.

A number of reports are produced, including:

Discharge Analysis - Patient /Service and Doctor/Service. These are produced on a monthly, quarterly and annual basis.

Indices - Diagnosis, procedure, patient service, doctor service and physician. These reports are compiled on a monthly and annual basis.

Listings - Chart listings (lists all coded patient information), Chart Listings Addendum (summary of all special projects), Death Supplementary and Alternate Level of Care

Length of Stay - Hospital/Patient, Service and case mix comparisons to a Canadian database.

## 5.8 GAPS IN SURVEILLANCE AND HEALTH DATA COLLECTION SUPPORT SYSTEMS

There are significant gaps in health data collection. The island lacks a comprehensive, integrated health information system. Current approaches to public health surveillance are fragmented and are not adequate to address current or potential new challenges to public health.

Existing surveillance systems designed to give a demographic profile of the community are adequate. There are no significant gaps. Vital statistics are collected through a variety of mechanisms and from a number of sources. The collection and analysis of information on vital events is coordinated through the Registry General. Registration is considered to be complete, and the data collected is of high quality. The

transfer and sharing of data along with the timeliness of data dissemination have been identified as problems. These are being addressed by the Registrar General.

Data collection designed to monitor conditions contributing to morbidity and mortality on the island are inadequate. However, some existing systems for data collection are considered to be adequate. The Mortality Surveillance System (MSS) collects information on all deaths on the island to provide information on mortality and mortality patterns. Reporting is complete and the information obtained is considered to be of good quality and accurate. A critical assessment of morbidity surveillance suggests that there is room for improvement; little information is available on morbidity patterns. The Notifiable Diseases Surveillance System (NDSS) collects information on all notifiable diseases and conditions for control purposes. The reportable diseases are primarily infectious. Occupation-related conditions are not included in the list of notifiable diseases.

Limited information is available on the prevalence of behavioural and environmental risk factors. There is no systematic process in place to collect information from adults on the island on their health behaviors and preventive health practices. Limited data collection takes place in the schools and provides some information on school-aged children and adolescents. No information is available on adults.

There is no formal system in place for monitoring the overall health manpower needs of the island. The Department of Health maintains a database on existing health resources including health human resources. In addition the Department of Education compiles statistics on students abroad who are studying in health-related areas.

A comprehensive system for monitoring health resource utilization on the island does not exist. Hospital utilization data is readily available and accurate. Information on utilization in the private sector is not generally available.

## 5.9 CONCLUSIONS/RECOMMENDATIONS

Information on health should come from: the community (individuals, population groups within the community and community organizations); health care providers (physicians, the hospitals, laboratories, and the public health service); administrative and government agencies (Registry General, Statistics, Social Insurance, The Hospital Insurance Commission, Personnel, Environment, Law Enforcement, Labor, Immigration and Education); and payers (insurance companies, BHIA).

The public health surveillance system should be based on a network of data systems and should integrate:

- notifiable disease surveillance;
- sentinel surveillance;
- vital statistics;
- health surveys;
- administrative data systems; and
- registries

Multisource data collection by existing agencies (i.e. Department of Health, Registry General, the Bermuda Hospitals Board) should continue. However data collection activities should be standardized and coordinated through a steering committee.

Mechanisms for the transfer of data between agencies (i.e. Department of Health, the Registry General and Department of Statistics and the Bermuda Hospitals Board) must be established.

Data analyses and interpretation should be completed by the appropriate agencies (i.e. Departments of Health and Statistics) according to agreed protocols.

Data should be disseminated on a timely basis to users ( i.e. physicians, the hospitals, the public health service ) to allow for appropriate action or public health response. In addition data should be released on a regular basis to the public, community organizations and policy makers.

The system and its component systems should be reviewed and evaluated on a regular basis (i.e., every three years) to assess its usefulness. The system should be reviewed using established criteria , including: cost, sensitivity, specificity, predictive value positive, representativeness, timeliness, simplicity, flexibility, and acceptability.

The Needs Assessment Task Group made specific recommendations in a number of areas relevant to the collection and analysis of health data and the use and dissemination of health information. These recommendations include the following:

#### 5.9.1.1 Recommendations for Health System Vision, Goals and Objectives

*The Ministry of Health and Social Services should:*

i. *Assure development of a clear vision statement for the island's health system.*

ii. *Take the lead in developing a set of health goals for the island..*

iii. *Take steps to secure a commitment to the vision for health and the health goals developed for the island from all stake-holders (see Appendix H, page 46), including:*

- *the general public*
- *health care providers and professional organizations*
- *advisory groups*
- *the hospitals and other human services agencies, and the government*

The ultimate goal of the island's health system should be to protect and improve the health status of the island's residents. The existing health system focuses on clinical curative and therapeutic services rather than on prevention; it provides a greater response to acute health problems rather than to the prevention of chronic disease. A clear vision statement for the health system should help to shift towards a better balance between the public health and personal health systems. In addition it might help foster greater integration between the two components of the health system.

Many countries have developed strategic health plans incorporating national goals and health promotion and disease prevention objectives. Goals can be set in a number of areas, including: age or population groups, major causes of illness or death, determinants of health or risk factors. There are a variety of methods and criteria that can be utilized to select health goals. Three criteria for the selection of key areas are outlined in The Health of the Nation as follows:

- the area should be a major cause of premature death or avoidable ill-health (sickness and/or disability) either in the population as a whole or among specific groups of people (see *Appendix I*, page 47).
- the area should be one where effective interventions are possible, offering significant scope for improvement.
- it should be possible to set objectives and targets in the chosen area and monitor progress towards achievement through indicators.

Improvements in the public's health require active community ownership and commitment. Many public health problems, such as HIV infection and AIDS, teenage pregnancy and violence are multifaceted and require a coordinated response and are dependent upon the development of community based coalitions and collaboratives.

### 5.9.1.2 Recommendations On Assessment of the Community's Health

***The Department of Health should:***

i. *Assure and facilitate completion of a community health assessment;*

ii. *Facilitate the identification of priority health-problems based on the results of the community health assessment;*

iii. *Develop a public health plan for the island based on the result of the community health assessment and the identification of priority health problems;*

iv. *Develop a set of health promotion and disease prevention objectives for the island;*

v. *Develop a process to monitor health promotion and disease prevention objectives and identify significant gaps;*

vi. *Develop a set of health status indicators for the island; these indicators should be outcome measures rather than process measures;*

vii. *Using a standardized format, such as the Assessment Protocol for Excellent in Public Health (APEX/PH), conduct a community health assessment process on a regular basis. Every two years is recommended;*

viii. *Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to set priorities;*

ix. *Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to develop strategies to address priority health problems;*

A community health assessment can be helpful in focusing attention on health goals and the identification of priority health problems. A comprehensive well conducted assessment can help to establish a baseline of information on the community that can be used in setting goals. It can serve to provide an inventory of the community's resources (see *Appendix H, page 46.*) An assessment can help to provide an understanding of how the health system works and identify gaps and barriers to service delivery. The community health assessment process can help to forge a consensus about the community's health needs.

Healthy Communities 2000: Model Standards represents one approach to establishing goals and objectives. It outlines eleven steps, including:

- Assess and determine the role of the public health agency within the community;
- Assess the agency's organizational capacity;
- Develop a plan to build the necessary organizational capacity;
- Assess the community's organizational and power structures;
- Organize the community to build a stronger constituency for public health and build a partnership for public health;

- Assess the health needs and available community resources;
- Determine priorities;
- Select outcome and process objectives that are compatible with identified priorities;
- Develop community-wide intervention strategies;
- Develop and implement a plan of action; and
- Monitor and evaluate the effort on a continuing basis.

APEXPH and PATCH are two assessment and planning tools that may be used in this process. These two tools are similar. The APEXPH process utilizes a workbook which public health agencies can use to asses their organizational capacity, assess the health status of the community and involve the community in improving public health. The process involves the collection and analysis of community health data, the community's perception of their health status and involvement of a community health advisory committee in a community health planning process. The PATCH process is a health promotion methodology. Key aspects of PATCH include: active community participation in the process and decision making; use of data to guide selection of health priorities, programme development and programme evaluation; development of a comprehensive health promotion strategy based upon analysis of factors that contribute to identified health priorities; and process and programme evaluation emphasizing programme improvement and feedback.

### 5.9.1.3 Recommendations on Infrastructure and Capacity.

*The Department of Health should:*

i. *Examine its roles and responsibilities with regard to community health assessment. It should assess its capacity to provide information and data analysis to policy makers (i.e. the Minister and the Cabinet) with periodic information and data analyses concerning priority health problems, using a standardized process such as APEX/PH;*

ii. *Assess its technical capability to collect, analyze, interpret, and disseminate health data;*

iii. *Assess its capacity to monitor established health goals and identified disease prevention and health promotion objectives.*

iv. *Assess its technical ability to conduct periodic health surveys.*

v. *Evaluate its access to epidemiological expertise to provide for the interpretation of health data; the department should consider formal arrangements with an external public health agency.*

**The Registrar General should** *assess the capacity of the Registry General to collect and analyze health data in a timely manner.*

### 5.9.1.4 Recommendations for Disease Prevention and Health Promotion Objectives.

Recommendations for disease prevention and health promotion objectives are outlined in *Appendix J,* (page 48). Objectives should be explicit and measurable; they should focus on current health status and on anticipated health needs. They state what will happen in changing the status of a health problem. They may be expressed as :

- improvements in health;
- changes to risk factors; and
- changes to the precursors of ill-health.

These objectives were developed by the Task Group after reviewing available morbidity and mortality data for the island. They are intended only as interim objectives until such time as a comprehensive community health assessment has been completed and a process for identifying health needs and determining health priorities has been selected.

### 5.9.1.5 Recommendations for Community Health Status Indicators.

Recommendations for community health status indicators listed in *Appendix K (page 50)*. There are various measures of health status. However there is a lack of consensus on what indicators are the best measures of health status. The most conventional method of measuring the health status of the population is by means of vital statistics and mortality statistics (i.e. infant mortality rates, childhood mortality rates and adolescent fertility rates).

The Pan American Health Organization has developed a set of regional health indicators (see *Appendix E page 41.)* It is generally accepted that development of a small set of standardized health indicators is most useful in assessing the health status of a community on an on-going basis and for comparison with similar communities.

### 5.9.1.6 Recommendations for a Public Health Surveillance-Information System Surveillance System.

*The Ministry of Health and Social Services should take the lead in developing a comprehensive integrated Public Health Information System (PHIS) linking vital record, hospital data and disease surveillance systems.*

*The Ministry of Health and Social Services should appoint a Steering Committee to oversee the PHIS; the committee should include representatives from the public health service, the Hospitals Board, the Statistical Department, the Registrar General's Office, as well as health care providers.*

*The PHIS Steering Committee should:*

i. *Manage the development and operation of quality data management systems.*

ii. *Manage linkage of health information systems in both the public and private sectors.*

iii. *Assure appropriate data-sharing, and data-transfer between the Department of Health, the Bermuda Hospitals Board, the Registry General and the Statistical Department. The Committee should set standards for data-transfer and use and recommend standards for data collection.*

iv. *Develop an integrated data plan for health assessment involving the vital records, hospital data and disease surveillance systems.*

v. *Include systems for the surveillance of administrative data, birth defects/disabilities, selected behavioral risk factors, selected cancers, communicable diseases of public health importance, selected non-communicable (chronic) diseases, injuries and accidents, occupational illness and injury, vaccine-preventable diseases and vital statistics. In addition, it should provide for pharma co-surveillance.*

vi. *Recommend standards for the collection, analysis and reporting of data used in the community health assessment process.*

*The Department of Health should:*

i. *Maintain a database on health facilities, human resources, health services and health related organizations.*

i. *Together with the Hospitals Board explore the feasibility of a computer network linking the hospital, health care providers (physicians) and the public health service.*

ii. *Maintain a computerized management information system that allows for the analysis of administrative, demographic, epidemiological and service utilization data, to provide information for planning and evaluation purposes.*

iii. *Enter into formal agreement with the Hospitals Board, the Statistical Department and the Registrar General, concerning the collection, use and transfer of health data; these agreements should be reviewed at least biennially.*

iv. *Assure the collection and dissemination of information, based on a sample of the population, on health behaviors, and preventive practices; behavior risk factor surveys should be instituted using a standardized format such as the Behaviour Risk Factor Surveillance System (BRFSS) developed by the Centers for Disease Control (CDC).*

v. *At least every five years convene a round-table discussion with key individuals and organizations involved in public health to review their goals, their perceptions of their roles, authority and needs. This group should include:*

- *other government agencies*
- *interest groups and professional associations*
- *the hospitals and other potential stake-holders.*

Recommendations for a comprehensive public health information system are outlined in *Appendix L (page 51)*. Integrated public health information systems are essential for assessing the health status of the community, evaluating the effectiveness of the health system and prevention programmes and monitoring progress towards health goals and disease prevention and health promotion objectives.

A public health surveillance system may be defined as a comprehensive system for public health surveillance based on a network of data systems that provide information on the population, health conditions and the health system. This includes information on:

- morbidity, mortality and disability from acute and chronic conditions; and injuries;
- occupational risk factors associated with illness and premature death;
- environmental risk factors;
- personal (behavioral) risk factors;
- health services (preventive and treatment);
- health services costs; and
- health care resources (i.e.manpower).

### 5.9.1.7 Recommendations for a Vital Statistics Reporting System.

Recommendations for a vital statistics reporting system are outlined in *Appendix M (page 54)*.

### 5.9.1.8 Recommendations for Selected Health Surveys.

*The Department of Health should assure the collection and dissemination of information, based on a sample of the population, on health behaviors, and preventive practices. Behaviour risk factor surveys should be instituted using a standardized format such as the Behaviour Risk Factor Surveillance System (BRFSS) developed by the Centres for Disease Control (CDC).*

Most preventable health problems are related to health behaviors. The Institute of Medicine concluded in a 1982 report that only 10% of premature deaths in the US could be avoided with better access to health care while 70% could be prevented by reducing environmental threats and risky behaviors. Surveys can be helpful in collecting information on health behaviors and practices that either protect against health risks or make those risks higher. Health surveys can be used to measure health status, collect data on risk factors and measure awareness of risk factors.

### 5.9.1.9 Recommendations on Dissemination of Health Information and Data.

*The Registrar General should produce quarterly vital statistics reports.*

*The Department of Health should:*

i. *produce annual reports on the health status of the population.*

ii. *disseminate information on health data to the public on a regular basis through a newspaper column or a regular newsletter.*

iii. *make health information and data available to interested community groups and organizations for their health related activities (e.g. Allan Vincent Smith Foundation, Diabetes Association).*

*The Chief Medical Officer should:*

i. *produce annual report cards on the health status of:*

- *children*
- *the elderly*

ii. *compile an annual listing of health-related information systems and databases maintained in the community (e.g. cancer registry)*

Government has a responsibility to ensure that individuals and the community have access to accurate information on health issues so that they can make informed choices about their health. Information is necessary at all levels of the health system (see *Appendix L*, page 51). Information must be available in a timely manner if it is to be used effectively.

## 5.10 Appendix A BERMUDA'S HEALTH SYSTEM: A DESCRIPTIVE REVIEW

This paper was prepared by staff of the Department of Health. It was revised for the Needs Assessment Task Group. The paper provides a general overview of Bermuda's health system and includes:

- a description of the island's health system and its structure;
- a review of health resources and funding of the health system ;
- some highlights of the current health status of the island's residents; and
- a review of some of the key health problems facing the island.

### INTRODUCTION

Bermuda is a small group of islands located 586 miles east, southeast of Cape Hatteras, North Carolina. The islands cover an area approximately 20.5 square miles and have a maximum elevation of about 260 feet. The climate is subtropical, mild, frost-free and humid. The maximum temperature is 92 degrees Fahrenheit while the minimum temperature is 41 degrees Fahrenheit; the annual rainfall is 60 inches. Hurricanes during the season May to November are the only potential cause of natural disasters.

Permanent settlement began on the islands in 1609 and Bermuda is the oldest self-governing British Dependent Territory. It has a parliamentary system of government. A Cabinet of 11 members is appointed by the Premier, the Legislature consists of a Senate, whose 11 members are appointed by the Governor and a House of Assembly with 40 elected members.

There are virtually no natural resources on the island and it must import almost all of its consumable goods. The economy is based almost entirely on tourism and international company business. About one third of the work force is engaged in wholesale/retail trade, one third in restaurants, and hotels; another third is engaged in community, social and personal services. The country generally shows a small balance of payments surplus; the Bermuda dollar ( BD$ ) is pegged to the US dollar on an equal basis and inflation is estimated at around 6% per annum. Per capita annual income is over US$ 32,000. The recent recession however has had an adverse effect on the island's balance of payments resulting in a decrease in Government revenues.

Education is free in public schools and compulsory up to the age of sixteen. In 1994 a total of 10,499 students were enrolled in both government and private primary and secondary schools, and the Bermuda College. The literacy rate has been estimated as being as high as 97%. Living standards are high, with good housing and well developed transportation and communication systems. Roads are of a good standard and there is a well-developed public transportation system ( bus, taxis and ferries ). Private car ownership is high although restrictions limit this to one vehicle per household. One hundred percent of the population has safe drinking water available in their homes, as well as a hygienic waste disposal.

### DEMOGRAPHIC CHARACTERISTICS

The island's population was estimated at 58,990 in 1993. According to the 1991 Census, the population was 58,460. Fifty-two percent of the population were female and 48% were male. The annual growth rate fell slightly to 0.7%. The island has an 'aged' population. In 1991, 9% of the population was 65 years or older. The median age of the population increased from 29 years in 1980 to 31 years in 1991. The population distribution by age group is shown in the following table:

**Table 1 Selected Age Distributions, 1991**

| Age | Number | Percentage of Total Population |
|---|---|---|
| 0-4 | 4,051 | 7 |
| 5-14 | 7,354 | 13 |
| 15-44 | 29,684 | 51 |
| 65 and over | 5,396 | 9 |

Source: The 1991 Census of Population, Census Office, Bermuda

The racial composition of population has not changed significantly over the past decade. In 1991, 61% of the island's residents were black and 39% white and other races. Data from the census indicate that 75% of the Bermuda-born population was black while the foreign-born population was primarily comprised of whites and other races ( 79% ). There was a significant increase in the foreign-born population since the last census.

Over half of the population belong to three religious groups, Anglican ( 27% ), Catholic ( 15% ) and African Methodist- Episcopalian ( 12% ). In 1991, 13% of the population aged 16 years and older held university degrees, compared with 8% in 1980. Eighty-four percent of this population had completed secondary level education.

The island's labour force increased during the period from 1980 to 1991 by 12%. The number of females in the work force increased by 17%, males by 8%. Women now constitute 48% of the work force. Economic expansion during this period occurred primarily in the financial sector of the economy. However, as the economy entered the recession, unemployment levels reached unprecedented levels. The unemployment level reached 6% in 1991, triple the 2% recorded in 1980. The median annual household income recorded in 1991 was US$ 48,588 a change of 16.4% since 1988 when household income was last measured.

There were 22, 430 households on the island in 1991. There has been a shift from multiple family member households to smaller households with the average number of persons per household dropping from 2.93 in 1980 to 2.61 in 1991. Selected demographic indicators are shown in the table below:

**Table 2 Demographic Indicators - Bermuda 1991**

| | |
|---|---|
| Estimated population | 58,460 |
| Population density (inhabitants per sq. mile) | 3,160 |
| Annual growth rate (%) | 0.7% |
| Population < 15 years of age (%) | 19.5% |
| Population ≥ 65 years of age (%) | 9.0% |
| Birth rate (live births per 1,000 inhabitants) | 16.4 |
| Mortality rate (deaths per 1,000 inhabitants) | 8.09 |

Source: Department of Health , Bermuda, 1992

## HEALTH STATUS OF THE POPULATION

### General Mortality/Morbidity

In general, Bermudians enjoy good health as measured by standard indicators. Life expectancy for females is 78 years compared with 70 years for males. Although life expectancy at birth has continued to improve, the difference between the sexes has continued to widen. Mortality and morbidity patterns have remained the same over recent years. Mortality rates for the population as a whole have not changed significantly. The crude death rate was 8.6 per 1,000 population in 1993. While the birth rate has declined, the infant mortality rate has improved. Selected vital statistics are shown below.

**Table 3 Selected Vital Statistics**

| | 1960 | 1970 | 1980 | 1990 |
|---|---|---|---|---|
| Birth rate | 28.2 | 20.4 | 14.6 | 15.2 |
| Death rate | 8.5 | 7.4 | 7.3 | 7.5 |
| Infant mortality | 31.5 | 15.1 | 13.9 | 7.8 |

Source: Department of Health, Bermuda

Fertility has declined since the 1970's. The general fertility rate in 1993 was 66.0 per 1,000.

In 1993, the leading causes of death on the island were: malignant neoplasms, diseases of the heart, cerebrovascular diseases, AIDS, accidents and violence, pneumonia, diabetes, renal disease and chronic liver disease.

Incidence rates for sentinel health events ( i.e. uncontrolled diabetes, uncontrolled hypertension in adults ) are not readily available. The major, current health problems for Bermudians include cancer, ischaemic heart disease, fatal cerebrovascular disease ( stroke ), HIV infection and AIDS, and accidents ( motor vehicle ).

### Heart disease

Death rates for heart disease remain unacceptably high. In 1993, one of every five deaths was due to ischaemic heart disease. Up through 1992, heart disease was the leading cause of death.

### Cancer

One of every four deaths, was attributed to cancer and cancer has increased in frequency as a cause of death. Rates have increased gradually, primarily as a result of increases in deaths from cancer of the breast and the lung. The major types of cancer include: breast, lung, colon and stomach.

### HIV/AIDS

Incidence rates for sexually transmitted diseases have not altered significantly over the past five years. Reported cases of gonococcal infections have declined, while the rates of reported cases of syphilis, chlamydia and non-specific urethreitis have increased slightly. The rate for herpes has remained about the same.

Human immunodeficiency virus ( HIV ) infection and the acquired immunodeficiency syndrome (AIDS ) are a major public health problem on the island. AIDS was first reported in 1982; at the end of 1993, a total of 247 cases were recorded. Two hundred and thirteen persons with AIDS have died. Females accounted for 20.2% of all reported cases. The majority of cases ( 90.4% ) have occurred in the 20 - 49 year age group while one paediatric case has been recorded. Of the cases reported, 47.4% were reported in intravenous drug abusers and 28.7% in homosexual or bisexual men. The percentage of cases occurring in intravenous drug users has gradually declined while there has been an increase in cases in homosexual and bisexual men and among the heterosexual partners of persons infected with HIV.

**Accidents**

Accidents are a major public health problem with significant morbidity and mortality. Although alcohol analyzers have been introduced, and road safety campaigns are on-going, fatalities from motor vehicle accidents remain high. Accidents represent the major cause of death in the 15 - 34 year old age group. Males are affected disproportionately.

**Health of Children and Youth**

Maternal and child health indicators are good. In 1993, over 95% of pregnant women received prenatal care; 99% were fully immunized against tetanus and all births took place in hospital. A total of 4.1% of newborns had a birth weight of 2,500 grams or less compared with 1992 when there were 7% low birth weight infants.

In 1993, there were 9 deaths of infants under 1 year of age and the infant mortality rate was 9.6 per 1,000 live births. The main causes of death were congenital anomalies and conditions originating in the perinatal period. Over the past decade, the infant mortality rate has ranged from a high of 13.5 in 1986, to 3.2 in 1988.

For infants up to 1 year old, respiratory diseases were the leading cause of hospitalization. For children 1 - 14 years old, the leading causes were respiratory diseases and accidents.

In youths 15 - 19 years old, accidents were the leading cause of death and one of the major causes of hospital admissions along with pregnancy and respiratory diseases.

The incidence of vaccine preventable diseases is low. Immunization against all five of the common preventable childhood diseases ( measles, rubella, DPT, polio and mumps ) have been maintained at consistently high levels. Reported cases of mumps and measles declined considerably after the introduction of the triple vaccine MMR in the 1980's. Immunization against H. influenzae was introduced in 1990.

Obesity is a public health concern. Approximately 90% of children in the 5 - 15 years old age group have weight for age. There is some obesity in this age group.

Decreases in the incidence of dental decay have been dramatic over the past decade and oral health in children is generally excellent. This is largely attributed to a preventive dental care programme for infants and children, that provides free fluoride treatment. The voluntary school-based programme has maintained high participation levels.

**Health of Adults**

According to the 1991 Census, 33,581 persons, over 57% of the total population were between the ages of 25 and 64 years. The most important causes of mortality and morbidity in this segment of the population were chronic diseases and accidents and violence. Substantial increases in mortality occurred in the

population 25 - 44 years old, between 1985 and the present. These increases were due primarily to deaths from AIDS, particularly in males. The leading cause of deaths in 1993 for persons 25 - 34 years old was accidents. AIDS was the main cause of mortality in those 35 - 44 years old.

The major causes of hospital admissions for adults aged 25 - 44 years include childbirth and accidents. For those aged 50 - 64 years diseases of the circulatory and digestive systems and cancers are the leading causes.

### Health of the Elderly

The aged represent the most rapidly growing segment of the islands' population. Among this age group, the leading causes of death include heart disease and cancer. For the elderly 65 - 74 years old, the most common causes of hospitalization included diseases of the circulatory system, cancer and diseases of the digestive system. For those 75 and over, the major causes were diseases of circulatory and respiratory systems. A major study of the elderly was completed in 1991.

## HEALTH CARE

The health care system in Bermuda is made up of both public and private sectors. Responsibility for health falls under the jurisdiction of the Ministry of Health, Social Services and Housing. The Ministry is mandated to promote and protect the health and well-being of the islands' residents and is charged with assuring the provision of health care services, setting standards and providing coordination of the health care system. The Minister of Health sets public policy and reports to the Cabinet. The ministry has responsibility for health planning, and evaluation. There is no central planning agency.

The Ministry comprises several departments and agencies, including Ministry Headquarters, the Department of Health, the Department of Child and Family Services, the Prisons Department, the Department of Financial Assistance and the Housing Corporation. Coordination and control of the Ministry's departments is handled through Ministry headquarters. Each department is responsible for its own operation, under the authority of the Permanent Secretary, and the direction of the department head or director.

The Ministry also has responsibility for the islands' hospitals. These are administered by the Bermuda Hospitals Board, a statutory body appointed by the Minister. Public health services on the island are provided by the Ministry through the Department of Health.

### Human Resources

In general, human resources for the provision of health services are sufficient to meet the country's needs.

### Physicians

There are 81 physicians in active practice on the island. This number is assumed to be in balance with current requirements although there are shortages in some specialty areas. There were 13.8 physicians per 10,000 population in 1993. Physicians are distributed by specialty as shown in the following table:

**Table 4 Physician Population by Specialty 1993**

| Category | Number |
|---|---|
| General/Family Practice | 25 |
| Internal Medicine | 6 |
| Cardiology | 1 |
| Geriatrics | 1 |
| General Surgery | 4 |
| Orthopaedics | 4 |
| Ophthalmology | 2 |
| Otolaryngology | 1 |
| Urology | 1 |
| Paediatrics | 5 |
| Obstetrics/Gynaecology | 4 |
| Radiology | 2 |
| Psychiatry | 6 |
| Anaesthesiology | 7 |
| Pathology | 2 |
| Emergency Medicine | 2 |
| Sports Medicine | 2 |
| Public Health/ Preventive Medicine | 6 |
| | 81 |

Source: Chief Medical Officer, Department of Health, Bermuda, 1994

**Nurses**

Nurses represent the largest group of health care providers in the country; there were 689 licensed nurses, including registered nurses, enrolled nurses and psychiatric nurses in 1993. Registered nurses constitute 75% of the nurses on the island. The greater percentage of nurses are hospital based; a significant proportion of these are non-Bermudian. There is an ongoing nursing shortage in some specialized areas of nursing.

**Dentists**

There are 27 dentists in active practice; five are in the public health service. There are 4.6 dentists per 10,000 population. Most private dentists are in solo practice. Specialized dentistry, i.e. periodontics, orthodontics, etc., is available.

**Mid-level Practitioners**

Health care providers such as nurse midwives are registered but do not provide independent care.

**Allied Health Personnel**

There are a variety of allied health personnel as shown below:

**Table 5 Allied Health Personnel**

| Category | Number |
|---|---|
| Physiotherapists | 15 |
| Speech-Language Pathologists | 7 |
| Nutritionists/Dietitians | 9 |
| Medical Lab Technologists | 40 |
| Radiographers, etc. | 23 |
| Occupational Therapists | 15 |

Source: Council on Professions Supplementary to Medicine, Bermuda, 1994

**Pharmacists**

There are 38 pharmacists who provide a range of services from retail pharmacy to clinical pharmacology. Most pharmacists are employed on a salaried basis.

**Regulation of Health Care Providers and Training**

Licensing is required for most health professions. Regulation of physicians is provided through the Bermuda Medical Council under the Medical Practitioners Act, 1972. Nurses are registered with the Bermuda Nursing Council on an annual basis, while pharmacists are regulated through the Bermuda Pharmacy Council. Dentists are licensed by the Bermuda Dental Board.

**Table 6 Health Care Professions**

| Category | Regulatory Body | Professional Association |
|---|---|---|
| Physicians | Medical Council | Bermuda Medical Society |
| Dentists | Dental Board | Bermuda Dental Association |
| Nurses | Nursing Council | Bermuda Nurses Association |
| Pharmacists | Pharmacy Council | Bermuda Pharmaceutical Association |
| Nutritionists/Dietitians | Council on Professions Supplementary to Medicine | Bermuda Dietetic Association |
| Physiotherapists | Council on Professions Supplementary to Medicine | Bermuda Physiotherapy Association |
| Psychologists | | Bermuda Psychological Association |
| Opticians/Optometrists | Opticians Board | |

Source: Chief Medical Officer, Bermuda

Allied health workers are registered with the Council on Professions Supplementary to Medicine, under the Professions Supplementary to Medicine Act. There are currently no provisions under legislation for the registration of nurse practitioners or physicians assistants.

Legislation governing psychologists has been drafted. There are no regulations on counselors.

No medical schools or graduate medical education programmes exist, continuing medical education is required for hospital based physicians. Refresher courses and a degree programme for trained nurses have been developed at the Bermuda College in conjunction with overseas institutions. A training programme for emergency medical technicians (EMT's) has recently been established.

## HEALTH CARE DELIVERY

Primary health care services are delivered from private physicians offices, government health centres and hospital outpatient clinics. Additional ambulatory care services are provided through specialty clinics and the emergency room at the hospital. A significant proportion of primary health care is delivered through the private sector. The majority of physicians and dentists are independent, private practitioners. Most other health care providers are employed on a salaried basis by the hospitals, the public health service or by private physicians.

There are no health maintenance organizations (HMO);independent practice associations (IPA); or preferred provider organizations (PPO's). There are no provisions for pre-paid medical care.

### Medical Practice

There are a small number of multi-specialty group practices and a limited number of partnerships involving specialists. The majority of physicians are self-employed and in solo practice. Salaried physicians are found in the public health service and in the hospitals.

Primary care physicians ( including internists and paediatricians ) constitute 50% of all physicians in active practice. General practitioners ( family physicians ) and other primary care physicians serve as gatekeepers and co-ordinate care and control access to other specialists. Access to primary care generally available on demand. Office visits are a major portion of physician patient contact. Almost all physicians have admitting privileges at the hospitals.

### Public Health Services

Responsibility for providing public health services rests with the Department of Health. The Department is mandated to provide disease prevention and control, and health promotion services for the island. It serves as a regulatory agency, and monitors food safety, water and air quality. It also provides for a variety of public health services including personal health and dental health as well as environmental health services.

The public health service is substantially involved in providing personal health services and administers a number of traditional public health programmes including: maternal and child health, school health, immunization, communicable disease control, as well as home health care (including, health visiting and district nursing and select specialized care, i.e., AIDS), rehabilitation, health education and health promotion programmes. Services are generally categorical in nature and are provided across socioeconomic lines.

The delivery of public health services is facilitated by the division of the island into three health regions. The Department operates a health centre in each of these regions. These centres offer antenatal care, family planning services, immunizations, child health and other primary care services as well as dental clinics for children.

Private voluntary agencies assisted by Government provide some specialized services, (i.e. community based oncology nursing , personal services for HIV infected persons, etc.).

### Hospitals

There are two acute care hospitals on the island; the King Edward VII Memorial Hospital, a general (community) hospital with 234 beds; and St. Brendan's Hospital, a psychiatric hospital with 166 beds. The King Edward VII Memorial Hospital also has 90 geriatric and rehabilitation beds. Both hospitals are

operated by the Bermuda Hospitals Board which is appointed by the Government. The Board is a corporate body which can be sued. It delegates day to day responsibility for the running of the hospitals to an Executive Director; he or she is assisted by a number of senior managers, including a Chief of Staff, and a Director of Nursing and Patient Services at each hospital. Medical Staff Committees representing the physician staff are involved in the running of the hospitals as well. There are no private hospitals on the island.

The general hospital provides diagnostic and treatment services for patients with a variety of medical conditions (surgical and non-surgical ).Services include: Medicine, Surgery, Paediatrics, Obstetrics and Gynaecology, Rehabilitation and Geriatrics. In addition the hospital provides some specialized and intensive services, including oncology, medical and surgical intensive care, and renal dialysis. A neonatal care unit is being developed. Both hospitals undergo periodic accreditation reviews by the Canadian Council on Hospital Accreditation.

The average length of stay at the general hospital was 8.7 days per admission in 1993; this has remained stable for several years. Average occupancy was 75% and there were 63,905 patient days.

There are no urgent care or freestanding outpatient surgery centres. Outpatient surgery is provided through the hospital. There were over 29,238 patient visits to the Emergency Room in 1993.

In addition to its specialty, ambulatory care clinics, the general hospital operates a primary care clinic for indigent patients.

There are no secondary, or tertiary referral hospitals on the island. However, there are traditional links for the provision of tertiary care with the USA, UK, and Canada.

Funding for the hospital is provided through a variety of mechanisms, including: insurance and Government subsidies. The Government provides an operating grant to the psychiatric hospital.

### Mental Health Services

Mental health services are provided through psychiatrists, psychologists, a psychiatric social worker and mental welfare officers attached to St. Brendan's, the only psychiatric hospital on the island. St. Brendan's provides care and treatment for both mentally ill and mentally handicapped individuals. The hospital operates a day hospital, an outpatient clinic and provides community based services. It maintains a half-way house and is developing additional supported facilities in the community.

With the exception of one psychiatrist in private practice, all of the consultant psychiatrists on the island are employed by the Hospitals Board on a salaried basis.

### Long-Term Care Facilities

Long-term care facilities are operated by the Hospitals Board and the Government. Skilled nursing care facilities include Lefroy House, with 57 beds and the Extended Care Unit at the general hospital, with 90 beds. A hospice facility for the terminally ill, Agape House was opened in 1991; it provides care for individuals with AIDS and other terminal illnesses. It is operated by the Hospitals Board and partially subsidized by public funds. There are eleven residential care facilities for the elderly including nursing homes that provide limited nursing care and personal services and domiciliary care homes that provide room and board and limited assistance with personal services. Most of theses facilities are partially funded through public monies.

## HEALTH CARE FINANCING

The health care system is financed through a variety of mechanisms. Health services are either paid through an insurer, by a government agency or by consumers. There is no universal, publicly funded health insurance. Hospitalization insurance is mandatory for all employed and self-employed persons. Both employers and employees contribute to hospitalization insurance; employers must contribute 50% of the premium costs. Insurance coverage is nearly universal; there is some over insurance. Administration of Hospital Insurance is provided through the Hospital Insurance Commission. Insurance sold by private companies and public agencies is regulated through the Commission, and must provide mandated, minimum benefits ( the Standard Hospital Benefit ).

Health insurance schemes are provided through private companies, public agencies and employers. Government employees are insured through the Government Employees Health Insurance Scheme, while several major employers operate 'approved schemes' to cover their employees. The Hospital Insurance Commission operates a health insurance plan as well, the Hospital Insurance Plan. This plan has an annual open enrollment period designed to ensure access to health ( hospitalization ) insurance for all residents of the island.

There are no restrictions on direct payments to providers by consumers, and physicians may bill patients for charges in excess of standard insurance reimbursement or agreed fee schedules.

A Mutual Reinsurance Fund covers dialysis, kidney transplants, diabetes education and counseling, anti-rejection drugs, hospice care and long-stay ( in-hospital ) patients. It is funded through a compulsory levy on all health insurance premiums collected, and was introduced to spread the cost of high risk claims among all insufers. The fund is administered by the Commission as well. Hospitalization is provided free-of-charge to children and the aged; this is covered through a Government subsidy to the Bermuda Hospitals Board. The subsidies to the hospitals are also administered by the Commision.

Public health services are generally free, or provided at modest cost; they are funded through general revenues.

The prevailing method of payment for doctors and dentists is fee-for-service. There are no government controls on physicians' fees; however a fee schedule for hospital based physician services is established on an annual basis by agreement between the Bermuda Medical Society and the Health Insurance Association of Bermuda.

Government determines overall increases in hospital fees, and regulates the acquisition of major equipment and services.

## HEALTH POLICY

Government health policy places emphasis on several areas including: maternal and child health, health of the school-age child, community nursing for the elderly, dental health, control of communicable diseases, mental health, and alcohol and drug abuse. Population groups designated for special attention include mothers and infants, school-age children, and the elderly. Public policy on health is based on the following:

1. Government should be the provider of last resort, and should serve as the guarantor of public health.

2. All residents of the island should have the opportunity to participate in determining the priorities of the health care system.

3. Individuals, the community and the government share responsibility to maintain the public health and assure conditions in which the individual can maintain and improve his or her health status.

## FUTURE DIRECTIONS

In response to community concerns about escalating health care costs and the quality of health care on the island, Government initiated a comprehensive review of the health care system in 1993, involving providers, consumers, the government and the insurance industry. The review is focused on four major areas: health care costs, financing, quality and needs assessment.

The general practitioner or family physician will probably continue to play the role of 'gatekeeper' and control access to secondary care. It is likely that the island will develop more formal arrangements with preferred providers in the USA and Canada for tertiary care and some secondary care in an attempt to meet the challenge of increased costs. Insurers are facing increased pressure to expand coverage and increase benefits, particularly for the treatment of addictions and preventive services.

Both the Public Health Service and the Bermuda Hospitals Board have focused on the development of additional ambulatory and community-based services, and greater integration of existing community services, particularly for the elderly. There are already expectations that these services should be funded through insurance.

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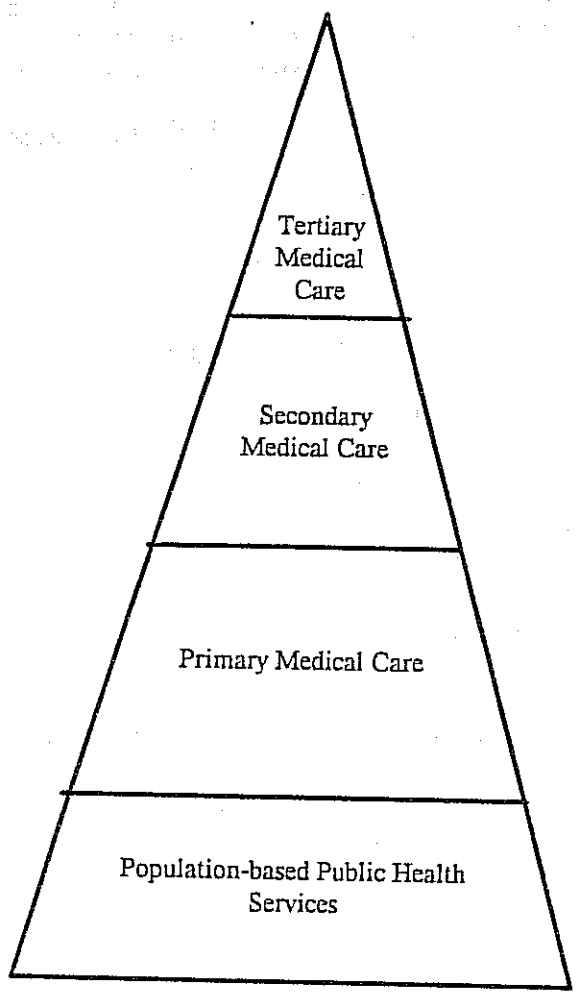
## 5.11 Appendix B

## Health Care Pyramid

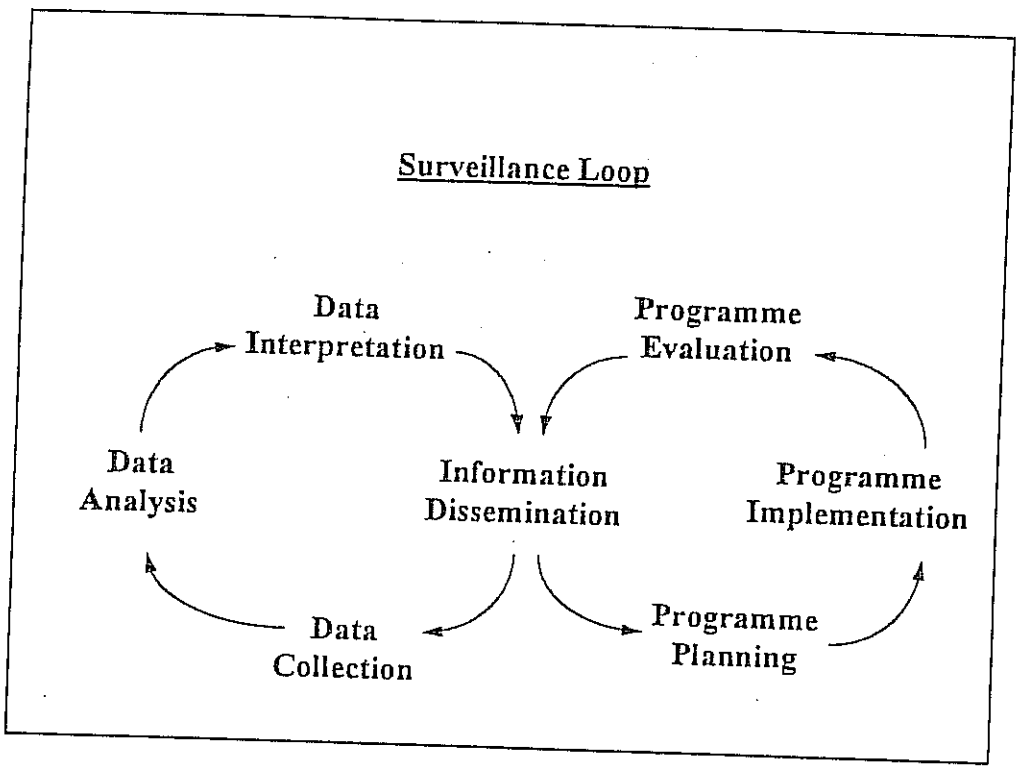
The health care system can be seen as a pyramid, with public health and population-based programmes at the base. Primary health care services including services provided by the family physicians and clinics, form the second tier of the pyramid. Secondary health care i.e. services provided by local consultant physicians and general hospitals form the third tier. Services provided by specialty hospitals and sub-specialists may be viewed as tertiary care.



5.12 Appendix C

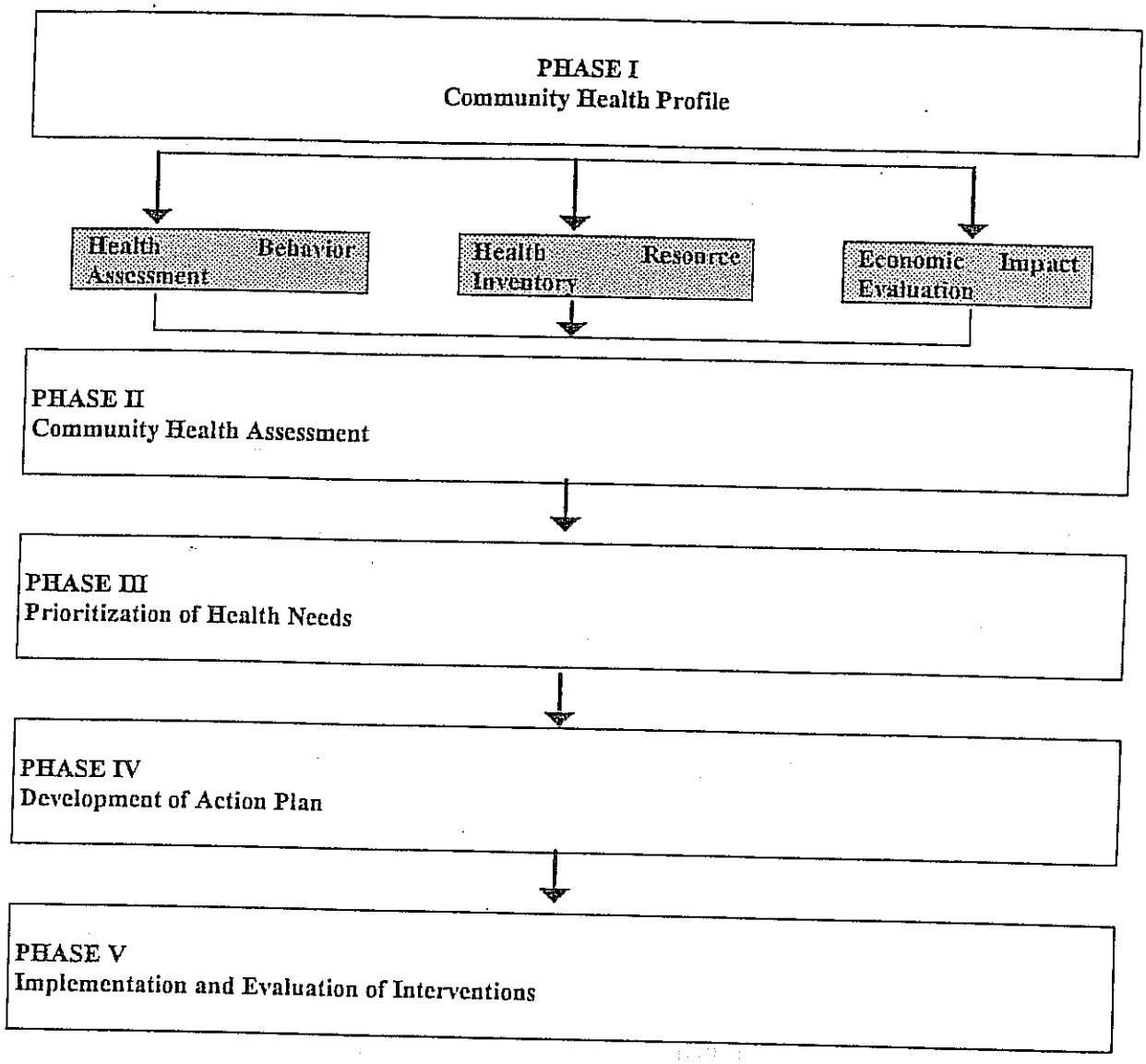
## Public Health Surveillance

| COMPONENT | FOCUS |
|---|---|
| POPULATION | • Fertility<br>• Mortality<br>• Sex Ratio<br>• Population structure |
| HEALTH CONDITIONS | • Disease<br>• Disability<br>• Death<br>• Risk Factors |
| HEALTH SYSTEM | • Accessibility<br>• Utilization<br>• Quality<br>• Efficiency<br>• Resources<br>• Financial |



5.13 Appendix D

Community Health Assessment Process



## 5.14 Appendix E

## Basic Indicators

**Demographic**

- Total population
- Population under 15 years old
- Population 65 years old and over
- Dependency ratio
- Crude birth rate
- Total fertility rate
- Life expectancy at birth

**Mortality and Morbidity**

- Perinatal mortality
- Infant mortality rate
- Under 5 mortality rate
- Maternal mortality rate
- Registered deaths from motor vehicle traffic accidents
- Age-adjusted mortality rate, from communicable diseases
- Age-adjusted mortality rate, from malignant neoplasms
- Age-adjusted mortality rate, from diseases of the circulatory system
- Age-adjusted mortality rate, from non-communicable diseases
- Reported cases of AIDS
- Reported cases of Tuberculosis
- Reported cases of Gonorrhea
- Reported cases of Child Abuse

**Nutritional and Behavior**

- Percentage of newborns with low birthweight (< 2,500 g)
- Infants (0-3 months) exclusively breastfed
- Tobacco consumption per year (kg per capita)

**Resources, Access and Coverage**

- Physicians per 1,000 population
- Nurses per 1,000 population
- Dentists per 1,000 population
- Measles vaccination coverage (< 1 year)
- OPV 3 vaccination coverage (< 1 year)
- DPT 3 vaccination coverage (< 1 year)
- Percentage of population with comprehensive health insurance

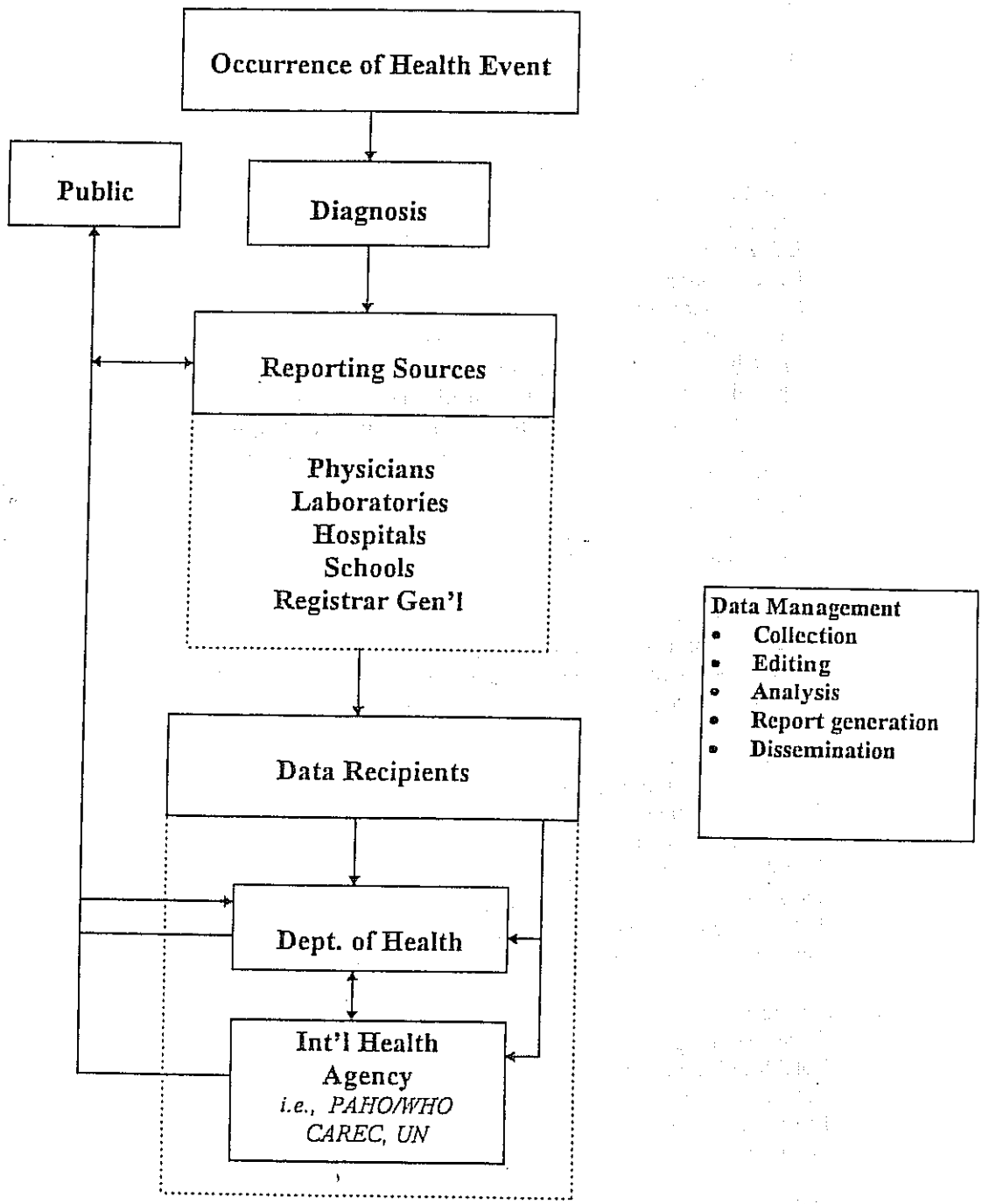
**Health Expenditure**

- Total health expenditure
- Total health expenditure per capita
- Total health expenditure as a percentage of GDP
- Private sector health expenditure as a percentage of GDP
- Public sector health expenditure as a percentage of GDP.

Source: PAHO

5.15 Appendix F

Current Public Health Surveillance System



## Vital Events Registration

APPENDIX F

### Purpose

Provides for the collection, analysis and dissemination of basic data on vital events on the island.

### Legal Basis

The reporting of vital events is mandated under a number of statutes, including:

- Registration (Births and Deaths) Act, 1949
- The Marriage Act, 1944
- Matrimonial Causes Act, 1974
- Adoption of Children Act, 1963
- Merchant Shipping Act, 1979 - The Merchant Shipping (Return of Births and Deaths) Regulations, 1980

### Reporting Mechanism

Vital events are reported through a variety of mechanisms. All births must be registered within a specified time-frame. The Registrar General's Office follows up on all outstanding registrations through direct contact with the parents of the newborn. All deaths must be certified by a physician and registered within a specified time frame. Death certificates are forwarded to the Registrar General. Marriage Officers are required to notify the Registrar General of all marriages. The divorce records of the Supreme Court Registry are utilized by the Registrar General's Office to determine divorce rates for the island.

### Data Collection

The Department of Health and the Bermuda Hospitals Board both collect some vital statistics along with the Registrar General. However, the Registrar General is responsible in law for the civil registration of vital events consisting of all births, deaths and marriages. The Hospitals Board only collects data on vital events such as births and deaths occurring within the hospitals. The raw data is captured on the GTE MIRA inpatient abstracting system, processed by CIHI in Canada and returned to the board in report form on a monthly, quarterly and annual basis.

### Analysis

Data are tabulated and graphed. Simple rates are calculated and assessed for trends and to detect changes in patterns.

### Dissemination

The Registrar General publishes an annual report, The Annual Report of the Registrar General which contains raw data on selected vital events. The Statistical department incorporates information on vital events in it's annual publications, the Bermuda Digest of Statistics, Facts and Figures, the Review of Birth Statistics and the Review of Death Statistics. The Department of Health utilizes raw data on deaths and births to produce vital statistics for transmission to the Pan American Health/World Health Organization.

### Use

Information used for prevention and control of notifiable diseases.

**Purpose**
The Mortality Surveillance System (MSS) collects information on all deaths on the island to provide information on mortality and mortality patterns.

**Legal Basis**
The Public Health Act, 1949

**Reporting Mechanism**
All deaths must be certified by a physician within a specified time-frame. Death certificates are forwarded to the Registrar General; copies of these reports are sent to the Chief Medical Officer. The pathologist for the Bermuda Hospitals Board provides copies of all autopsy reports to the Chief Medical Officer. Coroners' reports are also forwarded to the Chief Medical Officer.

**Data Collection**
Basic demographic information, date of death and similar data are collected for all deaths. Health department staff obtain additional information as needed on a case-by-case basis. Data are edited for accuracy and validity.

**Data Transfer**
Data are sent to appropriate government agencies (i.e., Statistical Department ) who in turn forward reports to international agencies (United Nations). The department of health also forwards reports to international health agencies ( PAHO/WHO).

**Analysis**
Reports are reviewed on a case-by-case basis and coded according to the International Classification of Diseases (ICD-9) developed through WHO. Cases are tabulated by age, sex and cause of death and death rates are calculated. Annual summaries are completed. No attempt is made to link information from death certificates for infants with birth certificates, or information on maternal characteristics.

**Interpretation**
Based on simple analyses, assessments of rates according to age, sex , race and specific cause of death are made.

**Dissemination**
Data are disseminated through the Surveillance Report. An annual report is forwarded to international agencies (i.e., United Nations, PAHO/WHO).

**Use**
Data are used to monitor long-term trends, to identify differences in rates within subgroups of the population.

## 5.16 Appendix G

## Notifiable Diseases Surveillance System

### Purpose

The Notifiable Diseases Surveillance System (NDSS) collects information on all notifiable diseases and conditions for control purposes. Occupation-related conditions are not included in the list of notifiable diseases. The reportable diseases are primarily infectious.

### Legal Basis

The reporting of selected conditions is mandated under the Public Health Act, 1949.

### Reporting Mechanism

Health-care providers are required to report notifiable conditions to the Chief Medical Officer within specified time frames. Laboratories and the infection control practitioners (ICPs) at the two hospitals also transmit reports of notifiable diseases to the department of health. Standard reporting forms are utilized by ICPs. A clerk in the department calls sentinel physicians on a weekly basis to obtain reports of all notifiable conditions seen in the previous week (physicians may report conditions to the department via telephone or standard forms).

### Data Collection

Basic demographic information is collected for all conditions. Additional information is collected on a case-by-case basis as needed. Data are entered manually and edited for accuracy and validity.

### Data Transfer

Reports are reviewed on a case-by-case basis to determine the need for action. Reports are forwarded to appropriate staff of the department for action (i.e., nurse epidemiologist, environmental health officers, community health nurses)

### Analysis

Data are tabulated, graphed and analysed to detect unusual patterns. Annual summaries are prepared.

### Dissemination

Data are disseminated through the Surveillance Report. In addition monthly reports are forwarded to the Caribbean Epidemiology Centre (CAREC).

### Use

Information used for prevention and control of notifiable diseases.

## 5.17 Appendix H — Community Health Resources

| | |
|---|---|
| Government | Ministry of Health and Social Services<br>• Department of Child and Family Services<br>• Department of Financial Assistance<br>• Department of Health<br>Department of Youth and Sport<br>Department of Community Affairs<br>Housing Corporation<br>Ministry of Education<br>Schools |
| Non-governmental Organizations | Bermuda Hospitals Board<br>Bermuda Medical Society<br>Bermuda Nurses Association<br>Bermuda Pharmaceutical Association |
| Health Related Organizations | Allan Vincent Smith Foundation<br>Bermuda Diabetes Association<br>Bermuda Red Cross<br>Bermuda TB and Cancer Association<br>LCCA<br>Meals on Wheels<br>PALS<br>St. John Ambulance Brigade<br>STAR<br>TEEN Services |
| Other Organizations | Bermuda Ministerial Association<br>Coalition for the Protection of Children<br>Lions<br>Rotary<br>Women's Advisory Council<br>Women's Resource Centre |

## 5.18 Appendix I

### Health Problems by Age Group: Bermuda

| Target Group | Problem |
|---|---|
| Infants | Prematurity |
| Children | Usual Childhood Diseases<br>Asthma/Allergies |
| Adolescents | Road Traffic Accidents<br>Pregnancy<br>Nutrition/Inappropriate Diet<br>Exercise<br>Substance Abuse<br>Smoking |
| Young Adults | Inadequate Health Care<br>Substance Abuse<br>Sexually Transmitted Diseases |
| Women | Cancer (Breast/Lung)<br>Sexually Transmitted Diseases |
| Adults | Substance Abuse<br>Nutrition/Obesity<br>Hypertension<br>Diabetes<br>Cancer |
| Seniors | Health Care<br>Housing |

## 5.19 Appendix J Recommended Disease Prevention and Health Promotion Objectives

1. To reduce the morbidity due to coronary heart disease by 20%
2. To reduce the morbidity due to tobacco-related diseases by 20%
3. To reduce the number of regular cigarette smokers to less than 20% of the population over 12 years of age.
4. To reduce the morbidity of alcohol and drug related diseases by 20%.
5. To reduce drug related Emergency Department visits by at least 20%.
6. The rate of high risk and unintended pregnancies will not be greater than 30% of pregnancies.
7. The rate of prenatal care received in the first trimester will be at least 75%.
8. The suicide rate will not exceed 5% of the population.
9. The percentage of people seeking and obtaining support for stress related disorders, depression, and other mental disorders will increase by 20%.
10. The prevalence of overweight teenagers and adults will not exceed 20% of the population (excluding pregnant and lactating women).
11. To increase the percentage of school-age children and adults who engage in regular light to moderate physical activity to at least 50%.
12. To reduce the low birth weight incidence to no more than 1% of live births (excluding multiple births).
13. To reduce the rate of assault injuries by 20%.
14. To reduce the incidence of rape and attempted rape by 20%.
15. To reduce maltreatment of children by 20%.
16. To increase healthy life expectancy by three years.
17. To reduce the infant mortality rate to no more than 7 per 1,000 live births.
18. The incidence of new enrolees to dialysis due to ERSD will be reduced by 20%.
19. The percentage of hypertensive people whose blood pressure is under control will be at least 50%.
20. To reduce breast cancer deaths by 10%.

21. To increase the percentage of women over the age of 40 who have regular mammograms to at least 70%.

22. To reduce the rate of severe complications of diabetes by 20%.

23. To reduce the incidence of newly diagnosed AIDS by 20%.

24. To reduce the reported prevalence of STD's; by 20%.

25. To reduce the reported prevalence of STD's; by 20%.

26. To reduce the incidence of TB by 20%.

27. To assure the availability of home health care services to 80% of people who require it.

## 5.20 Appendix K — Recommendations for Health Status Indicators

1. Infant mortality (per 1000 live births)

2. Death rates (per 100,000 population) for:

   - Motor-vehicle accidents
   - Lung cancer
   - Breast cancer
   - Cardiovascular disease
   - All causes

3. Reported incidence (per 100,000 population) of:

   - Acquired immunodeficiency syndrome (AIDS)
   - Tuberculosis
   - Asthma

4. Incidence of low birth weight (percentage of total number of live-born infants weighing <2500g at birth.

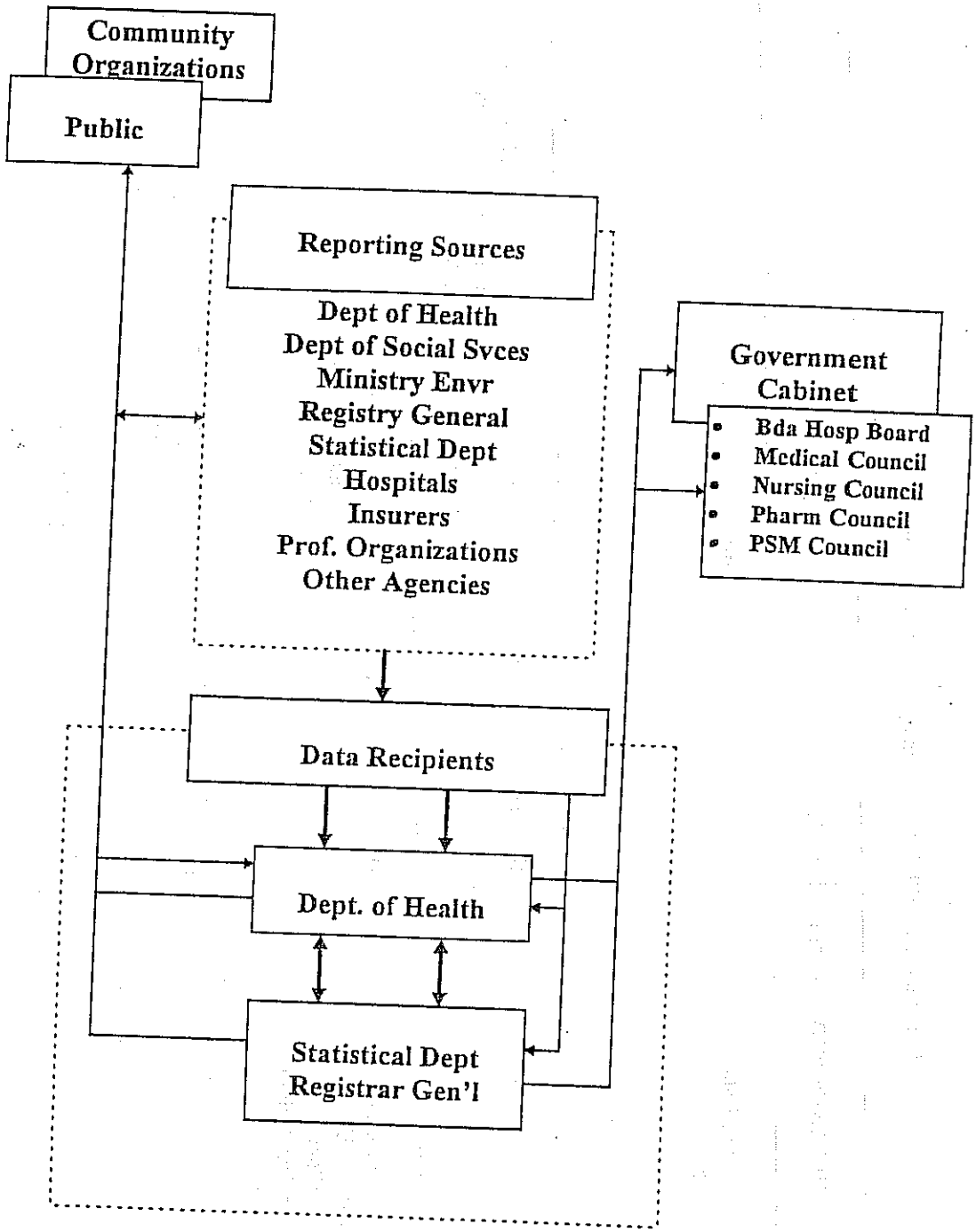
5. Births to adolescents (females aged 10-17 years) as a percentage of total live births

6. Reported number of:

   - Persons seeking treatment for alcohol abuse
   - Persons seeking treatment for substance abuse
   - Confirmed child abuse cases
   - Confirmed cases of domestic violence

5.21 Appendix L

Proposed Health Information System



5.22 Components of the Public Health Information System - Surveillance Programmes

| SURVEILLANCE PROGRAMME | AGENCY | COMMENTS |
|---|---|---|
| Administrative Data<br>• Discharge<br>• Utilization<br>• Cost<br>• Ambulatory care | DOH, BHB, BMS, BHIA, HIC, Insurers | Data sharing required. Useful in determining indicators for performance of the "health care system." |
| Birth Defects/Disabilities | BHB, DOH, Education | Case registries; useful in determining incidence of selected conditions.. Identification of infants and children with special needs; useful in programme planning and resource allocation. |
| Behavioral Risk Factor<br>• Alcohol Use<br>• Nutrition<br>• Physical Activity<br>• Smoking | DOH, NDC, Education | Surveys (adult, adolescent). Useful in detecting trends in behavior that affect health risk. Monitoring the impact of selected services (i.e., mammography screening, smoking cessation programmes, etc.) |
| Cancer | DOH, BHB | Case registries; useful in determining incidence, monitoring of cancer control programmes, and in programme planning and resource allocation. |
| Communicable Diseases<br>• AIDS<br>• STD's<br>• Tuberculosis<br>• Nosocomial infections | DOH, BHB | Active surveillance. Important in prevention and control of communicable disease. |

| SURVEILLANCE PROGRAMME | AGENCY | COMMENTS |
|---|---|---|
| Chronic Disease<br>• Diabetes | DOH, BHB, BDA | Case registry; useful in determining incidence, monitoring survival and mortality. |
| Injury | DOH, Police, Road Safety | Active surveillance required. Useful in determining morbidity and mortality, and in evaluating the effectiveness of prevention programmes and interventions. |
| Notifiable Diseases | DOH | Active surveillance. |
| Occupational Illness and Injury | Health & Safety, Personnel | Surveillance must be linked to preventive action. Useful in monitoring trends and evaluating prevention and control programmes. |
| Pharmacosurveillance | DOH | Passive surveillance; useful in detecting potential problems (misuse, inappropriate prescribing, and adverse reactions). |
| Vaccine-Preventable Diseases | DOH | Active surveillance. Monitoring of vaccine coverage and adverse events associated with vaccination. |
| Vital Statistics | Reg. Gen'l, DOH, BHB | Registries. |

NOTES:

BDA - Bermuda Diabetes Association
BHB - Bermuda Hospitals Board
BHIA - Bermuda Health Insurance Association
BMS - Bermuda Medical Society
BPC - Pharmacy Council
DOH - Department of Health
NDC - National Drugs Commission

## 5.23 Appendix M Recommended Annual Tabulations Of Vital Events: Vital Statistics Reporting System

### BIRTHS

1. Live Births by Place of Occurrence
   - (a) Live births cross-classified by usual residence of mother (parish)

2. Live Births by Attendant at Birth
   - (a) Live births cross-classified by birth-weight, attendant at birth, and hospitalization

3. Live Births by Month of Occurrence

4. Live Births Cross-Classified by Sex and Legitimacy Status

5. Live Births by Age of Mother
   - (a) Live births cross-classified by age of mother and sex of child
   - (b) Live births cross-classified by age of mother and birth order
   - (c) Live births cross-classified by age of mother and legitimacy status of child
   - (d) Live births by age and educational attainment of mother
   - (e) Live births cross-classified by age and by ethnic and nationality group of mother.
   - (f) Live births cross-classified by age of mother and age of father
   - (g) Live births cross-classified by age and place of birth of mother, for each legitimacy status of child
   - (h) Live births by occupation of mother

6. Live Birth by Age of Father
   - (a) Live births cross-classified by age and occupation of father
   - (b) Live births cross-classified by age of father and legitimacy status of child
   - (c) Live births cross-classified by age and by ethnic and/or nationality group of father
   - (d) Live births cross-classified by age and educational attainment of father

7. Live Births Cross-Classified by Age of Mother and Live-Birth Order
   - (a) Live births cross-classified by age of mother, live-birth order and sex of child
   - (b) Live births cross-classified by age of mother, live-birth order and legitimacy status of child
   - (c) Live births cross-classified by age of mother and live-birth order for each category of educational attainment of mother
   - (d) Live births cross-classified by age of mother and live-birth order for each ethnic and/or nationality group of mother
   - (e) Live births cross-classified by age of mother and live-birth order for each occupational group of mother

8. Live Births Cross-Classified by Live-Birth Order and Interval Since Last Previous Live Birth to Mother

9. Live Births by Birth-weight
   - (a) Live births cross-classified by birth-weight (or by gestation age) and occupation of mother
   - (b) Live births cross-classified by birth-weight and gestation age

## DEATHS

1. Deaths by Place of Occurrence
   (a) Deaths by place of occurrence classified by resident status of decedent and cross-classified by hospitalization and type of certification

2. Deaths by Place of Usual Residence of Decedent
   (a) Deaths cross-classified by place of usual residence of decedent and place of occurrence
   (b) Deaths cross-classified by place of usual residence and place of previous residence (as a specified time in the past) of decedent

3. Deaths by Month of Occurrence

4. Deaths Cross-Classified by Sex and Age
   (a) Deaths cross-classified by age and marital status for each sex
   (b) Deaths of married persons cross-classified by age of decedent and age of
   (c) Deaths of married persons cross-classified by age and duration of current marriage, for each sex
   (d) Deaths cross-classified by age and occupation for each sex
   (e) Deaths cross-classified by age and ethnic and/or nationality group of decedent
   (f) Deaths cross-classified by age and education attainment for each sex

5. Deaths Cross-Classified by Month of Occurrence and Selected Causes of Death

6. Deaths Cross-Classified by Age and Cause of Death, for Each Sex

## INFANT DEATHS (DEATH UNDER ONE YEAR OF AGE)

1. Infant Deaths by Place of Occurrence (hospital or home)
2. Infant Deaths by Place of Residence of Mother (parish)
3. Infant Deaths Cross-Classified by Age and Sex

## MARRIAGES

1. Marriage by Month of Occurrence
2. Marriages by Place of Usual Residence of Groom
3. Marriages Cross-Classified by Age of Bride and Age of Groom
   (a) Marriages cross-classified by ethnic/or nationality group and age of bride and groom separately
4. Marriages Cross-Classified by Previous Marital Status of Bride and Previous Marital Status of Groom Separately
   (a) Marriages cross-classified by previous marital status and age of bridge and groom separately
   (b) Marriages cross-classified by number of previous marriages of bridge and number of previous marriages of groom
5. Marriages Cross-Classified by Educational Attainment of Bride and Groom
6. Marriages by Occupation of Groom

7. Marriages by Type of Marriage

## DIVORCES

1. Divorces Cross-Classified by Age of Wife and of Husband
   (a) Divorces cross-classified by ethnic and/or nationality group and age of divorcees, tabulated separately for husband and wife

2. Divorces Cross-Classified by Duration of Marriage of Wife and Age of Divorcees, Tabulated separately for husband and wife
   (a) Divorces cross-classified by age at marriage of wife and age at marriage of husband
   (b) Divorces cross-classified by year of marriage and age of marriage of divorcees, tabulated separately for husband and wife

3. Divorces Cross-Classified by Number of Dependent Children and Duration of Marriage
   (a) Divorces cross-classified by number of dependent children and year of marriage

4. Divorces Cross-Classified by Occupation of Husband and Occupation of Wife
   (a) Divorces cross-classified by occupation and age of husband

5. Divorces Cross-Classified by Number of Previous Marriages of Husband and Number of Previous Marriages of Wife

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## 5.24 Appendix N

## Report Cards

| Child Health Report Card |
| --- |
| • infant mortality<br>• low birth weight<br>• births to adolescents<br>• child deaths<br>• teenage deaths<br>• confirmed cases of child abuse<br>• out of home placements of children<br>• BSSC completion rate<br>• school absentee rates<br>• immunization rates |

## 5.25 Appendix O

## Glossary

**APEX/PH** Assessment Protocol for Excellence in Public Health. A tool for assessing the organizational capacity of public health agencies and the health of communities.

**assessment** The regular collection, analysis and sharing of information about health conditions, risk, and resources in a community. The assessment function is needed to identify trends in illness, injury, and death, the factors which may cause these events, available health resources and their application, unmet needs, and community perceptions about health issues.

**assurance** Doing something or making sure someone else does it and does it well. A public health jurisdiction responsibility, within available resources and consistent with community and public health problem priorities, to provide leadership in the community, collaborate with other organizations, or -as a last resort-provide a service itself. The specific function or service may, in different communities or at different times, be the responsibility of the public health jurisdiction or other entities in the community. Assure does not imply an entitlement or guarantee: it does, however, imply that a process has been developed to identify problems which the community wants to address.

**capacity** The ability to perform the core public health functions of assessment, policy development, and assurance on a continuous, consistent basis, made possible by maintenance of the basic infrastructure of the public health system, including human, capital, and technology resources.

**capacity standards** Statements of what public health agencies must do as a part of ongoing, daily operations to adequately protect and promote health, and prevent disease, injury, and premature death.

**clinical personal health services** Health services generally provided one-on-one in a clinical setting. See related Personal Health Services.

**community** Generally refers to a definable political jurisdiction. In contrast to the term "neighbourhood" which generally refers to a geographic area with which residents have some identification.

**contributing factors (direct and indirect)** Those factors that, directly or indirectly, influence the level of a determinant.

**core functions** The three basic functions of the public health system as set forth in the 1988 report, The Future of Public Health, by the Institute of Medicine, are assessment, policy development, and assurance.

**determinant** Direct causes or risk factors which, based on scientific evidence or theory, are thought to influence directly the level of a specific health problem. See "related risk factor."

**direct contributing factors** Scientifically established factors that directly affect the level of a risk factor.

**disability-free life expectancy (DFLE)** Refers to the average number of years an individual is expected to live free of disability if current patterns of mortality and disability apply.

**environmental health** An organized community effort to minimize the public's exposure to environmental hazards by identifying the disease or injury agent, preventing the agent's transmission through the environment, and protecting people from the exposure to contaminated and hazardous environments.

**epidemiology** The study of the distribution and determinants of diseases and injuries in human populations. Epidemiology is concerned with the frequencies and types of illness and injuries in groups of people with the factors that influence their distribution.

**goal** Defines a desired change in the status of a health problem.

**health capacity** The capability of people to be informed consumers or creators of health.

**health services information system** A health data system designed to track health care costs, quality, utilization, and outcomes.

**health problem** A situation or condition of people or the environment measured in death, disease or disability and which is considered undesirable.

**health promotion** Includes health education and the fostering of healthy living conditions and life-styles. Health promotion activities may be directed toward individuals, families, groups or entire communities. They help people identify health needs, obtain useful information and resources, and mobilize to achieve change.

**health protection** Refers to those population-based services and programs that control and reduce the exposure of the population to environmental or personal hazards, conditions, or factors that may cause disease, disability, injury or premature death.

**health status** A term generally applied to groups of people, rather than to individuals. The health status of communities or the population can be tracked, analyzed, and influenced through public health measures. The health status of populations can be assessed using indicators such as death rates.

**incidence** The number of cases of disease having their onset during a prescribed period of time. It is often expressed as a rate. Incidence is a measure of morbidity or other events that occur within a specified period of time. See related prevalence.

**indirect contributing factors** Community-specific factors that directly affect the level of direct contributing factor.

**infectious** Capable of causing infection or disease by entrance of organisms (e.g. bacteria, viruses, protozoans, fungi) into the body, which then grow and multiply. Often used synonymously with "communicable."

**interventions** Recommended strategies and activities for communities to employ in their efforts to achieve the improved levels of health status set forth in the outcome standards.

**morbidity** A measure of disease incidence or prevalence in a given population, location, or other grouping of interest.

**mortality** A measure of death in a given population, location, or other grouping of interest.

**non-infectious** Not spread by infectious agents. Often used synonymously with "noncommunicable."

**objective** States what will be accomplished in changing the status of a problem.

**occupational health** Activities undertaken to protect and promote the health and safety of employees in the workplace, including minimizing exposure to hazardous substances, evaluating work practices and environments to reduce injury, and reducing or eliminating other health treats.

**outcome objective** A goal for the level to which a health problem should be reduced by some future date. An outcome objective is long term and measurable.

**outcome standards** Long-term objectives that define optimal, measurable future levels of health status, maximum acceptable levels of disease, injury, or dysfunction, or prevalence of risk factors. Related term outcome objective.

**PATCH** Planned Approach to Community Health. A planning, implementation and evaluation process. Generally geared towards chronic disease prevention and health promotion programmes.

**personal health services** Services provided to individuals , rather than the community as a whole.

**policy development** The process whereby public health agencies evaluate and determine health needs and the best ways to address them, including the identification of appropriate resources and funding mechanisms.

**population-based** Pertaining to the entire population in a defined geographic area.

**prevalence** The number of cases of a disease, infected persons, or persons with some other attribute present during a particular interval of time. It is often expressed as a rate. See related incidence.

**prevention** Actions taken to reduce susceptibility or exposure to health problems (primary prevention), detect and treat disease in early stages (secondary prevention), or alleviate the effects of disease and injury (tertiary prevention).

**process objective** A goal for reducing the level of a direct or indirect contributing factor by some future date.

**promotion** Health education and the fostering of healthy lifestyles and living conditions. See health promotion.

**protection** Elimination or reduction of exposure to injuries and occupational or environmental hazards. See health protection.

**protective factor** An aspect of life which reduces the likelihood of negative outcomes, either directly or by reducing the impact of risk factors.

**public health** Activities that society does collectively to assure the conditions in which people can be healthy. This includes organized community efforts to prevent, identify, pre-empt, and counter threats to the public's health.

**quality assurance** Monitoring and maintaining the quality of public health services through licensing and discipline of health professionals, licensing of health facilities, and the enforcement of standards and regulations.

**risk assessment** Identifying and measuring the presence of direct causes and risk factors which, based on scientific evidence or theory, are thought to directly influence the level of a specific health problem.

**risk communication** The production and dissemination of information regarding health risks and methods of avoiding them.

**risk factor** Personal qualities or societal conditions which lead to the increased probability of a problem or problems developing. Scientifically established factors (determinants) that relate directly to the level of a health problem.

**standards** Accepted measures of comparison having quantitative or qualitative value.

**surveillance** The systematic collection, analysis, interpretation, and dissemination of health data to assist in the planning, implementation, and evaluation of public health interventions and programmes.

**threshold standards** Rate or level of illness or injury in a community or population which, if exceeded, call for a closer attention and may signal alarms for renewed or redoubled action.

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# HEALTH CARE REVIEW

# FINANCING TASK GROUP REPORT

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# SECTION 6
# HEALTH CARE FINANCING TASK GROUP REPORT

## 6.1 PURPOSE AND MANDATE

During the completion of our work we have had the luxury of amending our objectives as we progressed. Our final objectives shown below, include the original objectives but broaden the scope of our mandate in several areas. The objectives clearly indicate our dependence on the other Task Groups. .

Our mission was:

To develop recommendations that will result in the current or a modified health care financing system meeting health care costs[1] whilst ensuring that quality[2] is maintained and the needs[3] of the community are met at an affordable cost. The following six specific objectives were addressed as part of this overall mission:

1. To review the role and functioning of the Hospital Insurance Commission.
2. To develop recommendations concerning insurance and government funding for long-term and home health care.
3. To examine the use of health care services which are available in Bermuda and recommend changes where appropriate.
4. To consider the transfer of responsibilities for determining medical indigence from the Bermuda Hospital Board to the Ministry of Health, Social Services and Housing.
5. To examine reimbursement of physicians in primary care, internal medicine, surgery and diagnostic services and recommend changes where appropriate.
6. To review the current health care financing system, recommend improvements and determine suitability for financing future needs.

[1] As considered by the Health Care Cost Task Group
[2] As proposed by the Quality of Care Task Group
[3] As proposed by the Health Care Needs Assessment Task Group

## 6.2 MEMBERSHIP

| | |
|---|---|
| Roger Titterton,C.A. | Chairman |
| Nicholas Warren, C.A. | |
| Annarita Woolridge-Marion, C.A. | |
| John Rayner, FIA,ASA,MAAA | |
| Donald Scott | |
| Brenda Dale | Secretary to Health Care Review |
| Art Wade | Department of Management Services |
| Susan McCullagh-Bailey | Recording Secretary |

## 6.3 METHODOLOGY

Our methodology was as follows:

- determine the current health care financing system;
- conduct interviews and solicit written responses from the stake holders to understand the historical development of the current system and overall efficiency and effectiveness;
- review the information developed by the other task groups to determine the financing of new services recommended by Needs Assessment and Quality of Care, and work with the Health Care Cost Task Group to determine the impact on financing of their recommendations;
- study the financing of health care systems of certain other countries to determine if their methods might be appropriate for and helpful to Bermuda. (See *Appendix 2*); and
- use Group discussion to develop recommendations based upon information gathered and analysed.

## 6.4 INTRODUCTION

Our research into the health care financing systems of other countries leads us to believe that there are three basic methods of financing health care as follows:

1. The private sector through private health schemes. These are normally paid for by a combination of employer and employee contributions to private insurance enterprises.

2. Use of general taxation to pay for health care costs (often in conjunction with transfer of wealth initiatives.)

3. A combination of the above methods with Government supplementing the private system for those who cannot pay.

The extent of Government intervention in any system of health care depends upon the degree to which the Government is willing to guarantee health benefits to the population. Almost all private health care schemes are tied to employment with revenues being derived from the employer, employee or most commonly, both.

The revenue flow chart (see *Appendix 1*) discussed below demonstrates clearly that Bermuda currently has a system of private insurance coupled with a Government sponsored scheme and a system of Government subsidies. The Bermuda model may appear to be complex at first glance, but its historical development and relative efficiency results in it having been an effective system in the past.

A growing problem in health care worldwide is the trend towards the use of very expensive technology which, if it is to be made available to the public in a small country like Bermuda, may be prohibitively expensive. The Government of Bermuda has demonstrated its fiscal prudence in this area by only financing technological equipment which it felt was economically feasible. In effect, the operations of the Hospitals have been subjected to a budgeting and subsidy process that has led to private charity providing much of the high technology equipment used by the Hospitals. Where certain technological equipment and highly trained expertise have not been available in Bermuda, treatment has been obtained overseas. The cost of these overseas services is generally paid for by private insurers through major medical coverage.

We need to determine how a system as complex as Bermuda's manages to control costs without limiting funds available (explicit capitation). One of the great problems with health care in the current environment is the consumer's separation from the process that sets the price of the services. Simply put, because services are paid for by a system of taxation and insurance that spreads the cost and risk among all of the population, there may be a sense among the service users that they have already paid for the services and that using the services is just a way of getting economic benefit out of the system. A doctor suggesting additional tests would not be likely to be questioned by a patient. A salesman trying to sell a consumer an additional consumer product is not nearly as likely to be successful. Adding to this problem may be the need for better communications skills of service providers coupled with better knowledge levels of patients.

The current health care financing system and any suggested changes to it must have as a primary goal a system that controls the extent and costs of services. This is a very subtle task in a free enterprise and Government sponsored system.

The current Bermuda Health Care Financing System has been analyzed resulting in the preparation of a Revenue Flow Chart (*Appendix 1*) which clearly indicates the flow of funds throughout the system and will be used as a basis for determining how the shifts towards preventative and home health care might be met. It should be noted that the thrust of the current system is generally an attempt to support the Bermuda Hospitals and they are central to the funding mechanisms. The difficulty arises as we look forward to more and more health care services being provided outside of the setting of the Hospitals. Our insights into the current system reveal a lack in the present system's ability to change to meet the needs of current and emerging health care delivery.

We do not wish to repeat the excellent work completed by the Health Care Costs Group, but it is fundamental that their work needs to be read in connection with this report. It is extremely important that the Finance Task Group and the Cost Task Group use some of the historical information on costs to predict future trends in costs along with future trends in the delivery of health care in Bermuda. As an example, Bermuda's ageing population forecasts will demonstrate a significant problem for future financing without any consideration of increases in the levels or methods of delivery of that care.

Our Group agrees that the system works best without forms of explicit capitation being instituted by the Government and that the current mix of the private sector and Government has worked effectively in the past. Our Group believes that, with all of its intricacies, the current system in fact works very well and it is fundamental that we work to protect the current financing system wherever possible. This conclusion was reached after several meetings where we questioned every function shown in the Revenue Flow Chart. There appear to be inadequacies as the current system does not seem to be capable of transforming itself as the demands of the consumers and the service providers change.

We seek to develop or enhance the current financing system so that we have:

- consumers who are aware of the costs (education and cost sharing);
- health care providers who are efficient and effective in their delivery of services (training, bench marking, negotiation with insurers);
- government intervention only to the extent that the private system cannot or will not provide the appropriate services; and
- private insurers and Government sponsored insurance plans being the gatekeepers of the financing system through their assessment of benefits and premium levels.

The Financing Task Group is opposed to a fully nationalized health care system. However, it should be recognized that the current system, which includes subsidies for hospital care of those who are not insured privately, does mimic a nationalized health care system in a way that might be more effective than a national health care system. We believe that Bermuda is different in its approach and that we need to view the systems of other countries with caution at this time, as their fundamental tax and health care financing systems are vastly different from our own and many are performing poorly (see *Appendix 2).*

There should be a natural system of checks and balances with the ability to change with new philosophies in health care and new technologies and services. We do not believe that the current health care system, whilst it has worked extremely well in the past, is sufficiently flexible to meet Bermuda's changing needs and requirements.

## 6.5 Objective 1: To review the role and functioning of the Hospital Insurance Commission (HIC)

### 6.5.1 The HIC

After identifying the role of the HIC on the Revenue Flow Chart, receiving a presentation from the Chairman and staff of the HIC, along with written responses by HIC staff to some thirty two questions posed as a result of the above and numerous discussions, we have developed the following ***recommendations*** regarding the HIC:

1. *The HIC was developed, as its name suggests, with the mission to provide health care through the Hospitals. In any future system in Bermuda that contemplates preventative and home health care, consideration will need to be given to broadening the function of the HIC to monitor and help finance these areas or other bodies will need to be created. Amendments to the Hospital Insurance Act should be considered as soon as possible.*

2. *The HIC or some other group needs to have wider representation so that its policy recommendations will carry more weight. We recommend some form of buffer between HIC and the direct influence of politics.*

3. *The actuarial assessment of premiums by HIC or some other group should be made public for use by all stakeholders in the health care system including the private insurers who provide certain information used in the study. The setting of premium rates and the determination of the standard benefit should be more readily understood by the general public.*

4. *The HIC or some other group and private insurers should meet on a regular basis to discuss matters affecting the delivery of health care.*

5. *Government should consult with the HIC or some other group on all matters falling within their mission.*

6. *The HIC or some other group needs to work on its relationship with the Bermuda Hospitals Board and regular meetings are suggested in this area to ensure co-ordinated financial decisions.*

7. *The HIC or some other group needs to immediately assess how it can meet the needs of the public by studying the standard benefit package to determine to what extent it needs to be amended to consider home and preventative health care. To complete this objective consideration must be give to 1) above as soon as possible.*

8. *The systems at HIC or some other group, which are used to accumulate and assess claims before payment to the Hospitals, need to be updated to allow for more timely payment. We should expect the Hospitals to be run like a business and likewise HIC. The cash flow problem is somewhat mitigated by monthly payments by HIC to the Hospitals, however, the annual reconciliation and adjustment to actual takes far too long and delays the issuance of the Hospitals' annual report significantly.*

9. *Section 17 of the Hospital Insurance Act makes provision for a report on the operation of the Commission to be forwarded to the Minister of Finance as soon as practicable after the end of each financial year. The last report was apparently made in the early 1980's. The HIC should have a clear reporting process and should follow the requirements of its Act in this regard.*

*10. The above recommendations should be implemented with the current framework expanded to meet today's health care needs or with the framework of the Health Care Council (see Care Costs Sub Committee report).*

### 6.5.2 The Mutual Reinsurance Fund (the Fund)

The Mutual Reinsurance Fund, which is administered by HIC, no longer seems to be performing the functions for which it was originally formed and therefore needs to be rationalized in the context of the current environment.

The Fund currently finances certain claims related to renal dialysis, kidney transplants and associated anti-rejection drugs, long stay patients, diabetic counseling and hospice care.

The Fund seems to have been originally formed to finance new treatments which might prove catastrophic in the sense of ultimate costs because of their ongoing nature. These treatments were not covered by HIP or the plans offered by private insurers for a period of time until sufficient information existed to allow the insurance industry to understand the costs for the population as a whole. Actuaries could then reasonably assess a premium and build the particular risk into the overall premium model. At this point in time the risk would be handed back to the insurers. The Fund allowed potentially catastrophic losses to be shared between the various insurers as the Fund was financed by assessments on standard premiums by all insurers.

In recent years the Fund has shown a surplus and has occasionally been used as a source of financial support for the HIP Plan. Larger insurers may not be as dependent on this Fund as they were in the past and the Fund may be retaining certain risks that could now be assumed by the insurers.

*Recommendation*

*The Mutual Reinsurance Fund needs to be rationalized in the context of the current health care environment and possible organization changes to the delivery of health care services in Bermuda.*

## 6.5.3 SUBSIDIES

The revenue flow chart shows Government grants (subsidies) to be $43.1 million. The amount is made up as follows in 1993/94:

| | | $M |
|---|---|---|
| Youth | | 4.8 |
| Aged | | 14.1 |
| Indigent - Regular | 3.0 | |
| - ECU | 5.6 | 8.6 |
| | | 27.5 |
| St. Brendan's | | 14.1 |
| Other Subsidies | | 1.5 |
| | | 43.1 |

*Recommendations*

*The St. Brendan's subsidy represents a general grant to cover operating expenses of St. Brendan's. We recommend that this method of funding is proper and should continue.*

*Other subsidies represent amounts paid to the Mutual Reinsurance Fund for the hospice, dialysis, diabetic education etc. Again we recommend that this funding remain.*

The $5.6m paid to the Extended Care Unit (ECU) for the indigent represents the Hospital's care of the aged who, while they do not always need the level of care provided by an acute care ward, have nowhere else to go for treatment. This represents an opportunity to reduce the level of care given and the cost of such care without any reduction in the quality of care. This particular subsidy is not considered further under this Objective. (Please see Objective No. 2.)

The Health Insurance Commission (HIC) is responsible for the administration of the remaining subsidy programs as follows:

- youth subsidies
- aged subsidies
- indigent subsidies

These subsidies are related to services received at the Hospital only, and coverage is at the standard benefit level. However, it is the existence of this system of subsidies that allows Bermudians to make the assertion that all Bermudians are covered for basic levels of health care. As these subsidies are all funded by the Government through general taxation they become a great concern if there is expected to be any escalation of costs or if the subsidies do not result in the efficient use of health care services. The table below shows the costs of subsidies over the past 5 years with some basic estimates of costs in the future given increases of health care costs and the demographic changes in the population. The attached graph depicts a visual presentation of the same data to demonstrate the impact more clearly. The charts and the graph are developed from the best information available and should be used as indicators only of potential costs given the assumptions made which are subject to considerable uncertainty as predictors of the future.

| Year | Youth | | | Aged | | | Indigent | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. People | Cost PP $ | Total Cost $ | No. People | Cost PP $ | Total Cost $ | No. People | Cost PP $ | Total Cost $ |
| 1989/90 | 15,100 | 235 | 3,548,500 | 5,300 | 1,811 | 9,598,300 | 1,750 | 1,161 | 2,031,750 |
| 1990/91 | 15,077 | 283 | 4,266,791 | 5,396 | 1,890 | 10,198,440 | 1,750 | 2,834 | 4,959,500 |
| 1991/92 | 15,050 | 315 | 4,740,750 | 5,500 | 1,927 | 10,598,500 | 1,750 | 1,619 | 2,833,250 |
| 1992/93 | 14,760 | 340 | 5,018,400 | 5,620 | 2,135 | 11,998,700 | 1,750 | 1,480 | 2,590,000 |
| 1993/94 | 14,990 | 320 | 4,796,800 | 5,750 | 2,434 | 13,995,500 | 1,750 | 1,720 | 3,010,000 |
| 2000 | 14,860 | 508 | 7,548,880 | 6,450 | 3,875 | 24,993,750 | 1,750 | 2,729 | 4,755,750 |
| 2010 | 13,720 | 1,096 | 15,037,120 | 7,150 | 8,391 | 59,995,650 | 1,750 | 5,891 | 10,310,000 |

| | Eligibility | Benefit | 1993/94 Total Cost | Issues |
|---|---|---|---|---|
| | | | | |
| Youth | Under 20 | 100% of standard | $ 4,796,800 | Whether or not the Government needs to have a youth subsidy |
| Aged | 65-75<br>76 - death | 80%<br>90% of standard | $13,995,500 | With the aging population and declining workforce, the Government through the subsidy system, will assume a larger percentage of the cost of Hospital care based on the statistics. |
| Indigent | 21 & over | 100% of standard | $ 3,010,000 | Although the number of patients has remained constant since 1989/90, the amount of treatment provided is increasing |

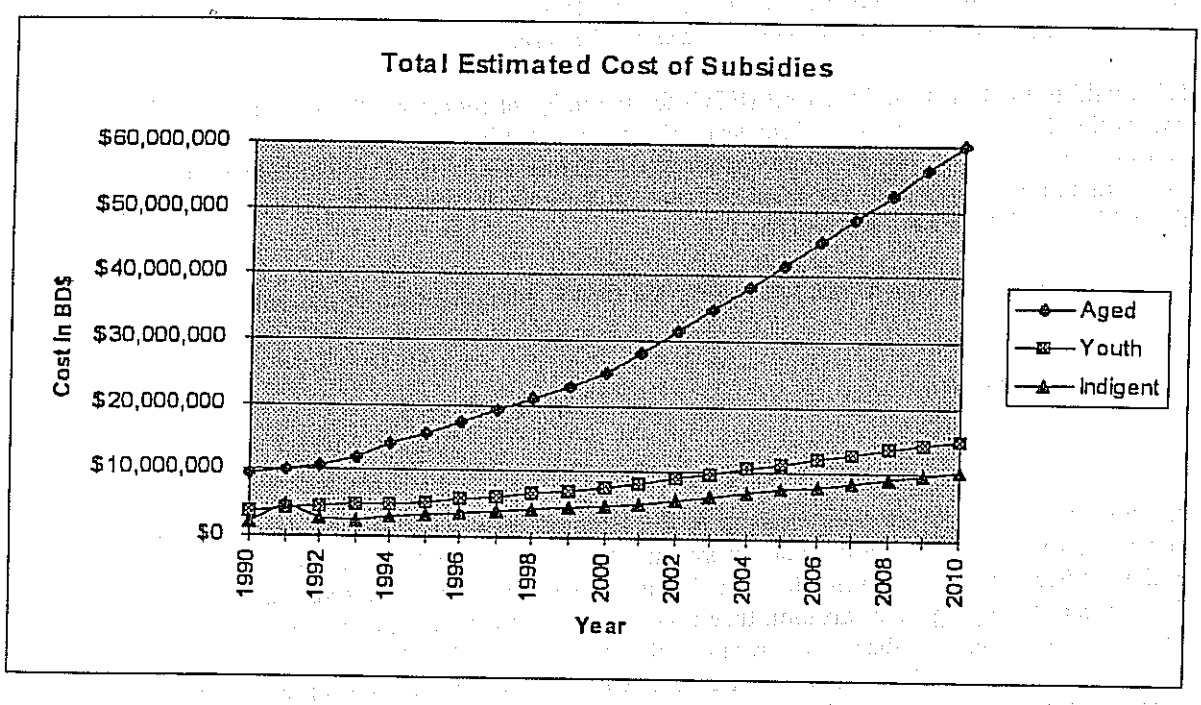


Chart Assumptions

1. There will continue to be an 8% per annum increase in medical costs of the standard benefit.

2. Population forecasts by the Department of Statistics for the youth and aged are accurate.

3. Estimated number of indigent will remain constant. However, there are indications that this is increasing.

4. Source of actual cost information is the Bermuda Hospitals Board and source of actual population numbers is the Department of Statistics.

There is a component of indigent persons being covered through the youth subsidy. More importantly, there is a large component of aged persons in the indigent subsidy as they cannot afford the 10% to 20% unfunded portion of the aged subsidy. The statistics indicate that 50% of the indigent population are actually aged. This causes administrative problems as funding may need to be split between aged and indigent subsidies and, for the aged who are not indigent, between the self funded or insured retention and the subsidy. There are severe bad debt problems at the Hospital in relation to collection of the self funded portion of billings of the aged who are not indigent.

It appears clear from the above tables and graph that we face an increasing liability for health care for the aged who are at a time in their lives when they are most likely to need this care and are not able to deal with increased health care costs, even at reduced rates. It is also clear that the number of youth is declining leaving fewer workers to fund the subsidy to the aged in the future.

Funding for youth may be unnecessary, especially when parents are working and their health insurance policies could easily pick up the youth portion of the subsidies. This presents an opportunity to finance an increase in the benefits to the aged and to simplify the financing system which currently involves the administration of a two-tiered system for the aged (the subsidized benefit and the remainder). Transfer of the youth subsidy to the old age subsidy also provides for the expected increased costs caused by demographics and escalating health costs.

We know that some proportion of the indigent are also aged. Those who are aged who cannot afford to pay the amount above their benefit will therefore be classified as indigent. It would seem logical that paying 100% of the benefit of the aged would increase total benefits paid to them by between 10% and 20% of the current benefit which for 1993/94 would be an extra $1,399,550 to $2,799.100. This additional benefit can easily be paid out of the youth subsidy of $4,796,800.

On the other hand, the indigent clearly need to continue receiving the support of the financing system but need a more flexible delivery system. A transfer of responsibility for determination of indigence to the Department of Financial Assistance along with funding through the Health Insurance Pension (HIP) instead of the subsidy, and the use of an indigence card, will further greatly increase the efficiency in delivery of services to the indigent.

We are concerned that the current system of subsidies is for the delivery of health services at the Hospital only. The funding system should allow for flexibility in the delivery of services to ensure the efficiency and effectiveness of such services. This flexibility should include doctors' visits when necessary. The Health Care Council will need to determine the best level of benefits for the indigent and the aged.

The attached graph again indicates the need to control the escalation of medical costs below the 8% per annum assumed level. We cannot control the population or the economy through which future workers will fund the system, but we must control the costs which, as shown in the graph, could escalate at a rate, and to a level, where they cannot be financed.

***Recommendations:***

**Aged**

- *Expand the subsidy program for the aged by bringing the benefits up to 100% - Reclassify indigent who are over 65 years of age to become aged.*

**Benefits**

- Reduction of administration for patients who must currently split payments to the Hospitals and insurers, or pay themselves.
- Greater coverage for our elderly population when they have little income to pay for themselves.

***Determination and treatment of Indigence***

- *Transfer responsibility for determination of indigent from the Bermuda Hospitals Board to the Department of Financial Assistance.*

- *Reclassify the indigent who are over 65 to the aged category to substantially reduce the number of indigent. This will also lower the indigent subsidy to the extent that the self funded 10% to 20% should be transferred to the aged subsidy.*

- *Enroll the indigent in H.I.P. and divert the monies currently paid as subsidies to become premiums paid to H.I.P.*

- *Use the current system to handle claims. Eventually all HIP participants could subsidize the indigent through equalization of premium payments to bring the indigent in line with the rest of the HIP population.*

- *Issue an insurance card to all indigent to allow them to access the standard health care benefits ( to be defined by the Health Care Council), including doctor's visits.*

- *Expand the services offered by the Government Clinic for the indigent only, to reduce inappropriate use of the Emergency Room.*

**Benefits**

- All aged are treated the same and there is a reduction in administration related to determining who is indigent.

- Centralize the determination of all social assistance in one body increasing effectiveness and reducing administration.

- Reduction in administration at the King Edward Memorial Hospital, more efficient and effective delivery of services and greater dignity for the indigent.

Youth

- *Remove the youth subsidy and reclassify any youth who may be indigent to the indigent classification*
- *Private insurers and HIP to increase premiums over some period of time to cover all youth whose parents are employed for standard benefit. Such premium increases are expected to be minimal.*

Benefit

- Provide significant funding to allow expansion of benefits to the aged. Working parents should pay to insure their children for the standard benefit on the understanding that they will receive increased benefits from the system during old age.

## CONCLUSION

The Committee believes that the above recommendations represent a significant reduction in administration costs and a diversion of funds raised as a result of general taxation from the Youth subsidy to the Aged subsidy. However, in the wider context, the issues of increased use of services, increased cost of services (health care inflation) and new services offered remain a major concern as our health care system faces the challenges of the year 2000 and beyond.

## 6.6 Objective 2 - To develop recommendations concerning insurance and Government funding for long-term and home health care

This issue has been addressed in our discussion of HIC wherein we state that we need to consider the broadening of HIC to include health care outside of the Hospitals setting or the possible introduction of another body similar to HIC to handle this form of health care.

We have determined that there may be considerable savings to the Hospitals if certain long-term patients could be removed from acute care beds and that these savings may be as much as $5 million per year.

However, as mentioned earlier, the current system is geared towards funding for the hospitals. The hospitals are independently audited and accredited, governed by policies and procedures and are easy to monitor. Spreading health care into long-term care, home care and preventative care will require a system capable of dealing with a host of new issues such as appropriate costs, quality control etc. We must develop a framework through which these changes can take place without undue Government intervention. such regulations need to be incorporated in legislation. In fact, the financing system must encourage the use of less expensive care outside the hospital setting.

### 6.6.1 Long Term Care Facilities

Long term care facilities cater to three types of clients: 1) the aged ; 2) the chronically disabled of all ages; and 3) the convalescent, who are being rehabilitated having suffered a stroke, temporary paralysis etc.

The facilities are either privately owned, partially funded by government or fully funded by government. Prices vary between each facility, as does the level of care provided. These facilities can be categorized as providing custodial, intermediate and skilled nursing care.

Rest homes are classified as providing custodial care. Clients are housed and are provided with meals, some entertainment etc. The staff are generally unskilled and are guardians for the clients. The majority of the rest homes in Bermuda are privately owned.

Intermediate care facilities may receive a grant from government to assist in operations. Care is provided by semi-skilled staff who in addition to basic care ensure that medications have been administered correctly. Clients needing intermediate care are recuperating from a hospital stay and may require additional physiotherapy or rehabilitation prior to being transferred to a rest home or to their own homes. This would allow patients to be discharged from the more expensive acute care beds of KEMH and cared for in a less expensive semi-skilled intermediate care facility. At present, two rest homes, Packwood and Pembroke Rest Home, also provide intermediate care.

The Extended Care Unit, Lefroy House and St. Brendan's Hospital provide skilled nursing care to the aged and the mentally disabled. These facilities are fully funded by government, however, residents/families in the Extended Care Unit are charged a portion of the daily rate for their care.

However, the problems are as follows:

1. Intermediate care facilities are limited.

2. Lack of overall coordination of placements - the Hospitals' Geriatric Assessment Placement (GAP) teams assessments are limited to patients currently in the hospital and those referred to the team by general practitioners. There is no overall assessment to ensure the correct match between the patients' needs and the facility.

3. Standards vary between facilities - the Quality of Care committee has reviewed this and made recommendations (see Section 3 and 7 of the Quality of Care Report).

4. The mix of beds in custodial, intermediate and skilled care does not match current health care needs.

5. Affordability - regardless of the type of facility, affordability is the main concern and complaint. With no insurance benefit or government subsidy available for custodial or intermediate care, there is no real incentive not to utilize the hospital facilities inappropriately as care is paid for by subsidy and private insurance.

### 6.6.2 Home Care

The Quality of Care Task Group has already responded on the benefits of the elderly remaining in the home setting or being discharged to the home setting from the hospitals as quickly as is medically possible.

Expanding coverage to include these areas has been discussed in our discussion of HIC wherein we state that we need to consider the broadening of HIC to include health care outside of the Hospitals setting or the possible introduction of another body similar to HIC to handle this form of health care.

We have determined that there may be considerable savings to the Hospitals if certain long-term patients could be removed and that these savings may be as much as $5 million per year.

*Recommendations*

***It is recommended that:***

1. *An intermediate care unit in the King Edward VII Memorial Hospital be established.*

2. *An actuarial study be done to determine the projected costs of long-term care and home care.*

3. *The Geriatric Assessment Programme team responsibilities be expanded to:*

   *a) co-ordinate the overall placement of residents in long-term facilities based on the level of care required; and,*

   *b) determine the families'/residents' ability to pay.*

4. *The standard benefit be expanded to include long-term and home care with clearly and stringently enforced guidelines with payments being made from Mutual Reinsurance Fund.*

5. *New facilities or capital improvements to existing facilities should be funded through a variety of means emphasizing charitable fund-raising mechanisms.*

## 6.7 Objective 3 : To examine the use of health care services which are available in Bermuda and recommend changes where appropriate

The use of health care services should result from a careful and knowledgeable consideration of cost versus benefit. The committee discussed at length whether the current system was demand or supply driven. A demand driven system results where the supply of services increases to meet a demonstrated demand by the health care users. On the other hand, the supply driven theorist would argue that, for the health care industry, if a service is provided it will likely be used. There was some sentiment within our group that Bermuda may be currently operating in a supply driven environment. The committee believes the system should be more demand driven than it is at present.

Possible solutions to the increased usage and cost of the system are as follows:

1. Putting a cap on what is provided (limit supply);
2. Educating the public on usage (limit demand);
3. Cost sharing with patients (limit demand);
4. Protocols for payments to physicians (limit supply); and
5. Combinations of the above.

This report must be considered as an initial study, the results of which could be used in the future for more exhaustive and comprehensive research. To demonstrate this assertion, the extent of use, cost and funding of long term care facilities in the future would require a full actuarial study of population demographics, expected usage, impact on current facilities being used, life expectancy in the future, the amount of funding needed by the current population to fund their future benefit, the impact of technology on future costs in such facilities, expected return on moneys invested to meet these future obligations, and so on. What we need at this point is a system with the flexibility to deal with an issue such as long term health care as it develops.

Health care services should be considered from the point of view of every section of the community and within every age group. More often than not, the actual service received is a function of economics. Sometimes the section of the population most in need of health care is the section least able to afford it. This leads to cries for socialized medicine, because any other system is automatically labeled unfair. However, closer scrutiny of national health systems in other countries often reveals gross inefficiencies and uncontrolled expenses. The general level of health care delivery suffers to the extent that every section of the population receives inadequate care. Obviously, the ideal situation is some balance between a national health system and a totally private system. In many respects that is what we have in Bermuda. Sometimes a small section of the community falls between the cracks and this is what we must try to avoid. However, it seems senseless to rebuild a good system.

For an island the size of Bermuda it can be argued that the health care services available are very good, taking into account the size of the population, the land area and Bermuda's general remoteness. In Bermuda there is one general acute care hospital, the King Edward VII Memorial Hospital and one psychiatric acute care hospital, St. Brendan's. These establishments, together with ambulatory care clinics, make up the main health care facilities available in Bermuda.

The main primary health care facilities are physicians offices, hospital outpatient clinics and government health centers. Since most doctors and dentists are private practitioners, a large proportion of primary care is delivered through the private sector. There are about 80 doctors and about 30 dentists actively practicing in Bermuda. In addition, there are about 700 licensed nurses, the majority of whom work in the two hospitals.

There are eleven long-term care facilities on the Island. These include nursing homes and residential care facilities. There is also a hospice facility for the terminally ill.

The Government provides public health facilities through the Department of Health. The Department administers various centers throughout the Island which offer immunization services, family planning services, antenatal care and infant primary care services. There are also three dental clinics for children.

Responsibility for health is in the hands of the Ministry of Health, Social Services and Housing. Although the Ministry has responsibility for the two hospitals, they are administered by the Bermuda Hospitals Board.

The current network of health care services in Bermuda is a result of the demographic characteristics of the population, the relative wealth of Bermuda and the present health care technologies available. An examination of the uses of these services must take into account the ability of the health network to make the necessary changes as the population, wealth and technology change. Population and wealth are characteristics which are mainly driven by, and to a lesser extent controlled by, forces generated within Bermuda. On the other hand, technological changes are almost always beyond our control, being a small island. This is not to say that our life-style and living standard are not envied by other countries, particularly other small islands. However, Bermuda would not be generally be able to provide technological input to the rest of the world. Bermudians enjoy good health while life expectancy is comparable to other countries and generally better than most other islands.

As far as demographic indicators are concerned, the aged represent the most rapidly growing area of Bermuda's population. There are several reasons for this. First, birth rates have declined. Second, with better life-styles, life expectancy has improved, and last, the baby boom generation is aging. These factors will enhance the trend of more old people relative to the younger population. Bermuda is fairly powerless to directly control this trend.

In any event it probably would not want to because population control would be seen as directly infringing on the rights of the individual. However, a swing in the population mix will have major and profound implications for Bermuda's health care delivery systems. Even at today's numbers, many senior citizens have inadequate access to care (facilities & financial). Future numbers, as projected by demographers, will put additional strains on the ability of the system to care for the aged population.

The areas where greater care will be demanded are the long-term facilities. Funding for these facilities is currently inadequate based on present population figures. Funding for these facilities based on projected population figures is not only inadequate, it is also non-existent and is a problem also addressed by the Care Costs Task Group's report. Long-term care can be equated with the same problem the Government has with pensions.

At the moment, state pensions are funded on a pay-as-you-go basis. That is the current working population pays for the pensions of the current retired population. It is not difficult to see that when the population mix changes the cost to the workers will be much higher. Therefore, some advance funding is required. The same principle applies to long-term care. The current workers should be setting money aside for their own care in old age. Very few, if any, are.

The principles used to calculate the long-term care funding required for a group of people approaching retirement age are not unlike those used for pension funding. They take account of the interest to be earned on the funds set aside, the likelihood of the money being required, the expected cost of care at the time it is required and the expected period of time over which care will be needed. These "actuarial assumptions" are usually chosen by an actuary and the calculations at best, will approximate to the

ultimate amount of money actually spent. Nevertheless, in the absence of a crystal ball, they are at least a scientific attempt to accumulate assets sufficient to meet future liabilities. The rate of funding and the assumptions can be fine tuned as the long-term care program progresses and the concept can be likened to taking aim at a constantly moving target.

Generally, Bermuda's handling of care in old age is, at best, makeshift. Too many beds are tied up in the hospitals for the care of the aged. The Extended Care Unit has insufficient beds because the elderly stay there. Perhaps the cynics will say, "well at least they are not sleeping in the streets like in so many other cities in other countries". But the problem will only get worse in the future if nothing is done. It can be demonstrated that the Western world in general provides little care for its elderly population. This is in contrast to many Asian countries where tradition and national culture requires the family to care for its older members. We are not going to change Bermuda's culture, so we have to build more nursing homes, long-term care facilities etc. We have to institute a system of long-term care financing which will be capable of dealing with the financial burdens in the future.

Future financial burdens could be somewhat alleviated, in the case of the elderly, by the proper provision of home care. In the past, the home care provider has had a relatively small financial impact on the health care system. Home care visits account for only about 4% of total health care costs for the over age 65 population in the United States (Milliman and Robertson). However, home care, well focused and controlled, has the potential for playing a major role in controlling and managing tomorrow's health care costs. Some managed organizations in the U.S. use home care nurses to advise on discharge policies. They try to reduce hospitalization whenever it is not medically necessary. This reduction is accomplished by admitting only those patients needing services that can be provided solely in an inpatient setting. Another reduction involves the utilization of home care providers prior to a surgical admission. This can significantly reduce the need for rehabilitation care in the hospital. These and other home care strategies can be easily instituted in the future in Bermuda. Bermuda's per capita wealth is amongst the highest in the world. Its current health care financing system, for the working population, is generally good and efficient. Its facilities reflect the level of wealth available and the standard of the system.

It is recognized that modern technology is changing rapidly and new equipment is very expensive. Studies have been done to show that equipment such as an MRI could not be justified for a population of just under 60,000. Critics will counter that some U.S. cities have such equipment for smaller population sizes. Generally, however, such cities are in California, where the level of wealth in the communities is very high. Generally, Bermuda has been reluctant to fund expensive equipment unless sufficient utilization could be proven. This system is seen as being a good one and no change is recommended. It is likely in the future that some doctors will form groups and will bring in equipment to be operated at a profit. If this is done in competition with the hospital, the HIC or some other group will have to decide whether the benefits are standard benefits. In general, all services performed outside the hospital setting are not classed as standard benefits for health insurance purposes. Some doctors will doubtless be pioneers and will bring in equipment which is not otherwise available in Bermuda. These cases will have to be treated on their merits. If insurers are willing to pay for these benefits, the cost, through higher health insurance premiums, will have to be met by the public.

It is an economic fact that overseas care is more expensive than the equivalent care in Bermuda. Excluding airfare and other transportation expenses it is estimated that the cost of care in the U.S. is 50% more than in Bermuda. Sometimes an insurance claim can be four or five times the rate at which it would have been settled for local treatment. It is also widely recognized that more specialized care is available overseas. On the other hand, often overseas treatment includes a whole battery of tests which are not available locally yet the basic diagnosis is often adequately treatable locally. These facts are hardly surprising considering the size of Bermuda and are consistent with the experience of other islands.

Having stated these facts, it is only natural that residents of Bermuda, when faced with a life-threatening medical condition, will desire overseas treatment, even if adequate care is available locally. Insurance companies offering major medical coverage will sometimes pay for treatment overseas on a non-emergency or elective basis but will impose a coinsurance factor, e.g. 25% paid for by the patient. Generally, people with major medical insurance require a doctor's referral to obtain treatment abroad which is paid for in full by the insurance company.

It appears that consumers do have some choice when determining where to purchase health care services but they normally pay more for these services themselves. The gatekeeper is the local health care professional and the insurers would be likely to discourage overseas treatment as it is likely to be more expensive for them. Under this scenario it seems that there are proper controls on the use of such services and yet they are quite appropriately still available.

The current structured methods of financing health care in Bermuda are a combination of self-financing plans, government subsidy, government health insurance plan (HIP) and privately run health and major medical insurance. It is considered by our group that these methods are generally good to the extent that they have been studied and copied by other islands, particularly in the Caribbean. One of the main advantages is that major medical plans, and to a large extent HIP, are administered by the private insurance sector. This system has the merit of controlling the extent and the size of claim payments and hence is, in itself, a cost restrainer. In addition, health insurers compete with each other for business and government, through the HIC, places a maximum premium on HIP benefits. Some large businesses, such as the Bank of Bermuda, are able to virtually self insure through the medium of the "approved scheme". Thus a large number of Bermudian workers (and their families) are able to obtain first class health insurance benefits at a reasonable cost.

Perhaps the only area where higher than normal expense is incurred by the public is in respect of the self-employed. They are usually unable to form the large cost sharing groups that other employees can.

The health care services available in Bermuda (apart from those for the elderly) are seen to be adequate. The system of financing is generally a good one. It is recognized that charities do play a major role in funding the purchase of some equipment and in certain cases provision of funds for catastrophic illness.

### 6.7.1 Proposed Bermuda Health Plan and Health Care Council

The Health Care Costs Task Group has proposed a Health Care Council (The Council) which will function as an umbrella group to "ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community." It has also proposed a Bermuda Health Plan which will define a standard health care package that should be available to all Bermuda residents. These concepts are very similar to the existing Hospital Insurance Commission and the Standard Hospital Benefits.

Our Group has discussed this proposal in detail and ***recommend***:

- *As a principle the aim to make sure this council is apolitical and has the freedom and authority to control the health care system. Therefore the Council should not report to the Minister of Health & Social Services or any Minister for that matter as this has the potential to compromise its effectiveness.*

- *Government should therefore be a stakeholder on the Council and provide its input in a similar fashion to the other stakeholders.*

- *The Hospital Insurance Commission (HIC) be a stakeholder, basically representing the Ministry of Finance/Social Insurance Services until its future role has been reinforced/agreed.*

- *Individual stakeholders must represent their special interest groups in this manner a certain "healthy tension" will exist and promote creative solutions. It is understood that stakeholders must also seriously consider the welfare of Bermuda and its citizens as a primary factor in their decision making. A corporate perspective in this regard is essential.*

The Bermuda Health Plan (BHP) as revised by the Care Costs Group, is still far more extensive than the present standard hospital benefits. It is feared that the standard premium for such benefits will be too high, both politically and also for the majority of small employers and the self-employed. A wider range of benefits will perhaps be a signal to the public to abuse the system and increase costs rather than save money. The B.H.P. would require a complex system of cost control and should only be considered if such a system was put in place.

*Recommendations*

1. *The increasing cost of the health care system as it relates to Bermuda's overall GDP (see Health Care Cost) cannot continue unless the public are willing to pay an increased amount of their income for health care services.*

   *To control the escalating cost we must consider:*

   a) *Educating the public on the use of medical services to reduce unnecessary usage.*

   b) *Instituting a user pay concept for a fixed portion of the fee so that patients have a clearer understanding of the costs of health services.*

   c) *Developing fee guidelines for payments to physicians. The fee guidelines would be visible in the physicians offices and could be compared with the actual charges made by physicians with insurance covering the fee guidelines amounts only.*

2. *We believe the work completed by the Cost Group in the area of the Bermuda Health Plan (the new standard benefit) represents useful information to be considered by the proposed Health Care Council whose first mandate should be the revision of the standard benefit giving due consideration to the contents of this report.*

3. *We recommend that the current financing system which utilizes charities such as the L.C.C.A. be re-examined and that the financing for catastrophic care be returned to the M.R.F. and that the M.R.F. continue to be funded through a premium assessment to be collected by the H.I.P. and the private insurers. Clear criteria should be developed for the use of M.R.F. funds to allow quick decision-making during a patient's health care crisis.*

4. *We recommend that Government immediately take steps to establish a Bermuda Health Council with the authority to meet its mandate "to ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community. Emphasis will be to ensure consumers of health services are knowledgeable in their choices, are provided with high quality of care, and that their health needs are met and to encourage and promote a healthy lifestyle throughout the community." This Council should not report to a specific Minister and should have freedom of action to achieve its mandate. Stakeholders should represent their areas of interest while still maintaining a corporate perspective. The Hospital Insurance Commission should also be one of the stakeholders.*

5. *The Government of Bermuda should contract for an actuarial study to determine the impact of the expansion of long-term health care on the delivery of health care services in Bermuda, the expected cost of such health care, the expected rate of development of such health care and ways to fund such health care by the current population.*

6. *There needs to be a community rating system developed to assist smaller organizations to be able to gain the economies of scale benefits in their premium rating, as is the case with larger organizations.*

*Overseas care:*

- *local service providers should work to expand the number of visiting specialists to provide non-emergency consultations and surgery. This is a matter that will need to be considered by the proposed Bermuda Health Council.*

- *new technical equipment should be purchased after the completion of the appropriate cost-benefit analyses.*

- *the insurers and the H.I.P. (depending on the coverage provided by the new standard benefit) should establish more Preferred Provider arrangements.*

- *a managed care approach should be adopted.*

**6.8 Objective 4: To consider the transfer of responsibilities for determining medical indigence from the Bermuda Hospitals Board to the Ministry of Health, Social Services and Housing**

After gathering information about the determination of indigence by the Bermuda Hospitals Board and the Department of Social Assistance, it was determined that it would be best if this determination were to be made by the Department of Social Assistance as they would have access to more relevant information than the Hospitals Board. This would also reduce the current duplication of effort by the Hospitals Board and the Department of Financial Assistance and will result in the determination of indigence having more integrity as the Department of Financial Assistance has better resources and access to more information than the Hospitals Board. The Hospitals can then concentrate on rendering health care services without having to make such judgment determinations and without having to attempt to collect some amounts. The conclusion was also reached by the Ambulatory Care Task Force of the Bermuda Hospitals Board (April 1993).

It is our current understanding that the Department of Social Assistance has centralized information on persons that receive assistance from the Government and would be in the best position to make the determination regarding indigence. This decision could be made at an earlier date than arrival at the Hospitals emergency ward and in a way that might make the recipients feel that the process is more dignified. The card could also be used to gain rent relief and other benefits that the government gives to the indigent. In our view this should not in any way be assumed to be some kind of unemployment benefit.

We believe that the determination that a person is indigent by the Department of Social Assistance should result in automatic inclusion of the person in the HIP program with the Government funding HIP directly instead of funding the Hospitals through the indigent subsidy. This reallocation of funds should not result in any additional expense to the taxpayer as it is a reallocation of resources only. (See section 5.3 on subsidies.)

We believe that this suggestion results in the indigent subsidy being paid by Government to HIP instead of the Hospitals with the result that all Bermudians would be insured with at least the minimum HIP benefit at no increased cost to the Government.

*Recommendation*

***It is recommended that:***

1. *Responsibility for the determination of indigence should be transferred from the Bermuda Hospitals Board to the Department of Financial Assistance.*

2. *An indigence card be issued and produced upon admission to the Hospitals.*

3. *These services be funded by transferring the current subsidy from the Hospitals to the HIP and determining a rate at which the Government will subsidize HIP which will approximate the current number of indigent divided by the current subsidy.*

4. *An actuarial study be commissioned to determine the additional cost to the system, if any, of allowing this card to be used to obtain services from other health care providers, such as doctors visits, considering the resultant decrease in emergency hospital visits. This matter should be considered within the expanded purview of the proposed Health Care Council.*

**6.9 Objective 5: To examine reimbursement of physicians in primary care, internal medicine, surgery and diagnostic services and recommend changes where appropriate.**

It was always difficult to separate certain objectives of the Care Cost Task Group from those of the Financing Task Group. An objective of the Care Cost Task Group was to "Develop a framework for the establishment of reasonable fees for services rendered outside the Hospital setting". This objective was considered in great detail by the Care Costs Task Group and we do not intend to repeat their findings here (see section 4.3B of that report).

Our work revealed that internal medicine, surgery and anesthesiology have established fee schedules which are agreed between the physicians and the Health Insurance Association of Bermuda and which are reimbursed at 100% of the agreed rates by the insurers. However, charges for doctors' fees for home and office visits vary considerably and are not subject to a fee scale.

It should be further noted that consumers are not likely to know of these rate differences or may not have enough information to make decisions if they are aware of the differences.

The Care Cost Task Group put forward two alternative proposals in an attempt to control the escalating cost of these fees as follows:

a) Approved providers, in order to retain their approval, must not be able to charge in excess of the approved fees of the Bermuda Health Plan.

   Providers who are not approved will not be reimbursed at all for services rendered to an insured of the Bermuda Health Plan. **OR**

b) Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for services rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees.

Approved fees would be published annually and doctors would be required to publish their own fees and display them in their own offices.

Our committee believes that option (a) would represent an unnecessary intrusion by the Health Care Council into the free enterprise system. We believe that a doctor who can render services at a higher quality or more efficiently should be free to charge more if his patients are willing to pay. Therefore our group supports the option described in b). However, consumers must be aware of fee information to make intelligent choices.

Therefore, in addition to b) above, we believe that consumer affairs type information should be prepared annually and distributed to all Bermudians. This information could be in the form of a booklet. This booklet should be very simple and should include comparisons of doctor's rates, some basic information on generic and name brand drugs, and how to access the system of health care for those who are employed, indigent persons and aged persons. It would also clearly describe what clinics are available through Government and the Bermuda Hospitals Board. Information on preventative and long term health care could also be provided in a very simple format along with information on preferred provider relationships for overseas care. This booklet would not be a comprehensive guide but rather a road map to help consumers understand the system and especially how they can help control the costs and retain the same quality of services.

The main control on prices is currently through the health insurers which tends to put them in a position of conflict with the doctors and the patients. The Bermuda Health Council needs to develop a system to educate the general public so that they can assist with cost reductions to their own benefit. In addition to the booklet mentioned previously, other campaigns should be undertaken to encourage consumers to be aware of the costs and the alternatives.

Regulating the quality of diagnostic and laboratory services would automatically help to control the quantity because of the implied expense of employing fully trained staff and reliable, modern technology. As an example, in the United Stated, physicians are restricted or banned from owning or having a financial interest in such facilities to which they refer patients and benefit financially.

In conclusion, we generally concur with the recommendations of the Care Costs Task Group in this area. It is apparent that, unless the recommendations are implemented by the Health Care Council, the financing system will be unable to meet the demands of the increased costs as trended by this report without unacceptable levels of our individual personal incomes being spent on health care.

*Recommendations*

- *We support generally the recommendations of the Care Costs Task Group in this area including Option (b) that recommends:*

*"Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for serves rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees.*

*Approved fees be published annually and doctors be required to publish their own fees and display them in their own offices."*

- *We believe that strong efforts should be made to educate the public as they should be a part of the system of checks and balances to control costs. We believe that a simple booklet on the health care system, written so that consumers can understand the system and make appropriate choices, should be developed and distributed.*

## 6.10 Objective 6: To review the current health care financing system and recommend improvements and determine suitability for financing future needs.

As we have said earlier, we believe that the health care system has served Bermuda well. The revenue flow chart, as shown in *Appendix 1,* demonstrates the flow of funds within that system. In our report we have suggested some changes to the flow chart including the removal of the youth subsidy, the payment of insurance premiums by the Government to HIP instead of the subsidy to the Hospital, rationalization of the functions of the Mutual Reinsurance Fund and the LCCA and increased flexibility in the system to allow for the funding of preventative and long term health care.

Our overall conclusion is that current trend of increasing costs must be controlled before they become a serious strain on the financing system. We need to determine a realistic level of health care costs in relation to GDP and then use the Health Care Council, consumers, insurers, Government and service providers to control these costs at an acceptable level.

Some of the trends throughout this report might lead us to believe that a crisis is inevitable. However, we believe that implementation of the recommendations throughout this report will remove the prospect of crisis and result in Bermuda having an enviable health care system at a reasonable cost. The current system has served us extremely well but it is time to meet the challenge of future change in the delivery of health care in Bermuda. The formation of the Health Care Council as recommended by the Care Cost Task Group is, we believe, the critical control on future cost of the system. They must have a clear mission to ensure that the people of Bermuda will receive the best health care possible from a system that delivers this care in a flexible and efficient manner within the framework of some overall determination how much the people of Bermuda wish to spend on health care.

## 6.11 Health Care Council

This concept was developed by the Care Costs Task Group in advance of any determination by the Finance Task Group that such a body may be required. Our current thinking is that such a Council might be useful as a policy setting body and could serve as the buffer between Parliament and the health care system. We believe that the Council should be a policy setting body only with an objective being to monitor the health care system on an ongoing basis within a defined mission statement. All stake holders should be represented to clearly state the positions of their various organizations.

Organizations to be included would be:

- Consumers
- Unions
- Insurers
- Government
- Health care providers

We believe that such a body might be set up in a fashion similar to the Insurance Advisory Committee which was legislated by the Insurance Act 1978, and appears to be an excellent model to follow as it exemplifies the spirit of partnership between the Bermuda Government and the international insurance industry.

## 6.12 Appendix 1 - Revenue Flow Chart

### Comments

The purpose of the Bermuda Health Care System - Revenue Flow Chart is to identify revenue flows and not to provide a precise cash flow diagram.

The dollar amounts on the diagram were derived from a number of sources which are listed below. The figures have been restricted, where possible, to direct health care expenses. Some areas of health care have been excluded that are difficult to quantify. An illustrative list of exclusions is also given below.

There were significant gaps in the statistics available and often data conflicted. Best estimates were used where necessary. The issue of accuracy was not considered to be of over-riding importance as the intent was to use the diagram for broad in-principle discussions and diagnoses.

The collection of more accurate and consistent data in the future would assist in ongoing monitoring of the system. The diagram was, however, considered sufficiently accurate to assess the adequacy and efficiency of the current revenue system as well as provide a base for making recommendations for changes.

### Sources of Data

1. 1991 Census of Population and Housing
2. Household Expenditure Survey 1993
3. Bermuda Digest of Statistics 1993
4. Bermuda Hospitals Board Annual Report 1994
5. 1995 Health Care Review Committee data as supplied by:

    Health insurance companies
    Bermuda Hospitals Board
    Medical Practitioners

6. 1993/94 Estimates of Government Revenue and Expenditure.
7. Bermuda Monetary Authority.
8. Department of Social Insurance.
9. Accountant General.
10. Tax Commissioner's Office.

### Exclusions

1. Non-direct health care Government expenditure such as administrative expenses, child and family services etc.

2. Expenditure on Drug and Alcohol treatment programmes except as provided through insurers (very limited) and the local hospitals. Not included, therefore, are the Government grants and Health Department expenditures.

3. Employee Assistance Programme and counselling in general other than by psychiatrists and some psychologists.

4. Health care personal costs such as over-the-counter drugs.

The intent was to focus on the core of the system and these are unlikely and not intended to be, an exhaustive list of the exclusions.

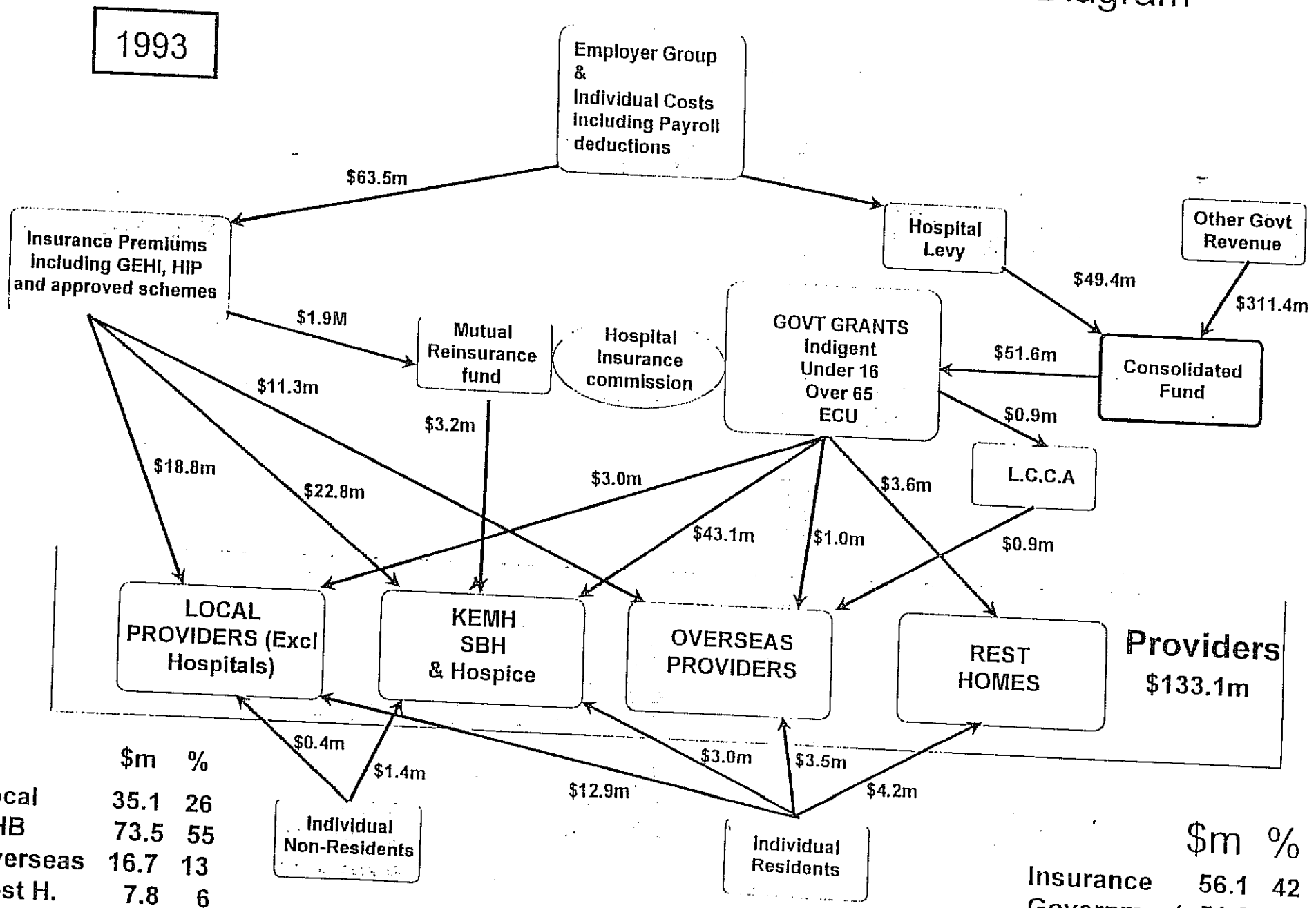
Summary

| Analysis of Revenue by Origin - 1993 | $m | % |
|---|---|---|
| Insurance | 56.1 | 42.1 |
| Government | 51.6 | 38.8 |
| Individual Resident | 23.6 | 17.7 |
| Individual non-Resident | 1.8 | 1.4 |
| | 133.1 | 100.0 |

Insurance revenue is derived 90% through group insurance contracts with employers and the remainder is obtained through individual contracts. Premiums are experienced-rated and unrelated to salary. Government revenue, derived from the old Hospital Levy (now payroll tax) is salary related.

| Analysis of Revenue to providers - 1993 | $m | % |
|---|---|---|
| Local providers (excluding hospitals) | 35.1 | 26.4 |
| Local hospitals and Hospice | 73.5 | 58.0 |
| Overseas providers | 16.7 | 12.5 |
| Local rest homes | 7.8 | 5.9 |
| | 133.1 | 100.0 |

# Bermuda Health Care System - Revenue Flow Diagram




| | $m | % |
|---|---|---|
| Local | 35.1 | 26 |
| BHB | 73.5 | 55 |
| Overseas | 16.7 | 13 |
| Rest H. | 7.8 | 6 |

| | $m | % |
|---|---|---|
| Insurance | 56.1 | 42 |
| Government | 51.6 | 39 |
| Individuals | 25.4 | 19 |

APPENDIX 1

## 6.13 Appendix 2 - Bermuda's Health Care System compared with other countries

The provision of health care services in Bermuda is delivered through a combination of compulsory private medical insurance and a Government subsidy which is paid to the general hospital in respect of children, persons over age 65 and persons who are declared indigent.

The private medical insurance plans are based on the Government Hospital Insurance Plan which was introduced in April, 1971. The plan provides hospital coverage for residents irrespective of their age or state of health and is compulsory for all employed and self-employed persons and their non-employed spouses.

The plan stipulates a standard hospital benefit which must be part of the coverage included in any hospital insurance offered by a licensed insurer or an approved self-administered scheme offered by an employer. The employer is responsible for paying the total cost of the premium but may recover up to one half of this cost from the insured person.

In 1993/94 Bermuda's total expenditures on health services including private expenditure approximated to 8% of GDP. The per capita expenditure on health services in the same year was $2,475.

In OECD countries, health expenditures as a proportion of GDP ranged between 4 - 12%. The United States led the OECD countries with a ratio of 12% from its essentially private health care system. The United Kingdom, which has a nationally organized health care system financed through general taxation, had a ratio of 6%. Since 1993/94 the portion of the U.S.A.'s GDP devoted to health care has increased to approximately 14%.

| COUNTRY | HEALTH PROGRAM | PER CAPITA HEALTH SPENDING 1989 | % OF GROSS DOMESTIC PRODUCT |
|---|---|---|---|
| Canada | A national system of government -financed universal health insurance provides Canadians with access to the doctor and hospital of their choice. The program, through general taxes and small local fees, pay physicians directly for services rendered. All hospital charges are covered. | $1,683 | 8.7 |
| Denmark | Everyone receives health care from a government-run medical system in which both physicians and hospitals participate. The national system, paid for through general taxes, provides all services free of charge, except for some co-pays for certain drugs and dental care. Patients are assigned to specific doctors. | $ 912 | 6.7 (1990) |
| France | Government health insurance, funded by social security contributions deducted from paychecks, covers all residents and pays for most hospital care and doctors' office visits. Physicians in private practice receive a set free from the government but also can charge the patient additional fees. Patients select their own physician. | $1,274 | 8.7 |
| United Kingdom | The National Health Service, a nationally organized health care system, provides free cradle to grave services to 90% of the country's population. Financed through general taxation, the program hires more than 25,000 general practitioners, 14,000 dentists, and runs more than 2,000 hospitals to provide care. | $ 836 | 5.8 |

| COUNTRY | HEALTH PROGRAM | PER CAPITA HEALTH SPENDING 1989 | % OF GROSS DOMESTIC PRODUCT |
|---|---|---|---|
| Sweden | A national health care system organizes both physician services and hospital care and is funded through general taxes. Everyone receives these services and hospital care free of charge, but pays some portion of the costs for drugs and dental care. Patients can choose their own physicians. | $1,361 | 8.8 |
| Japan | The Japanese system is a mix of both public and private doctor and hospital care, and public and private health insurance. Nearly everyone is covered by some program. In general, fees are controlled by the government with medical care typically costing very little for an individual. About half the population is covered at work; they contribute about 4% of their salary with the company contributing another 4% to a government managed program. The rest of the population pays a household premium to be covered under a National Health Insurance program. | $1,035 | 6.7 |
| Germany | Although the system is essentially a private one, national law requires insurance coverage for about 90% of all West Germans by one of several regulated health insurance programs. Most are covered through their employer. The insurance program then negotiate for services from associations of private physicians and associations of non-profit, private or community hospitals. The poor are insured under a general assistance program. | $1,232 | 8.2 |
| United States | No national health insurance system exists, except for the poor who are covered under state Medicaid programs paid for by state and federal taxes, and the elderly who are covered by Medicare, a social Security Administration program. Most Americans receive medical insurance through their employer, either contributing to the premium or receiving it as part of their compensation. Medical services are provided by individual doctors in private offices on fee-for-service basis or through health maintenance organizations where office visits are part of the program. Hospitals are run by private organizations. An estimated 37 million Americans lack adequate health insurance. | $2,354 | 11.8 |
| Bermuda | | $1,936 (1990) | 7.3 |

## 6.14 Appendix 3 - Analysis And Projections Of Health Care Costs - by employment income, G.D.P. and G.N.P.

The charts included in this section are used to demonstrate some of the information collected by the finance and costs committees. Chart 1 shows the increase in health care costs to the year 2010 assuming an increase in costs of 8% annually (medical inflation) and increases in employment income of 2.5% over the same period. The base year is 1995 (not shown on the graph) where the median salary of an individual person is estimated to be $32,000. The inflation rate for salaries of 2.5% is based upon recent settlements over the past 5 years and we have no reason at this time to believe that wages will increase at t higher rate without significant increases in productivity. The increase in medical inflation at 8% is again based upon recent past history. The chart does not take into accounts the changes in population demographics which would significantly increase the trend as a larger and older population will need to be supported by fewer workers. This cost must be controlled in some manner in the future unless the population decides that it perceives value in the additional expenditure. The question to be asked is "am I willing to give up a larger part of my income, and therefore to forego the purchase of other items, in order to pay for additional health care"?

Chart 1

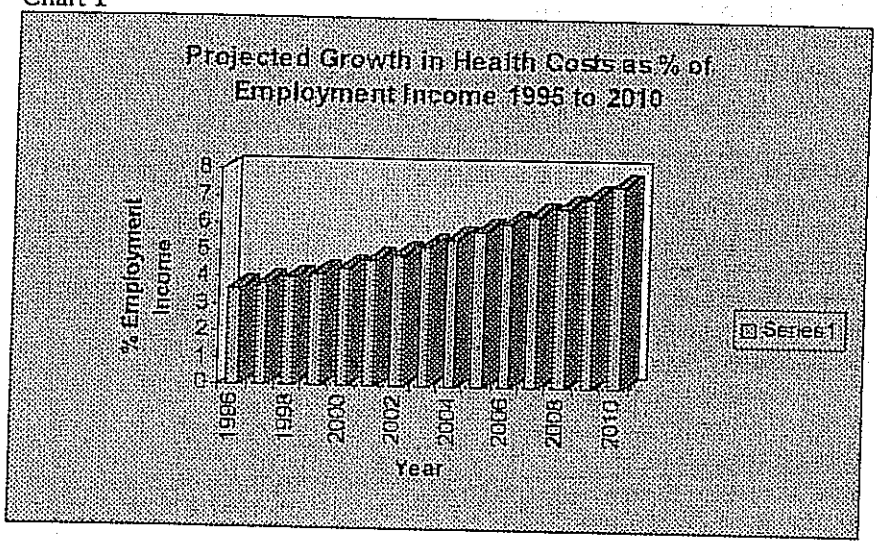
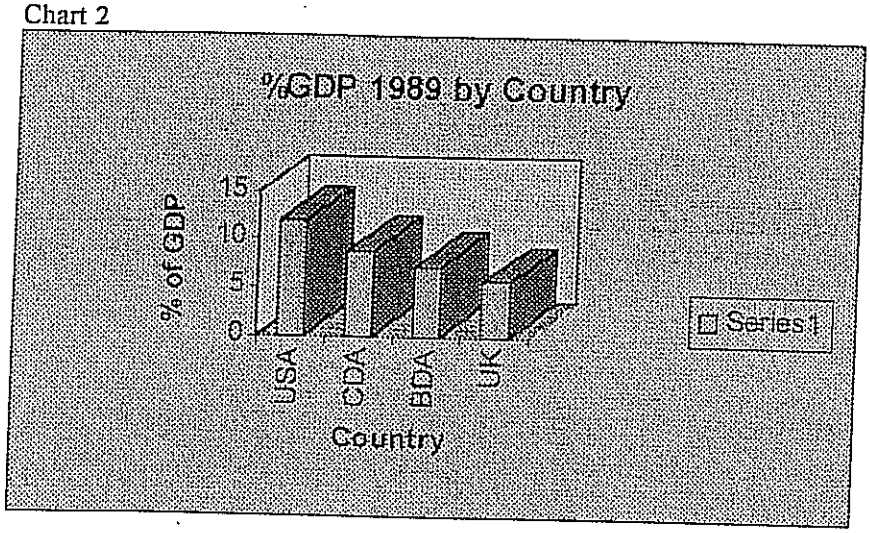


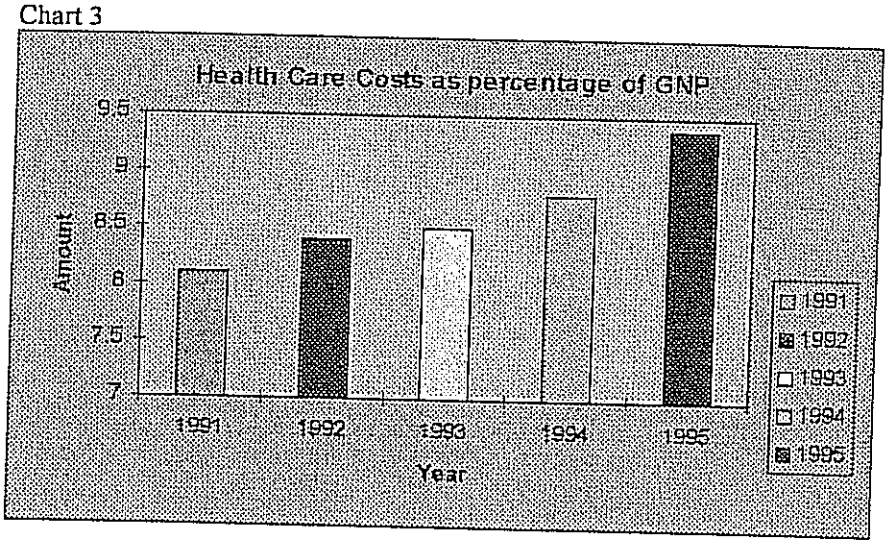
Chart 2 is used to demonstrate that Bermuda is relatively comparable to other countries when considering the percentage of GNP expended on health care. We need to determine at some point in time what the acceptable percentage of GNP is and then attempt to control costs at the acceptable level. It should be mentioned that the % of GNP continues to escalate, especially in countries such as the United States. The readers attention is drawn to **Appendix 2** from which this limited data was taken.

Chart 2




As mentioned in chart 2 there continues to be escalation of costs. Chart three demonstrates the recent trend over the past 5 years in Bermuda which can be used to predict the future unless steps are taken to control such costs.

Chart 3




The three charts presented together indicate that a top priority of the Health Care Council will be the reduction of the rate of increase of the costs of health care in the future. These charts are very basic and we have recommended throughout our report that actuaries be used to complete exhaustive analysis of the future trends and methods of reducing the increases in health care costs

# HEALTH CARE REVIEW

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# SECTION 7

## SUMMARY OF RECOMMENDATIONS

## 7.1 RECOMMENDATIONS - QUALITY OF CARE TASK GROUP

*It is recommended that:*

### 7.1.1 GOVERNMENT CLINICS

1. The Public Health Act governing Clinics be revised to include services to adolescents and males as well as Primary Prevention and Health Promotion Programmes, and Minor Emergencies.

2. Flexi-hours be extended to all clinics to facilitate access.

3. Other health care professionals be allowed to utilize the clinics in the evenings to provide services e.g. Mental Health Clinics, Counselling and Health Education Programmes.

### 7.1.2 PRIVATE LABORATORIES AND DIAGNOSTIC FACILITIES

1. A regulatory body consisting of, but not limited to, laboratory technicians be established to formulate and implement guidelines for all private laboratory and private diagnostic facilities.

Guidelines should include: certification of laboratory, continuing education of staff, certification and testing of equipment, quality control of testing methods, infection control and health and safety standards.

2. The Hospital Insurance Act be reviewed and consideration be given to include private laboratories that meet regulatory standards.

3. The composition of the Hospital Insurance Commission include representation from laboratory staff.

4. All Community Health facilities including private laboratories and private diagnostic facilities follow the existing biomedical waste protocol used at KEMH.

### 7.1.3 KING EDWARD VII MEMORIAL HOSPITAL

1. A system for monitoring each patient be developed from the door of the Emergency Department to the ward, to prevent unnecessary delay in the Emergency Department. (This recommendation is in the process of being implemented.)

2. An off-site non-urgent clinic for use by the community be established in conjunction with the Department of Health and Social Services.

3. The hours provided for physiotherapy and the limb and brace clinic on evenings and weekends be expanded.

4. Chiropody service be established as a standard benefit to provide foot care for patients.

5. In conjunction with the National Drug Authority, non-urgent detox beds in the community be established.

## 7.1.4 LONG TERM CARE FACILITIES: REST HOMES AND SKILLED FACILITIES

1. The regulations governing Nursing (Rest) Homes, currently in draft form, be passed into law as soon as possible. They are comprehensive and will address many of the issues and omissions found in the review.

2. A regulatory body be established to conduct surveys of the rest homes to determine compliance to regulations.

3. A Senior Centre be established in the East End of the Island to accommodate the elderly.

4. Additional physiotherapy service be provided in the community. This should be covered by insurance or a small charge made.

5. Medical coverage of the rest homes and Lefroy House be improved so as to provide regular review of the health status of the residents.

7. Prescription charges for seniors be exempted, reduced or covered by insurance.

8. A committee of home staff be established to prepare standards of care that would be implemented in all rest homes.

9. "Pooling" of transport resources (bus pool) be examined to facilitate residents in all homes taking advantage of the Seniors Community Programmes. Alternatively, a bus could be assigned to the Seniors Day Centres to pick up residents from homes for a small fee or charge.

10. A Peer Support group of Nursing Home Staff and Skilled Nursing Facilities be formed for sharing and exchange of ideas as well as educational opportunities.

11. Duty charges for equipment and bulk supplies to nursing homes be reviewed with a view to reducing costs.

12. Alternative care for the elderly be reviewed by insurance companies with the objective of reducing costs e.g. Home Care costs. This should be an insured benefit.

13. Diagnosis, monitoring and interventions of the psychogeriatric population be carried out by a designated body, to ensure consistency and continuity of care. The Geriatric Assessment Programme (GAP) team is already in place but lacks the manpower and resources to carry out this task. The team can be enlarged to perform this task by providing an assistant to the geriatrician, input from a psychologist and co-operation of mental welfare officers. Efforts should be made to improve the capabilities of the residential homes to cater to a more appropriate patient population and more effective use of them by a coordinated system of patient allocation. (An offer of the GAP team to train the residential home staff was largely ignored due to the financial implications of such trained staff to the management.)

14. Payments due from Government departments to institutions be made promptly as slow payments have, in the past, caused severe financial hardship and cash flow problems.

## 7.1.5 MENTAL HEALTH SERVICES

1. The revised Mental Health Act be passed into law as soon as possible.

2. A regulatory body be established to ensure that appropriate credentialing of mental health service providers.

3. A six to eight bed child and adolescent inpatient treatment facility with classroom attached be established.

4. A club house/drop in centre for the mentally ill be established as an alternative to their hanging out in the street.

5. Psychiatrists and general practitioners continue to be the gate keepers for the psychologists and para-professionals providing counselling services as the latter do not have diagnostic capabilities.

6. The mental health teams be relocated from their cramped location in the Psychiatric Outpatient Department.

7. Satellite mental health clinics be established at either end of the island and run by specially trained nurse practitioners. (This recommendation is in the process of being implemented.)

8. A day centre be established for the learning disabled.

9. The Quality Assurance Program at St. Brendan's Hospital be strengthened by

(i) Risk utilization Programme (combined with KEMH), and
(ii) Practice Guidelines and Standards of Care.

10. Workload measures be implemented at St. Brendan's Hospital to ensure cost effectiveness and efficiency of staff resources.

11. Consideration be given to increasing the 30 day assistance coverage for psychiatric care.

12. Insurance companies provide coverage to their clients for counsellor visits and not limit coverage to psychiatrists and psychologists only, providing referral is through a gate keeper.

13. An efficient and effective treatment programme be established to stabilize acute crises that occur in the psycho-geriatric population so that undue utilization of in-patient care beds caused by irreversible conditions, is prevented. It is further recommended that a dedicated unit for the treatment of acute medical and behavioural problems be established in the psycho-geriatric population.

### 7.1.6 CUSTOMER FOCUS

1. There is more accountability throughout the system. Patients want protection through legislation. Also feedback from consumers should be used to improve, monitor and evaluate the system.

2. Insurance coverage for seniors and teens be revised, especially for teenage mothers.

3. Perceived conflicts of interests be resolved e.g. physicians engaged in politics and as advisors/shareholders in health insurance companies.

4. Ways and means be found of decreasing the waiting time at both physicians' offices and the Emergency Room.

5. Consideration be given to providing consumers with more accessability to specialist care. In particular an allergist, dermatologist, ear/nose and throat specialist, interventional radiologist and neurologist were mentioned frequently. The absence of the latter three categories were also mentioned by physicians as contributing to the need for overseas travel.

6. The impact that child abuse has on the health of society be addressed.

7. Pregnancy be deleted from the pre-existing condition clauses contained in most health insurance policies.

### 7.1.7 MANPOWER

1. More specialists be allowed access on either a full-time or part-time basis.

2. More nurses skilled in gerontology, psychiatry and substance abuse therapy, nurse practitioners, nurse researchers, nursing educators and tutors, be employed.

3. Efforts are made to keep track of Bermudian physicians training abroad and their intentions of returning to practise in Bermuda.

### 7.1.8 PRIORITY RECOMMENDATIONS

1. The revised Mental Health Act be passed into law as soon as possible.

2. The regulations governing Nursing (Rest) Homes currently in draft form be passed into law as soon as possible. They are comprehensive and will address many of the issues and ommissions found in the review.

3. A committee of nursing home staff be set up to prepare standards of care that would be implemented in all rest homes.

4. Alternative care for the elderly be reviewed by insurance companies with the objective of reducing costs e.g. home care costs. This should be an insured benefit.

5. Greater public awareness and education take place on such topics as wellness and prevention, understanding health insurance policies, self-medication, pharmaceutical drugs (how, when and why to take them, are there generic equivalents), the workings of the hospital (demystifying the institution), living wills, children having children, proper diet, more sympathetic treatment and interaction with H.I.V. positive patients.

6. A regulatory body be formed, consisting of but not limited to, laboratory technicians to formulate and implement guidelines for all private laboratory facilities.

Guidelines should include: certification of laboratory, continuing education of staff, certification and testing of equipment, quality control of testing methods, infection control and health and safety standards.

## 7.1.9 RECOMMENDATIONS THAT ARE IN PROGRESS

*It is recommended that:*

1. A system be developed for decreasing the waiting time in Admissions from the Emergency Department to the ward, to prevent unnecessary delays.

2. The concept of Practice Guidelines or Critical Paths be researched as tools to systematically assess patient care outcomes.

3. A public relation program be developed to educate the community on the appropriate use of the Emergency Department and the range of services the hospital provide.

4. Efforts be made to explore the concept of Home Care. (K.E.M.H. have instituted a three month Pilot Home Care Programme details of which are given in the Bermuda Hospitals Board leaflet attached as Appendix 1 of the Quality of Care Report).

5. Satellite Mental Health Clinics be established at either end of the island and run by specially trained nurse practitioners.

6. The Hospitals Board implement a policy for drug and alcohol testing for all personnel to ensure safety of all.

7. Promotion of the philosophy that the Patient is Number One be undertaken by K.E.M.H.

## 7.1.10 RECOMMENDATIONS IN THE REPORT THAT HAVE BEEN ACCOMPLISHED

*It is recommended that:*

1. All ancillary departments be encouraged to develop clinical relevant indicators as continuous monitors, and to participate in the quality management program.

2. A process be established to routinely review the patients clinical records on a concurrent basis.

3. Key hospital areas necessary for specific inclusion in the Utilization Management program should be identified.

4. The Utilization Management Committee be encouraged to establish a "threshold" to trigger an evaluation of specific readmission cases. Unscheduled readmission rates to hospital is an important outcome assessment measure.

5. Efforts be directed to involving the physicians in the Board's Total Quality Initiative.

6. The Quality Assurance Program at St. Brendan's Hospital be strengthened by (i) Risk utilization Programme (combined with KEMH), (ii) Practice Guidelines and Standards of Care.

## 7.2 RECOMMENDATIONS - CARE COSTS TASK GROUP

*It is recommended that:*

### 7.2.1 BERMUDA HEALTH COUNCIL

1. A Bermuda Health Council (BHC) be established whose mission will be to "ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community. Emphasis will be to ensure consumers of health services are provided with high quality of care, and that their health needs are met and to encourage and promote a healthy lifestyle throughout the community." The establishment of the B.H.C. would be represented by a number of health care "stakeholders" such as the Bermuda Medical Society, Bermuda Hospitals Board, Health Insurers Association of Bermuda, consumer groups, unions, Government etc.

2. The BHC be mandated with the primary responsibilities to:

   i) Coordinate and integrate all health care services (both locally and overseas) to ensure delivery of services are provided in the most cost efficient manner.

   ii) Recommend changes to the health care delivery system in order to contain health care costs without jeopardizing quality of care.

   iii) Facilitate the establishment of quality control standards, certification, recertification and licensing requirements of all approved providers of the proposed Bermuda Health Plan ("BHP") and of other providers who are rendering valid and approved medical/dental care in Bermuda. All major medical equipment utilized in Bermuda should meet approved quality assurance standards and be registered or certified; the interpretation and accuracy of all diagnostic tests results performed outside the hospital setting should also meet approved standards.

   Equipment such as exercise thallium testing, M.R.I. and practices such as coronary angiography, laser gynaecological surgery, carotid Doppler studies should be investigated for their cost-effectiveness.

   iv) Recommend approval of any new service to be covered by the BHP. Non-approved services will not be funded under the BHP.

   v) Monitor the total health care costs of the health care services and ensure the growth is reasonable and manageable when compared with Bermuda's consumer price index.

   vi) Promote and develop health prevention and wellness programmes to build healthier lifestyles of Bermuda's residents.

   vii) Develop outcome measurement studies.

   viii) Develop/adopt medical protocol standards to contain unnecessary investigations and treatments.

   ix) Facilitate the establishment of overseas Preferred Provider Organizations ("PPO") for overseas health care and ensure a total managed care approach is adopted. The Council should become the "gatekeeper" to determine the medical necessity of overseas care.

x) Provide direction and management of the use of visiting specialists to the island. (In surveys undertaken by the Health Care Review, anallergist, dermatologist, ear, nose and throat specialist, interventional radiologist and neurologist were frequently mentioned as being needed and the cause of need to travel overseas in some cases.)

xi) Sanction fees for services rendered in the local hospital after such fees have been approved by the Bermuda Hospitals Board and after consultation with BMS and HIAB.

xii) Approve reasonable fees for all approved health care services rendered outside the hospital setting after consultations with the various approved providers and interested parties.

xiii) Approve the required maximum health premium rate to provide the defined levels of cover of the proposed BHP after consultation with the insurance industry and other interested parties. The determination of the maximum premium rate will be based solely on sound actuarial data and advice.

3. The newly established BHC be mandated to develop a Bermuda Health Plan (BHP) which will be available to all (replacing the existing hospital insurance plan). The emphasis of the Plan is to ensure all residents of Bermuda have access to and receive affordable health care coverage which aims to control the individual's financial exposure to needed health services whilst ensuring that their health care needs are met. Emphasis will be placed on the promotion of health wellness and the benefits provided by the Package will be established to meet this objective. Briefly, the Package will:

i) Provide universal cover to all at an affordable price;

ii) Promote health wellness;

iii) Promote the use of intermediate hospital care, acute home health care and nursing care in lieu of hospital confinement; and

iv) Recognize only approved providers for reimbursement of services.

### 7.2.2 OTHER RECOMMENDATIONS

***It is recommended that:***

4. Necessary overseas medical care be provided through the use of the Mutual Reinsurance Fund (M.R.F.) for persons who do not have access to major medical insurance.

5. The role/mandate of the Hospital Insurance Commission be reviewed to determine its future role in light of the formation of the Bermuda Health Council.

6. The Bermuda Hospitals' Board be required to:

i) Restructure its charging system to charge the appropriate per diem costs for in-patient care at all levels so that the in-patient charges fully cover operating costs.

ii) As a result of (i) above, reduce accordingly the Hospital's out-patient fees.

iii) Review and shorten, where appropriate, the average length of in-patient stay per diagnostic grouping.

iv) Establish a skilled nursing facility at the hospital for transfer of patients who need less care than acute care, but who are not medically able to be discharged.

7. Employers be required to provide the Bermuda Health Plan to their retirees after certain criteria are met.

8. An island wide asthma education campaign be instituted in order to reduce hospital in/out-patient cost in this area.

9. The use of group medical practices be promoted so that cost efficiencies and extended hours of operation are available to the patient.

10. The funding of long term chronic care cost of the elderly be accomplished by the establishment of a similar scheme as that being proposed for the Island's National Pension Scheme. That is, monies be invested today to meet the projected long term care costs of individuals as we move into the 21st century.

11. Guidelines be estabished and monitored concerning the ownership of private facilities providing medical services to ensure that the facilities are not over utilized by doctor(s) who are financially involved in the ownership of such facilities.

**Dentistry**

12. An in-depth review of the practices and procedures of the dental care industry be conducted by the proposed BHC as a result of the significant costs in this area.

13. Due to the estimated high costs of private dentistry in Bermuda the Bermuda Health Council, as a priority, establish a special committee to thoroughly investigate the practices and procedures of the private dental industry.

14. The Bermuda Dental Board be reorganized with representation from the Dental Association, the Ministry of Health, the consumer and the insurance industry. The Dental Board should report to the Minister of Health through the Bermuda Health Council (BHC).

The mandate of the Dental Board should be:

a) To evaluate and coordinate all issues relating to dentistry in Bermuda;
b) To advise the Bermuda Health Council on future needs of the profession, local and foreign; and
c) To review ethical guidelines for the practice of dentistry in Bermuda.

15. Encourage the training of Bermudians as dental technicians and dental assistants.

16. Dental costs be reduced by:

a) Investigating the feasibility of setting up a reliable, good quality dental laboratory facility in Bermuda or as an alternative, establish a preferred, reasonably priced, quality overseas laboratory for the completion of all laboratory needs;

b) Considering reduction of Customs Duty on dental equipment and materials; and

c) Reviewing current dental fee guidelines for establishment of fees.

**Pharmaceutical matters**

17. A National Drug Formulary (possibly by extending the Hospital Pharmacy) be established in order to reduce prescription drug cost in the future and to reduce the reliance on the one main drug wholesaler in existence in Bermuda who currently supplies approximately 75% of all drugs.

18. The Bermuda Patent Laws be reviewed and brought into line with England in the first instance, particularly with regard to "license of right" which must be sold by the original manufacturer

19. A change in the Pharmacy and Poisons Act (standard Rx form) be made to encourage greater generic prescribing by doctors.

20. The one prescription drug wholesaler in Bermuda be encouraged:

a) To stock a full range of generic substitutes for drugs that are not protected by patents;

b) Do more research to obtain cheaper prices on brand name drugs;

c) Buy brand name drugs from wholesalers overseas when this results in a cheaper price than is available directly from the manufacturer; and

d) Investigate the reasons for high mark-ups on pharmaceutical products, bearing in mind that the average food wholesale markup is between 20% and 30%.

21. The practice of preventative medicine be encouraged to increase wellness of mind and body.

22. Doctors be encouraged to prescribe more economically, e.g.

a) Prescribe generically where possible; and

b) Prescribe a short trial of an expensive drug to establish suitability, followed by a larger refill quantity.

23. Pharmacy Owners be asked to reconsider the flat dispensing fee and either:

a) Substitute a 2 or 3 tiered fee depending on the cost of the drug; or

b) Consider a % markup on the cost of the drug plus a small professional fee

24. Public education about the use of generics be promoted.

25. Health care providers' fee reimbursement via the B.H.C. be as follows:

a) i) Approved providers, in order to retain their approval, must not be able to charge in excess of the approved fees of the B.H.P.

ii) Providers who are not approved will not be reimbursed at all for services rendered to an insured of the B.H.P.

**OR**

b) i) Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for services rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees.

ii) Approved fees be published annually and doctors be required to publish their own fees and display them in their own offices.

(Alternative (a) would contain costs more effectively, however, alternative (b) would provide the consumer with greater choice, but would not contain costs as effectively.)

26. The Bermuda Medical Council's membership and terms of reference be reviewed. The Bermuda Medical Council should consist of a nonpartisan chairperson appointed by the Minister of Health, two consumer advocates and three representatives from Bermuda Medical Society. We recommend the Medical Council be empowered to:

i) Recommend and advise the proposed Bermuda Health Council on needed medical facilities, visiting specialists and doctors required for the island;

ii) Establish and handle all disciplinary procedures; and

iii) Establish and monitor quality control standards pertaining to registration recertification and educational improvement requirements.

27. Encourage routine doctors visits and routine follow-up care to be provided by qualified nurse practitioners where appropriate.

28. Government consider establishing an ambulatory health care program which would come under the proposed Bermuda Health Council.

29. Immediate steps be taken to improve hospital costs in the short term as follows:

a) A ward of the Hospital be converted into an intermediate care unit which would provide nursing care on a stepped down and less costly basis than the Hospital's acute care ward;

b) Private enterprise be encouraged to extend and/or supply additional nursing homes; however, the bed availability and the necessity of a nursing home facility over home care be closely monitored. Further, criteria for nursing home acceptance be established;

c) Provision for financial allowances to families for home nursing care; and

d) Extension of the Department of Health district nursing services to assist with home care.

30. Bermuda reinsure its own uninsured, uninsurable segment of the population, possibly through an extension of the existing Mutual Reinsurance Fund in order to provide some level of protection for the uninsured/underinsured population.

## 7.3 RECOMMENDATIONS - NEEDS ASSESSMENT TASK GROUP

This group made recommendations in a number of areas relevant to the collection and analysis of health data and the use and dissemination of health information:

### 7.3.1 Health System Vision, Goals and Objectives

**The Ministry of Health and Social Services should:**

1. Assure development of a clear vision statement for the island's health system;

2. Take the lead in developing a set of health goals for the island; and

3. Take steps to secure a commitment to the vision for health and the health goals developed for the island from all stake-holders, including:

- the general public
- health care providers and professional organizations
- advisory groups
- the hospitals and other human services agencies
- the government

### 7.3.2 Community Health Assessment

**The Department of Health should:**

1. Assure and facilitate completion of a community health assessment;

2. Facilitate the identification of priority health-problems based on the results of the community health assessment;

3. Develop a public health plan for the island based on the result of the community health assessment and the identification of priority health problems;

4. Develop a set of health promotion and disease prevention objectives for the island;

5. Develop a process to monitor health promotion and disease prevention objectives and identify significant gaps;

6. Develop a set of health status indicators for the island - these indicators should be outcome measures rather than process measures;

7. Use a standardized format, such as the Assessment Protocol for Excellence in Public Health (APEX/PH), the Department should conduct a community health assessment process on a regular basis. Every two years is recommended;

8. Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to set priorities;

9. Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to develop strategies to address priority health problems.

### 7.3.3 Capacity and Infrastructure

**The Department of Health should:**

1. Examine its roles and responsibilities with regard to community health assessment. It should assess its capacity to provide information and data analysis to policy makers (i.e. the Minister and the Cabinet) with periodic information and data analyses concerning priority health problems, using a standardized process such as APEX/PH;

2. Assess its technical capability to collect, analyse, interpret, and disseminate health data;

3. Assess its capacity to monitor established health goals and identify disease prevention and health promotion objectives;

4. Assess its technical ability to conduct periodic health surveys;

5. Evaluate its access to epidemiological expertise to provide for the interpretation of health data. The department should consider formal arrangements with an external public health agency;

**The Registrar General should** assess the capacity of the Registry General to collect and analyze health data in a timely manner.

### 7.3.4 Public Health Information System

**The Ministry of Health and Social Services should** take the lead in developing a comprehensive integrated Public Health Information System (PHIS) linking vital records, hospital data and disease surveillance systems.

**The Minister of Health and Social Services should** appoint a Steering Committee to oversee the Public Health Information System (PHIS). The committee should include representatives from the public health service, the Hospitals Board, the Statistical Department, the Registrar General's Office, as well as health care providers.

**The PHIS Steering Committee should:**

a) Manage the development and operation of quality data management systems.

b) Manage linkage of health information systems in both the public and private sectors.

c) Assure appropriate data-sharing, and data-transfer between the Department of Health, the Bermuda Hospitals Board, the Registry General and the Statistical Department. The Committee should set standards for data-transfer and use, and recommend standards for data collection.

d) Develop an integrated data plan for health assessment involving the vital records, hospital data and disease surveillance systems.

e) Recommend standards for the collection, analysis and reporting of data used in the community health assessment process.

f) Include systems for the surveillance of administrative data, birth defects/disabilities, selected behavioral risk factors, selected cancers, communicable diseases of public health importance, selected non-communicable (chronic) diseases, injuries and accidents, occupational illness and injury, vaccine-preventable diseases and vital statistics. In addition, it should provide for pharma co-surveillance.

**The Department of Health should:**

1. Maintain a database on health facilities, human resources, health services and health related organizations;

2. Together with the Hospitals Board explore the feasibility of a computer network linking the hospital, health care providers (physicians) and the public health service;

3. Maintain a computerized management information system that allows for the analysis of administrative, demographic, epidemiological and service utilization data, to provide information for planning and evaluation purposes;

4. Enter into formal agreement with the Hospitals Board, the Statistical Department and the Registrar General, concerning the collection, use and transfer of health data. These agreements should be reviewed at least biennially;

5. Assure the collection and dissemination of information, based on a sample of the population, on health behaviors, and preventive practices. Behaviour risk factor surveys should be instituted using a standardized format such as the Behaviour Risk Factor Surveillance System (BRFSS) developed by the Centres for Disease Control (CDC);

6. At least every five years convene a round-table discussion with key individuals and organizations involved in public health to review their goals, perceptions of their roles, authority and needs. This group should include:

   - other government agencies
   - interest groups and professional associations
   - the hospitals and other potential stake-holder

### 7.3.5 Dissemination of Health Information and Data

**The Registrar General should** produce quarterly vital statistics reports.

**The Department of Health should:**

1) Produce annual reports on the health status of the population;
2) Disseminate information on health data to the public on a regular basis through a newspaper column or a regular newsletter; and
3) Make health information and data available to interested community groups and organizations for their health related activities (e.g. Allan Vincent Smith Foundation, Diabetes Assocation).

**The Chief Medical Officer should:**

1) Produce annual "Report Cards" on the health status of children and the elderly;

2) Compile an annual listing of health-related information systems and databases maintained in the community (e.g. Cancer Registry).

## 7.4 RECOMMENDATIONS - FINANCE TASK GROUP

This group made a number of recommendations relating to the financial structuring of Bermuda's existing health care system.

**It is recommended that:**

### 7.4.1 Hospital Insurance Commission

1. Consideration be given to broadening the function of the Hospital Insurance Commission (HIC) to monitor and help finance preventative and home health care; if not, another body will need to be created to address these areas. Amendments to the Hospital Insurance Act should be considered as soon as possible.

2. The HIC or some other group have wider representation so that its policy recommendations will carry more weight. We recommend some form of buffer between HIC and the direct influence of politics.

3. The actuarial assessment of premiums by HIC or some other group be made public for use by all stakeholders in the health care system including the private insurers who provided certain information used in the study. The setting of premium rates and the determination of the standard benefit should be more readily understood by the general public.

4. The HIC or some other group and private insurers meet on a regular basis to discuss matters affecting the delivery of health care.

5. Government consult with the HIC or some other group on all matters falling within their mission.

6. The HIC or some other group work on its relationship with the Bermuda Hospitals Board and regular meetings are suggested in this area to ensure coordinated financial decisions.

7. The HIC or some other group immediately assess how it can meet the needs of the public by studying the standard benefit package to determine to what extent it needs to be amended to consider home and preventative health care. To complete this objective consideration must be give to 1) above as soon as possible.

8. The systems at HIC or some other group, which are used to accumulate and assess claims before payment to the Hospitals, be updated to allow for more timely payment. We should expect the Hospitals to be run like a business and likewise HIC. The cash flow problem is somewhat mitigated by monthly payments by HIC to the Hospitals, however, the annual reconciliation and adjustment to actual takes far too long and delays the issuance of the Hospitals' annual report significantly.

9. The HIC have a clear reporting process and follow the requirements of its Act with regard to the production and presentation of an annual report.

10. The above recommendations be implemented within the current framework expanded to meet today's health care needs or within the framework of the Health Care Council (see Care Costs Sub Committee report).

### 7.4.2 Mutual Reinsurance Fund

The Mutual Reinsurance Fund (M.R.F.) be rationalized in the context of the current health care environment and possible organization changes to the delivery of health care services in Bermuda.

### 7.4.3 Subsidies

1. The St. Brendan's subsidy, which represents a general grant to cover operating expenses of St. Brendan's, should continue.

2. Other subsidies, which represent amounts paid to the Mutual Reinsurance Fund for the hospice, dialysis, diabetic education etc., should remain.

3. The subsidy program for the aged be expanded by bringing the benefits up to 100%. In addition, the indigent who are over 65 years of age should be re-classified as aged.

4. The youth subsidy be removed and any youth who may be indigent be reclassified to the indigent classification. Private insurers and HIP must increase premiums over some period of time to cover all youth whose parents are employed for standard benefit.

### 7.4.4 Determination and Treatment of Indigency

1. Responsibility for determination of "indigency" be transferred from the Bermuda Hospitals Board to the Department of Financial Assistance.

2. The indigent who are over 65 be reclassified to the aged category to substantially reduce the number of indigent. This will also lower the indigent subsidy to the extent that the self funded 10% to 20% should be transferred to the aged subsidy.

3. The indigent be enrolled in H.I.P., and the premiums be funded by transferring the current subsidy from the Hospitals to the HIP and determining a rate at which the Government will subsidize HIP which will approximate the current number of indigent divided by the current subsidy.

4. The current system to handle claims be continued. Eventually all HIP participants could subsidize the indigent through equalization of premium payments to bring the indigent in line with the rest of the HIP population.

5. An insurance card be issued to all indigent to allow them to access the standard health care benefits (to be defined by the Health Care Council), including doctor's visits.

6. An actuarial study be commissioned to determine the additional cost to the system, if any, of allowing this card to be used to obtain services from other health care providers, such as doctors visits, considering the resultant decrease in emergency hospital visits. This matter should be considered within the expanded purview of the proposed Health Care Council.

7. The services offered by the Government Clinic be expanded for the indigent only, to reduce their inappropriate use of the Emergency Room.

### 7.4.5 Insurance and Government Funding for Long-term and Home Health Care

1. An intermediate care unit in the King Edward VII Memorial Hospital be established.

2. An actuarial study be undertaken to determine the projected costs of long-term care and home care.

3. The Geriatric Assessment Programme team responsibilities be expanded to:

   a) co-ordinate the overall placement of residents in long-term facilities based on the level of care required; and,

   b) determine the families'/residents' ability to pay.

4. The standard benefit be expanded to include long-term and home care with clearly and stringently enforced guidelines with payments being made from Mutual Reinsurance Fund.

5. New facilities or capital improvements to existing facilities be funded through a variety of means emphasizing charitable fund-raising mechanisms.

### 7.4.6 Strategies to Reduce Health Care Costs

1. To control the escalating cost of health care consideration should be given to:

   a) Educating the public on the use of medical services to reduce unnecessary usage;

   b) Instituting a user pay concept for a fixed portion of the fee so that patients have a clearer understanding of the costs of health services; and

   c) Developing fee guidelines for payments to physicians. The fee guidelines would be visible in the physicians offices and could be compared with the actual charges made by physicians with insurance covering the fee guidelines amounts only.

   Such measures must be undertaken as the increasing cost of the health care system as it relates to Bermuda's overall GDP (see Health Care Cost) cannot continue unless the public are willing to pay an increased amount of their income for health care services.

2. The current financing system which utilizes charities such as the L.C.C.A. be re-examined. The financing for catastrophic care should be returned to the M.R.F., and the M.R.F. should continue to be funded through a premium assessment to be collected by the H.I.P. and the private insurers. Clear criteria should be developed for the use of M.R.F. funds to allow quick decision-making during a patient's health care crisis.

3. The Government of Bermuda contract for an actuarial study to determine the impact of the expansion of long-term health care on the delivery of health care services in Bermuda, the expected cost of such health care, the expected rate of development of such health care and ways to fund such health care by the current population.

4. A community rating system be developed to assist smaller organizations to be able to gain the economies of scale benefits in their premium rating, as is the case with larger organizations.

5. Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for services rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees. Approved fees should be published annually and doctors should be required to publish their own fees and display them in their own offices.

6. Strong efforts be made to educate the public as they should be a part of the system of checks and balances to control costs. A simple booklet on the health care system, written so that consumers can understand the system and make appropriate choices, would be very useful.

### 7.4.7 Proposed Bermuda Health Council and Bermuda Health Plan

1. That Government immediately take steps to establish a Bermuda Health Council with the authority to meet its mandate "to ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community. Emphasis will be to ensure consumers of health services are knowledgeable in their choices, are provided with high quality of care, and that their health needs are met and to encourage and promote a healthy lifestyle throughout the community." The Council should be apolitical and should not report to a specific Minister. It should have the freedom and authority to control the health care system

2. Government be a stakeholder on the Council and provide its input in a similar fashion to the other stakeholders.

3. The Hospital Insurance Commission (HIC) be a stakeholder, basically representing the Ministry of Finance/Dept. of Social Insurance until its future role has been reinforced/agreed.

4. Individual stakeholders represent their special interest groups; in this manner a certain "healthy tension" will exist and promote creative solutions. It is understood that stakeholders must also seriously consider the welfare of Bermuda and its citizens as a primary factor in their decision making. A corporate perspective in this regard is essential.

5. The work completed by the Cost Group in the area of the Bermuda Health Plan (the new standard benefit) be considered by the proposed Health Care Council whose first mandate should be the revision of the standard benefit giving due consideration to the contents of this report.

### 7.4.8 Overseas Care

1. Local service providers work to expand the number of visiting specialists to provide non-emergency consultations and surgery. This is a matter that will need to be considered by the proposed Bermuda Health Council.

2. New technical equipment be purchased after the completion of the appropriate cost-benefit analyses.

3. The insurers and the H.I.P. (depending on the coverage provided by the new standard benefit) should establish more Preferred Provider arrangements.

4. A managed care approach be adopted.

## 7.5 OTHER CONCERNS THAT WILL NEED TO BE ADDRESSED

1. A rapid rise in the cost of malpractice premiums - a trend which may result, as it has done in the States, in the increasing practice of defensive medicine, a deterioration in the patient/physician relationship and a strong demand for fee increases by physicians to offset increased premiums.

2. Reducing the load of the community care-giver by helping them in their tasks and striving to maintain their well-being as their existence reduces the load on in-patient hospital care.

3. Increasing "bad debts" incurred by both physicians and the hospitals.

# HEALTH CARE REVIEW

# ACTION PLAN

The following is the recommended Action Plan of the Health Care Review, based on the recommendations made by each Task Group. Where possible, the organization, Government department or body currently responsible for the review, monitoring and/or implementation of the recommendation has been identified. However, in some cases, the recommendations refer to organizations such as the proposed Bermuda Health Council which does not currently exist.

As it is anticipated that the establishment of the Bermuda Health Council and its legal framework may take some time to create and develop, nevertheless the Review felt that a number of interim steps could be implemented in the short-term to improve standards and availability of health-care, and/or help to reduce health costs. These priorities (listed as follows) are strongly recommended by the Health Care Review as a "next steps" procedure, concurrent with those recommendations set out in the Action Plan for whom an organization has been identified.

1) Bermuda Medical Society (B.M.S.), Health Insurers Association of Bermuda (H.I.A.B.) and Bermuda Dental Association jointly develop reasonable fees for all services provided within the doctors'/dentists' offices and private laboratory/diagnostic facilities. These fees, once established, be published and placed in all doctors'/dentists' offices/facilities;

2) The Bermuda Hospitals Board review its method of establishing charges and adjust to reflect true costs of services;

3) B.M.S., H.I.A.B. and Bermuda Hospitals Board work jointly together to establish overseas preferred provider organizations for Bermuda who will provide both external and internal support to our medical care system;

4) Mandate that employers continue previous health insurance benefit coverage to their retirees;

5) Bermuda Hospitals Board to establish an intermediate care ward for patients needing less intensive care than that provided in a regular acute care ward;

6) Extend the current standard hospital benefit to include limited cover of a stepped-down intermediate care ward of K.E.M.H;

7) Institute an island-wide asthma campaign to provide educational awareness in order to reduce unnecessary hospitalization costs, particularly among child admissions;

8) Review and possibly expand the role of the K.E.M.H. pharmacy in order to provide for the needs of Bermuda and promote the use of generic drug equivalents;

9) The Pharmaceutical Association and B.M.S. be requested to jointly develop and make available to the public, educational material concerning the use of generic drugs;

10) A committee be formed to closely investigate the costs and practices associated with dentistry in Bermuda;

11) The legal use of Bermuda Relative Value Schedule (B.R.V.S.) be mandated for all services rendered by medical/dental professionals when such services are being provided in the hospital setting; and

12) Insurance industry statistics be obtained for 1994, 1995 and subsequent years in similar or same format as done by Health Care Costs Task Group to achieve continuity and permit analysis of trends.

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| **7.1 RECOMMENDATIONS - QUALITY OF CARE TASK GROUP** | 7.1 | 7.1 | 7.1 |
| **7.1.1 GOVERNMENT CLINICS** | 7.1.1 | 7.1.1 | 7.1.1 |
| 1. The Public Health Act governing Clinics be revised to include services to adolescents and males as well as Primary Prevention and Health Promotion Programmes, and Minor Emergencies. | Dept. of Health (D.O.H.) | | |
| 2. Flexi-hours be extended to all clinics to facilitate access. | Dept. of Health | | |
| 3. Other health care professionals be allowed to utilize the clinics in the evenings to provide services e.g. Mental Health Clinics, Counseling and Health Education Programmes. | Dept. of Health | | |
| **7.1.2 PRIVATE LABORATORIES AND DIAGNOSTIC FACILITIES** | 7.1.2 | 7.1.2 | 7.1.2 |
| 1. A regulatory body consisting of, but not limited to, laboratory technicians be established to formulate and implement guidelines for all private laboratory and private diagnostic facilities. | | | |
| Guidelines should include: certification of laboratory, continuing education of staff, certification and testing of equipment, quality control of testing methods, infection control and health and safety standards. | | | |
| 2. The Hospital Insurance Act be reviewed and consideration be given to include private laboratories that meet regulatory standards. | | | |
| 3. The composition of the Hospital Insurance Commission include representation from laboratory staff. | | | |
| 4. All Community Health facilities including private laboratories and private diagnostic facilities follow the existing biomedical waste protocol used at KEMH. | | | |
| **7.1.3 KING EDWARD VII MEMORIAL HOSPITAL** | 7.1.3 | 7.1.3 | 7.1.3 |
| 1. A system for monitoring each patient be developed from the door of the Emergency Department to the | K.E.M.H. | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| ward, to prevent unnecessary delay in the Emergency Department. (This recommendation is in the process of being implemented.) | | | |
| 2. An off-site non-urgent clinic for use by the community be established in conjunction with the Department of Health and Social Services. | D.O.H./K.E.M.H. | | |
| 3. The hours provided for physiotherapy and the limb and brace clinic on evenings and weekends be expanded. | K.E.M.H. | | |
| 4. Chiropody service be established as a standard benefit to provide foot care for patients. | | | |
| 5. In conjunction with the National Drug Authority, non-urgent detox beds in the community be established. | | | |
| **7.1.4 LONG TERM CARE FACILITIES: REST HOMES AND SKILLED FACILITIES** | 7.1.4 | 7.1.4 | 7.1.4 |
| 1. The regulations governing Nursing (Rest) Homes, currently in draft form, be passed into law as soon as possible. They are comprehensive and will address many of the issues and omissions found in the review. | D.O.H./Attorney General (AG) | | |
| 2. A regulatory body be established to conduct surveys of the rest homes to determine compliance to regulations. | | | |
| 3. A Senior Centre be established in the East End of the Island to accommodate the elderly. | | | |
| 4. Additional physiotherapy service be provided in the community. This should be covered by insurance or a small charge made. | | | |
| 5. Medical coverage of the rest homes and Lefroy House be improved so as to provide regular review of the health status of the residents. | D.O.H. | | |
| 7. Prescription charges for seniors be exempted, reduced or covered by insurance. | Health Insurers Assoc. of Bda. (H.I.A.B.)/Pharmaceutical Assoc. | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 8. A committee of home staff be established to prepare standards of care that would be implemented in all rest homes. | | | |
| 9. "Pooling" of transport resources (bus pool) be examined to facilitate residents in all homes taking advantage of the Seniors Community Programmes. Alternatively, a bus could be assigned to the Seniors Day Centres to pick up residents from homes for a small fee or charge. | | | |
| 10. A Peer Support group of Nursing Home Staff and Skilled Nursing Facilities be formed for sharing and exchange of ideas as well as educational opportunities. | | | |
| 11. Duty charges for equipment and bulk supplies to nursing homes be reviewed with a view to reducing costs. | | | |
| 12. Alternative care for the elderly be reviewed by insurance companies with the objective of reducing costs e.g. Home Care costs. This should be an insured benefit. | Health Insurers Assoc. Of Bermuda | | |
| 13. Diagnosis, monitoring and interventions of the psychogeriatric population be carried out by a designated body, to ensure consistency and continuity of care. The Geriatric Assessment Programme (GAP) team is already in place but lacks the manpower and resources to carry out this task. The team can be enlarged to perform this task by providing an assistant to the geriatrician, input from a psychologist and co-operation of mental welfare officers. Efforts should be made to improve the capabilities of the residential homes to cater to a more appropriate patient population and more effective use of them by a coordinated system of patient allocation. (An offer of the GAP team to train the residential home staff was largely ignored due to the financial implications of such trained staff to the management.) | | | |
| 14. Payments due from Government departments to institutions be made promptly as slow payments have, in the past, caused severe financial hardship and cash flow problems. | Ministry of Finance | | |
| **7.1.5 MENTAL HEALTH SERVICES** | | | |
| 1. The revised Mental Health Act be passed into law as soon as possible. | 7.1.5<br>D.O.H./ Att. General | 7.1.5 | 7.1.5 |
| 2. A regulatory body be established to ensure that appropriate credentialing of mental health service providers. | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 3. A six to eight bed child and adolescent inpatient treatment facility with classroom attached be established. | | | |
| 4. A club house/drop in centre for the mentally ill be established as an alternative to their hanging out in the street. | | | |
| 5. Psychiatrists and general practitioners continue to be the gate keepers for the psychologists and para-professionals providing counselling services as the latter do not have diagnostic capabilities. | | | |
| 6. The mental health teams be relocated from their cramped location in the Psychiatric Outpatient Department. | | | |
| 7. Satellite mental health clinics be established at either end of the island and run by specially trained nurse practitioners. (This recommendation is in the process of being implemented.) | Bermuda Hospitals Board (B.H.B.) | | |
| 8. A day centre be established for the learning disabled. | | | |
| 9. The Quality Assurance Program at St. Brendan's Hospital be strengthened by | Bermuda Hospitals Board | | |
| (i) Risk utilization Programme (combined with KEMH), and | | | |
| (ii) Practice Guidelines and Standards of Care. | | | |
| 10. Workload measures be implemented at St. Brendan's Hospital to ensure cost effectiveness and efficiency of staff resources. | Bermuda Hospitals Board | | |
| 11. Consideration be given to increasing the 30 day assistance coverage for psychiatric care. | H.I.A.B. | | |
| 12. Insurance companies provide coverage to their clients for counsellor visits and not limit coverage to psychiatrists and psychologists only, providing referral is through a gate keeper. | H.I.A.B. | | |
| 13. An efficient and effective treatment programme be established to stabilize acute crises that occur in the psycho-geriatric population so that undue utilization of in-patient care beds caused by irreversible | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| conditions, is prevented. It is further recommended that a dedicated unit for the treatment of acute medical and behavioral problems be established in the psycho-geriatric population. | | | |
| **7.1.6 CUSTOMER FOCUS** | 7.1.6 | 7.1.6 | 7.1.6 |
| 1. There is more accountability throughout the system. Patients want protection through legislation. Also feedback from consumers should be used to improve, monitor and evaluate the system. | All service providers | | |
| 2. Insurance coverage for seniors and teens be revised, especially for teenage mothers. | H.I.A.B. | | |
| 3. Perceived conflicts of interests be resolved e.g. physicians engaged in politics and as advisors/shareholders in health insurance companies. | H.I.A.B./Bda. Medical Council (B.M.C.) | | |
| 4. Ways and means be found of decreasing the waiting time at both physicians' offices and the Emergency Room. | B.H.B./ Bda. Medical Society (B.M.S.) | | |
| 5. Consideration be given to providing consumers with more accessibility to specialist care. In particular an allergist, dermatologist, ear/nose and throat specialist, interventional radiologist and neurologist were mentioned frequently. The absence of the latter three categories were also mentioned by physicians as contributing to the need for overseas travel. | | | |
| 6. The impact that child abuse has on the health of society be addressed. | Dept. of Health | | |
| 7. Pregnancy be deleted from the pre-existing condition clauses contained in most health insurance policies. | H.I.A.B. | | |
| **7.1.7 MANPOWER** | 7.1.7 | 7.1.7 | 7.1.7 |
| 1. More specialists be allowed access on either a full-time or part-time basis. | | | |
| 2. More nurses skilled in gerontology, psychiatry and substance abuse therapy, nurse practitioners, nurse researchers, nursing educators and tutors, be employed. | D.O.H./B.H.B./Bda. Nurses Association | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 3. Efforts be made to keep track of Bermudian physicians training abroad and their intentions of returning to practise in Bermuda. | D.O.H./Min. of Labor & Home Affairs | | |
| **7.1.8 RECOMMENDATIONS THAT ARE IN PROGRESS** | 7.1.8 | 7.1.8 | 7.1.8 |
| 1. A system be developed for decreasing the waiting time in Admissions from the Emergency Department to the ward, to prevent unnecessary delays. | Bermuda Hospitals Board | | |
| 2. The concept of Practice Guidelines or Critical Paths be researched as tools to systematically assess patient care outcomes. | Bermuda Hospitals Board | | |
| 3. A public relation program be developed to educate the community on the appropriate use of the Emergency Department and the range of services the hospital provides. | Bermuda Hospitals Board | | |
| 4. Efforts be made to explore the concept of Home Care. (K.E.M.H. have instituted a three month Pilot Home Care Programme details of which are given in the Bermuda Hospitals Board leaflet attached as Appendix 1 of the Quality of Care Report). | Bermuda Hospitals Board | | |
| 5. Satellite Mental Health Clinics be established at either end of the island and run by specially trained nurse practitioners. | Bermuda Hospitals Board | | |
| 6. The Hospitals Board implement a policy for drug and alcohol testing for all personnel to ensure safety of all. | Bermuda Hospitals Board | | |
| 7. Promotion of the philosophy that the Patient is Number One be undertaken by K.E.M.H. | Bermuda Hospitals Board | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| **7.2 RECOMMENDATIONS - CARE COSTS TASK GROUP** | 7.2 | 7.2 | 7.2 |
| **7.2.1 BERMUDA HEALTH COUNCIL** | 7.2.1 | 7.2.1 | 7.2.1 |
| 1. A Bermuda Health Council (BHC) be established whose mission will be to "ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community. Emphasis will be to ensure consumers of health services are provided with high quality of care, and that their health needs are met and to encourage and promote a healthy lifestyle throughout the community." The establishment of the B.H.C. would be represented by a number of health care "stakeholders" such as the Bermuda Medical Society, Bermuda Hospitals Board, Health Insurers Association of Bermuda, consumer groups, unions, Government etc. | Cabinet | | |
| 2. The BHC be mandated with the primary responsibilities to: | | | |
| i) Coordinate and integrate all health care services (both locally and overseas) to ensure delivery of services are provided in the most cost efficient manner. | Cabinet | | |
| ii) Recommend changes to the health care delivery system in order to contain health care costs without jeopardizing quality of care. | | | |
| iii) Facilitate the establishment of quality control standards, certification, recertification and licensing requirements of all approved providers of the proposed Bermuda Health Plan ("BHP") and of other providers who are rendering valid and approved medical/dental care in Bermuda. All major medical equipment utilized in Bermuda should meet approved quality assurance standards and be registered or certified; the interpretation and accuracy of all diagnostic tests results performed outside the hospital setting should also meet approved standards. | | | |
| Equipment such as exercise thallium testing, M.R.I. and practices such as coronary angiography, laser gynecological surgery, carotid Doppler studies should be investigated for their cost-effectiveness. | | | |
| iv) Recommend approval of any new service to be covered by the BHP. Non-approved services will not be funded under the BHP. | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| v) Monitor the total health care costs of the health care services and ensure the growth is reasonable and manageable when compared with Bermuda's consumer price index. | | | |
| vi) Promote and develop health prevention and wellness programmes to build healthier lifestyles of Bermuda's residents. | | | |
| vii) Develop outcome measurement studies. | | | |
| viii) Develop/adopt medical protocol standards to contain unnecessary investigations and treatments. | | | |
| ix) Facilitate the establishment of overseas Preferred Provider Organizations ("PPO") for overseas health care and ensure a total managed care approach is adopted. The Council should become the "gatekeeper" to determine the medical necessity of overseas care. | | | |
| x) Provide direction and management of the use of visiting specialists to the island. (In surveys undertaken by the Health Care Review, anallergist, dermatologist, ear, nose and throat specialist, interventional radiologist and neurologist were frequently mentioned as being needed and the cause of need to travel overseas in some cases.) | | | |
| xi) Sanction fees for services rendered in the local hospital after such fees have been approved by the Bermuda Hospitals Board and after consultation with BMS and HIAB. | | | |
| xii) Approve reasonable fees for all approved health care services rendered outside the hospital setting after consultations with the various approved providers and interested parties. | | | |
| xiii) Approve the required maximum health premium rate to provide the defined levels of cover of the proposed BHP after consultation with the insurance industry and other interested parties. The determination of the maximum premium rate will be based solely on sound actuarial data and advice. | | | |
| 3. The newly established BHC be mandated to develop a Bermuda Health Plan (BHP) which will be available to all (replacing the existing hospital insurance plan). The emphasis of the Plan is to ensure all residents of Bermuda have access to and receive affordable health care coverage which aims to control the individual's financial exposure to needed health services whilst ensuring that their health care needs are | Cabinet | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| met. Emphasis will be placed on the promotion of health wellness and the benefits provided by the Package will be established to meet this objective. Briefly, the Package will: | | | |
| i) Provide universal cover to all at an affordable price; | | | |
| ii) Promote health wellness; | | | |
| iii) Promote the use of intermediate hospital care, acute home health care and nursing care in lieu of hospital confinement; and | | | |
| iv) Recognize only approved providers for reimbursement of services. | | | |
| **7.2.2 OTHER RECOMMENDATIONS** | 7.2.2 | 7.2.2 | 7.2.2 |
| 4. Necessary overseas medical care be provided through the use of the Mutual Reinsurance Fund (M.R.F.) for persons who do not have access to major medical insurance. | Hospital Insurance Commission /Ministry of Finance | | |
| 5. The role/mandate of the Hospital Insurance Commission be reviewed to determine its future role in light of the formation of the Bermuda Health Council. | Ministry of Finance | | |
| 6. The Bermuda Hospitals' Board be required to: | Bermuda Hospitals Board | | |
| i) Restructure its charging system to charge the appropriate per diem costs for in-patient care at all levels so that the in-patient charges fully cover operating costs. | | | |
| ii) As a result of (i) above, reduce accordingly the Hospital's out-patient fees. | | | |
| iii) Review and shorten, where appropriate, the average length of in-patient stay per diagnostic grouping. | | | |
| iv) Establish a skilled nursing facility at the hospital for transfer of patients who need less care than acute care, but who are not medically able to be discharged. | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 7. Employers be required to provide the Bermuda Health Plan to their retirees after certain criteria are met. | | | |
| 8. An island wide asthma education campaign be instituted in order to reduce hospital in/out-patient cost in this area. | Dept. of Health | | |
| 9. The use of group medical practices be promoted so that cost efficiencies and extended hours of operation are available to the patient. | | | |
| 10. The funding of long term chronic care cost of the elderly be accomplished by the establishment of a similar scheme as that being proposed for the Island's National Pension Scheme. That is, monies be invested today to meet the projected long term care costs of individuals as we move into the 21st century. | Ministry of Finance | | |
| 11. Guidelines be established and monitored concerning the ownership of private facilities providing medical services to ensure that the facilities are not over utilized by doctor(s) who are financially involved in the ownership of such facilities. | | | |
| **Dentistry** | | | |
| 12. An in-depth review of the practices and procedures of the dental care industry be conducted by the proposed BHC as a result of the significant costs in this area. | Bermuda Health Council (B.H.C.) | | |
| 13. Due to the estimated high costs of private dentistry in Bermuda the Bermuda Health Council, as a priority, establish a special committee to thoroughly investigate the practices and procedures of the private dental industry. | Bermuda Health Council | | |
| 14. The Bermuda Dental Board be reorganized with representation from the Dental Association, the Ministry of Health, the consumer and the insurance industry. The Dental Board should report to the Minister of Health through the Bermuda Health Council (BHC). | Dental Board/ Minister of Health/ Bda. Dental Assoc. | | |
| The mandate of the Dental Board should be: | | | |
| a) To evaluate and coordinate all issues relating to dentistry in Bermuda; | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| b) To advise the Bermuda Health Council on future needs of the profession, local and foreign; and | | | |
| c) To review ethical guidelines for the practice of dentistry in Bermuda. | | | |
| 15. Encourage the training of Bermudians as dental technicians and dental assistants. | Bermuda Dental Association | | |
| 16. Dental costs be reduced by: | | | |
| a) Investigating the feasibility of setting up a reliable, good quality dental laboratory facility in Bermuda or as an alternative, establish a preferred, reasonably priced, quality overseas laboratory for the completion of all laboratory needs; | B.H.C./ Bda. Dental Assoc./ Dental Board | | |
| b) Considering reduction of Customs Duty on dental equipment and materials; and | Ministry of Finance | | |
| c) Reviewing current dental fee guidelines for establishment of fees. | B.H.C./ Dental Assoc./Dental Bd. | | |
| **Pharmaceutical matters** | | | |
| 17. A National Drug Formulary (possibly by extending the Hospital Pharmacy) be established in order to reduce prescription drug cost in the future and to reduce the reliance on the one main drug wholesaler in existence in Bermuda who currently supplies approximately 75% of all drugs. | Bda. Hospitals Board | | |
| 18. The Bermuda Patent Laws be reviewed and brought into line with England in the first instance, particularly with regard to "license of right" which must be sold by the original manufacturer | Dept. of Health/ Att. General | | |
| 19. A change in the Pharmacy and Poisons Act (standard Rx form) be made to encourage greater generic prescribing by doctors. | Dept. of Health/ Att. General | | |
| 20. The one prescription drug wholesaler in Bermuda be encouraged: | | | |
| a) To stock a full range of generic substitutes for drugs that are not protected by patents; | | | |
| b) Do more research to obtain cheaper prices on brand name drugs; | | | |
| c) Buy brand name drugs from wholesalers overseas when this results in a cheaper price than is available directly from the manufacturer; and | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| d) Investigate the reasons for high mark-ups on pharmaceutical products, bearing in mind that the average food wholesale markup is between 20% and 30%. | | | |
| 21. The practice of preventative medicine be encouraged to increase wellness of mind and body. | Bda. Medical Society (B.M.S.) | | |
| 22. Doctors be encouraged to prescribe more economically, e.g. | Bda. Medical Society (B.M.S.) | | |
| a) Prescribe generically where possible; and | | | |
| b) Prescribe a short trial of an expensive drug to establish suitability, followed by a larger refill quantity. | | | |
| 23. Pharmacy Owners be asked to reconsider the flat dispensing fee and either: | Pharmaceutical Assoc. | | |
| a) Substitute a 2 or 3 tiered fee depending on the cost of the drug; or | | | |
| b) Consider a % markup on the cost of the drug plus a small professional fee | | | |
| 24. Public education about the use of generics be promoted. | D.O.H./ Pharmaceutical Assoc. | | |
| 25. Health care providers' fee reimbursement via the B.H.C. be as follows: | B.H.C. | | |
| a) i) Approved providers, in order to retain their approval, must not be able to charge in excess of the approved fees of the B.H.P. | | | |
| ii) Providers who are not approved will not be reimbursed at all for services rendered to an insured of the B.H.P. | | | |
| **OR** | | | |
| b) i) Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for services rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees. | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| ii) Approved fees be published annually and doctors be required to publish their own fees and display them in their own offices. | | | |
| 26. The Bermuda Medical Council's membership and terms of reference be reviewed. The Bermuda Medical Council should consist of a nonpartisan chairperson appointed by the Minister of Health, two consumer advocates and three representatives from Bermuda Medical Society. We recommend the Medical Council be empowered to: | B.M.C. | | |
| i) Recommend and advise the proposed Bermuda Health Council on needed medical facilities, visiting specialists and doctors required for the island; | | | |
| ii) Establish and handle all disciplinary procedures; and | | | |
| iii) Establish and monitor quality control standards pertaining to registration recertification and educational improvement requirements. | | | |
| 27. Encourage routine doctors visits and routine follow-up care to be provided by qualified nurse practitioners where appropriate. | | | |
| 28. Government consider establishing an ambulatory health care program which would come under the proposed Bermuda Health Council. | B.H.C. | | |
| 29. Immediate steps be taken to improve hospital costs in the short term as follows: | Bda. Hospitals Board | | |
| a) A ward of the Hospital be converted into an intermediate care unit which would provide nursing care on a stepped down and less costly basis than the Hospital's acute care ward; | | | |
| b) Private enterprise be encouraged to extend and/or supply additional nursing homes; however, the bed availability and the necessity of a nursing home facility over home care be closely monitored. Further, criteria for nursing home acceptance be established; | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| c) Provision for financial allowances to families for home nursing care; and | | | |
| d) Extension of the Department of Health district nursing services to assist with home care. | Dept. of Health | | |
| 30. Bermuda reinsure its own uninsured, uninsurable segment of the population, possibly through an extension of the existing Mutual Reinsurance Fund in order to provide some level of protection for the uninsured/underinsured population. | Ministry of Finance | | |
| **7.3 RECOMMENDATIONS - NEEDS ASSESSMENT TASK GROUP** | 7.3 | 7.3 | 7.3 |
| **7.3.1 Health System Vision, Goals and Objectives** | 7.3.1 | 7.3.1 | 7.3.1 |
| **The Ministry of Health and Social Services should:** | | | |
| 1. Assure development of a clear vision statement for the island's health system; | 1. Min. of Health & Social Services (Min. of H&SS) | 1. | 1. |
| 2. Take the lead in developing a set of health goals for the island; and | 2. Min. of H&SS | 2. | 2. |
| 3. Take steps to secure a commitment to the vision for health and the health goals developed for the island from all stake-holders, including: | 3. Min. of H&SS | 3. | 3. |
| • the general public | | | |
| • health care providers and professional organizations | | | |
| • advisory groups | | | |
| • the hospitals and other human services agencies | | | |
| • the government | | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| **7.3.2 Community Health Assessment** | 7.3.2 | 7.3.2 | 7.3.2 |
| **The Department of Health should:** | | | |
| 1. Assure and facilitate completion of a community health assessment; | 1. D.O.H. | 1. | 1. |
| 2. Facilitate the identification of priority health-problems based on the results of the community health assessment; | 2. D.O.H. | 2. | 2. |
| 3. Develop a public health plan for the island based on the result of the community health assessment and the identification of priority health problems; | 3. D.O.H. | 3. | 3. |
| 4. Develop a set of health promotion and disease prevention objectives for the island; | 4. D.O.H. | 4. | 4. |
| 5. Develop a process to monitor health promotion and disease prevention objectives and identify significant gaps; | 5. D.O.H. | 5. | 5. |
| 6. Develop a set of health status indicators for the island - these indicators should be outcome measures rather than process measures; | 6. D.O.H. | 6. | 6. |
| 7. Use a standardized format, such as the Assessment Protocol for Excellence in Public Health (APEX/PH), the Department should conduct a community health assessment process on a regular basis. Every two years is recommended; | 7. D.O.H. | 7. | 7. |
| 8. Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to set priorities; | 8. D.O.H. | 8. | 8. |
| 9. Mobilize the community, and in particular, health care providers and professional organizations, the hospitals and other human service agencies and advisory groups, to develop strategies to address priority health problems. | 9. D.O.H. | 9. | 9. |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| **7.3.3 Capacity and Infrastructure** | 7.3.3 | 7.3.3 | 7.3.3 |
| **The Department of Health should:** | | | |
| 1. Examine its roles and responsibilities with regard to community health assessment. It should assess its capacity to provide information and data analysis to policy makers (i.e. the Minister and the Cabinet) with periodic information and data analyses concerning priority health problems, using a standardized process such as APEX/PH; | 1. D.O.H. | 1. | 1. |
| 2. Assess its technical capability to collect, analyse, interpret, and disseminate health data; | 2. D.O.H. | 2. | 2. |
| 3. Assess its capacity to monitor established health goals and identify disease prevention and health promotion objectives; | 3. D.O.H. | 3. | 3. |
| 4. Assess its technical ability to conduct periodic health surveys; | 4. D.O.H. | 4. | 4. |
| 5. Evaluate its access to epidemiological expertise to provide for the interpretation of health data. The department should consider formal arrangements with an external public health agency; | 5. D.O.H. | 5. | 5. |
| **The Registrar General should** assess the capacity of the Registry General to collect and analyze health data in a timely manner. | **Registrar General** | | |
| **7.3.4 Public Health Information System** | 7.3.4 | 7.3.4 | 7.3.4 |
| **The Ministry of Health and Social Services should** take the lead in developing a comprehensive integrated Public Health Information System (PHIS) linking vital records, hospital data and disease surveillance systems. | **Min. of H&SS** | | |
| **The Minister of Health and Social Services should** appoint a Steering Committee to oversee the Public Health Information System (PHIS). The committee should include representatives from the public health service, the Hospitals Board, the Statistical Department, the Registrar General's Office, as well as health care providers. | **Minister of Health & Social Services** | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| **The PHIS Steering Committee should:** | | | |
| a) Manage the development and operation of quality data management systems. | a) PHIS Steering Committee | a) | a) |
| b) Manage linkage of health information systems in both the public and private sectors. | b) PHIS Steering Committee | b) | b) |
| c) Assure appropriate data-sharing, and data-transfer between the Department of Health, the Bermuda Hospitals Board, the Registry General and the Statistical Department. The Committee should set standards for data-transfer and use, and recommend standards for data collection. | c) PHIS Steering Committee | c) | c) |
| d) Develop an integrated data plan for health assessment involving the vital records, hospital data and disease surveillance systems. | d) PHIS Steering Committee | d) | d) |
| e) Recommend standards for the collection, analysis and reporting of data used in the community health assessment process. | e) PHIS Steering Committee | e) | e) |
| f) Include systems for the surveillance of administrative data, birth defects/disabilities, selected behavioral risk factors, selected cancers, communicable diseases of public health importance, selected non-communicable (chronic) diseases, injuries and accidents, occupational illness and injury, vaccine-preventable diseases and vital statistics. In addition, it should provide for pharma co-surveillance. | f) PHIS Steering Committee | f) | f) |
| **The Department of Health should:** | | | |
| 1. Maintain a database on health facilities, human resources, health services and health related organizations; | 1. D.O.H. | 1. | 1. |
| 2. Together with the Hospitals Board explore the feasibility of a computer network linking the hospital, health care providers (physicians) and the public health service; | 2. D.O.H. | 2. | 2. |
| 3. Maintain a computerized management information system that allows for the analysis of administrative, demographic, epidemiological and service utilization data, to provide information for planning and evaluation purposes; | 3. D.O.H. | 3. | 3. |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 4. Enter into formal agreement with the Hospitals Board, the Statistical Department and the Registrar General, concerning the collection, use and transfer of health data. These agreements should be reviewed at least biennially; | 4. D.O.H. | 4. | 4. |
| 5. Assure the collection and dissemination of information, based on a sample of the population, on health behaviors, and preventive practices. Behaviour risk factor surveys should be instituted using a standardized format such as the Behaviour Risk Factor Surveillance System (BRFSS) developed by the Centres for Disease Control (CDC); | 5. D.O.H. | 5. | 5. |
| 6. At least every five years convene a round-table discussion with key individuals and organizations involved in public health to review their goals, perceptions of their roles, authority and needs. This group should include: | 6. D.O.H. | 6. | 6. |
| • other government agencies | | | |
| • interest groups and professional associations | | | |
| • the hospitals and other potential stake-holder | | | |
| **7.3.5 Dissemination of Health Information and Data** | 7.3.5 | 7.3.5 | 7.3.5 |
| **The Registrar General should** produce quarterly vital statistics reports. | **Registrar General** | | |
| **The Department of Health should:** | | | |
| 1) Produce annual reports on the health status of the population; | D.O.H. | | |
| 2) Disseminate information on health data to the public on a regular basis through a newspaper column or a regular newsletter; and | D.O.H. | | |
| 3) Make health information and data available to interested community groups and organizations for their health related activities (e.g. Allan Vincent Smith Foundation, Diabetes Association). | D.O.H. | | |
| **The Chief Medical Officer should:** | | | |
| 1) Produce annual "Report Cards" on the health status of children and the elderly; | Chief Medial Officer | | |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 2) Compile an annual listing of health-related information systems and databases maintained in the community (e.g. Cancer Registry). | Chief Medial Officer | | |
| **7.4 RECOMMENDATIONS - FINANCE TASK GROUP** | 7.4 | 7.4 | 7.4 |
| **7.4.1 Hospital Insurance Commission** | 7.4.1 | 7.4.1 | 7.4.1 |
| 1. Consideration be given to broadening the function of the Hospital Insurance Commission (HIC) to monitor and help finance preventative and home health care; if not, another body will need to be created to address these areas. Amendments to the Hospital Insurance Act should be considered as soon as possible. | 1. Ministry of Finance | 1. | 1. |
| 2. The HIC or some other group have wider representation so that its policy recommendations will carry more weight. We recommend some form of buffer between HIC and the direct influence of politics. | 2. Ministry of Finance | 2. | 2. |
| 3. The actuarial assessment of premiums by HIC or some other group be made public for use by all stakeholders in the health care system including the private insurers who provided certain information used in the study. The setting of premium rates and the determination of the standard benefit should be more readily understood by the general public. | 3. Ministry of Finance | 3. | 3. |
| 4. The HIC or some other group and private insurers meet on a regular basis to discuss matters affecting the delivery of health care. | 4. H.I.A.B./ Ministry of Finance | 4. | 4. |
| 5. Government consult with the HIC or some other group on all matters falling within their mission. | 5. Ministry of Finance | 5. | 5. |
| 6. The HIC or some other group work on its relationship with the Bermuda Hospitals Board and regular meetings are suggested in this area to ensure coordinated financial decisions. | 6. B.H.B./ Ministry of Finance | 6. | 6. |
| 7. The HIC or some other group immediately assess how it can meet the needs of the public by studying the standard benefit package to determine to what extent it needs to be amended to consider home and preventative health care. To complete this objective consideration must be give to 1) above as soon as possible. | 7. Ministry of Finance | 7. | 7. |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 8. The systems at HIC or some other group, which are used to accumulate and assess claims before payment to the Hospitals, be updated to allow for more timely payment. We should expect the Hospitals to be run like a business and likewise HIC. The cash flow problem is somewhat mitigated by monthly payments by HIC to the Hospitals, however, the annual reconciliation and adjustment to actual takes far too long and delays the issuance of the Hospitals' annual report significantly. | 8. Ministry of Finance | 8. | 8. |
| 9. The HIC have a clear reporting process and follow the requirements of its Act with regard to the production and presentation of an annual report. | 9. Ministry of Finance | 9. | 9. |
| 10. The above recommendations be implemented within the current framework expanded to meet today's health care needs or within the framework of the Health Care Council (see Care Costs Sub Committee report). | 10. Ministry of Finance | 10. | 10. |
| **7.4.2 Mutual Reinsurance Fund** | 7.4.2 | 7.4.2 | 7.4.2 |
| The Mutual Reinsurance Fund (M.R.F.) be rationalized in the context of the current health care environment and possible organization changes to the delivery of health care services in Bermuda. | Ministry of Finance | | |
| **7.4.3 Subsidies** | 7.4.3 | 7.4.3 | 7.4.3 |
| 1. The St. Brendan's subsidy, which represents a general grant to cover operating expenses of St. Brendan's, should continue. | 1. Ministry of Finance | 1. | 1. |
| 2. Other subsidies, which represent amounts paid to the Mutual Reinsurance Fund for the hospice, dialysis, diabetic education etc., should remain. | 2. Ministry of Finance | 2. | 2. |
| 3. The subsidy program for the aged be expanded by bringing the benefits up to 100%. In addition, the indigent who are over 65 years of age should be re-classified as aged. | 3. Ministry of Finance | 3. | 3. |
| 4. The youth subsidy be removed and any youth who may be indigent be reclassified to the indigent classification. Private insurers and HIP must increase premiums over some period of time to cover all youth whose parents are employed for standard benefit. | 4. Ministry of Finance | 4. | 4. |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| **7.4.4 Determination and Treatment of Indigency** | 7.4.4 | 7.4.4 | 7.4.4 |
| 1. Responsibility for determination of "indigency" be transferred from the Bermuda Hospitals Board to the Department of Financial Assistance. | 1. Ministry of Finance | 1. | 1. |
| 2. The indigent who are over 65 be reclassified to the aged category to substantially reduce the number of indigent. This will also lower the indigent subsidy to the extent that the self funded 10% to 20% should be transferred to the aged subsidy. | 2. Ministry of Finance | 2. | 2. |
| 3. The indigent be enrolled in H.I.P., and the premiums be funded by transferring the current subsidy from the Hospitals to the HIP and determining a rate at which the Government will subsidize HIP which will approximate the current number of indigent divided by the current subsidy. | 3. Ministry of Finance | 3. | 3. |
| 4. The current system to handle claims be continued. Eventually all HIP participants could subsidize the indigent through equalization of premium payments to bring the indigent in line with the rest of the HIP population. | 4. Ministry of Finance | 4. | 4. |
| 5. An insurance card be issued to all indigent to allow them to access the standard health care benefits (to be defined by the Health Care Council), including doctor's visits. | 5. Ministry of Finance | 5. | 5. |
| 6. An actuarial study be commissioned to determine the additional cost to the system, if any, of allowing this card to be used to obtain services from other health care providers, such as doctors visits, considering the resultant decrease in emergency hospital visits. This matter should be considered within the expanded purview of the proposed Health Care Council. | 6. Ministry of Finance | 6. | 6. |
| 7. The services offered by the Government Clinic be expanded for the indigent only, to reduce their inappropriate use of the Emergency Room. | 7. D.O.H. | 7. | 7. |
| **7.4.5 Insurance and Government Funding for Long-term and Home Health Care** | 7.4.5 | 7.4.5 | 7.4.5 |
| 1. An intermediate care unit in the King Edward VII Memorial Hospital be established. | 1. B.H.B. | 1. | 1. |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
|---|---|---|---|
| 2. An actuarial study be undertaken to determine the projected costs of long-term care and home care. | 2. Min. of Finance | 2. | 2. |
| 3. The Geriatric Assessment Programme team responsibilities be expanded to: | 3. B.H.B. | 3. | 3. |
| a) co-ordinate the overall placement of residents in long-term facilities based on the level of care required; and, | | | |
| b) determine the families'/residents' ability to pay. | | | |
| 4. The standard benefit be expanded to include long-term and home care with clearly and stringently enforced guidelines with payments being made from Mutual Reinsurance Fund. | 4. Min. of Finance | 4. | 4. |
| 5. New facilities or capital improvements to existing facilities be funded through a variety of means emphasizing charitable fund-raising mechanisms. | 5. | 5. | 5. |
| **7.4.6 Strategies to Reduce Health Care Costs** | 7.4.6 | 7.4.6 | 7.4.6 |
| 1. To control the escalating cost of health care consideration should be given to: | 1. | 1. | 1. |
| a) Educating the public on the use of medical services to reduce unnecessary usage; | a) D.O.H. | a) | a) |
| b) Instituting a user pay concept for a fixed portion of the fee so that patients have a clearer understanding of the costs of health services; and | b) Ministry of Finance | b) | b) |
| c) Developing fee guidelines for payments to physicians. The fee guidelines would be visible in the physicians offices and could be compared with the actual charges made by physicians with insurance covering the fee guidelines amounts only. | c) B.H.C./B.M.C. | c) | c) |
| 2. The current financing system which utilizes charities such as the L.C.C.A. be re-examined. The financing for catastrophic care should be returned to the M.R.F., and the M.R.F. should continue to be funded through a premium assessment to be collected by the H.I.P. and the private insurers. Clear criteria should be developed for the use of M.R.F. funds to allow quick decision-making during a patient's health care crisis. | 2. B.H.C. | 2. | 2. |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
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| 3. The Government of Bermuda contract for an actuarial study to determine the impact of the expansion of long-term health care on the delivery of health care services in Bermuda, the expected cost of such health care, the expected rate of development of such health care and ways to fund such health care by the current population. | 3. Ministry of Finance | 3. | 3. |
| 4. A community rating system be developed to assist smaller organizations to be able to gain the economies of scale benefits in their premium rating, as is the case with larger organizations. | 4. H.I.A.B. | 4. | 4. |
| 5. Approved providers be reimbursed at the approved fees, however, they will be able to charge for their services as they deem appropriate for services rendered in their own offices/facilities. Fees for services rendered in the hospital setting must be charged in accordance with the approved fees. Approved fees should be published annually and doctors should be required to publish their own fees and display them in their own offices. | 5. B.H.C. | 5. | 5. |
| 6. Strong efforts be made to educate the public as they should be a part of the system of checks and balances to control costs. A simple booklet on the health care system, written so that consumers can understand the system and make appropriate choices, would be very useful. | 6. D.O.H./ Dept. of Educ./ Consumer & Cultural Affairs | 6. | 6. |
| **7.4.7 Proposed Bermuda Health Council and Bermuda Health Plan** | 7.4.7 | 7.4.7 | 7.4.7 |
| 1. That Government immediately take steps to establish a Bermuda Health Council with the authority to meet its mandate "to ensure that necessary health care services, as defined by the Council, are available to all residents of Bermuda and provided at a reasonable cost to the community. Emphasis will be to ensure consumers of health services are knowledgeable in their choices, are provided with high quality of care, and that their health needs are met and to encourage and promote a healthy lifestyle throughout the community." The Council should be apolitical and should not report to a specific Minister. It should have the freedom and authority to control the health care system | 1. Cabinet | 1. | 1. |
| 2. Government be a stakeholder on the Council and provide its input in a similar fashion to the other stakeholders. | 2. See #1 | 2. | 2. |
| 3. The Hospital Insurance Commission (HIC) be a stakeholder, basically representing the Ministry of Finance/Dept. of Social Insurance until its future role has been reinforced/agreed. | 3. See #1 | 3. | 3. |

| SUMMARY OF RECOMMENDATIONS | ORGANIZATION RESPONSIBLE | TIMEFRAME | STATUS |
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| 4. Individual stakeholders represent their special interest groups; in this manner a certain "healthy tension" will exist and promote creative solutions. It is understood that stakeholders must also seriously consider the welfare of Bermuda and its citizens as a primary factor in their decision making. A corporate perspective in this regard is essential. | 4. See #1 | 4. | 4. |
| 5. The work completed by the Cost Group in the area of the Bermuda Health Plan (the new standard benefit) be considered by the proposed Health Care Council whose first mandate should be the revision of the standard benefit giving due consideration to the contents of this report. | 5. B.H.C. | 5. | 5. |
| **7.4.8 Overseas Care** | 7.4.8 | 7.4.8 | 7.4.8 |
| 1. Local service providers work to expand the number of visiting specialists to provide non-emergency consultations and surgery. This is a matter that will need to be considered by the proposed Bermuda Health Council. | 1. B.H.C. | | |
| 2. New technical equipment be purchased after the completion of the appropriate cost-benefit analyses. | | | |
| 3. The insurers and the H.I.P. (depending on the coverage provided by the new standard benefit) should establish more Preferred Provider arrangements. | B.H.C./ H.I.A.B. | | |
| 4. A managed care approach be adopted. | B.H.C./ H.I.A.B. | | |
| **7.5 OTHER CONCERNS THAT WILL NEED TO BE ADDRESSED** | 7.5 | 7.5 | 7.5 |
| 1. A rapid rise in the cost of malpractice premiums - a trend which may result, as it has done in the States, in the increasing practice of defensive medicine, a deterioration in the patient/physician relationship and a strong demand for fee increases by physicians to offset increased premiums. | 1. B.M.C./ B.M.S. | 1. | 1. |
| 2. Reducing the load of the community care-giver by helping them in their tasks and striving to maintain their well-being as their existence reduces the load on in-patient hospital care. | 2. | 2. | 2. |
| 3. Increasing "bad debts" incurred by both physicians and the hospitals. | 3. B.H.B./ B.M.C. | 3. | 3. |