

GUAM MEMORIAL HOSPITAL AUTHORITY

**LONG RANGE
INSTITUTIONAL PLAN**

LONG-RANGE INSTITUTIONAL PLAN FOR
GUAM MEMORIAL HOSPITAL

Prepared for

Guam Memorial Hospital Authority

by

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INTRODUCTION

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A. INTRODUCTION

This plan (or more properly, this set of plans) is intended to serve as a master policy framework under which future choices for the overall development of Guam Memorial Hospital may be selected and evaluated. A hospital, or any other service organization for that matter, without a long-range sense of direction is akin to a rudderless ship which follows the vagaries of the winds and currents toward an unknown destination. To clarify future destinations for this hospital, and to chart appropriate courses thereto, careful and conscious selections will eventually be made from the multiple courses of action included herein, these in their totality eventually becoming the true long-range institutional plan.

In order to assure consistency of general planning effort, the directions for future development for Guam Memorial Hospital have, to the extent necessary, been made congruent with major policy options and development strategies contained in two other current planning documents. These are "Health Care in Guam: Current Status and Future Policy Options", Guam Health Planning and Development Agency, 1981, and "An Organization and Management Analysis: Division of Public Health, DPH&SS", 1981. Thus, some of the alternative strategies contained in this document are not unique to Guam Memorial Hospital and its long-range plan -- they are of concurrent concern of other plans and organizations in the community as well.

B. PURPOSE

The primary purpose of this document is to provide Guam Memorial Hospital and its management with a policy framework for evaluating choices among competing future developmental needs and opportunities and for distributing predictably scarce resources accordingly. It is intended as a guide for the future development and improvement of hospital-related health care in Guam and as a blueprint for the

for the correction of environmental, organizational, managerial, financial and legal insufficiencies in the existing hospital operation. The focal purpose, therefore, is Guam Memorial Hospital, its needs and its specific welfare.

Subsidiary purposes include:

1. documenting effective and efficient management practices for the hospital;
2. providing an educational and informational tool for the Guam Memorial Hospital Authority and other appropriate Territorial and Federal bodies concerning constraints, pressures and factors which may influence future development;
3. setting forth clearly and concisely developmental policy options for the hospital;
4. providing a foundation upon which future capital development may be premised;
5. providing a vehicle for unifying the hospital's Trustees, management, medical staff, employees and others outside the hospital in a commitment to future development and service to the community of Guam.

Finally, this plan is intended as an appropriate response to a requirement by the Federal Government incident to the release of funds which enabled the Government of Guam to purchase the present acute care facility.

C. BACKGROUND

Many of the developmental details and options provided in this document must be premised upon or conditioned by a variety of historical, demographic and cultural factors relevant to Guam. It is the purpose of this section to briefly note and describe the more salient of these features.

1. THE HISTORY OF HOSPITAL CARE IN GUAM

When, in 1899, the U.S. took formal possession of Guam, the major pressing needs of the island's population were identified as being medical. Accordingly, physicians, hospitals for infectious disease, sewers, a pharmacy, and free medical treatment for the populace were inaugurated. Within a relatively few years, most Guamanians freely used the outpatient clinics established by the U.S. Navy for them, but avoided the hospital as much as possible. Two general hospitals (one for men and the Navy, the second for women and children) were erected in 1903, but both were demolished by an earthquake in 1909. Both were promptly replaced, one being then named the Naval Hospital. Isolation colonies for lepers and "gangosa" victims were also established at Tumon and Ypao respectively. By 1941 a tuberculosis isolation ward had been added to the Naval Hospital. Following U.S. recontrol of Guam during World War II, minimal hospital facilities were again erected by the Navy, and in 1946 a 300-bed hospital was erected out of "Butler" huts and named Guam Memorial Hospital. One of the earliest Executive orders, following passage of the Organic Act of Guam in 1950, held that "Guam Memorial Hospital is a governmental, non-profit institution serving the people of Guam...No patient shall be denied complete medical care and services by reason of his partial or complete inability to pay the charges for such medical care and services". This general policy obtains today. By 1956, a new permanent hospital had been completed at Ypao Point with a six-story tuberculosis wing, this serving as Guam Memorial Hospital until the late 1970's. Thus, until the late 1970's, the entire history of hospital-based medical care in Guam was that of central government responsibility.

With a growing influx of private practicing physicians in the early 1970's, a decision was made by the Roman Catholic Diocese of Agaña to construct an independent, non-governmental hospital to which the bulk of civilian medical care was expected to be transferred. During its construction period, PL 13-98

recognized probable future and continuing governmental obligations for the provision of hospital care, and authorized the GMH Trustees to "negotiate for the lease, lease-purchase, or purchase of the hospital facility now under construction by the Medical Center of the Marianas". When the new facility was commissioned in 1976, earlier commitments to its utilization by the then central core of government physicians appear to have been ignored, thus depriving the new facility of the patient load necessary for efficient operation. Furthermore, and against an extremely low occupancy rate, rampant inflation made continuing private operation of the hospital impossible. At this point, the Legislature ratified a contract in 1977, and in 1978 the Guam Memorial Hospital Authority consummated the purchase of the Medical Center of the Marianas with specially appropriated Federal funds, and placed it in operation as the principle physical facility for Guam Memorial Hospital, and continued the operation of the prior facility principally for long-term and psychiatric care. Accordingly, the history of government dominance in the provision of hospital care was broken for only a brief period which proved financially disastrous for the private interests involved.

2. THE DEMOGRAPHIC PROFILE OF GUAM

Much of any hospital's future is heavily dependent upon the structure of the service population. Hence, it is essential to construct a general picture of demographic trends in Guam as they may likely affect future planning decisions for Guam Memorial Hospital.

a. The Cultural Patterns

The major segment of Guam's population are still referred to as distinctively "Chamorro" (56%) which mainly can be characterized as having a strong religious (predominantly Catholic) emphasis in daily life and family affairs, and a strong set of links and bonds of obligation and support within an extended family network. This is coupled with

an extreme sensitivity to social status and social roles of peers, relatives and work relations. Great attention is paid to relatives, and respect and deference are manifested toward elders, although there is an increasing awareness of neglect of the aged in recent years. Most descendents of Chamorro people still speak the modern Chamorro language as well as English.

Guam appears now caught between the new and old ways, and it would appear that the older generation may be particularly hard hit for having experienced rapid cultural changes that have seen revered ways of thinking and behaving replaced by quite different "modern Western" ways. Some youth have begun to drift into an ill-defined pattern of life without the previous constraining yet meaningful ties of family and kin networks. As a consequence, less time is spent in large family get-togethers and less adult guidance is provided to the young. Adults themselves at times appear confused by the need for adjustment to new roles and responsibilities and incur added stress for having to make more personal choices and face the consequences alone. Such profound shifts in cultural patterns may in part explain newer stresses and social problems, including alcohol and drug abuse, teenage pregnancy, and other contemporary health problems.

b. The General Population

The population of Guam has, contrary to many projections, not risen at the rapid rates assumed by many planners and demographers. Guam's growth rate for the period 1970-1980 was 2.6% annually, rather than the higher 5.3% projected earlier. By 1985, Guam's civilian population is expected to reach 96,240 (up 11,940 persons over the 1980 base of 84,300), and by 1990 to be 109,872. This represents a projected population increase in the decade 1980-1990 of 30.3%.

Of the civilian population, only 4.4% was estimated in 1980 as being 60 years of age and older. By contrast, the population under 15 years of age accounts for 42% of the total. It can be safely expected that the population of Guam will remain relatively young in the foreseeable future, although the actual proportion of the population aged 14 years or less is likely to fall somewhat as birth rates slowly fall. Accordingly, the proportion of older citizens can be expected to remain relatively stable, growing at about the same rate as the general population.

Other population cohorts are important to understand as well. Permanent resident aliens (PRA's) represent the most volatile and least understood population component for Guam. They represent an unknown element of the total civilian population because their numbers are not counted accurately by any agency and because they are permitted to move freely within the United States. Thus, it is not known how many Filipinos and Vietnamese who have been granted PRA status in Guam have moved on to Hawaii or to the Mainland. Likewise, it is not known how many granted PRA status elsewhere have moved to Guam to be closer, for example, to the Philippines. Some estimates suggest that this cohort of the civilian population may account for as much as 20% of the total.

Another component of the civilian population are "stateside hires", mainly contract workers for the various operations of the Department of Defense, and these are estimated to be a relatively stable 1.2% of the total civilian population.

The military (including military dependents) represents another component of the total population, and have not been included in the foregoing figures relevant to the civilian population. This is a fairly stable component, representing about 20% of the total population. Of this figure, about 10% are military dependents. This population

does not figure heavily into planning for in-patient hospital services for the Government of Guam, for the military maintains its own health care system which includes the Naval Regional Medical Center and a variety of dispensary operations.

A final population component, that of visitors, must also be accounted for. In general, the visitor population represents a transient group who have special housing and activity patterns and who are usually quite healthy. The average daily census of visitors is roughly 800, and they generally stay about 3 or 4 days. About 70% of visitors are tourists and are concentrated in hotels mainly along the shores of Tumon Bay. Health problems are mainly minor and of traumatic nature.

c. The Ethnic Composition

Time series analysis of total population growth suggests that a multi-cultural pattern has asserted itself in recent times. Whereas in 1920 Chamorros represented 92% of the total population, with Caucasians 2% and Filipinos 3%, in 1978 Chamorros represented only 48%, while Caucasians were 24% (mostly military, with only 9% representing civilian residents of Guam), but Filipinos were now 20% of the civilian population. In fact, the Filipino population has grown the fastest of any identified group, with a rapid increase just after World War II and again beginning with the easing of immigration laws and regulations in the early 1970's. Less dominant ethnic groups include Chamorro-Filipino (4.1%), Chamorro-Caucasian (3%), Japanese, Chinese and Korean (2.4%) and all others representing 6% of the civilian population.

d. The Distribution of the Population

Guam's civilian population is distributed unevenly over the available terrain, with the greatest concentration being in the North and North-Central portions of the island

(32.3% and 50.5% respectively. The South-Central (13%) and South (4.2%) sectors represent a scant minority of the populace. It is thus not surprising to see the distribution of hospital (and most other medical services) as being highly concentrated in the North-Central sector where the majority of the population resides.

However, significant shifts are apparently underway, indicating that the North portion (Dededo and Yigo) and the Mangilao area of the North-Central sector are the sectors of the greatest recent population growth, mainly occasioned by real estate development in these areas. Thus, while there is little evidence to indicate substantial population shifts to the South, it does appear that major shifts away from existing medical service sites (mainly Tamuning) are occurring. However, except under the most difficult of weather conditions, no person in Guam resides more than the customary 1-hour access time from existing acute in-patient services, nor will they in the future.

3. THE ECONOMY OF GUAM

Guam's economy appears viable and slowly growing, but continues to be based on narrow dependence on defense-related expenditures and a small and healthy tourist industry. Guam's strategic location in the Pacific which afford sizeable land areas for military installations guarantees a viable, if narrow, future economic base. To remain healthy, continued investment in higher quality and more varied visitor experiences for tourists will be necessary, and strategies in this direction have been developed. A wide variety of agricultural, fishery and manufacturing diversifications are currently under study, and these will result in substantial economic expansion. It is doubtful, however, the major infrastructural projects will rapidly enhance the general economy, and only slow to moderate improvement can be best assumed. The viability of the general economy has direct implications for health care organization.

Not only does the relative health of the economic base determine the tax revenues that can be brought in and channeled to hospital and other public health services, but such health will imply a better economic status for the people it employs. Accompanying future higher levels of socio-economic well-being will be higher incomes, hence better ability to pay for services, and better education and the chance for healthier and more satisfying lifestyles. A healthier population, which normally accrues as the economy prospers, is able to provide better service to the economy, make it even more productive and enhance even further the attractiveness of Guam as a place to invest in. These are the prospects for the future, but they will undoubtedly grow quite slowly.

For the present it is important to recognize the personal economic position of Guam's citizens. While the distribution of income among Guam's residents is slightly skewed to the higher incomes, median household income in 1978 was only slightly greater than \$15,000. General inflation, as reflected in a general consumer price index increase of 73% between 1977 and 1981 has undoubtedly taken its toll against any increase in the 1978 household income figure, and it is doubtful that the 1982 Guam household is substantially better off than in 1978. There is, however, room for optimism in expecting somewhat greater financial participation in the cost of medical care on the part of households. While median income may not have increased substantially, the cost of medical services (as expressed in the CPI) rose about 72% between 1977 and 1981, just slightly less than the overall index for all goods and services. While it is not known to what extent the average household has residual discretionary income available, given the fact that most have been able to "cope" with CPI increases of 102% for food and beverages and 103% for transportation, and considering the 1980 wholesale and trade business of \$8.4 million in alcoholic beverages, one might assume some flexibility in household budgets and their alteration toward somewhat greater expenditures for health and medical care

services. For example, given a generally "flat" increase in disposable income over the past decade, somewhat more than 50% of Guam's residents have found it possible to participate in health insurance and health maintenance organizations which are only recent additions to the current scene. There is doubtless further elasticity in the market, but not sufficient however to absorb the total cost of medical services. Hence, it is likely that the Government of Guam will continue to have to underwrite some portion of the medical bill for the majority of its citizens for some time to come. This portion should become one of diminishing importance as consumer spending patterns are shifted to increasingly greater levels of participation in the cost of their medical care, especially through insurance and pre-payment mechanisms.

4. MAJOR HEALTH STATUS INDICATORS

The brief summary of health status provided below is meant only to construct a profile of the health of the population in terms of key indicators, for some basic relationship between health status as an outcome and the organization and development of health services must be established. Much more detailed data and interpretations are available through the Guam Health Planning and Development Agency and its publication, the State Health Plan for 1978-83.

The health status of Guam's population is characterized by a low crude death rate but a fairly high and unwarranted infant mortality rate. The pattern of leading causes of death has shifted from earlier infectious disease-related causes to the customary Western-industrialized picture of chronic disease causes. But, infectious and parasitic diseases continue to rank high today in Guam unlike elsewhere in the U.S. The morbidity pattern suggests that basic immunizable diseases are well-controlled but that greater attention needs to be paid to environmental sources of contamination and infection, and greater effort in education of the public with regard to health and hygiene in such risk environments.

Guam's very high birth rates imply continued youthfulness of the island population, and suggests that many women and children may be at risk of complications of pregnancy or birth, and assures continuing need for emphasis on the health conditions and the health care given to the young in the future. Guam's death rates, on the other hand, signal the life-style and overall impact of health care provided to the population. Guam's crude death rate is generally lower than that for the U.S., and even lower than that for Hawaii which is considered to have an exceptionally healthy population. In contrast, however, the infant mortality rate is unreasonably high at 16.3/1,000 live births, and there is no evidence suggesting any significant decline in that rate over the previous decade. This suggests that appropriate pregnancy planning, pre-natal care, or delivery or post-delivery care are not fully provided or utilized by the population.

The leading causes of death are heart disease, cancer, infective/parasitic, cerebrovascular, respiratory and early infant diseases. Two clusters of disease antecedents characterize Guam's cause-specific mortality data. The first is the developed-society cluster of heart disease, cancer and cerebrovascular disease which are customarily linked with personal dietary habits, inadequate exercise, and stressful activity patterns associated with work and home life. The second cluster is associated with Guam's developmental roots and reflects the inadequacy of attention given to mothers, the newborn and the environment. Diseases related to early infancy, high infant mortality rates, and parasitic infections all suggest that basic prevention, control and surveillance efforts are somewhat lacking.

An examination of current morbidity reveals a pattern of well-controlled immunizable diseases, but the presence and resurgence of venereal disease, continuing high incidence of conjunctivitis, and the enduring presence of large numbers of cases of salmonellosis and hepatitis.

5. EXTERNAL FORCES WHICH MAY AFFECT THE HOSPITAL

The final background exploration which is indicated relates to those forces beyond the immediate control of the hospital which may directly and indirectly affect its future. The following can be identified as probable forces with which the hospital will have to contend:

- a. An effort on the part of adjacent Micronesian governments to first mount a first-rate, self-contained multi-specialty in-patient medical service, followed rapidly by an appreciation (growing probably from disaster) that they cannot, economically or demographically, support such services. This will be followed, out of economic need to refer their citizens to proximate in-patient services, by demands (reflected by increased off-island referrals to Guam Memorial Hospital) that Guam assume the more sophisticated care of their citizens. This will not only raise issues of the hospital's capacity to do so, but will require in the long-run investment by Guam in greater technology and medical specialization than might otherwise be warranted for the Guam population alone. Other issues which will derive include payment (and pre-payment mechanisms) for citizens of other governments, medical referral and follow-up policies, patient reception and family housing, records retention and sharing policies, and the like.
- b. Recent and probable future changes in Federal regulations, sponsorships and funding of the Medicaid program could provide powerful incentives for searches for the "most cost efficient" means of providing both in- and out-patient services for Medicaid beneficiaries. This might be expected to impact most powerfully on the out-patient services presently provided by the hospital, and there is presently serious interest in studying the possibility of providing all ambulatory medical services of a primary nature through an expanded network of public health administered medical clinics for both Medicaid beneficiaries and the indigent.

- c. As a basis for the provision of malpractice insurance in Guam develops, and as more rigorous standards for professional certification and licensure are imposed, there will likely be a substantial growth in private practice of the healing arts. Under these conditions, the physician staffing of the hospital will likely move the more traditional patterns of almost exclusively external physicians practicing in-house, with a commensurately reduced need for an in-house salaried staff. There is no reason not to believe that an expanded private practice environment will bring pressures (and opportunities) for private administration and provision of such services as emergency room, radiology, pathology and perhaps even pharmacy, following the patterns now well established in U.S. hospitals generally.
- d. Out of economic necessity, pressures will mount to transfer much of the cost of medical care from governmental appropriations to some combination of pre-payment and direct out-of-pocket payment on the part of the general population in general and patients in particular. This will be stimulated in large measure by "pro competition" models being widely developed and discussed in Federal circles. There could be expected a substantial increase in the insured population as a result, which will bring needs for further developed financial systems within the hospital as well as the real potential for enhanced revenues.
- e. Owing to pressures for equitable care and treatment in Guam, and to prudent management at NMRC, opportunities to provide in-patient services and specialized diagnostic services to Naval personnel and to other special beneficiary populations such as those eligible for CHAMPUS, CHAMPVA and direct VA medical care through negotiated contract will likely emerge or can be stimulated. This should have little effect on the hospital's present capabilities, but does offer possibilities of enhanced revenue generation.

- f. As the costs of medical care continue to escalate both for governmental and private payors, greater emphasis will likely be placed on the development and wide utilization of in-patient alternatives, including disincentives for physicians to hospitalize many patients, and the creation of "hospital-like" ambulatory alternatives such as ambulant surgical and orthopedic centers. This potential could result in substantial utilization curtailment in the hospital, especially in the surgical service area and related ancillary services.
- g. General governmental reorganization and streamlining appears to be the current vogue. In this connection, forces have appeared which favor the centralization of all governmentally-sponsored preventive services within a single prevention-oriented (Division of Public Health) agency of government. Hence, many of the community outreach and preventive functions of the Community Mental Health Center may become candidates for intergovernmental transfer to different administrative auspices. Similarly, current pressures to regain direct governmental control over costly government operations (such as the hospital), and to "build efficiency" into government operations through administrative consolidation and improved and tighter lines of management control could presage serious efforts to consolidate the hospital control and management within another broader existing unit of government (i.e., Department of Public Health and Social Services, or some newer umbrella-like health and welfare agency).
- h. Economic concerns are likely to drive increased efforts aimed at identifying means of governmental economizing, including centralized governmental purchasing and warehousing, centralized personnel recruitment activities, and the like of which the hospital under its present sponsorship would be a likely part. Any movement from independent agency/hospital discretionary purchasing could have both positive (economic) and negative (managerial) consequences.

6. IMPLICATIONS OF BACKGROUND ANALYSIS FOR THE LONG-RANGE INSTITUTIONAL PLAN

The foregoing sections have concisely presented a variety of historical, social and economic factors which generally describe the setting in which Guam Memorial Hospital provides its services. These represent the environment or milieu to which long-range hospital planning must be extremely sensitive. The following central generalizations can be drawn from the foregoing analyses:

- The history of governmental provision of hospital services, dating back to the original U.S. possession of Guam, probably represents an unconscious expectation in the minds of most people and would be a precedent difficult to overturn in the short run.
- For decades, the notion that "the government" has a continuing obligation to provide basic services to the people, and that the people have a right to consume them without direct financial obligation has become deeply institutionalized. This is undoubtedly linked closely with the Chamorro cultural traits of extended family and generosity of sharing in goods and services. Thus, needed services (such as hospital care) are simply "all in the family" as many would see it and their delivery is simply "expected" as a right of being a member of the broader community of citizens.
- Guam has moved from a single culture to one reflecting multiple ethnicities which bring new demands for socially- and culturally-congruent health services, including language employed, food preferences, accommodation of varied family caring and sharing practices and religious beliefs.
- The population is growing at a slow rate, and by the beginning of the next decade will probably not exceed 110,000 civilian members.

- The age structure of the population appears to be continuing with an emphasis on youth, and the elderly (and hence, chronically ill) sector will probably not increase to more than 4-5% of the general population.
- As the economy improves and as family income increases, improved access to housing will result and current trends indicate a shift in the population away from the presently more urban central area to the northern area of the Island, with little evidence that growth will take place in the southern sectors.
- The economy is viable, somewhat shaky and narrowly based, but apparently slowly improving and growing. Slow improvement in the general economy will result in slow increases in discretionary spending power of individuals and families, some of which may potentially be diverted to the purchase of hospital and other medical services.

D. THE PLAN ELEMENTS

1. INTRODUCTION

This project report provides a substantial and broad basis for planning and monitoring future development and change in Guam Memorial Hospital. The report is organized around six broad plan elements as follows:

1. organization and management
2. programs and services
3. human resources
4. facilities
5. finance and financial management
6. external relationships

A seventh area of concern, that of legal basis, is integrated as appropriate throughout the basic plan elements.

The report is systematically organized so that for each of the basic plan elements, there is first presented a descriptive and analytical overview and assessment of the current status, function, structure and/or operation. There then follows a set of broad goals which are statements of recommended change and future development relevant to each of the plan elements. The goal sets have been arranged in recommended priority order of descending urgency and importance for development. Thereafter, and as appropriate and required, each goal is individually developed with either a major means or a set of optional means by which it could be attained, thus providing for the most part a range of choice to officials in the years to come. In every case appropriate and required, a preferred option has been identified and justified, together with time-phased plans for its development or implementation.

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**PLAN ELEMENT 1:
ORGANIZATION AND MANAGEMENT**

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This plan element contains three closely related areas of concern in the future development of the hospital, namely:

- legal ownership and sponsorship of the hospital
- the internal organization of the hospital
- the management processes employed in the hospital

SITUATIONAL ANALYSIS

A. Ownership and Sponsorship

Throughout Guam's history as a U.S. possession, hospital services, and specifically Guam Memorial Hospital, for the civilian sector have been a direct responsibility of the central government. Shortly after and adoption of the Organic Act for Guam in 1950, the appointed civil governor declared that "Guam Memorial Hospital is a governmental non-profit institution serving the people of Guam." It was then, and until 1977 when the present Guam Memorial Hospital Authority (GHMA) was established, operated as a line agency of general government structure, originally under direction of the Director of Medical Services and later under a Hospital Administrator and a Board of Trustees appointed by the Governor.

In 1977, Chapter I of Title XLVII of the Government Code was amended with the effect of creating the Guam Memorial Hospital Authority together with a newly defined Board of Trustees. GMHA was created as a public corporation and autonomous instrumentality of, and within, the Government of Guam. Great discretionary latitude is vested in the Board under this statute, and with only a few exceptions (such as the requirement that employees other than health professionals be under the civil service classified service, that the Governor approve all contracts let, etc.) GMHA is essentially freed of most constraints and commissioned to go on its way as essentially a free agent.

However, the degree of self-determination vested in the Board over hospital operations, fees and charges, internal systems, selection and retention of employees, compensation and classification of employees to name but a few, has apparently been eroded over the intervening years. Some of the reasons are fairly evident, but most remain obscure and unexplainable. Almost from the outset, GMHA has experienced continuous and irritating operational and financial problems related to the hospital. It has become a major center of conflict within Guam's health care system and the focus of public, legislative and planning attention, potentially to the disadvantage of patient care. There is extant a feeling that operation of the hospital as at present and under current sponsorship cannot continue much longer and that change of rather major magnitude is essentially in the very near future. Recent governmental acts such as exempting only GMH staff physicians from the classified civil service, the intention to transfer central business management and accounting functions to another sector of government, and the removal of data processing capabilities and their centralization in the government computing center have all contributed to the erosion of the free-enterprise nature of the original public corporation intent. The Board and management are persistently approached by higher authorities, including members of the Legislature, and pressures are brought to bear which serve to thwart the systematic application of internal policy in such critical areas as collection of fees and charges for services rendered. There seems to be, at once, the dual and conflicting philosophies that the hospital should be a totally autonomous entity, freed of all constraints and that the hospital should be more closely controlled and governed by the key elected public decision-makers.

Chapter I of Title XLVII was subsequently amended with the addition of Subsection (1) which mandated the Guam Memorial Hospital Authority to operate a self-sustaining health plan, the Guam Memorial Health Plan (GMHP), adding

yet another responsibility to the Board of Trustees. Inasmuch as the Trustees, under this arrangement, are now responsible for two entities (one, a provider of hospital and health care services, and the second a purchaser of hospital and health care services within a monopolistic environment), it has been placed in a position of direct conflict of interest as it variably wears its two "hats". Beyond GMHA, there are a number of contemporary independent activities, notably in the Legislature, which include proposals to establish the hospital again as a line agency of government and to create GMHP as a non-profit public corporation separate from the hospital management. While laudible in their concern for the welfare of the hospital, unilateral actions such as these only serve to further confuse an already difficult situation and to obscure and deprive the statutorily responsible entity, the Board of Trustees, of their sole discretion in directing the future of the hospital.

When the GMHA was created, all assets and properties of hospital were acquired by statute by GMHA. Nonetheless, a Governor's Task Force on the future of the "old" Guam Memorial Hospital was convened (with participating membership from the Board) to determine disposition of real property, the control of which rests solely and directly with the Board and no one else. The only condition under which real properties under the Board's control would revert to the Government of Guam would be when they cease to be utilized directly or indirectly in the treatment and care of Guam Memorial Hospital patients. Thus, despite recent expenditures to rehabilitate the older facility following typhoon damage, there has apparently been made a determination that future use of the old facility for the care of hospital patients is inappropriate, for only under the conditions of such a decision would it be appropriate for a broader government entity (the task force) to intervene in any way (including an advisory way) in determining the future of Board controlled properties.

In summary, it can be stated that GMHA is a free-standing, autonomous, public corporation which is more and more being required to operate somewhat as a non-autonomous, line agency of general government, whose future is being contemplated and determined by entities outside of its trusteeship and management. It is, thus, a pawn in the hands of any who would enter into the game of "whether the hospital" and at the center of a maelstrom of critics, reformers and others who have few qualms over tampering with both internal operations and the future status of the hospital. Under its present form of sponsorship, the Board is apparently powerless to countervene external efforts which will severely impact on its domain, is not always a part to such external efforts and often must be purely reactive (as in the presentation of legislative testimony) as external events unfold. The Board is simply no longer the master of its own destiny, although it is clear that this was the intent when GMHA was created. Thus, one can assume that over the intervening four or five years, external observers have concluded that the present sponsorship is not, or cannot, do the job originally set out for it and that changes must be made.

B. Organization

Guam Memorial Hospital has been characterized by frequent administrative turn-over for the past eight years, and represents today an unstable organization, difficult to describe organizationally except at any specific point in time. Each succeeding Administrator has, with Board approval, instituted organizational changes which have obviously been thought necessary. The only constant in organizational form has been the direct reporting and responsibility relationship between the Board and the Administrator who, by statute, is appointed by and serves at the discretion of the Board. In mid-1981, the Administrator was supported by an Associate Administrator (for planning services) and an Assistant Administrator (for planning, administration and general services). Three additional executives (the Controller, the Director of Nursing

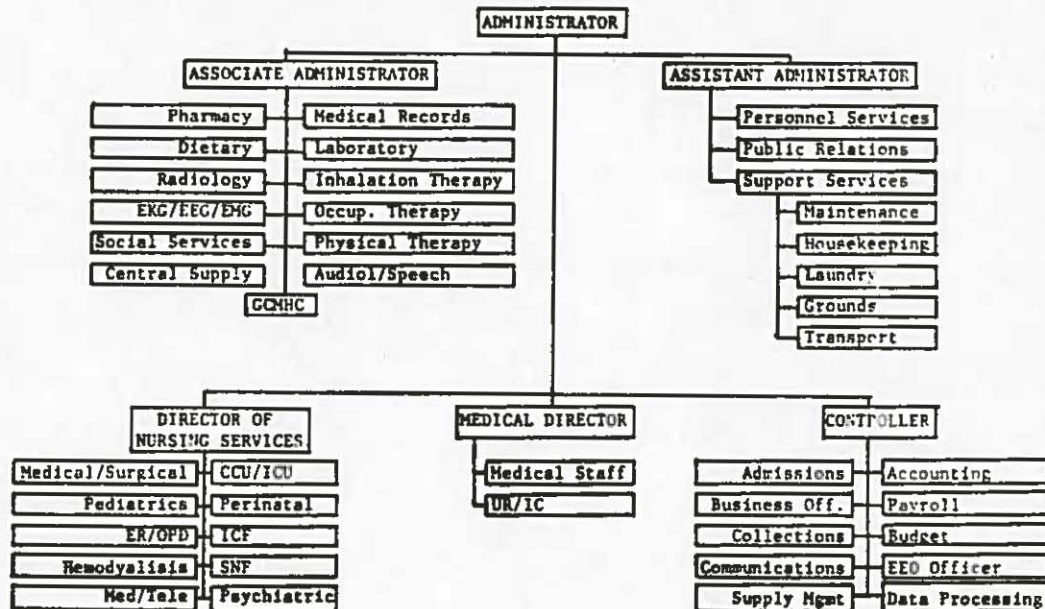
and the Medical Director) also reported directly to the Administrator and were perceived as members of the top management structure of the hospital. This organization represented a radical departure from that which it replaced, for it collapsed from more than 20 to 5 the number of persons reporting directly to the Administrator. Inasmuch as we understand both the Associate and Assistant Administrator positions to be temporarily vacant, it can be assumed that for the time being, the broader original span of management control has been reinstated, with virtually every operating department and unit within the hospital reporting directly to the Administrator. The sole exception appears to be the Controller who apparently reports directly to the Board on an administrative level equivalent to, and parallel with, that of the Administrator. The lack of continuity in central administration, and the rather constant reorganization within the executive levels of the hospital organization has had adverse affects throughout the total organization, but has not apparently affected the function and quality of patient care at the lowest levels of the organization. Thus, there emerges a picture of rather constant configuration and reconfiguration of central management responsibilities and communication channels, all the while the smallest staff groups within their respective spheres of responsibility have continued playing out their roles in patient care and supportive services, three shifts each day, seven days each week, perhaps oblivious to the structural events happening at administrative levels above them.

Current and prior organizational charts have been entirely unclear as to the position which the organized medical staff occupies and its relationship to other elements of the organization. Likewise, prior organizational designs have apparently not been accompanied by clear statements of role, responsibility and relationship between, among and for the various entities portrayed in the chart. Because of these deficiencies, it can be safely assumed that the prior (and current) organization

probably does not function in precisely the way the organizational chart suggests. Lines of communication, the exercise of authority, and the actual carrying out of duties can be expected to be substantially different than the formal chart declares where there is absence of documentation of roles and responsibilities.

The most recent approved organization chart for the hospital is presented below. As mentioned previously, with the vacancies which exist in the Associate and Assistant Administrator positions, it must be assumed (functionally) that those departments and programs illustrated as subordinate to each now, in fact, report directly to the Administrator.

ORGANIZATIONAL CHART: GUAM MEMORIAL HOSPITAL, JULY 1981



C. Management Processes

This sub-element is divisible, for purposes of analysis and development, into the following specific considerations:

- actual process of managing which is employed
- administrative policies and procedures
- the degree of goal development and goal orientation
- existing internal systems
- administrative relationships with other components of the health care system.

1. Actual Management Process

Owing largely to an extremely brief tenure in office on the part of the incumbent Administrator and a serious understaffing in top management positions, the current management process can best be characterized as "crisis management", whereunder major expectation to smooth daily operations are the principle managerial preoccupation. By and large, however, prior management styles to which the great bulk of hospital employees have become accustomed is that of traditional bureaucratic leadership wherein it is understood to be clearly established levels of authority, exemplified by a chain of command, extending from the Administrator downward through multiple layers of subordinate managers and supervisors to the rank-and-file members of the organization. It is our perception that these kinds of relationships have, and probably do today, exist at the higher levels of the hospital's organization. At the lower levels, however, and especially between functional departments and units of the organization, it is our belief that supervisors and their work teams have established sets of cooperative and contractual relationships which are employed without respect to the pyramid of authority into which they have been assigned. Under these conditions, a great deal of administrative

problem-solving takes place well down within the organization without ever rising to the immediate attention of top management. These relationships, however, are undoubtedly varied and manifold, without consistency across departments and units and lacking formal codification or general communication throughout the organization. Thus, things just "seem to work", often to the amazement of the outside observer who lacks an understanding of the unwritten and unspoken collegial understandings upon which collaboration is based.

In many respects, this relatively small organization is managed as a sort of large "family" wherein most everyone knows everyone else on a fairly personal basis. Persuasion, peer pressure and sympathetic understanding have replaced formal order-giving as the means of getting things done at the functional levels, and poor performance and other deviations from accepted standards are probably handled, for the most part, in the same informal and quiet way. This conceptualization is further documented when one examines prior organizational designs wherein all lines of authority and communication run directly from the smallest organized unit to the chief executive, just as they would from the more youthful members of a family to the elders.

2. Administrative Policies and Procedures

Those written policies and procedures which are minimally required for accreditation of the hospital have been prepared and are in place in appropriate offices. There is evidence in many quarters that they have neither regularly used, nor have they been made the basis for the orientation and training of new employees. There does not appear to be any existing and systematic system for the periodic review and revision of existing manuals of policy and procedure, nor is there a counterpart system for the identification of newer areas in which such manuals may be required to be developed.

Existing policy manuals provide a serious and immediate legal threat to the hospital inasmuch as they uniformly fail to contain the customary disclaimer which excuses justifiable deviation from prescribed policy and procedure.

Owing again to frequent management turn-over, there has never been assembled all Board policies into a single, central general policy manual and these remain non-codified in past Board minutes and other actions.

3. Goal Development and Goal Orientation

To the extent that the actions of individual staff members have been expected to comply with existing procedures, this has apparently served to supplant the systematic development of goals and objectives throughout the organization. There is some scant evidence of beginning attempts at the establishment of objectives, and these have revolved principally around the creation of output or production objectives. The hospital does not strike one as being mission-oriented, however, and the overriding sense of direction which established and communicated goals and objectives often provides is missing in most quarters. As in many other health service organizations, employees appear to simply work away from day to day at their assigned duties without care or concern over "why" they do and what they do, but mainly with what they do. Consequently, there is no goal-based foundation for the evaluation of personnel and programs, and those evaluation procedures which are existent relate almost exclusively to input or process rather than with outcome.

4. Internal Systems

With the exception of nursing services, in which they have been minimally developed, there is virtually no organization of or use of committees within the hospital. The formal medical staff organization has been documented, and the necessary committees thereof constituted, but few

written records exist of their actual operation or deliberations. While the Joint Conference Committee is recognized in written materials, it neither appears on organizational charts, nor is there evidence that it is convened on any kind of regular basis. Quality control is a function assigned the Medical Director, but operating mechanisms for physician and other professional peer review within the organized medical staff are not in existence at this time. There is no surveillance mechanism operating which provides oversight regarding current deficiencies of plant, personnel and operations and monitors their systematic correlation as a means of assuring future certifications and accreditations for the hospital.

5. External Relationships

While this sub-element is treated in much greater detail as Plan Element 6, a brief note should be entered here in the context of organization and management. While Guam Memorial Hospital stands generally at the center of controversy in the health care system, its management staff has not played central or consulting roles in much of the balance of the system. For example, while members of the staff and Board are formal appointive members of the Guam Health Coordinating Council, it has been commonplace that top hospital management has failed to attend or participate in long-range health planning with the GHCC. There have been essentially no inter-agency coordinating committees or other structures created to date which could bring together representatives of the hospital, the Department of Public Health & Social Services, pre-paid health plans, private health professionals, the various professional associations, and other elements of the health care system on any regular and systematic basis. When engagement with other components of the general health care system is made, it is customarily because of crisis and therefore undertaken in an environment of

confrontation. (Please note: goals, recommendations and alternatives related to external relationships appear under Plan Element 6).

DESIRED GOALS

Deriving from problems, deficiencies and discrepancies which the foregoing situational analysis reveals, the following desired goals can be postulated as appropriate targets for further future development. Each can be potentially achieved through any one of several means, and succeeding sections will detail various sets of alternative means. The goals which follow are recommended changes to the current situation, are presented in a recommended order of priority for developmental attention.

GOAL 1: Achieve a legal status which completely meets the external and internal needs of Guam Memorial Hospital, which permits it to properly serve the public, and which clearly vests defined authority and accountability for hospital operations in a single inviolate entity.

GOAL 2: Separate operating and policy responsibility for Guam Memorial Health Plan from Guam Memorial Hospital Authority.

GOAL 3: Stabilize a top management team which contains management personnel of high quality with appropriate qualifications for their positions and maintain it over a substantial period of time to afford continuity of management.

GOAL 4: Implement improved management processes.

GOAL 5: Establish a new internal organization in which lines of authority and responsibility are clear, and which maintains an appropriate span of management control permitting maximum use of existing managerial talent.

GOAL 6: Establish a system for the systematic review and revision of existing and additional policy and procedure guides and manuals.

GOAL 7: Establish and maintain a system for the development of goals and objectives at all levels in the organization, and means for their periodic evaluation.

GOAL 8: Develop an appropriate structure of internal committees.

GOAL 1:

Achieve a legal status which completely meets the external and internal needs of Guam Memorial Hospital, which permits it to properly serve the public, and which clearly vests authority and accountability for hospital operations in a single inviolate entity.

ALTERNATIVE 1

Appealing mainly to private physicians, to the business community of Guam and to some members of the Legislature, one option would be divestiture of government ownership and operation of the hospital through its sale to a private entity. Several possibilities suggest themselves, including the outright sale to one of the major firms which specialize in the ownership and operation of proprietary hospitals, such as Hospital Corporation of America, Humana, and others. Another approach would be the identification of a suitable local voluntary alliance which could acquire the assets of the hospital. A third would be a coalition of business interest, partially local to Guam and extended to a broader partnership reflecting investment interests in Japan, the United States and perhaps elsewhere. A final option would be sale (or lease--see Alternative 2) to an existing private health maintenance organization who would operate the hospital and serve the needs of its membership and sell to others any surplus service capacity.

To do so would require negotiations with the Departments of Health and Human Services and Interior to establish means by which the Government of Guam would repay (quite probably with substantial interest) all Federal sums which were appropriated and employed in the original acquisition of the new physical plant assets. Current statute which provides the Governor the right to lease the "old" hospital for up to 50 years would have to be amended to include the new facility, and extend the government's rights to

include sale. It would also require repeal of all statutory reference to Guam Memorial Hospital, the GMHA and related entities, and perhaps the creation of some newer governmental entity which would have limited oversight responsibilities (in a regulatory sense) over the operations of a private hospital, such as a Hospital Regulatory Commission. Any funds remaining to be released to Guam under the original Federal appropriation for the original purchase of the hospital would, of course, be foregone were this option adopted.

The decision to essentially put the government out of the hospital business would certainly relieve a stressed governmental system of a major controversy and financial burden. It would, however, under any condition, deprive government and Guam's citizens of any means whatsoever of containing the costs of hospital care, since the hospital which would be sold represents the sole civilian hospital available in the Territory, and her citizens are completely dependent upon it. Therefore, under private auspices (whether profit or non-profit) the consuming public would be lacking any other alternative than to pay whatever charges the privately operated hospital might choose to fix and to be satisfied with whatever range of services it might choose to offer. Relationships with public health and mental health programs would become strained, and many Federal programs now operated through the hospital would require transfer to other agencies of government in order to continue to qualify for Federal participation. It would, furthermore, be difficult to find purchasers willing to pay the high fair price for the property and undertake the continuing operating of a presently financially unsound corporation.

In order to more perfectly protect the interests of Guam's citizens under this possible arrangement, it would be necessary to erect regulatory statute which would place some kinds of limits or public oversight on rates and charges (a la the traditional functions performed by public utility commissions), specify service and program standards which would be required to be met, personnel and employment standards and practices, and the more

customary life safety standards. Under these conditions, severe constraints would then be placed on private operation, making it all the more difficult to find investors willing to undertake future ownership and operation. There would remain the final possibility that while private ownership might for some short period of time operate the facility as a hospital, at a later time it would probably be within the purview of private owners to convert the facility and its real property to uses other than hospital care, thus possible at some later date making it necessary for either the government or yet other private interests to undertake the development of another hospital.

We must conclude, therefore, that this alternative is not a particularly desirable or viable one at the present time. As Guam's population continues to grow and broadly distribute itself throughout the Island, it may be feasible in three or four decades hence to consider a second major hospital which could then be developed under private aegis and operate competitively with an existing government hospital.

ALTERNATIVE 2

Closely akin to the alternative presented above would be the option of leasing the hospital to private interests for continued operation. Under this arrangement, the lease would need to specify not only the fixed period of lease (probably not less than 10 nor more than 15 years), but would also need to stipulate the services to be provided, standards which would govern personnel to be employed, functions which may be forbidden, and probably and desirably bind the lessor to some form of rate regulation and review.

While this option maintains government ownership of the physical plant and its associated real property and thus may not require any particular Federal approval, it brings with it many of the disadvantages outlined above with respect to outright sale of the hospital. Except under the most stringent and binding of lease conditions (whereunder it would be doubtful that any responsible lessor would enter into an agreement), the lessor

would be substantially free to operate the hospital in whichever ways and at whatever costs appear to be most advantageous to the lessor, inasmuch as a virtual monopoly would have been established for its business.

A sub-option here would be a lease-purchase arrangement which would have distinct advantages to a for-profit lessor under current new Federal tax laws, but binding the government to an eventual sale of the hospital assets - following a period of lease would, as in Alternative 1 above, require both Federal approval and most likely repayment of Federal funds which have been invested in the hospital.

There can be no question that under this option, or under the preceding option of outright sale, that some of the persistent and nagging problems of outside interference in hospital operations and collections would be entirely eliminated. The new owners/lessors would be entirely free to run the business as a business and would have absolutely no incentive to either provide free-of-charge service or discounted or abated charge service. Hospital care would then be placed upon a purely pay-as-you-go basis, and those unable to pay and for whom some other entity (most likely the government) may not be willing to pay would simply be denied hospital care except under the most pressing of emergency conditions. While this sounds non-humanitarian, it makes fundamentally sound business sense, and it must be made clear that under either sale or lease-out conditions, business interests and business philosophy will undoubtedly control hospital operations. For these reasons, we cannot find substantial justification for employing this option at this time.

ALTERNATIVE 3

Another option for which there is substantial constituency is that of converting the hospital to line agency status in the government structure. This would have the effect of repealing the current GMHA and related statute, and vesting management responsibility for the hospital either within some existing line agency

(such as Department of Public Health and Social Services) or in the person of a gubernatorially-appointed Chief Executive who would head a new agency of government. There would remain a need for the establishment of some form of "board of directors" or "trusteeship", and this would most likely take the form of an Hospital Advisory Council to which the chief executive would be partially accountable.

Subordinate alternatives remain with respect to whether the hospital as a line agency would be subordinate to or parallel with other line agencies. Should any of the broader recommendations which were made in a 1981 study of Guam's health care system move to create some form of master health agency of government, one major element of such umbrella agency could well be the hospital and all of its ancilliary services. This arrangement would offer great opportunities for close collaboration between public health, primary care and in-patient services.

As a line agency of government, it would be most appropriate to adopt a single annual budget reflecting the total projected operating expenses of the institution, and coupling this massive appropriation with a more aggressive billing and collection system, with some hospital revenues reverting to the general fund, and with others reserved to fund contingencies and depreciation. In this way, as with any other major line agency, the hospital would have a dependable although fixed amount of money with which it can conduct its services, meet its payrolls and maintain its equipment. It would, however, serve to frankly politicize the hospital, bringing it under more direct and probably more frequent and appropriate surveillance by the Legislature. However, given the political realities of Guam, this may happen inevitably as it does now, and may represent little change. On the other hand, under conditions of a fixed, annual and large appropriated budget, one could expect the hospital to make many fewer trips back to the Legislature for supplemental appropriations, for the custom in other direct government hospital operations is the axiom "live within your budget".

As a line agency, with operating expenses covered by a fixed budget, there would be less incentive for aggressive collections than at present because such revenues would not accrue to the hospital's operating budget directly. On the other hand, there would be a much greater incentive than at present for more realistic provision of services, inasmuch as abundantly over-budgeted service provision will simply exhaust a fixed budget before its time. Thus, all the advantages of the widely touted "prospective budgeting" and the incentives for operating efficiency, would be built into this system.

This alternative obviously provides for the greatest degree of public accountability, but suffers from possible inefficiencies and functional difficulties which seem to arise every time any government operates relatively non-traditional public services such as hospitals. For example, collection policies relevant to hospital operations have features substantially different than those of, say, tax collection agencies. Personnel policies, related to three daily shifts and seven-day operations, and embracing a wide variety of professional personnel, are quite different for efficient hospital operations than they are in more traditional nine-to-five office operations of government. Thus, even under this condition, the hospital can be expected to continue to represent a kind of "white elephant" among government services, always petitioning for exemption, special arrangement, and unique need. This is not unmanageable, but does represent a predictable continuing set of conflict points between hospital management and that of broader government.

ALTERNATIVE 4

Another option would be the consolidation of existing statute pertaining to GMHA and GHMP, and constitute the hospital as but one entity within a governmental health maintenance organization. In this manner, the "plan" would be clearly and closely linked with the "service provider" in one and the same organization. Hospital operations for GMHP members would be supported by a portion of the premiums collected. Other purchasers of hospital care (i.e.,

governmental entitlement programs, FHP, indemnity insurance, and the like) would be considered as external entities and would be served by the "closed panel hospital" on purely a fee-for-service basis.

Under this condition, the hospital's principal allegiance would be to the GMHP and its membership, who would (as in Kaiser-Permanente programs elsewhere, for example) be given first priority for hospital services and care, but "outsiders" being served on a space-available, first-come, first-served basis with any residual or surplus service capacity.

Because the hospital is now owned by the government, and thus by all citizens of Guam, it is not likely that great enthusiasm will develop for making it essentially a captive resource for only one sector of the population, namely the members of GMHP. As in most other HMO-related hospitals, it is customary that staff privileges are granted primarily only to physicians and other professionals who are on the "staff" of the HMO, and "outside" physicians (e.g., those affiliated with FHP) are normally required to transfer responsibilities for the in-patient care of their patients to HMO physicians when use is made of the HMO's in-patient facility. This format is usually felt necessary to protect the integrity of the HMO and to vest quality control over hospital operations in the hands of the professional group directly concerned with HMO operations. It is doubtful that such a constraint on hospital practice privilege within the broader medical community would be met with great enthusiasm.

ALTERNATIVE 5

The RECOMMENDED alternative is that of amending the current statute, creating GMHA as a totally autonomous public corporation. This would appear on its face to be substantially the current situation, but the alternative is quite different. In the first place, that language in Chapter I, Title XLVII which reads "within, and...of, the government of Guam" would require repeal. Thus, the act would simply establish "a public corporation called the Guam Memorial Hospital Authority". Most other provisions of

the existing statute could remain, except for all references to relationship to broader government. The following would be critical components of revised statute in order to create GMHA as a truly autonomous entity:

1. The statute should create "an educational and scientific public non-profit corporation to be known as Guam Memorial Hospital, Inc., which shall be devoted to the purposes of and which shall perform functions assigned by this Act."
2. The corporation shall not be considered a department, agency, or public instrumentality of the Territory, and shall not be subject to laws of the Territory applying to departments, agencies, and public instrumentalities of the Territory, except that the corporation shall be subject to the laws pertaining to non-profit corporations, except as may be otherwise provided by this Act.
3. The corporation shall have succession and corporate existence in perpetuity.
4. Corporate functions should include the provision of in- and out-patient acute and long-term medical and hospital care, the conduct of medical research, and the provision of disease prevention programs for the benefit of the population of Guam.
5. Powers should include the making and entering into contracts including, but not limited to, acquiring personal and real property or interests therein necessary to its purpose and function, securing personal and consulting services, and for other matters necessary to the fulfillment of the purposes of the corporation; appointment of an Administrator (or Chief Executive Officer), and hiring additional necessary staff; development and submission of a budget for consideration by the Legislature; seeking and accepting funds, gifts, and other necessary or desirable forms of assistance, from any source whatsoever; development of administrative procedures appropriate to the effective performance of the functions of the corporation and the purposes of this Act; providing services

and performing functions reasonably necessary to fulfill responsibilities of the corporation under this Act; providing, charging for and collecting payment for services to individuals and organizations for services provided.

6. The corporation shall have a board of trustees which shall manage and control the affairs of the corporation and shall exercise all of the powers of the corporation, except as otherwise provided by this Act or as may be delegated by the board of trustees.
7. The board of trustees shall consist of ____ members, and the sources (representational) of each member should be stipulated (i.e., two members appointed by the governor; the Director of Public Health & Social Services, etc.).
8. The term of each member of the board of trustees should be three years, with one-third of the initial board being given a one-year term, one-third a two-year term, and the final one-third a three-year term.
9. Within sixty days of the expiration of the term of any member of the board, the board of trustees shall hold an election among its membership to determine an appropriate representational successor.
10. Prohibited acts for the corporation should include the following:
 - a. no power to issue any shares of stock or to declare or pay any dividends;
 - b. no part of the income or assets of the corporation shall inure to the benefit of any member of the board of trustees, its chief executive officer, any employee, or to any individual or organization, except as reasonable compensation for services actually rendered or reimbursement of expenses;
 - c. shall not contribute to, participate in or intervene in, or otherwise support or assist any political party or association, or the campaign of any candidate for public or party office.

11. The corporation should be required to keep accurate and complete books of account and minutes of the proceedings of the board of trustees and any committee thereof, and bodies to which the board has delegated any of its powers.
12. The corporation should be required to conform to all requirements of the law relating to non-profit corporations except as may be otherwise provided for by the Act.
13. Options for present employees of Guam Memorial Hospital to continue as members of the Government Retirement System in which case the corporation should be empowered to deposit in such system an amount equal to the combined total amount of the employee deductions and employer contributions required by current law on a regular basis; or to cease to be a member of the Government Retirement System but to receive any annuity to which they may presently be eligible and to become a member of any retirement system which the corporation may establish; or to cease to be a member of the Government Retirement System and to withdraw any eligible contributions and to become thereafter a member of any such retirement system as may be established by the corporation.
14. The corporation should be required to publish an annual report which shall be filed by the corporation with the Governor, the Legislature, and the Director of an appropriate regulatory agency of government.
15. The act should provide that in the event of the dissolution or liquidation of the corporation, all assets remaining after the satisfaction of, or provision for satisfaction of, all obligations, debts, and liabilities of the corporation shall be distributed to a non-profit fund, foundation or corporation which is organized and operated exclusively for the same purposes as the corporation and which has established its tax exempt status under section 501(c)(3) of the Federal Internal Revenue Code of 1954, as amended, or in the absence of any such receiving corporation, shall be distributed to the Government of the Territory of Guam.

Under these conditions, the hospital would be essentially free to conduct its business in perpetuity, determining its own governance, personnel policies, services, and charges. Its board would be self-perpetuating, and thus not subject to periodic reappointment by succeeding chief executives. As with such legislatively-created public corporations elsewhere, the entity would be permitted (but not required) to approach the Legislature for appropriations, and the Legislature would not be required (but would be permitted) to make such if it deems it advisable.

The hospital, under this sponsorship, then becomes a free and independent vendor of hospital-related services from whom all those seeking such service may apply. Under situations when those receiving service are either enrolled in some form of health insurance or pre-payment plan, or who have ability to make direct personal payment, the hospital would simply ensure financial responsibility prior to service and deal with such clients in much the same way any service provider does when it is expected that services rendered will be paid for. In the case of government beneficiaries (Medicaid, other entitlement programs and those "indigent" who are public wards), the hospital would be in an unfettered position to expect that prior to services being rendered that financial liability has been clearly established and would aggressively bill and collect from the responsible governmental entity. It would not be unreasonable for such a totally independent entity to require the establishment of some form of drawing account, representing "front money" to be held in trust and deposited to by responsible paying governmental agencies, against which service charges could be systematically debited.

It is believed that the recommended removal of the corporation from within the structure of Guam's government will go farther toward ameliorating many of the pressing problems which currently face the hospital than any of the other viable options. It has the advantage of maintaining eventual ownership of hospital assets by the government, but places them and their operating in trust and in the hands of a corporate entity which is located between the public and private sectors, but in neither.

IMPLEMENTATION PLAN FOR RECOMMENDED ALTERNATIVE

Task 1

Seek the introduction of remedial legislation which will amend Chapter I, Title XLVII of the Government Code to comply with the specifications and philosophy contained in the description of Alternative 5 above.

Responsibility: Board of Trustees, GMHA

Start: May, 1982

Complete: July, 1982

Task 2

Develop a firm constituency for the proposed legislation by establishing coalitions of business, religious, community and medical leaders and seeking their active support of the proposed legislation. This task will entail the creation of study groups, the planning and conduct of community meetings, and the presentation of the concept before community business, service and religious groups.

Responsibility: Board of Trustees, GMHA
Hospital Administrator and Staff
Legislative Sponsors

Start: July 1982

Complete: March 1983(*)

(*) Owing to the general elections scheduled for Fall 1982, it would appear doubtful that this change could be enacted and approved prior to the elections, and it will doubtless become an issue which will carry-over to be dealt with the new Legislature and Territorial Administration in 1983.

Task 3

Proceed with the selected organizational, management, staffing, programs and services, facilities, financial and external relationship developments, for each has been structured to accommodate

either this future sponsorship, or that of reversion to line agency status which appear to be the two most feasible of all sponsorship options.

Responsibility: Board of Trustees
Hospital Administration and Staff

Start: April 1982 and thereafter as separately specified

Complete: As specified in specific development plans

GOAL 2

Separate operating and policy responsibilities for Guam Memorial Hospital from Guam Memorial Health Plan.

DISCUSSION

This artifact of current organization was revealed during the analysis of current hospital sponsorship, and because of the serious conflict of interest position which GMHA presently has in exercising its dual responsibilities of operating both Guam Memorial Hospital and Guam Memorial Health Plan, it is recommended as an important goal to be achieved very shortly. This goal and the recommended actions apply in all events except should sponsorship Alternative 4 (the actual merging of GMHA and GMHP into a single governmental health maintenance organization) be adopted. In that case, this goal is unnecessary and should be deleted.

Action 1

Seek sponsorship and introduction of an act which will repeal Subsection (1) of Section 49003 of the Government Code of Guam, and enact a new Chapter 1-A of Title XLVII which creates Guam Memorial Health Plan as a public corporation of the government of Guam.

Responsibility: Board of Trustees and Governor

Start: April, 1982 (or as soon thereafter as decisions have been reached regarding intended future sponsorship).

Note: it is recognized that such legislation has been introduced last in 1981, but its legislative fate

is presently uncertain. If existing bills are active, then de novo introduction would be unnecessary.

Complete: July, 1982

Action 2

Assist in developing a constituency for the proposed legislation by planning and conducting community meetings on the issue, the presentation of the concept before community business, service and religious groups, and by representing the imperative of the separation before individual committees and members of the Legislature.

• Responsibility: Board of Trustees and Governor

Start: April, 1982 or as soon as suitable legislation has been introduced.

Complete: September, 1982 (*)

(*) It should be noted that if this proposed legislation is viewed as contentious, and in light of the forthcoming 1982 general election, action may be deferred until a new Legislature and Executive have been elected and seated.

GOAL 3

Achieve stability in the hospital's top management team by assuring that it contains management personnel of high quality with appropriate qualifications for their positions and maintain it over a substantial period of time to afford continuity of management.

DISCUSSION

It is clear from the foregoing situational analysis that one of the most disabling and debilitating features of the hospital has been the frequent and destructive turnover in top management. There have been instances in the past when administrative personnel have not been properly qualified or experienced for the key roles which they have been expected to play. Because the future portends significant change and development within the hospital, and because many, if not all, of the changes which will likely take place will

require the highest quality of central executive leadership, a necessary precursor to hospital improvement will be the achievement of a high quality and stable key management team.

The administration of health care services has become a highly professionalized field over the past 20 years both in the United States and elsewhere. It is virtually uncommon that vertical advancement from lower to higher administrative levels occurs in modern hospitals without additional professional preparation. The complexities of patient care, coupled with the increasingly business-like nature of hospital operations and the confusing and conflicting external environments in which hospitals operate all call for the highest calibre of chief operating executives and their immediate associates. This discussion is to be taken in no manner as a derogation of incumbent personnel in Guam Memorial Hospital, and is presented purely as a necessary preface to the alternatives which follow.

ALTERNATIVE 1

Of increasing popularity, and tried once before in Guam, is the device of contracting with one or another of high-quality professional hospital management firms who, by prearrangement, assume all major managerial and executive positions within the hospital and assume responsibility for day-to-day operations. This alternative is costly, often approaching 20% of hospital operating costs, and is financially unfeasible for Guam. Furthermore, prior experience in this regard has demonstrated the cultural incongruity of off-island administrative personnel who may be supplied by external firms. Contract administrators have little in the way of long-run dedication to the improvement and increasing efficiency of the hospital, with many believing that the safest posture is the quiet maintenance of the status quo. To be certain, this is a device to import major and novel management procedures and processes, but their application by "alien" managers often flies directly in the face of staff readiness and is often done without recognition of local history and custom.

ALTERNATIVE 2

This would entail, without regard to incumbent administrators, the development by the Board of statements of desired educational, professional and experiential attributes for the Administrator, the Associate Administrators and the Controller. To the degree and extent that incumbent persons meet such adopted standards, they would be retained or reassigned to appropriate administrative positions in keeping with their respective qualifications. Those not meeting the desired requirements would be systematically replaced through rigorous advertisement and search for the most qualified persons available.

This alternative has the advantage of offering the hospital future managers who are as highly trained, experienced and otherwise qualified as any to be found in similar-sized hospitals elsewhere. It has the disadvantage of potentially displacing some incumbent managers who may not meet nationally recognized standards of qualification for their position. It has the further disadvantage that substantial increases in prevailing salary schedules for management would undoubtedly be required as a sufficient inducement to attract from abroad sufficiently qualified personnel. Inasmuch as we cannot identify any in Guam with wholly appropriate credentials for the top management position, and only a few with formal hospital administration preparation which equips them for significant management roles, this alternative then suggests either a long-term investment in locating and training local persons (and a commensurate delay in appropriately staffing key management positions) or the recruitment of qualified persons from abroad. The latter carries serious disadvantages, for expatriate executives are often insensitive to local customs and traditions, find relocation to Pacific island living conditions extremely difficult, and often rotate rapidly.

ALTERNATIVE 3

The RECOMMENDED option would be the establishment of clear and generally accepted standards of education and professional experience for the positions of Administrator, Associate Administrator and

Controller. Incumbent employees should then be appraised in the light of the desired qualifications, and any deficiencies and discrepancies identified in each case. Thereafter, two expedients could be employed to bring as needed incumbent personnel up to or exceed the desired standards, as follows:

1. Where short-term education and training, especially in specific and detailed aspects of administration of health care, is determined to be needed, then off-island opportunities which are abundant through professional training organizations (Aspen Systems, for example) can be employed for them. Professional training and education, either of a degree-seeking nature or simply course-by-course, is available in some departments of the University of Guam and in health professions schools at the University of Hawaii. Full advantage of these opportunities, on a released-time basis for top management personnel, could also be taken.
2. A "counterpart" plan could be adopted in conjunction with those steps outlined above, whereunder highly experienced and well-trained counterpart hospital administrators who are employed and hold key management roles in major hospitals in Hawaii, for example, would be recruited to offer on-site tutorial assistance to selected incumbent hospital management personnel. This would entail periodic visits by off-island administrators to Guam for periods of several weeks, during which they would work side-by-side with their counterpart (e.g., Administrator with Administrator, Controller with Controller, etc.), assisting in each case with an introduction to broader aspects of the job. These relationships could be expanded whereunder Guam administrative personnel would from time to time spend protracted periods at the host institution from whence their counterpart was recruited, learning on-site at that location newer methods and procedures.

IMPLEMENTATION PLAN FOR RECOMMENDED ALTERNATIVE

Task 1

Elicit from the Joint Commission on Accreditation of Hospitals, the American College of Hospital Administrators and the American Hospital Association existing statements on desirable education and experience for key management titles.

Responsibility: Board of Trustees

Start: April, 1982

Complete: June, 1982

Task 2

Adopt by action of the Board of Trustees a set of educational and experiential requirements for the positions of Administrator, Associate Administrator and Controller.

Responsibility: Board of Trustees

Start: June, 1982

Complete: August, 1982

Task 3

Undertake a serious appraisal of incumbent management personnel and contrast their respective qualifications with those adopted as required by the Board of Trustees, and specify in writing any deficiencies or differences which may exist on the part of each top manager.

Responsibility: Board of Trustees
Administrator, Associate Administrators
and Controller

Start: August, 1982

Complete: October, 1982

Task 4

For each deficiency area noted from Task 3, develop an identification of available short-courses and courses available at the University of Guam, the University of Hawaii and elsewhere within

reason, and commercially available professional courses scheduled for the next year. Based on this tabulation, develop a schedule of training and associated travel and job-coverage schedules in order to facilitate participation in additional training. A cost of approximately \$300 plus travel and living expenses should be projected for each such training experience.

Responsibility: Administrator and Staff

Start: October, 1982

Complete: On-going

Task 5

Identify counterpart administrators in Hawaii for each of the following: Administrator, Associate Administrators, Controller, and open negotiations with each counterpart toward contracting with them for the provision of tutorial and counterpart support. Negotiations would include determination of reasonable fees, and estimation of the number of visits to Guam per annum by each counterpart and the number of visits by Guam personnel to the counterpart's institution, and the determination of necessary travel and related expenses. This package of expenses should then be included in the next annual budget for the hospital.

Responsibility: Administrator and appropriate staff

Start: November, 1982

Complete: February, 1983

GOAL 4

- . Implement improved management processes.

DISCUSSION

Related to future sponsorship, there are five viable alternatives for Guam Memorial Hospital:

1. Outright sale by the government to private interests for private operation.

2. Long-term lease by the government to private interests for private operation.
3. The status quo
4. Reversion of the hospital as a line department of government.
5. Creation of a non-profit public corporation to which the assets and operating responsibility would be transferred.

Should either the first or second options above become a reality, then none of the plan elements which follow have either utility or relevance, for the new private and independent management/ownership would be free to pursue whatever organizational, management, facilities, services, personnel or fiscal policies they might choose.

Therefore, all of the plan sections which follow are premised on the belief that any one of options 3, 4, or 5 will be realized, and each has been tailored to these sponsorships exclusively.

The fundamental organizational need is to collapse the presently unwieldy span of management control to more manageable limits. Closely associated here is the imperative of including the organized medical staff in the management triad which presently includes only the trustees and central management. This section details management procedures which may be incorporated into any of the overall organizational structures detailed under Goal 5. Hence, management process is independent of organizational form.

While it has not been demonstrated that management process in the hospital is necessarily "bad" or even lacking, there is evidence that there does not exist any specific and cohesive managerial philosophy or practice which conditions the practices of most managers. Thus, a variety of styles and processes are currently employed ranging from the total laissez-faire to the most participative to the most authoritarian models. Thus, the alternatives which follow are intended to develop optional forms, one of which is to be recommended as that which would be the controlling management process for the immediate future.

Inasmuch as "form should follow function", the organizational forms which are developed in regard to Goal 5 have been created to permit the adoption of any of the management processes developed here.

The alternative management processes to be considered include the traditional, management by objectives and management by committee. Concepts of participative democracy are embodied in each of the basic process forms described, and does not in and of itself represent a discrete process. The major requisites of participative democratic management include the following, and means of accommodating them appropriately are included in the more basic management processes:

1. Subordinates at all levels of the organization share in decision-making as appropriate to their duties and their work;
2. Subordinates are kept informed of the true situation, good or bad, under all circumstances;
3. Manager are easily approachable;
4. Communications with subordinates are direct and open;
5. Managers support subordinates, even when mistakes occur;
6. Subordinates receive training, assistance and support to permit their application of increasing skill levels.

ALTERNATIVE 1

One of the more popular of modern management processes is that known as management by objectives (MBO). A successful MBO program requires generally a three-sequence developmental strategy and can require from four to five years for an effective program to emerge.

The primary basis for the overall program rests with the development and appraisal of workers and managers according to objectives which they (the worker and manager) write and develop for themselves. Thus, for purposes of periodic or annual evaluations, personal traits (enthusiasm, initiative, appearance, promptness, and the like) could be replaced with statements of things an

individual is going to accomplish (objectives). Thus, the appraisal becomes one of "to what degree did you achieve your objectives, and if not, why not?" Such results-oriented appraisal motivate individuals, for it emphasizes the accomplishment of objectives which an individual himself has established. To participate in the development of one's own objectives, to be given the latitude to accomplish them, and to know that one's performance will be measured against them releases considerable motivation.

Because it is potentially dysfunctional for individual objectives (no matter how lofty and aspiring they may be) to be left without an overall context. Hence, the second basis for an MBO program becomes the task of integrating the objectives of the organization with those of individual workers and managers. This brings into focus the making of objectives an integral part of the entire management process. The process of setting organizational objectives begins with the office of the chief executive, and all subsequent levels of the organization's objectives emanate from this set. Organizational objectives commonly become part of the operations-planning-budgeting cycle and time period. Thus, the objective setting process becomes an iterative one, which demands the integration of organizational objectives both vertically and horizontally. Once organizational objectives have been set, then a meaningful context for the establishment and review of workers and managers more personal objectives has been achieved. The doctrine is then established that the organization's objectives are the controlling set, and the master control are those which emanate from the chief executive. All others (organizational and personal) must be coincident to, non-conflicting with and contributory to the master objectives of the organization. Even with the achievement of this second basis for MBO, both personal and organizational objectives remain focused usually on only the next year. To the extent that next year's performance is predetermined based on the inertia that has already been built up, short-run (one-year) objective setting adds little to short-run performance. In fact, the activity of objective setting may actually interfere with the short-run future. In addition, if next year's operations are

virtually set and the manager's objectives are integrated with the operating objectives, then the operations are leading management, and management is delegated to a passive role. Thus, with the realization that management must make an impact on the organization -- that it lead rather than be led -- then it must set longer-term objectives and plan the ways to achieve them. This, then, introduces stage three of management by objectives.

The focus of the third basis for MBO is on long-range objectives and action plans to make them a reality for both the organization and individual workers and managers. The objectives that ultimately are set for the organization and individuals within it, and the action plans supporting the objectives, represent the culmination of extensive analysis of the variety of possible objectives open to the organization and the many and varied means of achieving them.

In some ways, Guam Memorial Hospital has embarked upon this management mode from the wrong end. This long-range institutional plan is a first effort to establish the long-range objectives of the organization and to isolate preferred means of their achievement. As recommendations contained under Goal 7 suggest, rather immediate steps aimed at creating the primary and secondary basis for MBO must be taken if this management process is to be implemented. Because of the long time-frame required to fully adapt MBO to so complex an organization as a hospital, it may be well to forego full adoption of the concept, but to begin the process of implementing basic pieces of the MBO structure against future times when the concept may well become the major management process and tool for the hospital.

ALTERNATIVE 2

Management by Committee (MBC) is a concept employed originally by the E. I. DuPont Co., and later adopted by other enterprises, notably in the defense and research/development fields where it has taken the form of task force management. The premise is that authority for decision-making can be delegated to groups of employees who are convened as committees for various special and very

well-defined purposes, and that the committees are held accountable to top management for the results of their decisions. As in all other forms of management process, top management retains ultimate responsibility for the acts of subordinates, in this case, committees.

The following are requisites of this system:

1. Each committee contains at least one member from the next highest administrative echelon to which the committee reports.
2. Each committee has well-defined and specific authorities and areas of interest to which it is mandated.
3. The deliberations and actions of each committee are committed to writing, and are distributed in the form of decisions to operating units affected and to top management simultaneously.
4. Membership on each committee is clearly defined by job title, and every managerial and supervisory member of the organization must be placed on at least one committee.
5. Overall policy guidance for committee actions must be provided by top management and the trustees, and it is within the constraints of overall policy that committee decisions taken place. Committees do not make policy.

There would need to be established a multiplicity of committees to implement this form of management, and they would fall into one or another of the following types:

1. Functional committees, including (for example) patient care, ancillary services, housekeeping, or preventive maintenance.
2. Procedural committees, such as manual committee, records committee, quality committee, or revisions committee.
3. Advisory committees, including those related to technology appraisal, policy advice, or employee grievance.
4. Regulatory committees, such as tissue, infection, disaster, and security.

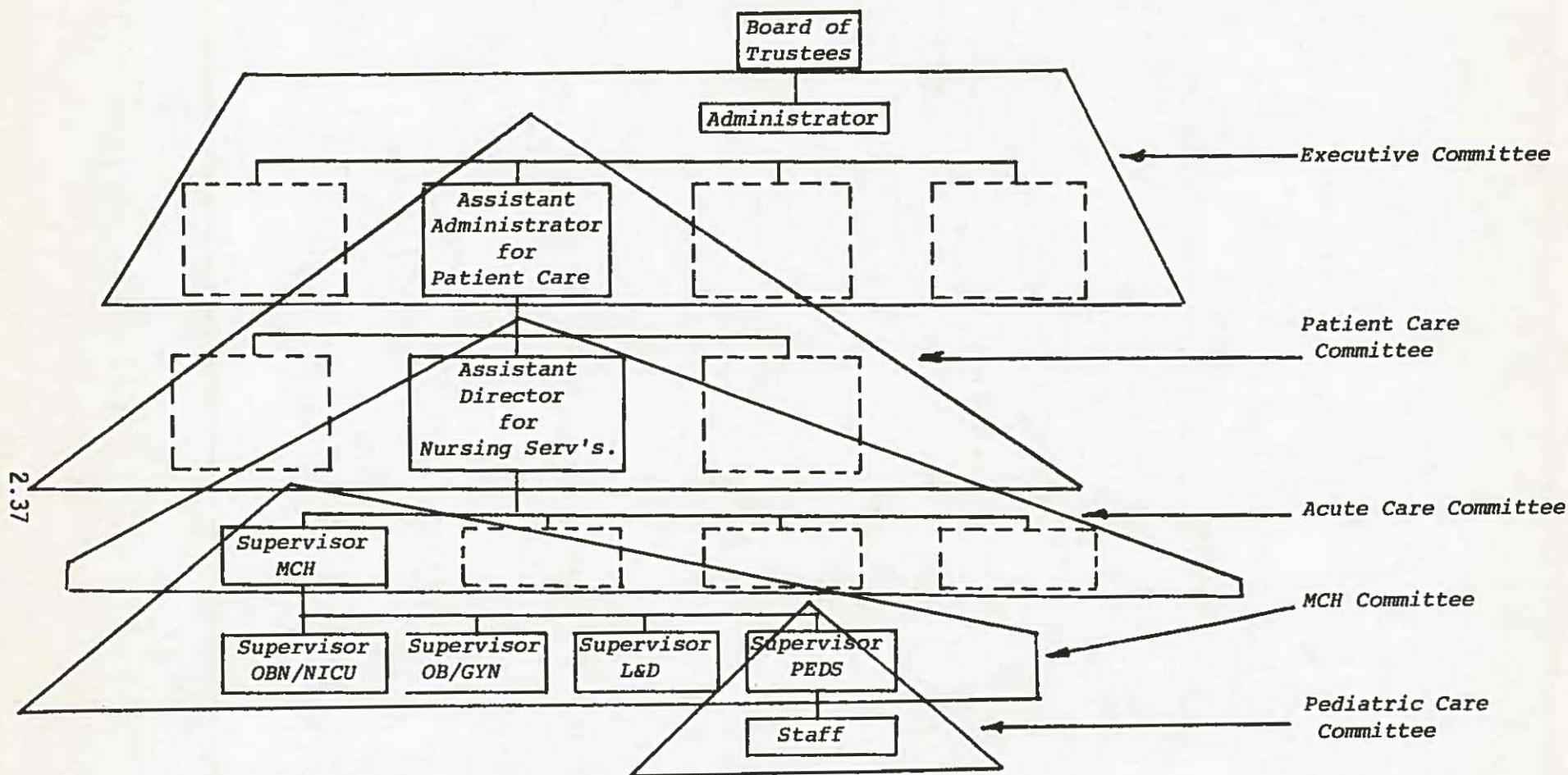
5. Liaison committees, including legislative liaison, inter-agency liaison committees, employee association committees.

The essence of this approach to management lies in the commitment to group decision-making -- i.e., the fundamental function of each committee. The thesis is that group consideration of problems and opportunities is superior to that of an individual (and often, independent) decision-maker. In addition to that perceived advantage, the system also permits (in fact, requires) the broadest participation of nearly every member of the organization, and thus thrusts most staff members into the decision-making stream affording them the satisfaction of participating in their own professional and personal destiny. The disadvantages are, of course, numerous. First is the matter of time consumption. A fully structured committee organization can well consume a minimum of 10% of the time of each participant, time which must be relinquished at the cost of other assigned duties. Committees ordinarily touch those on day shifts, leaving the evening and night shift personnel generally out of the picture, owing to the logistics of arranging committee meetings. Committees often take what appears to be an inordinate amount of time in arriving at decisions and conclusions, and are clearly inefficient means of decision-making when time constraints (such as dealing with emergent situations) are important.

A typical committee structure is portrayed in Figure 1, illustrating the hierarchical nature of a network of committees.

The typical master functional committee would be that composed of chief divisional heads and the Administrator, called usually the Executive Committee for the hospital. At the next lower step, the Director of a specific service area together with principal assistants and the Director of one or more closely associated service areas and their assistants comprise the overall Patient Care Committee. Within a specific service, such as Nursing Services, an Assistant Director and all acute care supervisors (MCH, Medicine, Surgery, etc.) would comprise an Acute Patient Care Committee. At the lowest organizational level (as, for example in maternity and pediatrics), the overall supervisor and the unit supervisors would

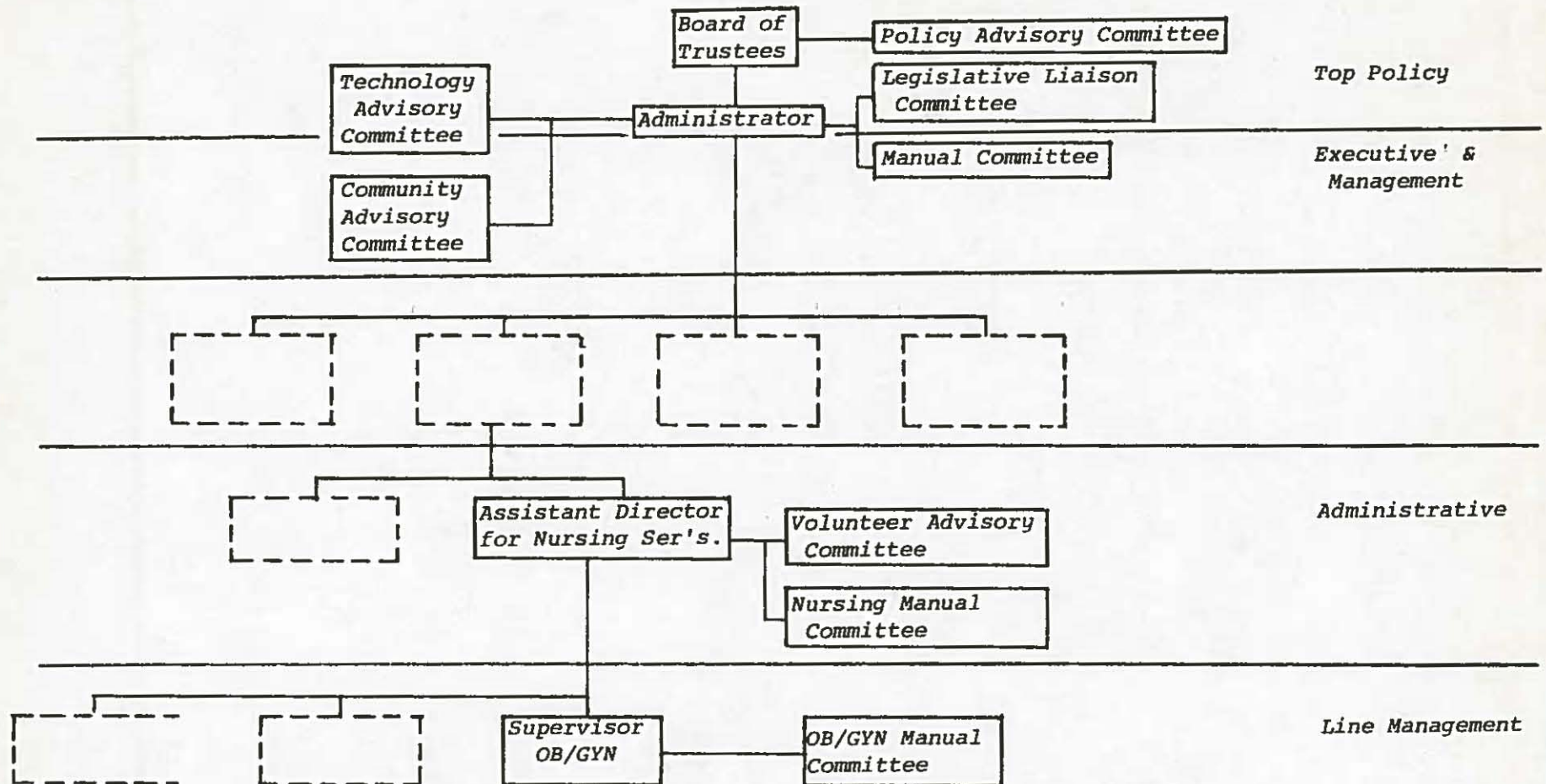
Figure 1: Committee Structure Heirarchies



comprise the OB/GYN/Ped Patient Care Committee. Within reason and where staff and function are sufficiently complex, the organization could be extended one step further, as in creating a Pediatric Patient Care Committee comprising the Pediatrics supervisor and her immediate subordinates. Similar functional committees would be created for each division and sub-section of the hospital's organization. As administrative problems arise, they would be expected to be dealt with at the lowest administrative level possible. Where resolution, as for example, at the Pediatric Care Committee level, is not possible, then the issue is referred to the next committee level, and sequentially all the way to the Executive Committee when necessary. In practice, most issues and problems will be resolved at either the first or second level committees. In all cases, reports flow upward regarding committee decisions and actions, for each committee must ultimately be held accountable to the Chief Operating Executive for their actions.

Figure 2 illustrates the hypothetical placement of other types of committees within the structure. Thus, the Administrator is shown with a multiplicity of advisory, procedural, regulatory and liaison committees reporting to that office. Counterpart advisory, procedural, regulatory and in some cases liaison committees would also be found at lower levels of the organization, usually functioning as specialized sub-committees of the master higher-level committee. Thus, in the case of an overall infections control committee, there may well be infections committees organized within various patient care units with the charge of investigating and correcting infection problems at their specialized level of care. The overall committee takes cognizance of the total hospital infections control program however. Similarly, the hospital requires an overall Manual Committee. However, the work of that committee is normally delegated downward to Manual Committees at each functional level of the hospital, for the development of manuals and procedural guides is a highly specific and technical task at the operating level. The overall committee, which reports to the Administrator, is that of coordination of manual preparation and review for the entire hospital.

Figure 2: Hypothetical Committee Relationships



ALTERNATIVE 3

Traditional Management is the RECOMMENDED management process. The fundamental concept of traditional management is that of hierarchy, which holds that an organization must have clearly established levels of authority, a chain of command, which extends from the chief officer downward through subordinate managers and supervisors to the rank-and-file members of the organization, and upward through the same channels of command. Work and responsibilities are clearly divided and specified within the hierarchy and allocated to specific levels within the hierarchy. The principle concerns of managers and supervisors are with the performance and output of employees under their immediate control. Conformity with standards and procedures on the part of each member of the organization is expected at all times, and accordingly great effort is exerted in constructing and maintaining clear guides to proper performance with great attention to functional detail.

In the traditional organization, management's job (and by management, supervisors at all levels are included) is to exert his or her authority through the issuance of orders, instructions and other guidance materials which subordinates are expected to follow and carry out within established procedural rules. Because of the close supervision which is generally expected of managers under this managerial style, the management span of control at each level is to be maintained as short as possible except in cases of the most routine of tasks, for too broad a span of control and the manager cannot fully exercise the direct and immediate supervision expected.

The execution of traditional management is a process of austerity, impersonality, rationality and logic. Decision-making is primarily vested with those officials (managers) who occupy the nodes within the hierarchy at the various levels. Decisions are supposed to be made by those closest to the point of decision, but upper-echelon managers always have the right to countervene decisions made at lower levels which report to them.

The chain of command is crucial to understand, for it is through a clear and unbroken chain of relationships between subordinates and their superiors that the smooth functioning of the organization is anticipated. Thus, the concept of unity of command must be employed which limits to a single superior those to whom any given subordinate must report and respond. In traditional organizations it is customary, therefore, that every member of the organization clearly recognizes who his/her "boss" is, and for the most part no one will respond to orders issued by another person than his/her perceived boss. This is a device to assure that conflicting orders and instructions will not be delivered.

While not thoroughly implementable in the traditional process of management, certain elements of participation and democracy can be introduced. For example, there is nothing which prohibits managers at any level from counselling with their respective subordinates and eliciting from them their ideas with respect to a decision needing making. Conscientious managers can, by memoranda, staff meetings and other devices, arrange to keep their subordinates rather fully appraised of conditions within their own unit and the broader organization. The "open door policy" of managers is well-known, and even in formal traditional management forms, superiors can welcome unscheduled intrusions by subordinates. Many will find it desirable to foster such, for it brings the manager closer to the mainstream of informal communication within the organization, a network which "closed doors" often ignores.

Under conditions of rather close supervision and attention to how subordinates are carrying out their respective duties, managers are perhaps better aware than in any other management form of the training and developmental needs of their staff members. Thus, personal growth and development and preparation of higher responsibilities can become a component even of traditional management process. And, because managers and their people at the smallest work units tend to become very cohesive, inter-related societies, opportunities for uncovering employee errors becomes greater as do the opportunities to excuse the errant employee and mask the effect of mistakes from higher authorities.

Because the chief executive and his/her immediate associates are so removed from the immediate supervision of most workers in the organization under this management mode, they must both rely on the integrity and ability of their immediate subordinate managers, but they must also take pains to create routine and systematic information flows from lower echelons to theirs in order that they are consistently informed as to operations and problems throughout the organization. Thus, traditional management brings with it the requirement of installing routine reporting systems wherein attendance, absence, production, and other statistics must be assembled by lower-level authorities and transmitted through the chain of command to higher authorities. It is customary that major decisions made at lower levels be promulgated as proposed decisions, via memorandum or direct discussion, to higher level managers who must approve them before they become effective. Thus, while there is a significant element of rigidity in the purely traditional organization, it is there in order to assure conformity with broader needs of the organization and to preclude isolated production units from straying from predetermined courses of action.

This is essentially the management form which has historically been practiced within Guam Memorial Hospital. It is the form to which most staff members have become accustomed, and that which they have learned to employ for their own purposes. Thus, its formalization and perfection would represent little in the way of departure from customary relationships, and we believe that given the more severe problems of the hospital, the least disruption on employee-supervisor relationships at this time and for some time in the future, the better. In designing the parallel organization form which will embody this management process, and in the implementation plan which follows, some elements of management by objectives and management by committee have been included as minor but desirable modifications of the pure traditional form. The existence of these rudimentary characteristics of differing managerial processes can provide a basis for a later shift either more toward or completely to another management process. They

represent, therefore, the seeds of potential change and a means whereby staff members may become somewhat accustomed to newer managerial approaches while being permitted to work under more familiar conditions.

IMPLEMENTATION PLAN FOR THE RECOMMENDED ALTERNATIVE

Task 1

Adopt and confirm by action of the Board of Trustees one of the organizational forms which are recommended.

Responsibility: Board of Trustees

Start: April, 1982

Complete: June, 1982

Task 2

For every executive, administrative and supervisory level within the overall organization, design detailed subordinate organizations which have clear and non-conflicting lines of authority and communication, and attain their confirmation by Board of Trustees.

Responsibility: Administrator and staff

Program and service heads and supervisors

Start: June, 1982

Complete: September, 1982

Task 3

For each administrative, managerial and supervisory position reflected in the expanded overall organizational chart resulting from Task 2, write clear statements which describe specifically which employees report to each position and to whom the position specifically reports. Prepare tentative policies with respect to procedures by which employees may confer with the supervisor at each administrative level, and other appropriate employee behavior rules as felt necessary.

Responsibility: Administrator and all managers and supervisors

Start: September, 1982

Complete: December, 1982

Task 4

At each supervisorial level, and commencing step-wise upward at each aggregate administrative level above, prepare sets of program objectives (as detailed more completely under Goal 7 below). For responsibilities, start and complete dates, see Goal 7.

Task 5

At each supervisorial level, and commencing step-wise upward at each aggregate administrative level above, prepare descriptions of membership, charge and function of such committees as have been recommended and as detailed more completely under Goal 8 below. For responsibilities, start and complete dates, see Goal 8.

Task 6

At each functional unit level within the organization, proceed to prepare, review, update and revise as necessary unit procedural and policy manuals and arrange for their publication and for their systematic introduction to all effected employees. This task is more fully detailed under Goal 6 below, which also includes assignments of responsibility and estimated start and completion dates.

Task 7

Plan and implement a series of management training workshops to be conducted in a step-wise manner, first by the Administrator and his/her immediate executive subordinates, then by each of them with their immediate subordinates, and finally by those who oversee multiple supervisors. The purpose of this training, which should be repeated at least once each two years, is to discuss the total organization and the roles and responsibilities of each actor therein, so that there is a common shared knowledge among the

entire management staff of the hospital of their and others respective responsibilities and functions.

Responsibility: Administrator

Start: As soon as policies, goals and committee developments have been completed.

Complete: On-going, repeat at least once each two years.

GOAL 5

Establish a new internal organization in which lines of authority and responsibility are clear, and which maintains an appropriate span of management control permitting maximum use of existing managerial talent.

DISCUSSION

The organizational options which follow are each designed to serve the overall goal, and to reduce unwieldy structure which now exist to more manageable proportions. Most importantly, the structures are intended to establish loci of communication and collaboration, to clarify authority and policy-making authority and relationships, and to establish linkages with the environment external to the hospital. Employing concepts from general systems theory, the options presented here are intended to group people and resources clearly into identifiable sub-systems and to establish clear networks between sub-systems which will permit cooperation, clear authority, open communication and a value system which promotes individualism, activism, freedom and democracy to the maximum degree possible .

We have chosen in all cases to respect the principle of span of management, and have endeavored to maintain at the minimum the number of reporting units with which any one executive must deal directly. The principle of scale has been employed and clear loci of authority at subordinate levels have been identified.

As constructed, each of the options which follows represents an appropriate structure within which either traditional management,

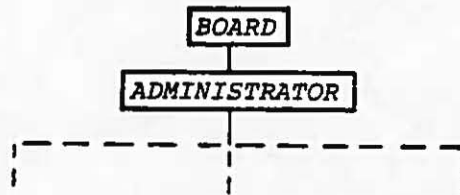
committee management (with some structural modifications) and management by objectives may be employed.

As presented below, the options are additive, and may be combined in various alternative patterns. Thus, organizational options have been constructed to depict alternative relationships between (1) Board and Administration, 2(Administration and Medical Director, (3) Organized Medical Staff and the remainder of the hospital organization, and finally (4) between and among the major departments, services and programs of the hospital. Any single option which may be selected from any one of the four alternative areas may be combined with any other option selected except in rare circumstances. Thus, the opportunity is provided for sequential building and alteration of the internal hospital structure as present and future needs may dictate.

BOARD-ADMINISTRATION ORGANIZATION OPTIONS

ALTERNATIVE 1

The illustration below displays the preferred relationship between the Board of Trustees and the Administrator. This is the existing relationship, and the same direct authority line between the Board and the Administrator should be maintained except as noted in Alternative 2 below. Under these conditions, the roles and responsibilities of the two parties should be as follows:



Board of Trustees: In addition to the statutory powers vested in the Board under Section 49003, Chapter 1, Title XLVII of the Government Code of Guam, the Board would appropriately accept and perform the following functions as well:

1. Establish hospital objectives;
2. Review and approve all major plans and programs of the hospital;
3. Review all major administrative policies of the hospital;
4. Evaluate the Administrator's activities and performance from year to year;
5. Advise the Administrator on the operational management of the hospital;
6. Review and approve all major hospital decisions;
7. Annually review the hospital's performance and determine the extent to which it has reached its objectives.

Generally speaking, the Board has three primary functions and these are served by carrying out the detailed functions specified above and in statute. These include (1) the formal and legal responsibility for controlling the hospital and assuring the community that the hospital works properly, (2) the responsibility to see that the hospital gains needed support from its community, and (3) the responsibility of ensuring that the Board is truly accountable to the citizens and to the community it serves. The Board has a fiduciary responsibility founded primarily upon trust and confidence, and in this context has responsibility to act on behalf of the community's best interests. Among the more important of the Board's obligations are those of retaining final responsibility for the quality of medical care in the hospital, the appointment of medical staff members, and the appointment of the hospital administrator, and upon these latter responsibilities hangs the ability to properly manage the hospital and serve the community's broader interest. Laxity in any of these functions almost always foreordains failure.

Also among the more important of the functions noted above is the Board's role in the control of hospital funds, for it has the responsibility to see that the hospital's finances are reviewed in detail and approved, including receipt and review of annual audits.

Hospital Administrator: Section 49005, Chapter 1, Title XLVII of the Government Code of Guam details many of the important powers and functions of the Administrator. Additionally, other roles and responsibilities can be fixed which relate the two crucial concerns of "inside" and "outside".

Inside activities include those that assure that the buildings and facilities are in adequate order and that the personnel are qualified to fill their specific job requirements. Legally, the administrator must answer for the acts of all employees under the principle of respondeat superior. Another crucial task is that of establishing appropriate and effective communications and relationships with physicians on the medical staff. As the agent of the Board, the administrator must intervene in the doctor-patient relationship if there is a violation of law, of medical ethics or morals, or of the hospital rules and regulations. After receiving general policies from the Board, it is the administrator's responsibility to provide proper feedback to the Board so that the Trustees can be assured that the organization and the functioning of the hospital are in harmony with the mission of the hospital. The final and most classical responsibility of the administrator is financial, including preparation of annual budgets, their defense and sale. Financial reports must be correlated by the administrator with the medical care and the quality of that care in the hospital. It is the administrator's responsibility once the budget has been approved, to provide regular and detailed monthly financial reports to the Board on the status of the hospital.

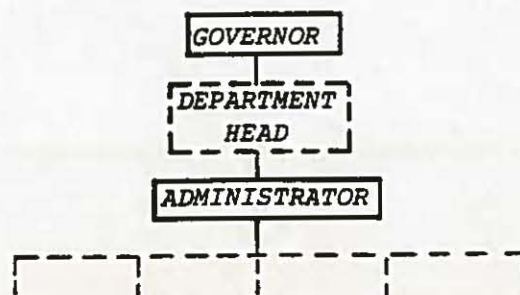
Outside activities are varied and numerous, and relate to community activities, governmental relations, social and educational activities and planning. This includes responsibilities for educating the community on hospital matters, relating closely with members and staffs of the Legislature and the Executive Branch of

government, relating to Federal program officials, representing the hospital's interest in health planning, maintaining close and positive working relationships with outside approving and reviewing bodies including the JCAH, participation in the initiation of community health care activities, and relating to other governmental health related programs and activities. Included as well is the administrator's responsibility to improve skills through continuing education, attendance of conferences, educational programs and courses to strengthen knowledge of the field and to transfer this knowledge to the staff of the hospital.

The foregoing sets of roles and responsibilities will be applicable, except as may be noted, throughout the various organizational options which follow.

ALTERNATIVE 2

The second optional board-administration relationship is depicted in the figure below. This configuration would be acceptable (and recommended) only in the case of line agency status within general government for the hospital. Here, the direct authority relationship for the Administrator has been transposed and connected alternatively either directly to the Governor (in the event the hospital were to become a free-standing line agency) or to some superior department head (in the event the hospital were to be subsumed within some existing or a new agency of government). The former Board of Trustees under this alignment would become an advisory adjunct to the Administrator and nearly all of the roles and responsibilities for the Board would devolve under this condition to the superior officer of government to whom the administrator may report. The administrator's responsibilities would remain the same.



ADMINISTRATOR-MEDICAL DIRECTOR RELATIONSHIP

DISCUSSION

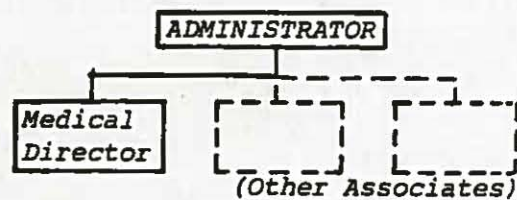
For better or for worse, the administrator is a partner with the physicians in delivering health care in the modern hospital. The hospital provides, under the direction of the administrator, the necessary facilities and personnel to aid the physician in the practice of medicine, but the physician -- and only the physician -- can admit the patients to the hospital. Thus, a necessary partnership is forged which cannot be ignored.

Guam Memorial Hospital reflects a general recent trend toward the employment of full-time medical directors, and this device provides management a professional means of fulfilling its responsibility for quality care. The medical director is a member of hospital management, and even though he or she may also be a member of the medical staff and render direct patient care, the medical director also answers in some manner to the administrator. Because of this dual relationship, medical staffs often see the medical director and his/her relationship to the administrator as being a threat to their self-governance, and to some degree this is a well-founded concern. The Board holds ultimate responsibility for the quality of care rendered in the institution. The administrator is the agent of the Board for assuring high quality care. The Medical Director is thus an agent of the Administrator, for the principle responsibilities of the Medical Director are the evaluation of clinical performance and the enforcement of hospital policy related to quality of patient care. In this hospital, the additional responsibilities of directly managing the salaried medical staff, the performance of utilization review and of infection control also fall to the Medical Director.

ALTERNATIVE 1

As illustrated below, one option is to place the Medical Director clearly in a senior administrative relationship to the Administrator on a co-equal basis with other top key associate administrators. This has the disadvantage of making a physician clearly subordinate to a non-physician, but the legal ramifications

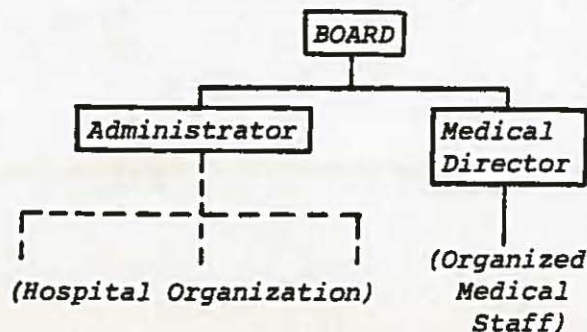
of the administrator's role and responsibility justify this to a large degree, and this would be the preferred and recommended relationship to be maintained in Guam Memorial Hospital.



The direct superior-subordinate relationship recommended lends itself to any of the sponsorship options except that whereunder the hospital may be managed or owned by a health maintenance organization, in which case the following alternative would be the required relationship.

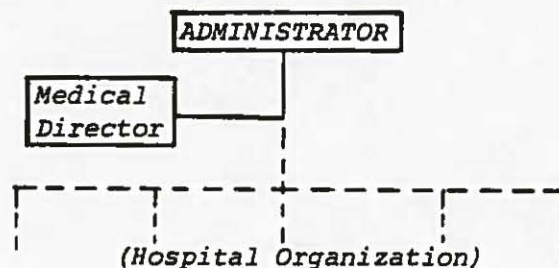
ALTERNATIVE 2

In this case, the Medical Director and the Administrator are made administratively co-equal, each reporting directly to the Board of Trustees. This makes the Medical Director responsible and accountable directly to the trustees for the exercise of quality control within the hospital, but deprives the Administrator of necessary direct authority over the quality area for which he holds direct delegated responsibility. This paradigm, which is illustrated below, works well only in cases where a health maintenance organization has clearly divided sub-entities comprising an organized medical group (or a network of independent practitioners) the head of which is the Medical Director, another comprising a somewhat independent hospital closely related to the HMO and the medical staff.



ALTERNATIVE 3

To achieve some semblance of professional independence, the position of Medical Director could be placed in a staff relationship to the Administrator. This implies a lessened degree of direct administrative control over the position by the Administrator, and suggests an advisory relationship through which large amounts of delegated authority might flow from the Administrator to the Medical Director. Where the Medical Director may be placed in a position of direct authority over the organized medical staff of the hospital, as in one option in the following section, then the staff relationship illustrated below would be preferable and recommended.

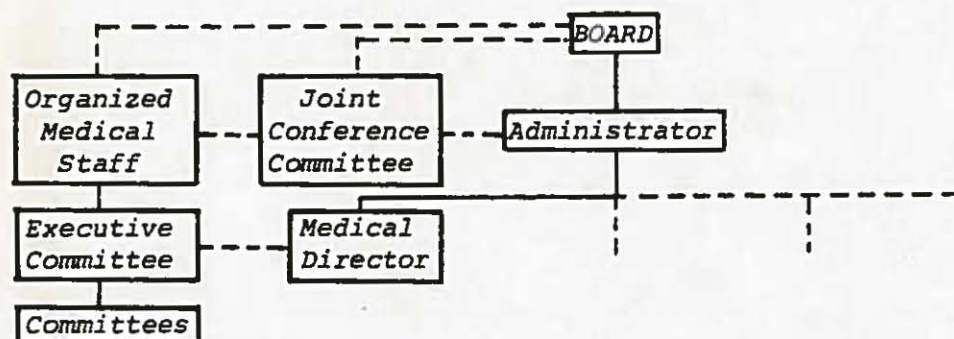


ORGANIZED MEDICAL STAFF-HOSPITAL RELATIONSHIP

ALTERNATIVE 1

The traditional relationship of the organized (primarily external) medical staff of any hospital is that depicted in the figure below. The relationship between the medical staff and the Board is one of review and approval, whereunder by-laws and other actions of the organized medical staff are subject to confirmation and approval by the Board. Similarly, decisions to grant practice privilege by the medical staff, under its own by-laws and procedures is subject to final approval by the Board. The relationship between the medical staff and the Medical Director is one of professional collaboration rather than direct authority, except to that extent that, as a member of the organized medical staff, the

Medical Director is granted authority as through committee chairmanship or membership. The Joint Conference Committee (presently known as the Joint Advisory Committee in prevailing medical staff by-laws) is the vehicle through which adjudication of differences which may arise between the Board, the Administrator and the Medical Staff may be achieved. Other than these relationships, the medical staff is a wholly self-governing body which determines its own membership and which has the generally accepted responsibility for the quality of all medical care provided to patients, and for the ethical conduct of professional practice of its members. It is in the final analysis accountable to the Board of Trustees, but not directly administered by any entity other than its own internal structure.



Under this relationship (and under others as well) the organized medical staff is organized into various committees, and often in various departments. The internal organization of the GMH medical staff includes the following committees, which are seen to be adequate:

- Executive Committee (which should meet at least monthly)
- Credentials Committee
- Quality Assurance and Utilization Review Committee
- Drug/Therapeutic Committee
- Tissue/Blood Bank Committee

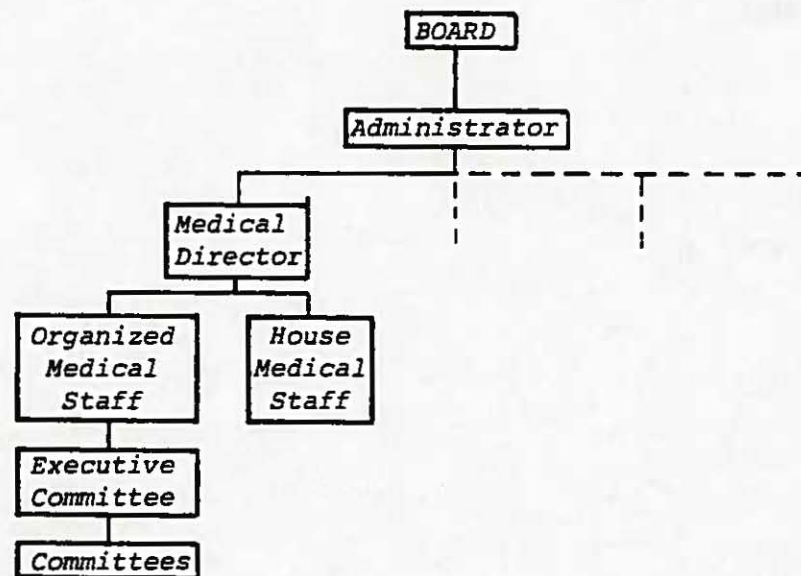
- Medical Records Committee
- Infection Control Committee
- Operating Room Committee
- By-laws Committee
- Tumor Board
- Emergency Medical Services Department
- Special Care Committee
- Arbitration Board

Careful attention must be paid by the organized medical staff to assure that its internal organization is thorough, that all of its responsibilities are met by effective committee participation, and that it relates in a positive way both to administration and the Board of Trustees. The medical staff is unique within the hospital since it is allowed to discipline itself. Under these conditions, it rests with the organized medical staff to formulate the proper medical policies, to have them approved by the Board of Trustees, and to carry out the quality of patient care according to the highest possible professional standards.

ALTERNATIVE 2

Under current operating conditions in Guam, and especially if the hospital were to be reverted to line agency status within government, the RECOMMENDED alternative would be that relationship depicted in the illustration below. Under this arrangement, regardless of the relationship between the Medical Director and the Administrator, the organized medical staff is a hospital-related organization which falls under the administrative scrutiny of the Medical Director. This is not to say that the Medical Director is the "Chief of Staff", or "President of the Medical Staff", for these and other offices of the organized medical staff would continue to be elective offices within the purview of the staff. It does connote, however, that the Executive Committee and all other committees of the medical staff are accountable to the Board of Trustees through the full-time salaried Medical Director. Thus, a clear line of accountability for the quality of all medical services provided in the hospital is established

from the self-controlling physicians through the Medical Director (one of their colleagues) through the Administrator to the Board of Trustees. The disadvantages of this preferred relationship relate mainly to the general unwillingness of otherwise independent physicians to come under the direct administrative control of any entity. Under any other circumstances, there might be a serious threat to the hospital in the sense that physicians may, under this arrangement, simply withdraw from medical staff membership and join the medical staffs of other more preferable hospital organizations. Inasmuch as there exist no such options, this election is simply not available to Guam's physicians.



RELATIONSHIPS BETWEEN DEPARTMENTS, SERVICES AND PROGRAMS

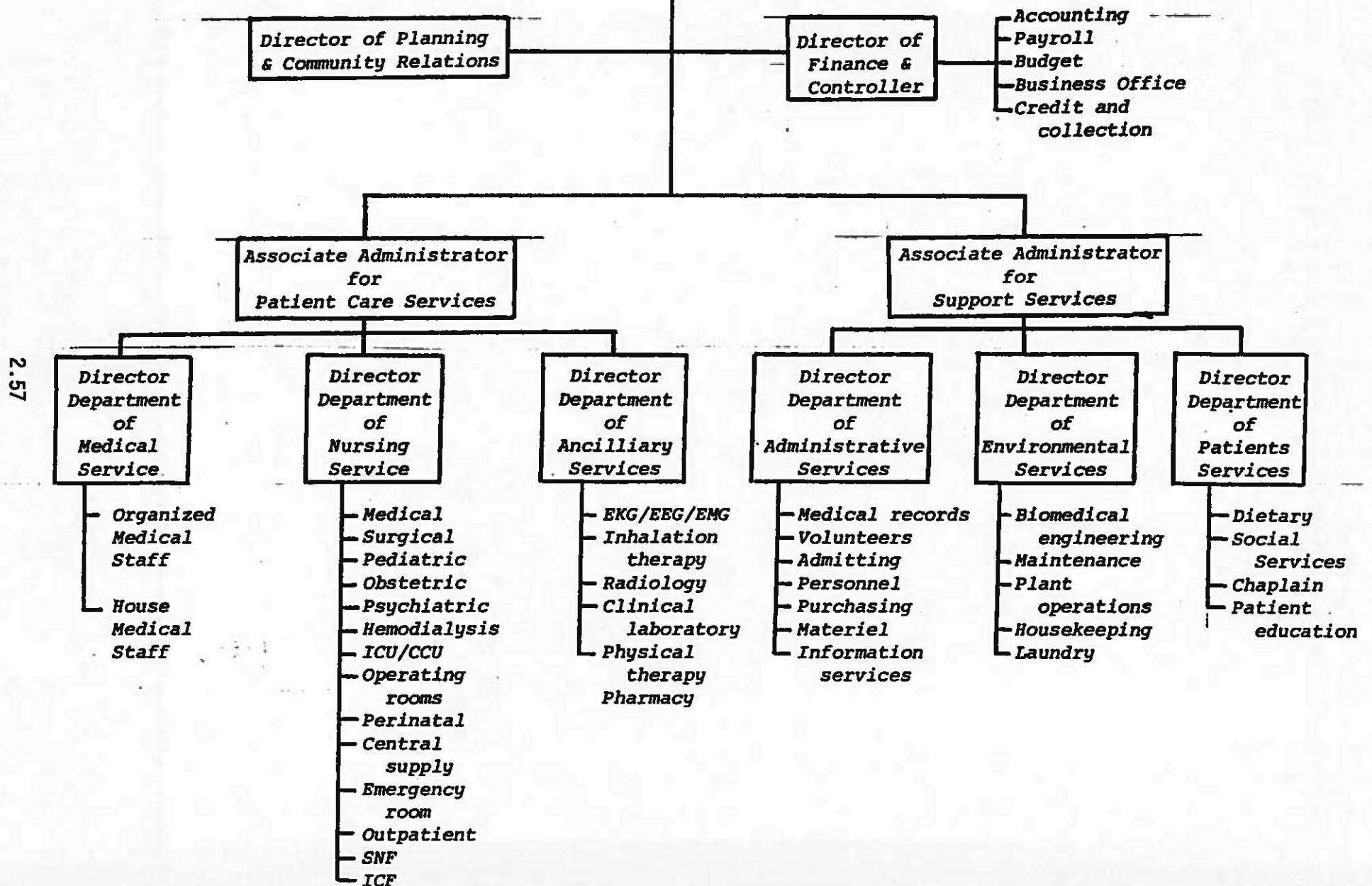
ALTERNATIVE 1

The most frugal design for the body of the hospital organization would be that portrayed in the illustration provided below. Here it will be noted that the Administrator has two staff officers, one for Planning and Community Relations and the second for Finance. Each of these would have an internal structure embracing the functions noted. At this point and applicable to all further internal

organization options it is important to emphasize that detailed departmental and service unit organization should not be attempted at this time. The internal configurations at lower levels within the organization's hierarchy are the proper and professional concern of those to whom administrative responsibilities may eventually be delegated, and their internal organizational preferences will eventually require adoption by the Board. To do otherwise would deprive subordinate managers of their proper role and function in organizing their own departments and service units.

The Administrator in this design is supported by two major executive associates, thus significantly reducing the span of control of the chief executive of the hospital. Similarly, the span of control of each associate administrator is sharply constrained, with only three key officials reporting to each. The result of this form of organization is a very narrow and quite deep organization. Thus, it has the effect of substantially buffering the chief executive from detailed decision-making, most of which would take place at much lower levels. It also removes the Administrator from intimate contact with most operatives within the organization and places their administrative relationships clearly within the domain of a series of subordinate managers. The results are two-fold: first, the manager at the top is relieved of much of the detailed, internal decision-making having delegated that to a series of subordinate managers, and thus is freed to pay more attention to Board and external relationships. Second, the manager at the top must place a great deal of trust and confidence in subordinate managers, for in their hands rests the operation of the hospital, the responsibility for which the Administrator cannot delegate. Accordingly, the narrower the span of control, the less the direct control which the chief administrator can exercise and the greater the level of trust which is required.

Alternative Organization 1



ALTERNATIVE 2

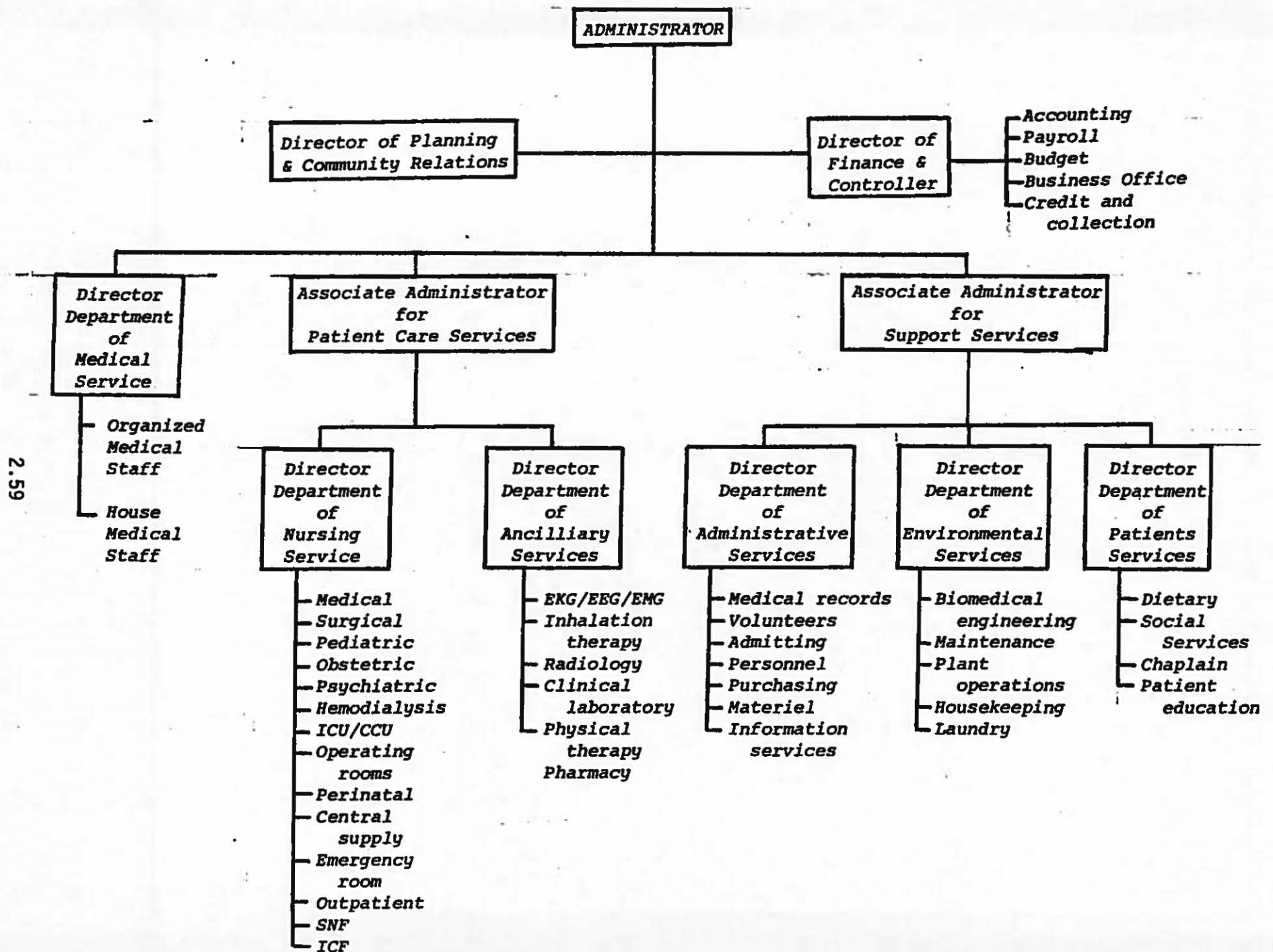
Expanding upon Option 1 somewhat, this alternative removes the Medical Director and the administration of medical services from a subordinate position, and creates it as a third major division of the hospital as illustrated below. The two staff offices and the major disaggregations of hospital functions are quite similar to those contained in the first option.

ALTERNATIVE 3

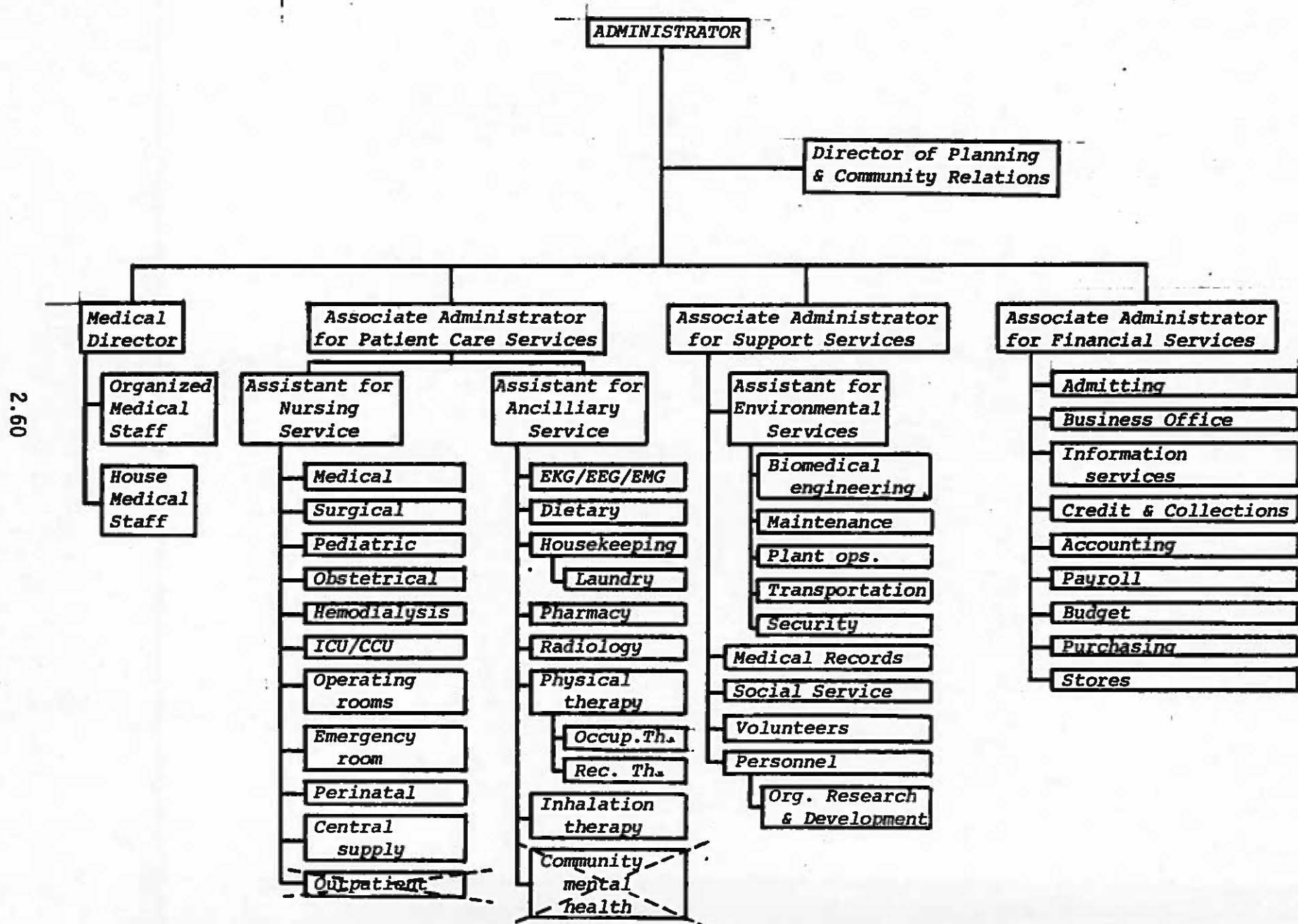
This is the RECOMMENDED and preferred alternative, for it clearly establishes four major operating units for the hospital and places both the Medical Director and the Controller in what is believed to be their proper administrative relationships to other sectors of the organization. Under this design, which is illustrated on the following pages, a single staff office is provided, and the major hospital functions are distributed quite evenly over four officials who are tantamount to associate administrators. As illustrated, future potential functions have been incorporated into the organizational design, and potential transfers and deletions from current operations have also been noted.

A number of features of this recommended organizational form require elaboration. In the first place, the relationship of the Administrator to higher policy-setting authorities has been purposely left indistinct, owing to uncertainty as to future sponsorships. Should the hospital remain under its present sponsorship, or under any of the options which call for a formal Board of Trustees, then the traditional administrator-trusteeship relationship would obtain. Should a line agency status be opted, then the administrator would report either to some superior agency head or directly to the Governor, and an advisory board or council would be created as parallel to the administrator with a "dotted line" connection which connotes advisory functions.

Alternative Organization 2



Recommended Future Organization: Alternative 3



A Director of Planning and Community Relations has been provided as a staff officer. Because planning is so important and all-embracing function, it is felt best to retain all planning responsibilities in a single staff office which should have no other operational responsibilities of a line nature. The community relations function (which should be performed by a subsidiary staff officer or staff, under the supervision of the Director of Planning) has been added here, inasmuch as much of the planning function requires extensive community coordination and collaboration, and much of the community relation function is dependent upon and relates closely to future plans and aspirations of the hospital.

Four major associates to the administrator are recommended. One is the Medical Director who, under this design, is directly responsible for relationships with the organized medical staff and provides the necessary conduit for medical staff-administrator-board communication. His responsibilities also extend to supervision of salaried house staff physicians and to the other roles which have been previously described.

All direct patient services have been grouped under a single associate administrator. These are divisible, and would best be managed by two assistants, one for the nursing service areas and the second for closely related ancillary services. The major departure from tradition in the suggested format is the inclusion of housekeeping (and placing laundry as a subsidiary operation thereto) under ancillary services. This is done to assure the closest possible coordination between the housekeeping sector of patient care and other patient care services, which is often not possible when housekeeping and laundry are supervised by those concerned with broader environmental matters. It will be further noted that in-patient psychiatric services have been excluded from those listed. Dependent upon other decisions related to future administration and sponsorship of both in- and out-patient mental health services, the supervision of in-patient psychiatric nursing could later be added to the responsibilities of the Assistant for Nursing Services should direct administration of such services be reserved for the hospital. Similarly, out-patient department

supervision has been left in the nursing service department, but has been flagged for possible deletion should the decision be made to transfer all out-patient and primary ambulatory medical care services to another entity, such as the Division of Public Health. Likewise, the administration of community mental health services has been included under ancillary services, but has been flagged for possible future disassociation.

The third major division of the hospital is that which provides essential support services, and these are of two major types. The first are the true patient support services, and these are designed to be administered directly by the Associate Administrator for Support Services. The design provides for an assistant administrator in this area, under whose responsibility would fall all environmental services. There are two important additions to this chart, the first being a formal department for biomedical engineering and the second a new sub-division with responsibility for organizational research and development. This has been associated with the personnel function, for the majority of future organizational development will relate to personnel and staff development.

Finally, all related business functions of the hospital have been aggregated under the direction of the fourth Associate Administrator for Financial Services (the presently termed Controller). Differing from current practice, purchasing and stores (material management) has been assigned to this Associate Administrator because of their clear implications for effective and efficient financial management.

The design recommended provides appropriate spans of management control at all managerial levels, and brings together closely related functions so that maximum efficiency of operation and coordination can occur. The chart is intended to display the formal avenues of communication and the exercise of authority. Under this design, the administrator is relieved of much close supervision over hospital operations, having delegated these authorities to the four associates. This then provides ample time for the important board and community relations activities

which should properly consume much of the time and energy of the chief executive. Without engaging in personalities, it is our belief that incumbent staff exist within the present organization with qualifications and skills to fill the newly created management positions (associate and assistant administrators), and given adoption of the management improvement program steps suggested elsewhere in this report, their abilities could be substantially increased to carry out the responsibilities suggested by the organizational design. In a subsequent sub-section, committee structures will be suggested and added to this design.

GOAL 6

Establish a system for the systematic review and revision of existing and additional policy and procedure guides and manuals.

DISCUSSION

Although dispersed throughout the present organization, and used and updated with varying frequency, one of the present strengths of Guam Memorial Hospital is a large body of Standard Operating Procedures. These exist mostly at the department levels of the organization where functions are usually most subject to specified process and procedure. There is no intention, in establishing means to achieve the foregoing goal, to advocate that this hospital be "run by the book" as it were, but simply to assure that all employees are aware of the basic, normal and routine methodologies by which they are expected to accomplish their work and carry out their tasks. Exceptions will always exist, and it is one of the roles of department heads and division managers to interpret policy and procedure and to provide instruction for the processing of exceptional situations which are bound to arise from time to time.

Before identifying the major areas of needed policy, and providing a plan for its development, review and modification, it is essential to outline three immediate steps which must be undertaken in the realm of policy and procedure, as follows:

1. Critical, from the standpoint of law, is the fact that a written procedure can be introduced in a court of law and issue can be taken if the procedure was not followed to the letter. Obviously the care of the sick does not always lend itself to only one way to handle a given situation, policy and procedure notwithstanding. Therefore, in order to protect the hospital in times of necessary deviation from written procedure, the following wording (disclaimer) should be reproduced and placed as the cover page on all existing procedural documents:

PREFACE

All statements contained in this Manual and the procedures and objectives outlined herein are informative only and represent that which is believed to be the highest performance and the maximum in hospital service, or procedures relating to any particular set of circumstances.

This Manual is to be used as consultative material in striving for optimum patient care and treatment during hospitalization. It is recognized that any specific procedure or service is always subject to modification, depending upon the circumstances of a particular case. Under no circumstance should this Manual be interpreted as the standard or as an indicia of standards specifying the duties or outline the requirements of hospital personnel in the care and treatment of patients.

Hospital Administrator

Chairman,
Board of Trustees

Date

2. An important, and presently missing, manual is that which summarizes and embraces all policies which have been adopted by the Board of Trustees. This general policy manual would be the essential governing document within the scope of which all other policy and procedure of the hospital should be constructed. This need not be an

elaborate production, but should be commenced with the Secretary of the Board of Trustees reviewing all prior minutes of the Board and abstracting from those minutes all policy and policy-like statements and actions. These should then be classified by broad topical area (i.e., patient care, physical plan, external relationships, security, finance, etc.) and set form in succinct and brief paragraphs.

3. A formal conflict of interest statement should be adopted and all members of the Board of Trustees, the entire administrative staff, and other key personnel including the purchasing agent, nursing director, and others in positions influence, should be required to sign and execute a copy which should be retained on file. Where conflicts of interest are disclosed, the party at conflict should be required to divest him- or herself of one or another of the conflicting roles or responsibilities. All replacements should, in the future, also be required to sign and execute the same statement.

RECOMMENDED POLICIES AND PROCEDURES

The hospital should have written policies and standard operating procedures in at least the following areas. In each case, the policies and procedures should be in writing, bound, and with a working copy accessible to all concerned personnel and a master copy retained in the central administrative office.

Admissions	Delegation of Authority
Advance deposits	Departmental regulations
Audiovisual	Disaster
Birth Certificates	Donations
Bomb threats	Emergency
Budget	Fiscal forecasting
Capital expenditures	Food Services
Complaints	Infection Control
Deaths	Lost and Found

Mail	Photocopying
Medical Staff Privileges	Public Relations
Meeting Room Scheduling	Purchasing
Medical Legal	Rates and charges (Fee schedule)
Out-patient Procedures	Safety
Parking	Security
Patient	Smoking
Bill of Rights	Telephone
Counseling	Transportation
Escort	Triage
Release of information	Trustees
Retention of records	Unusual Occurrence
Transfer	Visiting Regulations
Valuables	Volunteers
Personnel Administration	
Pharmacy	

The foregoing generic listing presupposes considerable detail within each procedure, and detailed guides to internal sub-policies under each generic area are available within the hospital. Reference is especially made to R. Gibbs, "Hospital Manuals: A Guide to Development and Maintenance", Aspen Systems Corp., 1981; and this document by reference is wholly incorporated into this plan. Within the Purchasing area, for example, a multitude of sub-topics would be needed to be covered within the overall purchasing manual, including the following:

Catalogs	Purchase Orders
Claims	Procurement Practice
Contracts	Product Evaluation
Cost Reduction Program	Purchase Invoices to Accounting
Damaged Products or Equipment	Outdated Sterile Products
Delivery	Recall of Products Handling
Estimated Costs	Receiving
Forms Used	Reports to Administration
Inter-agency Lending and Borrowing	Scheduling Deliveries
Inventory Control	Service Agreements
Material Disposal	Shipping Responsibilities
Non-discrimination	Special Orders (non-stock)
	Warehouse Storage

IMPLEMENTATION OF POLICIES AND PROCEDURES

The creation of the total corpus of necessary policy and procedure is a task of tremendous magnitude if it had to be done de novo. Fortunately, a considerable volume of the work has already been accomplished by many departments within the hospital. What remains to be achieved is the following:

1. Collation of that which exists;
2. Determination of that which is basic and which does not exist;
3. Determining, with respect to that which exists, that which may be out-of-date and which requires updating;
4. Establishing a formal and continuing system through which needed but lacking future policy can be identified and created, and through which all existing policy and procedure is systematically reviewed and modified as necessary.

In many areas of policy, it is unnecessary to reinvent the wheel. Standard operating procedures of a generic nature exist in plentiful supply, and the utilization of such resource material adapted appropriate to Guam Memorial Hospital is the way in which part of the task may be accomplished. For example, the American Hospital Association has available a standard Consent Manual which covers virtually all contingencies of importance under the Medical-Legal policy category. For the cost of reproduction, existing policy and procedures can be obtained from most large hospitals (as for example, the Queen's Medical Center in Honolulu), which can serve as the basis for their tailoring to Guam's needs and for cross-checking to ascertain that existing Guam policies are sufficiently broad and inclusive.

Task 1

Adopt and implement the three essential immediate steps outlined in the foregoing discussion.

Task 2

Appoint a policy coordinator within the administrative staff, who should promptly move to obtain copies of all extant policy material within the hospital, codify it and create the necessary central file.

Task 3

With the participation of all department and unit heads, decide upon a master list of all policies and procedures needed, building upon the generic listing provided above. Confirm this listing as the objective to be attained.

Task 4

Require each department and unit head to review all existing present procedures and policies pertinent to their operations for accuracy, completeness and currency, and prepare a subject listing of material needing modification and of material needing development.

Task 5

Establish a hospital-wide Manual Committee, the membership of which should include all department heads and the Policy Coordinator. The first task of the Manual Committee should be the prioritizing of subject listings prepared by departments and units. The Committee should also strive to adopt standardized formats as to basic manual content, appearance, format, and distribution. The Committee should establish appropriate timetables for the production of needed new and modified policy and procedure manuals in accordance with the priorities it has established, and should upon their completion review and confirm the new policy/procedure manuals which then require approval of the Administrator and Board of Trustees.

Task 6

Within each department, allocate the responsibility for writing new policy and procedure documents either to a single individual, or create departmental/unit policy committees to which this responsibility would be assigned. This would be the person or persons who would actually develop, according to preestablished priority, the necessary new and modified policies and procedures, and which would monitor existing policy at the departmental/unit levels for necessary changes, updating and additions.

Task 7

After completing review and necessary modifications and additions to existing policies and procedures, the Manual Committee would establish a timetable for periodic review for all hospital policy and procedure, with each policy/procedure document subject to review at least tri-annually. A fixed review schedule should be created, and all departments and units notified of their next scheduled review. Against this time frame, the appropriate person or committee within each department/unit would establish their own timetable for review of appropriate documents and for the preparation of a written review and recommendations for submittal to the Manual Committee on or before the predetermined deadline.

Task 8

To begin no later than 1983, establish an Information Systems Department for the hospital, under which all responsibility for systems and procedures would fall, and to which new responsibilities for the maintenance and operation of computerized data processing for the hospital would be assigned. In this manner, all policy and procedure, and all management data, would be computer stored and processed for efficient and timely retrieval and modification. Future staffing plans will need to accommodate an Information Systems Specialist who would head this new department and perform the central leadership in providing all necessary management information.

GOAL 7

Establish and maintain a system for the development of goals and objectives at all levels in the organization, and means for their periodic evaluation.

DISCUSSION

Any organization lacking clear, written goals and objectives is akin to a rudderless ship, for it has essentially no sense of direction, personnel do not appreciate the outcomes which are expected from their efforts, and the sense of pride in accomplishing

some desired outcome is greatly diminished. Goals and objectives are the operational means of implementing policy, and they are derived from broader policy and procedural guidelines and make them operational.

The development of goals and objectives requires an examination, at every functional level of the organization, of what is being done, and a determination of why it is being done -- the "why" becomes essentially the goal or objective. As this may be systematically done in the hospital, it will predictably be a painful process, for many sub-units will have difficulty in expressing or justifying specific outcomes or rationales (objectives) for what they are doing.

REQUIRED GOALS AND OBJECTIVES

There are four classes of goals and objectives which are required as means of appropriately guiding hospital operations. These represent a combination of "ends" goals and "means" goals, and these distinctions are discussed et seq.

Class 1: Hospital Missions and Ultimate Goals

1. Overall hospital mission statement, setting forth the broad purpose of the hospital, its service objectives and intended service communities.
2. Overall patient service goals including specification of those who the hospital intends to provide service, with what priority (if any), and under what conditions, and with what range of services and programs.
3. Overall operational goals which specify intended growth of hospital services and capacity.
4. Overall financial goals which stipulate future degrees of financial self-sufficiency (both operational and capital), intended fluidity, and broad collections and payment expectations.
5. Overall human resources goals which establish broad targets related to quality and character of the staff at all levels.

6. Overall educational goals which include intended staff development outcomes, and the utilization of hospital resources for professional, in-service and on-the-job training and education.
7. Overall community service goals pertinent to intended or expected outreach services and programs, and relationships and support with other agencies and health programs in the community.
8. Overall research goals including the establishment of the priority of research endeavors in relation to other (patient care, education, community service and prevention) responsibilities of the hospital.

Class 2: Operational Goals of Major Hospital Divisions

1. Goals which specify the nature and magnitude of services to be supplied by each major division.
2. Goals related to the expected future technologic capabilities of each major division.
3. Goals which specify intended patient care outcomes, stated in terms such as infection rates, lengths of stay, and the like.
4. Goals which establish intended levels of quality of patient care.
5. Goals which stipulate degrees of efficiency (economy) of operations which are expected.
6. Goals related to the attainment of educational expectations, both staff education and broader professional and technical education relevant to each major division.

Class 3: Objectives of Operating Units Within Major Divisions

1. Specification of service capabilities related to specific functions of the operating unit.
2. Objectives which specify the intended level of quality of specific functions and services to be provided.

3. Objectives which establish efficiency (economy) of operations targets and expectations.
4. Specific objectives related to the quality and character of professional, technical and other staff members, and expected attainments regarding staff development.
5. Objectives related to degrees of expected participation by staff members in unit governance and decision-making, including expected degrees of service and participation in committees.
6. Objectives which express the specific educational outcomes and expectations, both staff education and the education of health professions.

Class 4: Individual Staff Objectives

1. Objectives which specify the intended outcome of specific personal duties, functions and responsibilities for each staff member in a functional unit.
2. Objectives which express for each individual staff member desired attainments related to personal professional/technical growth and development.
3. Personal objectives for each staff member which may include targets related to avocational development, personal health, appearance or behavior.

Each class of goal or objective listed above has a different time frame, as follows:

Class 1: 5-10 year time perspective

Class 2: 3-5 year time perspective

Class 3: 1-3 year time perspective

Class 4: 1 year time perspective (or shorter in some cases)

At the very minimum, each goal and objective constructed under the foregoing typologies must contain at least the following components:

- what is expected to be achieved or to occur.
- geographically, where it is expected to be achieved or occur.
- within which population or person it is expected to be achieved or occur.
- by how much it is expected to be achieved or occur.
- by when it is expected to be achieved or occur (note: the only case where this temporal component is not appropriate is in the case of the hospital's overall mission statement -- it is a requisite in all other cases).

As appropriate and necessary, each goal or objective statement can deal with achievement in terms of input (i.e., numbers of units of service rendered, numbers of tests performed, etc.) or in terms of output or outcome (i.e., percentage reduction in accident or absenteeism rate, increase in accounts collected, reduced employee turnover rate, and the like). The "input" objectives are of the "means" type objective, whereas the "output/outcome" objectives are the "ends" type objectives and goals.

The development of the four classes of goals and objectives recommended above will equip the hospital to attain other desirable goals. There will, in the first instance, be established the basis for eventual employment, system-wide, of the managerial approach termed Management by Objectives, which is described elsewhere in this Plan Element. The development of individual and personal staff member objectives provides a more modern basis for the evaluation of employees, staff and management alike, and this is described again under Plan Element 3. The systematic development and appraisal of objectives also provides the basis for effective budget planning and budget presentation, and the entry point for Zero-Based Budgeting systems should they later be felt desirable.

A PLAN FOR SYSTEMATIC GOAL/OBJECTIVE DEVELOPMENT AND APPRAISAL

While a number of worthwhile goals are incorporated into this long-range institutional plan, a wide variety of others will need

to be constructed. Because goals and objectives derive from and make operational, broader statements of policy, following the several tasks enumerated under Goal 6 above each codified policy (whether Board, divisional or functional unit) will provide a basis for the construction of a time-oriented, quantified goal or objective. For example, should a Board policy be disclosed which holds that the "hospital shall provide a clinical setting for the training of physicians, nurses and other health personnel", then there is a clear mandate for the preparation of goals related to that policy -- goals which state what clinical settings will be provided, for the education of which professional personnel, at what times, for what lengths of time, under whose auspices or direction and with what expected outcome (e.g., to assure a continued supply of xyz technologists for GMH).

Hence, several distinct tasks lie ahead, including the following:

Task 1

Following the development of basic policy manuals at all levels within the hospital, those who prepared the initial policy statements should then prepare for each policy one or more goals or objectives which operationalize the stated policy. These goals and objectives should be prepared in written form, indexed and codified, and copies should be kept on file in both the originating department or section of the hospital organization, and in the central administrative offices. These, and all other goals and objectives, should be organized and classified by time (i.e., the dates by which the outcomes or achievements are expected -- September, 1982, mid-1985, by 1990, etc.). This will provide a form of "tickler" file which will require preiodic review (as provided below) for purposes of assessing the degree of goal attainment which has accrued.

Task 2

Each administrative level of the organization (i.e., the Board, the major divisions, the operating sections within

divisions, and sub-units thereof) should prepare additional goals and objectives beyond those specified above, related to the broad areas of needed goals/objectives outlined above. A specific time frame should be established by the Board for the development of goal/objective sets, and a useful working period would be about 6 months from start to finish.

This task would be best achieved through the designation of a single individual at the operating unit level, and committees at higher organizational levels (including a goals committee of the Board).

Task 3

Once the many independent sets of goals and objectives have been completed, they should first be reviewed within minor organizational units (i.e., aggregates of programs and services) to assure that those which have been independently prepared by operating units are not in conflict with those prepared by other operating units. At this point, reconciliation of differences must occur. The next stage would be consolidation of all goals and objectives for each of the four divisions, and reconciliation of any conflicts which may then be disclosed. The final step would be consolidation of all four divisional goals and objectives sets into a total hospital goal and objective manual which would also require examination and reconciliation should conflicting goals and objectives then be identified.

This master document should then be classified by time, as suggested above, so that period estimates of degrees of attainment can be easily made.

Task 4

As a fundamental job of management at each level within the organization, a regularly scheduled monthly examination of all goals and objectives due for completion should be made, with the following determinations being made:

- a. was the goal/objective attained as expected?
- b. if it was, is further action required, or has the outcome which was desired occurred and should the program/activity supporting it be discontinued?
- c. if it was not attained, why not? was the level of attainment set too high (if so, rewrite the goal and set a new target date for attainment). were there administrative or other obstacles which precluded the attainment? (if so, then clearly administrative remedial steps are defined and should be taken in order to permit later realization of the goal).

Task 5

Annually, at each managerial level of the organization, beginning with the Board and working downward, a review of all existing goals and objectives should be made in order to determine new goals and objectives which should now be prepared and entered into the master codification of hospital goals and objectives.

The foregoing five tasks will not only establish a formal system of goals and objectives for the hospital, but it provides for an organized system of periodic evaluation and for the systematic preparation of new and additional goals and objectives in the future. It is likely that so complex a set of tasks should be placed under the supervision of, and made the singular responsibility of, a single official of the hospital. The most likely candidate for these responsibilities (e.g., the coordination of the entire goal and objective structuring) would be the Director of Planning and Community Relations, inasmuch as the hospital's goals should form the essential basis for all future developmental planning.

AN ALTERNATIVE PLAN FOR SYSTEMATIC GOAL/OBJECTIVE DEVELOPMENT AND APPRAISAL

While the foregoing four major classes of goals and objectives are appropriate for long-range development, and should be completely developed within the next five years, an attenuated program of goal and objective development can also be considered for immediate implementation. Under this more simplified approach, only the following basic goals and objectives would be developed in the near future:

Class 1: Hospital Missions and Ultimate Goals

1. Overall hospital mission statement, setting forth the broad purpose of the hospital, its service objectives and intended service communities.
2. Overall goals which specify intended growth of hospital services and capacity.
3. Overall financial goals which stipulate future degrees of financial self-sufficiency, intended fluidity, and broad collections and payment expectations.

Class 2: Operational Goals of Major Hospital Divisions

1. Goals which specify the nature and magnitude of services to be supplied by each major division.
2. Goals which specify intended patient care outcomes, stated in terms such as infection rates, lengths of stay, and the like.
3. Goals which relate to the expected future technologic capabilities of each major division.

Class 3: Objectives of Operating Units Within Major Divisions

1. Specification of service capabilities (in terms of input and/or output) related to the specific functions of each operating unit.

Class 4: Individual Staff Objectives

No class 4 objectives would be developed under this simplified short-run goal and objective development program.

It will be noted at the outset that many of the aforementioned goals, especially those of a broad institutional nature, are already stated in alternative forms within this plan. Once the preferred alternative has been selected, then the goal as stated in this plan would become the codified goal against which future performance and development would be appraised. However, not all needed goals and objectives presently exist in written form, necessitating the following tasks:

Task 1

At each administrative level of the organization (i.e., the Board, the major divisions, the operating sections within divisions, and sub-units thereof) should assemble all existing goal and objective statements. These should be classified as being either of the class 1-4 types, and the collectivity of existing goal statement should be assembled into a single, master document which is organized by division and section.

Task 2

Within divisions, the goals of all contiguous separating sections and their respective sub-units should be examined to determine the following:

- a. are there any conflicts across units between goals and objectives which are presently written?
- b. are there any of the class 1, 2 or 3 goals/objectives specified above which are not presently written, or which are not as complete or clear as they may be?

Task 2.a

Once the foregoing determinations have been made (and the foregoing two tasks should be completed within six months of project implementation) sub-units, sections and divisions

should proceed to resolve any goal conflicts and to prepare the additional written goal/objective statements which presently do not exist. Approximately three months should be allocated for this sub-task.

Task 3

Once each division (and all of its component units) has completed the foregoing tasks, the full volume of divisional goals should be examined by divisional managers and central administrative staff to determine the following:

- a. are there any conflicts between goals across divisions (these conflicts across sub-units of divisions have already been examined and resolved in task 2 above)?
- b. are there any of the class 1, 2 or 3 goals/objectives specified above which are not yet written or which are not as complete or as clear as they might be?

Task 3.a

Once the foregoing determinations have been made (approximately two months should provide the necessary time), conference among division heads and central management should resolve any goal conflicts and should direct the preparation of any needed additional goal/objective statements. This step should require no greater than two months.

Task 4

Concurrently with the three tasks outlined above, the Board with assistance from central management, should examine existing mission and performance goal statements related to overall hospital operations, and refine them as necessary. Six months could be allocated for this review and refinement.

Task 5

The consolidated divisional goal document should then be examined in the context of broader hospital missions and goals as developed and refined through task 4 above, with any conflicts being identified and resolved as necessary. From this task,

which should not consume greater than one month, there would result a master hospital goal manual which incorporates the overall missions and goals of the hospital and the contributory goals and objectives of each division and operating unit thereof.

Task 6

At intervals of no greater than one year, central administration in consultation with divisional and unit managers should undertake an evaluative review of the master goal manual and make the following determinations for each goal and objective therein:

- a. has the goal/objective been attained as expected?
- b. if it was attained, is further action required, or has the desired outcome occurred and should the program/activity be discontinued?
- c. if it was not attained, why not? Was the level of attainment set too high (if so, rewrite the goal and set more realistic target for attainment), were there administrative or other obstacles which precluded its attainment (if so, then clear administrative remedial steps are defined and should be taken in order to permit later realization of the goal).

Task 7

At annual intervals, at each managerial level of the organization, beginning with the Board and working downward, a review of all existing goals and objectives should be made in order to determine whether any new goals and objectives should now be prepared and entered into the master codification of hospital goals and objectives. This would be tantamount to an attenuated cycle of the foregoing tasks 1-5 taking place each year. Thus, goal setting and evaluation is presented as a never-ending, cyclical management responsibility which gives continued sense of direction to the organization.

Finally, should either of the alternative approaches to goal and objective setting described above appear to be overly ambitious and complicated for the short-run, the following more skeletal approach could be adopted:

Task 1

By action of the Board of Trustees, adopt (and amend or modify as desired) the goals stated throughout this plan as the paramount goals of the hospital.

Task 2

Require each division and operating section thereof to prepare written and measurable division- and section-specific objectives which will contribute to the attainment of the overall hospital goals established through the execution of Task 1 above.

Task 3

Compile all divisional and sectional objectives into a master hospital goal manual and through review processes assure that each divisional/sectional objective does in fact contribute to the attainment of overall paramount hospital goals.

Task 4

At one-year intervals (i.e., September 1983 and annually thereafter) conduct the following reviews:

- a. Review each divisional and sectional objective to determine whether it has been attained, and if not attained determine the causes for failure and make necessary resource or administrative adjustments.
- b. Review the paramount goals of the hospital, adding at least five new overall goals each year, and require divisions and sections thereof to prepare divisional/sectional objectives related to the newly adopted overall hospital goals. Adjust prior overall hospital goals as necessary by establishing more rigorous levels of expected attainment, different dates for completion and the like.

Should the foregoing simplified approach to goal and objective setting be adopted, overall hospital goals (and contributory divisional and sectional objectives) should address at the very minimum the following areas of concern:

1. administrative and management achievements
2. programs and services achievements
3. human resources achievements
4. physical facilities achievements
5. fiscal achievements
6. external relationships achievements, including consideration of public view of the hospital and its operations and services.

Any of the foregoing approaches to the establishment and evaluation of goals and objectives will place the hospital in the position of having clear-cut targets for future development against which progress may be monitored and appraised. The difference between the suggested approaches lies in their respective levels of complexity, and it is recommended that eventually the most complex and all-embracing of the schemes be fully implemented.

GOAL 8

Develop an appropriate structure of internal committees.

DISCUSSION

For the most part, many of the essential internal systems (i.e., committees and related internal organizations) are already in place. The organized medical staff has appropriate by-laws and committee structures already, and no particular further work in this connection is warranted. As with all internal systems, it is (for the organized medical staff) merely a matter of assuring that committee operations proceed on a timely and routine basis, that written minutes and/or proceedings are maintained and are kept on central file. The existing (and desired future) committees of the organized medical staff include the following:

- a. Executive Committee
- b. Credentials Committee
- c. Joint Advisory Committee (suggested renaming as Joint Conference Committee)
- d. Quality Assurance and Utilization Review Committee
- e. Tissue/Blood Bank Committee
- f. Drug/Therapeutic Subcommittee
- g. Medical Records Subcommittee
- h. Infection Control Committee
- i. Operating Room Committee
- j. By-laws Committee
- k. Tumor Board
- l. Emergency Medical Services Department Committee
- m. Special Care Committee
- n. Arbitration Board

Under the preferred future organization of the hospital, the Medical Director should be a full member of all medical staff committees and should meet with all committees on a regular basis.

PREFERRED INTERNAL COMMITTEE STRUCTURE

It is important to discriminate between three major loci of committee organization. One, that pertinent to the organized medical staff, has been presented above. The second are committees of relevance to the Board of Trustees, and the third are the

internal committees of the hospital which are further divisible into discrete types and functions.

1. Board of Trustees

For the most part, the Board presently operates as a committee of the whole, but has a standing Finance Committee as well. Associated closely with the Board, there are two other existing committees, namely the Guam Memorial Health Plan Transition Committee and the Governor's Task Force on Hospital Institutional Planning. The latter two supercede Board and hospital staff membership and bring into play a wide range of other interests.

The Task Force on Hospital Institutional Planning is further subdivided into sub-committees on organization and management, programs and services, manpower, facilities and finance. It is understood that this Task Force and its range of sub-committees and external participation is relatively time-limited. Following the completion of its work, many of the topics to which the Task Force is addressed should be maintained as standing and special committee of the Board.

Thus, for the future the following committees of the hospital's Board of Trustees are seen as desirable:

- a. Executive Committee, which should include the Chairman and three additional members chosen by election from among the 13 Board members. This committee would be empowered by the Board to act in its behalf between regular meetings of the Board.
- b. Finance Committee (exists and need not be added).
- c. Long-range Planning Committee, to provide Board oversight on all future long-range plans and developments and to monitor progress in following current long-range plans of the hospital.

2. Hospital Committees

The required committees of the hospital organization fall under five discrete typologies, as follows:

a. Functional Committees

- (1) Executive Committee, which should include the Administrator and the four division heads and provide broad administrative and policy oversight for all hospital operations. This committee would adjudicate differences and problems which arise across divisional lines, and work to coordinate all hospital functions and activities. It should meet regularly, at least once each week, and more often on call of the Administrator.
- (2) Patient Care Committee (an overall committee of this type presently exists, but sub-division is required).
 - i. Acute Care Subcommittee
 - ii. Long-term Care Subcommittee
 - iii. Ancilliary Services Subcommittee
- (3) Support Services Committee which should have membership from all support service directors and members, with the responsibility of assuring a coordinated network of supportive services, both patient support and environmental.
 - i. Preventive Maintenance Subcommittee, which should be empowered to develop and monitor a hospital-wide preventive maintenance plan and program, and coordinate maintenance throughout the institution.
- (4) Personnel Committee, with membership from major employing units of the hospital, with the charge of providing oversight for the systematic

development, modification and refinement of personnel qualifications, conditions of employment and recruitment.

- (5) Supplies Management Committee, with membership from the major providers and consumers of supplies within the hospital, to provide a forum for the coordination of supplies and material.
- (6) Patient Affairs Committee, with membership from the major units making direct patient contact, to assume oversight responsibility for all aspects of patient welfare and to coordinate needed improvements which contribute to patient welfare in the hospital.
- (7) JCAH Review Committee (already exists).
- (8) Planning Committee (already exists, but should be separated from Finance).
- (9) Finance Committee (already exists, but should be separated from Planning).

b. Procedural Committees

- (1) Manual Committee, which should contain membership from all major operating units of the hospital, and be charged with coordinating the preparation and maintenance of policy and procedural manuals. Subcommittees could appropriately be established within major operating units (e.g., nursing services, laboratory, etc.) to carry this responsibility further down into the organization.
 - i. Manual Revisions Subcommittee, with membership deriving from the Manual Committee, and with responsibility for oversight for the periodic and routine

review of policy and procedural manuals and to assure their timely revision and updating.

(2) Forms Committee (already exists).

c. Advisory Committees

(1) Technology Appraisal Committee, with membership from the medical staff and appropriate technology employing units of the hospital, with the responsibility of appraising and making recommendations with respect to newly available technology and its appropriateness for use in the hospital.

(2) Grievance Committee (could be a sub-committee of the Personnel Committee) to provide for the orderly receipt, review and disposition (recommendations to management and the Board) of all employee and patient grievances. This committee would further refine existing grievance procedures, and assure that the rights of all parties are continually respected.

(3) Community Advisory Committee, with membership from appropriate sectors of the consuming community, to provide to management a regular vehicle for communication with a representative panel of community representatives and for the orderly inflow of community advice and comment regarding hospital operations and services.

d. Regulatory Committees

(1) Medical Isotope Committee (already exists).

(2) Safety Committee (exists, but should be expanded to include security, and be retitled the Plant Safety and Security Committee).

- (3) Disaster and Emergency Preparedness Committee, which should contain members from medical, nursing, and other patient care units and be responsible for constructing and maintaining the hospital's disaster plan and for the conduct of periodic disaster drills and exercises.

e. Liaison Committees

The role, function and membership of the following are more fully detailed under Goal 6, External Relationships, and are included by title here for the sake of completeness.

- (1) Legislative Liaison Committee
- (2) Third-Party Liaison Committee
- (3) Program Advisory Committee

In addition to the foregoing, both Board and management would also be involved in several broader committees which have been suggested and detailed under Goal 6, External Relations. These include the following:

1. Governor's Health Policy Council
2. Health Plans Coordinating Committee
3. Western Pacific Intergovernmental Health Services Development Council

SPECIAL NOTE REGARDING PREPAREDNESS FOR FUTURE ACCREDITATION

Of immense importance to this hospital and others as well is the issue of maintaining appropriate accreditations and certifications, the two most important of which are Medicare/Medicaid Certification and accreditation by the Joint Commission on Accreditation of Hospitals. The JCAH Review Committee which is included in the foregoing listing of preferred committee structure is the appropriate vehicle for this purpose. In order to maintain the hospital in a constant position of readiness to meet both certification and accreditation requirements, this committee must provide

each functional unit with a check-list of accreditation/certification requirements pertinent to its operation, and identify a person (preferably the program/service manager) whose responsibility it is to continuously appraise the functional unit in terms of those requirements. Where requirements are not now met, plans for necessary developments and improvements should be required by the committee, which should then coordinate all such plans for the hospital in general.

The committee should undertake periodic, department-by-department, program-by-program and service-by-service assays of current status regarding accreditation requirements, and identify deficiencies and assign responsibility for the development of necessary plans to correct them.

The committee should report to the Administrator at least twice each year on the readiness status of the hospital for accreditation, and at the time of accrediting/certification site visits should be the principal interface for the hospital with site visitors.

This is a straightforward and time-honored means of assuring that the hospital meets (and preferably exceeds) accreditation and certification standards.

IMPLEMENTATION OF DESIRED COMMITTEE STRUCTURES

Task 1

For each committee to be retained or established, define in writing its charge and membership. This would include definitive statements of the authority which has been delegated to each committee and specification of to whom and at what intervals it is expected to report. Requirements should be stipulated as to the maintenance of committee minutes and proceedings, and a central file copy of all committee documents should be maintained in the central administration office.

Task 2

Once having succeeded in defining all committees, the necessary members would next be appointed and initial meetings

would be convened. At the initial meeting (of new committees), membership orientation is provided by central management, and officers for the committee are elected from among its membership. Future (and preferably fixed) future meeting schedules are decided upon, and an agenda for the next subsequent meeting is established. Thereafter, at the close of each meeting, an agenda for the subsequent meeting should be the final order of business.

Task 3

Establish for each committee a reporting follow-up system which has the effect of alerting top management when committee reports and products are overdue. For example, as in the case of a committee which is to meet monthly, when minutes are overdue by more than 15 days, a "tickler" file arrangement should alert management to the deficiency and inquiries to the committee chair should then be made to disclose reasons for tardy reports.

Task 4

Relinquish top management authority over the assigned areas by delegating defined authority to each committee with clearly delineation of their accountability to central management, and provide the assigned committees with the necessary staff support and latitude to pursue their appointed work.

These tasks and the erection of the desired committee structure could be completed within the following general time frame:

- Year 01 (3 months) -- Confirm basic committee structure to be employed.
- Year 01 (6 months) -- For each confirmed committee, write its charge, define its membership and other procedural matters.
- Year 01 (3 months) -- Appoint members to each committee in the structure and convene the initial meeting.

- Year 02 (& beyond) --
1. Confirm needed additional committees, define charges and membership and make appointments as above.
 2. Annually review (within the Executive Committee) the function and effectiveness of all committees and make necessary changes or modifications in function, structure, membership, charge or process.

There would be no additional direct cost to the hospital in connection with the implementation of the foregoing internal systems. However, substantial time (approximately 5-10% for each involved employee) away from other assigned duties would be required. This could be as high as 5% of total payroll in its cost equivalent, at least for the first two years, after which efficiencies would probably begin to develop within the system which would require less time commitment to the committee structure.

ALTERNATIVE INTERNAL COMMITTEE STRUCTURE

In the short-run, the foregoing preferred internal committee structure may appear to be cumbersome and complicated for an institution without a long history of participative management. Therefore, while the preferred structure should be sought over the long-run, a more expedient and simplified internal committee structure can now be suggested. Under this structure, nearly all of the foregoing committees and their responsibilities have been subsumed under fewer committees with multiple and related responsibilities.

1. Committees of the Medical Staff

While the organized medical staff already has in place (and in presumably operative condition) all of the committees referenced on page 2.77, considerable streamlining could accrue substantial time savings for the physicians involved. An attenuated committee structure could comprise the following:

- a. Executive Committee, with expanded responsibilities for evaluation of credentials and by-laws;
- b. Quality Assurance Committee, with responsibility for overall quality appraisal, utilization review, medical records, infection control and tissue review;
- c. Ancilliary Services Committee, with responsibility for blood bank, drugs and therapeutic substances;
- d. Patient Care Committee, with responsibility for operating room, emergency medical services, and special care;
- e. Tumor Board
- f. Arbitration Board

2. Committees of the Board of Trustees

The preferred committee structure suggested above for the Board represents the minimal requirement, and no change from the three committees recommended on page 2.78 is suggested.

3. Hospital Committees

The nine functional committees recommended above could be collapsed to include the following four:

- a. Executive Committee with responsibilities as outlined on page 2.79 in addition to acting as the planning, finance and personnel committees as well.
- b. Patient Care Committee with responsibilities as outlined on page 2.79 but including the added responsibilities of the Patient Affairs Committee;
- c. Support Services Committee with the responsibilities outlined on page 2.79 with the added responsibilities of the Supplies Management Committee;
- d. JCAH Review Committee (already exists);

A single procedural committee would be required as follows:

- a. Manual and Forms Committee, with the combined responsibilities of the preferred Manual Committee, the Manual Revisions Sub-committee and the Forms Committee.

In the short-run, none of the three preferred advisory committees (i.e., technology appraisal, grievance, and community advisory) would be absolutely necessary and could be foregone with sacrificing the integrity of the internal committee structure. The functions suggested for the grievance committee could be assigned to the executive committee, since this is the likely point of resolution for most grievances anyway.

Only two regulatory committees could be absolutely necessary, as follows:

- a. Medical Isotope Committee (already exists)
- b. Safety and Disaster Preparedness Committee, with responsibilities as outlined on pages 2.81 and 2.82.

The three liaison committees recommended in the preferred structure are operating components of the plan for improved external relations, and should be implemented as called for in Plan Element 6.

There will remain a need for a Joint Conference Committee, presently exemplified by the Joint Advisory Committee of the organized medical staff, but with equal membership representative of the medical staff, the administration and the Board of Trustees.

The implementation plan for the creation and activation of the foregoing committees would be the same as that outlined (beginning on page 2.83) for the preferred internal committee structure.

**GUAM
MEMORIAL
HOSPITAL
AUTHORITY**

**LONG RANGE
INSTITUTIONAL PLAN**

**PLAN ELEMENT 2:
PROGRAMS AND SERVICES**

PLAN ELEMENT 2: PATIENT-CARE PROGRAMS AND SERVICES

This plan element has four purposes, as follows:

1. To provide a systematic review of all current programs and services of the hospital, to assess their technologic adequacy, and to provide recommendations and plans for any necessary changes now and in the future.
2. To describe future needed inpatient services.
3. To examine alternative future out-patient services.
4. To describe future long-term care services.

SITUATIONAL ANALYSIS

The following professional review of all major service and program elements within Guam Memorial Hospital also contains an appraisal of the technological adequacy of present equipment and services. The analysis is divided according to the major functional units of the hospital.

A. Nursing Services

The Nursing Services Department embraces a multitude of the operating service units of the hospital, for it is to nursing services that the management, supervision and provision of most direct patient care in these units falls.

Overall, this is a well-organized department characterized by decentralized unit management and quality nursing care at all levels. Staffing in all in-patient areas is arranged on the modern basis of "acuity of care" required by individual patients for their level of illness. Progressive techniques are utilized as exemplified by the Problem Oriented Medical Record method which is complied with by all physicians, nurses and other professionals making record entries.

Administratively, nursing services are somewhat cumbersome, entailing perhaps some management overstaffing. For example, all patient care functions of the hospital are grouped (functionally) into three broad units for each of which there is a "supervisor" or "unit coordinator" holding

24-hour, 7-day per week responsibility for all nursing activities within the assigned area. One such area includes the newborn nursery, newborn intensive care unit, obstetrics and gynecology, labor and delivery, and pediatrics. A second subsumes medicine and telemedicine, medical-surgical, surgical, mental health and long-term (SNF and ICF) units. The third includes emergency room, out-patient department, CCU and ICU, operating room and post-operative recovery. Each of the subordinate units (i.e., newborn nursery) has a head nurse for the day shift. The three major units also have a "shift supervisor" or charge nurse for the evening and night shifts as well, who represents by proxy the unit coordinator during her off-duty hours. Problems appear to arise in communication, since all contact with either the Assistant Director or Director of Nursing Service is ordained to pass through the unit coordinators/charge nurses, thus making it cumbersome for those in charge of subordinate units to make direct contact when needs arise.

1. Medical-Surgical Nursing

These divisions represent distinct floors within the hospital, and hold responsibility for 74 beds of patient care. Occupancy rate is maintained at near the 90% level in these service areas, and despite a very high patient census, the quality of direct patient care is indeed quite good. Difficulties in patient care arise on these services (as they do in other sectors) with respect to inoperative and old electric patient beds, but otherwise functions and services are at par with any other well-operated general hospital.

2. Newborn Nursery and Newborn Intensive Care Unit

This unit provides nursing care for infants, with a capacity of 22 newborn bassinets and 4 intensive care bassinets. The census on the average is low, approximating 16 in the newborn unit, and an average of only slightly greater than one in intensive care. Equipment is appropriate to function, and services provided are of high quality with no apparent defects.

3. Obstetrics and Gynecology

Operating at an average occupancy rate of about 64% this unit provides high quality nursing care to obstetrical and gynecological (medical and surgical) patients, operating 29 beds for this purpose. The quality of electric beds is poor, but otherwise high standards of nursing care are maintained. Nursing services for labor and delivery are rendered by this unit within its total bed capacity as well.

4. Pediatrics

A small and separate pediatric unit comprising 25 beds is served with an annual occupancy rate of about 64%. Equipment and nursing procedures appear to be adequate and of high quality on this unit, but current occupancy rates do not contribute to efficiency of operation.

5. Emergency Room

Staffing of the emergency room is conjoint with the out-patient department, except during those times when out-patient services are inoperative. There is no triage officer for either the heavily utilized day and evening shifts, resulting in lengthy delays and substantial staff and patient dissatisfaction and friction. There are equipment and technologic problems in this department, including needs for additional wheel chairs, a new cardiac monitor, sufficient suture sets, a proctosigmoidoscopy set and electronic rectal and oral thermometers. Calling systems to summon waiting patients from holding areas to nursing stations are entirely verbal and thus subject to misinterpretation and miscue. Given Guam's growing population and the high rate of traumatic injury, it would appear wise to project an eventual improvement of the existing emergency service to a Type I (highest level) service which would include 24-hour physician specialists in the hospital in addition to 24-hour backup services of the types presently available, according to accreditation standards of the JCAH.

6. Out-patient Department

This department is attended by members of the salaried (contract) medical staff who are assigned out-patient duty and by contract specialists, and services are of two basic types. The first are walk-in, diagnostic and treatment services for any injured or ill person who presents him or herself without appointment. The second are a strata of appointment specialty clinics. In both, a wide variety of patients are served, the majority of whom appear to be enrolled in one or another insurance or prepayment plan. Collections for services rendered are extremely low, despite the insurance coverage which many patients carry. It would appear, therefore that this department provides government subsidized ambulatory medical services for clients with other entitlements, and private insurers and health maintenance organizations are the direct fiscal beneficiaries.

Out-patient services are offered Monday through Friday between 8:00 a.m. and 12:00 noon, and between 1:00 and 4:00 p.m., weekends and holidays excluded, thus contributing to high utilization in the emergency room during other hours. Equipment appears to be adequate to the task of providing ambulatory primary and some specialty care, and the performance of physicians and nurses is obviously adequate for the department attracts nearly 28,000 patient visits each year, suggesting some degree of patient satisfaction.

7. Intensive Care Unit/Coronary Care Unit

Although shortages of qualified personnel to staff these small units occurs from time to time, this service has adequate central electronic monitoring, life-support and hemodialysis equipment for its charge. The coronary care unit comprises 4 beds with central monitoring capabilities, the intensive care unit 5 private beds one of which is an isolation room for contracted nursing care of critically ill patients and those requiring close monitoring. A sixth bed within the ICU is devoted to hemodialysis.

When CCU beds are fully occupied, ICU beds are employed for the care of coronary patients. Staffing provides for the standard 1 nurse for 2 patients maximum, and minimal staffing of at least 2 nurses is maintained.

Although the technologic level of existing apparatus is sufficient, there is a lack of a well-trained full-time staff biomedical engineering technician upon whom reliance can be placed to assure that all monitoring equipment is in full operating order. Departing from the custom growing in many hospitals, there is no present provision for "step down" care within the CCU, and all patients are presently served in beds identically equipped as if their needs were all equally acute or as if they have not passed some point of crisis following which less acute but still sustained monitoring and observation is required. The four beds currently with telemetry are within the critical care unit and are considered "swing beds" but not "step down beds". By step down, the reference is to four beds in a medical or surgical patient area, which allow the patient to move from a nursing ratio of two patients to a single nurse to a four-to-one ratio and eventually to a medical-surgical unit where six-to-one ratio is the recommended norm. Step down beds are simply upgraded uses of existing patient rooms adjacent to the ICU/CCU area. No further construction is needed to achieve this goal, and existing patient rooms need only to be equipped with portable monitors (at an estimated cost of approximately \$3,000 per room) and nursing staff redeployed to the recommended nurse-patient ratio. A standing order code ("slow code") is in effect which provides insufficient life-support decisional authority.

8. Operating Room and Post-operative Recovery

This unit consists of four modern and well-equipped surgical suites served by a central sterile supply unit, and an adjacent multi-bed surgical recovery room. Located nearby are the two delivery rooms and the CCU/ICU. Hence

all major surgical and life-support systems are in close proximity to one another.

9. Skilled Nursing and Intermediate Care Facilities

The physical characteristics of these nursing services are fully described in Plan Element 4. Presently, there are 36 beds in each of the SNF and ICF, providing a total of 72 long-term beds. Occupancy rates for both facilities hover at or near the 100% figure, and average lengths of stay in skilled nursing are 178 days and in intermediate care 380 days. Equipment is poor for these services as are the physical surroundings, but the level and quality of nursing care which is provided is exemplary, especially considering the conditions under which staff members must work.

It is clear that most patients in these units are indigent and prior analyses within the hospital have revealed that large proportions of those occupying intermediate care beds are inappropriately placed and should not be in that level of care. Most of those in the skilled nursing facility beds appear to be appropriately placed, however, and this is substantiated by the lower (18) average daily census which occurs in the SNF where surplus beds are occasionally available.

10. Psychiatric (Mental Health) Nursing

There are presently 17 psychiatric in-patient beds operated in the "old" hospital and the unit consistently experiences occupancy rates of greater than 100%. The in-patient psychiatric facility treats five classifications of patients in the single facility, with no physical space differentiation. These include the acutely mentally ill, the chronically mentally ill who are detained on a domiciliary basis, the mentally retarded who are normally cared for in a separate and dedicated institution, the court ordered penal individuals who are awaiting psychiatric

It is clear that most patients in these units are indigent and prior analyses within the hospital have revealed that large proportions of those occupying intermediate care beds are inappropriately placed and should not be in that level of care. Most of those in the skilled nursing facility beds appear to be appropriately placed, however, and this is substantiated by the lower (18) average daily census which occurs in the SNF where surplus beds are occasionally available.

10. Psychiatric (Mental Health) Nursing

There are presently 17 psychiatric in-patients beds operated in the "old" hospital and the unit consistently experiences occupancy rates of greater than 100%. As a result, in-patients are found sleeping on couches and broken beds in what can only be described as a "snake-pit" environment. There are no proper security rooms for the potentially violent patient. There is a "step down" unit operating for psychiatric patients who are able to care for themselves and make partial community contact prior to full discharge. Structurally, this (as with all units in the "old" hospital) is unsafe. With an average length of stay of 66 days for in-patients, this unit clearly taken on the characteristic of a long-term mental hospital and has little relevance for an acute, short-term hospital.

11. Hemodialysis Unit

A 10-station hemodialysis unit is operated under supervision of nursing services, and although somewhat crowded, it is technologically adequate. Located in the "old" hospital structure, physical problems such as corridors which do not meet code standards and a non-conforming waiting room compound operating problems. There is inadequate provision for storage of equipment and supplies. The hemodialysis services operated by the hospital represent the sole resources of their type in Guam. It is generally recognized that hospital-based dialysis service is the most expensive option for a dialysis facility, owing to the high hospital

evaluations, and the criminally insane. It must, therefore, be noted that the single facility in this acute hospital which should be dealing only with acute psychiatric patients, in fact plays the multiple roles of acute, state hospital, psychiatric penal facility and institution for the mentally retarded. As a result, in-patients are found sleeping on couches and broken beds in what can only be described as a "snake pit" environment. There are no proper security rooms for the potentially violent patient. There is a "step down" unit operating for psychiatric patients who are able to care for themselves and make partial community contact prior to full discharge. Structurally, this (as with all units in the "old" hospital) is unsafe. With an average length of stay of 66 days of in-patients, this unit clearly takes on the characteristic of a long-term mental hospital and has little relevance for an acute, short-term hospital.

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overhead costs. General standards suggest that maintenance dialysis should not ordinarily be performed in a hospital and that other limited care facility settings are the most appropriate and cost-effective. Owing to a high demand, mainly for out-patient dialysis, the dialysis stations are operated on a 3-shift per day basis with an annual volume approximating 3,100 dialyses of which about 10% are in-patient and the remainder out-patient which could be performed at another facility setting or in the home.

12. Nursing In-service Training

While not a direct patient service, it is important to note the active existence of an in-service unit within the structure of nursing services. This section currently provides orientation to new employees of the department and training in cardio-pulmonary resuscitation, basic arrhythmia care, stroke rehabilitation, obstetrical reviews and other nursing reviews as needed. It has obtained a provider number for the award of nursing Continuing Education credits, but staffing and equipment limitations restrict its ability to provide comprehensive in-service training. It is, within constraints, a highly effective unit.

The foregoing concludes this examination of services and programs which fall under the control of the nursing service department. Before proceeding with an examination of yet other services and programs, a concluding note regarding broader organizational issues of importance to the proper continuing provision of nursing services in the foregoing critical areas of the hospital is important.

As any organization increases in size, it is able to obtain benefits from increasing specialization. Departmentation, or the grouping of activities, make expansion and use of specialized services possible. Departmentation can occur in a variety of ways. One of the most frequently employed and the time tested method is departmentation along functional lines (i.e., groupings of activities in accordance with similar functions). Guam

Memorial Hospital nursing service units are departmentalized in this manner: medical-surgical, operating and recovery room, coronary and intensive care, pediatrics, obstetrics, etc.

However, as departmentalization increases, strains on the span of management control also increase. Within a wide span of departmental organization it is possible to facilitate supervision of the work of a wide variety of specialists. The functional structure of individual departments facilitates more efficient use of resources and makes inter-unit (within a department) coordination easier, for the supervisor can be knowledgeable in the specialty area and is better able to evaluate a subordinate's work. However, while the functional structure which has been achieved in this hospital does facilitate a smoothly working intra-unit coordination within departments, coordination between units of the department has become more difficult. As functional structures push decisions which affect several units upward for resolution, delays in decision-making also occur. Functional departments develop different time perspectives, goals, structures and inter-personal affairs, and these differing orientations lead to difficulties in coordination and may foster some conflict among departments and their units. Substantial organizational though, within the fairly highly specialized (and thus conflicting) units within nursing service, will be required in the future to capitalize to the maximum upon the advantages of specialized division of work, and to minimize inter-unit conflicts. For example, with supervisors of psychiatric nursing or of long-term care nursing reporting upward through the head of a medical-surgical master unit simply puts several patient care philosophies in direct conflict.

B. Ancillary Patient Care Services

1. Pharmacy

The hospital's pharmacy is well staffed, comprising an organization of a pharmaceutical buyer, five full-time, one part-time and one contract pharmacists, two pharmacy

technicians, and five pharmacy aides. Not all positions are filled at this time, but are provided for in the staffing structure. The pharmacy is under the direction of a licensed pharmacist who serves as director of pharmacy services. It is an excellent and modern pharmacy operation, and has a well-organized in-patient unit dose system which includes an I-V additive program. The practice of clinical pharmacy is not yet represented on the pharmacy staff, nor has a formal I-V team been established. Ordering and stock inventory is done on a manual basis, and supplies are not completely centralized. The major technological deficits therefore appear to be in the realm of management and material management technology.

2. Laboratory

Despite the fact that this laboratory has not yet been surveyed, the management has maintained a high degree of quality of service well within the nationally established standards of laboratory performance. It is a well-organized department under the direction of a board-certified pathologist and a qualified ASCP technologist. The laboratory is divided into two major divisions, anatomic pathology and clinical pathology. Capabilities include surgical pathology, exfoliative cytology, autopsies, clinical chemistry, microbiology, hematology, urinalysis, parasitology, serology and banking of whole blood. The equipment is quite modern and apparently well-maintained despite the lack of a full-time biomedical engineer to assume responsibility for the maintenance of laboratory and other technical equipment in the hospital. An IBM System-6 computer is in service and has high use, but with the current lease soon to expire, there are questions as to its continued availability as a laboratory support service. The laboratory, by the most modern standards, is only partially automated and fully automated blood and chemistry equipment is conspicuous by its absence. Similarly, there are some limits to the kind of laboratory procedures which may be accomplished, and

for example, drug abuse and drug assays cannot now be done although there is demonstrable need for them. The laboratory operates a minimal blood banking program simply to meet the hospital's immediate needs for whole blood and to conduct related blood typing services. There is no active blood donor program and blood bank capabilities are not yet developed to community blood bank standards.

A program of staff in-service training has been implemented by department heads within the laboratory, comprising a 15-minute, once per week period during which video cassettes and lectures comprise the main teaching resource. The laboratory is plagued by employee turnover, representing mainly technicians who having been trained on the job then leave for the mainland and better paying positions. Other concerns include a certain lack of storage for laboratory supplies and equipment, and the lack of any intercommunication system between laboratory departments and others which could facilitate productivity.

3. Radiology

This department provides modern equipment and well-trained personnel to perform general radiography, fluroscopy, special procedures including angiography and venography, nuclear medicine studies and shortly, computed tomography (both head and full body capability). Radiology services are about evenly divided between out- and in-patients, with an approximate annual volume of procedures of 23,000. The emphasis is clearly upon diagnostic radiology, and no therapeutic radiology is available. In this connection, the estimate of the National Cancer Institute is that a base population of 150,000 is minimal to support high energy radiotherapy, and it will be at least two decades before sufficient population exists on Guam for this purpose. However, if a substantial referral population from surrounding Pacific Island communities becomes formalized through inter-governmental compacts, there will be the requisite base and

at that time consideration of adding newer radiotherapy technology would be appropriate.

4. EEG/EKG/EMG

This expanding service suffers from a lack of statistical data to determine its future staffing pattern. Basic technical equipment is maintained for these tests. There is a staff of three, two of whom are technicians.

5. Inhalation Therapy

The present inhalation therapy service is staffed with eight employees, 16 hours per day, seven days each week. The department has the capability to respond to night emergency calls as well. There is a growing demand from physicians for services from this department, and its staffing has not kept up with demand. Modern and efficient equipment is available, but as in other areas there is not a well-trained technician to assure its constant readiness and full repair.

6. Physical, Occupational and Recreational Therapy

While recreational therapy remains to be developed as an active service of the hospital, both physical and occupational therapy do represent active programs which are supervised by a single Registered Physical Therapist. There are no Registered Occupational or Recreational Therapists at present, and work in these areas is accomplished by dedicated and competent technicians. Both physical and occupational therapy services are provided in both the acute care facility and in the "old" facility for patients in the skilled nursing facility. In addition, occupational therapy services are provided for mental health patients. Approximately 420 occupational therapy patients are seen each month (about 13% out-patient and the remaining 87% being in-patients), and about 950 physical therapy patients are seen (of which, 45 are out-patient and 55% are in-patient). Average monthly treatments equal about

2,300 for physical therapy and 490 for occupational therapy. Thus, in their combined caseload, these departments represent high volume sectors of the hospital's service array. Presently lacking are newer modalities such as biofeedback techniques in neuromuscular training, transcutaneous electrical stimulation for chronic pain treatment, and a variety of smaller but nonetheless critical occupational therapy equipment. Given the present pattern of understaffing by qualified therapists, not all services rendered are qualified reimbursement services under either Medicare or Medicaid, this representing a substantial loss of income for the hospital and a continuing financial burden for it. Despite staff and equipment shortcomings, this department is well run with high morale and good rapport with patients clearly evident.

7. Social Services

This is a short-staffed department, the majority of whose work appears to consist of assisting patients with arrangements for needed off-island medical care. Social service evaluations are done when possible, but when field visits are required, staff members are forced to utilize their personal cars. At present, there is too little time or staff energy for all of the work related to careful discharge planning and home care planning for in-patients. Post discharge follow-up is done for each patient (either a home visit to ensure that needed services are being provided, or by telephone contact with referral agencies to obtain the status of the patient. The objective is to close a case only when at least one follow-up contact has been made. Close ties with the Division of Public Health and with Catholic Social Services for the arrangement of home care and other supportive services post-discharge although existing, have not been fully maximized because of staff shortages, but have been identified as necessary. As with all other departments, in-service training is a must from

the standpoint of JCAH accreditation of the hospital. Social Service is only one department where this is necessary. The nursing department presently has adequate in-service training. However, it could be expanded and improved with added audio and video capabilities.

8. Dietary

This department, as with many others, suffers from a lack of funding and its few capital assets in the form of kitchen equipment are in a run-down condition. More is discussed in this connection in Plan Element 4. Requests have been made and plans prepared by their Chief Dietitian to correct current equipment deficiencies, but the time span for completion of projects already presented seem unrealistic and this report expands the time for completion to 1984. Owing to earlier decisions to contract for full food service for the hospital, little in the way of direct food preparation is done by this department. The prevailing decision of the hospital to contract for food preparation services through an external caterer is considered appropriate, since the food preparation services appear to be completed under control on such a basis. Since there is no existing or programmed space for an enlarged in-house kitchen, there would seem to be little argument in favor of moving from the present contract basis to in-house preparation. Continuing the contract program and providing for the correction of current equipment deficiencies is consistent with proposals previously submitted by the head dietitian. Menu preparation, both regular and special, and supervision of food service and clean-up fall within this unit's responsibilities. There are appropriately no plans for the hospital to become self-sufficient in food preparation, nor is there any programmed space for the customary dietary activities of general hospitals.

9. Medical Records

For the most part, the preparation and maintenance of medical records is a purely manual operation. Thus, skilled medical records personnel are used for what can be best classified as clerical work, including the frequent taking of minutes for committees. Manual operations such as these result in erroneous statistical information, and without computer support the department will not perform at an optimal level. The principal technological deficiency here is a needed in-house computer to support the medical records function as well as other business-related functions of the hospital. Patient records have been standardized on the problem oriented medical record model, and appear to be complete. Medical transcription services are supervised by this department, but suffer from a chronic shortage of transcription equipment, little of which is standardized and much of which is procedurally inefficient. For example, the current mechanical transcribing devices make it necessary for a clerical screening of each dictation tape for "Stat" orders or emergency surgery priorities. Procedural guides, especially with respect to standardizing the completion of legal records such as birth certificates, are not well developed in this department. It is recognized that JCAH has approved the three current manuals which provide procedures governing the entire process of medical records management in the hospital. However, with respect to the very technical processes involved in recording and registering live births, existing documents lack sufficient detail in instructions to guide proper document completion. Appendix 1 to this Plan Element provides suggested detailed procedures which may either be adopted directly or amended as felt necessary. All medical records are maintained in paper-copy archival files, and no facility is available for their reduction to film or other format for efficient storage and later retrieval.

10. Admitting Department

While not a direct patient care or patient support service, the activities of the admitting department are so central to efficient patient care and service that this department warrants inclusion in this analysis. At present, the department has four clerks and an admitting supervisor for the day shift which would be adequate if volunteers or other personnel were available to assist patients to their assigned room following completion of admission formalities. At present, much of the time of admitting clerks is taken up with this function, with an average of 30 patients per day being processed and escorted to various places within the hospital. Clerks spend a great deal of their time responding to questions raised by the business office, questions which would best be dealt with by a credit clerk in admitting. Paper work upon admission is excessive, and no system which employs a form of permanent card containing essential admission information has been yet adopted. Admitting department personnel are maintained on duty after 11:00 p.m., although admissions during that period tend to be exclusively of an emergency nature and are usually handled by that department. There have been established no formal hours for patient admissions, and this often results in early arrivals which creates problems related to discharging patients and the preparation of rooms to receive incoming patients.

a. Speech Pathology and Audiology

While not a true department of the hospital, inasmuch as staff positions for the two professionals who staff this service are not included within the hospital's staffing plan, there is existing a part-time speech pathology and audiology service. These services are presently housed in the "old" GMH structure, with speech pathology being provided in a room adjacent to the fifth floor SNF area. The room is normally used for therapeutic procedures, but when required, the speech pathology occupies it temporarily. Audiology, on the other hand is located in the basement area of the "old" hospital, having available to the audiologist a testing suite and adjoining office quarters, all of which is dedicated to this use. It is, however, directly adjacent to the locked psychiatric ward which occasionally creates some operational problems, and contributes to feelings of discomfort on the part of staff and patients.

Speech pathology testing equipment is wholly borrowed from the speech and audiology section of the Division of Public Health, while a "puritone" audiometer with capability of testing speech is provided by the hospital in the audiology room. Both the speech pathologist and the audiologist are full-time employees of the Division of Public Health, and make their services respectively available to hospital referred patients on Saturdays (customarily) and at other times by appointment and in some cases by walk-in arrangements. Each bills the hospital directly for services rendered on a fee-for-service basis, with the hospital in turn compensating them and billing the patient.

By any standard, these are not high volume services at the moment. Speech pathology customarily completes two to three evaluations each month and manages an average of four patients on a regular basis for weekly therapy. Some of these patients are referrals from the Naval Regional Medical Center, which lacks this service. Audiometry

patients are likewise few, with an average weekly case load of approximately five to six clients. It appears distinctly possible to substantially increase the case load for these services provided additional professional staffing time could be arranged.

11. Central Supply

This critical service department was recently separated from the control of nursing service and is now free-standing. It provides coordination between the purchasing department and the surgical and nursing units of the hospital, although it is administratively independent of both purchasing and nursing. Proper sterilization practices are maintained throughout the department, but owing to fiscal constraints, adequate stocks for the needs of the hospital are not always able to be maintained. This necessitates occasional borrowing from the Naval Regional Medical Center or rush-ordering from mainland suppliers. Items required to be gas-sterilized are sent to the Naval Hospital under a cooperative arrangement although there is a gas sterilizer in the department which has never been completely installed. Critical and close coordination with operating room supervisors appears to be somewhat lacking, resulting in inappropriate information and scheduling which frequently results in uneven flows of supplies.

12. Housekeeping

This department, containing the full-time equivalent of 30 staff members, is among the largest in the hospital. It serves the housekeeping needs of two separate physical facilities, and operates under conditions of chronically low supplies and old and scarce equipment. Procedures and policies are needed, and a total review of the housekeeping function is long overdue. For example, housekeepers strip beds upon discharge, but nurses then make up the beds. Just the reverse procedure is that in most common practice. This department appears to be illogically separated from nursing services to which its functions are so closely related. There are no major technological deficits in housekeeping, and equipment needs are traditional in their nature.

13. Linen and Laundry

Although the linen is owned by the hospital, it is laundered by an outside contracting laundry. Linen received from the laundry is sorted at the hospital rather than this having been accomplished by the contracting laundry at the time of bundling. There appear to be deficiencies in quality control procedures and in the establishment of policies and procedures. There are areas of high linen loss wherein no efforts have been put forth to investigate the cost-efficiency of employing disposable products. The contracted laundry is not routinely inspected by the hospital at least twice each year, and thus an important accreditation standard goes unmet. Because of its close relationship to the functions of the housekeeping department, it seems illogical that this department remain a free-standing unit.

C. Other Hospital Programs

As hospitals move to expand their scope of service from simple concentration on housing and ministering to the bed-fast sick, they begin to entertain notions of becoming more general health centers and providing a wider range of programs to the public. This has become an essential part of the general theme of preventing illness through the promotion of better lifestyle, early disease detection, and the like. Although worthy endeavors, such moves must be assessed in the context of need and financial ability to provide them.

Some programs are, however, mandated such as CPR education, and Guam Memorial Hospital has formalized this and a number of others. For example, the hospital currently supports several general programs including a Diabetic Clinic, Specialty Clinics in the out-patient department (when physician specialists are available), Lamaze education, continuing education in nursing and to a limited degree to the salaried medical staff and cardiopulmonary resuscitation education for staff nurses and medical staff members. Within the organized medical staff,

there is a program of continuing medical education which is largely limited to lectures presented by staff members upon returning from off-island medical meetings. The collaborative ALS/PD research program represents yet another unique endeavor.

Upon examination of other developmental necessities, it would appear to be sound advice to recommend that the present internal programs which the hospital has developed be maintained in a status quo situation with very little enthusiasm for further immediate development. Expansion of external patient-oriented programs cannot transpire until more fundamental survival issues for the general institution have been resolved. One can project future needs for such outreach activities as a hypertension clinic, stop-smoking clinics and stress reduction clinics, but the entry of the hospital into these areas at the present time simply does not appear to be feasible. Through collaboration with other entities, such as the Division of Public Health and the Division of Senior Citizens, such desiderata may be attained without the hospital making any direct commitment. The option of meeting such needs also includes the possibility of marshalling the energies of particularly dedicated health professionals on a voluntary basis to develop and conduct desired outreach functions at no cost to the hospital, but with substantial rewards in terms of public relations.

D. STATISTICAL EVALUATION OF EXISTING PROGRAMS AND SERVICES

The foregoing pages have provided a descriptive overview of the major services and programs of the hospital. For the sake of the reader and user of this plan, aggregated in this special section are selected utilization and performance data indicative of the actual performance of the several major programs and services of central to long-range planning. There is an important caveat to be observed before the presentation of statistical information. There is considerable lack of comparability among and between the many statistical reports

upon which the following analyses are based. Efforts to utilize a document entitled, "Acute Care Hospital Indicators", presented mismatching data, and another table entitled, "GMH In-patient Utilization by Bed/Service Category", dated 4-14-81 posed similar problems. In order to maintain a semblance of reliability, it was decided to base these analyses on the seven tables contained in "Statistics for Year by Month for all Services/Fiscal Year 1980-1981", and that document serves as the primary source of the data presented below in Table I.

In addition, material has been abstracted from various individual departmental reports and records to augment the base document these comprising the basis for Table II. Because of the often conflicting nature of the available data, and disparities between reports of the same vintage, much of the statistical information provided and analyzed below is in the form of rounded data, meant to represent the best estimate of reality. These data do, in our opinion, reflect near-truths with respect to actual operating and utilization experience, and are therefore sufficient for the purposes of long-range planning. All of this underscores in a different context the desperate need for the hospital to establish and maintain a first-rate management information system which can be depended upon to provide in a continuous and timely manner the service, utilization and operating data so sorely needed not only for day-to-day management, but for continued refinement of long-range plans.

The nearest equivalent sized hospital used for comparison purposes was the Kaiser Foundation Hospital in Honolulu, Hawaii. Although part of a closed-panel Health Maintenance Organization, the hospital operates like any other hospital. In-patient services can be compared, therefore. Invalid, however, would be any attempt to compare such items as radiologic procedures, laboratory and physical therapy, since Guam's population has choices as to other service providers whereas the HMO members customarily receive all or most of their services through a

single provider. Thus, the HMO utilization rates would be expected to be substantially higher than those reported from Guam.

Table I

<u>Service</u>	<u>Admissions</u>	<u>Pt.Days</u>	<u>Days/1,000 Pop'n</u>
Medical/Surgical	2,565	19,603	229
Pediatrics	1,157	5,112	142
Gynecology	1,003	2,105	49
Obstetrics	1,005	4,953	259
ICU/CCU	476	1,518	18

Source: 1980-81 Fiscal Year Statistics

From the available data, earlier statements pertaining to Pediatrics (page 3.3) appear amply justified. It is an under-utilized department and whether this is due to cultural preferences related to caring for children in the home or to the lack of physician specialization in pediatrics is unknown. In the data from fiscal year 1980-81, the hospital appears to have delivered 142 days of pediatric care for every 1,000 youngsters in Guam. Comparable Kaiser data indicate 223 days/1,000 children, and this is a highly parsimonious hospital. As illustrated in Plan Element 3, the staffing ratio in Pediatrics appears to be about .7 nurse per bed, which seems inordinately high for the number of patient days actually utilized. The assumption can only be made that the staffing ratio can be substantially reduced to attain a ratio of .5 nurse per pediatric bed, and some pediatric beds could be deployed to other purposes.

Guam Memorial Hospital provided in fiscal 1980-81 a combined 308 patient days of obstetrical and gynecological care per 1,000 eligible female members of the service population. A like-sized hospital in Honolulu ran the same services at the rate of 243 per 1,000 members. In both cases, these are considered good utilization and in this hospital these

departments are cost-effective and well organized. On the other hand, the Medical/Surgical department at this hospital provided 479 patient days per 1,000 population in 1980-81 compared to 300 days, 1,000 at the like-sized hospital. This appears to demonstrate that the extra length of stay which occurred in 1980 (see Table III) is attributable to the medical/surgical department.

Table II

<u>Service</u>	<u>Procedures, Cases and Treatments</u>				
	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Surgical cases	3,166	2,844	2,897	4,435	3,714
Radiology exams	20,861	17,638	22,916	20,712	22,390
Physical Therapy	12,664	15,354	20,590	23,574	25,004
Occup. Therapy	6,202	6,068	5,978	4,167	4,552
EEG/EMG/EKG	2,985	3,255	4,939	4,699	5,487
Laboratory Tests	158,497	161,881	219,507	214,386	259,663

Source: departmental reports, November 1981

As the counts of selected indicator procedures illustrated in Table II are reviewed, it is impossible to recommend any expansion of these existing services. However, as noted later, some other ancilliary departments are in need of expansion. In one case, for example, although shown on the organization chart, speech and audiology services have not been subsumed within hospital staffing and there is a requisite to do so (see Plan Elements 2 and 3).

Surgery cases appear to be at acceptable levels for the facilities provided. Utilization studies conducted by the hospital reveal problems in classification of cases which creates maldistributions of case loads in surgery. There is reason to believe, however, that a decreased caseload may occur if "surgicenters" (ambulatory surgical facilities) become more broadly operational in other facilities on Guam. The prospect of greater ambulatory surgical procedures argue against any expansion of current in-patient capacity.

Radiology case load has levelled off. The proportion of in-patient to out-patient radiological procedures is 50 - 50, and this ratio would be expected to continue, whether or not the out-patient department moves to other auspices, inasmuch as the hospital will continue to be the island's principal provider of radiographic services.

Occupational therapy services have long been dominated by the requirements of the mental health patients. If other recommendations in this plan are adopted (i.e., the movement of mental health responsibilities to another entity), the present case load may drop somewhat, but will probably be offset by increased utilization of therapy services in the SNF, ICF and by stroke patients.

Physical therapy services at this hospital were long the only service available on Guam. Recent changes have reduced certain service requirements since they are provided elsewhere on the island, but evidently an awareness on the part of health professionals of the value of physical therapy has taken up the slack. Equipment, not expansion, in this service is the apparent need. There is no evidence to suggest that the existing percentage among case types will change substantially in the future.

EEG/EKG/EMG department presents insufficient data, and the fact that EMG's have been done only since 1978, and EKG data is only from 1978 (previously done by the laboratory without separate statistics), makes evaluation impossible.

Table III

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Admissions	9,143	8,757	7,983	9,596	9,623
Occupancy	76.11%	70.59%	63.63%	72.23%	77.77%
ALOS	4.78	4.42	4.73	4.32	5.33
Discharges	9,064	8,613	8,024	9,619	8,610

Note: Validity of this table is suspect

Source: "Acute Care Hospital Indicators"

Although the data obtained for Table III is questionable, it is sufficiently within the ballpark to be somewhat useful when used in conjunction with the fiscal year 1980-81 statistical document.

For the most part, every indicator examined above points to a hospital which is operating at near optimal volume, but with room to improve. The average occupancy rate of 72.5% argues against substantial short-run expansion of either services or beds, and supports the contention that bed additions for acute medical care should be made only to keep pace with an expanding population and not to increase the bed-to-population ratio which presently exists. The average length of stay appears to have stabilized at between 5.3 and 5.6 days, and this compares quite favorably with other hospitals of similar size in similar sole-source provider settings. It suggests that patients are receiving needed services in a timely manner and that delays in service provision (especially in the ancillary areas) are not occasioning inordinately long hospital stays.

Total patient days per 1,000 service population have now been reduced to approximately 480 patient days/1,000/year. This compares extremely well with a similar Pacific population's experience in Hawaii where the average hospital day consumption has been reduced to about 350 days/1,000, and to emerging U.S. mainland trends. This indicates near optimal utilization of the hospital at this time, and a utilization rate which could even be further reduced to the neighborhood of 350 days/1,000 per year. This substantiates the previous conclusion that no new hospital beds are needed in Guam.

Another method of viewing current operations is to examine occupancy rates. These are presented in Table IV for the most recent year available.

Table IV

<u>Service</u>	<u>Occupancy Rate</u>
Medical/Surgical	72.5%
Pediatrics	56.0%
Obstetrics/Gynecology	66.5%
ICU/CCU	36.0%
NICU	21.5%
Psychiatric	90.0%
Skilled Nursing	86.0%
Intermediate Care	99.0%

Table IV clearly indicates, at least for the fiscal period 1980-81, that acute medical surgical beds are being utilized at a level somewhat below the more optimal 85% occupancy. Pediatrics, on the other hand, is clearly sub-optimal suggestive (as noted also above) of both over-bedding and over-staffing on this service. OB/GYN likewise suggests a slight surplus of resources, and the capacity to handle substantially increased case loads.

The intensive care services have operated at a near optimal level, for approximately a 70% occupancy will continue to assure the availability of an intensive care bed for the always unexpected emergency case. If added step down beds were to be created, then a high occupancy rate could be sought. Furthermore, the recent average length of stay on this service is 18 days, which is much too high by any standard were a lowered length of stay achieved, then the current 9 bed unit would be difficult to justify.

The same argument could be made for the Neonatal Intensive Care Unit, but in this case, the case load available to the hospital is clearly insufficient to justify the present operation. A case against a specialized neonatal intensive care unit has been made in Plan Element 5, and the low operating experience which these figures illustrate further supports that contention. It quite simply represents a total luxury

and an unwarranted expense, but no recommendation is being made to discontinue this service, since there is no other kindred service in the area.

Quite a different picture emerges when skilled nursing and intermediate care are examined, however. While the 1980-81 figures illustrate a near optimal occupancy for skilled nursing, prior years have shown even more exaggerated rates, and given the fact that there usually exists a waiting list for admission to the SNF, a case can clearly be made to support the recommended addition of skilled nursing beds. In the ICF case, there is substantial evidence that the existing resources are entirely too limited and that added beds are absolutely required. Finally, the alarmingly high occupancy rate portrayed for in-patient psychiatric service clearly helps support the contention that added beds are required for this service as well.

As discussed in greater detail in Plan Element 3, the hospital staffing has also apparently achieved a near-optimal level for present utilization, with a ratio of 796 non-physician employees per 100,000 service population. This compares favorably with selected hospitals of similar size which range from a low of 468 to a high of 1,023 employees per 100,000 service population. The average, however, is 844/100,000 -- very nearly Guam Memorial Hospital's actual staffing level.

Current utilization and performance data, as discussed above, do not build a case for expansion of current services and programs, and supports the major thrust of recommendations which follow, i.e., that the current status quo should be maintained, for it is adequately serving the in-patient medical needs of Guam's population.

It should be emphasized at this juncture that the foregoing analyses are only the beginning. Continuing appraisals of all services and programs, based upon improved and reliable performance data will need to be achieved on a regular basis as

recommended elsewhere in this plan. The continuous monitoring of programs and services in terms of their actual and proven performance will constitute one important way of conserving the scarce resource of this hospital and of assuring that the in-patient needs of Guam's population are appropriately met.

absorb considerable increases in service populations. With but a few exceptions, there are none of the present services which are unnecessary, nor are there any profound examples of new services and programs which are presently necessary. Thus, with the addition of some new technology, some rearrangement of administrative relationships, some staff augmentations, the addition of some new equipment and systems and some structural augmentations, the hospital stands ready to meet its mission of high quality patient care for all in Guam who need it. "Radical surgery" is necessary only in three instances, and only two of these represent cost factors of concern to the hospital. A fair additional degree of minor, and some cosmetic surgery at selected places will serve to create a more satisfying and comprehensive set of institutional services and programs which will serve Guam's citizens well for many years to come. While the recommendation of relatively few changes over present operation may come as a disappointment to some, for many it should provide a welcome relief to anxieties that somehow a wide array of additions to services would be required in the near future. This is simply not the case.

A. Preparing to Meet a Larger Service Population

One of the preoccupations of earlier studies has been with the regional referral and medical service role which Guam (geographically) appears fit to play. The argument centers around a surrounding Pacific Island set of populations numbering nearly 100,000 in their aggregate number. Each (such as the Commonwealth of the Northern Marianas, the Republic of Belau, and the Federated States of Micronesia) has minimal medical and hospital services for its own population which are being substantially up-graded in some cases. But none have sufficient population masses, now or in the foreseeable future, to support what might be seen as a full-service independent medical system. Guam does now have a sufficient population base to support a nearly complete modern medical system. The argument lengthens with the question: "Shouldn't Guam equip itself to serve the secondary and tertiary medical needs (mainly in-patient) which her surrounding neighbors will never be able to meet?" The

answer is simple and straight-forward, and it is "Yes!" However, the question remains as to when.

This issue is discussed in greater detail in Plan Element 6. It is clear that it will require a great number of years before surrounding governments fully develop, complete the development of their respective interior health systems, and come to appraise their needs and willingness for dependency upon external resources such as Guam might eventually offer. From the singular perspective of Guam, her citizens (through the available resources, programs and services of Guam Memorial Hospital) presently are sufficiently well endowed with medical resources and services. Furthermore, the position of fiscal stringency in which this hospital is presently placed, and the likelihood that it will require from 5-7 years to achieve any kind of level of hospital operating and capital self-sufficiency, makes excursion into broadened services and technology out of the question until at least the end of the present decade. The post-1990 era will be that during which true intergovernmental dependency compacts, and a commensurate expansion of Guam's acute care services, will be negotiable and appropriate, and until that time effort and attention must concentrate on the consolidation of Guam's existing resources and upon their perfection and maintenance.

B. Technologic Adequacy and Needed Improvement

At the minimum, it can be said that since there are no substantial projections for new services in the hospital, existing technology is adequate except for periodic replacement as required. To move somewhat further, however, the following new technologies would be highly desirable, and in their aggregate would not place a substantial financial burden on the hospital.

1. Cardiac monitoring capability to be installed in the emergency room as a replacement and upgrading for present equipment as a means to further improving patient care at the point of first emergency contact. This equipment,

because of its critical nature, should be acquired and made operational no later than 1983. The approximate cost would be \$15,000.

2. Acquire and install four IVAC I-V pumps in the Central Supply Department in order to assure an orderly and continuous preparation of intravenous infusions, by the end of 1982 at an estimated cost of \$2,500.
3. Acquire and install necessary equipment to totally automate laboratory chemistry capabilities. This is essential to improve the accuracy of laboratory testing and to make chemistry and hematology testing cost-efficient, especially in view of the probable slow expansion of in-patient laboratory demands. Existing automated equipment in the Hematology Section is in need of replacement. While it would be desirable that this updating be completed at the earliest possible date, a reasonable target date would be 1984 for complete installation. The probable estimated cost to complete full automation would be \$200,000.
4. Acquire necessary processing and storage equipment, establish an on-going blood donor procurement program, and expand blood banking service to include blood components as well as stocked whole blood and blood derivatives. This could be achieved through the implementation of several alternatives. First, steps could be taken with the collaboration and cooperation of civic clubs toward the creation of an independent, non-profit blood bank organization similar to the Blood Bank of Hawaii. This would remove the hospital from direct operating responsibility, but would ensure the local availability of this presently missing resource. The second option would be to prevail upon the Guam chapter of the American Red Cross to establish an aggressive blood collection and processing program, perhaps through a collaborative relationship whereunder hospital space would be used for the installation and operation of Red Cross provided and operated equipment. The third option would be the direct

would be the direct expansion of laboratory capability within the hospital and the establishment of a blood procurement and processing program directly under hospital auspices.

The foregoing responsibilities are, of course, divisible. A separate blood collection and donor recruitment effort could be mounted either through an independent, non-profit entity created especially for that purpose, through the Red Cross or directly by hospital employees. Processing and storage could be separated from collection activities, and become a direct expanded function of the hospital. In any of the foregoing options, the first step would be the establishment of an aggressive and well-planned donor recruitment and blood collection program. This would entail arrangement for mobile blood collection activities, where cooperating industries, schools, universities, and government agencies would permit the temporary location of blood collecting equipment cots, registration areas, and the like and would assist in publicizing the need for employees, staff, students, etc., to participate by volunteering blood. A donor registry would be required wherein the names, addresses, ages, blood type, and related data pertinent to each successful donor would be maintained. This would be best established on a small computer dedicated to this purpose, of the Apple II, TRS, IBM Personal, Osborne or similar computer which could be easily and locally programmed and operated to provide the necessary clerical support to the donor program. Donor recruitment and blood collection programs require at least one staff member to serve as coordinator, and this could be a current employee reassigned to this mission, or a new hire. The laboratory is presently staffed to provide the processing services, but additional equipment would, of course, be required. The estimated cost of the blood collection program (exclusive of expanded processing capabilities) would include not more

than \$5,000 for the computer support, and approximately \$21,000 annually for the salary of the coordinator.

Any of these moves will assure a more complete and often necessary armatarium of therapeutic back-up for the critically ill and for surgical patients, with an expected decrease in hospital mortality. While always immediately desirable, this rather elaborate development would not be appropriate for completion until 1986. The estimated cost is in the range of \$400,000 for complete basic blood processing and collection capability. An immediate start could begin in 1983 on the development of an aggressive donor program, and consultation beginning that year should be sought from other successful blood banks (such as the Blood Bank of Hawaii) with respect to publicity, donor procedures, equipment and processing needs.

5. In order to provide for the complete range of therapeutic modalities in physical therapy, biofeedback equipment and transcutaneous electrical stimulation equipment should be provided. There is an estimated need for ten TENS units, based on 1 unit per 100 patients, at an estimated unit cost of \$700. One biofeedback equipment at an estimated cost of \$1,500 would be sufficient. An appropriate target for these acquisitions would be during 1983 at an estimated total cost not to exceed \$8,500.

In view of the imperative that stroke patients begin appropriate physical and occupational therapy upon admission to the acute care service, and the current deficits in employing registered therapists, efforts would be made (over time) to replace all non-registered technicians with fully registered therapists. This will entail an annual salary expense of approximately \$24,000 per therapist per year and will bring rehabilitation services up to an appropriate level.

- a. As reflected in Plan Element 3, it is recommended that the hospital employ a full-time audiologist and speech pathologist to staff the present part-time speech and audiology services. This will, in turn, require the identification of an office suite in which testing and treatment rooms are separately available for audiology and speech pathology, adjacent to which would be two separate offices for the therapists. Speech pathology will require the acquisition of a portable cassette tape recorder and a supply of tapes, at an estimated cost of \$75.00. Additionally, a complete battery of speech testing materials, including the Porch Index of Communications Abilities and other standard testing materials will be required, at an estimated cost not to exceed \$300.00. While Audiology equipment appears minimally satisfactory for present staffing, substantial improvements would be necessary to support an audiologist/ENT physician team. The optimal equipment would include one audio sound booth (\$10,000), a dual-channel audiometer (\$1,200), an impedance audiometer (\$6,000), an examination table (\$1,300), an instrument cabinet (\$1,450), an OPMI microscope (\$10,150) and an ENT fluoroscope (\$5,000). Thus, for a net expenditure of approximately \$35,000, a first-rate audiometry service could be attained which would support not only a qualified audiologist and a physician specialized in ENT. To fully implement these services, in addition to the costs of locating and modestly refurbishing new space, preferably in the new hospital structure at locations convenient to ambulant patients, and acquiring the needed equipment, there will be the additional annual combined cost of approximately \$35,000 for the salaries of the full-time therapists.

C. Recommended New Equipment and Systems

1. Replace at least 90% of existing in-patient beds by acquiring and installing new, modern full-capacity electrically operated beds. Substantial economies can accrue if large numbers of beds are ordered (i.e., 130 for acute patients at \$1,400/bed vs. \$1,800-2,000/bed in small unit quantities, and 60 new beds with fewer adjustment options for long-term patients at \$900-1,100/bed vs. \$1,300-1,500 in small unit quantities). Bed replacements should be achieved by the end of 1986 at an estimated total cost of approximately \$260,000. They may be easily justified on the basis of their contribution to improved patient care and welfare.
2. At least four additional wheelchairs should be obtained and stationed in the emergency room to facilitate the movement of disabled patients into the emergency facility and from it to patient floors and to increase the safety of patient care. This should be an immediate acquisition, at an estimated cost of not greater than \$800.
3. Surgical equipment for the emergency room should be expanded by obtaining electronic thermometers (both oral and rectal) and a proctosigmoidoscope immediately, at an estimated aggregate cost of approximately \$2,000.
4. A patient call system, of an intercommunication type, should be installed in the emergency room/out-patient area to facilitate the summoning of patients from the waiting area. This is a minor addition, with an estimated cost of no greater than \$300 and it should be done as early as possible.
5. Similarly, an intercommunication system which links operating sections of the laboratory and the laboratory director together and with major patient floors is essential to facilitate laboratory response to patient needs of an emergent nature. This installation should be completed by the end of 1983, and the total cost should not exceed \$3,000.

6. Standardized (common model and manufacturer) dictating and transcribing equipment, at least six units, should be acquired and installed in the medical records department. Owing to the critical nature of maintaining up-to-date medical records and to the inefficient use of multiple types of equipment and the commensurate wastage of personnel time, it would be desirable that this acquisition be completed during 1983. The estimated cost would be \$3,000.
7. A multi-station computer, with terminals and access in medical records and in the business office will be required in order to automate and facilitate the processing of medical records, medical and service statistics and business statistics for the hospital. The present reliance upon manual processing methods, and dependency upon external computational resources, results in costly delays, some statistical inaccuracies, and considerable added personnel expense which could be reduced through automation. Realistically, this installation complete with supportive file systems and operating soft-ware should be completed no later than 1984. The estimated complete installed cost would be approximately \$100,000 for hard- and soft-ware and operating systems.
8. Improved and added kitchen equipment is sorely needed, and these items are detailed and justified, together with cost estimates, in Plan Element 4.
9. The available gas sterilizer should be installed and made operable in order to facilitate necessary sterilization procedures and to reduce reliance on external resources at the NRMHC. This should be achieved during 1982 at an estimated cost of no greater than \$2,500.

D. Summary of Recommended New Facilities

While Plan Element 4 contains full detail with respect to future facility improvements, four major facility changes are summarized here for sake of completeness of this section.

1. Design and establish a 4-bed "step down" unit for the CCU.
2. Design and construct a 117-bed long-term SNF and ICF unit within the structure of the main hospital.
3. Design and construct a 25-bed in-patient psychiatric unit, with additional space for mental health and public health out-patient clinic services, as a separate facility on or adjacent to the grounds of the main hospital.
4. Improve the hemodialysis unit structurally and relocate it within the main hospital structure.

E. Summary of Administrative Changes Recommended

While some of the following are dealt with in greater detail in Plan Element 1, the major administrative changes which flow from the analysis of programs and services are entered here for the sake of continuity.

1. Reorganize the nursing service department to permit improved coordination between units and to facilitate upward communication to highest decision levels.
2. Establish an operating I-V team to include a pharmacist and an RN or LPN under the direction of the pharmacy to do all intravenous work for in-patients for purposes of better control of equipment and procedure.
3. Establish an interdisciplinary stroke rehabilitation team.
4. Shift the housekeeping department to a new patient service division, and subsume linen and laundry under the supervision of housekeeping.
5. Establish closer working relations between the hospital's social service department and the Division of Public Health and Catholic Social Services in order to improve home care referral and follow-up.
6. Replace the present "slow code" for designating pre-ordered life-support services with the more conventional

"Code 500" which classifies patients in the following ICU statuses:

"Category Red: Full Support"

"Category White: All But CPR"

"Category Blue: No Extraordinary Measures"

7. Within nursing services, adopt creative staffing programs to assure quality staffing and full staff complement for patient care and to improve nursing staff morale. Because of the often transient nature of many nurses, newer staffing patterns are recommended, including the following options:
 - Option 1: Flex-time staffing which allows personnel to begin their shift at different times of the day and to work 4-6 or 8-hour shifts. Within this option is "share shifts" under which two nurses work 4 hours each to complete a single 8-hour shift, or one nurse works a 6-hour shift crossing over meal time and shift report time, or one nurse works 4 days (regular shift) and a second works 3 days (regular shift).
 - Option 2: Adopt the "Ten-Hour Day" plan or the equally novel "7-70" system where under shift nurses work 7 straight days followed by a 70-hour respite.
 - Option 3: Develop new policy and procedure for employment of part-time and odd-hour nursing staff to attract non-working nurses in the community.
8. Develop policy and procedure for a quality control system in the linen/laundry department.
9. Develop, in consultation with the contract laundry, a linen control system based either on poundage or piece, but not both as at present.
10. Transfer patient unit makeup responsibilities to house-keeping from nursing service.

11. Develop and employ a volunteer program to assist admitting office staff with patient escort to units from admitting.
12. Move time for elective admissions to 2:00 p.m. as a regular schedule in order to spread out discharges and admissions for all departments.
13. Integrate credit clerk operations with the admitting department to improve eligibility and financial responsibility determination at the point of admission and to improve subsequent collections.

The foregoing administrative changes would be best administratively assigned to the appropriate responsible department for consideration, development and implementation.

F. Recommendations Regarding Transfer of Services

By way of summary, for they have been dealt with extensively in Plan Elements 1 and 4, the following are recommended transfers of current hospital services and programs:

1. Transfer responsibility for operation of out-patient services to Division of Public Health.
2. Transfer responsibility for administration of both in-patient and out-patient mental health and psychiatric services to another agency, either Division of Public Health or the Mental Health and Drug Abuse Agency.

G. Other Significant Recommended Changes

Two remaining areas of change have been dealt with in other Plan Elements, but are summarized here for the sake of completeness.

1. Establish and equip a hospital-wide staff development program to assume overall responsibility for an improved and expanded in-service training program for all personnel.
(See Plan Element 1)

2. Acquire critically necessary new personnel in several presently non-existent categories, and expand nursing service staffing to accommodate expanded bed care services. (See Plan Element 3)

IN-PATIENT ACUTE SERVICE (FUTURE)

The preceding section has dealt with an overview of current in-patient and other services and programs of the hospital. In order to establish a future plan for the expansion of in-patient services, there is summarized below the minimal essential new and expanded in-patient services. Each has been completely detailed in other Plan Elements, and they are summarized here for the sake of completeness.

1. Establish in the main hospital building a 117-bed long-term (SNF/ICF) facility. This, which is detailed in Plan Element 4, constitutes a major increase in the physical quality of long-term care and adds 45 new long-term beds in recognition of the present need to attain a ratio of at least 15 long-term bed/1,000 persons over age 65.
2. Establish a 4-bed "step down" unit for the coronary care unit in order to provide for continued but less intensive observation and monitoring for patients whose needs have substantially improved but who still require close supervision. This is included in Plan Element 4.
3. Establish a free-standing mental health and psychiatric unit comprising 25 in-patient psychiatric beds and adjacent mental health/public health out-patient clinics. Details for this development are contained in Plan Element 4 and justification in Plan Element 1.
4. Phase out out-patient service responsibilities through their transfer to another agency of government, as detailed in Plan Element 1.

Other than the above, the few reasonable and recommended improvements in equipment and technologic capabilities which will augment current services, no further expansion or development of new services is foreseen

as necessary or is recommended for the next 10 years. Near the close of the current decade, there will be need for an expansion of acute care beds, by about 50 additional beds, and projections for this service expansion (which falls beyond the scope of this current plan) are contained in summary in Plan Element 4.

OUT-PATIENT SERVICES

Guam Memorial Hospital presently operates three forms of out-patient service, comprising the organized out-patient department, the closely associate emergency room, and the Community Mental Health Center which provides psychiatric and related out-patient services. It is the purpose of this plan section to contrast the current provision of out-patient services with several alternative futures.

A. Organized Out-patient Department

This time-honored hospital function is a conspicuous sector of the hospital's present business, providing ambulatory medical service to more than 50,000 patients during 1981. It is generally believed that the out-patient department essentially serves the indigent, the poor and other public entitlement recipients. Service and billing statistics substantially disprove that contention, however, and the majority of the average monthly 4,200 out-patient clients represent persons who are "paying" patients, that is enrolled in one or another of the available insurance programs, either on Guam or elsewhere. Thus, the out-patient department has become yet another source of primary ambulatory medical care for large numbers of Guam's citizens. There is concern within the hospital that given an expanded private medical practice community, and given related internal financial problems of the hospital, it may neither be necessary nor in the best interests of the hospital to continue this general medical service for the general community. The phenomenon most reflected in current out-patient utilization patterns is that of private physician patients feeling the need to seek care during hours when physician's offices are customarily closed, but when medical assistance can be obtained at the out-patient department (or the emergency room, as

disclosed in the discussion below). Comprising as it does a major function of the hospital, the out-patient department of course drains off substantial portions of the available physician time represented by the relatively small salaried medical staff. As such, it represents a relatively low cost alternative to the use of community physicians (especially in off hours) and may actually be a referral center for some private physicians and particularly prepaid health plans who find it financial beneficial to pay (when bills are rendered) the lower service costs associated with out-patient services at the hospital. There are three basic scenarios with respect to the future of organized out-patient services.

ALTERNATIVE I

The first option would be that of maintaining, and perhaps even expanding through outreach to other sites in Guam, the out-patient service of the hospital. This is attractive as an option owing to the already (although quite limited) out-patient space in the hospital, and the established service-seeking patterns of many members of the community. An expansion to longer hours of service, especially in the evenings and on weekends would serve to further foster the attraction of the government-subsidized out-patient services as an alternative to more costly private physician services. It is unattractive in the sense that the hospital would be competing directly with private medical practice for ambulatory primary medical care patients.

Owing principally to the current high costs of providing medical services to the poor (under Medicaid) and to the indigent (largely through the hospital with presumed payment therefor the responsibility of the Division of Social Services), to recent relaxations in Federal policies governing Medicaid programs, and to the general disinterest in the private sector medical community in serving the poor at financial losses to the medical providers, there exists a climate conducive to considering the consolidation of all primary medical care for the needy and the indigent in a single providing entity. Restricted choice for Medicaid beneficiaries is now approvable, and sole-source providers can now be identified for many Medicaid services.

Thus, given both the apparent popularity of the existing out-patient service and the potential for capturing completely the Medicaid and indigent populations as their sole source of primary ambulatory medical care, it could be argued that a substantial opportunity exists for the hospital to expand and solidify this service area. However, to do so would probably require substantial outreach services, including the establishment of hospital administered and staffed clinics at various locations around the Island, in order to meet patient access criteria. This would not be difficult, for two appropriate locales now exist (in addition to the present out-patient department within the hospital), namely in available space in the Southern Area Health Center at Inarajan and at the Public Health Center in Mangilao. The soon-to-be-constructed Northern Area Health Center in Dededo would comprise a fourth appropriate and ideal location to complete an expanded network of primary medical care clinics of an out-patient nature. Out-patient surgery, which accounts for more than 700 patients each year, could continue to be provided on a referral basis at the central hospital surgical facility. Thus, under the sole sponsorship of the hospital there could be achieved a decentralized network of ambulatory medical care service centers, adapted especially to the needs of the poor and other entitled to government-sponsored medical care, but also with sufficient capacity to serve "paying" customers should they wish to avail themselves of the network of facilities.

To do so would require the employment of additional general and family practice physicians, linked most likely with a cadre of nurse practitioners and staff nurses, and the extension of current laboratory and pharmacy services to serve the extended network of ambulatory care centers.

This kind of out-patient operation would create substantial additional loadings on the business office and billing operations of the hospital, for whether patients were "paying," Medicaid or indigent, eligibility would need to be established prior to service and appropriate entities of government or insurance companies would have to be billed. The hospital is, however, with modest expansion, fully capable of undertaking these added responsibilities.

ALTERNATIVE 2

The recommended option would be the total abandonment of out-patient services by the hospital. To date, out-patient services have not proven to be a paying operation for the hospital, and substantial annual operating losses can be attributed to largely uncollected (and uncollectible) billings for out-patient services. Furthermore, the hospital is in somewhat of a space "crunch," and other services could usefully intrude into the existing out-patient area. With needs to relocate skilled nursing and intermediate care patients within the newer facility, a potentially expanded emergency department, and other pressing uses for limited available space make attractive any alternatives which would free-up space for other purposes.

In this connection, the posture could be taken that, in an area of flourishing private medical practice and abundant opportunities for enrollment in health maintenance organizations, the hospital has no continuing rationale to compete with private medical practice in the provision of out-patient services. This leaves the question of ambulatory services for two important groups: the poor and the indigent. It could be argued that under conditions of ample private medical practice, many hospitals have indeed closed their traditional out-patient services in favor of diverting that clientele to the private medical practice sector. But on the other hand, there is evidence, given the relatively low reimbursement formulae employed in the Medicaid program, the uncertainty of payment via the Division of Social Services for the indigent (at least until firm and useful eligibility criteria have been established), and the delays in receiving Medicaid reimbursement by private practitioners that little or no enthusiasm exists in the private sector to serve such patients. Does it necessarily follow that the hospital, per se, has any direct responsibility for these groups? If the preferred future sponsorship option is to be pursued, then the answer is generally "no," for the hospital's future obligations with respect to free care would then devolve principally around free or reduced-cost in-patient service.

As pointed out above, the government (regardless of future hospital sponsorship) does retain certain responsibility for medical care of the indigent and destitute, and under revisions in Medicaid regulations can focus and localize the provision of medical services for that beneficiary population. Thus, the issue arises as to just what vehicle makes most sense for the government to employ in providing direct medical care for these two population groups. If the hospital is not to do it, then who would be the most appropriate responsible party. To a large degree, the answer is self-evident.

The Department of Public Health and Social Services, and particularly the Division of Public Health thereof, is the present loci of a large sector of government's direct provision of medical services, at least on an ambulatory basis. It is also the unit of general government with responsibility for administration of both the Medicaid and the indigent medical care programs and their respective appropriations. As the unit of government which is already supplying, at organized out-patient locations throughout Guam, a present wealth of ambulatory medical care, and which supervises the payment mechanisms for the poor and indigent, it would seem eminently qualified to simply move further into the ambulatory care field by assuming total responsibility for the primary medical care (the out-patient service function) of the poor and indigent. This option has been presented and discussed in two prior reports, one dealing with an analysis of Guam's total health care system and the second dealing with the organization and management of the Division of Public Health.

Therefore, and given agreement and acceptability on the part of the Division of Public Health, this alternative to hospital-sponsored out-patient services would comprise a new network which might be termed "Family Health Centers" to which all out-patient medical services of a primary nature which are government sponsored would be transferred. Each such center would ideally be staffed by one physician who should be a family practice specialist. As leader of the clinical team, the physician would be supported by two Nurse Practitioners, representing either

A map of the Marshall Islands, including the main islands and the line islands to the west. The map is labeled with 'PACIFIC OCEAN' in several locations. Key locations marked include YIGO, Dededo, Tamus, Agaña, Aian, Agaña Heights, OTH, OTH, OTH, CHALAN YIGO, ORDOT, MANGILAD, Piti, APRA, NARSOR, Santa Rita, Agat, Takafo, Lusak, Merico, and Inarajan. A legend indicates that solid black dots represent 'Proposed Family Health Centers' and that the population growth for 1970-80 is categorized by arrow thickness: thin arrows for < 1.0%, medium arrows for 1.0-7.49%, and thick arrows for ≥ 7.5%. The map shows a high concentration of thick arrows pointing towards the central and eastern parts of the islands, indicating rapid population growth in those areas.

pediatric, obstetric or geriatric nurse practice as the local service population's needs and characteristics might dictate. Two Registered Nurses would complete the clinical team at each center, together with a clerical person for registration and record keeping. In addition to the proposed four principal teams, a fifth team identically staffed would "float" between the two busiest clinic locations (Mangilao and Tamuning).

The Family Health Centers would ideally be located as illustrated in the following map, wherein areas of greatest recent and probable future population growth are also highlighted. Thus, use would be made of the existing central (Mangilao) and the Southern Area (Inarajan) health centers, the soon-to-be-constructed Northern Area (Dededo) health center, and either the existing out-patient service area of the hospital or preferably a new clinic building which would house not only ambulatory medical clinics, but also the psychiatric services (as proposed under Plan Element 4). Additional laboratory technician would be needed at the southern and northern area health centers to support the clinical team, but laboratory services at Mangilao and Tamuning could be accommodated in current facilities. At the outset, radiology should be concentrated at the hospital and such services purchased on a vendor basis by the Division of Public Health as needed. As demand and future usage may dictate, minimal radiographic equipment could be added to each of the outlying Family Health Centers. One pharmacist could adequately service the drug stocking and dispensing needs of all four centers.

A generous estimate of salary and supply costs for this option suggests a total annual expense of approximately \$800,000. With each of the five clinical teams providing services 5 1/2 days each week, and assuming an average of 40 patient visits per day for each team, then an annual out-patient service load of about 57,000 visits can be forecast. This would yield an average all-inclusive per-visit cost of approximately \$14.00, substantially less than that currently incurred either in the hospital's out-patient service or through vendor payment mechanisms among the private medical community. Given this estimated service volume,

and the additional estimate that the poor, needy and indigent would consume or require only about 45,000 primary care patient visits per year (4 visits per person for a base of approximately 10,500 eligible persons), then substantial slack capacity would exist, and the Family Health Centers could extend their service to private patients and recover actual costs through billing FHP, GMHP, and other insurance carriers or by billing patients directly.

The service provided would include personal health services such as health promotion, maintenance, disease prevention, predictive and diagnostic, out-patient treatment including simple ambulatory surgery, examinations and therapy, emergency services of a first-order nature, limited formulary pharmaceuticals, rehabilitation and basic clinical laboratory. Medical procedures would be provided in the areas of general medicine, pediatrics, obstetrics, minor surgery, counseling and mental health crisis intervention, therapy and referral. All in-patient services would be referred to and purchased from Guam Memorial Hospital, and necessary medical specialty services would be referred to and purchased from private sector physicians.

A major value of this option would be the centralization of patient management responsibility in one or another of the centers, which would become for the poor and indigent at least their primary portal of entry into the broader health care system. Thus, strict controls could be exercised over the total medical experience of each patient through centralized case management. Furthermore, central as opposed to the presently widely dispersed patient medical records could become a reality, thus contributing to improved quality of case management.

ALTERNATIVE 3

A wide number of possible reconfigurations of the foregoing polar options are, of course, possible and in their aggregate these constitute the remaining options. The most feasible would include the following:

1. Division of Public Health assume responsibility for operating three decentralized Family Health Centers and contract with the hospital under whose aegis the fourth (Tamuning) center would be operated in the present out-patient department.
2. Hospital assume complete responsibility for out-patient services for the poor and indigent, directly operate the present out-patient department as one clinic, and contract with the Division of Public Health for the operation of the remaining three decentralized clinics.
3. Establish an entirely new division within the Department of Public Health and Social Services to undertake the provision of out-patient primary medical services for the poor and indigent and transfer all existing responsibility to such new agency of government.
4. Contract with an existing prepaid health plan, such as FHP or GMHP, or create a new prepaid health plan especially to provide services to the poor and indigent, and transfer all out-patient responsibilities therefore to such an entity.

The disadvantages of the foregoing somewhat fractionated approaches are obvious. When sponsorship and operation, as in sub-options 1 and 2 above, are divided over separate organizational units, it is easy for the patient to fall between the cracks. Too much of this exists at present. Sub-option 3 would be unwelcome at higher governmental levels, for the prevailing philosophy is to shrink rather than expand the governmental organization. Sub-option 4 would likely prove much more costly than either Alternative 1 or 2, and thus would put an even greater financial burdeon on an already overstressed system.

B. Mental Health Services

The Guam Community Mental Health Center was established some 8 years ago as an extension of the Guam Memorial Hospital, initially to handle the in-patient caseload, and subsequently

to develop community-based and out-patient services for the identified emotionally disturbed. After eight years of Federal operations grants funding, the Center was nearly discontinued for lack of continuation funds, until a special Federal Distress Grant was approved for an additional year of operation. However, the next year will be particularly trying for the Center as it seeks to develop alternative sources of funding or face the prospect of shutdown altogether. Administratively, the Guam Community Mental Health Center is under the supervision of Guam Memorial Hospital, a relationship which has proved to be uncomfortable for both parties, one finding it a financial burden, while the other feeling that no real support is extended to the Center. With the creation of the Single State Agency on Mental Health and Substance Abuse an appropriate vehicle has been created in which to review this relationship and suggest alternative arrangements. Like any Federally-funded mental health center, Guam is required to provide a full range of mental health services including: in-patient care, out-patient care, consultation and education, after-care and follow-up services, and community outreach. In addition to in-patient care, the current emphasis include counseling services in several public schools, providing teaching sites for the University of Guam, training for employees of the Department of Vocational Rehabilitation, and community outreach and services from satellite clinics. All in-patient, out-patient and after-care psychiatric services are provided at the old hospital location. The mental health center has about 25% of the national average client-load, and thus is not a large operation by any standard.

ALTERNATIVE 1

All existing mental health services could, as a first resort, be completely maintained as a functional responsibility of the hospital. Under conditions of diminishing Federal funding for out-patient and community mental health services, the relatively low average client load of the existing community-based aservices in Guam, under the best of conditions the maintenance (not to mention

the extension) of these services would provide a substantial added financial burden to the hospital, for they are generally not heavy revenue producers, since it is customary for mental health services to be largely state supported. One of the traditional responsibilities of government has been the care and treatment of the mentally ill. Guam lacks the customary special mental hospital, and has simply incorporated this general responsibility of government into hospital operations. While it is true that limited psychiatric benefits are available to the insured population under their various programs, for the large part the great abundance of both in- and out-patient mental health services comprise essentially free-of-charge, governmentally subsidized services. Maintaining this responsibility within the hospital's management simply requires the hospital to seek additional direct legislative appropriations to defray the costs of such services when they exceed available Federal matching dollars. Should the hospital move to the more independent sponsorship recommended, then it would be an inappropriate responsibility for the hospital to maintain, for no other independent community hospital elsewhere assumes responsibilities of such major financial magnitude. Thus, hospital maintenance of either in- or out-patient psychiatric services except of the most acute, short-term basis may prove both inappropriate and costly, and a more proper responsibility of general government.

ALTERNATIVE 2

This, and succeeding alternatives, deal with the condition under which responsibility for the provision of in- and out-patient psychiatric and mental health services are divorced from direct hospital operation and management. This option would include the transfer of all mental health (and mental illness) responsibility to some other agency of government for operation and financing. There exists the Mental Health and Substance Abuse Agency which, although its functions are presently principally in the planning realm, could be expanded to include responsibility for direct operation and provision of all governmentally-sponsored mental health services. This model would leave the hospital with discretion to provide (or not provide) a limited acute short-term

in-patient psychiatric unit, and to fail to do so would not constitute a great break with tradition in many other short-term general acute hospitals elsewhere.

This option, given the current dilapidated state of the physical facilities for mental health, would require not only transfer of operating responsibility to some other agency, but also the construction of newer in- and out-patient psychiatric facilities, and this has been accommodated in Plan Element 4. Thus, no matter who may eventually be assigned mental health service responsibility, new facilities will be required, and in order to provide for any future sponsorship option, it is highly recommended that these be constructed not as an integral part of the acute hospital structure, but that they be completely physically separated. Staffing needs and treatment philosophies are so entirely different for the emotional as opposed to the somatic/surgical patient as to warrant their complete separation.

Should the new sponsoring agency not wish to actually staff and operate an in-patient mental health unit, it could then contract with the hospital on a negotiated fee basis whereunder the hospital would provide and supervise the professional staff for the in-patient unit which would then be located beyond the hospital's walls. There is space on the present hospital campus upon which a new mental health unit could be placed, and this would of course make more feasible the hospital's contractual operation of the in-patient facility. For out-patient services under this option, they would be best operated directly by the new sponsor and not by contract or otherwise by hospital staff, although some integration and coordination of the in- and out-patient therapeutic teams would be highly desirable.

ALTERNATIVE 3

Akin to the foregoing option, but now recognizing the localization of community health services in the existing Department of Public Health and Social Services, responsibility for administering both in- and out-patient mental health services could be transferred to that Department, either by placing such

responsibility within the existing Division of Public Health as a separate organizational unit, or by creating a separate Division of Mental Health within the Department. Similar to the schema developed above, should the new sponsoring agency desire it, the hospital could contract for the administration and staffing of in-patient services, leaving to the DPH&SS the operation of out-patient services.

In either of the foregoing options, the transfer would clearly place mental health services within a line agency of government, and would clearly identify a separate budget for the care of the mentally ill upon which the legislature would have to act. This would appear to be a far better strategy than imbedding broader governmental financial responsibilities for the emotionally disturbed within the operating budget of an acute care general hospital. Thus, either of the foregoing alternatives for the future administration of mental health services are RECOMMENDED as preferred alternatives to the present situation.

C. Emergency Services

The final arena of out-patient concern rests with emergency services which are presently the sole responsibility of the hospital. There is clear evidence, from recent year's operating statistics, that fully 80% of visits to the combined hospital emergency room/OPD are for non-emergent conditions. Thus, over time and usage, the emergency room has become largely a proxy for an organized out-patient service or for the office of a private physician during evenings and weekends when other resources (including the OPD) are closed. Additionally, the hospital's responsibility for emergency care begins only at the time of receipt of the patient, and organized emergency (ambulance) transport of the ill and injured presently is an operating responsibility of the Fire Operations Bureau of the Department of Public Safety. It is to these two aspects of emergency service (i.e., inappropriate utilization and emergency transport) that future policy alternatives need to be addressed. With respect to the operation of Guam's only

organized emergency department for civilian patients (recognizing that similar capacity exists at the Naval Regional Medical Center for military personnel), there can be no option or question but to assert the imperative that the hospital continue to maintain such services as a direct responsibility. Recommendations would include the upgrading of the present emergency room to a Class 1 emergency facility, thus further supporting the retention and improvement of hospital-based emergency services.

ALTERNATIVE 1

While it is doubtful that private sector capacity will exist for some time to come, with respect to direct operation of the hospital's emergency room one future option would be the contractual operation of the emergency facility by a private emergency medical group as is being done in increasing numbers of hospitals elsewhere. Under this arrangement, a private medical group practice, representing emergency medical specialists, simply undertakes the staffing and operation of the emergency room under a profit-sharing arrangement with the hospital, thus removing hospital administration from direct responsibility for emergency care. This arrangement, however, because of the profit-making motive associated with it, may even further exacerbate the inappropriate utilization of the emergency room owing to subtle forms of recruitment to so utilize which have, in other quarters, been provided by the physicians group as a means of stimulating "business." On the other hand, this arrangement would clearly place the emergency room on a purely "business" basis as such operations are elsewhere, and all patients would be expected to be "paying" patients under one sponsorship or another, or else all but the most life-saving procedures would not be rendered. This philosophy would tend, of course, to discourage inappropriate utilization of emergency facilities, for many insurance and prepaid health plans would refuse reimbursement for non-essential use of quite costly emergency facilities.

ALTERNATIVE 2

Should decisions ultimately be made to expand to a network existing out-patient services, and make them both geographically and temporarily more available and accessible to Guam's population, then much of the current usage of the emergency room could be expected to be reduced to true emergencies. Under this condition of other available resources, considerable tightening of requirements for use of emergency facilities could be instituted, with commensurate savings in staffing for the hospital owing to a predictably lower utilization rate. Newer requirements would desirably include pre-admission eligibility and financial determinations, as would be customarily done for any routine in-patient admission, and aggressive collection procedures. Patients presenting themselves to the emergency room staff without a clearly emergent problem could, by hospital policy, be refused service and be referred to appropriate out-patient services either in government or the private sector. Such tightening of admission criteria may be instrumental in forcing private sector physicians and groups to expand their availability to their patients through extended evening and weekend office hours.

ALTERNATIVE 3

Differing from current practice, the hospital could assume direct operation of the emergency ambulance system, thus combining all civilian emergency systems into a single sponsorship. To do so might, however, be inappropriate under any form of hospital sponsorship other than as a line agency of government, inasmuch as all of the emergency vehicles are presently government property. However, should the hospital emerge as a completely autonomous public corporation, it is presumed that title in existing government emergency vehicles could be transferred to such entity, with ultimate title remaining with the government as it does for the hospital's real estate and equipment at present.

The assumption of responsibility for operating the ambulance system as an adjunct to the hospital's emergency department would entail serious financial obligations, however. Twenty-four hour

staffing is required for an ambulance system, and a dedicated ambulance staff which the hospital would have to mount would entail serious diseconomies, for generally something skin to 90% of ambulance staff time is "down time" on a standby basis. Presently, specially trained firemen staff the ambulance needs and other public safety activities, providing a more economical basis for ambulance service. Furthermore, assumption of ambulance service by an independent hospital would require the hospital to support an independent maintenance crew for the mechanical and technical maintenance of the ambulance fleet. It would also require hospital construction or leasing of ambulance stations strategically located throughout the island, and the deployment of hospital staff (drivers and technicians) to such sites on a 24-hour basis.

In summary, while there are attractive features to tying all components of an emergency system into an integrated whole, it would appear to be unwise and uneconomical to do so. Recommended, therefore, is maintenance of present emergency operations, their enhancement to Class I emergency level, and restriction of inappropriate utilization.

LONG-TERM CARE SERVICE (FUTURE)

The present skilled nursing facility and intermediate care facility have been thoroughly examined and found to be sufficient in the quality and scope of patient care, but seriously lacking in both size and physical quality. Alternative developmental patterns would include the following:

ALTERNATIVE 1

Develop a free-standing long-term care facility, either under governmental or private auspices, to assume majority responsibility for all necessary long-term medical care of the chronically ill and aged. This would desirably take the form of the more customary non-hospital affiliated long-term care institution and could be developed and operated on either a non-profit (government or community) or for-profit (proprietary) basis. The major disadvantages related to this option are: (1) the cost of developing at some new location a free-standing long-term facility would exceed

that of adding long-term beds to the present major hospital, and neither private investors nor government under current lending interest rates would find it possible to recover the investment costs within any reasonable period of time without imposing excessive service charges which would have the result of depriving patients of needed services; and (2) this option would further require duplication of staff and would not result in the staffing efficiencies related to the inclusion of long-term care within the acute care facility. Not only would nursing service staff be replicated, but scarce pharmacy, physical and occupational therapy, speech and hearing and other rehabilitative staff would need to be maintained for the two separate institutions, one acute and the second long-term. This option, therefore, does not appear to be feasible or desirable for the immediate future.

ALTERNATIVE 2

Construct a modern and safe long-term facility within the existing hospital and integrate long-term care staffing with that of the acute care services. This is the RECOMMENDED option, and it has been fully detailed in Plan Element 4.

In addition to future in-patient long-term care facilities, some consideration needs to be paid to quasi- and non-institutional alternatives for the care of long-term patients for whom 24-hour custodial nursing care may not be required. Options in these realms include the following:

ALTERNATIVE 1

Establish partial day- and night-hospitalization services which provide skilled and intermediate nursing care for that sector of patients who can be cared for either in their homes or on another ambulatory basis during either the day or the night. This arrangement has the advantage of offering, usually for a 6-8 hour period each day, a range of medical and rehabilitative modalities in the hospital setting which can be supplied to patients during their brief daily stay. It is not uncommon that such partial-hospitalization services can

be provided on a per diem rate approximating 60% of the normal 24-hour rate, and thus substantial savings can accrue. Inasmuch as the facilities which would house such partial care programs would house such partial care programs would not need to achieve the construction standards of an acute hospital, it would be wasteful to allocate any portion of the acute care facility for this purpose. The best alternative would be the construction of separate, free-standing, facilities for this purpose. Given the present and projected future financial stringencies facing the hospital, additional investment in creating this type of supplemental service would not appear to be feasible for at least another decade.

ALTERNATIVE 2

Many frail and partially dependent elderly and other patients can be cared for in day care centers which are especially designed to provide both a modicum of medical social and recreational services, returning to their respective personal or family homes during evenings and weekends. This is a form of "respite" program, providing respite not for the long-term patient, but for his/her family, making it physically and psychologically possible for the family to maintain the patient in the family unit during part of the week, while relinquishing their care to a center for other portions of the week. The Division of Senior Citizens is currently planning the implementation of such programs throughout Guam, and it would be inappropriate for the hospital to become competitive with such endeavors at this time. It would be appropriate for the hospital to share professional staff expertise in both the development and future operation of such day care centers and to use its offices to stimulate and support such developments in the community.

ALTERNATIVE 3

While presently operative under the aegis of the Division of Public Health, aggressive and comprehensive home care programs offer substantial alternatives to prolonged 24-hour institutionalization of long-term care patients. It might, in the future, be appropriate for the hospital either to create and operate a complimentary home care program to that which DPH presently operates, or even to consider assuming total responsibility for home care as an adjunct to other hospital services. This would be especially appropriate should the sponsorship option of reverting the hospital to line agency status with assignment to the Department of Public Health and Social Services be adopted. On the other hand, home care nursing is substantially different in schedule, modality and philosophy to that which characterizes institutional acute care nursing, and home care programs have been most successful when operated under dedicated home care nursing and/or public health nursing staff leadership. Thus, it would appear most feasible to leave the home health program within public health, but perhaps assert needs to expand the capabilities and modalities presently available so that a broader audience can be served with a greater arsenal of treatment services. This would include aggressive physician education programs, coupled with a more active utilization review program especially at the hospital's intermediate care level, in order to bring pressures for the admission of patients to home care rather than their prolonged institutionalization. Significant economies for the government could accrue, for home care services cost approximately 35% of 24-hour long-term care services. Presently, home health services in Guam are not utilized to the maximum degree possible, and all efforts of the hospital to encourage their employment would be to the hospital's advantage.

POTENTIAL FUTURE PROGRAMS AND SERVICES

The foregoing sections have described and discussed those services and programs which presently exist in Guam Memorial Hospital. While it has been generally conceded that given the current financial condition of the hospital and the relative richness of the current array of services and programs that there exists little need or opportunity for the addition of more programs and services, this plan would remain incomplete without at least brief mention of potential new services which might be considered at some future time. Therefore, the following discussion, which is arranged in terms of descending order of complexity, embraces a more or less global array of programs and services which are to be found in the general acute hospital field in America.

1. Abortion service (outpatient). This is a service which provides pregnancy termination on an ambulatory basis which complies with local laws. Given the relative abundance of private physicians offices in which ambulatory abortion services are undoubtedly provided, the strongly Catholic religious environment of Guam, it is not likely that such service would be found either desirable or culturally feasible. The costs would be minimal, representing principally investment in aspiration devices which can be safely employed by existing medical staff members. Owing to questionable cultural acceptability and to the current Congressional debates on the topic, despite the minimal cost involved, it is not recommended that this service be implemented.
2. Family Planing service. This is a service which is based on an organized clinic offering family planning information and services, child-spacing assistance, and fertility testing. The implementation of such services would be feasible and could be accommodated by present medical and nursing staff at little or no additional expense to the hospital. However, the Division of Public Health already operates a well-designed and appropriately staffed family planning program throughout its clinical network which apparently meets the needs of Guam's citizens. Therefore, the addition of this service to the hospital's

offerings would simply represent a redundancy within a financially troubled health care system, and it is therefore not recommended.

3. Health screening for high-risk populations. This is a community program which offers screening for disease, and information services for patients who are worried regarding possible disease symptoms or needing to know sources of possible help. It often includes telephone dial access tapes for health information (Medline). Implementation of this service would require, at the very minimum, the addition of a trained telephone counsellor, the installation of a dedicated telephone line usually with at least three extensions, a bank of at least three tape playback machines, and substantial publicity through newspapers, radio, television and special printed materials. The net set-up cost, including personnel and materials, is estimated at approximately \$40,000, and the service would entail annual maintenance and operating costs in the neighborhood of \$30,000. The special health screening clinics could be accommodated within the present facilities and staffing of the hospital. However, the Division of Public Health already operates similar health screening programs, and the Division of Senior Citizens sponsors similar endeavors for the elderly population. Thus, the addition of screening clinics per se would represent a redundancy, but the addition of information services (telephonic and otherwise) would represent the accrual of a service not presently available in Guam. Given the relatively low cost, and the immense payoff in terms of improved public image which this service would bring to the hospital, some consideration to the addition of the information services described should be given, but no earlier than 1984.
4. Patient education services. This service usually comprises a specially trained staff unit which provides educational services for in-patients and out-patients with respect to understanding of their illness, their responsibility in assisting with the management of their illness, and assistance with behavior modification which is intended to be preventive or health maintaining.

Such services often, in addition, embrace the programming and operation of closed-circuit patient television programs beamed to patient rooms and out-patient waiting areas, through which miscellaneous and sundry educational messages regarding illness, disease prevention, and a variety of specialized topics (such as how to bathe a newborn, how to prevent future pregnancies, various self-examination techniques, and the like) are beamed to captive audiences. At the minimum, a patient education service would entail the employment of a specially trained health educator and the purchase of minimal audio-visual equipment, representing a start-up expense of approximately \$30,000 and an annual maintenance expense of about \$25,000. With the addition of in-room and waiting area television, an additional start-up expense of approximately \$25,000 would be involved, together with future year operating, maintenance and tape purchase expenses in the neighborhood of \$15,000. Consideration should be given to the employment of a professional patient educator, but no earlier than 1985 and in-house closed circuit television does not appear to be a feasible new service within the next decade.

5. Patient representative. A patient representative service comprises an organized hospital department which provides personnel through whom patients and staff can seek solutions to institutional problems. Thus, it represents a form of the similar "complaint department", but usually goes further by providing investigative services to fathom previously undisclosed operational problems which may be an annoyance or inconvenience to both patients and hospital staff. At the minimum, a single trained patient representative would be required, and together with necessary stenographic support, this would entail an annual expenditure of approximately \$25,000. While the mission of such a program is laudible, given the financial posture of the hospital, it would seem more appropriate to recommend that existing management simply plan to play such roles.
6. Infection control and environmental sanitation unit. This is a professionally staffed program which provides, usually within

the housekeeping department, surveillance over the cleanliness and environmental sanitation of the hospital. It requires the purchase of minor specialized testing and monitoring equipment, additional burdens upon the laboratory to conduct bacteriological examinations on submitted samples, and the employment of a professionally trained environmentalist. The net cost of this non-revenue generating service would be approximately \$30,000 per annum. It would appear likely that greater collaboration between the hospital and the Division of Environmental Health could result in the part-time assignment of a trained sanitarian who could conduct these services for the hospital and provide the needed professional surveillance. Thus, the addition of this staffed unit to the hospital is not recommended, but explorations with DEH are recommended.

7. Medical illustration department. Many larger hospitals, and especially those seriously engaged in medical research and medical education, have fully staffed departments which provide the services of skilled artists and technicians who provide medical illustration, photography, and medical televideo productions. Because the hospital is not deeply engaged in biomedical research or medical education, there would appear to be little justification for the addition of this new service.
8. Medical library. A full medical library service comprises a professionally staff unit which acquires and selects medical library materials, catalogs and classifies library resources and accessions, maintains bibliographic control of audiovisual materials, conducts computer literature searches for professional staff (e.g., MEDLINE, MEDLARS and MeSH), orders books and periodicals, and literature search, control and distribution services. While there presently exists a medical library, it is not of the customary magnitude. To move to the more complete medical library service, which is supportive of staff continuing education, medical research and medical education, the very minimum requirement would be the employment of a professionally trained medical librarian, at least one

clerical assistance, indexing and binding materials, library stacks, card catalog furniture and at least one computer terminal capable of linking with Guam's computer center for purposes of satellite and telephonic linkages with reference services abroad. The foregoing would represent an annual cost of at least \$45,000 and the initial furniture and equipment costs would approximate \$20,000. For a minimally viable medical library, an annual book and periodical acquisitions budget of at least \$10,000 would also be required. As desirable as a complete and up-to-date medical library service is, until such time as the hospital is deeply engaged in biomedical research and professional education, the serious expenditures which are involved cannot be justified.

9. Occupational health outreach. This is a service developed within many hospitals providing assistance to employees and employers at the work site regarding occupational disease and trauma hazards, as well as worker health promotion and maintenance. In some cases, this has now taken the form of a fee-for-service program often labelled "corporate health services" which is vended to major employers, especially those which conduct relatively high-risk occupations. Professional staff normally comprise specially trained occupational medicine specialists, occupational nurses and patient educators. A minimum operation would entail an annual cost of approximately \$100,000 and the usual expectation is that fees for services provided would be sufficient to recover the annual expense. Guam's industrial sector is not yet sufficiently developed to contemplate a sufficient demand for this service, and its implementation should not be considered until there is a sufficient occupational base to make it clearly self-supporting.
10. Podiatric service. This service includes one or more podiatrists who provide services to in-patients or out-patients on a regular full-time schedule or intermittently. Inasmuch as the hospital staff does not now contain a podiatrist, nor is there a private practice or podiatry in Guam, this could represent an important

addition to the general health care system. However, it would appear unwise for the hospital itself to undertake the development and provision of podiatric services, for this would place it in direct competition with potential private sector podiatric practice. A better alternative would be assistance with the recruitment of one or more podiatrists to establish private practices in Guam and the extension of hospital practice privileges to them.

11. Dental service. Hospital dental services include an organized dental service, not necessarily involving special facilities, that provides dental and oral services to in-patients and out-patients. Inasmuch as Guam has a well-developed private sector dental practice network, and since appropriate dentists have practice privileges in the hospital for oral surgery, there would seem to be little justification for the hospital's development of an in-house dental service.
12. Genetic counselling. This service comprises a service equipped with adequate laboratory facilities and directed by a qualified physician, to advise parents and prospective parents of potential problems in cases of genetic defects. The combined cost of specialist laboratory facilities, and a qualified physician would approximate \$100,000 per annum, and given Guam's foreseeable population, there does not appear to be a sufficient support base to justify the addition of this highly specialized service, even though serious genetic problems do exist within the population of Guam. A less costly alternative would be the sporadic purchase of specialized genetic counselling services from specialists in Hawaii on a visiting, scheduled clinic basis.
13. Clinical pharmacy. This is a relatively new service in many hospitals which is based on the employment of a specially and professionally trained "clinical pharmacist". Under the direction of the clinical pharmacist, prescribing drugs, dispensing and administering drugs, documenting professional drug therapy activities, direct patient involvement, review of drug utilization, education of physicians, patients and staff, and

consultation in drug therapy are all carried out. The clinical pharmacist customarily makes hospital rounds with physicians to provide advice on drugs. The clinical pharmacist participates in responses to cardiac arrest calls, takes drug use histories from patients, and monitors drug therapy. This service entails the employment of a professionally trained person, usually at the doctoral level in pharmacy, at an annual cost of about \$40,000. Because of the increased safety in drug therapy which the involvement of a clinical pharmacist provides, this is a service which should be examined at such time as the hospital has been placed on a secure and self-supporting financial footing, and certainly no earlier than 1986.

14. Self-care unit. This is a special patient care bed unit which provides minimal nursing care to ambulatory patients who must remain hospitalized for one reason or another. Beds are set up and staffed in a unit specifically designated for this service, and it is not uncommon that patients provide large measures of their own care, in some instances even being permitted to prepare their own food. The maintenance of such a unit makes good sense where patients live long distances from the hospital and cannot safely be discharged to home with the expectation that return to in-patient status may be imminent. In the case of Guam, there would appear to be little justification for the development of a self-care unit just to keep ambulant patients in proximity to potentially necessary hospital services since most live within an easy 30-minute access time. Furthermore, there is every possibility that the development of a self-care unit may contribute to unnecessarily prolonged lengths of stay on the in-patient service. For these reasons, the development of this potential new service is not recommended.
15. Nuclear medicine. This department provides a radioactive implant facility which permits the use of radioactive material (radium, cobalt-60, cesium-137 or iridium-192) implants for the treatment of malignancies. It also embraces a diagnostic radioisotope facility which provides for the use of radioactive

isotopes (radiopharmaceuticals) as tracers or indicators to detect an abnormal condition or disease. The specialized monitoring and measuring equipment for such a unit can very easily exceed \$250,000 in acquisition costs, and requires not only a physician specialized in nuclear medicine, but the support of at least one nuclear medicine technologist. Thus, annual operating costs can be estimated at between \$100,000 - \$150,000, and it is doubtful that Guam's projected future population will be large enough (within the next decade at least) to provide sufficient demand for this desirable but highly expensive service. Thus, no further development of the present nuclear medicine capabilities can be recommended, although modest extensions and elaborations on current isotope services could be made from time to time, up to that level which requires the full professional staffing described above.

16. Ambulatory surgical unit. Increasing numbers of hospitals are recognizing the responsibility to develop free-standing surgical units wherein general and other surgeons can perform what is commonly known as "office surgery", with rather complete surgical facility support. This is not simply the use of the major surgical suites for ambulatory patients who are not admitted as in-patients and who go home following the surgical procedure. These are, instead, free-standing facilities especially dedicated to ambulatory patients and staffed accordingly. Their purpose is to reduce the cost of much surgery which can be performed on an out-patient basis, and to do so they must be physically and administratively separated from the overall hospital overhead in order to achieve the efficiencies desired. Given the fact that there already exists a private free-standing ambulatory surgical facility in Tamuning, it may not be appropriate at this time to consider an identical development within the hospital. Furthermore, to do so would drain substantial revenue-producing surgery from the existing major surgical suites, potentially requiring staffing reductions in that service. This may be a desirable trade-off, however, and in the interest of

cost-consciousness, it is recommended that later consideration be paid to developing within the existing hospital (most appropriately within the space which may be vacated by the existing out-patient department) of a specially dedicated out-patient surgical facility. If this were to be achieved (at an approximate equipment and refurbishment cost of \$200,000), then new policies would be required which would have the effect of literally forcing all appropriate surgery to the ambulatory center in lieu of utilizing the more costly central surgical facilities and in lieu of admitting patients to the in-patient service. It must be recognized that this approach will bleed revenue from both the surgical service and from the in-patient services, with the long-run consequence of reducing patient census and associated revenue. Thus, it could not be recommended that the development of this additional service be pursued before the hospital has achieved both operating and capital self-sufficiency, or no earlier than 1987.

17. Small-needle aspiration biopsy service. This is a newer method by which body organs and tissues can be accessed for purpose of diagnostic biopsy by the insertion of a small gauge needle through which tissue samples are aspirated. This method is successful in replacing the more costly (and more painful) surgical biopsy procedure, and is said to yield superior diagnostic results. This service has two constraining requirements, however. It requires a skilled invasive radiologist to whom the major responsibility falls for insertion of the needle to the desired biopsy site, often employing radiographic equipment to trace the needle location. It furthermore requires a highly specially trained pathologist who is capable of interpreting the aspirated tissue samples. Both categories of physicians are quite rare, at least in the Pacific, and none are available presently in Guam with competence to perform these desirable procedures. At the minimum, the establishment of this service will entail an annual cost of approximately \$200,000 and the difference in cost savings over more conventional surgical biopsy (given Guam's population) would not be sufficient to

recover the annual cost. Thus, the immediate installation of this service cannot be recommended. It can be suggested that existing pathologists and radiologist in Guam be offered opportunities to at least briefly train under the handful of qualified physicians in Hawaii, or under the more abundant supply on the West Coast, so that they may begin to provide these services on a partial basis to Guam's people. The cost of underwriting such professional continuing education would probably approximate \$10,000 per year, and should a sufficient level of professional competence accrue from such an investment, it would be returned manyfold in lower cost biopsy procedures in the future.

18. Gastroenterology laboratory. This is a specialized laboratory equipped and capable of performing Bernstein esophageal acid perfusion tests, Carbohydrate absorption studies, colonoscopy, duodenal drainage for Giardia lablia, d-Xylose absorption study, endoscopic retrograde cannulation of common bile, esophageal dilation, fluorescein string test, Hollander insulin stimulation study, peritoneoscopy, small bowel intestinal biopsy, and upper gastrointestinal endoscopy. Some of the foregoing procedures and tests are already capable of being performed in the hospital. Others, without massive expense for additional laboratory equipment, can undoubtedly be added incrementally in the future. Only when sufficient demand exists to place such a complex dedicated laboratory on a fully self-supporting basis should this program be developed. This will not likely occur within the next decade.
19. Home care program. Many hospitals now operate directly a home care program which comprises an organized program administered by the hospital that provides medical, nursing, other treatment, and social services to patients in their places of residence. Given the fact that the Division of Public Health already operates an exemplary home care service, it would appear unwise and unnecessarily redundant for the hospital to enter into this field of endeavor. As needs for expanded home care services are identified, it would be appropriate for the hospital leadership to call these to the attention of public health officials

and to assist them as possible in finding ways and means of expanding the present home care services. Thus, we cannot recommend this as a program expansion for the hospital.

20. Megavoltage radiation therapy. This service involves the use of specialized equipment (with attendant equipment and operating costs in the vicinity of one million dollars) in the super-voltage and megavoltage (above one million volts) ranges for deep therapy treatment of cancer. This includes cobalt-60 units, linear accelerators with or without electron beam therapy capability, betatrons, and Van de Graff machines. This service requires a population of at least 150,000 and treatment of at least 300 cancer cases per year. Maximum efficiency is achieved when 6,000 treatments are made per year, or 25 patients per day. Guam's population has not yet reached the threshold which would justify the addition of this service, and it cannot be recommended as a major program addition for the next decade.
21. Computed tomographic scanning. The CT scanner provides computed tomographic scanning for head and/or whole body scans. It is a highly sensitive radiological device that produces details pictures of any portion of the head or body, including areas that cannot be visualized with other radiographic equipment. However, CT scanners should operate at a minimum of 2,500 medically necessary patient procedures per year. It is recognized that the hospital presently has such equipment uninstalled. Given the quite high annual service maintenance cost (approximately \$150,000 at the minimum) and the improbability that sufficient numbers of medically necessary procedures can be generated by Guam's populations, implementation of this service cannot now be recommended. It could be contemplated for implementation at such time as the hospital has achieved both operating and capital self-sufficiency, and certainly no earlier than 1987. To do so earlier will result in one more fiscal drain on an already overburdened institution, and may result in the conduct of large numbers of medically unnecessary procedures simply to justify the continued operation of the scanner.

22. Rehabilitation department. This department provides coordinated multi-disciplinary physical restorative services to in-patients and/or out-patients under the direction of a physician knowledgeable and experienced in rehabilitative medicine (physiatry), with beds set up and staffed in a unit specifically designed for this service, and with necessary specialized rehabilitation equipment and resources conveniently located adjacent to the beds, including hydrotherapy. Dedicated rehabilitation departments cannot normally be justified for populations under one million, and with the modest advances recommended for the existing physical and occupational therapy services in the hospital, no further development in specialized rehabilitation medicine can be recommended for the next decade.
23. Cardiac catheterization. This is a service which provides for examination of the heart through the insertion of a special catheter. To be efficient and safe, this service requires a minimum of 300 cardiac catheterization procedures annually (adult) and 150 pediatric procedures annually to maintain a caseload of adequate size to maintain the skills and efficiency of laboratory performance. Because of attendant dangers, this procedure also requires location in a facility which is also equipped and capable of performing open heart surgery (see below). Because the caseload in Guam is insufficient to maintain this service, and because open heart surgery cannot be recommended at this time, this service is not a candidate for development within the next decade.
24. Open heart surgical facility. This is a dedicated service which includes the equipment and qualified staff necessary to perform open heart surgery. To maintain quality of patient care and to make most efficient use of resources, this service requires a minimum of 200 open heart procedures per annum for adults and a minimum of 73 pediatric open heart procedures each year. Guam does not have a sufficient caseload to support this service, and accordingly, it cannot be recommended for development within the next decade.

25. Burn care. A burn care unit provides care to severely burned patients that is of a more intensive nature than the usual acute nursing care provided in medical and surgical units. Beds must be set up and staffed in a unit specifically designated for this service, and special skin and grafting facilities must be also made available and maintained. Full burn care units cannot ordinarily be maintained for populations under 2.5 million persons. There is no feasibility for the establishment of a burn care unit at this hospital in the foreseeable future.
26. Organ bank and implantation service. This comprises a facility capable of removing healthy cadaver and living organs, their laboratory maintenance and their surgical implantation as substitutes for diseased organs in patients. It is commonly recognized that organ banks cannot be efficiently maintained for populations fewer than 2 million persons. Thus, no justification for considering the establishment of this service in this hospital can be found.

FUTURE AUDITS AND EVALUATIONS OF SERVICES

One of the major failures of most hospitals, and of this hospital in particular, is the lack of systematic means whereby all services and programs are periodically examined to determine their necessity and effectiveness. A plan is therefore RECOMMENDED to achieve these ends, which should have the following components:

- A. At the outset, and as recommended and detailed in Plan Element 1, for each service and program within the hospital clear and measurable goals need to be established which relate to its performance (input) and to one or more community medical service needs (outputs).
 1. Community medical service needs should be established through a close working relationship with the Guam Health Planning and Development Agency, the Mental Health and Substance Abuse Agency, the Department of Public Health and Social Services, and other appropriate agencies and organizations. Through these auspices, there should be an annual assessment of existing community medical service needs, and these should in turn be contrasted with service and program goals of the hospital to be certain that each existing need of relevance to the hospital is recognized and included in one or another service or program goal.
- B. At least bi-annually, the goals for each service and program within the hospital should be examined to determine the following:
 - whether the initial need to which the service/program is directed has been met; and
 - whether new needs have emerged from the process described in A-1 above.
- C. Where needs have clearly been met, or where they have been substantially reduced, then the service or program should either be abandoned or abated to some desirable maintenance level in order to free-up scarce resources

for deployment to other emerging needs for different services and programs.

It is only in this dynamic and systematic manner that any hospital may maintain currency with the evolving medical service needs of its community. It is also only in this manner that existing programs and services may be periodically audited and determinations made of needs to continue them, constrain them, or more fully expand them. The usual procedure for this kind of evaluation comes at the time departments submit and justify their annual budget requests. That mechanism places central administration wholly at the mercy of department heads who are commonly ingenious in proposing and defending "needed" staff, equipment and service expansions, but most commonly not on the basis of justified need of the community. This would be an appropriate responsibility to be assigned to the recommended Director of Organizational Research and Development, and to be coordinated with the Director of Planning and Community Relations.

While well beyond the purview of this plan, future consideration may be given to establishment of some form of "zero-based budgeting" within the hospital. This system, which is goal and objective based (and therefore, based on demonstrable need) essentially treats each annual budgetary request as if it were entirely new and with no prior history. Hence, annually each program and service (and sub-units thereof) is examined in terms of why it needs to be funded and what its rationale for existence is, rather than simply in terms of how much money it requires. The adoption of the step-wise sequence of needs determination and goal-setting which is outlined above would equip the hospital to move to such budgetary novelties in the future, but only if the needs assessment-goal setting process is made routine and on-going.

2. Prepare preliminary information for Birth Certificate.
 - a. Pull out Birth Certificate work sheet from file.

Work sheets have been previously filled by mother on prenatal visit.
 - b. Complete necessary information on work sheet from L & D log or patient record.
3. Interview mother to obtain added information.
 - a. Review content if parent requests clarification.
4. Prepare finalized Birth Certificate.
 - a. Refer to "Instructions for Completing Live Birth Certificate" if indicated.
 - b. Maintain adequate number of birth certificates.
5. Obtain parent signature for Birth Certificate. Be sure that parent reviews information before signing. If indicated, impress upon parent that Birth Certificate serves as a legal document. Future changes, e.g., change in spelling of name, must be carried out with DPH.
6. Mail completed Birth Certificate to Territorial Registrar and maintain log of activities.
 - a. Birth Certificate must be filed within 7 days of birth of child.
 - b. On a daily basis mail completed birth certificates. Each shipment of birth certificates must be accompanied by a Transmittal Sheet listing name of hospital, date of shipment of Birth Certificate, date of birth of child, and signature of medical records clerk responsible. The listing should be in chronological order. The purpose of transmittal sheet is to assist in maintaining control of B. C. received.
 - c. Maintain log of Birth Certificates.

INSTRUCTIONS ON COMPLETING THE LIVE BIRTH CERTIFICATE

1. CHILD -- NAME: First, Middle, Last

Enter the child's first, middle, and last names. Do not abbreviate.

Capitalize each letter of the last name.

Entries as Jr., II, etc., following the last name are acceptable.

If given names are unusual, please indicate this in the margin.

Example: First name "as is" or "per patient", etc.

If middle name is not given, leave blank, do not dash out.

Surname designation:

1. Legitimate child:

Surname: father
 mother
 mother-father

Parents may choose other surnames. If this option is chosen, both parents must sign a statement stipulating the surname to be entered on the child's Birth Certificate.

If both parents do not agree, the father's surname shall be entered as the child's surname.

2. Illegitimate child being legitimated:

Both parents of the illegitimate child being legitimated must sign a statement stipulating the surname to be entered on the child's birth certificate.

If the parents do not agree, the Father's name shall be entered as the child's surname.

3. Illegitimate child who is not being legitimated:

Mother may designate any surname she chooses, providing she does one of the following:

- a. sign the birth certificate as an informant
- b. signs separate statement stipulating the surname to be entered on the child's birth certificate.

If she does not sign the certificate or statement, the mother's name shall be entered as the child's surname.

2a. DATE OF BIRTH (Month, Day, Year)

Enter the exact month, day and year that the child was born.

Spell or abbreviate the name of the month (Jan., Feb., etc.). Do not use numbers for months such as 6/4/81 for June 4, 1981.

Pay particular attention to the entry of month, day, and year when the birth occurs around midnight or December 31. Consider the birth at midnight to have occurred at the end of one day rather than the beginning of the next day.

No erasures permitted.

This item records the date of birth of the individual names on the certificate. It is used to establish age for such purposes as school entrance, obtaining a driver's license, Social Security benefits, etc. It is also used together with date of last normal menses to establish length of gestation for health statistics and research studies.

2b. HOOR

Enter the exact time (hour and minutes) that the child was born according to the local time.

Enter 12 noon as "12 Noon". One minute after 12 Noon is entered as "12:01 a.m."

In cases of plural births, the exact time that each child is delivered should be recorded as the hour and minute of birth for that child.

Purpose: This item documents the exact time of birth for various legal uses such as the order of birth in plural births. When the birth occurs around midnight, the exact hour and minute affect not only the day but the year of birth, a factor in establishing dependence for income tax purposes. It is also often an item of personal interest to the parents and later to the individual.

3. SEX

Enter male or female. Verify the entry of sex against the given name.

If sex and name are inconsistent, verify both entries.

In cases where the sex cannot be determined, make no entry. Attach a note to the certificate stating the reasons for omission.

No erasures permitted.

Purpose: This item aids in identification of the child. It is also used for making population estimates and for statistical research.

4a. HOSPITAL -- NAME (if not in Hospital, Give Number and Street)

If birth occurred in the hospital, enter the full name of the hospital.

If the birth occurred enroute to the hospital, enter the name of the hospital, and add the word "enroute".

(4a to 4d): For births occurring on a moving conveyance, enter the information for place of birth as if the birth had occurred at the place where the child was first removed from the conveyance since that is where the birth will be registered.

4b. CITY, TOWN OR LOCATION OF BIRTH

Enter the name of the city, town, or location where the birth occurred.

4c. ISLAND

4d. COUNTY OF BIRTH

Enter the name of the county where the birth occurred.

Purpose: These items identify the place of birth. Proof of place of birth is necessary at any time a person is called upon to prove that he or she is a citizen of the U.S. This information is used to study relationships of hospitals and non-hospital births to determine such things as whether the health of children differs as a result of place of birth. It is also used by many States to produce statistical data by specific hospital. Place of birth information together with residence information provides data to evaluate the supply and distribution of obstetrical services.

5a. I CERTIFY THAT THE STATED INFORMATION CONCERNING THIS CHILD IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF. (SIGNATURE)

Obtain the signature of the physician or other person in attendance at the birth.

Purpose: Certification validates the accuracy of the information recorded on the certificate concerning the child. It also provides data on the extent to which persons other than physicians are in attendance at birth. The mailing address is used for inquiries to collect or complete items on the record and for followback studies to obtain additional information about the birth.

5b. DATE SIGNED (Month, Day, Year)

Enter the date the attendant signed the certificate.

5c. NAME AND TITLE OF ATTENDANT AT BIRTH IF OTHER THAN CERTIFIER

Specify kind of attendant

5d. CERTIFIER -- NAME AND TITLE

Type or print the name of the person whose signature appears above.

5e. MAILING ADDRESS (Street or R.F.D. No., City or Town, State)

Enter the mailing address of the person whose signature appears above.

5f. ATTENDANT -- MD., DO., MIDWIFE, OTHER (SPECIFY)

Specify the kind of Attendant:

Medical Doctor: M.D.
Doctor of Osteopathy: D.O.
Certified Nurse-Midwife: C.N.M.
Midwife, etc.

6a. REGISTRAR

6b. DATE RECEIVED BY LOCAL REGISTRAR (Month, Day, Year)

6c. DATE ACCEPTED BY STATE

Items 6a - 6c will be completed by the registrar.

7a. MOTHER -- FIRST NAME, MIDDLE NAME, MAIDEN NAME

Enter the maiden name of the mother. Example: If mother's maiden name is Mary Jane Smith, enter:

<u>FIRST</u>	<u>MIDDLE</u>	<u>LAST</u>
Mary	Jane	Smith

If the mother is married, widowed, or divorced, be sure to enter her maiden name, not a last name acquired by married.

If given name is unusual, please indicate this in the margin. Example: first name "as is".

No erasures permitted.

Purpose: This item is documentary evidence of parentage. The mother's maiden name is an important part of an index to a birth file. It is especially useful for this purpose since it remains constant, even though the last name of the individual being registered and the mother's married name may change several times.

7b. AGE (At Time of This Birth)

Enter the age of the mother at her last birthday.

Purpose: Age of the mother is one of the most important factors in the study of childbearing and consequently is widely used in developing statistical data. For example, studies have been done to show the relationship of the health of the child to the age of the mother.

7c. STATE OF BIRTH (If Not In U.S.A., Name Country)

If the mother was born in the United States, enter the name of the State.

If the mother was born in a foreign country or a U.S. territory, enter the name of the country or territory. If the mother is known to have been born in the United States, but the State is unknown, enter "U.S.--Unknown". If the mother is known to have been born in a foreign country, but the country is unknown, enter "Foreign--Unknown".

Purpose: This item is used with census data to compare childbearing of women who reside in the State where they were born with that of women who reside in a State other than their State of birth. It is also used for tracing family histories.

8a-e. MOTHER'S RESIDENCE

Purpose: Mother's residence is the place where she has set up housekeeping. This is not necessarily the same as her "Home State", "Voting Residence", or "Legal Residence". Never enter a temporary residence such as one used during a visit, business trip, or a vacation. Residence for a short time at the home of a relative, friend, or home for unwed mothers for the purpose of awaiting the birth of a child is considered to be temporary and should not be entered here. Place of residence during a tour of military duty or attendance at college is not considered as temporary and should be considered as place of residence of mother for entry on the certificate.

8a. MOTHER'S RESIDENCE (STATE)

Enter the name of the State in which the mother resides. This may differ from the State used in her mailing address. If the mother is not a U.S. resident, enter the country of residence.

8b. MOTHER'S RESIDENCE: COUNTY

Enter the name of the country in which the mother resides.

Enter Honolulu for those who reside on the island of Oahu. Enter Maui for those who reside on the islands of Maui, Lanai, or Molokai. Enter Hawaii for those who reside on the island of Hawaii. Enter Kauai for those who reside on the islands of Kauai or Niihau

Enter the name of the county for out-of-state residents. If county is unknown, enter "unknown".

8c. MOTHER'S RESIDENCE: CITY, TOWN OR LOCATION

Enter the name of the city, town, or location where the mother resides. This may differ from the city, town or location used in her mailing address.

8d. MOTHER'S RESIDENCE: STREET AND NUMBER

Enter the house number and street name of the place where the mother resides. If this place has no number and street name, enter the R.F.D. number, route number, or description of location that will aid in identifying the precise location of the residence.

8e. MOTHER'S RESIDENCE: INSIDE CITY LIMITS (SPECIFY YES OR NO)

Enter "yes" if the location entered in item 8c is incorporated and if the mother's residence is inside its boundaries. Otherwise, enter "no".

Purpose: Most statistics on births are tabulated by place of residence of the mother. They make it possible to compute birth rates based on the population residing in the area. Births by place of residence of the mother are used to prepare population estimates and projections. These data are used in planning for and evaluating community services and facilities, including maternal and child health programs, schools, etc. Private businesses and industries also use these data for estimating demands for services.

9. MOTHER'S MAILING ADDRESS (Street or RFD No., City or Town, State, Zip Code)

Enter the complete mailing address of the mother. Example:

<u>Street</u>	<u>City or Town</u>	<u>State</u>	<u>Zip Code</u>
222a Marine Drive	Agana	Guam	96910
or			
P.O. Box 500	Dededo	Guam	96910

This item is used to mail a birth notification record to the mother and to ask the mother for clarification of birth certificate entries, when needed. It is also used for followback studies to obtain additional information about the birth.

10a. FATHER -- NAME: FIRST, MIDDLE, LAST

If child was:

Born to a mother who was married at the time of birth, enter the name of her husband.

Conceived in wedlock, but born after a divorce was granted or after the husband died, enter the name of the mother's deceased or divorced husband.

Conceived and born out of wedlock to a divorced, widowed, or never married mother, make no entry regarding the father's name and omit items 10b and 10c, unless "Acknowledgement of Paternity by Father" is signed by the father and "Declaration of Paternity by Mother" is signed by mother.

Refer problems regarding the entry of the father's name to the State Vital Statistics Office.

If given name is unusual, please indicate this in the margin. If no middle name is given, leave blank. Do not dash out. The last name can be extended into next block if necessary.

No erasures permitted.

10a-1. FATHER: LAST NAME AT BIRTH

Enter surname of father at time of his birth.

Repeat his surname even if it is the same as the legal name given in item 10A.

If father's last name (10a) extends into 10a-1, this item can be omitted unless surname at birth differs from present last name.

10b. FATHER: AGE (At Time of This Delivery)

Instructions are similar to 7b

10c. STATE OF BIRTH

Instructions are similar to 7c

10d. ACTIVE MEMBER U.S. ARMED FORCES?

Enter Yes or No

11a. I certify that the personal information provided on this certificate is correct to the best of my knowledge and belief. (Signature of Parent or other informant)

Obtain the signature of the parent or other person who provided the personal facts about the family after the information has been entered on the certificate and reviewed by such person.

If parent's signature is different from the name given in items 7a or 10a, indicate in the margin that this is the usual signature.

When signing or typing information, please stay within the lines. Anything below the line on item 11a may be cut out in the process of making certified copies.

Use black ink for signatures.

11b. RELATION TO CHILD

Enter the informant's relation to the child, such as "mother", "father", "grandmother", "aunt", etc.

Purpose: The certification validates the accuracy of the information recorded on the certificate and identifies the relationship of the informant to the child.

THE LOWER PORTION OF THE LIVE BIRTH CERTIFICATE

The lower portion of the Standard Certificate of Live Birth contains information for medical and health use only. These items (12-27) are separate from the identifying information so that they can be excluded from certified copies of the certificate. They are used for a wide range of research and medical purposes.

12a. RACE: MOTHER

12b. IS PERSON OF SPANISH ORIGIN? (Mother)

13a. RACE: FATHER

Enter the race of the mother and of the father as obtained from the parents or other informant.

For groups other than white, black or American Indian, obtain the national origin of the mother and father, such as Chinese, Japanese, Korean, Filipino, Hawaiian, etc.

If the informant indicates that the mother and/or father is of "mixed race", enter principal ethnic strains, or reported strains of father.

Abbreviate if necessary.

Use space below race blank if necessary.

Purpose: These items are used to determine the race of the child. Race is essential in producing data for minority groups. It is used to study health characteristics for racial groups (childbearing trends, infant mortality, birth weight, etc.). Race is an important variable in planning for and evaluating the effectiveness of health programs, and it is also used in preparing population estimates.

13b. IS PERSON OF SPANISH ORIGIN? (Father)

Specify yes or no

If yes, specify Puerto Rican, Mexican, Cuban, Central American, Other unknown Spanish origin

Spanish is generally restricted to:

- a. A Caucasian person in the U.S. who was born in Spain to Spanish parents.
- b. A Caucasian person in the U.S. whose parents or grandparents were born in Spain to Spanish parents.

- c. All other persons of Caucasian ancestry should give their race as Caucasian or give their national origin. (e.g., French, Mexican, Brazilian, German, etc.)

The acceptable responses to the Spanish origin item are:

- a. Mexican
- b. Puerto Rican
- c. Cuban
- d. Central or South American countries except Brazil. (e.g., Panamanian, Honduran, Venezuelan, Argentinean, Chilean, etc.)

If yes, specify "x" in appropriate box.

For purposes of this item, origin or descent refers to the nationality group of the person or his ancestors before their arrival in the United States (except American Indian and Alaskan native.)

There is no set rule as to how many generations are to be taken into account in determining ethnic origin. A person may report his or her origin based on the origin of a parent, grandparent, or some far removed ancestor. The response is to reflect what the person considers himself or herself to be, and is not based on percentage of ancestry.

Persons of Portuguese or Filipino ancestry are generally not considered as being of Spanish origin. However, if respondent insists on Spanish origin, enter "x" in block 5 "other Spanish origin".

This item is not a part of the race item. Both race and origin or descent should be asked independently. This will mean that for certain groups, the entry will be the same in both items, e.g., Japanese, Chinese, Hawaiian. Even if they are the same, entry should be made in both items.

Purpose: The objective of these questions is to combine vital statistics and U.S. Census data and enable the government to tabulate the social and health characteristics of this segment of the population. In the past this segment was usually combined with the Caucasian group.

14. LEGITIMATE (specify yes or no)

Enter "yes" if the mother was married at the time of conception, at time of birth, or at any time between conception and birth. Otherwise, enter "no".

A woman is legally married even if she is separated.

Purpose: This information is needed to study the social problems related to out-of-wedlock births. It is even more important as a tool in studying the health problems of these children and their mothers, for example, whether these children are of lower birth weight, have higher infant mortality, or are born to mothers with less prenatal care.

15. BIRTH WEIGHT (grams)

Enter birth weight of the child as it is recorded in the hospital record. Weight should be in grams.

Purpose: This is the single most important characteristic associated with infant mortality. It is also related to prenatal care, socioeconomic status, legitimacy, and other factors surrounding the birth, and consequently, is used with other information to plan for and evaluate the effectiveness of health care.

16a-b. PLURALITY (Twin, Triplet, etc.)

When a plural birth occurs, prepare a separate certificate for each child or fetus. File a certificate for each member of the plural birth. File a certificate for each member of the plural birth. File certificates relating to the same plural birth set at the same time, unless holding the completed certificates while waiting for incomplete ones will result in late filing.

16a. THIS BIRTH (Single, Twin, Triplets, etc.)

Specify the birth as a single, twin, triplet, quadruplet, etc.

16b. IF NOT SINGLE BIRTH-BORN FIRST, SECOND, THIRD, ETC. (SPECIFY)

Specify the order in which the child being recorded was born--first, second, etc.

Purpose: These items are related to other items on the certificate that have been shown to have health implications, especially birth weight. The occurrence of plural births is especially birth weight. The occurrence of plural births is related to the age of the mother and birth order of the child.

17a-18c. PREGNANCY HISTORY

When certificates are prepared for a plural birth, items 17a-18c on the certificate of the first-born infant should not include any of the births in the present delivery. These items on the certificate of the second born infant should include information about the first born of the plural birth. Similarly, these items for the third born should include information about the first born and second born and so on.

17a-c. LIVE BIRTHS (Do Not Include This Child)

Enter the number of live births to the mother, but do not include this child.

17a. LIVE BIRTHS -- NOW LIVING
NUMBER _____

Enter the number of prior children born alive to this mother who are still living at the time of this birth. Do not include this child or children by adoption.

Enter "0" if this is the first live birth to this mother, or if all previous children are still living.

17b. LIVE BIRTHS -- NOW DEAD
NUMBER _____

Enter the number of prior children born alive to this mother who are no longer living at the time of this birth. Do not include this birth or children by adoption.

Enter "0" if this is the first live birth to this mother or if all previous children are still living.

17c. DATE OF LAST LIVE BIRTH (Month, Year)

Enter the date (month and year) of birth of the last live-born child of the mother.

Enter the full or abbreviated name of the month (Jan., Feb., March, etc.). Do not use a number to designate the month. Example: Feb. 1981, not 2/81. If month is unknown, enter--and year. Example: --1981.

Enter "none" if mother has not had a previous live birth. Do not leave blank.

If this certificate is for the second birth of a twin set, enter the date of birth for the first baby of the set, if it was born alive. Similarly, for triplets or other multiple births, enter the date of birth of the previous live birth of the set. If all previously born members of a multiple set were born dead, enter the date of the mother's last delivery that resulted in a live birth.

18a. OTHER TERMINATIONS (Spontaneous and Induced)
BEFORE 20 WEEKS
NUMBER _____

Include each recognized loss of a product of conception, such as miscarriage, stillbirth, and abortion (spontaneous and induced).

Enter the number of fetuses that were delivered dead before 20 completed weeks of gestation.

Enter "0" if this is the first pregnancy for this mother or if all previous pregnancies resulted in live-born infants or other terminations occurring after 20 weeks of gestation.

18b. OTHER TERMINATIONS (Spontaneous and Induced)
AFTER 20 WEEKS
NUMBER _____

Enter the number of fetuses that were delivered dead after a gestation period of 20 completed weeks or more.

Enter "0" if this is the first pregnancy for this mother or if all previous pregnancies resulted in live born infants or in other terminations occurring before 20 weeks of gestation.

18c. DATE OF LAST OTHER TERMINATION (As Indicated in 18a or 18b Above)(Month, Year)

Enter the date (month and year) of the last termination of pregnancy which was not a live birth regardless of the length of gestation.

If the mother never has had such a termination, enter "none".

Enter the full or abbreviated name of the month. Do not use a number for the month. Example: Feb. 1981, not 2/81. If month is unknown, enter -- and year. Example: --1981.

Any unusual or inconsistent dates should be noted.

If this certificate is for the second birth of a twin set and the first was born dead, enter the date of delivery of that fetal death. Similarly for other multiple births, if any previous members of the set was born dead, enter the date of delivery of that fetal death. If all previously born members of a multiple set were born alive, enter the date of the mother's last delivery that resulted in a fetal death.

Purpose: These items are used to determine live-birth order and total-birth order which are important in studying trends in childbearing and childspacing. They are also useful in studying health problems (e.g., health problems associated with first births to older mothers, relationship of infant mortality to birth order, etc.)

The dates of last live birth and other terminations are used to compute the intervals between live births and fetal deaths and between pregnancies in studying childspacing. They are also important in determining whether there are health problems associated with close spacing or with the outcome of the previous pregnancy (whether or not it was a live birth).

19. EDUCATION -- MOTHER

20. EDUCATION -- FATHER
(Specify only highest grade completed)
Elementary or Secondary (0-12)
College (1-4 or 5+)

Enter the number of the highest grade completed of regular schooling by the mother and father in the space either for elementary/secondary school or for college.

Example: If father had a year of college, "1" should be entered in the college space. The other space should be left blank. It is not necessary to enter 12 in the elementary space.

Do not include beauty, barber, trade, business, technical, or other special schools in this entry.

Purpose: Education is used to measure the effect of socioeconomic status on health, childbearing, infant mortality, etc.

21. DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)

Enter the exact date (month, day, and year) of the beginning of the mother's last normal menstrual period, as obtained from the physician or hospital record. If the information is unavailable from these sources, obtain it from the mother.

Date should be given in full. Example: May 15, 1981, not 5/15/81.

If day is not known, enter month -- year. Example: February -- 1981.

If the date cannot be determined, enter "unknown". Do not leave blank.

If date of LMP is unusual or inconsistent, indicate this in the margin. Example: DOB: April 4, 1981. Date last normal menses began May 4, 1980.

Purpose: This item (in conjunction with the date of birth) is used to determine the length of gestation, which is related to infant morbidity and mortality. Length of gestation is associated with birth weight in determining the maturity of the child at birth and thus is important in medical research.

22a. PRENATAL CARE
MONTH OF PREGNANCY PRENATAL CARE BEGAN: FIRST, SECOND, ETC.

Enter the month in the pregnancy (second, third, fourth, etc.) when the mother first received care from a physician or attended a prenatal clinic for this pregnancy. Do not enter the name of a given month.

The number of months in the pregnancy is measured from the date of the last normal menses and not from the date of conception.

If no prenatal care was received, enter "none". Do not leave blank.

22b. PRENATAL VISITS: TOTAL NUMBER (IF NONE, SO STATE)

Enter the number of visits made for medical supervision from a physician or prenatal clinic during the prenatal period. If no prenatal care was received, enter "none". Do not leave blank.

23a. APGAR SCORE

23b. 1 MINUTE

Enter the Apgar score (from 0 through 10) as assigned by the delivery room personnel 1 minute after birth.

23c. 5 MINUTES

Enter the Apgar score (from 0 through 10) as assigned by the delivery room personnel 5 minutes after birth.

The Apgar score is regarded as a reliable summary for evaluating the health of the infant and is, therefore, valuable in research certificate.

24. COMPLICATIONS OF PREGNANCY (DESCRIBE OR WRITE "NONE")

Enter the medical conditions of the mother which complicated the pregnancy.

Examples include:

- Amnionitis
- Eclampsia
- Pernicious vomiting (hyperemesis)
- Pre-eclampsia
- Premature rupture of membranes (24 hours or more)
- Pyelitis
- RH negative sensitization
- Toxemia

If there were no complications, enter "None". Do not leave blank.

25. CONCURRENT ILLNESSES OR CONDITIONS AFFECTING THE PREGNANCY (DESCRIBE OR WRITE "NONE")

Enter all conditions or illnesses of the mother present during the pregnancy that may have had an effect on the pregnancy.

Examples include:

- Diabetes
- Drug dependence
- German measles (rubella)
- Heart disease
- Injury (specify)
- Radiation
- Syphilis
- Tuberculosis

If there were no concurrent illnesses or conditions, enter "None". Do not leave blank.

26. COMPLICATIONS OF LABOR AND/OR DELIVERY (DESCRIBE OR WRITE "NONE")

Enter significant medical conditions of the mother which complicated the labor and/or delivery.

Examples include:

- Abruptio placentae
- Breech presentation
- Hemorrhage
- Placenta previa (specify complete or partial)
- Prolapse of cord
- Prolonged labor (more than 18 hours)

If there were no complications, enter "None". Do not leave blank.

These items are useful in the identification of medical problems that may require medical care for the mother or the infant. This information is important in research and analysis of complications relating to pregnancy and childbirth.

27. CONGENITAL MALFORMATIONS OR ANOMALIES OF CHILD (DESCRIBE OR WRITE "NONE")

Enter physical abnormalities and anomalies of the child, however slight. If the diagnosis is questionable, so state. Do not include birth injuries.

Examples include:

Absent extremities or portions thereof
Anencephalus
Cleft lip
Cleft palate
Congenital heart malformation
Diaphragmatic hernia
Hydrocephalus
Hypospadias
Imperforate anus
Meningocele, Meningomyelocele
Mongolism
Omphalocele
Polydactylism
Spina bifida
Syndactylism

If there are no congenital malformation or anomalies, enter "None". Do not leave blank.

NOTE: Immaturity of the infant, in itself, should not be considered as an anomaly or malformation.

Purpose: These conditions have health implications for the child. This information may be used by local health departments for follow-up to ensure that the infant is receiving proper medical treatment. It is an initial measure of the presence and prevalence of birth defects in the newborn.

AUTHORITY IS GIVEN TO PUBLISH

MY NAME, YES ☐ NO ☐
MY ADDRESS, YES ☐ NO ☐

If not indicated, name and city or town of residence of parents will be published.

Informant should be instructed to enter initials in the space after "yes" or "no".

If initials are entered after "yes" in name and "no" in address, only names of parents and city or town of residence will be sent to the newspaper.

If initials are entered after "yes" to both name and address, both name and address of parents will be sent to the newspaper.

**GUAM
MEMORIAL
HOSPITAL
AUTHORITY**

**LONG RANGE
INSTITUTIONAL PLAN**

**PLAN ELEMENT 3:
HUMAN RESOURCES**

PLAN ELEMENT 3: HUMAN RESOURCES

FUTURE PERSONNEL REQUIREMENTS AND SOURCES

DISCUSSION

In view of the present and foreseeable future regarding the financial condition of the hospital, the current general adequacy of high quality of existing services and programs, and a multiplicity of issues of greater priority, there have not been forecast any truly significant plans or recommendations for expansion of programs and services, and those which have been cast have been held to the minimum required.

The following table presents what are believed to be current staffing patterns by program and service. The numbers will fluctuate quite frequently, particularly in the nursing service areas, but those presented are sufficient to provide a basis for evaluating the present staffing patterns of the hospital.

	<u># Staff</u>	<u># Beds/Procedures</u>	<u>Staffing Ratio</u>
Nursing Service			
Medical/Surgical	40	74	.5 nurse/bed
Pediatrics	18	25	.7 nurse/bed
OB/GYN	19	29	.6 nurse/bed
Telemetry/ICU/CCU	43	9	4.7 nurse/bed
Newborn/NICU	13	26	.5 nurse/bed
NICU	7	4	1.7 nurse/bed
SNF	24	36	.6 nurse/bed
ICF	23	36	.6 nurse/bed
Labor & Delivery	15	5.7 deliv/day	2.6 nurse/delivery
Operating Room	17	9.3 op.hrs/day	1.8 nurse/op.hour
Out-patient/ER	20	71 visits/day	.3 nurse/visit
Radiology	15 (technical)	62 proc/day	4.1 proc/employee
EEG/EMG/EKG	4 (")	12.4 proc/day	3.1 proc/employee
Inhalation Therapy	8 (")	17.5 Rx/day	2.1 Rx/employee
OT/PT/RT combined	11 (")	72 Rx/day	6.5 Rx/employee
Pharmacy	14 (")	423 Rx/day	30 Rx/employee

	<u># Staff</u>	<u># Beds/Procedures</u>	<u>Staffing Ratio</u>
Social Services	5	(technical) 21 disch/day	4.2 cases/employee
Dietary	32	708 meals/day	22 meals/employee
Hemodialysis	10	10 Rx/day	1 Rx/employee
Housekeeping	41	180,908 sq.ft.	4412 sq.ft/employee
Maintenance	42	186,253 sq.ft.	4435 sq.ft/employee
Laundry	10	1800 #/day	180 #/employee
Laboratory	35	700 tests/day	20 tests/employee
Medical Records	24		
Mental Health/CMHC	59		
Administration	19		
Medical Staff	15		
Personnel	6		
Nursing Administration	17		
Central Supply Service	7		
Purchasing and Supply	9		
General Accounting	9		
Business Office	29		
Admitting	14		
Communications Center	6		
Data Processing	9		

While it is difficult under conditions of large numbers of part-time employees and existing position vacancies to arrive at a precise staff compliment figure, one can estimate that the actual active staff at any given time ranges between 672 and 694. The column presented above will not total to this figure, however, since clerical employees have been omitted, in order that only those employees directly contributory to patient service, central administration and plant maintenance are considered.

Inspection of the above table reveals relatively normal nurse staffing throughout the nursing service units. One exception lies in Pediatrics where there appears to be somewhat of an abundance of nursing staff, especially when viewed in terms of the relatively low patient census which occurs on that service.

Similarly, Labor and Delivery appear to be somewhat overstaffed for the average daily volume of deliveries. In either of these cases, it may well be that "surplus" nurses are, each shift and day depending upon patient acuity measurements, deployed to other service areas. All other ratios in nursing service are within acceptable ranges and do not suggest any desperate or immediate need for additional nursing personnel (or at least, for additional nursing positions -- vacant positions must be continuously filled in order to maintain these favorable staffing ratios).

From the data presented above, Radiology would appear to be somewhat overstaffed given the volume of services actually provided. However, included in the total staffing count of 15 technical personnel are 5 part-time employees, thus obfuscating the actual FTE personnel count. There is, however, no picture presented in these data which would in any way suggest personnel expansion in this area. Proposals have been made for the addition of two radiographic technologists and these have apparently been associated with the expectation of implementing a new CAT scanner service. Elsewhere, this plan has argued against any short-run implementation of that device owing to economic inefficiencies, and thus it would be difficult to make a case for additional personnel here.

EEG/EMG/EKG, Inhalation Therapy, and the combined OT/PT/RT departments appear adequately staffed to handle the presenting workload, in most instances already having the staff capacity to undertake substantial numbers of additional procedures when necessary equipment and other resources have been supplied.

Pharmacy would appear to be somewhat overstaffed, but the figures are deceptive in the sense that frequent position vacancies among pharmacists persist. There is not sufficient evidence to suggest cut-backs in pharmacy staffing unless the option of discontinuing the operation of the out-patient service is made. Under that eventuality, some 100 fewer pharmacy transactions per day would be realized, and this would support a reduction in pharmacy staffing. Elsewhere, recommendations have been made to expand pharmacy staff, not for retail dispensing, but for the provision of clinical

pharmacy capability and for lead capacity for a sorely needed IV team. These recommendations would not be affected by any reduction in standard pharmacy dispensing volume.

It would appear that the Social Service department is substantially understaffed, for the ratio of social workers to discharges discloses only a small portion of the social service responsibility. With an average of more than four new cases to be closed occurring each day, for a staff of five, it is little wonder that in-patient social service counseling and the follow-up of discharged cases becomes a near impossible undertaking. Thus, evidence is available to suggest the retention of two additional social workers to bring the average new caseload to three/employee.

The dietary department appears to be overstaffed for an institution that provides little in direct food preparation. A large proportion of this staffing is related to the employee cafeteria and to the arduous task of providing meal service in two widely separate physical plants. Should the recommendation to consolidate all in-patient care in the MCM facility be adopted, no further dietary staff would be required, inasmuch as the economies realized by consolidation would tend toward creating a mild surplus of staffing in this department. Should in-house food preparation ever be established, substantial additional dietary staff would, of course, be required. However, present efficiency of the contracted food preparation service and the lack of programmed space for full kitchen facilities both argue strongly against that likelihood.

Hemodialysis appears to be overstaffed given the reported average daily volume of service. Should all in-patient services be consolidated in the newer facility and should present volume of service stabilize at today's level, then consideration of staff reductions in this area through the reassignment of nursing personnel to other services should be entertained.

Housekeeping, maintenance and laundry all appear to be appropriately staffed by most common standards. Were the two presently separated facilities consolidated (as recommended elsewhere) some economies in these areas would occur, but the added space in the

new hospital would be more than sufficient to justify maintaining (but not expanding) the present staffing compliments.

By most standards, given the high degree of automation involved, and that recommended for the future, the laboratory would appear to be overstaffed. However, this is a 24-hour operation, and with the addition of full-scale blood banking and the advent to even more advanced analytical technology, there is little support for considering any reduction in laboratory staff at this time.

Greater automation in the Medical Records department might subsequently reveal some degree of overstaffing here, but given current manual processing and the need to further strengthen some recording procedures, present staffing levels appear to be supported.

Given improved management of business operations of the hospital, as discussed in greater detail in Plan Element 5, there is every reason to believe that between 30 to 50% staff reductions could be anticipated in General Accounting, the Business Office, and possibly in Admitting should greater efficiency in admitting logistics be achieved through structural changes which have been recommended.

All other personnel areas (central administration, nursing administration, medical staff, personnel, central supply, purchasing, payroll, communications and data processing) appear to be appropriately staffed at levels sufficient to current levels of operation.

Overall, this hospital is operating at a ratio of 796 non-physician employees per 100,000 service population. This compares very favorably with selected hospitals of similar size in other locales in which this ratio varies from a low of 468.1/100,000 to a high of 1.023/100,000. The average staff-to-population ratio turns out to be 844/100,000, a figure indeed very close to that presently achieved in this hospital. There can, therefore, be no case made with respect to gross overstaffing, nor can it be suggested that vast staffing improvements are required to bring the hospital up to acceptable norms.

While speech pathology and audiology do not appear in the staffing roster presented above, it is a part-time staffed service with no hospital employees associated with it. The current two employees devote an approximate .15 FTE each to a minimal caseload, and given current caseloading, this appears to be an adequate staff. However, there is evidence that additional caseload could be developed for this service, thus suggesting the potential need for staffing at the full-time equivalency level.

Finally, it must be noted that analysis and evaluation of staffing in the mental health service is difficult because many staff members serve both in- and out-patients. It has been pointed out elsewhere that the CMHC operates at a volume of approximately 25% of that experienced in similar centers elsewhere. This would suggest a possible over-abundance of staff. However, the in-patient psychiatric service commonly operates in excess of 100% occupancy with the complex mix of acute, chronic, penal and retarded patients. These are, however, primarily custodial patients and the common staffing ratio is about 1 professional/aide staff for each three patients. Therapists, analysts and administrative personnel combine to reflect the balance of staffing. Thus, the present staffing of 59, including about 30 clinical care-taking personnel, seems over-abundant. If the community-based psychiatric services were to be divorced from the hospital and only a 25-bed in-patient psychiatric unit were to be maintained, then optimal staffing of care-taking personnel would approximate 9, plus supervisors and supportive therapists. Until decision regarding the hospital's future role in the care of the mentally ill has been clarified, no substantive recommendations regarding this unit's staffing can be made.

PERSONNEL REQUIREMENTS BY SPECIALTY AND PROGRAM

1. Owing to the projected addition of 50 acute beds (by 1990) and the net addition of 8 psychiatric beds (by 1984), the following additional nursing and patient care related personnel will be required:

	<u>1984</u>		<u>1990</u>	
	<u>Number</u>	<u>Additional Cost</u>	<u>Number</u>	<u>Additional Cost</u>
Registered Nurses	1.2	\$ 23,000	17	\$323,000
Licensed Practical Nurses			9	135,000
Aides	1.2	15,000	6	78,000
Housekeeping Personnel	.4	2,500	1.2	12,000
Clerical			1.2	13,000

2. The addition of four CCU/ICU step-down beds by 1984 will require the addition of one Registered Nurse FTE at a total estimated cost of \$19,000.
3. The provision of 24-hour coverage for the inhalation therapy service, during 1983, will require the employment of 9 FTE inhalation therapists at a total annual cost of \$162,000.
4. The introduction of a fully self-contained Biomedical Engineering Department during 1983 will require the employment of one full-time biomedical engineer at a salary falling between \$23,000 and \$25,000 per annum.
5. The creation of the recommended Information Services Department by 1984 will require the following personnel:
 - 1 FTE Information Services Manager, @ \$35,000 per annum
 - 1 FTE Computer Programmer, @ \$26,700 - \$34,900 per annum
 - 1 FTE Clerk Typist, @ \$13,800 per annum
6. The introduction of the Director of Organizational Research and Development will require the employment of a new staff officer at an estimated annual salary of \$30,000. This assumes that associated clerical support will be provided from existing resources within the Personnel Department.
7. Expansion of in-service nursing capacity will entail the employment of 1 FTE Registered Nurse in-service training coordinator at an annual salary of \$20,000, and 1 FTE Clerk-Typist at an annual salary of \$12,500.

8. If it is determined to move toward the development and implementation of full blood banking capabilities, including donor recruitment and blood donation services, a Blood Bank Coordinator (1 FTE Registered Nurse) will be required at an annual salary of \$20,000. One FTE clerk-typist will also be required to support this position, at an estimated annual salary of \$12,500.
9. To fully implement the existing speech pathology and audiology service, one full-time speech pathologist at an annual salary of about \$16,000, and one full-time audiologist at an annual salary of approximately \$19,000 will be required. It can be expected that these employees will generate their own caseloads which, in time, should make the service self-sustaining. In both cases, the new personnel should hold masters degrees and be certified in clinical competence by the American Speech and Hearing Association.
10. Deriving directly from the service volume analysis above, there appears a need for a minimum of two additional medical social workers to augment the present staff. This will require the creation of two new budgeted positions at a total annual expense of approximately \$29,000.

FUTURE PERSONNEL QUALIFICATIONS

Existing personnel qualifications are satisfactory for the nursing and clerical personnel contained in the foregoing tabulation. Desirable minimum qualifications for the remainder are as follows:

1. Director of Organizational Research and Development

Minimum of an undergraduate degree in business administration and graduate work in psychology. Education and experience should include the conduct of organizational research, process consultation, and the development and implementation of educational and training programs, preferably in a hospital.

2. Biomedical Engineer

Either an Associate of Arts degree in biomedical equipment technology or electronic technology, or equivalent training at a military school. Military training must have included courses in theory, operation and repair of biomedical, laboratory and x-ray equipment. Must be professionally certified as a Certified Biomedical Engineer with a specialty certification in either laboratory or x-ray by the Association for the Advancement of Medical Instrumentation. Previous job experience must be a minimum of one year. May not possess physical impairments which preclude lifting, pulling and carrying of heavy material and equipment. Must have normal color perception and must be capable of conversing and dealing with professional personnel in accomplishing work.

3. Manager of Information Services

Bachelor's degree of equivalent, with special education in computer or information sciences. Experience should include at least 3 years in data processing, with a minimum of 2 years of experience in supervising the work of computer programmers. Training in advanced management practices, skills and concepts of administrative management, project control, supervisory techniques, advanced analysis and design techniques, quantitative methods and planning are all highly desired.

4. Programmer/Analyst

Bachelor's degree in computer science or information science, with graduate education in computer sciences desirable. Combination of education and experience exceeding 4-5 years may be considered in lieu of the undergraduate degree, especially if training and experience derive from military computer applications. Four to five years of computer programming experience is required, of which one year shall have been in a supervisory capacity.

At least one year of experience in systems analysis or systems design is required, as are skills in statistics and mathematics, administrative management and project control as well as familiarity with major programming and job control languages and special programming techniques.

SOURCES OF FUTURE PERSONNEL

1. Registered Nurses, Licensed Practical Nurses, Nurse Aides and Clerical Personnel.

Given the time-phasing of the service developments which will require these categories of personnel and the concurrent expansion of the baccalaureate nursing program at the University of Guam, there is foreseen no difficulty in attracting the relatively few additional personnel which will be required. These sources, and the general availability of clerical personnel especially from among military dependents, should prove reliable and consistent in the future.

2. Inhalation therapists are available in Hawaii and West Coast markets, and may possibly be available from the trained cadre of military personnel based on Guam, at least one qualified member of which may decide in favor of a civilian career. Once achieved, a full-time and qualified inhalation therapist can provide on-the-job training for minimally qualified assistants and bring them to full operating sufficiency. Thus, the supply for future inhalation therapy personnel can and probably should derive from within the hospital as part of its broader educational mission.
3. The biomedical engineer could either be attained by recruiting in the local military community, or through outreach recruitment in Hawaii where there is a marginal but available supply of such technicians. Another recourse would be the identification of a minimally qualified person, their employment and arrangement for intensive training

in Hawaii under the guidance of a qualified biomedical engineer (this would require a minimum of nine months of intensive training abroad).

4. For the newer staff positions in information services and computer programming, there are estimated to be sufficient training and experienced personnel in Guam, either in the civilian (private and public) or the military sectors, from which the two needed technical persons could be attracted, and from which future replacements could be secured.
5. The Director of Organizational Research and Development would best be recruited from a larger general hospital abroad. The major hospitals in Hawaii, and on the West Coast, have among their staffs junior members of their personnel departments with the requisite training and experience who could be attracted to a first-line job in Guam. As needed, a supply of such personnel are almost constantly moving upward in other hospital organizations and can be attracted as future needs for replacement occur.

FUTURE RECRUITMENT AND STAFF RETENTION OPTIONS

Recruitment of qualified personnel in key areas of the hospital has long been a difficult task. In general, the resources of Guam have served to provide staff for ancilliary positions, but local resources have not been able to meet the needs for some key positions. There are three options which could be considered to assure the needed future supply of key personnel for the hospital.

1. Move, in consort with the University of Guam and the Community College of Guam, to identify lacking but needed professional and paraprofessional educational programs and support their development. The recent decision to provide baccalaureate nursing education at the UoG will prove of immense assistance, but will only partially resolve the overall nursing staffing needs of the hospital. Another recent innovation at the University has been the development of an undergraduate program in hearing/speech

pathology, and this can be construed as meeting some of the hospital's future need. There have been no health administration/health care management programs developed at the University, and these have been recommended in another study of the total health care system. Support for this development would, in the long run, serve the hospital's continuing need for qualified and well-prepared managerial personnel at all levels.

At Guam Community College, there are likely vocational programs not now existing which, were a market demonstrated, could be developed. These could fall into the areas of computer science, biomedical engineering and technology, maintenance, executive housekeeping and similar areas. Serious discussions with officials at both the University and the Community College, coupled with estimates of future supply needs, could be fruitful in helping support needed and currently non-existent educational programs, and help to bring more of Guam's young people into health careers.

2. In many areas, off-island personnel will need to be identified and attracted, for the staff needs are not of sufficient magnitude to warrant the introduction of special educational programs on Guam. Accordingly, three sub-options related to off-island recruitment may be offered.
 - a. Guam has a large military population which, although refreshed almost annually, contains substantial numbers of health professionals and paraprofessionals of utility to the hospital, either among active duty personnel or their dependents. An active and aggressive recruitment among these populations would likely yield decisions on the part of some to foresake military careers in favor of more permanent stability in Guam in the hospital. This, of course, represents "raiding" in the domain of other health services, but given the stringency of the hospital's requirements it may be a

game of "all's fair". Furthermore, positions in the hospital may offer many a more satisfying professional career, and thus recruitment from among the military ranks could be viewed as contributing to the professional welfare of the target population.

- b. One solution adopted by many institutions which are in positions of isolation and rurality is the device of the annual recruitment campaign. This normally takes the form of prior advertising and the establishment of interview days at selected high-population areas across the United States. Following advertising, a recruiter representing the hospital travels around the mainland for a specified period of time, contacting possible personnel sources and conducting prearranged interviews or holding him/herself available at preannounced times and places for those with interest in inquiring about employment in Guam. In other cases, this has been extended by including foreign countries in the itinerary, and in the case of Guam it may be fruitful to consider off-island recruitment in the Philippines and in Japan where relatively abundant health personnel pools exist. Many qualified personnel exist in other countries who would welcome the opportunity (and often at lower than customary rates of pay) to escape home conditions. This type of recruitment, although it usually pays off handsomely, is both costly (a typical four-week recruitment journey can cost approximately \$6,000) and hazardous inasmuch as the expatriate recruit usually has little or no real dedication to staying to serve Guam for any specific period of time.
- c. More recently, at least one other isolated Pacific community (i.e., American Samoa) has entered into a contractual relationship with a reputable health professions recruitment firm on the mainland. There are a number of such organizations which can provide both

physician and other contract personnel referrals, and provide skilled screening and evaluation services prior to executing formal contracts on behalf of the hospital. Since these firms require a steady and repeat source of business in order to succeed, they usually make special effort to please their client (i.e., Guam Memorial Hospital). The customary fee for each successful recruitment is one-half of one month's salary. Since such services would normally be employed for the more technical (hence, higher paid employees), expense to the hospital, for example, for an annual volume of 10 new employees at an average salary of \$2,000 per month would be approximately \$10,000. The utilization of such services is strongly recommended as the future major off-island recruiting device.

Although not a specific option, it is worth noting that several other studies of health systems in the Pacific have identified the ubiquitous problems of most Pacific Islands in recruiting and retaining needed health professionals. In all cases, the suggestion has been made that some form of consortium be created which would bring together major centers which produce health professionals (e.g., San Francisco, Los Angeles, and Honolulu, with their wealth of schools of the health professions) and concerned entities in the Pacific for purposes of an orchestrated and coordinated outreach effort to match available health personnel with the immediate and future forecast needs of various Pacific entities. This kind of arrangement, formalized perhaps with the location of a coordinator at strategic sites where health professionals and allied workers are produced in abundance, could bring not only interested new entrants for employment in Guam, but more experienced persons who might relish a shorter, one- or two-year assignment in Guam and who could be serially replaced by equally experienced persons on similar shorter-term assignments.

Retention is a much more difficult topic to deal with than attracting and recruiting personnel. Except for those who have

been born in, or who have lived for substantial periods, in Pacific Islands, the climate, isolation and topography are not conducive to long lengths of stay. There is simply no way around this dilemma, and apparently even salaries which exceed those offered in "more desirable" places such as San Francisco or Honolulu are insufficient to retain many personnel. One device, rarely practiced in Pacific Islands, would be a supportive and sensitive acculturation program for all off-island hires, during which each would be introduced to the local culture and made to feel at home, be introduced appropriately to languages and customs, and perhaps even be linked through some form of extended family arrangement with the prevailing social network. This coupled with satisfying working conditions where perhaps greater responsibilities and freedom might be found than elsewhere, plus appropriate salary, could be a profound force in lengthening the commitment to Guam on the part of those recruited from abroad.

Retention strategies for both contract (off-island) and locally hired personnel need to depend more on human factors than upon economic ones, if the current human behavior literature is to be believed. Thus, adequate compensation and employee benefit programs answer only a part of the vexing problem of retaining valued and experienced employees.

The human needs which need to be catered to include the following:

- a. control over one's own "world" (i.e., a sense of being a participant in making those decisions which affect one's work and one's work environment);
- b. a longer time-perspective with respect to one's work (i.e., a sense of future direction, of goals to be attained, and of improvement in one's professional and employment status in the future, as opposed to the more narrow concern with one's day-by-day work with no view to tomorrow);

- c. a sense of belonging, of being a member of a team as opposed to being an impersonal cog in a large machine;
- d. a sense of pride in the organization with which one is associated, including a dedication to making the organization not only a satisfying place in which to work, but also to making the organization appear to outsiders as a first-rate institution.
- e. a sense of satisfaction with one's own work (i.e., a developed feeling that what the employee is doing is really important, whether it be painting an exterior wall, caring for an expiring patient, or conducting an automated laboratory test).

There is no standard approach to achieving these human needs, but many of the recommendations in Plan Element 1 which would construct a more participative democratic type of management environment would go far toward meeting many of them. For example, the implementation of a full goals and objectives system would satisfy not only the need to control one's world but would provide longer time perspectives and a definite sense of direction for all employees involved. Senses of belongingness can be achieved through the development and refinement of work teams within sub-units of the organization, where decision-making is truly shared. Pride in the organization and satisfaction with one's work can be developed through in-house employee relations programs and through systems of rewards and recognition for work well done. The present "employee of the month/week" program is one example of this, but many other devices can also be conceived, including pay bonuses, recognition by pins and awards, employee sports and other types of leagues, family open-houses, and other social events. Much of this kind of developmental activity could become a major responsibility of the recommended Director of Organizational Research and Development.

In a longer-run context, and beyond the scope and purview of this hospital, would be the creation of a system (preferably under general health planning in Guam) wherein young people in Guam would be identified at the high school level with interests in a health career. These interests could be fostered and made to grow through various contacts and experiences in the health field, and mature through college work either at the University or the Community College. As aspirations indicate, they could be encouraged and supported to undertake professional education at health professional schools abroad, and since they are from Guam there would be a high likelihood of their returning and staying in Guam to practice their profession or technology.

PERSONNEL ADMINISTRATION

DISCUSSION

Extensive reviews of the hospital's personnel administration reveal that capacities of significant capability and potential exist in the areas of personnel record keeping, creation and maintenance of job descriptions of adequate quality and content, personnel evaluation, employee orientation, and related personnel considerations. The Personnel Department is not presently recognized for either its current or future potential, however, and is

currently little little more than a clerical clearing house, processing personnel matters pertaining to several different classifications of professional, civil service and contract personnel.

Job descriptions, both with respect to form and content are equal in scope and quality to those found in most hospitals, and there is clearly ability to construct appropriate position descriptions already present in the hospital. Materials pertinent to position qualifications are ample and appropriate, but the problem is that, for a number of reasons, qualifications statements are often ignored at the time of hiring either to accommodate some power structure or another, or because it is impossible to recruit the appropriately qualified candidate from the manpower reservoir in Guam.

Personnel evaluation forms and procedures are adequate, but warrant some revisions, the work on which has already been planned. Current evaluations are essentially pro forma (as is true in most hospitals), and have little to do with or reveal regarding true performance. Movement in the direction of establishing goals and objectives, especially those related to work expectations of individual employees and managers will go far toward installing a more realistic and valuable system of employee evaluation.

Accordingly, appropriate and high quality mechanisms already exist in the hospital for the future systematic preparation and development of job specifications for any future service which may be developed. Ample and abundant assistance from counterpart hospitals in Hawaii has been emphasized in many places, and continues to represent an accessible resource should assistance be required in the future with respect to specifying any hospital position, no matter how menial or technical it may be.

PERSONNEL BENEFITS PLANS

Except for the Administrator, one secretary to the Administrator, the first assistant to the Administrator and physicians, under the amended Subsection (b) of Section 49007 of the Government Code of

Guam, "all (other) employees of the hospital shall be members of the classified service of the government". Under this condition, personnel benefits for hospital employees are at par with those vested in all other employees of general government.

The Board of Trustees is empowered to adopt rules which govern the selection, promotion, performance evaluation, demotion, suspension and other disciplinary actions. Chapter 4, Title IV of the Government Code provides specific employee protections which are binding upon the Board, including the following:

1. Employment must be based on merit, and selection must be free of personal or political considerations. Non-discrimination on the basis of race, color, age, religion, sex, national origin or physical or mental impairment is assured.
2. Affirmative action must be taken to assure that physically and mentally handicapped persons have employment opportunity.

Applicable personnel rules which apply to all members of the classified service, and thus embrace employees of the hospital, are broad and generous, including the following assurances and limitations:

1. No spouse of any director, chief administrator or other department head may be employed within the department headed by same.
2. Overtime pay is calculated at the standard rate of $1\frac{1}{2}$ times the regular pay of the employee.
3. Employees are permitted to work at outside employment which is not in conflict with their government service on any other than duly scheduled hours of government employment with written consent.
4. Paid maternity leave for female employees is assured with up to 10 days of such leave granted in addition to any sick leave which may be taken as well.

5. Paid sick leave is provided, and accrues at the rate of half-day for each bi-weekly period of employment and accumulates without upper limitation. Additional sick leave may be approved and up to 13 days in advance of earning sick leave may be granted.
6. Paid annual leave is accruable at the rate of half-day per bi-weekly pay period for those with less than 3 years of service, at the rate of 3/4-day per bi-weekly pay period for those with 3 but less than 15 years of service, and at the rate of one day per bi-weekly pay period for those with more than 15 years of service. Service years include those under the Naval Government of Guam and armed forces service. Annual leave may be accrued up to a maximum of 60 days.
7. Employees are granted rights of petition, either individually or collectively, whereunder they may approach the Legislature, any committee or member thereof, or the Governor, without prejudice.
8. Employees are granted the right to answer charges preferred against them in connection with removal actions, and a system of fair hearing is provided.
9. No more than two member of an immediate family are generally permitted to be employed in the same department of government, but in the case of medical and para-medical personnel, this restriction does not apply.
10. Conflict of interest statements are required of all employees who purchase or contract or who are in position to purchase or contract.
11. Employees are offered participation in the government of Guam Retirement Fund with participatory contributions made on their behalf by the hospital.
12. Employees are offered participation in the Government of Guam health and life insurance plan or prepaid health plan,

with participatory contributions made on their behalf by the hospital.

It would appear, on the basis of the foregoing, that hospital employees are amply endowed with a personnel benefits package of a standard available in most other hospitals. Not only are rights to employment adequately protected, but in the special case of the medical and para-medical professions (where professionalism often tends to run in the family), multiple family-member employment is provided for. All other usual and customary rights and benefits including leave, retirement and health benefits are amply included.

If there are deficiencies, they lie in two areas, one of which is correctible through developments included in this plan.

1. There is no provision in Guam for public employee collective bargaining on issues of salary or right to strike, and because this has become the vogue in some other quarters, the future might well include provision of such for hospital employees. This lies well beyond the purview of the hospital and the Board, and it is doubtful that a unilateral approach to sanction broadened bargaining rights for hospital professional employees would be met with great enthusiasm in other public sector employment quarters.
2. There is no formal provision for the participation of hospital employees in the governance of the hospital, nor is there provision for personal development benefits through additional on- and off-the-job training and education.

In this connection, the adopted and implementation of participatory management forms centered around committees and the production of personal goals and objectives will go far toward providing needed participation in major decision-making for most if not all employees. The implementation of the training and employee development plans contained herein will add that substantial benefit to hospital employment.

QUALITY OF PERSONNEL

Examination of the personnel qualifications statements, job descriptions and of individual staff members does not reveal any serious deficiencies in the quality of existing personnel. In all cases, and owing mainly to the isolated location of Guam, there are needs for professional updating, and these have been noted elsewhere together with plans for attaining necessary staff professional development.

Attention should, however, be more strongly focussed to evaluating the quality of managerial performance in the hospital, for no formal means for this appraisal presently exists. To do so will require implementation of a process which embodies at least the following:

1. Clearly written job descriptions for each managerial position, beginning with the administrator and proceeding downward in the organization to principle supervisory positions.
2. For each position, once functions, responsibilities and authority have been clearly established in the position description and communicated to the incumbent manager, their relative authority, function and responsibility within the overall organization must be made clear (see Plan Element 1).
3. Authority delegation must be made explicit, and must be of any one (but not more than one) of the following types:
 - a. the individual may act with no prior consultation with a superior (final authority)
 - b. the individual may act after consultation with a designated superior (limited authority)
 - c. the individual may not act without the approval of a designated superior (delegated authority).

4. At least annually, each manager within the scope of his or her range of authority and with respect to the written position description should be evaluated with regard to his/her performance related to each component of the job description.
5. As detailed in Plan Element 1, each manager should have also created sets of operational objectives toward which his/her work is directed. At least annually, each manager's progress and success in achieving the predetermined objectives must be appraised, and reasons supplied for non-performance.

Thus, in its totality as described above, a newer system for managerial appraisal which is both objectives- and job description-related could be installed. This would provide for intermediate and top managers means to assess with meaning the performance of their subordinates and associates, and the same system provides the Board of Trustees the device which it needs to perform their responsibility in appraising the work of the Administrator.

Another realm of qualitative problem exists, but well beyond the control or scope of influence of the hospital. One remarkable feature of Guam's health care system is the nearly total lack of systematic, rigorous and high-standard licensure and registration of those permitted to practice in the healing arts. Thus, physicians, pharmacists, dentists and many other health professionals practice in Guam essentially on the basis of credentials which were issued elsewhere. The well-known fact is that there are wide variations in the quality and rigor of professional examinations and requirements across the U.S., and widely varying qualities of medical education across different countries. Therefore, the simple expedient of accepting credentials issued elsewhere, in many cases a great number of years ago, does not provide the protection truly needed by Guam's citizens or by the patients of the hospital.

This is not to suggest that a single one of Guam's present cadre of professional workers lacks ability or practices inferior medicine, but it is entered simply to raise a serious note of caution that continued reliance on external quality controls is not to Guam's best advantage. Furthermore, once admitted to practice in Guam there are no further requirements imposed to professionals to maintain currency in their field of practice. It has grown to be customary in most areas of the U.S. to require most practicing professionals to periodically submit evidence of post-graduate continuing education which is aimed at keeping them current and advancing their knowledge and skill in their respective professions.

In order to correct this imbalance and concern, the hospital should move in the following directions:

1. Become a strong advocate and supporter of any proposals which would create statutes controlling the practice of at least the following healing arts in Guam:
 - medicine and osteopathy
 - dentistry
 - pharmacy
 - psychology

Such statute should provide for the local examination and licensure of these practitioners and their local regulation through appropriate boards of examiners.

Nursing is presently satisfactorily licensed in Guam, and support for the maintenance of high standards of nurse qualification should be supported strongly.

2. Within the hospital, for laboratory, x-ray, inhalation therapy, physical/occupational/recreational therapy, and other appropriate fields where there exist professional certifications and registrations, personnel qualifications should be amended to require such certification/registration as a condition of employment (or continued employment).

As a means of assuring that primary qualifications have been met, hospital personnel in the following non-licensed categories should be sought with the certification/registration noted:

- a. Laboratory personnel (medical laboratory technician, medical technologist, blood bank technologist and certified laboratory assistant) should all be registered under the Board of Registry, American Society of Clinical Pathologists.
- b. Physical therapists should be registered in the Registry of Physical Therapists under the American Physical Therapy Association.
- c. Nuclear medicine technicians and technologists should be Certified Nuclear Medicine Technician/Technologist under the certification program conducted by the Society of Nuclear Medicine.
- d. Nutritionists should have certification granted by the American Dietetic Association.
- e. Radiologic technologists should be registered with the American Society of Radiologic Technologists.
- f. Recreational therapists should be registered with the National Therapeutic Recreation Society.
- g. Respiratory (inhalation) therapists should be certified by the American Association of Respiratory Therapy.
- h. Medical record administrator and librarians should be registered under the American Medical Records Association.
- i. Electrocardiogram (EKG or ECG) technicians should be registered members of the American Cardiology Technologists' Association.
- j. Electroencephalography (EEG) technologists should be registered with the American Society of EEG Technologists.
- k. Nurse anesthetists should be affiliated with the American Association of Nurse Anesthetists.

3. Within broader hospital policy, establish goals related to professional currency among licensed, certified and registered staff categories which specify (any other regulation not withstanding) amounts and types of professional continuing education which must be obtained by each in specific time periods as a condition of continued employment.
4. For presently underqualified staff (which exist, but not in serious dimensions), identify deficiencies and provide for additional and appropriate education as through enrollment in appropriate courses at the University of Guam or the provision of longer period of off-island formal education as in a qualified school of public health, nursing, physical therapy, and the like.

As with any other developmental activity, there are costs associated with undertaking any of the steps above. There will predictably be a "political" cost to pay in supporting the tightened regulation and licensure of a presently unencumbered professional community, not measurable in dollars but in potential lost close relationships between the hospital and those who may perceive themselves to be under attack.

With respect to asserting that all personnel for whom there is recognized certification or registration be so certified and/or registered, there will likely be needs for increases in salary scales in order to appropriately compensate fully qualified workers. Given current salary scales, it is estimated that staffing all technical, therapeutic areas with fully credentialed staff members will create an increase of approximately 10% in payroll expense.

Concerning the professional upgrading of incumbent persons, little or no cost would be incurred in urging the use of available course work at the University of Guam, except for the foregoing value of time off-the-job for purposes of course attendance. It might be to the hospital's advantage, and provide yet an added incentive, to defray tuition costs which presently amount to a

nominal \$25.00 per credit hour. For any given staff member, it would be unlikely that more than a 3-credit course could be completed during any given semester. Estimating that as many as 25 key staff members might be engaged in such advanced course work during a given year, and that each would complete two, 3-credit courses each year, then a total obligation of \$3,750 can be forecast. Substantially greater costs would be incurred were incumbent staff members sent abroad to health professions schools, even for as little as a single semester of intensive, advanced study. However, there are within the general government system programs to defray substantial portions of such expenses under government scholarships, and there are also World Health Organization sponsored scholarships available, especially abundantly in the health fields. Thus, an estimated \$5,000 per semester cost for education abroad (including travel, subsistence, tuition, fees and supplies) may not have to be borne by the hospital directly. But in some key management areas, the payoff to the hospital in the long run might warrant the investment of \$10,000 to \$15,000 annually for such purposes, and provide for from two to three key management personnel each year to undertake intensive advanced work in clearly defined areas of need.

TRAINING FOR CURRENT AND FUTURE PERSONNEL

SITUATIONAL ANALYSIS

Except in nursing services, where tradition and good practice dictates a preoccupation with in-service training and nursing staff development, staff development programs have not been generally developed through the hospital.

GOAL 1

Develop and implement a hospital-wide staff development program which will ensure the attainment of maximum feasible personnel development for each employee.

DISCUSSION

While a basic need to achieve the foregoing goal exists, it will be seen that it is recommended that attention to this development be deferred for a minimum of two years (until 1984 at the earliest) in order to permit other more fundamental developments to mature. When finally instituted, it must become an on-going program of management, fully supported by the Board of Trustees and top management.

There are essentially three approaches to the staff development needs of hospitals, including the following:

1. Program-by-program, service-by-service, internal in-service training which employs "canned" programs, audio-visual presentations, programmed texts, reading and journal clubs, clinical conferences, and similar modalities as means to hopefully keep employees relatively up-to-date in a rapidly evolving professional environment. These unit-level activities are highly desirable, and should be maintained in the short-run where they exist, and would be institutionalized and generalized under the hospital-wide staff development program recommended.
2. "Cafeteria" programs which involve sporadic presentations by local faculty members, community leaders, or paid specialists. Such programs, while immediately stimulating, lack overall focus and continuity and do not truly represent a well orchestrated staff development program.
3. In-house programs involving the employment of a full-time, well-qualified and experienced staff member who is capable of gearing a total program to specific personnel needs is that which is of growing vogue in hospitals.

IMPLEMENTATION OF THE RECOMMENDED PROGRAM

Task 1

No earlier than 1984, but soon thereafter, prepare a job description for a new position of Director of Organizational

Research and Development, which would be a subordinate staff position of the Director of Personnel. The qualifications should specify training in personnel administration, staff and organizational development, and in educational theory and process. Experience should be at the minimum of five years of responsible direction of a staff development program in a hospital of size equivalent to Guam Memorial Hospital. The duties of the position would entail the implementation of the following tasks.

Task 2

Upon retention of the Director of Organizational Research and Development, commence the diagnosis of existing staff developmental needs in conjunction with the annual preparation of individual staff personnel objective statements. Considerable consultation would need to be provided to individual staff members by their immediate supervisor and the Director for this to be fruitful.

Task 3

When individual developmental objectives have been developed, consolidate these according to type and nature of the individual developments foreseen as needed (rather than by service unit or department), for many employees in unrelated jobs will likely have similar developmental needs and desires. From the consolidated personal objectives, it would be possible to distill major developmental need areas for each of which time-phased education plans would next be developed.

Task 4

In conjunction with immediate supervisors, prepare in- and out-service educational objectives for groups of employees with kindred developmental needs, structure packages of educational services and programs, identify and recruit necessary faculty, instructional resources and training materials.

Task 5

Implement the planned educational activities for a single year time period.

Task 6

Repeat annually the diagnosis of staff development requirements, repeat planning and logistical steps, and continue to implement each year thereafter. There will be termination of this activity, for new staff will be employed and older staff will rapidly become out-dated as technology and medical practice continue to evolve.

COST ESTIMATES

A properly qualified Director of Organizational Research and Development could, in 1984, be attracted from within Guam at an estimated beginning annual salary of \$30,000. During the same year, or earlier if resources permit, minimal instructional resources would need to be obtained, including the following:

- a. 35-mm slide projectors (3) \$ 750.00
- b. overhead projectors (3) w/carts 1,500.00
- c. video camera and portable recorder 2,500.00
- d. flip-chart easels, portable blackboards,
screens and related supplies 1,000.00

GOAL 2

To assure that key executives and managers of Guam Memorial Hospital have continuous opportunities of professional interchange with counterparts elsewhere.

DISCUSSION

Guam is an isolated community, and insularity among professional workers and administrators can easily occur without contacts and refreshment from abroad on a continuing basis.

RECOMMENDED ACTION

1. Each member of the central management team, and each department and program head, will seek and establish personal relations with one or more counterparts in hospitals in Hawaii and elsewhere. These relationships will include invitational visits of selected counterparts

to Guam as friendly counsel, visits to counterparts at their respective hospitals by Guam staff, and frequent mail correspondence and consultation.

Frequent and personal communication with counterpart professional workers should be designed to bring to the attention of Guam personnel new and innovative developments which may be useful in Guam, and to facilitate feelings of belonging to a broader community of kindred professional workers.

2. Develop formal relationships with various schools of the health professions in Hawaii, California and elsewhere to arrange the provision of skilled educators to assist with needed in-service and staff development education for all levels of staff.

Through these arrangements and over time, faculty members in associated schools will learn the problems of the hospital and be in an improved position to assist with both training and professional consultation/technical assistance. Such professional educators who become familiar with the technical and staffing needs of the hospital can in time be useful in identifying and recruiting needed professional staff from the off-island communities in which they operate.

COST ESTIMATES

Cost associated with the foregoing actions are impossible to estimate until the frequency and intensity of counterpart (peer) and faculty contact has been established.

In the short-run, the principal costs would be staff energy and postage in establishing informal linkages. As staff travel permits, personal contacts could then be arranged in connection with other travel responsibilities.

**GUAM
MEMORIAL
HOSPITAL
AUTHORITY**

**LONG RANGE
INSTITUTIONAL PLAN**

PLAN ELEMENT 4: FACILITIES

PLAN ELEMENT 4: FACILITIES

SITUATIONAL ANALYSIS

Most of the issues and concerns regarding future facilities revolve about and are in large measure dependent upon decisions regarding disposition of "old" Guam Memorial Hospital.

In light of the July 1981 Task Force Study for the Utilization of this GMH facility, under the auspices of the Government of Guam, the future use of the complex should not be as a health-related facility. In a recent GMHA report entitled, Guam Memorial Hospital's Estimated Capital Improvement and Equipment Cost Requirements, stated that "For the past ten years, GMH has been continually faced with accreditation problems, primarily, as a result of its inadequate physical plant. Unfortunately, construction of this facility to meet current standards and provide a twenty-year useful life will mean practically gutting the whole building, saving only the structure and some partitions". Moreover, the report stated that in 1968 the Government of Guam had its new construction and remodeling plan disapproved by HEW based in part on the fact that considering the condition of the facility it could not be upgraded to a first rate full service acute care hospital.

The 1981 Task Force Study cited above, recommended that the GMH facility be abandoned, and all medical adjuncts be integrated into the newer MCM campus. The Study further recommended that the entire 53.63 acres be developed as:

1. World Trade, Convention and Civic Center
2. 200-400 Room Resort Hotel
3. First class Office Accommodations

The abstract of this Study admitted that the recommended utilization of the site would be problematical if the medical facility remained. "The option of centralizing all health care options at the MCM facility would, of course, be most acceptable and highly beneficial both to the Guam Memorial Hospital Authority and the Government of Guam".

Presently, the GMH facility houses:

- a. 35 Skilled Nursing beds
- b. 36 Intermediate Care beds.
- c. 10 Station Hemodialysis unit
- d. Dietary and Laundry facilities
- e. 17 Psychiatric beds
- f. Public Health Clinic
- g. Boiler Plan and Repair Shops

For any feasible option as to the disposition of GMH attention must be given to the following considerations:

- Patient needs and care
 - Health, fire and safety code compliance
 - Economics: initial costs and operational costs
 - Benefits to the public and the Government of Guam
1. Presently the Skilled Nursing patients and the Intermediate Care patients receive adequate care. Portions of the building which house these units have been renovated to some extent, such renovations concentrating on the care aspect. More work remains to be done which can be more fully described in the following consideration.
 2. This is the area in which considerable renovation must be made. The Skilled Nursing and Intermediate Care sections will soon require changes in finishes which are deteriorating and will subsequently create a health hazard. Rough masonry walls invite bacterial retention and should be resurfaced in hard, smooth plaster or by use of an anti-staph vinyl wall covering. Corridor counters and cabinetry have broken or chipped surface material which could harm ambulatory patients. Fire exits, at presently, are not in accordance with code, and in the event of their emergency use, could result in panic due to construction flaws and poor lighting. Most of the equipment used for

patient care is in need of repair or replacement. The beds, especially, are below standard from a nursing standpoint. The narcotic sections of the medicine rooms are double-locked as per regulations, but the medicine rooms themselves are left open and unattended at times. This is properly a procedural problem and not necessarily a facility flaw. Clean linen and soiled linen are not adequately separated.

3. In order to bring the Skilled Nursing and Intermediate Care Units up to standard, the entire building needs to be upgraded. This is required because the accessibility to the patient care sections as well as the adjacency to other parts of the building must be in accordance with all fire and safety codes. Stairwells and fire exits must conform to the code requirements for their full height. Floors and ceilings and partitions of all stories above and below the patient care sections must have the same or better fire resistive rating as does the patient care portions. This requirement includes the roof as well. Soiled linen chutes are not properly constructed, i.e., two hour fire rated doors are required at each floor, a sprinkler system within the chute, and a fire rated discharge assembly is required at the lowest level.

The 10 station Hemodialysis Unit is somewhat crowded but adequate. Accessibility to the unit, however, is by way of a non-standard approach. The corridors do not meet code, and the waiting room is non-conforming. Storage of equipment and supplies is not adequate, and the interior finish of the floors, ceilings, and walls of the unit present a potential health hazard. Storage facilities should be increased and the entire unit renovated with acceptable finish materials.

The Laundry and Dietary Units are barely standard. The equipment is in fair working order, but replacement of some equipment is required. The Laundry appears to be in satisfactory condition.

The Public Health Clinic is far below acceptable standards. This portion of the facility, on the lower floors, is leased

from the hospital. As a clinic, the total configuration must have at least a one-hour fire resistive construction, which presently it does not have. In order to conform, the entire interior should be gutted and replaced with complying materials and construction. Portions that are immediately contiguous with the Nursing Wings above must have at least a two-hour fire rating.

The Mental Health or Psychiatric Wing does not meet the acceptable standards of safety and security. The sexes should be physically detached, and a more positive separation for the violent and/or criminally inclined patients must be achieved.

4. The disposition of GMH must have some beneficial impact on the public and the Government of Guam. The present complex is somewhat of an eyesore, showing all the signs of old age and neglect. The decision to keep GMH where it is and undertake the extensive remodeling and renovation work specified herein would give some benefits to the public however few. The hospital would become a facility for improved and safe health care to the community. There might be an intangible benefit in the pride of the public in seeing the past preserved rather than being done away with in the name of progress. The Government would benefit in having some surplus space made available with which compatible usage could be made, i.e., health-related office space contiguous with a hospital environment.

It cannot be ignored, however, that the cost effectiveness of the renovation cost is not there. The buildings would still be updated "old" structures with limited life. The continuing duplication of services and staffing will become an increasingly difficult budget burden. Against this background, several alternatives appear to be feasible which set the stage for broader facilities improvements.

ALTERNATIVE 1: RETAIN AND RENOVATE GMH

This optional action will require a long-term commitment on the part of GMHA to continue the operation of two facilities. Paramount to this decision is the realization that the cost/benefit to the

patient, the public, and the GMHA will be minimal. The upgraded facility will afford good patient care for both the Skilled Nursing Unit and the Intermediate Care Unit. To achieve this end, the estimated initial cost will be in excess of \$6,000,000. The Mental Health Unit and the Public Health Clinic will require \$2,000,000 to bring them up to standard. Another \$1,000,000 will be spent to upgrade ancillary services and to replace equipment. Consideration must be given to the cost over the long-range of the duplication of dietary and laundry facilities and the increase in staffing.

DETAILED ESTIMATED COSTS TO RENOVATE GMH

a) "GR" Wing		
1) Renovation of building		\$ 76,000
2) Laundry equipment		360,000
b) "A" Wing		
1) Second floor renovation, 1712sf @ \$85/sf		111,280
2) Food service equipment		90,000
c) "C" Wing		
1) First floor renovation, 11,000sf @ \$85/sf		935,000
2) Second floor renovation, 11,000sf @ \$85/sf		935,000
3) Third floor renovation, 11,000sf @ \$85/sf		935,000
4) Fourth floor renovation, 11,000sf @ \$85/sf		935,000
5) Elevators		450,000
6) Equipment:		
Boiler	130,000	
Chiller	400,000	
Elevators	550,000	
Generator	<u>125,000</u>	
		1,205,000
d) "F" Wing, Mental Health		
1) Remodeling to provide a total of 25 psychiatric beds		640,000
2) Renovate existing, 10,000sf @ \$85/sf		850,000
e) "GL" Wing		
1) Renovate 14,220sf @ \$85/sf		<u>1,208,700</u>
	TOTAL RENOVATION COST	\$8,924,980

These are initial costs only. The operational costs incurred by staffing, food, linen, supplies, maintenance, housekeeping, etc., are already an operational expense reflected in the overall hospital budget. The maintenance costs, however, could reasonably be expected to be reduced as a result of this renovation and major equipment replacement.

In summation, the disadvantages of ALTERNATIVE I:

1. High initial cost of renovation to achieve improved patient care.
2. Duplication of services and staffing will have long-range adverse effect on budget restraints.
3. Some transportation will be needed to transfer service, staff and/or patients between GMH and MCM for special procedures or needs.
4. Public Health and Mental Health may not be in keeping with long-range plans.
5. Increased pressure from other government agencies to integrate with MCM. Subsequent morale impact cannot be measured.

ALTERNATIVE II: RETAIN AND RENOVATE GMH, WITH PUBLIC HEALTH AND MENTAL HEALTH SEPARATED

This optional action would have the same minimum advantages and maximum disadvantages as ALTERNATIVE I, with the exception of providing additional hospital and/or administrative space in place of that now occupied by the Public Health and Mental Health Units. The total cost of renovation at GMH would be less than for ALTERNATIVE I because the psychiatric wing would not have to be enlarged, and the cost of renovating for ancillary and administrative usage is less per square foot.

Unless the Public Health Clinic and the Mental Health Unit are transferred to some other government agency, the savings at GMH would be overshadowed by the expense of building another clinic and psychiatric facility elsewhere. This cost to GMH would exceed the renovation costs at the present structure because everything would have to be built (foundations, structure, exterior walls, mechanical and electrical

systems, etc.). Additional support services would be included resulting in further duplication:

The reduction in renovation costs at GMH would be:

\$935,000-(11,000sf @ \$60/sf)=	\$ 275,000
\$850,000-(10,000sf @ \$60/sf)=	250,000
\$640,000-(10,000sf @ \$40/sf)=	<u>240,000</u>
Renovation reduction	= \$ 765,000
Total renovation cost	= \$8,159,980

Additional ALTERNATIVE II cost for the separate Mental Health/
Public Health facility:

11,000sf of clinic space @ \$110/sf	= \$1,210,000	
25 psychiatric beds @ \$60,000/bed	= 1,500,000	
2000sf circulation/public space	140,000	(\$70/sf)
5000sf ancillary space @ \$85/sf	425,000	
Contingency factor	<u>100,000</u>	
Estimated cost of facility	\$3,375,000	

The proposed increase to 25 psychiatric beds was derived from the non-linear formula used by some consulting firms rather than by government agencies. This formula states, "beds required equals the average daily census plus 3 times the square root of the average daily census." The present facility has 17 beds with a high degree of utilization, but when taken over a year's time span, the average daily census would appear to be 14. Substituting in the formula:

$$\text{BEDS} = 14 + 3\sqrt{14} = 25$$

The three security rooms represent an average of 10-15 percent of average daily patients who may be regarded as potentially dangerous.

In summation, the added advantage of ALTERNATIVE II over ALTERNATIVE I is the lower cost of upgrading GMH, and providing code conforming administrative space. This ALTERNATIVE requires the long-term commitment, as does ALTERNATIVE I, with the additional decision to separate Mental Health and Public Health from GMHA jurisdiction. The disadvantages of this option:

1. High initial cost of renovation

3. Transportation between GMH and MCM must be maintained
4. Pressure from other government agencies to totally integrate with MCM
5. Increased cost of providing facilities for Public Health and Mental Health.

ALTERNATIVE III: ABANDON GMH AND INTEGRATE WITH MCM

It is not recommended herein to have either ALTERNATIVE I or ALTERNATIVE II accepted, even on a short-term basis. The decision to retain GMH for "the time being" would be short-sighted insofar as economics is concerned. The facility is dangerous for both patient and staff due to the many deficiencies of code conformity. Fire is always looked upon as catastrophic, even in first class, fire rated institutions; a fire in GMH could be worse. Equipment cannot be relied on to function properly for an indefinite period. "Stop-gap" repairs will not solve the deficiencies; nothing short of full scale renovation will suffice. Then, too, construction costs will continue to escalate, and a decision to retain the facility and make repairs will be more expensive at a later date.

The 1981 Task Force Study, which recommends the removal of all health care related activities from the site, offers an alternative use for the site which could have more beneficial returns to the people of Guam. Considering the numerous shortcomings of the retention of the GMH facility, as in both forementioned ALTERNATIVES, this PLAN recommends this ALTERNATIVE to GMH and MCM.

MCM, commonly being the designation for the Medical Center of the Marianas, was commissioned in 1976 and has been owned by Guam Memorial Hospital Authority since 1978. The structure is a first class hospital with a bed complement of 147. The foundations were designed to carry additional floors over the main cores of Wings A and B. However, the roofed area at the 3rd floor level of Wing B was not planned for future vertical expansion. The building is of reinforced concrete construction, with walls and partitions of either concrete block or metal stud and drywall. The ceilings are lay-in acoustic tile, and have the required fire rating for the function and occupancy.

Investigation has revealed no structural flaws in the frame of the building. There are no evident settlement cracks to indicate a possible substrata deformation, nor do the columns show any sign of cracking or spalling which would suggest overloading. The exterior walls are not completely waterproof, due in part, to the window treatment. The weep-holes in the aluminum extrusions allow dirty water to flow over the concrete spandrels creating a constant staining and mildew problem. There are indications that water has penetrated the walls and leaked through ceiling spaces below.

The open courts within the nursing wings create more problems for housekeeping and maintenance than esthetic benefits. It is recommended that these courts be decked over and the resultant floor space be incorporated into the nursing wings as usable areas.

Existing ancillary services appear to be generally adequate for the present patient load. There is some excess area within departments which could be utilized for increased patient load without too much crowding. However, this excess area is limited and is not generally available in all departments. The following compilation of existing areas in MCM show how much excess area within departments is available for internal expansion.

<u>DEPARTMENT</u>	<u>AREA (s.f.)</u>	<u>ESTIMATED EXCESS AREA (s.f.)</u>
CSD (incl. Linen)	5069	500
PATHOLOGY	3082	150
MORGUE	648	0
MEDICAL RECORDS	2162	0
THERAPY (Physical & Occupational)	2160	0
PHARMACY	1680	100
KITCHEN	3014	100
DINING	1845	150
BIOMEDICAL SHOP	480	0
GIFT SHOP	585	0
ADMITTING	750	0

This listing shows that, regardless of some excess area within departments, the addition of 117 beds relocated from GMH cannot be accommodated

without a substantial increase in most departments. Such departmental expansion will go beyond existing department perimeters, requiring a new configuration and construction of additional area into which departmental expansion can be realized.

DEPARTMENTAL ANALYSIS

CSD: This department presently includes 750 sf devoted to Linen service. If Housekeeping and Linen are relocated, the actual linen requirements within CSD will be reduced. The additional 117 beds will require absorption of the existing linen space and the existing morgue. The space thus allocated to CSD will be 6500 sf and, with a reconfiguring of functional flow, will be adequate for the revised bed complement. While this figure appears low, based on an 80% bed increase, the type of beds to be added and the average length of stay does not warrant a one-to-one increase in space.

PHARMACY: The existing Pharmacy has 1680 sf of area, with some excess room. It is recommended that the Gift Shop be relocated and its 585 sf be incorporated into Pharmacy. The resultant 2265 SF will allow the Pharmacy to handle the anticipated needs of out-patients as well as the needs of the SNF and ICF patients.

MORGUE: This service comprises 648 sf in one corner of the CSD block. With the addition of SNF and ICF beds, additional capability is needed. It is recommended that the Morgue be relocated across from its present location, in order to provide expansion room for CSD and to allow an increase in Morgue area to install one additional Autopsy Room. The total Morgue area will be 900 sf. This move will require the relocation of the Biomedical Shop into the space now occupied by the Business Office, which will be vacated during subsequent relocations.

PHYSICAL AND OCCUPATIONAL THERAPY: This area has presently 2160 sf. With the nature of the patients to be added, more space for Therapy will be needed, and the recommended reconfiguration will result in 3000 sf.

MEDICAL RECORDS: This area is presently very overcrowded. The area of 2162 sf is not adequate for the existing work load, and the addition

of 117 beds will strain the department. It is recommended that Medical Records be relocated with its area increased to approximately 3400 sf. This will provide office space for supervisors, a transcription section and adequate file space.

DINING ROOM: The present 1845 sf Dining Area need not be increased in proportion to the beds, but more room is needed for the employee increase generated by the added bed complement. An increase of 500 sf will produce space for 150 diners at one time, whereas the existing area seats 123 people.

KITCHEN: This area will be increased to 5000 sf because of the demands of the anticipated patient load with special diet requirements.

ADMITTING: The present 750 sf is adequate for this function, but will be relocated as shown on the Exhibit D.

ALTERNATIVE III can be implemented in toto, or can be divided into several alternative courses of action, initiated separately or collectively depending on possible future circumstances. Simply stated, these possible circumstances are:

1. Guam's economic climate
2. Advances in medical technology
3. Population trends and expectations
4. Shifts in patient needs
5. Possible changes in staffing patterns
6. Administrative procedures
7. Jurisdictional changes in GMHA

IMPLEMENTATION OF ALTERNATIVE III

- IIIa) Provide for 117 long-term beds
 - a) within MCM by means of expansion
 - b) separate free-standing facility on MCM site
- IIIb) Provide for 25 psychiatric beds and Public Health in a free-standing building

- IIIc) Expand MCM to house Hemodialysis Unit
 - a) within MCM
 - b) within separate building (long-term facility)
- IIId) Expand Dietary and Cafeteria
- IIIe) Expand other ancillary services
 - a) linen/housekeeping
 - b) CSD
 - c) medical records
 - d) pathology
 - e) pharmacy
 - f) maintenance
 - g) physical therapy
- IIIf) Relocate some present functions
 - a) business office
 - b) admitting office
- IIIg) Miscellaneous changes
 - a) handicapped facilities
 - b) parking
 - c) provide weather protection

INITIAL IMPLEMENTATION -- IIIA):

In order to initiate the closing of GMH, provision must be made to relocate the long-term patients. Other functions, such as Mental Health/Public Health, Hemodialysis, could be relocated prior to the transfer of the Skilled Nursing and Intermediate Care patients, provided that space is made available. Dietary and Laundry must remain until the long-term beds have been removed because of their support responsibility.

If the decision be that the long-term beds be relocated first, enough lead time must be scheduled to allow for either MCM expansion space to be established, or for the alternative free-standing facility to be built on the MCM campus. In either event, a construction program at MCM must be undertaken.

- Option 1: Expand MCM facility at the 3rd and 5th floor levels to provide 117 long-term beds. The 3rd floor of existing B Wing must be reinforced to support 3rd floor expansion.
- Option 2: Expand MCM facility at 1st and 2nd floors of Wing B to provide Dietary and Hemodialysis capabilities.
- Option 3: Undertake both expansion programs simultaneously in order for the evacuation of GMH to be expedited.
- Option 4: Design and build a free-standing facility on the MCH campus, including all necessary ancillary services. This option must be followed either by Option 2 or preceded by it. A modification of Option 2 is made here in that the 2nd floor reinforcing is not required due to no scheduled expansion of the 3rd floor.

RECOMMENDED ACTION:

Start the program with Option 1, expanding MCM with the addition of a 5th floor to both A and B Wings. This will offer 99 long-term beds, which could be used for all present 76 Intermediate Care beds from the GMH site. The remaining 23 new beds could be temporarily used for acutemedical/surgical patients, or part of the 36 Skilled Nursing patients from the GMH facility. The entire patient load cannot be relocated from GMH until the 3rd floor expansion in B Wing is completed.

This 3rd floor expansion requires the existing roof deck at the 3rd floor level to be reinforced to structurally support the added load generated by the building expansion. The work required to reinforce the existing roof will necessitate a disruption of activities on both 1st and 2nd floors below. With proper coordination, this disruption can be minimized by having the work done only during "off" hours. Dirt, dust and noise controls will be rigidly enforced.

Should the reinforcing work be done simultaneously with the 5th floor addition, it will be completed in time for the 3rd floor expansion to immediately follow the 5th floor completion. This will facilitate the total provision for the required 117 long-term beds.

The second phase in this implementation is the work required in Option 2. Consideration should be given to the feasibility of starting Option 2 immediately after the reinforcing of the 3rd floor so that the necessary Dietary expansion can be realized as soon as possible after the long-term beds are available.

It should be noted that the Mental Health/Public Health facilities remain at the GMH site during this time of construction at MCM. This time is needed for a decision to be made regarding the future status of these functions in relation to GMHA. If the subsequent decision be to separate Mental Health/Public Health from GMHA jurisdiction, the disposition of these functions passes to the succeeding authority. Should, however, GMHA retain these functions it is recommended that the activities be housed in a new free-standing building on the MCM campus.

When the long-term patients from GMH are relocated into MCM, there will be a need for expanded Dietary facilities to service the added 117 beds. This requirement will be met by the completion of Option 2. While the relocation of Hemodialysis is not essential to the disposition of long-term patients, the eventual relocation is consistent with the recommended course of action. Option 2 will provide the necessary space for the 10 station Hemodialysis Unit, and the move can be made at the pleasure of hospital authorities. It must be advised, however, that overall efficiency of hospital routine and staff usage will be optimized with the inclusion of this function into the MCM activities.

FUTHER IMPLICATIONS -- IIIB):

Contained in the sub-alternative IIIa) above, the disposition of the Mental Health/Public Health Clinic was addressed. Data developed in another section of this PLAN suggest that the total number of psychiatric beds be increased to 25, and that 3 security rooms be

provided. Because the basic premise is that GMH be abandoned, the disposition of Mental Health/Public Health is herein evaluated through various alternative actions on the part of GMHA.

- Option 1: Transfer jurisdiction to some other government agency, and relocate mental health services at some other location.
- Option 2: Retain control over Mental Health/Public Health and relocate into MCM environment.
- Option 3: Retain control but provide separate free-standing facility contiguous with hospital.
- Option 4: Transfer jurisdiction for all mental health and psychiatric services to the Division of Public Health, and provide a separate free-standing facility adjacent to the hospital for Public Health on a lease basis.

Option 2 is not recommended because available space with MCM will be limited due to the absorption of long-term patients into the facility. The inherent "residential" nature of the psychiatric patients is counterproductive to the standard nursing ward operation. The needs and care of the psychiatric patient are drastically different needs and care of normal acute medical/surgical patients or from the nursing requirements of the Skilled Nursing and Intermediate Care patients.

Option 3 is not recommended because of the many "gray" areas which future operations will be faced with. Matters pertaining to either in-patient or out-patient medical needs, i.e., emergency procedures, operations, radiology, etc., will create some possible confusion as to areas of responsibility regarding patient status and/or repayment.

Option 1 would be one course of action to be considered. However, because of medical necessity arising from a psychiatric patient turning "sour", some close relationship with the hospital environment should be maintained. With this consideration, Option 4 is the RECOMMENDED action for GMHA to pursue. The location of a free-standing facility would be under the control of GMHA, as would the cost

of construction. The detailed interior design, incorporating the needs and requirements of both in-patient and out-patient psychiatric care would come from the Division of Public Health. The inclusion of a Public Health Clinic within this facility will relieve the hospital of the burden of indigent out-patients, if that be the desire of GMHA.

The advantage of the proposed lease arrangement will be in the cost recovery of the facility over a period of years, and the ultimate ownership of the facility by the hospital. The lease period(s) should be of a sufficiently short fixed rent basis to allow for future adjustments depending on the state of the Island economy, and the needs of the hospital.

A further advantage to the hospital would be the logical contract arrangement with Public Health to provide necessary hospital related services, both medical and ancillary. In this way, the hospital would be assured of repayment for these services.

HEMODIALYSIS UNIT -- IIIC):

This sub-alternative has been addressed in the recommended course of action for sub-alternative IIIa).

DIETARY AND CAFETERIA EXPANSION --IIID):

This has been covered in sub-alternative IIIa).

ANCILLARY EXPANSION-IMPLEMENTATION -- IIIE):

Some of the ancillary services must be expanded to adequately meet the demands generated by the increased patient load. Then, too, the resultant hospital population should be more controlled by the administration. In the present complex, the business office function is too remote from the point of discharge. The Admitting Office is now located such that patients for hospital admission must be wheeled across a wide, open area to the elevators.

The open plan of the garden court between the existing Administration wing and the hospital has good aesthetic qualities, but does nothing for efficient pedestrian traffic flow during inclement weather. Patients and visitors and employees have the tendency to gather under the protective canopy of the Administrative wing to wait out the rain.

A north wind will push these people even further into the lower lobby of Administration.

The handicapped presently have no dedicated facilities to assist in their integration into the mainstream of society. Federal regulations require that such facilities--toilets, telephones, elevators, drinking fountains, etc., be either modified to assist the handicapped or to have separate dedicated facilities. The handicapped, in this context, are not only those confined to wheelchairs; sight and hearing impairment are classified as handicaps, as well as persons who are ambulatory but restricted in their movements with braces and/or crutches. The regulations are enforced not only for patients and visitors, but because of Federal anti-discrimination laws, employees who are thus handicapped must be accommodated.

The necessity of enlarging the Dietary Department has already been addressed; the adjoining Cafeteria must be sized to accommodate the increase in employees caused by the addition of 117 beds. The CSD must be enlarged as well because of the added patient load.

Pathology, in its present location, is satisfactory but must be relocated due to expansion requirements of CSD. This lateral movement of Pathology will be across the corridor, and the required expansion of Medical Records will be coordinated with this move. The Linen Room will be relocated to facilitate the Dietary/CSD expansion. A larger Linen Room is required because of the added patient load, so a relocation could be made that will satisfy the future space needs.

Maintenance work will be concentrated at MCM when the GMH facility is abandoned. Additional space will be needed to consolidate all maintenance operations; biomedical can remain where it presently functions, until relocated into the present Administration Building.

The existing Administration Building is below standard in regard to fire code and exit code compliance. Work should be scheduled to upgrade this facility, although the urgency is not too critical because the building is essentially non-public.

There is a future need to create additional parking facilities according to code. With the added building population--patients,

visitors and employees--the present parking facilities are not adequate.

The scheduling or phasing of these ancillary expansion programs should be logically planned with the major construction so as to provide adequate support service for the increased hospital patient load and subsequent staffing. Every effort should be made to have the new beds serviced as they are dedicated; an overall expansion program, is however, too ambitious to undertake at one time. Therefore, sequential actions are recommended which will afford good--if not optimum--service support.

PHASE 1: Construct space east of Wing A, on the ground floor beyond the entrance drive. This space will be used for all Linen Room operations.

RATIONALE: Linen operation now in GMH is to remain until the Skilled Nursing and Intermediate Care beds have been relocated into MCM. When all GMH beds are in MCM, there will be a need for expanded Linen service at MCM, but the present area is not sufficient for the increased demand. Then, too, the present Linen Room location makes the expansion of Dietary and CSD difficult; if all Linen operations are relocated to the newly built area east of Wing A,

- (a) all required Linen will be concentrated in one area,
- (b) necessary expansion of Dietary and CSD can progress on schedule because of the availability of additional space.

PHASE 2: Expand Dietary Department into space vacated by Linen Room move.

RATIONALE: Dietary operations must remain in GMH until the Skilled Nursing and Intermediate Care beds are relocated into the MCM complex. When the new beds are dedicated the need for increased Dietary capabilities will be real; time does not allow for Dietary expansion to start after the bed increase.

In the event that the disposition of the Mental Health/ Public Health has not been resolved by the time the other

functions have been relocated to MCM, there will be a need for some Dietary capabilities at GMH to service the psychiatric patients. The course of action herein recommended will maintain this capability, and provide for the new beds at MCM.

Once the psychiatric beds have been relocated and the abandonment of GMH is complete, the serviceable equipment now in GMH can be salvaged and stored for future replacement, or the Administration may elect to sell off all such Dietary equipment.

PHASE 3: Enclose the ground floor Lobby area from the circular drive, the northern end of the garden court, to the south edge of the elevator core. Additions within this space will afford the area for recommended ancillary changes and relocations.

RATIONALE: CSD cannot expand until the Linen Room and Morgue have been vacated. Linen Room will be vacated by the work in Phase 1, and Dietary expansion has used the resultant space.

The Morgue cannot be relocated until departments on the south side of the main corridor are realigned, relocated and/or expanded. Biomedical Shop will be temporarily relocated.

Medical Records will be expanded to the east, into part of the new area created by Phase 3 construction. The total shift to the east will provide sufficient space for Medical Records, Physical Therapy, Occupational Therapy realignment, and result in vacant space on the west end to allow for the design and relocation of the Morgue.

When the Morgue is relocated, CSD can be expanded.

PHASE 4: Relocate Admitting into space east of the new location of Medical Records.

RATIONALE: The work accomplished in Phase 3 definitely establishes the main entrance for in-patients. Presently, admitted patients must be wheeled across a wide, open Lobby which is essentially outside, to the elevator core. The recommendations

in doing Phase 4 allows for patients to leave Admitting and reach the elevators in a more direct and protected way. When Admitting is relocated from its present position, the vacated space is ideal for Phase 5.

PHASE 5: Move Cashier and Business Office from the present Administration Building into the space left vacant by the Admitting move.

RATIONALE: a) Present traffic flow directs out-patients from the parking area through the Administration Building, and therefore contiguous with the Cashier. However, in-patients are discharged and picked up at the circular drive by vehicles; these patients do not thus come in direct contact with the Business Office and Cashier.

b) The relocation of Business Office and Cashier puts these critical functions at the crossroads of all patients entering or leaving via the elevator core. The configuration resulting from Phase 3 creates a planned traffic flow which directs all patients to be contiguous with the Cashier and Business Office.

PHASE 6: Create maintenance shops in the space vacated by the move of Cashier and Business Office.

RATIONALE: Increased space for the Maintenance operation is necessary due to the abandonment of GMH and the concentration at MCM. The move will allow for more positive control of Maintenance operations.

PHASE 7: Enclose concourse from the Administration Building to the Lobby area created by Phase 3.

RATIONALE: a) Completes pedestrian traffic flow for optimum control via the Cashier.

b) Affords weather protection.

PHASE 8: Undertake remodeling work necessary for the compliance with regulations concerning accommodations for the handicapped.

RATIONALE: This work will be required sooner or later, and portions can be done at the same time other work is being done if funds and schedule allow. A case in point would be the advisability of creating toilet rooms for the handicapped adjacent to the passenger elevator core when Phase 3 is under construction.

PHASE 9: Undertake required remodeling work in the Administration Building to conform to fire and exit code guidelines. Corridors and stairways presently are non-conforming.

PHASE 10: The need for additional parking within the MCM complex will require 40 added stalls to what presently exists. This requirement stems from the accepted code standards which stipulate the number of parking places for a facility based on the usage and/or square feet of useable space in the building.

ESTIMATED COSTS FOR THE RECOMMENDED ACTION PLANS

ALTERNATIVE IIIa) Provision of 117 long-term beds within MCM.

<u>Option 1:</u>	a.1)	5th floor addition to A & B Wings	\$3,876,000
	a.2)	Reinforce 3rd floor	117,000
	a.3)	Complete addition on 3rd floor	528,000
	2.4)	Equipment and furniture	<u>214,400</u>
		Total Option 1	\$4,735,000
<u>Option 2:</u>	b.1)	Expand 1st floor, B Wing	210,000
	b.2)	Equipment and furniture	<u>10,000</u>
		Total Option 2	\$ 220,000
<u>Option 3:</u>	c.1)	Option 1 + Option 2	\$4,955,400
	c.2)	Less excess contractor mobilization costs	<u>(20,000)</u>
		Total Option 3	\$4,935,400
<u>Option 4:</u>		<u>THIS OPTION NOT RECOMMENDED</u>	
	d.1)	New building for 117 beds + ancillary	\$9,350,000
	d.2)	Expansion of Dietary/Hemodialysis	210,000
	d.3)	Equipment and furniture for (d.2)	10,000
	d.4)	Furniture and contingency (d.1)	<u>150,000</u>
		Total Option 4	\$9,720,000

ALTERNATIVE IIIb) 25 Psychiatric beds and Public Health Clinic
built with GMHA lease arrangement

OPTION 4: Cost estimated from ALTERNATIVE II \$3,375,000

ALTERNATIVE IIIc) Expansion for Hemodialysis
Addressed in costs for ALTERNATIVE IIIa),
Option 2 \$ 220,000

ALTERNATIVE IIId) Expand Dietary and Cafeteria
Building expansion (IIIa; Option 2) \$ 220,000
Dietary expansion, interior 125,000
\$ 345,000

ALTERNATIVE IIIe) Ancillary Services

Phase 1: Linen/housekeeping
New construction, east of Wing A, ground floor \$ 99,000
Relocation and equipment 15,000
\$ 114,000

Phase 2: Expand Dietary (from IIId) \$ 125,000

Phase 3: Enclose ground floor, east Wing A \$ 260,000

Phase 4: Relocate Admitting, Medical Records, etc.
4.1 Relocate Admitting \$ 21,600
4.2 Expand Medical Records 30,000
4.3 Move Physical/Occupational Therapy 50,000
4.4 Expand and move Morgue 35,000
4.5 Remodel CSD 80,000
\$ 216,600

Phase 5: Relocate Cashier/Business Office \$ 9,000

Phase 6: Create new Maintenance Area \$ 20,000

Phase 7: Enclose concourse \$ 150,000

Phase 8: Handicapped facilities \$ 18,000

Phase 9: Remodel Administration Building \$ 19,500

Phase 10: Parking \$ 75,000

RECAP OF RECOMMENDED ACTION COSTS

ALTERNATIVE IIIa) Option 3	\$4,935,400
ALTERNATIVE IIIb) Option 4	3,375,000
ALTERNATIVE IIIc)	200,000
ALTERNATIVE IIId)	345,000
ALTERNATIVE IIIe)	<u>883,000</u>
Total cost, estimated in 1982 dollars	\$9,738,400

Taking a much longer view of the future, it would appear likely (based purely on an expected 30% population increase by 1990, but with the age structure remaining proportional to that of 1980) that additional acute and long-term beds beyond those forecast in the foregoing sections will be essential to meet the demands of the year 1990, as follows:

	<u>1984</u>	<u>1990</u>	<u>Additional</u>
Acute	147	200	+53
Long-Term	117	152	+35

The additional 88 beds (53 acute and 35 long-term) which future population estimates suggest can be attained by stacking two additional single floor extensions on the proposed third floor extension (B wing) which would represent further expansions at the fourth and fifth floor levels. These extensions will yield 50 of the needed additional beds. The addition of a sixth floor on top of the proposed fifth floor addition would provide space for an additional 99 beds, well beyond any forecast of future need. Therefore, a portion of this new space could be reserved as an undeveloped shell. Were these additions made, sufficient capacity for the next 20 years would be in hand, with long-term patients occupying principally the fifth and sixth floor newly added nursing units. Certain economies would be achieved through constructing a future sixth floor exclusively for long-term patients, but by making future use of the third and a portion of the fifth floor short-run expansions for acute patients (they have been designed and priced for long-term patients), certain added renovations of long-term floors at the fourth and fifth floor levels would entail added expense.

In 1990 dollars, this added construction is estimated as follows:

35 long-term beds and unimproved shell in new sixth
 floor expansion.....\$ 4,400,000
 53 acute beds in new fourth and fifth floor
 expansions stacked on third floor expansion..... 6,500,000
 Renovation of long-term floors at the fifth and
 fourth floor levels 1,500,000
 NEW COST to increase long-term bed capacity to 152
 and increase acute beds to 200 by year 1990..... 12,400,000

At this point it is important that the assumptions upon which the foregoing bed need projections are based are understood. The projection of acute bed need (200 acute beds for 1990) is based simply upon bed-to-population ratios. Presently, Guam operates 1.74 acute beds for each 1,000 civilian population. This is low by any standard, yet apparently adequate to meet Guam's acute hospital care needs, for occupancy rarely exceeds 90%. For 1990 and beyond, it is suggested that a slightly improved ratio of 1.84 acute beds per 1,000 civilian population be sought. This ratio, given the expected 1990 civilian population of 109,870, would require a total of 200 acute beds, or an addition of 53 beyond the present bed compliment.

With respect to projecting future needs for long-term nursing beds, there exist no generally accepted guidelines for projecting such desired numbers. The most customary approach, in developing areas, is to compare bed needs on the basis of bed-to-civilian population ratios with kindred areas. For purposes of this plan, we have chosen the State of Hawaii as an adjacent and comparable area.

The following matrix presents the 1981 bed-population ratio of long-term skilled and semi-skilled nursing care beds in Hawaii:

<u>Bed Type</u>	<u>Beds/1,000 60+ Civilian Pop'n</u>	<u>Beds/1,000 65+ Civilian Pop'n</u>
SNF	12.6	19.7
ICF	14.7	23.0

It is customary to establish bed-population ratios for long-term nursing beds with specific reference to the aged population, inasmuch as it is this population cohort which most customarily is admitted to this service. While it is recognized that this type of services is not

limited to the aged population, but is available to all age groups, the ratio is established using the older population which result in a more conservative estimate. There are those planners who obtain the bed-population ratio by isolating the "over 60" utilization from all age groups below 60 and deriving a percentage of total utilization. Using this method, a bed-population ratio of 13/1000 is formulated for SNF service and 16/1000 for ICF. The lower age groups have a normal 1.8/1000 ratio. This method of determining bed need is cumbersome, and results in estimates with a degree of deviation directly proportional to the total population.

Guam Memorial Hospital presently operates 72 long-term nursing beds, 36 each in SNF and ICF respectively. For the current population, this yields a bed-population ratio as follows:

<u>Bed Types</u>	<u>Beds/1,000 60+ Civilian Pop'n</u>	<u>Beds/1,000 65+ Civilian Pop'n</u>
SNF	10.2	17.1
ICF	10.2	17.1

It can thus be seen that Guam is presently at a relative disadvantage when compared with Hawaii with respect to long-term nursing care beds, especially in the lower intensity service reflected by ICF beds. By employing estimates of Guam's 1990 aged population, the following forecasts of nursing bed need have been established:

Estimated Civilian Population, 1990:	60+	4,550
	65+	2,730

<u>Bed Type</u>	<u>Desired Ratio for Civilian Pop'n</u>	<u>Number of Beds Needed</u>
SNF	12.6/1,000 60+	57
ICF	14.7/1,000 60+	<u>67</u>
	Total based on 60+ pop'n:	<u>124</u>
SNF	19.7/1,000 65+	54
ICF	23.0/1,000 65+	<u>63</u>
	Total based on 65+ pop'n:	<u>117</u>

Employing the principle of parsimony, future construction of nursing care beds has been forecast on the basis of the most conservation of the foregoing estimates (i.e., that based on the 65+ population). The

addition of the recommended 117 skilled and intermediate nursing beds to the main structure of the new hospital yields a net increase of 45 additional beds which should at least minimally meet the anticipated 1990 need. The additional beds have been configured in tentative space planning so that they are, for the most part, "swing" beds and can be used alternatively for either skilled or intermediate nursing care, depending upon the intensity of professional nurse staffing required. This is the optimal solution, for it is impossible to forecast with any certainty the numbers of patients requiring either of the levels of nursing care. Ostensibly, if the Hawaii ratios reflect future need in Guam (and they probably do, since older citizens are really quite comparable within compatible cultures and climates), then the distribution of beds over SNF and ICF reflected in the estimates above will obtain.

However, arranging the newly added long-term nursing beds in the "swing bed" arrangement permits management to make essentially day-to-day decisions as to their assignment to either SNF or ICF use and to make commensurate adjustment in nursing staffing patterns. This device will also maximize reimbursement from Medicare which mandates payment only for the level of care appropriate to the needs of the individual patient.

PREVENTIVE MAINTENANCE PROGRAM

A total preventive maintenance program is essential to the hospital operation. Dealing with building equipment when there is a breakdown is an everyday occurrence within the Maintenance Department. Biomedical equipment is critical to the patients' well-being; esoteric biomedical equipment which is in the shop, out of order, does the patient absolutely no good. Waiting for a piece of equipment to break down, then rushing to repair it, constitutes the inefficient system of "crisis management". Equipment will break down because of its basic mechanical nature, but with a good preventive maintenance program these unforeseen breakdowns can be held to a minimum.

The primary step in setting up such a program is a comprehensive inventory of ALL components of the building. These components are classified into systems, then subsystems. A cross index between sub-systems is helpful. An example of the "system/subsystem" classification:

<u>SYSTEM</u>	<u>SUBSYSTEM</u>
MECHANICAL SYSTEM	m.1 Plumbing system
	m.2 Air conditioning system
	m.3 Ventilation system
	m.4 Steam systems
	m.5 Medical gas systems
	m.6 Other

All of the diverse pieces of equipment within each subsystem is then classified and subsequently inventoried. The inventory must include the parts in place as well as the reserve stock of such parts. A cross index between subsystems might list a "firedamper-6x14" in both the air conditioning subsystem and the ventilation subsystem. With proper inventory control and identification, duplicate stocks of this item can be avoided. Stock supplies of piping, valves, fittings, etc., are also so regulated.

Because the preventive maintenance program deals with the total environment of the hospital, the building itself will have to be classified according to its components. The building is essentially made up of structural elements, such as floors, columns, walls, partitions and metal work, and finishes such as interior paint, wall coverings, exterior wall treatment, including windows, floor tile, carpeting, ceiling material, roofing material, etc.

A survey of the building, taken room by room and floor by floor will be needed. There are several acceptable ways to organize this information.

1. Identify each room and/or area by number--room numbers are generally used. List all separate finishes used in that particular room, i.e., carpeting, drapes, ceiling, wall finishes, door finishes, hardware, windows. Do not include in this inventory the electric outlets and accessories, the air conditioning grilles, lights, or biomedical equipment. These items belong to their parent subsystem and will itemized therein. A further component of these architectural finishes are the size, color, shape or other identifying feature. This room inventory will then display the items in use as well as the requirements for replacement and/or repair.

2. The structural system of the building should be surveyed as well. Divide the building into its structural elements and inspect each. Check each column from top to bottom at each floor to ascertain its integrity. Remove ceiling tiles to survey the concrete slabs, checking for leaks and/or cracks. Examine the interior and exterior structural walls to determine their soundness, looking for undue settling or leaks. Itemize the various components according to floor level, parts of building, etc., so as to have a record of the inspection and the results.

When the initial survey has been made the critical information must be stored. Generally a 5x8 index card is used, giving the following data:

ROOM OR AREA 306 LOCATION 3rd fl Wing A DATE OF SURVEY 1/4/83

<u>COMPONENT</u>	<u>NO.</u>	<u>SIZE</u>	<u>FINISH</u>	<u>CONDITION</u>	<u>INSPECTED BY</u>	<u>DATE</u>
door, wood	1	3x6 ft	natural	good	John Doe	2/5/83

(the remainder of all components in this room are listed in this fashion).

Other information included on the inventory card is the type, color, etc., of the finishes. When the room has been initially inspected, all rooms that have deficiencies are placed in a separate file until the discrepancies are repaired, then are transferred to the master file. The foreman will designate two or three maintenance men to devote part of each working day to the inspection of unsurveyed rooms until the entire complex has been checked and conditions noted in the card file. There will naturally be areas which will require prompt attention for repairs in the interest of good patient care and area integrity. A ceiling that is falling down cannot wait until the building survey is completed. Common sense and discretion play a large part in the urgency of repairs.

When the building survey is completed, a system of regular inspections must be maintained to catch potential trouble spots before they become a crisis, as the ceiling falling on a patient. It is recommended that each room or area be checked every two weeks if manpower allows but in no event, should inspections be longer than monthly.

The mechanical, electrical and biomedical systems and their subsystems are more complicated, but only because of the vast number of

integral parts making up each. However, the division into subsystems breaks down the complicated into a system which is manageable. The Plumbing subsystem can and should be further divided into a sub-subsystem.

SUBSYSTEM

SUB-SUBSYSTEMS

- m.1.1 Fixtures (toilets, lavs, tubs, etc.)
- m.1.2 Accessories (towel dispensers, etc.)
- m.1.3 Piping (water, drain vent, etc.)
- m.1.4 Valves (gate, flush, cut-off)
- m.1.5 Fittings (galv., brass, chrome, etc.)
- m.1.6 Other

The fixtures will be identified as to location, size, make, etc., so that the inventory will show stock items as well as items which must be special ordered. The other items within the subsystems will afford an inventory control mechanism to prevent stocking unnecessary items as well as an opportunity to make adjustments to have as much standardization as possible. Keeping a stock of Hallmack toilet paper holders to be used in all areas is more economical than stocking several types or ordering special to replace "Brand X", if Brand X is used in only a few areas. The idea here is to keep a smaller inventory of standard parts and gradually replace the non-standard items where possible. The other benefit derived from keeping smaller inventories is the cost saving in quantity purchase. It is more economical to buy 6 Kohler toilets than to buy 1 Kohler, 2 American Standard, 2 Universal, and 1 Brand X.

The inventory control and the component status is essential to the preventive maintenance program. It will take time and a concerted effort on the part of the Maintenance Department to accomplish this formidable task, and to have the files complete. But more important, the task that makes or breaks the program, is regular inspection of all systems and subsystems. In this, scheduling is all important. The foreman can detail a crew of 2 or 3 maintenance men to devote a few hours a day, each day, to this inspection and maintenance action. Or an alternative is to have a crew whose sole task is the scheduled inspection routine. Hospitals usually employ one method or the other depending on their manpower.

The inspection and maintenance routine must follow a pattern. Visual inspection for breaks, tears or corrosion is followed by operational

evaluation. Wiping, dusting, greasing and oiling are done on this inspection. Malfunctions or potential trouble spots are noted and the foreman will schedule necessary corrective action. The dates of all inspections and subsequent corrective actions are recorded for each area and/or each piece of equipment. Regular review of inspection reports will surface faulty equipment or items which might have to be replaced by the history of trouble calls. These signals of needed replacement will afford lead time to order resulting in a shorter down time should a failure occur.

The Maintenance Department must build up a library of reference manuals and manufacturers' product information catalogues. There are some inhouse at present, but are far below those needed. Current code books are also needed. In this reference library must be included all warranties, operation manuals, special instructions put out by the manufacturers. This has to be kept current. Information must be available as to where parts may be obtained, names and addresses of company representatives who can be contacted for assistance. It will be helpful if the Maintenance Department coordinates its parts requirements with local establishments so inhouse inventories will be kept to a minimum, yet have access to stock items locally if needed.

The preventive maintenance procedures must be in writing. The Department shall present a step-by-step format for each level of the procedure. The investigative procedure will explain the accepted method of examining each piece of equipment or component; this explanation will tell what to look for and how to go about it. The corrective procedures will outline the steps to be taken if irregularities are observed in the examination procedure. The "trouble" sheet will give directions on methods of repair and testing. Considerable amounts of these procedures will come from the experience and background of the Director and his foremen. Some of the corrective actions must be taken from the equipment manufacturers' recommended maintenance procedures. The Director shall appoint one reliable individual to keep this Procedures Manual up-to-date, and to be responsible for obtaining all background information from suppliers and manufacturers. This individual shall also be responsible for the entire systems and subsystems files and the action "log" of corrective work done. Presently there exists

in the Maintenance Department some elements of this preventive maintenance program; there must be a continued effort to organize this available information into the format outlined above.

Time-Phased Construction Schedule*

<u>Work Element</u>	<u>Start</u>	<u>Complete</u>
Design Phase I(a)	1/83	3/83
Construct Phase I(a)	3/83	4/84
Vacate "old" GMH and relocate to Phase I(a)	4/84	5/84
Design Phase II(a)	6/83	9/83
Design Phase I(b)	9/83	12/83
Construct Phase II(a)	9/83	5/84
Construct Phase I(b)	12/83	5/84
Design Phase II(b)	1/84	3/84
Construct Phase II(b)	3/84	5/84
Design Phase III	7/84	10/84
Construct Phase III(a)	10/84	12/84
Construct Phase III(g)	10/84	12/84
Construct Phase III(d)	12/84	2/85
Construct Phase III(e)	2/85	4/85
Construct Phase III(f)	4/85	8/85

*Note: Dependent on actual initiation of Design Phase I(a),
move all dates forward accordingly.

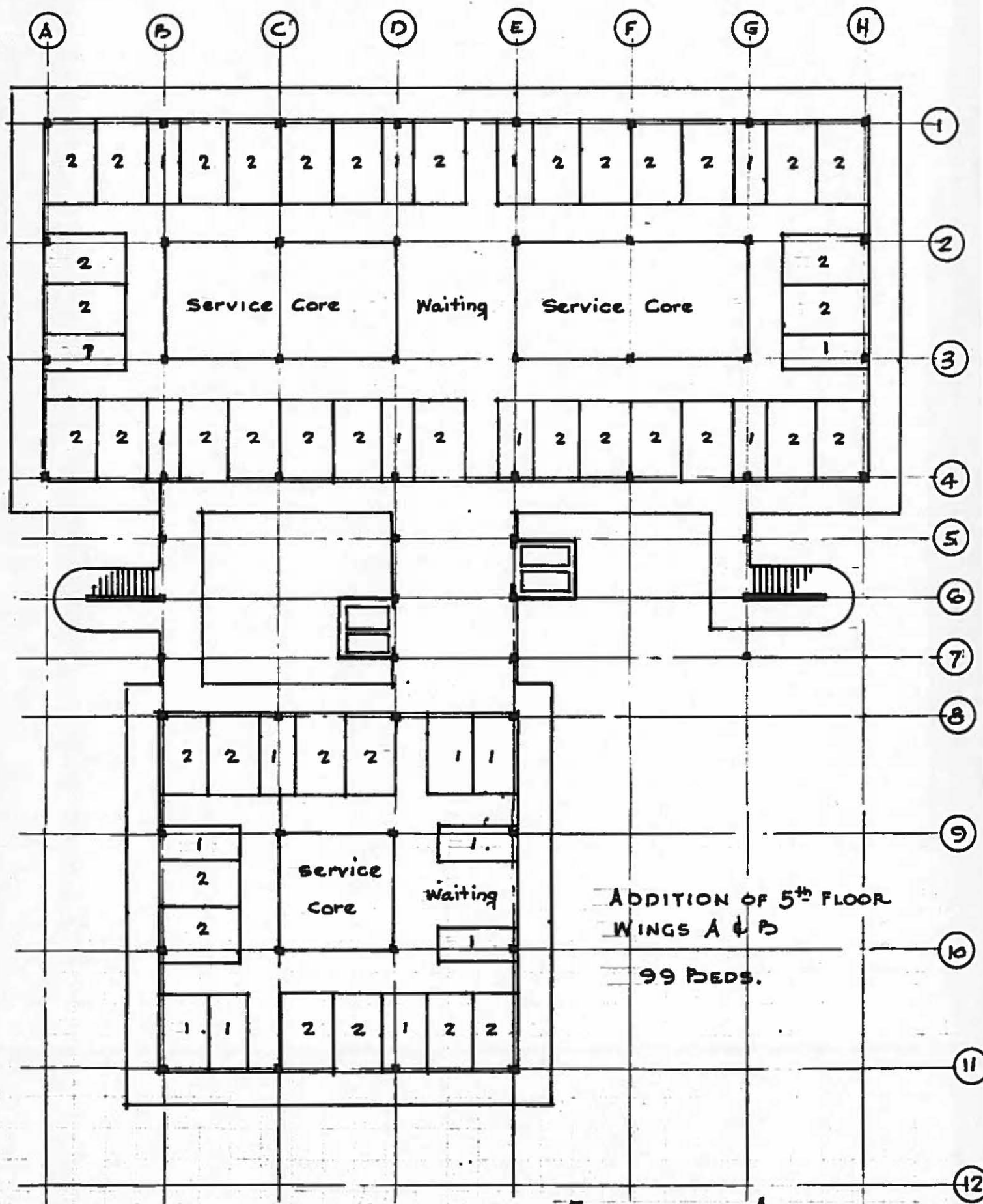


EXHIBIT A



A

B

C

D

E

F

G

H

1

2

3

ADDITION TO 3RD FLOOR
WING B
28 ADD'L BEDS
53 TOTAL.

4

5

6

7

8

9

10

11

12



2 2 1 2 2 1 2 2 2 1 2 2

1

2

2

Service Core

Waiting Room

Service Core

1

2

2

2 2 1 2 2 2 1 1 2 2 1 2 2

NOTE:
EXISTING ROOF
SLAB MUST BE
REINFORCED
TO SUPPORT IN-
CREASED FLOOR
LOADING

Fill in existing court &
utilize for ancillary service

NEW CONSTRUCTION

EXHIBIT B



A

B

C

D

E

F

G

H

1

2

3

4

5

6

7

8

9

10

11

12

2ND FLOOR - WING D
NEW CONSTRUCTION

NEW CONSTRUCTION
(HEMODIALYSIS)

REINFORCE
FLOOR ABOVE

EXHIBIT C



1ST FLOOR RECONFIGURATION
WITH NEW CONSTRUCTION

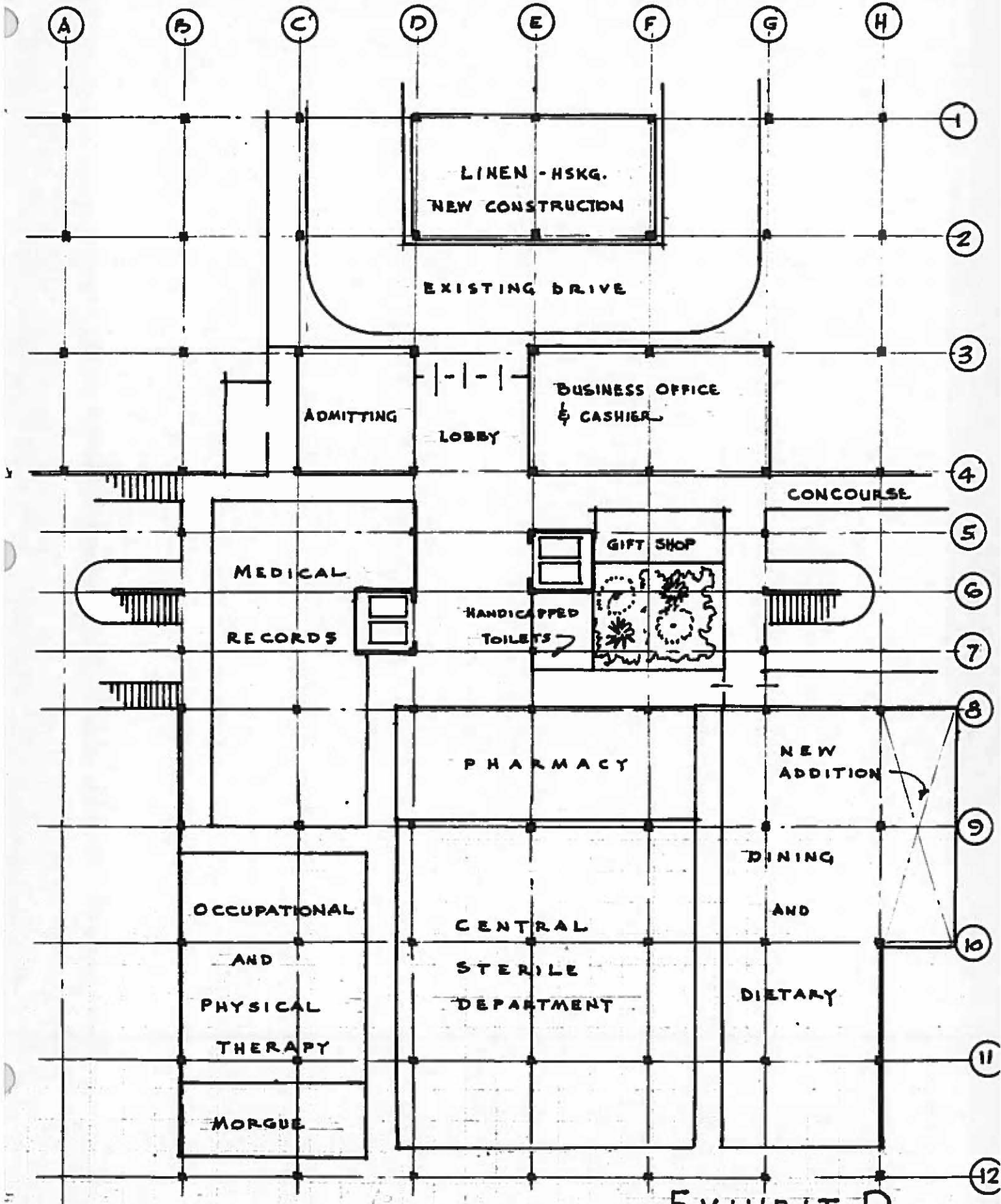


EXHIBIT D

**GUAM
MEMORIAL
HOSPITAL
AUTHORITY**

**LONG RANGE
INSTITUTIONAL PLAN**

**PLAN ELEMENT 5: FINANCE AND
FINANCIAL MANAGEMENT**

PLAN ELEMENT 5: FINANCE AND FINANCIAL MANAGEMENT

INTRODUCTION

The recommendations which are presented here regarding the Fiscal Management area are oriented to developing the on-going economic viability of the Guam Memorial Hospital. Some of these recommended programs, may certainly not be to the advantage of other agencies. However, there are responsibilities being performed by Guam Memorial Hospital which appear to be an inappropriate function of the hospital and this requires the allocation of resources which the hospital can no longer afford to provide.

This plan element is dissimilar from the other areas in that the statement of multiple options is not required. However, where appropriate, several options have been provided. On the other hand, where the suggestion of options could dilute the effectiveness of the program or create inconsistencies in the overall fiscal plan, a definite course has been recommended in order to provide overall continuity and consistency.

ISSUE I

Guam Memorial Hospital does not now have an adequate cash flow from operations to insure or even approach future self-sufficiency for operational expenses or for capital requirements and relies heavily upon substantial governmental subsidy to maintain operations and to meet capital requirements.

SITUATIONAL ANALYSIS

With regard to billing to patient services, either to the patient or to the various insurance carriers, the existing system clearly is not working. Even though this system is widely used nationally, it is cumbersome and difficult to maintain. Additionally, in the situation of the Territory of Guam, the insurance system is not well developed nor very competitive. Therefore, with the concentration of power in very limited areas dealing with patient insurance, this system offers every possible excuse to afford delays in reimbursing the hospital for services provided. Unfortunately, the errors incurred

in the hospital in trying to maintain this type of system, only further reinforces the contention by the insurance carriers that the bills submitted have little or no credibility.

With regard to cash flow, during the past two-year period, patient collections represent less than half of the hospital's expenditures, thereby requiring substantial supplemental appropriations. Therefore, patient collections for the most recent fiscal period were less than 8 million dollars of a budget in excess of 17 million. This collection reflects an overall collection rate of less than 45% on hospital charges. A billing system which performs at such a low level is a true indicator that the system is not working as it was intended, as suggested above. The factors which contribute to the difficulties in the billing system are the inability to provide a complete bill as demanded by several carriers. The lack of response to follow-up regarding minor discrepancies on the billing has also been a contributing factor. The lack of confidence in the medical records as well as the lack of attention to Trust Territory accounts all contributed to an environment which greatly hamstrung the billing system and its overall context did not work. There have been several improvements which merit recognition in this area. The collection rate for the past six months is closer to 65% and with the addition of the on-line admission, the billing services are also providing more timely billing subsequent to patient discharge. Guam Memorial Hospital has now implemented a daily billing cycle which meets the overall objective of this issue. It is projected that for the current fiscal year, that patient collections will improve by approximately 50% to almost 12 million dollars.

Payments due may be classified under several categories. The self pay category represented approximately 20% of charges, Family Health Plan and HML 18%, Guam Memorial Health Plan 23%, Medicare 8%, Medicaid 8%, other insurance 15% and indigent care 8%. However, it should be noted that the indigent care or "LOL Program" will result in virtually no collections whatsoever.

With regard to collection experience, by Guam Memorial Hospital standards, we would generally use a range of collection probability classified as follows:

High probability

FHP/HML
Medicare
Other insurance

Medium probability

GMHP
Medicaid

Low probability

Self-pay patients
Indigent/LOL

The current GMH billing system is the tradition based ala carte medical billing system which exists predominantly throughout the U.S. health care environment. The problems existings in the Guam Memorial Hospital arena which greatly burden the billing system and therefore had a negative impact on the hospital cash-flow can be classified as follows:

1. Lack of staff education both within the business services area which is reflected in the slowness of processing claims.
2. Little attention to claims follow-up of minor problems.

The educational weakness with regard to the overall hospital is reflected in lax following of procedures with regard to patient charges. Therefore, the inability to provide a complete bill on a timely basis and the lack of confidence in documentation due to the incomplete records occurs in numerous cases. This problem can be impacted if appropriate feedback occurs from the business services area into the various patient service units so that there is an overall awareness as to the difficulties created by the late submission of charges. It should be noted that the ala carte billing system requires closer coordination and control than does an all inclusive system.

As mentioned previously, the negative elements affecting cash-flow from the standpoint of insured services has been the lack of complete billing as well as the hospital's failure to contest adjustments made by the various carriers. The situation has improved over the last six months with patient collections being up approximately 50% over the prior year. This has occurred due to the implementation of daily billing and it is anticipated that this situation will continue to

improve with the addition of a collection attorney on behalf of Guam Memorial Hospital. However, there still is a considerable bad debt experience from carrier adjustments primarily occurring in the hospital transactions engaged with the Guam Memorial Hospital Health Plan. This is currently running at approximately 33%.

In order to properly evaluate future alternative billing practices, it is next necessary to establish minimum, ideal and acceptable cash-flows. The minimum, according to legislative mandate, is that which meets the operational requirements of Guam Memorial Hospital. This by legislative definition is being self-sufficient. Guam Memorial Hospital in the past has not met this minimum goal with regard to cash-flow. The previous discussion indicates that the patient services are ultimately funding less than half of the hospital's operational requirements.

The acceptable cash-flow would be meeting current operations and capital budget requirements for the annual period. At this level, that would mean approximately \$750,000 to one million dollars above the minimum level.

The ideal level of cash-flow would be having sufficient cash-flow to fund depreciation thereby having a reserve for replacement of assets as they go out of service.

In considering billing alternatives, it is felt that the Government of Guam will be even less likely in the future to continue to support and fund over 90% of the expenditures of the hospital. This along with the expressed goal of developing self-sufficiency which has been stated on numerous occasions and is well documented in legislative materials, makes it incumbent upon the hospital to continue to develop a system which will allow it to collect payment for services provided through a daily billing program such as occurs in the hotel environment where billing in toto occurs upon check-out.

The only successful way of accomplishing these goals is to provide a system which creates optimum timing for the submission of billing information. In addition to the current system, the all-inclusive rate system also lends itself to providing a completed bill within a day or two of service, and gives the hospital the highest probability of collection and, therefore, the greatest chance of improving its cash-flow from its billing operation.

The all-inclusive rate system is a well established method of billing and it provides that there can be several all-inclusive rates within the

the facility depending on the services provided. It is recommended that this flexibility be eventually built into the system so as to satisfy the insurance carriers with regard to the variety of services for which they may contract with the hospital.

The appendix to this plan element provides the hospital with an extensive manual and overview as to the installation and monitoring of an all-inclusive rate system, which outlines specific areas which are tailored to the needs of Guam Memorial Hospital.

Based on reviews of the Guam Memorial Hospital situation as well as the environmental conditions in the Territory of Guam, the all-inclusive rate system appears to be uniquely qualified to start the hospital on the road to self-sufficiency, and merits long-range consideration should the present favorable experience fail to continue on the ala carte billing system.

GOAL

To develop operational self-sufficiency by 1985 and capital self-sufficiency by 1987.

Sub-Goal 1

To provide adequate accountability and timeliness of billing through timely issuance of bills and claims, thereby improving the collectibility and cash-flow and developing operational self-sufficiency.

Optional Actions

1. Remain in the present status quo position utilizing periodic supplemental appropriations and continued billing under current improved methods. This has the advantage that little staff retraining would be required. Additionally, the ability to recruit individuals familiar with this system is readily apparent. This option may, if continuingly successful, achieve the stated sub-goal, and should be pursued at least in the short-run.
2. Place all operations of the hospital under total government subsidy through appropriated funds. The advantages of this approach is the historical support of the hospital, it having

first been totally subsidized as a naval facility, and subsequently substantially subsidized by the Government of Guam.

This option, however, will not achieve the goal of self-sufficiency, and recent and projected future reductions in governmental revenues and Federal expenditures severely diminishes the ability of the government to assume additional responsibilities of this magnitude.

3. The ultimate RECOMMENDED option is to simplify hospital billing, through the installation of an all-inclusive rate system to allow for more timely issuance of bills and claims and to improve collectability of rendered bills and claims and to establish a positive cash flow. (See Appendix). This system will permit the issuance of claims or bills either on the day of service or the day immediately following service. It would also drastically reduce the amount of disputed charges and substantially reduce the amount of follow-up work being performed by the accounting staff. The installation of an all-inclusive rate structure can reduce by at least 50% the amount of staffing allocated to the current billing operations. This reallocated staffing can be utilized to strengthen the credit and collection program of the Guam Memorial Hospital which is currently virtually nonexistent.

There will be initial negative receptivity by insurance carriers owing to the distributed nature of charges over all patients regardless of units of service rendered. It can also be foreseen that there will be issues to be resolved with respect to physicians and other services which are presently being reimbursed on a percentage of gross basis.

Sub-Goal 2

Develop an understandable and enforced credit and collection policy and procedure with a high degree of public exposure, and restoration of confidence in the hospital billing operation through support of enhanced collection efforts by executive and legislative leaders.

SITUATIONAL ANALYSIS

To be consistent with the goal of self-sufficiency, the hospital should consider its credit and collection policy as if it was a stand alone, private, nonprofit institution. In the past, the temptation to always turn to the legislature for supplemental appropriations is in essence, the easy way out. However, it is becoming readily apparent that we can no longer rely on this single alternative to keep the hospital economically viable.

Essentially, the lack of a valid and enforceable credit and collection policy has helped bring about the recommended demise of the traditionally based ala carte charge system. Since the current program is collecting less than 10 cents on the dollar, it is beyond the point of considering enhancements and refinements to bring it into line with traditional standards. We believe that major surgery is required in that the all-inclusive rate system and the credit and collection policy with executive and legislative support must go hand in hand to again develop any chance of self-sufficiency for Guam Memorial Hospital.

Understandably, management has shied away from developing and nurturing a broad-based credit and collection program. However, we feel that the establishment of this kind of a program can be done with enhancements which create a more positive tone through its community relations programs and also offering early payment discounts. However, the bottom line is that the program must be fairly administered. To offer special treatment for some and not for others will ultimately substantially dilute the meaningfulness and effectiveness of this program.

RECOMMENDED ACTIONS (A UNIFIED PACKAGE)

1. Implement a broad-based credit and collection program, endorsed by the Governor and Legislature in conjunction with the installation of an all-inclusive rate system. This program would emphasize initial screening and financial responsibility determination at the point of admission or service delivery (front-end), and the demand for consistent deposits or other cash assurances prior to service delivery.

2. Establish a formal system of cash discounts for early payment of bills, with an allowance of a 2% discount for payment within 30 days, provided to all payors whether third-party or individual.
3. Arrange for the utilization of charge cards and payroll deductions as supplementary payment procedures.
4. Develop an aggressive community relations program to make the public aware of the financial condition of the hospital and the necessity for the payment of services by user of those services.
5. Establish a coverage verification program with on-island insurance carriers. Possibly through a centralized service center.

The implementation of these measures will ensure a consistent, uniform and fair approach to collecting fees justly due the hospital for services rendered. It is a system which rewards those who arrange for prompt payment and will help to return payment responsibility to the service recipient as opposed to utilizing the resources of the Treasury of the Territory of Guam.

Many who become accustomed to preferential treatment (third-party payors and individuals alike) will resent serious efforts to collect future bills, and it will probably require considering much of the current accrued past due accounts as marginally collectable or uncollectable.

ISSUE 2

There are a number of inefficiencies in Guam Memorial Hospital which represent unnecessary services and staff and drain an already overburdened fiscal system.

SITUATIONAL ANALYSIS

With reference to the earlier goal of obtaining self-sufficiency of Guam Memorial Hospital, it is incumbent upon the hospital to work towards the successful achievement of this goal through a two-pronged program of increasing revenue and reducing expense. Methods of revenue

enhancement through all-inclusive rate with a complimentary credit and collection program have been outlined previously, and this goal addresses reduction of expense.

Approximately 2 million dollars of excess staffing annually represents approximately a potential 10% budget reduction. These figures were obtained through careful discussion with the staff of Guam Memorial Hospital, especially concentrating in the fiscal service arena.

A projected savings of approximately \$750,000 could occur from renegotiation of outside service contracts and redefinition of the intermediary role being performed by Guam Memorial Hospital. Examination indicates several areas where outside services were being performed based on charges for services rendered and not on collections received, and should be renegotiated to reflect the true economic situation of those services. These areas are EKG, EEG, radiology, nuclear medicine, speech pathology and psychology consultations. The hospital has already renegotiated some of these areas or is in the process of doing so. For example, the radiology situation has been corrected to reflect salary rather than percentage of charges. Considering the collection difficulties occurring on the island of Guam, a fixed commitment or a commitment on something other than charges is appropriate. The other area of renegotiation or consideration is the intermediary role being performed by Guam Memorial. This basically deals with the payment of house-patient specialist. This role is most unusual in that the hospital acts as an intermediary and assumes financial responsibility for physician services. This expense is anticipated to be in the area of \$300,000 annually. This practice merits careful review as to Guam Memorial Hospital's willingness to continue with this relationship.

The second part of the excess staffing based on budget deals with personnel. Approximately 10% of payroll could be reduced over a two-to three-year period of time. It should be noted that the 10% reduction will not occur evenly throughout all departments; however, it will occur to a greater degree in some support services due to their ability to catch up. As an example, in the business services, once the daily billing has been effectuated and has become current, the staffing may be reduced by as much as 20%. This estimate is based on convictions of

management personnel in the fiscal services area. Other elements which merit consideration in obtaining this overall optimum goal of 10% staff reduction are as follows: first, the consolidated physical plan will mean a reduced need for support personnel over the current demands. Second, greater data processing services such as the on-line admissions which are now being implemented and carried out and greater data handling capabilities internally in an on-line mode will reduce manual labor requirements. Third, better internal motivation due to management impact and internal reorganization thereby generating greater productivity from the highly motivated personnel within the facility should result in staff efficiencies. Finally, and most importantly, the effect of the declining patient census in Guam Memorial Hospital suggests reduced staffing. This area is going to create a need for continual monitoring of the staffing of the hospital with periodic adjustments in staffing to reflect fluctuating censuses. It appears that the census this past year dropped by approximately 10% and for the first half of 1982, this decline is continuing. It should be noted that the decline is from two factors; one, the reduced demand within the patient population and secondly, improved monitoring of unnecessary hospitalization by the hospital personnel. Due to staff vacancies arising from turnovers, the hospital is currently under budget on personnel expenditures. One key element here is the level of service to be provided by the hospital and the staffing required to achieve the level of sophistication which is considered to be appropriate. In the area of radiology, for example, the level of sophistication which requires a CAT scanner can be seriously questioned as to its appropriateness. However, GMH obviously does need to provide radiology services. Additionally, another question regarding appropriate levels of sophistication is nursery versus neonatal ICU service. Obviously, with the obstetrical services currently being provided, the need for a nursery is certainly appropriate. However, because of the limited demands and the high cost of a neonatal intensive care unit, that is an area which may well be more cost-effective off-island as well as beneficial to the patient due to the broader scope of services being provided elsewhere.

The utilization of the civil service classified/non-classified system within the hospital is not only not traditionally based in the hospital industry, but is fairly unworkable in a highly technical cost intensive operation such as health care facility. With over 70% of hospital cost being in the area of payroll and payroll related items, obviously this is the most highly productive area for concentration of a cost containment program.

GOAL

To achieve maximum operating efficiency by reducing inappropriate staffing, services and responsibilities.

Sub-Goal 1

Reduce excessive and cumbersome staffing in the hospital in order to reduce the cost of the hospital operations by approximately 2 million dollars annually.

RECOMMENDED ACTIONS

1. Since hospital staffing is highly technical requiring skilled and semi-skilled employees on widely differing employment schedules, develop personnel practices and procedures oriented to hospital operations and seek exemption from the current civil service classified/non-classified arrangements. This would free the hands of central administration to reduce unnecessary staff which remain as a residual of current civil service tenure requirements, and would permit creative staffing to better meet patient care needs and changing technology.
Some currently "protected" employees may either lose their positions or be required to transfer to other responsibilities, and this raises potential political disadvantages.
2. Implement a hiring freeze in non-critical care areas and conduct a careful review of current and future staffing patterns within each of the units of the hospital. This maneuver would assist in bringing back to an optimal level the numbers of staff personnel actually required and would provide optimal staffing plans for future recruitment and replacement. It has the further

advantage of announcing to all the seriousness of the hospital's efforts to achieve efficiency and self-sufficiency.

The move has the disadvantages of predictably being met by resistance from department heads who are affected and who will have to "make do" with fewer than customary staff members, and additional planning work for department heads would be entailed.

Sub-Goal 2

Reduce the net hospital expenditure by approximately 1.5 million dollars through the consolidation and elimination of selected programs and services not essential to the hospital or the community.

SITUATIONAL ANALYSIS

One common characteristic existing in this and most other hospitals is that the service resources become frayed over time. This occurs either from pressure from the medical staff or by virtue of the availability of grants which are provided to seed programs. However, the long-term result is that the facility often finds that it is no longer into strictly medical care and becomes more oriented to educational programs or that it is suddenly incurring on-going operational cost which it never anticipated nor was intended to provide.

In evaluating the direction of the hospital, it is important to keep in mind that the core responsibility of the hospital is to provide acute and emergent care and that services that do not fall within this area become secondary on the priority of service. In evaluating services which fall into the secondary level, the primary candidates for elimination are those which can seek satisfaction of their requirements elsewhere within the community. To this end, obviously the out-patient service area is a prime candidate for elimination from Guam Memorial Hospital and this has been thoroughly examined in Plan Elements 1 and 2. Other non-patient care functions include billing practices for physicians which warrants attention. Finally, opportunistically or planned, it is often a temptation to implement new services for which there is either an insufficient need, or for which there is insufficient financing.

While programs and services are analyzed in another section of this plan, from the standpoint of finance and financial management it is important to highlight areas which provide little or no return to the hospital, thereby providing a substantial negative impact on the financial management of the institution. With regard to the CAT scanner, there is presently little or no volume justification with regard to this additional service and experience dictates that there are substantial on-going operational costs for the operation and staffing requirements needed with regard to this kind of equipment. There currently is only one radiologist on the island able to provide interpretation for CAT scans. It should be noted that this radiologist was added with the primary intent of providing this service and now approximately nine months later, there still is no CAT scan service on the island. Additionally, there is no neurosurgeon for the appropriated diagnosis of head injuries and it would be anticipated that most such cases would be referred off-island.

Other services which merit discontinuance are the out-patient services being provided at Guam Memorial Hospital, as mentioned above. These existing and projected services can be adequately provided through the Public Health clinics throughout the island. With regard to subsidized services, although the "LOL Program" should be the responsibility of the department of public health, it is a subsidy program as defined by the legislature. However, the responsibility for administering the program should be transferred to Public Health rather than Guam Memorial Hospital. The mental health program, of course, is a subsidy program and is mandated by law. Additionally, the SNF and ICF services have a subsidy requirement. The ICF is particularly acute in the financial requirements because of the lack of Medicare coverage. The subsidized areas, particularly those as required by law, should not be counted but instead should be legitimate candidates for legislative subsidy.

RECOMMENDED ACTIONS

1. Eliminate the organized out-patient department and transfer responsibilities for out-patient services for the poor and indigent to clinics operated by the Division of Public Health,

and for the paying patient to private physicians. This needs no further discussion in this section of the plan.

2. Defer installation and operation of the CAT Scanner until such time as potential service volume can be predicted to approach at least 60% capacity. This decision would defer the on-going operational cost of operating the unit as a hospital expense until such time as unit operations become break-even or profit generating, and reduces the need for an expansive and greatly underutilized staff radiologist.

While there is substantial community support in the installation and without installation, Guam will remain without this newer technology for a few more years, the financial liability associated with its implementation is beyond the hospital's means for at least five years.

3. Change all contracts with physicians under which the hospital pays the physician for medical services rendered to either (1) a percentage-of-collections basis, (2) a fixed-fee basis, or (3) eliminate such contracts entirely with collection for services responsibility devolving upon the providing physician. The hospital currently pays physicians on a percentage of charge basis, but does not collect the majority of such charges. The change would yield an estimated one-quarter of a million dollar saving for the hospital annually. Useful approaches to physician contracting are contained in Grant, D.E., "How to Negotiate Physician Contracts", Teach Em, Inc., Chicago, 1979, which by reference is incorporated into this plan.

Under these conditions, it is possible that some physicians may refuse to provide their services on a client-liability basis. Patients, under conditions of aggressive provider billing and collection (which could be anticipated) will be required to pay for services in the future, and will predictably oppose any moves in this direction.

ISSUE 3

The management and staff of Guam Memorial Hospital are presently burdened by responsibilities and procedures which are not appropriate hospital functions, including serving as a fiscal intermediary for physicians, absorbing the costs of indigent care, a non-hospital oriented budgeting process and lack of adequate hospital-oriented accounting and data processing service.

SITUATIONAL ANALYSIS

The hospital presently acts as a fiscal intermediary for physicians, and no other examples of this action exist wherein a hospital assumes the fiscal responsibility and liability for physicians private services. There are examples where a hospital provides billing services for the physicians, but it is normally conducted for only a few and without assuming liability. In the case of Guam Memorial Hospital, this problem is particularly acute in that a fair amount of funds are being expended in physician payments which the hospital can ill afford to continue to provide.

Again, in the situation with regard to the Medicaid Program (or more accurately defined as the Legislative Reimbursement Program), there appear to be very few examples of a similar course of action occurring anywhere in the country. During the middle 1960's to the present time, the Medicaid Program has developed into an independent intermediary process whereby the reviewing agency, either a contracted agency or a state-operated agency, provides the review process for claims and the disbursement process for payment either on an interim or per-claim basis to the hospital. This method has provided relatively good control over the services being provided and a timely determination of the actual liability to the state. In the case of Guam, this system appears to be somewhat out of control, primarily because the independent fiscal responsibility is extremely limited in scope and is not functioning anywhere near an operational level. Due to the sizeable indigent and Medicaid population which exists in Guam, this particular problem is a major concern which should be addressed at the earliest possible date.

On another procedural front, the hospital budgeting process is not properly oriented along the lines of the Hospital Audit Guide. This change from the traditional governmental budget process allows the hospital to better anticipate the results from changes in rate-setting and the Medicare/Medicaid Reimbursement Program. The hospital is a unique type of facility and needs to operate somewhat differently than other traditional government agencies. Additionally, proper hospital budgeting processes encourage the hospital to work towards achieving goals of self-sufficiency. The governmental budgetary process inherently encourages the hospital to turn to the government for funds which runs counter to the stated goal of the facility. Finally, there are numerous hospital budgetary programs which are available and are excellent management planning tools. However, these programs are virtually totally oriented towards hospital-based accounting systems and not to those of government.

The hospital presently lacks a modern hospital information system which could, within a one-year period following installation, make substantial progress towards bringing about timely billing in the

ala carte system which the hospital currently utilizes. However, the concept of a data processing system, its specialized equipment and programs such as constitute a hospital information system, is not necessarily constrained to financial programs or fiscally-oriented programs. In many facilities, the data processing service does not come under the chief financial officer but rather under the administrator or some other staff office. However, earlier organizational recommendations were to install information system responsibility under the chief financial officer in this hospital.

With today's modern data technology, the data processing system is in essence a communications tool which provides for patient scheduling, patient monitoring, transmission of patient orders, gathering and compiling statistical information as well as the gamit of financial transactions ranging from patient billing, accounts receivable, general ledger, through to economic modeling, rate-setting, budget forecasting, inventory control and establishing economic order quantities.

It appears that a hospital information system will be necessary for Guam Memorial Hospital to keep up with the on-going and increasing demands in the health care service arena. However, this kind of a system is not necessary in the arena of financial management at this point if steps are taken to simplify the billing system. Capital funds for the immediate development of a fully automated data processing/information system are not seen as being readily available. However, this need should be addressed and implemented within the next five-year period, and recommendations and plans to this end are contained in Plan Element 2.

GOAL

To restore to Guam Memorial Hospital appropriate budgetary and data processing functions, and to remove the management of the hospital from inappropriate non-hospital fiscal functions.

Sub-Goal 1

Transfer to some other vehicle the responsibility for collecting fees on behalf of private physicians for services rendered to house-staff patients.

RECOMMENDED ACTION

Establish a policy which declares that the hospital will no longer serve as a fiscal intermediary for physicians who render services within the hospital.

This will immediately reduce out-payments to physicians for which little or no recovery is achieved by the hospital. It will remove hospital management from an inappropriate "insurance carrier" type of role, and will place attending physicians in a similar "at risk" role as the hospital currently enjoys.

The adoption of this policy will transfer substantial billing and collection effort to some physicians, and may generate less enthusiasm on the part of private physicians to provide services to house patients, thus potentially placing added patient care burdens on the salaried medical staff.

It is particularly important to move away from the status quo in this regard, since it presently costs the hospital approximately \$250,000 per annum to provide these services, and they require substantial administrative support for both the payment process to the physician and the billing process to the patient. The cash outflow occurs with very little prospect for receipt of payment for physician services.

Sub-Goal 2

Remove from the hospital the responsibility of seeking subsidization through appropriations for costs of services rendered to the indigent and Medicaid beneficiaries.

RECOMMENDED ACTIONS

1. Urge adoption of current (1979) Medicaid eligibility definitions, thus expanding to approximately 25% of Guam's population eligibility for Medicaid reimbursement for the hospital.

This would serve to substantially broaden the base for charge recoveries from the Medicaid Program, much of which is not recovered by the hospital for patients who could be declared Medicaid eligible.

It would, of course, place an insurmountable burden on the existing Medicaid Program, and would require substantial increases in appropriations to the Medicaid Program to meet such increased liabilities. These pressures, however, would force the Medicaid Program and the Legislature, and not the hospital, to seek appropriated funds for the non-paying patient, and to seek broader and more realistic Federal participation in the program as well.

2. Arrange for customary interim payments to be made to the hospital by the Medicaid Program in connection with the corresponding cost reports which the hospital is required to fill at the end of each year. This will enhance the hospital's collection rate and cash flow position, but will place substantial new burdens on the Medicaid Program which already has serious cash flow problems.

Sub-Goal 3

Install an appropriate hospital-oriented budgeting system which permits a unique examination of services with regard to both cost payors and charge payors.

RECOMMENDED ACTION

Adopt a hospital budgeting format consistent with the AICPA Hospital Audit Guide, and seek statutory changes which remove the requirement that the hospital budget be prepared according to conventional governmental fund accounting principles. The adoption of the more customary hospital budgetary practices would provide a unique hospital-oriented budgeting system which allows more creative and flexible cost accounting for the hospital, and improved charge setting procedures which better reflect actual costs.

Because the government has established a highly centralized budget process through the Bureau of Budget and Management Research, exceptions will be predictably opposed. Furthermore, the Legislature understands the present budget process, and would have to be re-oriented to a unique, dedicated hospital budget format and process. However, to continue to budget in conformity with the Bureau of Budget and

Management Research offers little control and analysis for hospital programs, encourages use of governmental fiscal resources, and does not readily lend itself to hospital rate-setting or reimbursement programs.

ISSUE 4

There presently exists a variety of internal financial control and system weaknesses which contribute to the overall fiscal inefficiency of Guam Memorial Hospital.

GOAL

To install modern financial management methods and practices in order to bring Guam Memorial Hospital to parity with other U.S. mainland hospitals of similar size and complexity.

SITUATIONAL ANALYSIS

Twelve major items of internal control weaknesses have been observed in the existing financial management system. These include poor control devices for charge slips, lack of audit of charges against recorded

services, infrequent fee schedule changes, inadequate internal cost analysis, poor management of past-due accounts, multiple payment collection points, lax cash deposit practices, inadequate regular statement and account balance systems, inadequate collection of billing and financial liability data at the point of admission, poor reconciliation of deposits to accounts and ledger, and poor patient claim filing practices. With these defects, independent audit cannot be successfully made. Even with the implementation of changes otherwise recommended, these remaining weaknesses need be addressed in total. Although the flows of charge slips may change, charge slips will still exist. The implementation of collection and depositing procedures will continued to be needed.

Guam Memorial Hospital needs to address these items in the near time frame. The correction of internal control weaknesses will go far toward providing the hospital with audit trails and other necessary control which will lend itself to auditability.

With the various programs recommended, coupled with some staff education, Guam Memorial Hospital will be able to effectively obtain an independent audit within the next two to three-year period.

RECOMMENDED ACTIONS

1. Install control over charge slips which originate from ancilliary and routine departments by employing pre-numbered charge slips and providing for their routine recording for control purposes.
2. Perform periodic audits of patient charges against medical records to ensure that charges are being generated for all services actually ordered and provided.
3. Establish policy and procedure for regular and periodic monitoring and up-dating of fee schedules in computer.
4. Perform routine and periodic analyses of departmental cost to revenues on a current basis to ensure that rates are sufficient to cover costs of operation.

5. Refine follow-up procedures regarding outstanding bills and provide for periodic review of follow-up operations to ensure that established procedures are being performed.
6. Establish a single, central collection point for payments, and segregate receipt of payments from posting to ledgers.
7. Implement a system for daily deposit of all cash receipts.
8. Establish a system for mailing monthly statements to patients which include both charges and a notation of payments received and balances due.
9. Design and implement a check list for the admitting office to ensure that all required billing information and necessary signatures have been obtained upon admission, and forward this data to data processing and patient affairs on a timely basis.
10. Establish a system for reconciling daily deposits to accounts receivable and other General Ledger postings.
11. Establish improved procedures for determination of eligibility under various public and private entitlements on a timely basis to avoid rejections of claims on behalf of eligible recipients.
12. Revise the current system of filing patient claims and other billing information in order to allow for easy access to billing information.

APPENDIX

ALL-INCLUSIVE RATE STRUCTURE

INTRODUCTION

All inclusive rate billing systems have been in existence before the start of the century. Over the years, the health care industry converted to itemized billings as medical technology advanced and an increased number of ancillary services and medical procedures were developed. By the 1960's, only about 2 percent of the total hospitals in the United States were using inclusive rates.

During the 1970's, an increased interest in all inclusive rates developed in response to rising health care costs and the complexity of paperwork involved in hospital operations. A major portion of this paperwork was attributed to the billing and claims processing function.

Itemization of ancillary service charges make the processing of patient bills and third party claims a time consuming and costly function. The amount of paperwork generated and time involved is substantial considering the number of individual charge slips that are required for each patient. Adding to this task is the sorting and coding of each charge slip and the posting of itemized charges to individual patient bills. There is also the problem of constant updating of price lists for charge items based on costs plus markup (usually pharmacy and central supply items).

A system of itemized charge slips requires countless hours of labor in the ancillary departments, business office and data processing departments. Other departments such as admissions, medical records, general accounting and purchasing may also be affected due to additional record keeping and posting requirements. The volume of paperwork also contributes to higher supply costs and storage problems.

An all inclusive rate is defined by the American Hospital Association as "Total charges consist of a rate based on type of accommodation multiplied by the length of stay, regardless of the

utilization of ancillary services." This type of billing system replaces the numerous individual ancillary charges with one or a few inclusive charges. Cost savings can be expected in the areas of supply expense, storage costs and data processing. Savings should also be realized due to reduced labor requirements in the ancillary departments, business office and data processing departments. Benefits may also be derived from other departments due to reduced recordkeeping requirements which will allow individual effort to be directed towards other more constructive areas.

Elapsed time between the rendering of service and preparation of a billing invoice will be reduced. This in turn should help to improve collection efforts. Bills can be prepared and presented to the patient at the time of discharge. Claims to third party payers (Medicare, Medicaid and insurance companies) can also be prepared and forwarded upon discharge or shortly after. The problem of late charges or unrecorded charges will also be eliminated.

Benefits from an all inclusive billing system can be substantial. The decision to convert, however, must be carefully evaluated based on each individual situation. Once a decision has been made to convert, detailed planning must take place to avoid major problems. Coordination is required between the hospital administration, governing board, third party payers and all hospital departments involved. Steps must be taken to insure that the general public and physicians will not be overly concerned or apprehensive of the change.

This report is divided into four sections covering the major concerns for planning and converting to an all inclusive rate system. The first section, "Major Considerations," highlights certain key factors that should be considered before a decision to an all inclusive system is made. The other three sections deal with the planning and implementation phases and the procedures for monitoring the all inclusive rates.

MAJOR CONSIDERATIONS

There are several factors that should be considered before a hospital makes a decision to convert to an all inclusive rate billing system. For discussion purposes, these factors have been classified into three general categories.

Objective factors should be evaluated considering Guam Memorial Hospital's unique circumstances. These factors deal with the specific benefits that can be derived from an all inclusive system. An attempt should be made to quantify these potential benefits based on the hospital's operating and historical data. The significance of each factor can then be ascertained in relation to the impact it would have on the hospital's operations. A decision to convert to an all inclusive billing system would be supported if the benefits expected are substantial.

Compliance factors deal with regulatory and external constraints that must be considered before converting to all inclusive rates. Although these factors will probably not prohibit the conversion, they affect the type of all inclusive rate structure selected and the amounts charged. They may also affect the recordkeeping required to substantiate the rates and the preliminary steps involved in converting to an all inclusive billing system. Evaluation of the compliance factors will involve discussions with third party payers and governmental regulatory agencies.

Subjective factors relate to the human relations aspect of converting to inclusive rates. The conversion will affect patient relationships, physician contracts and hospital staff. A thorough evaluation must be made of the impact that the conversion will have on these people and their anticipated reactions. Efforts should be made to minimize any adverse reactions. This can be accomplished by instituting in the planning and implementation stages, steps that will address the concerns of these various groups.

A. Objective Factors

1. Improved collection of accounts receivable:

- Patient can be invoiced at time of discharge due to virtual elimination of charge slips.

- By reducing elapsed time between rendering of service and presentation of billing invoice, collection problems should be reduced.
 - Workload required for the preparation of claim forms will be reduced.
 - Problems relating to adjustments of claims will be reduced by obtaining a predetermination of allowable charge to be included in all inclusive rate.
2. Measureable cost savings can be achieved by elimination or significant reduction in time involved in:
- Preparing standard patient charge slips.
 - Data entry and batching of ancillary charge slips.
 - Sorting charge slips by patient name.
 - Coding charge slips.
 - Posting itemized charges to patient bills.
 - Establishing individual rates for types of services.
3. Adequacy of rates to generate sufficient net revenues to cover costs or achieve predetermined target revenues. Considerations should be given to:
- Patient mix.
 - Average length of stay.
 - Occupancy rate.
 - Anticipated cost changes.

Each of the above will have a direct bearing on the type and amount of all inclusive rates that will be selected. Ancillary costs and utilization must be identified by each major service area (patient mix). Only areas with significant utilization should be assigned separate all inclusive rates. Examples of the more typical categories are: (1) Medical/Surgical; (2) Special Care Units (ICU, CCU); (3) Obstetrics; (4) Pediatrics; (5) Nursery; (6) Skilled Nursing Facility; and (7) Intermediate Care Facility.

Ancillary services that are infrequently used or considered non-covered by major third payers should be excluded from the all inclusive rates. These services would remain as itemized billings.

Average length of stay is important in projecting anticipated patient day volume by major category. As all inclusive rates are set on a perspective basis, the per diem rate established to cover costs must be based on good valid projections of patient days.

The hospital must have the data and the ability to identify the ancillary cost by each major category. This will require information relating to ancillary utilization by type of service category.

A determination of the availability of the above required data is required before a decision to go to all inclusive is made.

B. Compliance Factors

1. Third party payers will require varying information and structure of rates:
 - Distinguish between routine and ancillary charges.
 - Exclusion or identification of non-covered charges.
 - Reflect significant differences in costs due to length of stay, type of service or type of accommodation.
 - Charge payors will need to be able to identify non-covered services to properly compute deductibles and coinsurance.
 - Cost payors (Medicare) will require statistical data to determine amount of allowable cost to be allocated to their programs.

C. Subjective Factors

1. Patient and physician relationships
 - Some patients, especially self pay and third party payors with low ancillary utilization experience, may object to a rate structure that approximates average charges. All inclusive rates will spread the cost of services to all patients irregardless of actual utilization.

- Physician compensation may be affected by conversion to all inclusive if it is based upon percentage of gross or net departmental charges.
- Hospital staff must be kept well informed of the conversion process. A well-planned communications and education program should be developed to ensure understanding and cooperation of the hospital staff.

PLANNING STAGE

The determination of converting to an all inclusive rate billing system and the subsequent implementation requires detailed planning. It is recommended that a steering committee and task force be established to coordinate and implement the conversion. The steering committee should consist of administration and key department heads (controller, business office and data processing). The task force should consist of people knowledgeable in the areas that will be affected (i.e., ancillary departments, business office, data processing).

Attached is a listing of the major steps in the planning and implementation stages and a specific time period has been assigned to each step to ensure timely action and conversion.

<u>Planning Stages</u>	<u>Time Period (Months)</u>
(1) Evaluate feasibility of converting, considering both positive and negative factors.	1.0
(2) Decision process.	1.0
(3) Establish steering committee and task force to develop and implement the conversion plan.	.25
(4) Establish realistic goals and objectives for all inclusive rate billing system.	.75
(5) Obtain required approvals.	1.0
Governing Board Third Party Payors Rate Hearings if necessary	
(6) Achieve staff, physician, and patient understanding and acceptance of the conversion plan.	1.0
	5.0

Implementation Stages

(1) Set and test inclusive rates that will generate sufficient net revenues after contractual adjustments to at least cover costs or meet objectives.	1.0
(2) Develop and document a plan that can be used to monitor the conversion.	.25
(3) Establish conversion date and develop a timetable for conversion.	.25
	1.5

Determination of Rates

- (1) Identify services to be billed on all inclusive rates. Setting up both types of services (Medical/Surgical, ICU/CCU, OB, etc.) and levels of care (Acute, SNF, ICF).
- (2) Identify ancillary services to be included in all inclusive rate. Need to coordinate with third party payors to determine noncovered services to be excluded.
- (3) Determine both budgeted direct and indirect cost associated with each all inclusive billing rate. Some form of cost allocation should be employed to allocate general service costs to revenue producing areas. Costs relating to ancillary services to be excluded from the all inclusive rate must be identified and costed separately.
- (4) Utilizing statistics or current fee for service revenues, allocate costs between inpatient, outpatient and by levels of care.
- (5) All inclusive rates should be set at levels to cover costs as determined in steps (3) and (4).
- (6) Additional analysis will need to be performed if ancillary rates are to be set by day of stay (higher rates for 1st day of service).
- (7) Project patient days by level of care to determine daily rates to be charged.

Physician Compensation Arrangements

Physicians compensated on a percentage of gross or departmental charges will require a new method for determining compensation levels. To retain a similar variable compensation arrangement, ancillary statistics (RUU) can be used. The statistics multiplied by a conversion factor will yield the equivalent revenues to be used for determining compensation.

Alternatively, a fixed compensation arrangement or a fee for service agreement can be negotiated with the physician.

Additional Recordkeeping Requirements

Third party payors will require a means by which ancillary cost per unit can be determined. Currently, statistical information is being maintained by the majority of ancillary departments. This information, however, is being maintained by only inpatient and out-patient categories.

Medicare, Medicaid and possibly other third payors will require that statistics on units of service be identified by levels of care and by payor type. This means that ancillary statistic must now be identified by Acute, SNF, ICF and Mental Health categories. Statistics relating to Medicare and Medicaid patients will also need to be identified for each level of care and for out-patient.

This additional recordkeeping for the ancillary departments will be offset in part or entirely by the elimination of the need to prepare detailed charge slips. The data processing department can be utilized to accumulate the data since the processing of individual charge slips will no longer be required. The conversion, therefore, can be accomplished with little or no change in departmental manpower requirements.

Hospital Staff Training and Education

Conversion to a new system of billing will require a well-planned training and education program to avoid implementation problems. An employee orientation program should be designed to inform each employee of how the system will work and their respective responsibilities for implementation.

The training program should begin well before conversion. Meetings with all department heads should be arranged to explain the nature of all inclusive rates and the reasons for conversion.

Detailed procedure manuals should be prepared for all departments which will be required to adopt new procedures. These manuals must be explained in detail to responsible department heads.

Each employee in turn should also be briefed on the new system by someone totally familiar with it. The hospital should not rely on

supervisors to explain the system as each supervisor may communicate a different version. This is especially true at the start of the implementation since the procedure will be new to everyone.

Plan Element 5: Recommended Time-Phasing

6.23

1982 1983 1984 1985 1986 1987 1988 1989 1990

15. Install AICPA Hospital Audit Guide budgeting format
16. Acquire microcomputer resources
17. Install pre-numbered charge-slip control system
18. Establish a system for performing periodic audits of patient charges against recorded procedures
19. Establish policy and procedure for periodic inventory and up-dating of fee schedules
20. Perform routine departmental cost-to-revenue analyses
21. Refine follow-up procedures regarding outstanding and overdue billings
22. Establish a single, central collection point for payments
23. Implement a system for daily cash deposits
24. Establish a system for monthly mailing of statements on overdue accounts
25. Implement a check list for admitting which assures collection of billing information
26. Establish a system for reconciling daily deposits to appropriate postings
27. Establish improved procedures to validate patient eligibilities for payment
28. Revise patient claims filing procedure to assure easy future access to billing information

periodically evaluate

continuously thereafter

at least annually thereafter

at least annually thereafter

up-date periodically

**GUAM
MEMORIAL
HOSPITAL
AUTHORITY**

**LONG RANGE
INSTITUTIONAL PLAN**

**PLAN ELEMENT 6:
EXTERNAL RELATIONSHIPS**

PLAN ELEMENT 6: EXTERNAL RELATIONSHIPS

Subsumed within this plan element are three broad areas of external relationships:

- linkages and working relationships with other health services agencies, both public and private
- professional relationships with external governmental referring entities within the Western Pacific
- relationships with decision-making centers of Territorial Government, including the Legislature.

SITUATIONAL ANALYSIS

A. Linkages with Other Sectors of the Health Care System

Mainly as a product of private development and continued expansion of governmental services during the last two decades, Guam now has a completely pluralistic health care system replete with most of the advantageous components of similar systems throughout the United States, but also complete with all of the defects characteristic of pluralistic, uncoordinated social efforts.

The figure displayed on the following page displays the major components of the current health and medical care system in their relative working relationship one to another. Examination reveals that there are essentially three separate and distinct major health systems in Guam. As illustrated, there do not appear to exist many truly functional articulations or working relationships between many of the important sectors of the system. Some relationships which do exist are not necessarily desirable, such as that close affinity between Guam Memorial Hospital Authority and Guam Memorial Health Plan. The basic problem seems to be that a set of components have been assembled or have developed, most of which operate with relatively good internal efficiency -- they do what they are supposed to do quite well, with good outcomes and at fairly reasonable cost. But, they generally lack suitable interconnections or relationships between components.

The hospital sub-system (of which GMH is the principle component, of course) and the private medical practice sub-system apparently function reasonably well as independent systems. There is some interlocking to be sure, but the interfunctioning of just these two sub-systems of the total often results in a fire-brigade technique -- patient becomes ill, usually receives concentrated care in a hospital bed and is surrounded by the best available medical talents. Thereafter, the relationship ceases until yet another crisis.

The establishment of articulations or relationships within a total system does not necessarily imply a merging of agencies and groups. It does not imply a hierarchical structure in which some agency, organization or profession is the "boss" and all others are "subordinate". It does, however, imply coordinated planning in which community goals and priorities-- not merely those of the separate public and private sub-systems -- become the targets for achievement through mutual involvement. Articulation as used here means the blending of objectives and effort put forth by many diverse and often autonomous persons, agencies, organizations and facilities as a means of achieving better utilization of available medical and health resources and gaining greater total output with the same, or less, input.

The purpose of this analysis is to put Guam Memorial Hospital in perspective with regard to the total system of which it is a part, in order that future developments recognize and account for any needed improvements in articulations with components of the broader system of which the hospital is a part.

While Guam's total health care system is as complex, diverse and pluralistic as that to be found in any U.S. city of similar size, there have been developed only relatively few collaborative and articulated relationships between components of the broader system and the operations of the hospital. These existing relationships are described below

together with some of the more evident emerging and developing relationships for the future.

1. Division of Public Health, DPH&SS

Of the many and varied programs and services of this Division, those which have achieved the greatest operational linkages with the hospital include the following:

- Crippled Childrens Services which collaborates closely with the hospital, its medical staff and community physicians with regard to orthopedic and other in-patient services authorized by CCS for its clients.
- Maternal and Child Health Section to which referrals are made of essentially all newborns for public health nursing and out-patient follow-up services. Complimentary referrals are made regarding high-risk mothers who have been served in public health clinics during their pregnancy.
- Communicable and Chronic Disease Control collaborates as necessary with hospital authorities with respect to the reporting of communicable diseases and the isolation and treatment of hospitalized communicable disease victims.
- Emergency Medical Services administers the Island-wide emergency medical system, of which the hospital is the principal end-service unit. This has included the establishment on a collaborative basis of an emergency radio communications network which links emergency vehicles and the hospital emergency room.
- Speech and Hearing Section provides professional staffing in this area for the hospital and supports the audiology service in the hospital.
- Public Health Pharmacy relies to some degree upon the hospital pharmacy both for occasional drug supplies and for all needed compounded pharmaceuticals.

- Public Health Nursing, particularly in connection with the provision of home care services, articulates with the hospital with regard to discharge planning and referral to the home care program.
- Public Health Laboratory provides supportive specialized laboratory testing services as needed by the hospital and presumably serves as the reference laboratory for calibration of hospital clinical testing procedures.

It is noteworthy that the foregoing listing encompasses most of the major functional sections of the Division of Public Health, thus illustrating the importance of continued and strengthened functional articulation between the largely ambulatory services of the Division and the mainly in-patient services of the hospital. In most of the cases recited above, a symbiotic relationship has been established, as for example in terms of hospital and public health pharmacies and laboratories. In other cases, the relationship appears to be primarily administrative as in the case of emergency medical services. In the remainder which relate more to direct patient care, the relationship appears to exist principally on a case-by-case basis. In almost every case, the relationships which do exist appear to be built upon close interpersonal relationships of individual professionals who, with their respective counterparts, have simply and quite informally established working liaisons.

Should current considerations result in the expansion of primary medical care services via a network of public health clinics, then there will clearly be enhanced opportunities and needs for more formal and systematic coordination in order to assure the continuity of patient care from the out-patient to the in-patient basis and vice versa. It is equally likely that closer articulations would be desirable related to specific in-patient support services which Division of Public Health personnel perhaps

should provide with greater intensity and regularity. If an option to transfer community mental health functions to DPH, then clearly another set of relationships will be required in order to fully integrate out- and in-patient psychiatric and mental health services.

2. Division of Social Services, DPH&SS

The principle operating relationships between this Division and the hospital relate to the administration of the Medicaid program, to Medicaid reimbursement for hospital services, to the payment for medical services provided by the hospital to various categorical entitlement recipients, and to the administration (presumably) of appropriated funds for the payment of hospital services for the indigent. It is clear that in the past these fiscal areas have been among those of greatest concern and trouble to hospital management, and abundant need for greater coordination and linkage of hospital procedures with those of this Division is evident. For those entitled to governmentally-paid medical care and for the indigent, this Division should perhaps more properly be viewed as an adjunct to the hospital's admitting office, for one of the admitting tasks is the establishment and verification of financial responsibility.

3. Division of Senior Citizens, DPH&SS

While not evident at the moment, future plans which are being presently developed by this Division may have profound significance for hospital operations. For example, should a potential program for the development and operation of day care centers for the aged become a reality, not only would this impact on planning for skilled nursing and intermediate care services, but it would present important opportunities for hospital participation in this new form of partial-hospitalization program. Other similar future developments may include 24-hour supervised living care for the elderly, respite care programs for the frail

elderly, and hospice care, each of which is distinctly hospital-related, though not necessarily co-terminous. Each such alternative to institutional long-term care for the elderly, however, will affect substantially the in-patient census of the hospital and perhaps raise important needs for the occasional decentralization of some hospital services and their provision at remote sites where ambulant and semi-ambulant patients may then be cared for.

4. Bureau of Fire Operations, Department of Public Safety

While emergency medical services are generally administered and coordinated through the Division of Public Health, actual operation of emergency ambulance vehicles and their staffing with appropriately trained technicians falls under the responsibility of this Bureau. Of necessity, there has already been established sets of protocols related to the proper notification, receipt and management of ambulance-borne patients. Not so fully articulated are the respective records systems of the ambulance, the emergency room and this hospital, nor is there close collaboration with regard to the quality of emergency care provided by ambulance staff members which is a proper concern of the hospital. Inasmuch as the Guam Community College is the locus of training for Emergency Medical Technicians, there is further implied another articulation with that entity with regard to the quality of emergency care, the result of which inevitably ends up as a responsibility of the hospital's emergency room.

5. Departments of Public Safety and Corrections

These two line departments of Government have similar working relationships with the hospital, each in connection with both in- and out-patient medical care rendered by the hospital staff for detained or incarcerated patients and prisoners. There are unresolved concerns regarding safety and security for hospital staff and other patients when prisoners and other potentially violent patients

under the charge of police officials are admitted either for observation or treatment. In the future, it is likely that newer correctional facilities will include minimal infirmary units, and the operation of remote short-term in-patient facilities and their relationship to hospital services will become an important inter-agency concern.

6. U.S. Naval Regional Medical Center

The Department of Defense operates the second acute hospital in Guam, and this presents needs and opportunities for close collaboration between the two institutions, despite their different clienteles. Medical personnel, on a highly informal and personal interest basis, are shared by NRMC with the hospital. Radiographic technicians from NRMC provide sorely needed part-time staffing at the hospital. There are occasions when loans of central supply stocks and drugs and other supplies are made by Naval authorities to the hospital. The NRMC, under a cooperative agreement, provides gas sterilization services to the hospital. In the future, it is likely that there will be some services located at Guam Memorial Hospital which will be needed by NRMC staff and patients and needs for more formal working arrangements between the two institutions will emerge. Inasmuch as it appears clearly in the interest of the United States to maintain its strong military presence in Guam, the continued existence and operation of two acute general hospitals would seem assured. Under these conditions, and recognizing that neither the economy or clientele for either is sufficient to support a total full-service institution, needs and opportunities for sharing and symbiosis between the two hospitals become evident. It is not unlikely that future arrangements could include agreements for the installation and operation of various technologies and medical specializations at one or another of the hospitals with mutual sharing with the other, creating a degree of interdependence which does not totally exist today.

7. Guam Memorial Health Plan and Family Health Plan

These two pre-paid health care plans of the health maintenance type can be considered together for purposes of this appraisal. Inasmuch as each relies upon the hospital as the base for in-patient care of their respective members, and as the locus for in-patient practice of their respective medical staffs, there is undeniably an existing working relationship at the immediate patient care level. There does not appear to exist, however, any formal articulation and coordination of policy and procedures across organizational lines. Changes in benefit packages and shifting patient care philosophies and practices on the part of the pre-paid plans can and does directly affect patient census and hospital utilization. Likewise, changes in hospital practices, including costs and charges, obviously directly affect the management of the pre-paid plans.

Obviously, the closest working relationship exists between the hospital and GMHP, inasmuch as both are controlled by the identical Board of Trustees. This is not without problems, for as enunciated elsewhere, the Board is in serious conflict of interest by setting policy for one organization which purchases services from a second for which it also sets policy.

There are also dependency relationships between these organizations and the hospital, with respect to the after-hours and weekend ambulatory care of their respective members. In these cases, when plan physicians are not easily or customarily available, it is commonplace that plan members seek ambulatory care for the hospital's outpatient and emergency departments.

While in most other complex settings, relationships between health plans and hospitals tend to be of the adversarial, vendor-provider kind, in Guam with its single civilian hospital and no other option available, a different

set of more cordial and mutually supportive relationships is probably attainable and necessary for the good of the patient if not of the organizations involved.

8. Private Practicing Physicians and Dentists

Guam has essentially five cohorts of physicians (and dentists to some degree), each of which has a unique relationship with the hospital, as follows:

- a. The salaried medical staff of the hospital represents a minority of practicing, licensed physicians and has a clear administrative (although not purely employee-employer) relationship with the hospital. Some are on straight salary while others are to be found on negotiated contract. Relations with staff physicians (salaried and contract alike) are acutely important, especially in such areas as radiology and pathology, therein the paramount professional capacities reside on the hospital staff and nowhere else in the medical community. Under these conditions, salaried and contract staff physicians not only "work for the hospital", but they also are expected to support diagnostic and therapeutic needs of the broader private medical community and its patients.
- b. The members of the group medical practice affiliated with Family Health Plan represent a second special group. While a private group medical practice, these physicians (and dentists) rely upon the hospital as their "workshop" for in-patient care, both medical and surgical. They also represent a portion of the organized medical staff of the hospital (and thus influence hospital policy) at the same time as they are affiliated with a purchaser of services from the hospital. These apparently conflicting relationships may call for unique sets of working articulations well beyond the traditional doctor-hospital relationship.

- c. The third group of physicians include those in private medical and dental practice, either in small groups, in clinics, and sometimes in solo practice, who are participating physicians under the Guam Memorial Health Plan. Similar to the cadre described above, their relationship with the hospital and its management carry the same imperative for clarification and codification, especially since they have contracted with GMHP and thus with GMHA's Board of Trustees. They are thus in position to influence hospital policy through GMHP or through their membership on the organized medical staff of GMH.
- d. A smaller group of physicians and dentists are the handful of purely private practitioners who do not participate as staff physicians under either of the pre-paid health plans. These, like their brethren in the plans and on the salaried staff, rely upon the hospital for the in-patient care of their patients, and are members of the hospital's organized medical staff. More traditional relationships, directly through medical staff organization, would appear to apply in this case.
- e. The U.S. Naval medical officers who staff NRMC and other Department of Defense medical facilities on Guam represent the fifth major sector of professional practitioners with whom formal relationships with the hospital are imperative. In some cases, Naval medical personnel represent the sole source of sorely needed professional specialist in Guam, and their willingness to serve the needs of the civilian community on off-duty times is simply testimony to their professionalism. There are no formal intergovernmental compacts which either mandate or legitimize these relationships, and they exist on highly interpersonal basis and thus are quite fragile.

In other cases, Naval personnel (not necessarily medical officers) represent sorely needed technical skills not otherwise available to the hospital and in these capacities have been willing to "moonlight" and provide their specialty to the hospital's patients or to serve as primary instructors for other hospital staff members in their area of specialization. These existing relationships are obviously essential to good patient care in the hospital, and are deserving of special nourishment.

9. Guam Health Planning and Development Agency

Past relationships with GHPDA have proven to be mainly regarding regulatory functions of the planning agency with respect to the purchase and installation of hospital equipment. GHPDA did co-sponsor hospital week promotional activities which apparently helped to interpret the hospital and its function to the broader community in a highly useful way. Current planning efforts aimed at designing appropriate placement and treatment of patients now inappropriately placed in mental health in-patient units in the hospital can be expected to impact on hospital operations. This is simply to say that in that specific example, with respect to most other community health planning which GHPDA conducts, the future of the hospital and its services are involved, clearly calling for the closest of collaboration and involvement on the part of both parties.

10. Mental Health and Substance Abuse Agency

While the operation of both in-patient and out-patient mental health and psychiatric services, under the Guam Community Mental Health Center, is a responsibility of the hospital, the MHSAA has responsibilities for planning and coordinating mental health services for Guam. The Agency has provided GCMHC with technical assistance principally with respect to grants and programs. As

discussions and plans for the future of community mental health in Guam proceed, it would appear essential that close collaboration between MHSAA, GMH and other involved entities be established and maintained.

11. Private Clinical Laboratories

While a fairly minor relationship, it should be noted that the hospital laboratory provides special clinical testing which community clinical laboratories are not equipped to accomplish, and is viewed as a backup resource generally for such laboratories.

12. Voluntary Health Agencies

The hospital appears to be more of a recipient rather than partner in many of the activities of Guam's voluntary health sector. For example, the Heart Association recently provided a heart defibrillator for the hospital, and is currently planning for a coordinated cardiac rehabilitation program in league with some hospital entities. The American Lung Association provided a bronchofibroscope. The American Cancer Society participates in and supports the maintenance of the Tumor Registry jointly with the Division of Public Health and the hospital. Catholic Social Services provides some patient support and social service within the hospital, especially with regard to discharge planning. These varied relationships do not appear to have consistency or continuity and seem to emerge as spontaneous and serendipitous encounters from time to time, but with little in the way of central direction or master purpose.

13. The University of Guam

Formal relationships do exist between UoG and the hospital centering principally around the use of hospital facilities for a portion of the clinical education of nursing students. As the nursing education program expands to the baccalaureate nursing level, greater penetration of hospital resources can be expected, and

because of the medico-legal aspects of in-house education, more extensive formal agreements and relationships will be needed.

14. Decision-Making Centers of Territorial Government

While the foregoing organizations and agencies represent the principal current community and professional working relationships for the hospital, this appraisal would be seriously incomplete with discussion of linkages between the hospital and the executive and legislative branches of government.

- a. Executive Branch relationships are, appropriately, of an exclusively administrative nature. The Governor is, of course, intimately involved with hospital operations though his powers of appointment which extend not only to members of the Board of Trustees, but to his approval of Board appointments to the top administrative positions within hospital management. At times of operating crisis, the Executive Branch has conducted its own examinations of hospital problems either through the efforts of Special Assistants to the Governor or through requesting the preparation of analytical studies by such entities as GHPDA.

More recently, the Governor commissioned two task forces of immense importance to future hospital operations, one to deal with long-range institutional planning and the second to consider future uses for the "old" Guam Memorial Hospital property and structures.

The Office of the Governor is apparently (and probably quite usefully) generally accessible to the Board of Trustees and to the present hospital management. Furthermore, through direct actions of governmental agencies which report to the Executive Branch, or through direct Executive Orders of the Governor, hospital operations are directly impacted, as in the

recent reversion of all health professionals except physicians to the classified civil service, the intended transfer of business management processes from the hospital, and earlier shifting around of community mental health responsibilities.

Accordingly, as things appear to stand in actual practice and even though GMHA (and the hospital) is an autonomous public corporation, it is in many respects dealt with and operated more as a non-autonomous line agency of government in which the direct management of Executive Branch officials is the expected norm.

- b. Relationships between the hospital and the Legislature are quite another thing. While the hospital need not (by statute) approach the Legislature for appropriations, it has always found it necessary to do so, and thus during appropriations cycles the hospital sustains the identical piercing inquiry that any line agency must endure. This has, in practice, extended well beyond the budgetary requests being made by hospital management into rather minute internal operating procedures, policies and practices. It must be believed that this simply reflects the deep concern of members of the Legislature over the continued high quality operation of so precious a commodity as hospital care, but this deep interest and concern has clearly placed many members of the Legislature in a very direct position of influence over internal hospital operations. The Chair of the Senate Committee on Health participates as an interested non-member in the deliberations of the long-range institutional planning task force, for example, thus highlighting her profound concern and interest in the hospital's future.

It is clear that in practice the Legislature (or at least major members thereof) see it in the best interest of Guam's citizens to participate rather

actively in determining not only the broad details of the hospital's future but also in establishing rather short-run operating policy and procedure. Under this condition, it would appear mandatory that more formal structures which can creatively harness the apparent deep Legislative interest which exists be created without delay.

B. Summary

The foregoing pages have depicted an environment wherein there exist conditions of substantial dependency and inter-dependency between the hospital and a host of other agencies, organizations and community forces. Not only is this most desirable, but cross-organizational interactions should perhaps be fostered to an even greater extent. However, as the foregoing analysis clearly reveals, the multiple relationships which do exist between the hospital and others have no central focus or means of general coordination. They almost exclusively relate to quite highly personal relations which individuals from various constituencies have established with sectors of hospital organization. Under these conditions it is quite possible that well-meaning articulation with the hospital can be counter-productive, particularly when it becomes conflicting with the unrelated and uncoordinated participation of others. In brief, for the concerns and support of external entities to be of maximum value to the hospital, the right hand must know what the left hand is doing, and this is not always the case at the moment.

NECESSARY LINKAGES

As will be more detailed in the following section, it is important to note at the outset the triad of concerns about which effective future external relationships should be constructed. These include Hospital Policy, Hospital Operations, and Hospital Financing. The listing which follows is intended to include all of the agencies, organizations and interests with which it is necessary that the hospital have effective working linkages. For purposes of later continuity, the

listing has been subdivided according to appropriate areas of concern around which future linkages will be forecast and described.

A. Linkages Concerned with Policy, Operations and Financing

1. Office of the Governor
2. Guam Health Planning and Development Agency
3. Guam Mental Health and Substance Abuse Agency
4. Department of Health and Human Services, Region IX
5. External proximate governments

B. Linkages Concerned Principally with Policy and Financing

1. Guam Legislature

C. Linkages Concerned Principally with Policy and Operations

1. Physicians and other health professionals who have practice privileges in the hospital
2. Division of Public Health, DPH&SS
3. Division of Senior Citizens, DPH&SS
4. University of Guam
5. Guam Community College
6. Bureau of Fire Operations, Department of Public Safety
7. Department of Public Safety
8. Department of Corrections
9. Naval Regional Medical Center
10. Voluntary health agencies

D. Linkages Concerned Principally with Financing and Operations

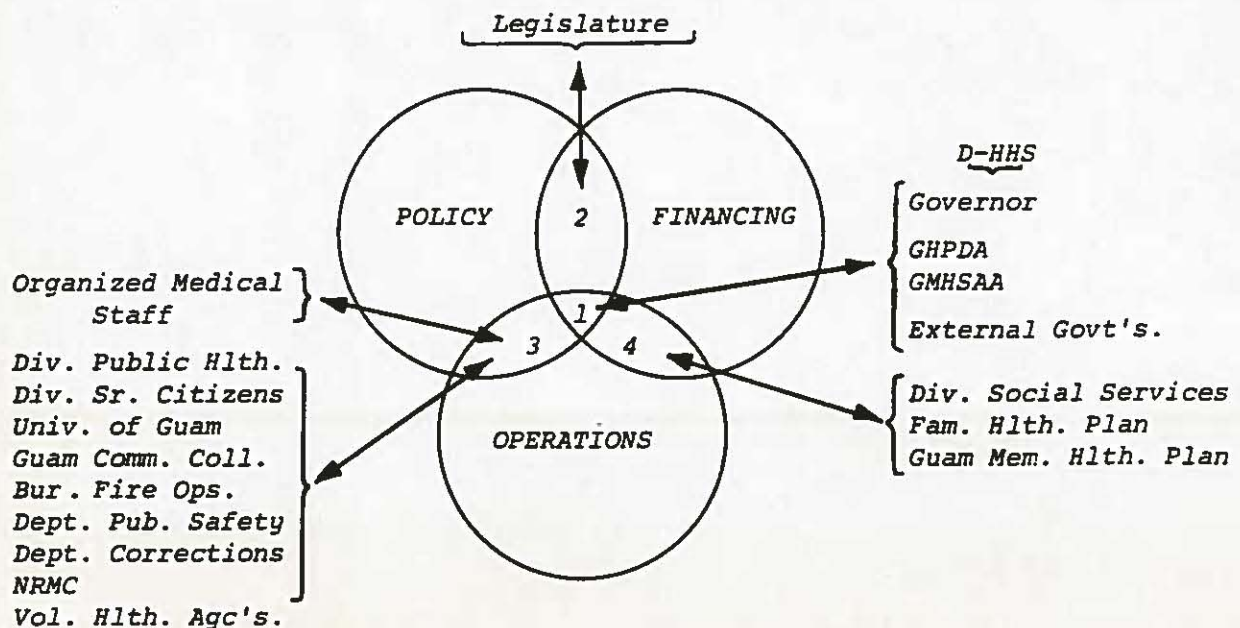
1. Division of Social Services, DPH&SS
2. Family Health Plan
3. Guam Memorial Health Plan

The foregoing 20 discrete public and private agencies, organizations and offices are for the most part internal to Guam's social and political structure. Two are, however, external and include surrounding political entities and Federal officials exemplified through the Regional Health Administrator, DHHS Region IX. In their totality, these entities represent those with which the hospital must relate, or desirably should relate, both now and in the context of future services and programs.

THE DESIRED NETWORK OF FUTURE ARTICULATIONS

It is insufficient to simply identify the actors in a collaborative network as has been done above. It is next important to establish a functional network through which effective collaboration can be expected to take place on a continuing and routine basis over time. The diagram presented below provides an organizational schema for establishing a desired network of articulations which would serve both the interests and needs of the hospital and those of the collaborating entities as well. Hence, the network presented here is intended to be a set of two-way collaborative relationships, in one sense constituting a set of relationships which contribute to the effective functioning of the hospital, and in a second sense creating means whereby the hospital can contribute to the effective functioning of many other entities.

A FUTURE ARTICULATION NETWORK



Not illustrated in the foregoing diagram is the statutory and central role of the Board of Trustees and hospital management. Their area of concern is clearly area #1 which embraces the totality of operational, policy and financing concerns. But even within this area, there are sub-areas of priority attention. For example, the Board's principal concerns lie in the areas of policy and finance, with appropriately less attention to operations. Management's primary concern is in operations tied with financing as a natural corollary and with commensurately less concern in the policy-setting area. This is not to say that either has no concern of responsibility in all areas, but that priorities dictate selective emphasis as outlined above. Accordingly, in establishing networks for articulation with external entities, it is logical to localize internal contact points with reference to the respective Board-management priority concerns.

Hence, with respect to articulations which have concern for all three areas of policy, finance and operations, this is clearly the primary domain of the Board of Trustees, and collaborative linkages to such external entities as the Governor (and through him, officers of the Department of Health and Human Services), central planning entities such as GHPDA and GMHSAA, and to external governments will need to emanate from and be localized principally in the Board. Likewise, relationships with the Legislature which pertain most appropriately to concerns in the policy and finance realms lie again clearly within the domain of the Board and should therefore be localized therein.

On the other hand, a set of external relationships dealing principally with the interface of operations and finance are of immediate and high priority concern of management, and the locus for the establishment of such linkages should be within the management structure of the hospital. Likewise, two sets of relationships which concern mainly operations (and the interface of policy with operation) are principal management concerns and their establishment should lie within the management structure primarily.

On the basis of the foregoing arguments, the following set of specific types of relationships may now be suggested which become the target for later implementation plans:

- Board of Trustees Centered Relationships

While not excluding management participation (in fact it should be a requisite), formal working linkages with the following entities should be established to provide for continuous informational interchange, dialogue, joint planning, decision-making and policy guidance:

The Office of the Governor.

Existing (and any future) health planning entities including GHPDA and GMHSAA.

The governments of the Commonwealth of the Northern Marianas, Federated States of Micronesia and the Republic of Belau.

The Guam Legislature.

- Management Centered Relationships

The Division of Social Services (DPH&SS), the Family Health Plan and the Guam Memorial Health Plan.

The organized medical staff of Guam Memorial Hospital augmented as necessary by associate or affiliate membership so as to include all health professionals with practice privilege in the hospital.

A galaxy of public and private organizations and agencies including the Division of Public Health and Senior Citizens (DPH&SS), University of Guam, Guam Community College, Bureau of Fire Operations, the Departments of Public Safety and Corrections, the Naval Regional Medical Center and major voluntary health agencies in Guam.

As emphasized above, while the foregoing are seen as management centered relationships, it would be unwise and improper were Board participation in such relationships not arranged.

The foregoing network of articulations with external entities of importance to the functioning of the hospital may next be translated into organizational units with appropriate titles. It would be to the creation and implementation of such units that the methodologies which follow must deal. The following are suggested:

1. Governor's Health Policy Council, with membership to include the Governor and such others of his office as he may decide, the Chairperson and two members of the hospital Board of Trustees, the hospital Administrator, and the Director of the Department of Public Health & Social Services. This Council should be convened at least monthly, or more frequently on call of the Governor. All members of the Council should be permitted and required to introduce agenda items for each meeting, and minutes reflecting decisions reached should be accurately maintained. The purposes of the Council are as follows:
 - a. exchange of relevant information regarding new developments in hospital and health services, service delivery and financing problems, and issues requiring the attention of the highest levels of executive decision-making.
 - b. policy direction regarding hospital and other governmental health services.
 - c. provision of a forum to which other relevant public and private officials may, from time to time, be invited to participate in relation to specific agenda items.
2. Health Plans Coordinating Committee, which should include two members of the Board of Trustees, the hospital Administrator and the Administrators of the Guam Health Planning & Development Agency and the Guam Mental Health and Substance Abuse Agency. This committee should meet at least quarterly, with the principal purposes being the exchange of information regarding current planning and developmental directions and recommendations, the establishment of collaborative planning efforts (including the sharing of staff for plan development purposes), and the monitoring of the implementation of plans which affect the hospital.

3. Western Pacific Intergovernmental Health Services Development Council would constitute a formal body representative of at least one policy-maker (e.g., a member of the Board of Trustees of the hospital) and two administrators (including the hospital Administrator) from each of the following political jurisdictions: Guam, Commonwealth of the Northern Marianas, Federated States of Micronesia, and the Republic of Belau. Necessarily established as a mutual decision among the respective heads of state government this Council should meet at least once each year (and more often if feasible) to share information among kindred jurisdictions as to the status of internal health and medical systems development and to develop specific proposed policies and plans for the intergovernmental sharing of scarce health and medical resources and for other mutually interdependent matters.
4. Legislative Liaison Committee would provide a central instrumentality through which legislative inquiries could be made and promptly responded to by hospital authorities. This committee could comprise the Chair of the Board of Trustees, the Hospital Administrator, two additional members of the Board and the hospital's Controller. In addition to a continuing role of responding to legislative inquiries and the provision of needed information to the Legislature, this Committee would meet at least once each month with the Chair and membership of the Senate Committee on Health, and at their pleasure with such other committees or Senators as may request meetings. The purposes to be served include prompt response to legislative inquiries, information sharing, and mutual discussion of issues related to hospital operation. It would be important to assert this committee as the principal channel through which legislative inquiries and other requests for information would flow, and staff responses and other legislative contacts should be cleared through this committee.
5. Third-Party Liaison Committee would include the hospital Administrator, the hospital Controller, the Administrator of the

Medicaid Program, and the Administrator and controller of both Family Health Plan and Guam Memorial Health Plan, and executive representatives of any other major insurance entity in Guam. The committee should meet at least bi-monthly, with the principal responsibility for agenda setting falling to the hospital Controller. Other members should have the privilege of submitting agenda items, and minutes of all discussions and agreements should be carefully maintained. The purpose of this committee would be the provision of a channel for mutual discussion of pricing, cost, payment and billing matters pertinent to services provided by the hospital. As appropriate, and with Board participation, this committee could also become a forum for rate and charge negotiation between the hospital and the major payment mechanisms.

6. The Organized Medical Staff of Guam Memorial Hospital is an entity already in existence, but is included here owing to a necessary broadening of its representation. Through the establishment of ancillary categories of membership and a broadened spectrum of committee structures, the Organized Medical Staff could be made to be representative of all licensed health professions who are not on the immediate staff of the hospital but who have privileges to provide patient care services within the hospital. The purposes of the expanded staff organization are identical with those of traditional medical staff organizations, and include the privilege of recommending to the Board those who will be permitted to practice in the hospital, surveillance over the quality of professional practice in the hospital, the operation of quality- and performance-control and monitoring committees, and participation in the governance of the hospital through the Executive Committee of the organization and through the Joint Conference Committee.
7. Program Advisory Committee membership would include the hospital Administrator, other executive staff members of the

hospital at the Administrator's discretion, and the chief executive of (or a direct designee) the following agencies and organizations:

- a. Division of Public Health, DPH&SS
- b. Division of Senior Citizens, DPH&SS
- c. University of Guam
- d. Guam Community College
- e. Bureau of Fire Operations, DPS
- f. Department of Public Safety
- g. Department of Corrections
- h. Naval Regional Medical Center
- i. American Heart Association
- j. American Cancer Society
- k. American Lung Association
- l. Catholic Social Services

The committee should be convened at least quarterly each year for the purpose of sharing among related agencies changes in their respective service patterns and inter-organizational problems which have arisen in the provision of services. One principal value would be the periodic opportunity to share with other concerned and involved agencies the evolving development of services within the hospital and to negotiate inter-agency cooperative assistance where needed. Likewise, the committee provides a regular forum wherein the hospital leadership can systematically learn of changes in the programs of other agencies as they may affect the operations of the hospital. Overall, it could serve the broader purpose of coordination among agencies concerned with either the delivery or utilization of health services.

IMPLEMENTATION PLANS FOR EXTERNAL RELATIONS

GOAL 1:

Create a formal organization through which regular and planned liaison is established and maintained with the Office of the Governor and the hospital.

Actions

1. Seek the Governor's cooperation and his promulgation of an Executive Order creating the "Governor's Health Policy Council", with membership and purposes as detailed previously.
2. Arrange for the convening of the first meeting of the Council immediately upon its creation, and at the first meeting establish responsibility for agenda preparation, minute keeping, and schedules for future meetings.

Responsibility: Chairman, Board of Trustees and Administrator

Start: July, 1982

Complete: September, 1982

GOAL 2:

Establish a linkage with formal health planning entities in Guam so as to assure the representation of hospital interests in health plan development and implementation.

Actions

1. Hospital Administrator initiate an exploratory conference with the Administrators of Guam Health Planning and Development Agency and Guam Mental Health and Substance Abuse Agency together with the Chairman, Board of Trustees of the hospital, for purposes of establishing a "Health Plans Coordinating Committee" among these three entities, and to formalize by mutual agreement the membership of the committee, its frequency of meeting, and specific purposes.

2. Upon formation, confirm existence of the committee in writing between collaborating organizations and with the Governor.

Responsibility: Administrator

Start: June, 1982

Complete: July, 1982

GOAL 3:

Create a new intergovernmental forum for discussion and consideration of mutual problems and concerns regarding the development and refinement of health and medical services throughout the Western Pacific.

Actions

1. Seek the cooperation of the Governor in introducing the suggestion of creating a "Western Pacific Intergovernmental Health Services Development Council" as he has opportunity to meet with counterpart executives from the Commonwealth of the Northern Marianas, the Federated States of Micronesia and the Republic of Belau.
2. With the approval of the Governor, establish contact with counterparts (Directors of Health Services and Hospital Administrators) in the above referenced jurisdictions, exploring with them appropriate ways of intergovernmental planning and cooperation at the service agency level.
3. Following due exploration at the executive and agency levels and following consensus, convene in Guam an invitational meeting of appropriate government delegates from the aforementioned jurisdictions for purposes of detailed planning of the structure and operation of the Council.
4. At the first meetings of the Council, assert the imperative of identifying probable and potential future support roles which Guam's medical and hospital resources may reasonably expect to play with regard to the surrounding Western

Pacific populations, and the degree to which and ways in which Guam's health system can play supportive roles to developing health systems in surrounding politics.

GOAL 4:

Improve and systematize easy access to information sources within the hospital for members of the Legislature.

Actions

1. Through action of the Board of Trustees, create a "Legislative Liaison Committee" comprised of the Chair, Board of Trustees, the hospital Administrator, two additional members of the Board, and the hospital Controller.
2. Convene the committee and establish a formal statement of purpose based on that provided previously, and notify all members of the Legislature and the Governor of the establishment and existence of the committee.
3. Convene an initial meeting of the committee with all appropriate members of the Legislature, explain the purpose of the committee and its central role as the primary avenue of inquiry regarding hospital affairs. At this time, establish a schedule of regular meetings with the Senate Health Committee, and any other Legislative entities desiring regular contact.
4. Provide clear information to all hospital staff members regarding the existence and role of the committee and instruct all staff members to refer inadvertent requests for information to committee members in lieu of responding directly. Establish clear procedures whereunder staff members will clear with the committee any direct representations they may be asked to, or wish to, make directly to members of the Legislature.
5. Extend the informational channel which the committee represents to the Office of the Suruhanu and his staff in order that the same channel for internal inquiry is employed by that Office as well.

Responsibility: Chairman, Board of Trustees

Start: May, 1982

Complete: June, 1982

GOAL 5:

Establish a vehicle for the exchange of information and for negotiation between the hospital and major third-party payers in Guam.

Actions

1. Upon invitation of the Chairman, Board of Trustees, convene a meeting of the Administrator, Medicaid Program, the Administrator and controller of both Family Health Plan and Guam Memorial Health Plan, and executives of any other pertinent and major health insurance plans in Guam, together with the hospital Administrator and Controller.
2. At the first meeting, constitute the group as the "Third Party Liaison Committee" for purposes previously suggested, and establish necessary rules regarding submittal of agenda items, frequency of meeting and range of topics eligible for discussion or negotiation.
3. Proceed with regular meetings thereafter with strict adherence to previously determined meeting schedules.

Responsibility: Chairman, Board of Trustees and Administrator

Start: June, 1982

Complete: August, 1982

GOAL 6:

By employing an expanded medical staff organization, create an entity representational of all licensed health professionals who are granted privilege to practice in Guam Memorial Hospital.

Actions

1. Upon invitation of the Chairman, Board of Trustees, convene a meeting between the Chairman, the hospital Administrator and the President of the Medical Staff.

Responsibility: Chairman, Board of Trustees and Administrator

Start: July, 1982

Complete: November, 1982