EVALUATION OF FEDERAL SUPPORT TO HEALTH CARE SYSTEMS OF U.S. PACIFIC TERRITORIES

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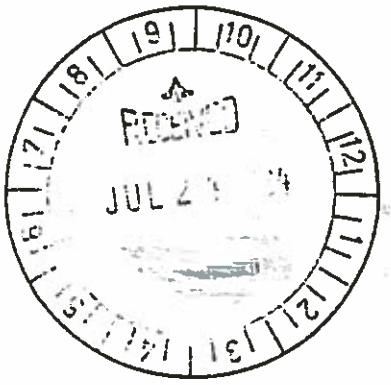

July 19, 1984

Mr. Dennis G. Rodrigues
Department of Public Health & Social Services
Government of Guam
P. O. Box 2916
Agana, Guam 96910

Dear Mr. Rodrigues:

We are sending for your review and comment the enclosed draft report which is part of the draft final report of the findings emanating from the Pacific Basin Assessment Project. We would be pleased to have any suggestions or comments you may have.

Thank you.

Sincerely yours,

Robert E. Mytinger, Dr.P.H.
Professor of Public Health and
Project Director

REM:pso

Enclosure

To	Initial	Date
Asst.to Dir.		
Dep. Dir.		
Dir.		

EVALUATION OF FEDERAL SUPPORT TO HEALTH CARE SYSTEMS OF U.S. PACIFIC TERRITORIES

COUNTRY REPORT: THE TERRITORY OF GUAM

I. EVALUATION AND METHODOLOGY

The pluralistic health care system of Guam sharply contrasts with the monolithic systems of other Pacific Basin island entities and reflects a continuous evolution through past periods of direct external governance by Spain and the United States, as well as present indigenous assumption of territorial self-sufficiency and internal control. The nature and depth of the evolution has varied, to a large extent, on each successive government's perception of its roles and responsiblities to the island and its people. Ranging from complete domination and suppression of the indigenous system to the current complex interrelationship between U.S. federal oversight and local polity, each administration has impacted the health status of the islanders and the incorporation of new mechanisms to meet their changing health care needs. Evaluation of that impact, however, has been piecemeal in guiding health policy and resource allocation decisions.

Geographically part of Micronesia but never part of the Trust Territory of the Pacific Islands, Guam is unique not only because of its size, large population base, and technological advancements, but also in the achievement of relative enduring political stability since its initial 1898 acquisition by, and subsequent 1950 official unincorporated territorial status with, the United States. First administered through the Department of the Navy and now under the aegis of the Department of the Interior, the island has received federal economic assistance through a variety of grants, supplied and/or supported services, and environmental infrastructural improvements. Although local expenditures have necessarily increased in support of a growing and diversified health care network, recent participation in programs requiring local and local matching revenues have declined due, in part, to pervasive economic, geographic, and sociocultural issues.

The Request for Proposal No. 190-83-009 for the Evaluation of Federal Support to Health Systems of U.S. Pacific Territories was specifically initiated to provide a more comprehensive data base from which federal policy makers can assess the effectiveness of past and current support in enhancing the health care system of the Territory of Guam, and determine future health and health-related initiatives. The analysis which follows responds to that request, and primarily results from self-appraisals shared with and clarified by the University of Hawaii field team regarding the degree to which Guam's health care system complies with basic criteria collaboratively established by project staff and health care representatives from all American Pacific Basin islands.

II. BACKGROUND

A. Description of the Territory of Guam

The long political affiliation of Guam with the U.S. has resulted in rapid modernization, social change, and the institutionalization of a sophisticated and comprehensive health care system. Local expectations and efforts to develop health

care resources and methods closely approximating those of comparable U.S. mainland populations, however, must be balanced in perspective with demographic, geographic, cultural, and economic realities.

Although Guam plays a prominent logistical role in U.S. western Pacific military defense and stands as the transportation, communication, and commercial center for all of Micronesia, its geographic location and relative insularity in relation to major external resources of goods and services continually pose a significant challenge. Its distinctive large single land mass and sizeable 1980 population base of 100,000 inhabitants comparatively obsure the island's small size (length of thirty miles, width of four to eight miles, and total mass of 225 square miles) and its actual distance from other Pacific economic centers. As the southernmost island in the Marianas archipelago, Guam is located approximately 4000 miles west of Hawaii, 1500 miles south of Japan, and 120 miles from its closest Micronesian neighbor, the Commonwealth of the Northern Marianas. Its transportation network entirely depends upon expensive scheduled airline flights and ocean freight for import and export of goods, services, and people. External communications are similarly limited to technological methods of transmitting information, either electronic or mechanical, across a wide expanse of ocean.

Although the characteristic tropical marine humidity and temperature remain fairly constant, pronounced wet and dry seasons also present significant logistical and health challenges. Coral composite road surfaces provide minimal traction under wet conditions. Fresh water supplies are dependent upon adequate rainfall and periodic shortages affect the island's southern region. Constant warmth and humidity not only promote bacterial and parasitic infestation, but also affect facilities and equipment maintenance. By virtue of its location in both the tradewind latitudes and the eastern fringe of the Asiatic monsoon area, the island is extremely vulnerable to frequent small scale storms and typhoons which have the very real potential to cause extensive damage and to substantially endanger the health and safety of residents. Recovery from the devastating effects of Typhoon Pamela in 1976 has only recently been completed.

The indigenous and current majority population of Guam is Chamorro; however, depopulation, disease, and warfare during three hundred years of Spanish rule virtually undermined and exterminated the traditional society. Although the Chamorros today are more a mixture of Spanish, American, and to a lesser extent, other racial extractions, they still retain a characteristic strong bond of familial obligation and support of extended family networks, orientation to social status and interpersonal sensitivity, and deep religious emphasis which intermingle and conflict with cultural transformation attendant to modernization. U.S. expatriates and aliens compose a small but rapidly increasing proportion of the island's civilian residents, while active duty military personnel and military dependents represent an estimated twenty per cent of the total population. The early settlement pattern of scattered native villages and a small administrative center has disappeared and been replaced by civilian resident concentration in urbanized central Guam, with village population shifts predominantly occuring from the rural to urban and from the southern to central districts.

One of the most compelling characteristics of the total civilian population is its youthfulness. Approximately forty percent are under the age of fifteen; less than an estimated three percent are over the age of 65. With a correspondingly high fertility rate, the birth rate in 1982 was 26.8 live births per 1,000 population. The crude death rate, on the other hand, remained relatively stable at 4 deaths per 1,000 population, with the pattern of leading causes of death shifting over time from infectious disease-related conditions to chronic diseases characteristic of modernization. The infant mortality rate has steadily declined to 9.36 deaths per 1,000 live births in 1982, although in 1980 an isolated and unexplained high rate of 14.3 deaths per 1,000 live births was reported.

Military-related expenditures, tourism, a significant amount of public employment, and, to a lesser extent, private sector wholesale/retail merchandising and construction are the primary building blocks of Guam's thus far narrow but viable economy. Other than oil refinery and rock-processing activities, there is no heavy industrial development, and future expansion in this area is hampered by the lack of skilled indigenous manpower, scarce raw materials, the island's size, and relatively small population base. Agriculture has lost momentum as more and more residents have become increasingly better educated, are otherwise employed in tourism or government jobs, or out-migrate to areas of more diverse and lucrative opportunities. The rapid economic growth experienced during the late 1960s and early 1970s due to increased military spending, active foreign investments, spurt in tourism, and new construction projects have since stabilized. The resultant decline, rising inflation, and high unemployment have made the generation of sufficient local revenues to meet growing government expenses difficult at best. The health care system, one of the largest categories of government spending, has not yet successfully generated sufficient revenues from clients with low wage and family income levels to offset the long-standing history of free medical care or the recent shift of greater responsibility for social welfare and health programs from the federal government to the territory.

B. Brief Overview of the Health Care System

The current health care delivery system of the Territory of Guam markedly contrasts with its centralized and government-dominated form of only two decades ago. Now complex and pluralistic, it is still evolving through local efforts to provide an applicable range and scope of services unique to its setting, resources, and needs of its people, as well as through efforts to define and develop relationships between three distinct but not yet fully integrated subsystems. While the following description is by no means exhaustive, it is intended to highlight the major components of the system and to serve as an introduction to the more detailed analysis which follows.

Although the military sector, as represented by the Naval Regional Medical Center and its network of dispensaries, does not generally provide direct health care services to civilian residents or figure heavily into local planning for in-patient, ambulatory, and public health care delivery, its formal relationship with the public sector is nonetheless significant. The relatively large contingent of active duty military and military dependents in Guam affords both public and private sectors with a small but continuous supply of part-time and full-time health care manpower. This is of special, even if temporary benefit in staffing and/or providing services otherwise plagued with shortages of

Personnel with extensive or specialized preparation. Additionally, naval pharmaceutical supplies provide occasional support for public sector pharmacy needs at a significant cost savings.

The small but growing private health care sector presently includes, among other elements, an estimated eighty-four physicians, who provide the bulk of the medical care in a variety of practice settings: clinic, group, and solo. The two major health insurance or pre-payment plans are proprietary. One of these is government sponsored and the other is sponsored through a California-based health maintenance organization. Other elements of the private sector consist of dental and other professional practices; clinical laboratory, wholesale medical supply, and retail and wholesale pharmaceutical supply services: and a variety of private agencies and organizations. Although the diverse activities and functions within the private sector are generally fragmented and as yet lack systematic coordination, they provide significant support to a public sector still responsible for all in-patient and most outpatient services.

The Government of Guam supports and provides both direct and indirect health services through several major but administratively unrelated entities. The locus of in-patient care rests with the 237-total bed capacity Guam Memorial Hospital, the largest acute care American Pacific Basin facility west of Hawaii. Operated and administered by a legislatively created self-autonomous board of directors, hospital services are provided on two separate campuses located approximately three quarters of a mile from one another. The first and older facility, originally constructed to house a nursing school and long term tuberculosis patients, is in a state of disrepair and is no longer suited to modern inpatient hospital care. It continues, however, to house the skilled nursing facility, the intermediate care facility, the in-patient psychiatric unit, a hemodialysis unit, the maintenance department, laundry and dietary units, as well as some administrative government offices. The second, newer, and principal physical plant was originally built and operated as an independent non-government hospital to accomodate the growing numbers of private physicians on the island. Purchased in 1978 from the Roman Catholic Diocese of Agana, the 165-bed capacity acute care facility renders a wide range of primary and secondary medical care to all civilian residents, regardless of ability to pay. With an estimated 45% of the population without medical insurance and 27% of residents classified as medically indigent or categorically needy, the hospital is plagued with problems of underfinancing and inflationary costs. Long term capital improvement plans calling for more cost effective relocation of services from the older facility and expansion and renovation of the new facility are contingent upon the release of $10 million previously authorized by the federal government. appropriation

Another major governmental health care thrust is vested in the Department of Public Health and Social Services. Established in 1952, this consolidated agency provides an array of out-patient, preventive, and social services that are administered through its four major organizational divisions: Environmental Health, Senior Citizens, Public Health, and Social Services. Authorized and funded by both federal and local jurisdictions, the Department provides basic public health and medical services to approximately 10,000 residents per month at three regional health centers, one each located in the southern (Inarajan), central (Mangilao), and northern (Tamuning) areas of the island. Services offered by all three centers include maternal and child health, family planning, chronic disease prevention and control, generalized community health nursing, nutrition, and health education. Dental health, pharmacy,

laboratory, and x-ray services are available only through the southern and central centers. Handicapped children services and communicable disease control are located at the Central Diagnostic and Treatment Facility in Mangilao. Although some categorical services are limited to clients meeting specific entitlement requirements, many other services are rendered to all citizens on a fee-for-service basis, but only when ability to pay has been determined.

A new line department has recently been created which consolidates the Single State Agency on Mental Health and Substance Abuse and the Community Mental Health Center formerly under Guam Memorial Hospital operational purview. The department is not only the focal point for all mental health and substance abuse planning activity, but is also responsible for the provision of both in-patient and out-patient psychiatric services as well as a variety of community-based programs. Physical space, patient care equipment, and technical support for acute in-patient services continue to be provided by the hospital under a contractual agreement.

A number of other governmental agencies provide health and health-related services. The Guam Health Planning and Development Agency is a distinct and separate line department that presently serves as the government's principal planning unit for health services. The Environmental Protection Agency shares many surveillance and monitoring activities with the Division of Environmental Health of the Department of Public Health and Social Services, although the former is distinguishable by its enforcement powers and official island planning function regarding environmental safety and promotion. The Department of Public Safety operates the emergency medical services system, but central planning and administration is vested in the Department of Public Health. The Vocational Rehabilitation Agency provides evaluation, counseling, guidance, rehabilitation, job placement, and follow-up services primarily through purchase of services with private physicians and the operation of the Asan Center for day care of the severely handicapped and the Rehabilitation and Workshop Center. Finally, the Department of Labor operates an occupational safety and health research section and conducts worksite inspections to investigate complaints concerning unsafe use of chemicals, machinery, and other deficits potentially injurious to health.

Despite the plethora of existing programs and services, many of which require extensive educational preparation or advanced training, there are few on-island formal health service personnel educational programs and those that exist are limited to nursing and basic emergency medical technician training. EMT training and retraining are provided for first responder public safety personnel at Guam Community College. The University of Guam offers both associate and baccalaureate degrees in nursing, as well as programs in practical nursing (continuing) and family nurse practitioner training (new). The feasibility of expanding the range of health service preparation has been occasionally and informally explored, but the island's small population, fiscal resources, finite health employment opportunities, and available pool of qualified instructors have not yet warranted such expansion. Formal basic and advanced preparation in medicine, public health, and other health careers therefore necessitates expensive and extensive off-island training. Continuing education and in-service training opportunities are available but similarly limited, although maximum utilization is made of local resources, off-island consultants, and other visiting physicians and nurses.

The diversity of health and medical programs and services within the health care system suggests a sophistication that belies its continuing orientation toward medical treatment rather than health promotion and prevention. While recognizing the significance of strengthening public health service networks and widespread community health education, the system has not yet achieved comfortable reliance on the relatively limited range of resources in providing as comprehensive medical services as necessary to improve the health status of the residents of Guam. Decision-making attention is more often focused toward the financing and operation of acute care and treatment facilities and services, and toward the provision of corollary personnel. Few linkages have yet been developed to ensure smooth continuity between interrelated health and medical services.

III. FOCAL AREA ANALYSIS

The following analysis of Guam's health care system is based on criterion-referenced evaluations conducted in five major focal areas: administration, facilities, manpower and training, public health programs, and health services.

A. Administration

1.1. Organization and Structure

1.1.0.1. There is an adequate management structure within each health provider organization to facilitate the delivery of health and medical services.

*The current organizational structure of the Government of Guam does not provide for overall direction and management of a formally integrated health care system.

*In-patient, out-patient and public health, and planning functions are administratively unrelated, except as they fall under the general management span of control exerted by the Governor.

*A clear mission statement which articulates the component parts of the system and facilitates collaboration is lacking. Organizational concerns, however, are not confined exclusively to health services delivery.

*Formal organizational hierarchies, objectives, and concomitant policies exist but do not clearly reflect functional delegation of management and accountability within each distinct service agency.

*Clear and systematic role relationships and lines of communication do not uniformly exist within and between government health agencies dealing with the same or similar clientele.

1.1.0.2. The health agencies utilize adequate management processes.

*A task force has recently been formed to analyze and possibly recommend reorganization of the entire government system and includes two special sub-committees, one each on health and social servies, chaired by a representative from the Guam Health Development and Planning Agency.

*External controls exercised by the legislative and executive branches of government often supercede and usurp authorized agency responsibilities for regulation and operation, although these forces may not be sufficiently knowledgeable about implementation at the service unit level.

1.1.0.3. System operating agencies and organizations have been suitably delegated the authority necessary to carry out their assigned responsiblities.

*Rapid turnovers in health administrative department heads result with changes in political administrations and affect organizational efficiency, continuity, and the achievement and maintenance of service objectives.

1.1.0.4. There is a system for hiring managers who are sufficiently competent and experienced to permit them to carry out their duties.

*Despite clear civil service employment policies and guidelines, executive and legislative interventions occur in the choice of agency workers at all levels of the system, often without regard for attendant special competencies or mangerial ablities.

1.2. Policy Formulation, Planning, and Evaluation

1.2.1.1. There is adequate policy direction and flow of policy making to facilitate the purposes of each health agency/facility.

*The policy planning process is strongly linked to the political decision-making process. Policies are heavily influenced by and subsequently changed with each change of legislative and executive political administration, along with major turnovers and shifts in personnel.

*Legislation has stipulated extensive and diverse policies that may not systematically consider long-range implications, or may be contradictory to other coexistent policies.

*Fluctuations and inconsistencies in governmental policies provide inadequate fundamental directions for the organization, financing, and provision of health care services.

1.2.2.1. There is a clear and distinct locus or entity which has responsibility for health policy planning.

*There is no clear central or coordinated health planning policy approach. Planning functions are divided among many diverse sources.

*Although the Guam Health Planning and Development Agency (GHPDA) is adequately staffed, funded, and formally serves as the government's principal planning unit for health services, its relationship with other planning bodies, including but not limited to the autonomous Guam Memorial Hospital Authority, the various divisions within the Department of Public Health and Social Services, the Mental Health and Substance Abuse Agency, and the Environmental Health Agency, has not been clearly established.

1.2.2.2. There exists within the health policy planning locus the necessary skills and capabilities.

*Although the authorized planning agency is adequately staffed with trained personnel, opportunities for exercise of that expertise are not always available or maximized.

1.2.2.3. There is an effective policy planning process in use.

*An overriding statement is lacking that clearly delineates governmental responsiblity for the range and scope of public sector health care service delivery. There is no general clear policy guiding the future development of island and regional health services with regard to special target populations, present and emergent private sector capabilities, and viable financial reimbursement mechanisms.

*There is no systematic method yet in place to ensure input from non-governmental affected parties, especially cultural/indigenous groups, in policy formation nor is there yet systematic participation and comment from a broad base of administrators.

1.2.2.4. The policy planning process is linked to the local executive and legislative decision-making process.

*Legislative and executive policy-makers may not always understand the planning process or the corollary resource requirements accompanying policy changes, resulting in implementation of programs without adequate technical, fiscal or other operational means of support.

1.2.2.5. There is adequate funding for the health policy planning function.

? purpose of local financing

*Local financing for policy formation and planning acitivities is virtually nonexistent, necessitating reliance on federal funding for continuation.

1.2.2.6. Issue analysis is adequately carried out.

*Analytical efforts have not systematically utilized intersector or interagency collaboration to deal with major system-wide problems. Interagency relationships are generally more adversarial than collegial.

*Decisions are often made without adequate analysis and generation of alternative solutions.

*Problem analysis may occur at the program level, but becomes "lost" as the issue winds it way to policy-making levels.

1.2.3.1. There is adequate program evaluation throughout the health system.

*Evaluative efforts are sporadic and isolated. Those programs with evaluation components are generally process rather than outcome oriented.

*No capability or credibility presently exists to conduct system-wide evaluations. ? conflict w/ 1.2.2.2

1.3 Personnel Management

1.3.0.1. There are adequate recruitment and hiring standards in use.

*Although centralized government-wide personnel policies, rules, and regulations regarding appointment authority, recruitment and promotion procedures, job classifications and qualifications, and compensation scales exist, they do not prevent circumvention by political manipulation.

*Staff development opportunities are not routinely available for all categories of health personnel nor systematically utilized as a means of maintaining staff continuity and discourage out-migration.

1.3.0.2. There are adequate rewards, promotion, training, discipline and merit systems in use.

*Extant pay and fringe benefits policies do not always ensure inter-rank and inter-professional equity nor are salary scales in keeping with rising inflation, precipitating serious out-migration of qualified manpower to other areas of more lucrative employment.

*Promotion from within the system is not always feasible because of deficiencies in skills, training, and experience. Recruitment of expatriate professionals is a stop-gap measure until the system can build its own cadre of qualifed indigenous personnel.

1.4. Financial Management

1.4.0.1. There is an adequate budgeting process for operations and capital improvements.

*The annual budget preparation process is centralized and basically nonparticipatory. Departments respond with proposed budgets that are within a ceiling predetermined by the budget office rather than with budgets that are based on need or program objectives.

*Except for initial preparation, unit heads are generally uninvolved in the process until the final approved appropriation is released by the Governor's Office.

*The individual who is delegated the responsiblity for legislative budget justification may or may not be the most knowledgeable to speak in its defense.

*Political considerations sometimes override all other priorities in determining initial program funding levels and any subsequent retrenchment. Changes frequently occur without adequate communication with and understanding by the affected units. There is no systematic method for determining either cutbacks or funding priorities.

1.4.0.2. Financial operations are adequate to the size and complexity of the agency.

*A computerized financial management system was established in 1978 but performance objectives have not fully been achieved. Each department must still maintain its own books and records.

*Procedures for internal fiscal control are in place and followed to the extent they are understood by the individual program administrator. Monthly financial reports and other budget operation information, however, do not always reach all program levels. Balance of funds information are transmitted one month late to departmental levels.

*Due to funding constraints, plans for conducting annual independent audits have been curtailed and audits are now the responsiblitiy of the central budget office. No audit has reportedly been conducted except for a single audit of federal programs.

GHPDA 2.0

1.4.0.3. There is adequate financial control and guidance.

*There are few clear and generally understood policies for budgeting or for controlling transfers in appropriated funds. Over-appropriation and failure to utilize reasonable cash flow guidelines result in frustrating, costly, and complicated hiring freezes, fiscal shortfalls, and delays in supplies procurement.

*Freedom to move expenditures across lines have been restricted by legislative response to perceived abuses by the executive branch.

*There is no systematic capital improvement budgeting process per se. As needs arise, specific funding sources are sought, usually through the Department of the Interior.

1.5. Data Systems Management

1.5.0.1. The health system maintains data systems which are of adequate scope and relevant to the planning and evaluation needs of the jurisdiction.

*The present health system data base is reportedly narrow in scope and not always timely, reliable, retrievable, or relevant for program planning and evaluation requirements. Insufficient program utilization and client/patient profile data are collected because of minimal demand. for program managers

1.5.0.2. Data systems operations are adequate to the needs of the jurisdiction.

*Data collection and evaluation methodology are not systematized. Most information is collected and tabulated manually.

*Information sources are diffuse and sporadic.

*Inadequately trained administrative personnel are given the responsiblity for data management.

B. Facilities

2.1 Planning, Construction and Financing

2.1.1.1. There is a current long-range health facilities master plan which delineates future facility construction requirements.

no reference * LRIP

*Facilities planning and construction concerns primarily center around decisions regarding the disposition of the old hospital physical plant.

2.1.2.1. Construction requirements for needed new facilities have been identified.

CIP Budgeting

*Specific criteria have not been developed by which to appraise the potential need for new facilities nor have criteria been developed to review services/facilities that would fall below the $400,00 threshold.

*No request for new facilities or services have been reviewed since the review and approval process has become operational.

2.1.2.2. Projections for future facilities construction embody appropriate specifications.

*Facilities construction designs include protection against typhoons and, to a lesser extent, tropical storms and flooding.

*Designs take into account the realities of power sources and supply interruptions.

*Due to Guam's insular nature and limited resources, it is not always feasible to use indigenous materials and labor to minimize construction costs.

2.1.3.1. Projected facilities construction, renovation and/or expansion projects include necessary financing projections.

*Implementation of the planned CIP is contingent upon the appropriation by the U.S. Congress release of $10 million ~~from the federal government~~. No contingency plan exists for CIP financing by the territorial government or from non-federal sources. Future potential for locally generated capital to finance CIP projects is not likely as both hospital and public health organizations have been and are currently struggling to meet fiscal requirements for daily operations. Future operating cost projections are not systematic or routinely executed.

outdated

*Guam Memorial Hospital does not have an adequate cash flow from operations to ensure self-sufficiency for operational expenses or for capital requirements. The Authority must rely on substantial governmental subsidy to maintain operations and to meet capital improvement costs.

2.2. Health Facilities Maintenance and Supplies Management

2.2.1.1. Facilities are maintained in adequate physical condition.

*Guam Memorial Hospital's new facility appears clean and presentable, while the older facility has deteriorated beyond that which is cost-effective for repairs.

2.2.1.2. There is an on-going routine preventive maintenance program for each health facility.

*The current design of the acute care facility causes logistical service, storage, and spatial problems. Deficiencies in construction from the previous owner of the hospital are corrected as found.

*While climate and relative geographic isolation potentially create highly expensive maintenance problems, support for such activities have not been a priority for funding. There is no systematic and regular preventive maintenance program for the physical plant. While maintenance of two separate facilities has generated excessive and ill-affordable duplicative costs, the governing authority has not included maintenance and appearance items in its regular agenda. Further, the majority of consumers may not be as vigilant or vocal about sanitation, grounds and building maintenance, and housekeeping without a more basic awareness of their relationship to the provision of quality care.

2.2.2.1. Major items of support equipment are maintained in adequate physical and operating condition.

*GMH has one operable boiler to maintain adequate supplies of hot water.

*Air conditioning and water filtration systems are adequately maintained.

WHO training

*There is no systematic and regualr preventive maintenance program for biomedical equipment.

2.2.2.2. Equipment used for patient care is maintained in adequate physical and operating condition.

*It is estimated that 90% of biomedical equipment and apparatus throughout the facility is 90% operable.

*Deficiencies in equipment are corrected as found.

*There is a bed replacement project to refurbish patient care areas with new equipment.

2.2.3.1. Facility and equipment maintenance services are adequately staffed and equipped.

*There are thirty-three maintenance staff who are supervised by one designated individual.

*There are agreements with other off-island acute health care facilities and with Guam Community College to provide in-service training and trade courses.

2.2.3.2. Facility housekeeping services are adequately staffed and equipped.

*There are approximately 40 housekeeping personnel on staff. The facility is in process of identifying and reworking staffing needs.

2.2.3.3. Maintenance and housekeeping are of priority concern for the governing authority of each facility.

*The governing authority has not included maintenance and appearance items in the regular agenda.

2.2.4.1. Adequate supplies for operation and maintenance of health care facilities are assured.

*Maintenance of adequate stocks and supplies is a recurrent problem with ordering based on available funds. Shortages occasionally necessitate "borrowing" from the Naval Regional Medical Center and rush ordering from off-island suppliers.

2.2.4.2. A constant flow of needed supplies in a timely manner is assured.

*The hospital is presently investigating the feasibility of participating in Hawaii's Shared Purchasing program, or as an alternative, shared purchasing with the Commonwealth of the Northern Marianas.

2.3. Regulation/Licensing/Accreditation

2.3.1.1. Medical facilities are routinely supervised in terms of sanitation and life-safety requirements.

*Comprehensive environmental and occupational safety inspections are neither routine or enforced. Sanitary inspections are confined to monthly food handling monitoring by the environmental health division. In-patient fire and public safety inspections for compliance with life safety, building, and other appropriate codes, rules, and regulations are not routinely conducted, except as may be requested by GMH.

2.3.1.2. Health facilities comply with all applicable local and federal regulations pertinent to internal operations.

*Personnel, both professional and technical, comply with local licensure regulations.

*Safety and occupational health standards have been identified but not continuously enforced by environmental sanitation authorities.

2.3.2.1. Medical facilities are appropriately licensed.

*There are no applicable local licensing laws or accreditation procedures for health facilities. JCAH accreditation was recently rescinded, in part due to structural deficiencies. Reaccrediation is largely dependent upon implementation of the previously described capital improvement project to adequately protect and ensure the physical safety of patients, personnel, and visitors.

2.3.2.2. Appropriate accreditations or certifications have been attained and are current.

*148 acute care, 36 skilled nursing, and 17 psychiatric beds are certified by Medicaid. ICF, SNF, and in-patient psychiatric services are funded completely by the territorial government. Local health maintenance organizations and the Medicaid program exclude these services from coverage.

2.4 Safety of Health Facilities

2.4.1.1. The buildings and grounds of each health facility are designed, constructed, equipped, and furnished in a manner that protects the lives and assures the physical safety of patients, personnel and visitors.

*Current designs cause logistical service, storage, and spatial problems.

2.4.2.1. Health facilities are functionally safe for patients, staff and visitors.

*Functional safety and sanitation mechanisms are extant for the acute care facility.

*The public health department does not maintain safety manuals or conduct employee orientation programs regarding safety precautions. There is no operational, routinely tested fire warning system in the health centers although fire hazards abound. Only the central clinic has emergency power provision.

2.4.2.2. Each health facility presents a sanitary environment for patients, staff and visitors.

*All health care facilities, both acute care and public health, ensure sanitary environments for patients, staff, adn visitors.

2.4.3.1. There is an active and effective infection control program for each health facility.

*There is no infection control program or policy manual in existence for public health clinics, although venereal disease, tuberculosis, and well-child clinics are held in the same physical space.

2.5. Hospital Organization

2.5.1.1. There is an organized governing body, or designated persons so functioning, that has overall responsiblity for the conduct of each in-patient health facility.

*GMH is operated and administratively controlled by a "self-autonomous" board of directors, the Guam Memorial Hospital Authority.

*Hospital governance is heavily impacted by political influences. Although the GMH Authority is designated with the responsiblity for the conduct of the hospital and authorized as an autonomous agency, external local regulatory forces continually impinge upon its functional management span of control.

? what are these regulatory forces

2.5.1.2. Each Health facility is effectively managed.

*Administrative turnovers in executive and middle management positions frequently occur with changes in political administrations, with concomitant lack of central administrative continuity and constant reorganization within managerial communicaton channels.

Explain ?

*Recurrent deficit financing, bad debts, the general illiquidity of the civilian population, and general underinsurance contribute to the hospital's financial difficulties and its vulnerability to outside control.

*Management staff have not yet participated significantly in ensuring formal coordination and collaboration between other component parts of the health care system and the operations of the hospital.

*Written policies and procedures that are required for JCAH accreditation have been developed and are in place. There is, however, no systematic or goal-based foundation for the evaluation of personnel or services.

*Promotion to management positions have generally resulted from seniority, technical competence, or other considerations rather than demonstrated administrative skills or additional formal training in administration and management.

2.5.1.3. There is a single organized medical staff which has the overall responsiblity for the quality of all medical care provided to patients, and for the ethical conduct and professional practices of its members, which is accountable to the governing authority.

*The in-house salaried medical staff consists of eight full-time and thirteen part-time physicians who provide in-patien medical care to indigent clients only. The larger group, private physicians with hospital privileges, provide medical care to the majority of hospitalized patients.

*The Medical Staff Director has the responsiblity to directly manage the salaried physicians, and to organize and regularl conduct utilization/case reviews as well as the infection control program.

*Peer review is informally incorporated within larger service reviews.

2.6 Nursing Services

2.6.1.1. The nursing service of an in-patient facility, community health agency, or organization is under the direction of a legally and professionally qualified registered nurse who is employed full-tim

*Clinical nursing services are under the direction of a diploma level registered nurse.

*Lines of communication, responsiblity, and decision-making authority for the estimated 258-civil service employee nurs-ing staff flow through fourteen head nurses, three shift supervisors, three area coordinators, the assistant director to the nursing director. Functional exercise of authority and responsiblity are not always exercised as formally state

2.6.2.1. The nursing service department is given full responsibility and authority for its organization and administration by the in-patien facility, community health agency, or organization.

*Policies and procedures exist for the organization of nursin services and administration.

*The objectives, polices, and procedures are reviewed annuall to provide the basis for service evaluation.

2.6.3.1. The nursing service department participates in implementing overall institutional policies.

*Nursing is appropriately represented in institutional committees, which implement overall policies.

2.6.4.1. The budget is proposed and administered by the director of nursing.

*The director is responsible for preparing and submitting a document concerning personnel and operating requirements of the department to the chief executive officer.

*Monthly and cumulative fiscal reports relating to the department are not always available or systematically reviewed by nursing administrative staff.

2.6.5.1. The nursing service department is responsible for recommending principal decisions on employment, retention, and separation of personnel in the department.

*The nursing department is reponsible for recommending principal decisions on employment, retention, and separation of nursing personnel.

2.6.5.2 There is a written description of all nursing positions which delineate the roles and responsiblities of employees holding positions in the organizational chart.

*Job descriptions utilized are those prepared by the central Civil Service office and do not accurately reflect more unique departmental requirements relating to education, experience, and scope and primary functions. Similarly, the performance evaluation form used for annual nursing staff appraisals is that which is used for all government personnel evaluations. The department is, however, presently devising a criteria-based performance evaluation tool that would be more appropriate for its needs.

2.6.5.3. Written policies are established and implemented to assist in recruiting and maintaining a qualifed nursing staff.

*Personnel policies utilized are those prepared by the central Civil Service office and may not accurately reflect unique departmental requirements.

*Clearly defined written procedures exist for complaints and grievances.

2.6.6.1. The nursing service department has a rationale on which staffing requirements are based and has established methods for meeting those requirements which adhere to standards of safe, efficient, and therapeutically effective nursing care.

*Total personnel reflect a mix of 30% registered nurses, 20% licensed practical nurses, and 50% aides/technicians.

*Staffing patterns for the two separate physical plants are based on available manpower resources and census determination

*There is an annual 24% personnel turnover rate due largely to the employment of a sizeable number of transient military dependents. Currently, twelve RN positions are vacant It is projected that sixteen new RN positions will be required over the next five years. Eight of the present twenty-two personnel in administrative and supervisory capacities are nearing retirement. Projected supervisory staff educational levels needed in the five years include two master's prepared nurses and seventeen baccalaureate prepared nurses. Additional formal training in nursing administration and personnnel management is also required.

2.6.6.2. The nursing service department implements programs for orientation and continual staff development to improve personnel performance, job satisfaction, and to achieve the essential competencie required to meet the nursing care needs of individuals, families, grou and/or the community.

*In-house certification programs in psychiatric nursing, neonatal intensive care nursing, and hemodialysis nursing are operational.

*The hospital is registered as a nursing continuing educatio provider in California. Educational offerings are made available once or twice a year.

2.6.7.1. There is evidence that the nursing service department provic safe, efficient, and therapeutically effective nursing care.

*JCAH standard care plans are no longer used. Standard guide lines are available as the basis for individualized patient care plans.

2.6.8.1. The nursing service department shares responsibility with other departments or individuals to foster research and to obtain the informed consent of human subjects involved in research projects.

*At present there is no organized nursing research being conducted.

2.7. In-Patient Hospital Services

2.7.1.1. Anesthesia services are organized and integrated with other related services or departments of the hospital.

*Anesthesia services are provided by three anesthesiologists and two certified registered nurse anesthetists.

*Previously cited by JCAH for failure to adequately minimize electrical hazards, the department has since established suitable controls in its anesthetizing area.

2.7.2.1. There is an organized dietetic department designed to assure the provision of nutritious and quality food service.

*Overall food service operations are administered by a registered dietician. Cafeteria operations are directed by an assistant director. Two clinical dieticians and an additional staff of approximately twenty employees provide nutritional assessment and other dietary services.

*Personnel in dietetic services have been appropriately trained in hygiene, preparation and serving of food, cleaning and safe operation of equipment, portion control and diet modification.

*Written policies and procedures exist as guidelines for all aspects of dietary services.

2.7.2.2. The dietetic service is designed and equipped to facilitate the safe, sanitary, and timely provision of food service to meet the nutritional needs of patients.

*The hospital is presently without equipment and physical space capabilities for large scale on-site food preparation.

2.7.2.3. Dietetic services provide quality nutritional care in accordance with written orders from responsible practitioners.

*An independent contractor has been hired to cater general and special patient menus; however, the department's functional control over actual preparation of prescribed modified diets is minimal.

2.7.3.1. There is provision in the hospital for the reception, evaluation and initial treatment of patients with emergency medical problems by qualified individuals who are competent to provide basic life-saving emergency procedures, on a 24-hour basis.

*The hospital's responsiblity for and involvement in system-wide emergency care services begins only at the time of receipt of the patient.

*The emergency room is, in general, adequately equipped and staffed to meet the anticipated needs of the population, but nurses lack formal training in emergency care.

*Although telephone and a radio system are utilized for interagency emergency service contact, technical problems persist.

2.7.3.2. The hospital has written plans for the timely care of casualties arising from both external and internal disasters.

*Disaster drills, in accordance with a written plan, are conducted twice a year.

2.7.4.1. If home care services are provided by the hospital, they coordinate the effective provision of physician-directed medical, nursing, and related health care servies of high quality in the home.

*There is no hospital-based home health or home care program.

2.7.5.1. An adequate medical record is maintained for every individual who is evaluated or treated as an in-patient, out-patient, or emergency patient, or who received patient services in the hospital-administered home care program.

*Hospital medical records services are directed by the only on-island registered technologist but who is nearing retirement. One staff member is currently enrolled in a two-year program in California and will be eligible to take the medical records qualifying exam.

*There is no local statute of limitations relating to data maintenance and the hospital has a lifetime microfilm maintenance file.

2.7.5.2. The medical record service is adequately housed, equipped and staffed to permit performance of all required functions.

*Insufficient space is available for the performance of necessary functions and for the secure storage of records.

*Manually prepared and maintained records result in statistic information errors.

2.7.6.1. Nuclear medicine services and consultation are available to meet the needs of patients as determined by medical staff

*Nuclear medicine service capabilities are adequate for present population needs and include renal, liver, thyroid, bone, and brain scan procedures. A physicist is available on consult.

2.7.7.1. Pathology and medical laboratory services are regularly and conveniently available to meet the needs of patients as determined by the medical staff.

*Laboratory services are provided under the direction of a board-certified pathologist and a qualified ASCP technologis

*There are currently four ASCP technologists on staff but it is estimated that two additional technologist positions are needed. Most technicians (90%) are BSMT-level Filipino expatriates: six technicians are part-time naval personnel.

2.7.7.2. There is sufficient space, equipment and supplies to perform the required volume of medical laboratory and pathology work with optimal accuracy, efficiency, timeliness and safety.

*Laboratory space, supplies, and equipment are adequate to meet present needs.

2.7.7.3. Required records and reports are maintained and, as appropriate, are filed in the patient's medical record and in the pathology/medical laboratory service.

*Reports of all examinations performed are made part of each patient's medical record and readily available to the individual ordering the tests.

2.7.7.4. There are quality control systems and measures which are designed to assure the medical reliability of laboratory data.

*Capabilities include surgical pathology, extoliative cytology, autopsies, clinical chemistry, microbiology, hematology, urinalysis, parasitology, serology, and whole blood banking (40 units to meet immediate needs). There is no active blood donor program.

*Daily supervision is provided both by the director and the ASCP technologist supervisor.

*There is no systematic preventive maintenance program to ensure optimal biomedical equipment accuracy and effiency, or to safeguard the timeliness of reports.

2.7.8.1. The hospital has a pharmaceutical department/service which is conducted in accordance with accepted ethical and professional practices and all legal requirements.

*Staffed by eight registered pharmacists, two technicians, and six aides, the hospital pharmacy services the needs of some eighty-plus physicians on the island as well as provides in-patient pharmaceutical services for the two separate hospital physical plants.

*Warehousing is provided in the older facility, but space is inadequate and the location is logistically problematic.

*Medications are checked monthly for expiration dates; if outdated, they are promptly removed and disposed according to established procedures.

*Nursing care units are inspected every month and suitable records of such inspections are maintained.

2.7.8.2. The scope of the pharmaceutical department is consistent with the medication needs of the patients as determined by the medical staff.

*All drugs, chemicals and biologicals meet established standards of quality.

*A three to four month supply of drugs is kept on hand. Ordering and replenishment time may take one to one-and-one-half months.

2.7.9.3. Written policies and procedures pertinent to intrahospital drug distribution have been developed in concert with the medical staff

*Written procedures and policies relating to drug preparation, dispensing, administration, and disposition have been established and are implemented.

2.7.9.1. The hospital provides library services to meet the informational and educational needs of the medical and hospital staffs.

*An organized but limited professional library is maintained which contains timely periodicals and textbooks pertinent to the clinical and educational services offered by the hospital.

2.7.10.1. The hospital consistently endeavors to deliver patient care that is optimal within available resources and consistent with achievable goals.

*New JCAH quality assurance regulations have recently necessitated a transition to new evaluative methodology. Corresponding written criteria for functional service units have been developed but appraisal of effectiveness is not ye possible.

2.7.11.1. Radiology services and consultation are available to meet th needs of patients as determined by the medical staff.

*Radiology services include general radiography, fluroscopy, special procedures and nuclear medicine studies, but are limited by cramped physical space and available staffing.

*Opportunities and materials for continuing education of technologist and on-the-job trained techinicians are not routinely available.

2.7.12.1. Rehabilitation programs or services are regularly available to meet the needs of patients.

*Organized physical therapy, occupational therapy, and recreational therapy services are available but limited by understaffing, limited technician formal training and in-service training, inadequate space and equipment, and fiscal constraints.

*Low starting salaries impact staff recruitment and retention.

*Only one registered physical therapist and five technicians are available to provide physical therapy services. The services of one registered occupational therapist are supplemented by two technicians. Only four technicians are available for recreational therapy.

*Orthotic and prosthetic servies are not available on-island.

*Speech therapy is not a function of the hospital but provided by the Department of Education.

2.7.13.1. Respiratory care services that meet the needs of patients as determined by the medical staff are available at all times.

*Inhalation therapy services are provided under the direction of an R.N. level registered respiratory therapist. The staffing complement consists of one graduate respiratory therapist, two certified technicians, five on-the-job trained technicians, and one L.P.N.

*Although there has been growing physician demand for respiratory therapy services, services are constrained by understaffing, physical space limitations, and out-dated equipment.

2.7.14.1. Social work services are readily available to the patient, the patient's family and other persons significant to the patient, in order to facilitate adjustment of these individuals to the impact of illness, and to promote maximum benefits from the health care services provided.

*Present organized social work services evolved from special medical referral needs of patients. (Predominant financial eligibility screening functions are slowly changing to incorporate innovative medical social work counseling services.)

*The unit is staffed by a master's degree level social worker/director and three additional social workers, one each assigned respectively to the hemodialysis unit, the ICF/SNF service, and the acute care facility.

*Although a social services degree program is available through the University of Guam, on-the-job training is the minimum job qualification requirement for Civil Service employment.

2.7.15.1. As appropriate for the hospital, separate or combined special care units have been established for patients requiring extraordinary care on a concentrated and continuous basis.

*Special care service capabilities include intensive medical/surgical and coronary care, hemodialysis, and neonatal intensive care.

*The ICU, CCU, and NICU are housed in the newer facility. Continuing location of the hemodialysis unit in the old physical plant creates potential logistical problems in the event of life threatening emergency situations. The NICU is adequately staffed but the ICU/CCU is chronically plagued by understaffing. The present Swanz-Ganz machine is reportedly unreliable and needs to be replaced.

2.7.16.1. The hospital demonstrates appropriate allocation of its resources through an effective utilization review program.

*Utilization reviews are conducted for selected patient populations only and presently do not include the medically indigent.

2.8. Long-Term Care Facilities Service Levels

2.8.0.1. Adequate beds exist, within the cultural and traditional environment, to provide long-term care for non-acute patients.

*The present facility for long term care is neither structurally safe or adequately maintained.

*Although family units provide for the majority of long-term care needs, available skilled and intermediate care beds also serve less appropriate custodial purposes.

2.8.0.2. Skilled nursing service, intermediate care nursing service, nursing and medical care for chronic infectious disease patients, and nursing and medical care for long-term, non-acute chronically ill patients is available in consonance with the local culture and traditio

*The care and supervision of long-term patients are provided by appropriately trained and qualified nursing personnel.

*The old facility which houses long-term care patients is structurally unsafe and does not provide for convenient and easy transfers, or a safe and protective environment.

*Rehabilitative services are provided as appropriate to long-term care patients.

2.8.0.3. Long-term care facilities and their utilization are integrat in a continuum ranging from acute to home care.

*Sufficient community resources have not yet been developed to accommodate the long-term care needs of families who cannot otherwise care for chronically ill, disabled, or elderly family members.

2.9. Out-Patient Clinics and Dispensaries

2.9.1.1. Out-patient clinics provide an appropriate environment for the delivery of ambulatory medical care.

2.9.1.2. Out-patient clinics are appropriately staffed and equipped to perform their functions.

2.9.1.3. There is an adequate scope of out-patient clinic services.

*Guam Memorial Hospital no longer offers outpatient clinic services. Outpatient services are currently provided by physicians in the private sector and by the Department of Public Health and Social Services.

2.9.2.1. Dispensaries are constructed, located and maintained to assure a convenient, safe and appropriate environment for the delivery of basic primary medical care services.

2.9.2.2. Dispensaries are adequately staffed and equipped to perform their assigned functions.

2.9.2.3. Dispensaries provide the full range of community health services.

*These criteria are not applicable to Guam.

C. Manpower and Training

3.1.1. Population Requirements Standards

3.1.1.1. Availability. There is an adequate supply of well trained and qualified health manpower personnel in each health manpower category to meet the health requirements of each jurisdiction. The number of physicians practicing in each jurisdiction meets the need expressed in that jurisdiction's health plan.

*Chronic shortages exist for certain categories of personnel requiring extensive or specialized education, including but not limited to physicians, dental hygienists, dentists, qualified ancillary service technologists, and technicians, and nurses with baccalaureate or master's degrees or with special post-graduate training. Retention of qualified public sector health care professionals is made difficult by a cumbersome Civil Service system and relatively low salary scales. No systematic mechanism is presently utilized to continuously forecast both public and private sector manpower requirements or to implement measures to coninuously attract needed personnel. Activity in this area is limited to the island's designation as a medically underserved area by the National Health Service Corps.

*Reliance on the recruitment of military personnel and expatriates, principally from the U.S. mainland and the Philippines, to fill existing gaps in the indigenous manpower supply keeps the health care system in perpetual dependency on outside resources.

3.1.1.5. The supply of medical and other specialties in Guam attains the recommendations indicated in Mytinger: Health Care in Guam, p. 185.

*Out of 101 physicians officially licensed in Guam, an estimated 92 maintain active on-island practice; however, not all medical specialties are sufficiently represented to meet the needs of the civilian population. According to projected estimates, there is need for greater representation in at least the areas of primary care, pediatrics, obstetrics and gynecology, neurosurgery, cardiology, vascular surgery, opthalmology, and psychiatry.

*Projected estimates of nursing manpower requirements and existing personnel counts vary considerably according to the reporting source, separation of clinical and public health nursing service requirements, and required areas of special expertise. Approximately 355 registered nurses are licensed to practice in the territory, but that total does not accurately reflect the significant numbers of nurses who are not actively employed, who maintain Guam licenses but are employed off-island, or who are employed in private practice settings as opposed to the public sector. In comparison to projected estimates which indicate the need for 400 actively employed registered nurses, it has been reported that there is an island nursing shortage of at least 100 personnel. Only a small number of nurses are presently prepared beyond the associate degree level. The smaller handful of master's prepared nurses are expatriates, military dependents, and non-indigenous residents of Guam who are primarily employed at the University.

*Ideally, one public health nurse is available for every 250 families, but in actuality, services are severely limited by understaffing, and the majority of nurses practice in acute care rather than community health settings. Nurse practitioners are utilized at all three regional public health clinics and by the private medical clinic operated by the Seventh-day Adventist Conference. Two certified registered nurse anesthetists are employed at Guam Memorial Hospital. Nurse midwifery is not practiced on the island. Two MPH level registered nurses are responsible for in-service training for clinical nursing personnel.

*The principal thrust of public health dental practice is toward school age dental health. Availability of services is limited by understaffing of both dentists and dental hygienists. Underserved populations are referred to private sector dentists.

*Private sector dental services are provided by approximately 20 dentists, including one pedodontist and two orthodontists. Oral surgery is provided by off-duty naval personnel.

3.1.2. Accessibility

3.1.2.1. Health care personnel are accessible within reasonable limits of time and travel distance.

3.1.2.2. The geographic distribution of health care personnel provides for their optimal use in providing primary health care.

*Nearly all private sector medical practice and major public sector (hospital and public health) clinical settings are located in a single geographically constricted but supportive resource-rich area. Services are nonetheless accessible within reasonable limits of time and travel distance.

*Financial accessibility to a broader range of potential service providers is limited for the significant proportion of island residents who are uninsured by can ill afford out of pocket expenses, are medically indigent, and are categorically needy.

3.1.4. Availability of Nurses and Public Health Dental Personnel

3.1.4.1. There are sufficient numbers of qualified nursing personn in each clinical facility to provide safe, therapeutically effective and efficient nursing care.

3.1.4.2. Community Health Availability. There are sufficient numbers of qualified nursing personnel in each community health agency to provide safe, therapeutically effective, and efficient nursing care.

*Projected estimates of nursing manpower requirements and existing personnel counts vary considerably according to the reporting source, separation of clinical and public health nursing service requirements, and required areas of special expertise. Approximately 355 registered nurses are licensed to practice in the territory, but that total does not accurately reflect the significant numbers of nurses who are not actively employed, who maintain Guam licenses but are employed off-island, or who are employed in private practice settings as opposed to the public sector. In comparison to projected estimates which indicate the need for 400 actively employed registered nurses, it has been reported that there is an island nursing shortage of at least 100 personnel. Only a small number of nurses are presently prepared beyond the associate degree level. The smaller handful of master's prepared nurses are expatriates, military dependents, and non-indigenous residents of Guam who are primarily employed at the University.

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*See facilities: Nursing service and administration/ community health and in-patient facilities criteria (1) through (11).

*Public health nursing involvement in the V.D. program is presently confined to the administration of medication. Direct school health services are provided by health counselors employed by the Department of Education. Public Health nurses provide immunizations in both clinic and school settings.

3.1.4.3. There is appropriate staffing for each Public Health Dental facility.

*The range and scope of public sector primary dental health services are limited by understaffing in both dentist and dental hygienist positions, poorly-maintained available equipment, short stocks of supplies, departmental fiscal constraints. Private sector dental services are located in a geographically confined area and provided by approximately 20 clinicians, including one pedodontist and two orthodontist. Oral surgery is performed by an off-duty naval dentist on the weekends.

*Written agreements and policies have yet to be fully developed to coordinate and integrate public and private sector dental health services. Written policies have not been fully delineated for the referral of more complicated problems.

*Dental care needs are great. The primary focus of public sector services is school dental health. Although the unit works closely with Head Start, the larger population of children under the age of six who are not enrolled in the program do not usually receive dental care. No systematic plan has been developed which reflects comprehensive basic dental prevention care to all persons in the community or which reflects priorities of care for high risk groups. No dental services are provided for the elderly at the regional health centers. Dental health education activities are limited and do not routinely include nutrition counseling.

3.1.5. Utilization of Physician Extenders

3.1.5.1. There is optimal utilization of physican extenders in the delivery of primary care services.

*Nurse practitioners are utilized at all three regional public health clinics and by the private medical clinic operated by the Seventh-day Adventist Conference. Two certified registered nurse anesthetists are employed at Guam Memorial Hospital. Nurse midwifery is not practiced on the island. Two MPH level registered nurses are responsible for in-service training for clinical nursing personnel.

3.1.6. Requirements for Health Personnel

3.1.6.2. Health services personnel in each jurisdiction are acceptab to the population of the jurisdiction.

*The future supply of qualified health service professional manpower is heavily dependent upon off-island trained, educated, and credentialled personnel.

3.1.6.3. Health services personnel in each jurisdiction have received appropriate training and hold relevant qualifications for their respective positions.

*Physicians, dentists, and pharmacists are licensed to practice in Guam according to credentials obtained from off-island training programs recognized and substantiated by the jurisdiction.

*Nursing is the oldest health profession with rigorous local mandatory licensing regulations. The legislatively created Nurse Practice Act has been in existence for over 10 years and licensure to practice requires passing U.S. nationally standardized test pool examinations. The Board of Nursing is comparable to other U.S. counterparts. No professional reciprocity is given; however, nurses who demonstrate proof of U.S. licensure are eligible to apply for licensure in Guam. Licenses are renewable every two years.

*No local licensing or certification is required for laboratory technologists or radiology technicians.

3.2.1. Training Standards

3.2.1.1. Indicators for planning, developing, implementing, evaluating, and managing local health manpower training programs are stated and applied.

*Training standards and other internal controls are developed in detail only for individual program offerings. Policies are not consistent across the board for all levels and categories of health personnel.

3.2.2. Continuing Education

3.2.2.1. Continuing education is provided to health manpower and indicators for planning, developing, implementing, evaluating, and managing health manpower continuing education programs are stated and applied.

*A systematic and coordinated method for analyzing territory-wide health manpower training needs has not yet been developed to continuously ensure the maintenance and upgrading of existing knowledge and skills for all manpower categories or to add new knowledge in keeping with technological advancements. Manpower, facilities, and fiscal and material resources to augment existing programs are generally lacking.

3.2.2.2. Opportunities for advanced education and training in specialty areas based on identified health personnel needs not available within individual jurisdictions are obtained outside the jurisdiction.

*Informal agreements exist between individual program administrators and external training resources for off-island advanced preparation of health workers on a case by case basis. There is no formally established policy to widely publicize or encourage existing personnel to capitalize on available advanced training opportunities. Guidelines for student selection exist but are not generally enforced. Written policies exist to ensure the return and retention of employees but at current job classifications, salaries, and level of responsibilities

3.2.2.3. Additional in-service or continuing education programs for nurses are provided for developing expertise beyond that acquired in a basic nursing education program.

*Nursing generalists receive additional trainings according to identified need in the area of their practice through the health care facilities and the Guam Nurses' Association

3.2.2.4. Advanced Preparation. Opportunities for advanced preparation in the health professions and for advanced training in specialty areas not available within individual jurisdictions are sought outside the jurisdiction.

*Informal agreements exist between individual program administators and external training resources for off-island advanced preparation of health workers on a case by case basis. There is no formally established policy to widely publicize or encourage existing personnel to capitalize on available advanced training opportunities. Guidelines for student selection exist but are not generally enforced. Written policies exist to ensure the return and retention of employees but at current job classifications, salaries, and level of responsibilities.

3.2.3. Suitability

3.2.3.1. Education and training of health personnel is directed at the special needs of the population to be served.

*Training protocols when available are directed toward major health care needs of the local population, including MCH, infectious disease, and public health.

3.2.4.1. Local training programs use locally available resources to the greatest extent possible.

*Local resources for continuing education are limited.

3.3.1. Definition of Professions

3.3.1.1. Licensure. Each State/governmental entity at a minimum has a legal definition of professional nursing and licensed practical nursing, physicians, dentists and pharmacists.

*Physicians, dentists, and pharmacists are licensed to practice in Guam according to credentials obtained from off-island training programs recognized and substantiated by the jurisdiction.

*Nursing is the oldest health profession with rigorous local mandatory licensing regulations. The legislatively created Nurse Practice Act has been in existence for over 10 years and licensure to practice requires passing U.S. nationally standardized test pool examinations. The Board of Nursing is comparable to other U.S. counterparts. No professional reciprocity is given; however, nurses who demonstrate proof of U.S. licensure are eligible to apply for licensure in Guam. Licenses are renewable every two years.

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3.3.2. Quality Control

3.3.2.1. The quality of health care personnel is assured at an adequate level to maintain the health of the population.

*Relicensure tied to continuing education credits is only required for the medical profession. Guam Memorial Hospi is temporarily responsible for coordinating continuing medical education but would prefer that the Guam Medical Society assume that function. Both organizations offer separate continuing education components. The FHP health maintenance organization offers an annual program for broad categories of health professionals.

3.3.3. Reciprocity

3.3.3.1. There are provisions for granting reciprocity of licensure to individuals licensed in other jurisdictions.

*Local statutes and regulations exist which govern the granting of licensure to individuals credentialled in other jurisdictions.

3.4.1. Establishment of Positions

3.4.1.1. Health services employ sufficient number of qualified health personnel at adaquate salaries to meet program objectives.

*Out of 101 physicians officially licensed in Guam, an estimated 92 maintain active on-island practice; however, not all medical specialties are sufficiently represented to meet the needs of the civilian population. According to projected estimates, there is need for greater representation in at least the areas of primary care, pediatrics obstetrics and gynecology, neurosurgery, cardiology, vascular surgery, opthalmology, and psychiatry.

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*The principal thrust of public health dental practice is toward school age dental health. Availability of services is limited by understaffing of both dentists and dental hygienists. Underserved populations are referred to private sector dentists.

3.4.2. Pre-Professional Recruitment

3.4.2.1. Pre-Professional Recruitment. Each jurisdiction has a program for the continous recruitment of persons to pursue careers in the health professions.

*There is no systematic, formally established territorial program for the continuous recruitment of persons to enter health professional careers. Pre-professional paths or career ladder educational opportunities are not provided except for nursing. The current University of Guam scholarship program reportedly does not systematical prioritize awards on the basis of manpower development needs.

*Generally weak secondary and undergraduate preparation makes entry and retention into formal advanced health professional training programs difficult.

3.5.1. Working Conditions and Benefits

3.5.1.1. Working conditions are such as to encourage retention of health personnel in the health services.

Working Conditions and Benefits

*Generally, government appropriations are insufficient to support competitive salaries to attract and retain larger numbers of qualified public sector health personnel. Health administrators and physicians, however, are exempt from the Civil Service system.

*The Government of Guam is self-insured. Lack of U.S. standardized licensure laws makes indemnity coverage for private physicians difficult.

*The government retirement system is the primary incentive for continuous long term employment. Returning health professional students receive retirement credit for time spent off-island while enrolled in educational programs.

Public Health

4.1. Accident Prevention

4.1.0.1. Patterns of accidental mortality and mobidity are monitored through appropriate data collection.

*Statistical information regarding the patterns of accidental mortality and morbidity are collected, reviewed, and reported by many agencies, including

Public Safety, the Mental Health and Substance Abuse agency, and the Department of Public Health and Social Services.

4.1.0.2. There is an organized primary accident prevention program in place, relevant to local risks.

*A wide variety of disparate but functionally interrelated public, proprietary, and volunteer organizations are involved in the provision of accident prevention services.

*Organized primary prevention programs are provided, at a minimum, through the Office of Highway Safety, the Department of Education, and the American Red Cross. No one agency, however, has been formally designated with the responsibility for coordinating interagency accident prevention services.

4.2. Chronic Disease Control

4.2.0.1. Community chronic disease problems are idenfified through appropriate data collection and analysis by a specified individual or agency.

*Data collection sources are diffuse. Information retrieved does not always provide an adequate base to accurately determine incidence and prevalence rates, or to plan services and preventive programs aimed at high risk populations.

4.2.0.2. Services and facilities exist for diagnosis, treatment, and rehabilitation of individuals with chronic disease.

*Public sector chronic disease detection, treatment, follow-up, and prevention services are limited by fiscal shortfalls, understaffing, and shortstocks of pharmaceutica supplies.

*There is no systematic method to ensure coordination and continuity of services among the various service units dealing with the same or similar clientele (private physicians, vocational rehabilitation, public health, and the hospital).

*Amyotrophic lateral sclerosis ("Litico") and Parkinson's Disease ("Bodig") are two chronic degenerative conditions that are prevalent in Guam, especially in the southern region. Research has been conducted but no effective prevention and treatment program has yet been established.

4.3. Communicable Disease Control/Epidemiology

4.3.0.1. There is a Communicable Disease Control (CDC) unit responsible for coordinating all epidemiological and surveillance activities.

*An epidemiologist is responsible for surveillance and record keeping activities. All other communicable disease control functions are directly shared between the Bureau of Professional Support Services' Epidemiology Unit and the Communicable Disease Division of the Bureau Protection Agency.

*Lines of responsibility and coordination, however, are not clearly delineated.

*Education regarding reportable diseases is provided to health professionals through a CDC-Atlanta funded newsletter.

*Community education is the formal responsibility of the Health Education Division.

*Written protocols for epidemiological and surveillance activities are available, but not widely disseminated, for four of twenty-one immediately reportable diseases and thirteen of thirty-nine promptly reportable (within 48 hours) diseases.

*Data collection and analysis are done for only specified diseases. Manual tabulation is time consuming and statistical results are not systematically utilized to determine or establish program goals.

*Reporting protocols have not been clearly developed. Casefinding and follow-up activities are constrained by understaffing of trained personnel and available laboratory support services.

4.3.0.2. Treatment, followup, and prophylaxis are available for all diagnosed cases of communicable diseases according to written protocol.

*Treatment, follow-up, and prophylaxis protocols are not fully developed for all diagnosed cases of reportable communicable diseases.

*Short stocks of needed drugs are problematic and have necessitated the practice of "borrowing" supplies from the hospital.

*Some specialized treatment is not available on-island (i.e., resistant cases of Hansen's Disease and tuberculosis) and patients must be referred to off-island facilities; however, specific funds are not identified or set aside.

*Laboratory services have improved over the past five years but present capabilities are still not consistent with need.

4.3.0.3. There is a written and functional plan to prevent the introduction of communicable diseases at ports of entry.

*Surveillance procedures to prevent the introduction of communicable diseases at ports of entry have been developed but not rigorously implemented. The position of a foreign quarantine officer has been established but is not presently funded. No close scrutiny is made of requirements for travelers to foreign destinations or places with known communicable disease problems.

4.3.0.4. There is a coordinated program aimed at the primary prevention of all communicable diseases.

*The 95%-100% immunization level of prior years is now estimated at 85%. Special clinics have been set up as needed for schools with low immunization levels.

*Educational programs are not systematically provided to the community at large.

*PPD screening is required for all Head Start, kindergarten, first grade, and new school entrants. University of Guam's PPD screening of students was arbitrarily and briefly discontinued but is now reinstituted. The screening requirement will probably be applicable to Guam Community College students beginning Fall 1984.

4.4. Disaster Planning

4.4.0.1. Legislative Mandate. There is a legislative mandate in each juridsiction for comprehensive disaster planning which designates those agencies directly responsible for disaster mitigation, prevention preparedness, response, recovery, relief, and reconstruction.

*The Office of Civil Defense is the focal agency for disaster planning. Non-federal funding sources for equipment and supply needs, should a disaster occur, have not been identified.

4.4.0.2. Disaster Plan. A comprehensive written disaster plan is prepared to ensure the provision of all essential operations, services, and manpower.

*Written plans and agreements are in place, with reported good support and cooperation from the military sector. Annual testing through mock disaster exercises is conducted: however, the siren warning system needs expansion.

*Potential problems are foreseen at least in two areas. One problem is the adequacy of the present system to address any growth in tourism. Another lies in the area of the availability of civilian physician manpower during disasters. Many physicians are also National Guard personnel who may be mobilized for active duty; a small but important proportion of present supplemental manpower consists of active duty military personnel.

4.5. Enivronmental Health

4.5.0.1. Manpower is trained and managed to achieve environmental health goals and objectives. (See also manpower and training focal area).

*Staff are trained to enforce regulations and implement required activities related to environmental health.

4.5.0.2. There is a mechanism in place to ensure healthful and safe housing for residents and visitors.

*Several agencies are responsible for safe housing regulation, monitoring, and enforcement but activities are largely uncoordinated. Hotel and residential housing zoning regulations are established by the Land Management and Territorial Planning Commission and monitored by Public Works.

*OSHA regulates commercial buildings. The Department of Public Health operates the vector control program. The Environmental Protection Agency (EPA) is resonsible for monitoring and enforcing safe drinking water regulations.

*Most homes are constructed with concrete to withstand potential typhoon damage and are services by municipal water, electrical power, and sewerage systems. Many homes, however, still have individual septic tanks and leaching fields for sewage disposal.

4.5.0.3. The air is protected from harmful concentration of gases, smokes, mists, vapors, fumes, dusts or biological agents.

*Rules, regulatory standards, and guidelines are in place for air quality protection. The electrical power plant is oil powered and not in compliance; however, prevailing trade winds blow pollutants away from population centers.

4.5.0.4. A functional program exists for the prevention of disease transmitted by animals and insects.

*A functional program exists for the prevention of disease transmitted by animals and insects but lacks adequate laboratory support services and public education outreach.

4.5.0.5. Safe fresh water supplies from surface, ground, or catchment sources are readily available and meet microbiological and chemical safety standards.

*Approximately 70% of Guam's source of potable water derives from groundwater contained in highly porous limestone. Fena Reservoir is the only major surface impoundment for drinking water. Ground water protective zoning has been established for the northern part of the island. Legislation has recently been introduced to increase the EPA's authority to safeguard drinking water supplies through zoning. Water storage and distribution systems require extensive upgrading and concomitant capital investment.

4.5.0.6. Ocean and recreational waters are protected from chemical, physical, and biological pollution impairing health or safety.

*Written standards exist and are enforced to monitor the safety of ocean and recreation waters.

4.5.0.7. Excreta and waster water are managed to prevent transmission of disease organisms to man and animal populations and to prevent buildup of organic wastes on land or in receiving waters.

*Prior to 1979, untreated raw sewage was discharged into coastal waters. Wastewater effluent is now treated and discharged through outfall lines that extend beyond the reefs.

*Extensive capital expenditure beyond local fiscal capability is required to complete the present islandwide wastewater treatment system and to upgrade existing treatment plants to comply with U.S. EPA discharge standards.

*Plans have been developed to connect rural areas into the existing community sewage disposal system.

*Proliferation of small homes with septic tanks potentially impact the nitrate loading of groundwater supplies.

4.5.0.8. Solid waste is appropriately managed to protect health and safety.

*Two solid waste landfills exist on the island, one operated by the military and the other by the Government of Guam. The public landfill is decribed as more of an "open dump" and landfill improvements which require local capital expenditure have not been completed.

*Although a recycling campaign has been initiated and fines assessed for littering, public compliance is reportedly problematic.

*Collection service problems include the lack of available well-maintained equipment and trained staff.

*User fees are not currently assessed for collection.

4.5.0.9. The community is protected from the introduction, use and disposal of potentially unsafe chemical products.

*Chemical safety monitoring and enforcement are relatively new activities and the program is currently understaffed.

4.5.0.10. The environment is protected from radiation contamination.

*Rules and regulations specifically controlling the spillage and disposition of radioactive materials have not been established. Recreational and potable water are monitored for radiation contamination.

4.6. Food and Drug Safety

4.6.0.1. Safe and effective food and drug supplies of good quality and adequate quantities are available to satisfy community needs.

*Regulatory guidelines and standards are in place but thorough field investigations of complaints are generally constrained by undertrained staff and lack of routine and systematic reporting by physicians.

4.6.0.2. All essential prescription and over-the-counter drugs and pharmaceuticals are available, distributed, and properly stored.

*The storage of pharmaceuticals by retail and wholesale outlets is regulated. Rules and monitoring procedures have not been established relating to procurement or distribution.

4.7. Geriatrics Program

4.7.0.1. Planning. There is a written plan for the provision of a comprehensive program of services to meet the needs of the elderly population. All applicable standards are incorporated in the plan.

*A written plan is extant for providing and evaluating culturally appropriate comprehensive services for the island's elderly population, but implementation is impacted by fiscal constraints, absence of a public transportation system, and thus far limited range of available community resources.

4.7.0.2. Community Programs. There is an organized and functional program for the elderly available in a variety of settings (i.e., senior centers, clinics, homes) to reduce the need for institutionalization and maintain independent living.

*Health screening and referral activities are conducted but follow-up services are virtually nonexistent. Systematic nutritional assessments are not routinely performed.

4.7.0.3. Institutional Care. Institutional care is provided, as appropriate, in residential, intermediate, and skilled nursing facilities.

*The present facility for long term care is neither structurally safe nor adequately maintained.

*Although family units provide for the majority of long-term care needs, available skilled and intermediate care beds also serve less appropriate custodial purposes.

*The care and supervision of long-term patients are provided by appropriately trained and qualified nursing personnel.

*The old facility which houses long-term care patients is structurally unsafe and does not provide for convenient and easy transfers, or a safe and protective environment.

*Rehabilitative services are provided as appropriate to long-term care patients.

*Sufficient community resources have not yet been developed to accommodate the long-term care needs of families who cannot otherwise care for chronically ill, disabled, or elderly family members.

4.8. Health Education and Promotion

4.8.0.1. There is an organized, indentifiable unit charged with the responsibility of administration and management of health education and promotion programs.

*Health education and promotion services are directed by a master's prepared specialist who is also acting directo of the Bureau of Professional Support Services. Inter-agency communication and collaboration rely on inter-personal relationships rather than formal organizational arrangements. Program activities are supported through federal funds.

4.8.0.2. Active support of health education and promotion staff by health service personnel, other agencies and community groups is evident.

*Professional consultation, technical assistance, and broad based community health promotion activities are constrained by the lack of qualified staff and the unit's primary emphasis on the provision of direct client servic

4.9. Laboratory Analysis

4.9.0.1. Clinical laboratory services essential for public health services are available and adhere to regulatory standards.

*The public health laboratory is large but ill-equipped and without routine preventive maintenance for available biomedical equipment. Capabilities include general clinical laboratory procedures, mycology and micro-biological testing.

*There are no written agreements to send out specimens requiring more sophisticated analysis.

4.9.0.2. Public health laboratory services essential to support environmental health monitoring activities are available and adhere to regulatory standards.

*The public health laboratory has capabilities for en-vironmenal testing.

4.10. Maternal and Child Health

4.10.0.1. There is an adequate data base to plan and evaluate the health status of women and children and the delivery of appropriate services.

*Morbidity rates are not routinely calculated or available for use in planning and evaluating maternal and child health programs.

4.10.0.2. MCH services are available and accessible to the population in need.

*Public sector MCH services are available to those without private insurance coverage, despite any ability to pay out-of-pocket.

*Target population accessibility to services is impacted by the lack of any public transportation system.

*Persistent shortages in ancillary support staff, equipment, and supplies generally limit the provision of otherwise comprehensive services.

*Formal interagency referral mechanisms and coordinating agreements to ensure continuity of care are nonexistent.

4.10.0.3. Adequately trained staff are available to provide MCH services. (See also manpower and training focal area.)

*There are sufficient numbers of staff of disciplines needed (except for pharmacist) to provide safe, needed services.

*Continuing education and in-service training opportunities are limited.

*With the exception of a pediatric oncolgist, children with handicapping conditions who require specialized services, are referred to off-island facilities.

4.10.0.4. Family Planning Services are available to all persons of reproductive age.

*Family planning services are available but community promotion activities are limited.

*Infertility and genetic counseling services are not provided.

4.10.0.5. Comprehensive prenatal care is available to all pregnant women.

*No systematic community-wide method is utilized to continuously encourage early pre-natal care. Public health dental services are not provided to pregnant women.

4.10.0.6. All pregnant women have an appropriate, safe environment for the birth of their infants.

*All women are delivered by trained birth attendants at Guam Memorial Hospital.

*The hospital has capabilities for secondary care for high risk infants and mothers.

*Upon discharge nurses volunteer their phone numbers for mothers who need help with breastfeeding.

*Records of live births and fetal deaths are maintained by the hospital.

4.10.0.7. All infants and pre-school children are provided with available comprehensive and accessible care.

*There is a mechanism in place to implement and monitor immunization levels according to established standards.

*There is an organized and functional mechanism for reporting, assessing, treating, and preventing, communicable diseases of children.

*There is a system in place to report, investigate, and follow-up suspected cases of child abuse and for preventive community education.

*There is a parenting education program in place.

*Nurtritional supplements are provided through referrals to the appropriate social service or nutrition unit.

4.10.0.8. There is an program in place for the prevention, evaluation treatment, and follow-up of infants and children with handicapping conditions.

*The program has early and periodic screening for physical and developmental abnormalities with appropriate referral diagnosis, treatment, and follow-up.

*All children who have or are suspected of having a handicapping condition receive a medical evaluation by a physician.

*Every child who is handicapped has an individualized treatment plan, which includes coordinated multi-disciplinary medical, social, nutrition, education, and rehabilitation services.

*Social services support is available to families with a handicapped child.

*Medical specialty consultants are available as needed for handicapped children.

*Data are collected and analyzed to plan and evaluate the program of services for handicapped children.

4.10.0.9. There is a school health program in each school.

*Children in schools are screened at entry and periodically thereafter for vision, hearing, dental and other problems including psycho-social screening.

*The school health environment and food services are regularly monitored by the Environmental Health Unit.

*A health curriculum with relevant teaching aids is available for grades 6 and 10 only.

*There is a health room staffed by trained personnel, available in each school in which children with health problems can be seen immediately, evaluated, and isolated if necessary.

*The plans are being developed to provide special problems relating to the physically handicapped and students with emotional, development and/or physical health problems including pregnancy.

4.10.0.10. Nutrition services are available to all mothers and children who come to clinics and dispensaries, or are seen by traveling health teams. (See also nutrition sub-area this section.)

*Nutritional assessments of growth and development are documented on infants at 2 weeks, 2 months, 4 months, 6 months and 9 months of age and yearly thereafter for children 1-5 years of age.

*Parents or caretakers of infants with special problems such as a handicapping condition, anemia, malnutrition, underweight, diarrhea, dehydration, obesity and low birth weight are referred for individual counseling.

*All preschoolers who have special nutrition problems such as anemia, malnutrition, chronic gastro-enteritis, obesity, dental caries or other nutritional disorders are referred for individual counseling.

*Women who have nutrition related health problems such as obesity, anemia, malnutrition, hypertension, diabetes or chronic gastro-enteritis, are referred to the nutritionist or nutrition aide for individual counseling in preparation for improved nuritional status in future pregnancies.

*Vitamin and mineral supplements are given to all infants, and pregnant women, and lactating mothers unless contradicated by a physician.

*Pregnant women with special nutrition needs and problems such as inadequate or excessive weight gain, age-related risks, anemia, prior history of nutrition-related problems in pregnancy are referred to the nutrition aide or nutritionist for counseling.

4.10.0.11. Dental health services are an integral part of maternal and child health services. (See health services: Dental health services.)

*There is no public health clinic mechanism in place to ensure that women have access to dental health counseling during pregnancy.

*There is a mechanism in place to ensure that children have access to dental health maintenance and oral prevention services.

*Oral fluoride drops and/or tablets are available in all well-baby clinics.

*There is a program for dental health education in the schools.

*The school health program includes periodic dental screening.

4.11. Nutrition Education and Services

4.11.0.1. Comprehensive and integrated nutrition services are available in each jurisdiction.

*There is no written plan for nutritional services with overall objectives coordinated with other agencies.

*Nutrition counseling and education services are available but under-utilized and understaffed. Patients with identified special nutritional problems are not routinely referred to the nutritionist for individual counseling. Transportation allowances are not provided for home visits.

4.11.0.2. Qualified nutrition personnel are available to provide comprehensive services to the community.

*Qualified nutrition personnel are available in both clinical and public health service area.

*Currently 6 nutrition aides are available to assist with nutrition counseling, but this number is inadequate to provide effective community outreach.

4.11.0.3. Forms for documentation and equipment in good working order are available and utilized to provide comprehensive nutrition service.

*Educational materials are outdated and are not culturally sensitive, Physical space is cramped and would not accommodate equipment even if available.

4.12. Public Health Nursing

4.12.0.1. Organization and Administration. The need for and delivery of community-based nursing services are planned, organized, and administered by the Public Health Nursing Department of the applicable agency.

*See facilities: Nursing services and administration/ community health and in-patient facilities criteria (1) through (11).

4.12.0.2. Manpower Adequacy and Availability. There are sufficient numbers of qualified nursing personnel in each jurisdiction to provide safe, therapeutically effective, and efficient community-based nursing care to individuals, families, and groups. (See manpower and Training: Nursing Manpower Indicators.)

*Generalized public health nursing service direction is provided by a baccalaureate level registered nurse. The director's scope of functional authority regarding personnel qualifications, staffing requirements, fiscal management, and quality control is limited by cumbersome Civil Service regulations and other external variables.

*Although community health nurses are the backbone of the public health delivery system, understaffing and departmental fiscal shortfalls seriously impact service availability and accessibility. There are currently nine vacant R.N. positions. An annual 30% turnover rate is attributable to stop gap employment of military dependents. The recruitment process to fill position vacancies may take anywhere from three weeks to nine months.

*In-service and continuing education opportunities are available but limited. Projected training needs include the upgrading of staff educational levels and short-term training in personnel and fiscal management, quality assurance and documentation skills.

4.12.0.3. Scope of Services. Written records of nursing services provide evidence of health promotion, health education, epidemiological surveillance, restorative and rehabilitative nursing, communicable disease diagnosis and treatment, chronic disease control, and coordination of health and welfare services.

*The scope of services are provided at primary, secondary and tertiary levels of care within a variety of practice settings.

*Direct services in homes or clinics are provided to individuals, families, or groups to prevent illness, promote or maintain health, limit disabilities, and restore maximum health.

*Semi-direct services are provided to ensure coordination and continuity of care in such areas as discharge planning, client referrals, and other planning activities directed at improving the distribution of services within the total community.

4.12.0.4. Mandated Services. Specific, appropriate public health nursing services activities as mandated by legislative and/or other regulatory bodies, are evidenced in recorded, quantitative data regarding casefinding, management, and follow-up within a specific time frame.

*Public health nursing involvement in the V.D. program is presently confined to the administration of medication. Direct school health services are provided by health counselors employed by the Department of Education. Public Health nurses provide immunizations in both clinic and school settings.

4.13. Vital Statistics Collection

4.13.0.1. There is a statutory basis for the registration analysis, and reporting of vital events which occur within the population.

4.13.0.2. The registration analysis, and reporting of vital events is an organized function of government.

*Under the direction of the Territorial Registrar, the Vital Statistics unit is responsible for the standard registration, development, and analysis of vital statistics regarding births, deaths, fetal deaths, marriages, and divorces.

4.13.0.3. There is coordination among agencies concerned with vital registration and with vital statistics.

*Monthly and annual reports are compiled and distributed. Manual processing of data, however, is time-consuming and error prone. Staff members are generally undertrained in statistical analysis. No formal internal audits have been conducted to ensure the accuracy of statistical information.

4.13.0.4. Population and mortality data are available for use by health department staff as denominators in calculating rates.

*Reliable recent age/sex data (1980 or later) are available for use by planning staff.

*The international form of medical certification (ICDA) of cause of death is used.

*There is clear specification of those who are permitted to code the cause of death for registration purposes and to sign certificates.

*Person having responsibility for cause of death have appropriate training and experience.

4.13.0.5. Perinatal, infant, maternal, and crude or other death rates are computed annually for program guidance.

*Peri-natal death rates are not computed annually or generally available for applicable program guidance.

4.13.0.6. Fertility rates are computed annually for program guidance.

*Birth rates appear as part of an annual report.

*Birth data include births occuring both in and out of a hospital.

*There is no written population policy for the jurisdiction, referring to the limited land and economic resources available.

E. Health Services

5.1. Dental Health

5.1.0.1. Basic dental health services including simple treatment for pain relief and infection control and preventive information, are available and accessible to all people with their immediate living area.

*The range and scope of public sector primary dental health services are limited by understaffing in both dentist and dental hygienist positions, poorly-maintained available equipment, short stocks of supplies, departmental fiscal constraints. Private sector dental services are located in a geographically confined area and provided by approximately 20 clinicians, including one pedodontist and two orthodontists. Oral surgery is performed by an off-duty naval dentist on the weekends.

5.1.0.2. Dental services are planned, coordinated, integrated, recorded and evaluated.

*Written agreements and policies have yet to be fully developed to coordinate and integrate public and private sector dental health services. Written policies have not been fully delineated for the referral of more complicated problems.

5.1.0.3. The dental services program includes preventive services and dental health education.

*Dental care needs are great. The primary focus of public sector services is school dental health. Although the unit works closely with Head Start, the larger population of children under the age of six who are not enrolled in the program do not usually receive dental care. No systematic plan has been developed which reflects comprehensive basic dental prevention care to all persons in the community or which reflects priorities of care for high risk groups. No dental services are provided for the elderly at the regional health centers. Dental health education activities are limited and do not routinely include nutrition couseling.

5.2. Emergency Medical Services

5.2.0.1. Planning. Each jurisdiction has a written plan for the provision of comprehensive emergency medical services to reduce the incidence of death, additional injury, suffering, and subsequent disability to victims of serious injuries and sudden acute illness.

*There is a written plan for providing and evaluating appropriate comprehensive emergency medical services.

*Emergency medical services are operated by the Public Safety department but administered through the Department of Public Health and Social Services.

*First responder emergency medical technician training and retraining is provided by Guam Community College.

*The EMT is not generally recognized as part of the community health team.

*Hospital physicians and nurses have little to no input into EMT training or in planning and coordinating system-wide emergency service activities.

5.2.0.2. Hospital-Based Services. Each major short term in-patient hospital provides emergency room services to victims of serious injuries and sudden acute illnesses.

*Vehicular and communication system maintenance problems, shortages in equipment and supplies, limitations in manpower, and lack of accountability by all involved agencies plague the system.

*Ambulances not only handle emergency calls but also interagency, home to facility, and facility to home transfers, and as such function as a form of public transportation.

*The military sector provides occasional civilian backup emergency care but agreements are not formalized.

5.2.0.3. Field Services. On-site emergency care and transportation are available and accessible to communities outside the district center.

*Not applicable in Guam

5.3. Health Care Financing

5.3.0.1. A sound financial management system is in place to support decisions regarding the generation and allocation of revenues financing health services. (See Administration Focal Area.)

*A financial management system is in place but not systematically utilized to support decisions regarding the generation and allocation of revenues financing health services.

*Preparation, review, and initial and subsequent adjustments of budgets are based on pre-established ceilings and political decisions rather than on assignment of critical funding priorities.

*Personnel generally lack adequate training in fiscal management to effectively implement the system.

5.3.0.2. A systematic plan is established and implemented by the financial authority for the generation of revenues used to finance capital projects and operating expenses of health services and programs

*Revenue sources for health include federal grants-in-aid, local government general funds, insurance and pre-payment programs, capitation payments, and direct fees for service, private out-of-pocket payments.

*The general illiquidity of the island's residents, shortfalls of public agencies, and the large proportion of the under insured complicate collection efforts.

*There is no historic base for fee-for-service payment and collection.

5.3.0.3. Local sources of revenue used to finance health services are equitable distributed.

*Local government subsity of health care is a relatively recent development and currently lacks clear policy direction. Imbalance of revenues and expenses is not uncommon. Deficit financing, interim appropriations, and emergency funding arise since the government's participation occurs after the period in which services have been provided.

*There is no plan to ensure that shortfalls from one source of revenue will be corrected by using other revenues.

*Information regarding private sector costs and revenues is not readily available or widely accessible.

5.3.0.4. A systematic plan is established and utilized by the financial authority for the allocation of revenues to finance the operating expenses and capital projects of health services and programs.

*There is no sytematic plan relating to prioritize allocation of funds among competing programs and services.

*Local revenues to offset recurring costs of capital improvements are severely limited.

5.4. Home Health Care

5.4.0.1. Home health care services are established to provide organized, intermittent, preventive, therapeutic, rehabilitative, and other support service to home-bound persons under the care of physicians. (See also facilities focal area.)

*There are no applicable local laws or regulations related to the delivery of home health care services.

5.4.0.2. Skilled nursing services are provided by or under the supervision of a registered nurse and in accordance with the treatment plan of a physician.

*The Director of Public Health Nursing has program administration oversight.

*Services include generalized public health nursing, medical social work, and, as needed, physical therapy, occupational therapy, nutrition, or speech therapy, but are limited by available funding, manpower, equipment, and supplies.

*Community resources include home delivered meals and homemaker-chore services but are similarly limited.

5.5. Medical Referrals

5.5.0.1. A medical referral program is in existence for those needed services not available within the jurisdiction.

*Guam serves both as an origin of and destination for medical referrals. There were forty-six official off-island referrals to Honolulu and other destinations made in fiscal year 1983, primarily for treatment of cardiovascular-related and tumor conditions beyond local physician manpower and facility capabilities.

*Guam Memorial Hospital administers an annual $300,000 off-island fund for medical referrals of indigent patients.

*Off-island Medicaid-supported referrals have been curtailed.

*Seventeen medical referrals were received by the hospital in fiscal year 1983. If, as plans call for, Guam becomes the regional center for secondary and tertiary medical referrals from other western Pacific islands, present technological and manpower capabilities will need to be upgraded and new capabilities developed.

*There are no formally organized off-island medical referral and consultation networks established among private sector physicians.

5.5.0.2. Patient records are transmitted and retrieved in accordance with written agreements between facilities.

*Formal agreements between jurisdictions relating to both the transmittals and receipt of complete patient records have yet to be established.

5.6. Mental Health and Substance Abuse

5.6.0.1. There is evidence of a well-defined, organized system of mental health and substance abuse services designed to be responsive to the population's needs and accountable for the provision of quality services.

*Newly consolidated mental health and substance abuse line agency services have not yet achieved full capabilities or desired level of comprehensiveness.

*There are eighteen current psychiatric social work, nursing, and technician position vacancies. Past difficulties with rapid and high manpower turnover rates due to non-competitive salaries and recruitment of credentialled but transient off-island personnel will more than likely continue in the immediate future.

*Quality assurance standards and policies are still being developed, as are plans for coordination and cooperation between interrelated private and public sector programs.

*Data collections, retrieval, and evaluation methodology are similarly being developed but without concomitant computerization, will require time-consuming and error-prone manual tabulation.

5.6.0.2. There is an array and mix of mental health services to promote optimal well-being among individuals in the community.

*Plans are in place for emergency crisis intervention but implementation is contingent upon funding.

*There is currently no residential treatment facility for children or an alcohol detoxification unit on the island.

*Community out-reach services, community mental health education, and professional consultation services have not yet been fully developed, largely due to present fiscal and manpower limitations.

*There is no free-standing mental health facility. In-patient psychiatric services are provided through a contractual agreement with Guam Memorial Hospital. The present 17-bed capacity facility houses a mix of patients, including the acute mentally ill, the chronically ill, the criminally insane, police and court referrals, and the mentally retarded who are unwanted by their families. Often filled to capacity and more, patients without beds sleep on mattresses in the hallway or are sent home although not officially discharged.

5.7. Occupational Health and Safety

5.7.0.1. A system is in place to ensure that places of employment are free from recognized hazards that cause or are likely to cause death, injury, or illness.

*There are no applicable local occupational health and safety statutes. Federal OSHA standards are utilized, but not explicitly followed and apply only to the private sector.

*Reporting of hazardous working conditions for subsequent OSHA investigation is done only if fatalities occur or if five or more employees are hospitalized. There is no alternative reporting requirement or process in existence.

5.8. Primary Care

5.8.0.1. Primary preventive, diagnostic, and therapeutic services are accessible and available to the total population without financial or other barriers.

*Public sector outpatient clinics are neither available in conjunction with the in-patient facility nor free-standing but are instead provided through the three health centers operated by the Department of Public Health and Social Services.

*Basic primary diagnostic and therapeutic services are available, as well as health maintenance and health promotion.

*Private sector primary medical care practitioners are geographically concentrated in central Guam. According to projected estimates, neither public or private resources provide sufficient manpower for the level and scope of services needed by the community.

*Mechanisms which ensure coordination and continuity of care are not yet fully developed.

*Eligibility criteria and fee-for-service requirements are problematic for the uninsured and medically indigent.

5.9. Quality Assurance

5.9.0.1. Each public health and health services program has an established system for the appraisal of the performance of its personnel by mid-level and higher level administrators.

*Written Civil Service job descriptions exist which delineate roles, responsibilities, and qualifications for all positions, with the exception of administrators and physicians, within government health facilities and agencies.

*A systematic method of performance appraisal for all government health personnel is not uniformally applied.

5.9.0.2. The staff of each program meets at least once a month to identify and resolve important or potential problems affecting patient care and/or the delivery of care.

*Program staff meetings to identify and resolve extant or potential problems affecting patient care and/or the delivery of care are not routinely or regularly scheduled.

5.9.0.3. A system for retrospective and concurrent review of services is utilized to evaluate, safeguard, and improve the quality of that care delivered within the program.

*Retrospective and concurrent reviews of services are not regularly conducted on a system-wide basis to evaluate, safeguard, and improve health service delivery.

5.9.0.4. There are laws governing the licensing of health care practitioners and the regulation of health care facilities and programs. (See facilities and manpower and training focal areas.)

*Local statutes governing the licensing of specific categories of health care practitioners exist, but primarily require substantiation of off-island credentials. Corollary rules and regulations applicable to professional licensure have not been fully developed for all categories.

5.10. Rehabilitation Services

5.10.0.1. Appropriate rehabilitation services are accessible and available to individuals with handicapping conditions.

*Direct and indirect rehabilitation services are available through multiple sources, including private medical practitioners, Guam Memorial Hospital, the Department of Vocational Rehabilitation, the Department of Education and the Department of Public Health and Social Services.

*Although the Department of Vocational Rehabilitation is formally designated with the responsibility for service coordination for adult clients, each agency keeps separate records based on its own criteria and service needs.

*An organized referral system is in place but not systematically utilized to safeguard access to and the coordination of the range of services which may be required.

5.10.0.2. Rehabilitation services are coordinated among the responsible agencies.

*Coordination of rehabilitation services for individuals under the age of twenty-one years is not the designated responsibility of any one agency. Orthotic and prosthetic appliance services are not available on-island.

5.10.0.3. There is a systematic method of tracking each disabled individual.

*No central registry exists to ensure systematic tracking of disabled individuals.

IV. CONCLUSIONS

The foregoing discussion, while primarily highlighting gaps in individual components, suggest a commonality of operational, organizational, and fiscal issues confronting the health care system as it evolves to find an applicable range and scope of services unique to Guam's setting, resources, and needs of its people.

The most pervasive issue, and perhaps the most difficult to resolve, is the conflict between the increasing availability of and demand for comprehensive, sophisticated, and technologically advanced medical and health services and the lagging ability of the system to generate sufficient operational resources to effectively and efficiently maintain and further promote such development. Expanding local technological and economic potential, coupled with rapid infusion of external funds, have given rise to a proliferation of segmented public and private sector health service modalities competing for the same limited resources. While this segmented approach has had the advantage of improving the health status of the population in general, it has also increased requirements for multiple separate client visits and logistical costs, decreased the likelihood of coordinated and sustained relationships between service providers and clients, and limited access to comprehensive services for the large proportion of residents who are underinsured, medically indigent, and categorically needy.

The delivery of health services has not generally been the result of systematic and futuristic policy planning and coordination, but more the result of almost chance convergence of a variety of facilities offering numerous types of services which are financed by different mechanisms. Despite the existence of a network of community-based primary health care maintenance and promotion services, a preponderance of resources are still channeled to those activities which are acute care oriented. Broader policy directions have generally been lacking to guide decisions regarding the range, mix, relationships between, and relative effectiveness of the components of the total health care system. Nor have overriding direction been given for determining how and how much of the government's finite health care resources should be allocated or reallocated in support of high priority programs and services. While emphasis on acute curative care aspects of the system may be productive in the short run, it is economically debilitating and diverts resources from basic community health prevention and promotion efforts which would realize long-term cost-effective benefits.

Numbers of existing personnel do not necessarily translate into access to service by residents, nor do the presence of a variety of facilities and programs necessarily guarantee that highly skilled personnel, equipment, and supplies are adequately available to maintain them, or that either personnel or services are of a mix that allow effective and efficient use. While the absence of continuing and advanced professional training institutions contributes to fewer local students entering health professions and diminishes the indigenous potential manpower pool, their presence in and of itself does not provide a sufficient mechanism to retain personnel on the island. The absence of system-wide coordinated and collaborative policies for manpower development not only impacts direct service potential, but also systematically affects organizational, administrative, and evaluative capabilities to aggressively support and sustain the system's present and still growing complexity.