

**GUAM HEALTH PLANNING
AND DEVELOPMENT AGENCY,
DEPARTMENT OF PUBLIC HEALTH
AND SOCIAL SERVICES**

***A Proposal To Assist In
Improving The Availability And Use Of
Health Planning Data On Guam***

**Prepared For:
Mr. Ernesto A. Cid
Acting Director**

September 15, 1977

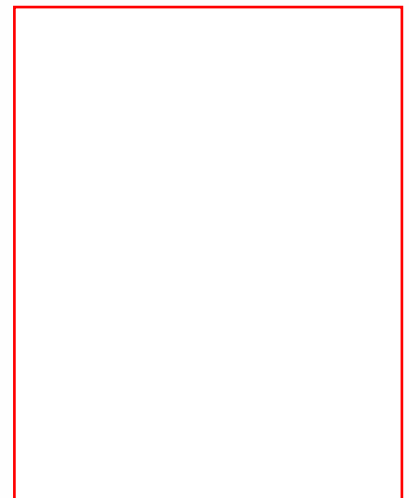
Arthur Young & Company

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*Bureau of
Planning*



Arthur Young & Company

ARTHUR YOUNG & COMPANY

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September 12, 1977

Mr. Ernesto A. Cid
Acting Director
Department of Public Health
and Social Service
Government of Guam
Agana, Guam 96910

Dear Mr. Cid:

Arthur Young & Company is pleased to submit this proposal to assist the Guam Health Planning and Development Agency to expand and improve its access to and use of health planning data. The proposed project has been carefully structured to meet the requirements set forth in your letter requesting a proposal dated June 15, 1977.

We have reviewed your specification for the work to be carried out and, based on our broad knowledge of health planning data systems and our specific understanding of the needs of GHPDA, we are confident that we can meet your requirements and can provide the scope and quality of consulting effort needed to meet your stated objectives.

The proposal which follows describes the manner in which we would meet the requirements of the project using a combination of expertise available within Arthur Young & Company in conjunction with the specific assistance and involvement of GHPDA staff. In addition, the proposal includes the purchase of data processing services from a local computer service bureau in the completion of one of the project tasks.

Mr. Ernesto A. Cid
Acting Director
Department of Public Health
and Social Service
Government of Guam

September 12, 1977

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We believe that this proposal demonstrates our understanding of the problems to be addressed, the health planning environment on Guam and our unique capabilities for carrying out a successful project.

This proposal was prepared under the direction of Messrs. A. W. Barger and G. N. Jones, Jr. of our Northern California Health Care Consulting Group. Should you wish to discuss any aspect of this proposal or if you require additional information, please contact either Mr. Barger at (916) 443-6756 or Mr. Jones at (415) 393-2821.

Very truly yours,

Arthur Young & Company

cc: Mr. Gary L. Buck
534 S. Avenida de la Vista
Tucson, Arizona 85710

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GUAM HEALTH PLANNING AND DEVELOPMENT AGENCY
DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES
GOVERNMENT OF GUAM

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I. BACKGROUND, PURPOSE, AND SCOPE
OF THE PROJECT

I. BACKGROUND, PURPOSE AND SCOPE OF THIS PROJECT

This section of the proposal presents a summary of our understanding of the present health planning situation in Guam and the purpose and scope of this project.

A. BACKGROUND

1. Mandate of P.L. 93-641

The current status of health care delivery on Guam is a result of three separately evolving component systems, i.e., public, private, and military. Each of these components has developed essentially independent of the others, preserving its own objectives and independently serving sometimes overlapping segments of the population. As a result, the health care system on Guam and, therefore, the data and information available for analysis and planning are poorly integrated and quite complex. In spite of relative isolation and small size, the system poses major problems to the health planner. One aspect of these problems concerns the development of reliable, accurate, and timely data relating to the provision of health care services and those who receive these services.

The collection and analysis of data was mandated to health system agencies in P.L. 93-641, the Health Planning and Resources Development Act of 1974.* It mandated health systems agencies to collect and analyze data concerning:

- 1) the health status of the residents of the service area
- 2) the status of the health care delivery system and use by the residents

*In Section 1513(b.)(1.) of P.L. 93-641

- 3) the effects of the delivery system on health of the area's residents
- 4) the number, type, and locations of the area's health resources; i.e., manpower, service, and facilities
- 5) patterns of utilization of the area's resources
- 6) environmental and occupational exposure factors affecting immediate and long-term care health conditions

To assist the HSAs in their efforts to collect data from the various health care providers, the State Health Planning and Development Agencies are given the authority in the SHPDA Rules and Regulations* to require providers of health care services to make available to the HSA and SHPDA statistical and other reports related to health care. By emphasizing data collection and specific analyses to be carried out as a major HSA function and by granting agencies some authority to obtain data, the federal government gave health planning agencies some direction and authority that they didn't have before under the Comprehensive Health Planning Act, P.L. 89-749.

2. The Current Status of Health Planning Activity On Guam

The Guam Health Planning and Development Agency (GHPDA) is completing its first year of conditional designation under P.L. 93-641. During this first year of existence an initial effort aimed at preparing a Preliminary State Health Plan was begun. That plan development effort is now in the transition of becoming an ongoing major function of the agency.

To support the plan development activities of the GHPDA and Guam Health Coordinating Council (GHCC) data

*Published in the "Federal Register," March 19, 1976

collection and analysis was begun by GHPDA staff in the fall of 1976. The inventory of existing data prepared by the Guam Bureau of Planning, Guam Inventory of Planning Information was helpful to the staff in pointing out what and where data existed and in what form. Major sources were found to be Guam Memorial Hospital (GMH) and the Department of Public Health & Social Services (DPHSS).

At that time, a number of significant gaps in data availability were identified, whose existence has provided at least part of the impetus for this project. A few of those are described below:

- There was a significant problem in obtaining data from the private providers of health care on the island. Although statistical data regarding health status, e.g. inpatient diagnosis, were available from GMH and DPHSS, these covered only part of the total services rendered and the population served.
- Data that were obtained from other providers were not readily comparable and it was therefore quite difficult and in some cases impossible to obtain a good understanding of service distribution or health status.

In short, to the present time, data quality and availability has been very uneven and fragmentary. This project will be a major step toward closing some of these gaps as well as providing improved access to existing data.

3. Special Considerations

Guam is very unique because of its small size and isolation in the Western Pacific. The health care delivery system is a closed system, totally contained within the island except for some tertiary and emergency care which is obtained off island. These present the following unique problems that deserve special

consideration in the conduct of the proposed engagement: a small but complex provider system; the military system and population; the separate, fragmented data systems; and Guam's unique population characteristics and health problems.

a. Small, Complex Provider System

The provider system is small but complex made up of the public sector, private sector, and the military. Components within the public sector are administered under different entities which must interface with one another. The public and private sector overlap to some degree in that they both provide primary care.

The military and civilian health care systems overlap in that the military provides some emergency medical services and some specialty services not available in the civilian system. Just how many military personnel use the services outside the military system, or vice versa, how many civilians use the military system is unknown.

b. Population Characteristics

Population characteristics unique to Guam are the presence of several ethnic groups, a continuous tourist population, and a large immigrant laborer population made up of Filipinos, Japanese, Koreans, and Taiwanese working in the construction industry. The impact of the tourist industry on Guam's health care system is not known.

c. Health Problems

Guam's population has the following health problems:

1. A high rate of tuberculosis and infectious hepatitis
2. Communicable diseases contracted off-island, such as malaria, cholera, typhoid, and some forms of intestinal parasites
3. High incidence of intestinal parasitism due to improper sanitation and sewerage conditions

4. Two diseases unique to the Chamoro population on Guam - ALS (Amyotrophic Lateral Sclerosis) and PD (Parkinsonism Dementia).

B. PURPOSE OF THIS PROJECT

The purpose of this project is to improve the access to and use of data needed to carry out its functions. It will represent a major step forward for the agency, resulting in more informed decisions in plan development and implementation, project review and resource development functions. While the project is clearly aimed at a more integrated data base for use in health planning, it will not represent a comprehensive solution to all the agency's data needs. The tasks outlined in the RFP deal with the resolution of existing major gaps in the data itself and its use.

The objectives of the various tasks to be completed fall into two general categories. First, there is a need to improve the quality and availability of the data through the development or modification of systems to gather and manipulate information. Over two thirds of the entire project effort will be devoted to the assessment, design and/or implementation of various systems for collecting and processing data.

The second objective of this project involves the improvement of agency staff understanding of the management and use of these data. This is to be accomplished through the involvement of staff in the project work, i.e., system design and implementation, as well as through specific training and instruction tasks.

C. SCOPE OF THIS PROJECT

The scope of the work to be performed in this project include the following:

- Evaluation of data quality

- System analysis
- Procedure development
- Form and report design
- Computer programming
- Training and assistance
- Interorganizational coordination

Each of the 13 tasks described in the Request for Proposal may be characterized by its own scope in terms of the kind of work to be performed, the organizations and agencies that are to be dealt with, and either a deliverable product or some other criterion for completion. Several tasks of the latter type have no clearly defined point of completion. These tasks involve working with agency staff in various areas and providing guidance and assistance. The scope of such tasks can only be defined in terms of project resources allocation, i.e., a fixed budget on which to draw as needed.

Table I.1 on the following page summarizes our understanding of the scope of each task in terms of the three factors mentioned above. This table forms the basis for the proposed work plan and schedule.

TABLE I.1 - SUMMARY OF PROJECT SCOPE BY TASK

Task	SCOPE OF WORK								Agencies/ Organizations Involved Other Than GHPDA	Deliverable Or Criteria For Completion
	Evaluation of Data Quality	System Analysis	Procedure Development	Form/Report Design	Computer Programming	Training/ Assistance	Interorganizational Coordination	Other		
I.A - Review of GIPI	x								Bureau of Planning	● Findings and Recommendations
I.B - Identify Alternatives for Consolidation of Data Collection Activities		x				x	x	● Review of Forms and Procedures	See List	● Findings and Recommendations
I.C - Develop Approaches for Improving Data Access		x					x		See List	● Findings and Recommendations
II.A - Nursing Report		x	x	x		x		● Review of HIS	Nursing Division	● Combined Form ● Completion Instructions ● Instructions
II.B - Ambulatory Care Survey	x		x	x		x	x	● Review of HIS	Provider of Ambulatory Care	● Survey Instrument ● Procedures
II.C - GMH Discharge Data	x	x		x	x	x	x		GMH	● Computer Procedures and Recommendations
II.D - Sorter-Counter Training						x	x		Vital Statistics	● Fixed Task Budget
II.E - Recording		x				x	x		Nursing Division	● Findings and Recommendations
II.F - Mental Health Center			x	x			x		MH Center	● Forms ● System Design ● Recommendation
III.A - Staff Coordination						x			-	● Dictated by Each Task Assigned to Agency Staff
III.B - Review of Plan Development						x				● Fixed Task Budget
III.C - General Consultation						x				● Fixed Task Budget
III.D - HPRD Library								● Review Library		● List of Suggested Acquisitions
PREPARE PROJECT REPORT	N/A									● Final Report

II. PROJECT WORK PLAN AND SCHEDULE

II. PROJECT WORK PLAN AND SCHEDULE

This section contains a description of each task of the proposed project and the schedule within which it will be carried out. The work plan is organized to follow the outline of tasks presented in the Request for Proposal. In several instances we have suggested modifications to the stated scope of a task along with the reasons for the change.

Exhibit II.1 following this page contains a schematic of the proposed project showing the sequence of tasks, their interrelationships and deliverable products.

The schedule for project completion is discussed in Section II.B and is summarized in Exhibit II.3 following page II-15. This exhibit also summarizes estimate consulting effort by task.

A. PROJECT WORK PLAN

The Request for Proposal was quite specific regarding the tasks to be carried out. This is reflected in the following pages except that two additional task areas, i.e., project initiation and management and final report preparation have been added.

Project Initiation and Management

The purpose of this activity is to establish key administrative relationships and protocols which will be adhered to throughout the period of the project. While essential to the overall issues of this engagement, these activities should not require a significant amount of effort once work is underway. The activity will consist of basic tasks, all but one of which would be completed upon the initial visit to GMH.

- Prepare Final Work Plan

Before work actually begins, we will meet with the project officer to review the project work plan and make adjustments or refinements as appropriate in order to establish a realistic and mutually acceptable detailed work plan and project schedule.

- Establish Reporting and Coordination Relationships

Because of the diversity of tasks and the number of agencies and organizational entities that will be involved in this project, it is important that the overall effort be managed on a short internal basis minimizing time lags associated with approval cycles and function or jurisdictional decisions. The purpose of this task will be to establish a framework for the overall coordination and administration of the project and to identify key GHPDA staff whose primary responsibility will be to expedite decisions that have a direct bearing on the progress and/or successful completion of the engagement.

- Establish Interorganizational Liaisons

Some of the project activities will or may result in changes or recommendations for changes to systems and/or procedures in agencies and organizations other than GHPDA. The purpose of this task will be to identify and meet with individuals from each such organizational entity who will serve as the liaison with the project. These individuals would be called upon to furnish advice and expertise regarding data collection and use within particular areas. Specifically, we anticipate the need for liaison with at least the following organizations or agencies:

- Division of Nursing, DPHSS;
- Division of Environmental Health, DPHSS;
- Division of Vital Statistics, DPHSS;
- Other divisions of the Department of Public Health as needed;
- Bureau of Planning;
- Environmental Protection Agency;

- Guam Memorial Hospital;
- Medical Center of the Mariannas;
- Seventh Day Adventists Clinic;
- Family Health Program, Inc.;
- Medical Society of Guam;
- Department of Labor.

Other organizations may be identified in the conduct of this task.

- Assemble and Brief Project Team

One of the fundamental requirements of the RFP is familiarization of agency staff with the management and use of data relevant to health planning. A major factor in meeting this objective will be the active involvement of staff in carrying out specific portions of the project. The purpose of this task will be to identify these individuals and to determine how they may be deployed for maximum benefit, both with regard to their own development as well as the completion of the project. Thus, this task will serve as a logical initial phase of the work to be carried out in Project Task Area III.

- Progress Meetings

Because of the relatively short time frame for project completion and the number and variety of tasks to be completed, it will be important to maintain a very close communication with the project officer and key agency staff. We expect to meet with these individuals at the beginning and conclusion of each of the periods of on-site activity to discuss the progress of the project, to resolve problems encountered and to make adjustments to the plan and schedule if needed.

PROJECT TASK AREA I - SYSTEM ASSESSMENT

The primary purpose of this task area will be to develop our understanding of the existing arrangements and "systems" through which GHPDA obtains various data, evaluate them and recommend ways in which they may be improved. Special

attention will be given to the consolidation of overlapping data collection efforts and to the improvement of the availability and appropriateness of the data that is collected with respect to GHPDA needs. These specific areas, as outlined in the RFP, are to be addressed.

TASK I.A Review of the 1976 Guam Inventory of Planning Information (GIPI)

The GIPI was developed and made available by the Guam Bureau of Planning. It is intended as a general base of data, including forecasts in some cases, to be used for various planning purposes on the island. Part of this data are directly or indirectly relevant to the health planning process. The purpose of this task is to determine the suitability of each of those sets of data for use by GHPDA in terms of its accuracy and timeliness.

Through interviews and reviews of documentation, we shall assess methodologies used to develop and update these data sets. The assessment will address three key aspects of these methodologies with respect to the data:

- Reliability;
- Comprehensiveness; and,
- Timeliness.

This work will result in a task report outlining our findings with respect to each data set and our recommendations for dealing with any significant weaknesses identified therein.

TASK I.B Identify Alternatives for Consolidating Data Collection Activities

The focus of this task is multiple use of health planning data sets. The task will consist of an initial

analysis of the degree to which different agencies' and organizations' data needs overlap in terms of data content, accuracy, level of detail and timeliness. The manner in which each user currently obtains the needed data will then be determined.

We will use the results of our analysis of data users and collection activities to identify areas where there is a potential for consolidation. We shall then discuss each such potential with the agencies or organizations involved to determine: 1) whether such a consolidation is really feasible; 2) how it might be achieved and; 3) the nature and extent of potential problems.

Our findings relative to this and the following task (I.C.) will be combined in a single task report, organized by data set.

TASK I.C Develop Approaches for Improving GHPDA Access to Existing Data Sets

This task will be carried out in conjunction with task I.B, whereas the latter is to deal with the collection and maintenance of various data sets needed for currently used by GHPDA. This task will focus on agency access to these data sets. The problems to be addressed will fall into three general areas as follows:

- 1) Technical - Access may be hampered because of the way the data is collected, stored or processed. In such cases access problems are such that the desired data at the desired level of detail is not readily available or is not currently enough to be useful. In such cases procedural or other adjustments may be recommended that will facilitate access provided they do not otherwise interface with the operational requirements or work load of the particular organization.
- 2) Proprietary Data - GHPDA access may be hindered or blocked altogether because the data is collected and maintained by a private organization not inclined to permit free access.

In such cases the "owner" of the data may be willing to provide summary or aggregate data which may be sufficient for GHPDA's needs. Otherwise, estimates or survey data may provide the only solution.

- 3) Confidentiality - Certain data, such as medical records, are generally considered to be confidential, material especially at the detailed (patient) level. In processing and reporting such data, special precautions must be taken to protect confidentiality. Therefore, the primary constraint on access to such data may be the level of detail or specificity that can be achieved. Where such problems exist and currently hinder GHPDA access to specific data, we will ascertain whether improved access should violate confidentiality requirements and recommend alternative courses of action where this is the case.

Exhibit II.2 on the following pages demonstrates the variety of agencies and relative coverage of the data sets outlined in the RFP. This task will involve the completion of an expanded table of this type.

The results of our findings and our recommendations for improving access or for using alternative sources of data where access cannot be improved will be contained in a task report covering both this and task I.B.

PROJECT TASK AREA II - SYSTEM DESIGN AND IMPLEMENTATION

This task area consists of six tasks, all of which deal with systems for collecting and processing data to be used by GHPDA staff. Again, the task is interorganizational and its successful completion will therefore depend in part upon adequate involvement and cooperation by the entities involved especially since all six tasks involve implementation of changes to existing systems or completely new systems either as part of or immediately subsequent to task completion. For this reason, we shall attempt to present a fairly detailed description of our understanding of the work to be completed.

SAMPLE - OVERVIEW OF GUAM HEALTH PLANNING DATA SETS

Name of Data Set	Scope and Content	Maintained By	Medium
1. Ambulatory Care Data			
. Public Health			
- Women Health Service Clinic Report	<u>Scope:</u> All visits to women's clinic. <u>Content:</u> Lists patient names, district, service delivered, by whom	DPHSS, Nursing Division	Unpublished reports
- General Clinic Services Report	<u>Scope:</u> All visits to general clinic. <u>Content:</u> Lists patient name, type of visit, referral source, seen by, age group	DPHSS, Nursing Division	Unpublished reports
- Comprehensive Child Health and Crippled Children Services Clinic Report	<u>Scope:</u> All visits to crippled children clinics. <u>Content:</u> Lists patient, kind of clinic, type of visit, seen by, referral source, age group.	DPHSS Crippled Children Services	Unpublished reports
- Womens Health Services Clinic Report - Quarterly	<u>Scope:</u> All visits to women's clinics. <u>Content:</u> Year to date totals.	DPHSS, Nursing Division	Unpublished reports
- Dental Treatment Report	<u>Scope:</u> All visits to dental clinics. <u>Content:</u> Lists type of visit and procedure performed.		Unpublished reports
- Monthly Immunization Report	<u>Scope:</u> All immunizations given at PHN clinics. <u>Content:</u> Type of immunization given and age group.	DPHSS Communicable Disease Division	Unpublished reports
- Quarterly Immunization Report	<u>Scope:</u> All immunizations given at PHN clinics. <u>Content:</u> Summarizes monthly reports and compares to previous years.	DPHSS Communicable Disease Division	Unpublished reports
. Outpatient Departments			
- Outpatient Department Monthly Report	<u>Scope:</u> All patient visits to GMH Outpatient Department. <u>Content:</u> Lists total patient visits by ambulance services, ER services, admissions, dead on arrivals, HML and FHP patients, new patients, revisit patients.	GMH, Nursing Department	Unpublished reports
- Number of Outpatient visits by service	<u>Scope:</u> All outpatient visits to all GMH services. <u>Content:</u> Report gives daily statistics on the number of outpatient visits for each service of the hospital.	GMH, Medical Records	Unpublished reports
-	<u>Scope:</u> All outpatient department visits at Medical Center of the Marianas. <u>Content:</u>		
. Private Clinics and Physicians offices			
-	<u>Scope:</u> All visits to private physicans offices <u>Content:</u>		
-	<u>Scope:</u> All visits to Family Health Program. <u>Content:</u>		

SAMPLE - OVERVIEW OF GUAM HEALTH PLANNING DATA SETS

Name of Data Set	Scope and Content	Maintained By	Medium
-	<u>Scope:</u> All visits to the 7th Day Adventist Clinic. <u>Content:</u>		
-	<u>Scope:</u> All visits to other organized outpatient clinic practices. <u>Content:</u>		
. Mental Health Center	<u>Scope:</u> All visits to Mental Health Center, GMH. <u>Content:</u>		
2. Vital Statistics			
. Annual Statistical Report	<u>Scope:</u> Covers all vital statistics for Guam for a one year period. <u>Content:</u> From certificates registered at Vital Statistics, DPHSS, data on births deaths, marriages, divorces, and some DPHSS activities.	DPHSS, Vital Statistics	Written report, some information computerized
. Natality and Mortality files	<u>Scope:</u> All deaths and births. <u>Content:</u> Lists persons name, date of birth or death, place, age, prenatal information.	DPHSS, Vital Statistics	cards
. Infant and Fetal Mortality of the indigenous population of Guam, 1965-1967.	<u>Scope:</u> Infant and fetal mortality experience. One time study. <u>Content:</u> Explores mortality differences among significant demographic groups in the indigenous population.	DPHSS, GHPDA.	Published study
3. Inpatient Utilization Data			
-	<u>Scope:</u> Covers all GMH admissions. <u>Content:</u> Medical record abstracts.	GMH	Computer magnetic tape
-	<u>Scope:</u> Covers all MCM admissions <u>Content:</u>		
4. Environmental Health Data			
- Intestinal Parasitism, a survey of the Problems on Guam	<u>Scope:</u> Intestinal parasitism on Guam. One time study. <u>Content:</u> History since 1905 of incidence. Results of 1974 survey which related parasitism to improper sewage disposal.	DPHSS, Environmental Health Division	Published study
5. Socio-Demographic Data			
- Population census	<u>Scope:</u> Total population of Guam <u>Content:</u> Describes pop. totals, by area, age, sex, education level, income, occupation.	U. S. Dept. of Commerce	Published reports
- Current population data	<u>Scope:</u> Population of Guam <u>Content:</u> Population estimates, employment statistics, unemployment rates.	Guam Dept. of Labor	Published reports

The tasks to be carried out will be of two categories, i.e., tasks explicitly described in the RFP and additional tasks defined as a result of our work in task area I. We expect to review and revise our plan for this segment of the project upon completion of task area I; to determine the nature and resource requirements of these latter tasks, if any; and, to make appropriate adjustments.

Some of the tasks outlined in the RFP (notably II.B, C, E and F) are specifically dependent on the completion of other tasks either in this task area or in task area I, whereas others can be carried out more or less independently of other activities. In general, however, the stated purpose of this task per the RFP is to assist GHPDA staff in implementing selected data gathering and reporting systems and procedures as developed in task area I.

In the following paragraphs, we briefly describe our perceptions of the work to be performed in each of the tasks specified as well as two more general tasks which may or may not be needed based on the results of task area I.

TASK II.A Nursing Reports

This task is closely related to task I.b in that it represents the consolidating of data collection activities, albeit within a single organizational unit, i.e., the Division of Nursing. Four separate forms are to be combined into a single data collection instrument to be used in reporting on nursing activity and initialization in the public health centers in various villages throughout the island. The three clinic service reports are for women's clinic services, general clinic services and the child care and crippled children clinic services. These and the Nursing Activity Report are used to record the services rendered and patients seen at the clinics on a daily basis. The purpose of this task is to simplify the clerical load

associated with the handling of four separate forms whose use currently depends on the nature of the individual patient encounter.

This task will consist of four subtasks as follows:

Subtask 1 - Functional Review

We shall review each form in terms of its operational significance and its flow from completion to disposition or storage drawing on the results of task I.B. This will include the identification of reports produced from these data and the specific functions or decision making process in which they are used. This will include an assessment of GHPDA's own data needs.

Subtask 2 - Design, Revision and Approval

Based on the results of subtask 1, we shall draft a combined version of the four forms along with instructions for its completion (including codes as appropriate) and tentative keypunch formats. These materials will be submitted to the individual serving as the project's liaison with the Nursing Division for review. Suggested revision will be incorporated as appropriate and a final draft produced for approval and reproduction.

Subtask 3 - Field Implementation

Once a supply of the new forms has been obtained, we shall work with the appropriate personnel in the nursing division relative to their distribution and use in the clinics.

Subtask 4 - Initiate Processing

Simultaneously with subtask 3, we shall, through appropriate liaison, review the keypunching and processing requirements of the new forms to: 1) assure that the data will be properly encoded and; 2) determine the most appropriate alternative for processing the data for use by GHPDA and other agencies identified needing similar data. One alternative to be considered will be the currently "mothballed" Health Information System (HIS). Our findings and recommendations will be submitted in a task report for this task.

Special Consideration

Because the clinics are a source of primary care on the island, the data set(s) resulting from this task will constitute almost a complete set of Ambulatory Care Data for the PH Clinics on the island. In addition, both data sets are potentially processable by HIS. We therefore anticipate the need for coordination with the following task (II.B).

Task II.B Ambulatory Care Survey

The Basic Ambulatory Care Data Set (BACDS) consists of three parts, each characterizing one aspect of a patient's use of ambulatory care, i.e., the patient, the provider and the nature of the encounter. The National Center for Health Statistics Cooperative Health Statistics System consists of seven components, one of which is characterized by the BACDS collected on a sampling basis in private physicians offices. The purpose of this task is to implement the use of this technique in Guam not only for physicians but for clinics and OPD's as well. While the RFP specifically states that encounter sampling is to be used for this purpose, we would propose first to explore the feasibility of obtaining these data, possible with full coverage, from the records of all providers of ambulatory care on Guam with the likely exception of private physicians' offices which would require sampling.

In addition, we would suggest careful scrutiny of the BACDS specifications for possible revisions to reflect its expanded use for providers other than private practitioners and for specific needs unique to health planning on Guam, e.g. military or civilian status.

In any case, the selection of the most appropriate approach for obtaining the desired data set would itself entail an analysis of costs of collection as well as processing. Our findings and recommendations

will be documented in a task report. Once this step is completed, we shall proceed to design the summary instrument and to define separate sampling methodologies and sample sizes for each class of provider of ambulatory services to be covered by the survey.

TASK II.C Guam Memorial Hospital - Discharge Data

Guam Memorial Hospital is the major provider of inpatient health care services on the island. It has developed a computerized medical records abstracts system. The data base itself is very similar to Uniform Hospital Discharge Data Set, also a component of the Cooperative Health Statistics System. Statistical analysis taken from this data base are necessary to GHPDA's ability to address issues related to health status and inpatient service utilization. The purpose of this task will be to develop and implement the necessary programs and procedures to provide the agency with the necessary access to this data base for the purpose of extracting these analysis in such a way as to: 1) allow some flexibility in selection and tabulation and; 2) ensure adequate safeguards of confidentiality of the medical record.

This task will consist of four subtasks as follows:

1) Establish Ground Rules for Accessing and Processing GMH Abstract Files

Prior to producing specifications or program it will be necessary to meet with appropriate individuals at GMH to obtain authority to access the data base and to determine what conditions are associated with that access, e.g., confidentiality safeguards, set up or processing standards, etc. In addition, arrangements regarding processing costs will be formulated.

2) Develop Report on Program Specification

Although the RFP provides some insight into the specific types of tabulations and reports to be

produced from the GMH data base, final specifications will have to be developed and signed off by GHPDA staff before programming can begin. These will then be used to develop programming specifications.

Based on the RFP, it appears that these tabulations will be fairly straight-forward with the primary area of flexibility being the categories of diagnosis to be tabulated. Our estimates for programming costs are in fact based on this general assumption.

3) Review and Finalize

Before programming begins, a final estimate of developmental and operating costs will be made. If the developmental costs exceed the estimates contained in this proposal, adjustments either to the specifications or to the scope and/or budget for this engagement may be necessary.

4) Program and Test

Programming and testing will take place in Guam, hopefully using portions of 'live' data from GMH files (assessed in cost estimates). The results of this subtask will include:

- Working software
- Program Documentation
- Operating Instructions
- User (for GHPDA staff) Instructions

The materials will be turned over to GHPDA personnel for storage and maintenance as needed.

TASK II.D Sorter Counter Training

The vital statistics data base consists of punched cards which can be tabulated selectively using a general purpose counter-sorter. Other data, now or in the future may also be stored and maintained as card files. The purpose of this task will be to improve GHPDA's access to such data by training selected staff in the use of tabulating equipment. This task will consist

of gathering and distributing selected instructional materials regarding the operation of this equipment; instructional sessions on the equipment and the use of those materials; and (if possible) workshops involving hands on experience with the equipment itself.

TASK II.E Geocoding of Public Health and Ambulatory Care Data

The primary use of geocoding is as a technique for the analysis of patient origin and service areas. The RFP specifically mentions Public Health (clinic) and Ambulatory Data Sets as the focus of this particular task. We believe that it may be appropriate to first address the more general need for patient origin data with respect to the utilization of health care services on Guam as a whole. In doing so, an assessment of the significance and value of geocoding only these two data sets could be made vis a vis a more comprehensive approach - at least extending to Tasks II.B, C, and F.

In this light, the potential impact of this task on other tasks and the project as a whole merits its inclusion in the very early stages of the project. The work plan reflects this.

The results of this task, our findings and recommendations, will be documented in a task report.

TASK II.F Mental Health Center

The purpose of this task is to develop data regarding utilization of the community mental health center on Guam with special emphasis on substance abuse programs. As part of task I.B, we shall examine GHPDA's data needs vis a vis data already being collected (if any) by the centers to determine the most effective way of developing the needed data. It can be inferred from the RFP that there is little or no such reporting

currently in existence. If this is the case, the primary focus of this task will be the collection of data to be tabulated for mental health planning purposes with a minimal amount of operational utility within the center itself. Our work plan and cost estimates have been developed on the assumption that the scope of this task does not extend into the internal record keeping systems of the center for purposes beyond the development of data needed by GHPDA.

PROJECT TASK AREA III - TRAINING AND ASSISTANCE

One of the most significant lasting benefits of this project will be the enhanced understanding and knowledge gained by agency staff working with us in completing various project tasks. This part of the project is fairly unstructured and is intended to provide an explicit vehicle for the interchanges of ideas and knowledge with regard to data management and analysis in the agency. Four specific areas of activity are called for in the RFP as follows:

TASK III.A Staff Coordination

We will identify specific portions of selected tasks to be assigned to GHPDA personnel for completion based on a final determination of staff availability and skill levels. Many of those assignments will consist largely of research and fact finding. Because of the geographical problems associated with this engagement, such assignments are likely to be time-critical to the effective use of the consultants time.

TASK III.B Review of Plan Development

The GHPDA staff has completed its preliminary plan documents. The purpose of this task will be to identify ways in which the plan can be improved with

respect to the data that is presented and used therein. In addition, since task Areas I and II will result in the availability of several new data sets, we expect to spend some time briefing the staff on their potential use for plan development.

TASK III.C General Consultation

We expect to be on-site in Guam for a minimum of one week during each month of the project. Part of this time will be devoted to responding to specific questions from GHPDA staff regarding data management and analysis. Because of the open ended nature of such an activity, we have allocated a fixed amount of our time to this task to be used as needed.

TASK III.D GHPDA Library

We have been requested to suggest acquisitions for the GHPDA Library that will serve as training and reference materials with regard to data analysis and use. In addition to generally available texts and source books on these matters, we will provide a list of publications, reports and similar materials which have been developed by other health planning agencies which can serve as excellent models for developing, using, and presenting data relating to specific issues or agency functions.

PROJECT TASK AREA IV - FINAL REPORT PREPARATION

With a few exceptions, the completion of each task in this project will result in the production of a brief report summarizing the results of the task, the problems encountered in its conduct and recommendations for follow-up or further action as appropriate. The work performed in this task area will consist of reviewing these reports and consolidating them into a single, final document which brings

together the salient aspects of the accomplishments and difficulties encountered in the project as a whole. A draft of this document will be presented for discussion on our last on-site visit to Guam prior to project completion.

B. PROJECT SCHEDULE

We believe that the six month period specified in the RFP will be adequate for the completion of this project. However, many of the tasks in the proposed project involve coordination, completion of work, approvals and other specific actions by entities other than the consultant. It is therefore possible that certain tasks and hence the project as a whole may require different elapsed times than originally planned. While we are proposing to complete the project in six months, we recognize that this possibility exists. As we become aware of such potential delays or changes to the original plan we will work with the project officer to rectify problems where possible. Where such adjustments may increase the overall project costs and schedules, we shall request written authorization before proceeding. Exhibit II.3 following this page summarizes the proposed schedule of tasks including the estimated consulting effort and a preliminary schedule of when we would expect various consultants to be in Guam on the basis of a six month schedule.

Because of dependencies on other tasks and our own estimate of the magnitude of effort involved, the completion of Task II.C (Programming of the Discharge Data Retrieval System) is scheduled in the second to third month of the project. Further, a final estimate of both the schedule and the costs associated with this task will be developed after detailed specifications are completed.

The project is expected to require 155 person-days of consulting effort and an additional 33 person-days of GHPDA staff time in the completion of certain tasks. We recognize

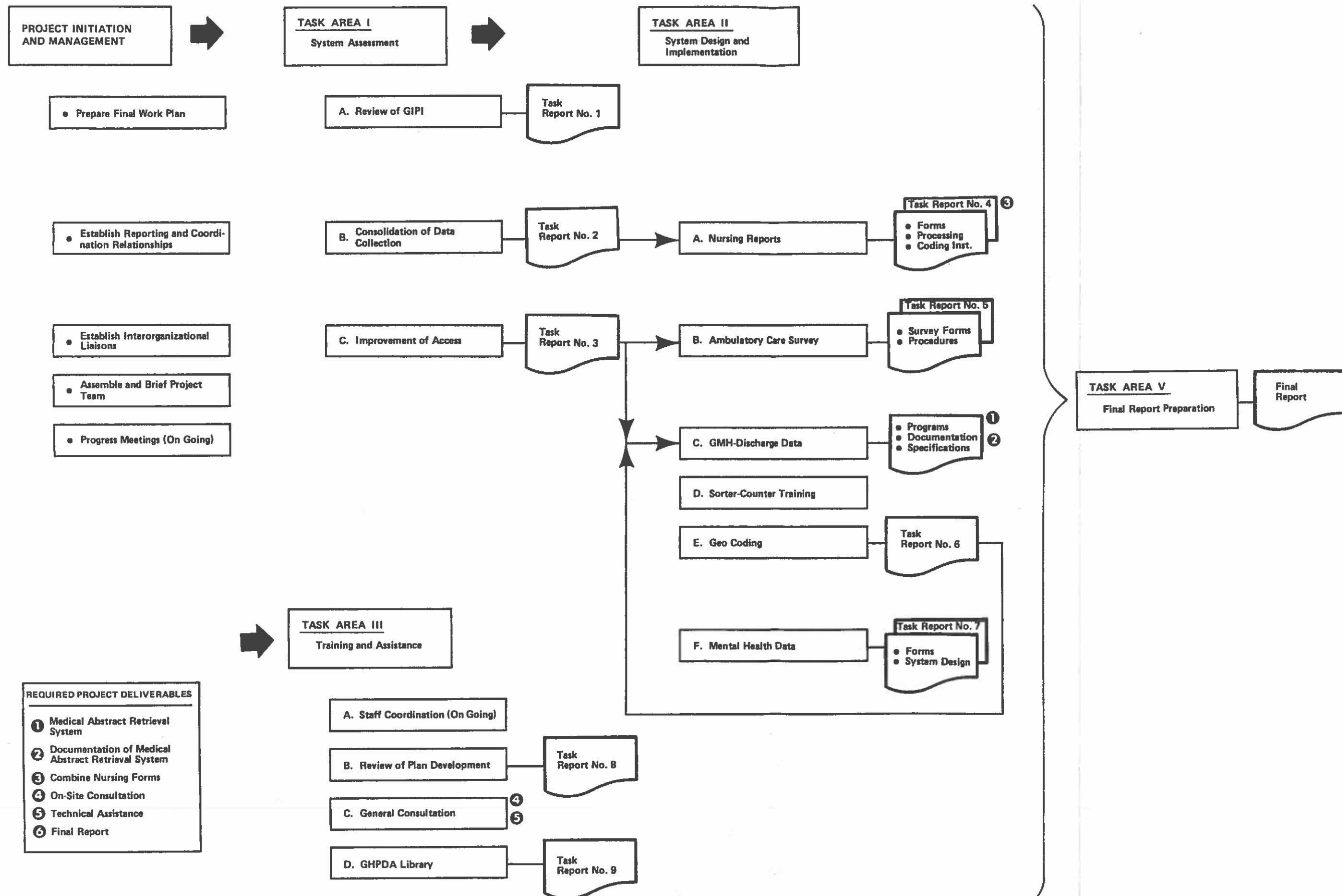
**GUAM HEALTH PLANNING DATA PROJECT
PROJECT SCHEDULE**

Task Area/Task	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Estimated Person Days	
							Consultant	GHPDA Staff
PROJECT INITIATION AND MANAGEMENT							16	Unknown
TASK AREA I - SYSTEM ASSESSMENT								
A. Review GIPI							5	3
B. Examine Alternatives for Consolidating Data Collection Activities							8	8
C. Identify Alternatives for Improving Access to Data							12	4
TASK AREA II - SYSTEM DESIGN AND IMPLEMENTATION								
A. Nursing Reports							11	5
B. Ambulatory Care Survey							18	3
C. GMH-Discharge Data (1)							15	3
D. Sorter-Counter Training							5	Unknown
E. Geo Coding							4	1
F. Mental Health Data							9	4
TASK AREA III - TRAINING AND ASSISTANCE								
A. Staff Coordination							10	-
B. Review of Plan Development							5	-
C. General Consultation							24	Unknown
D. GHPDA Library							3	-
TASK IV - FINAL REPORT							10	2
CONSULTANT ON SITE								
TOTAL							155	33

(1) Includes Subcontract Effort.

that adjustments will be required due to constraints on staff availability.

**GUAM HEALTH PLANNING DATA PROJECT
WORK PLAN SCHEMATIC**



III. PROJECT ORGANIZATION AND STAFFING

III. PROJECT ORGANIZATION AND STAFFING

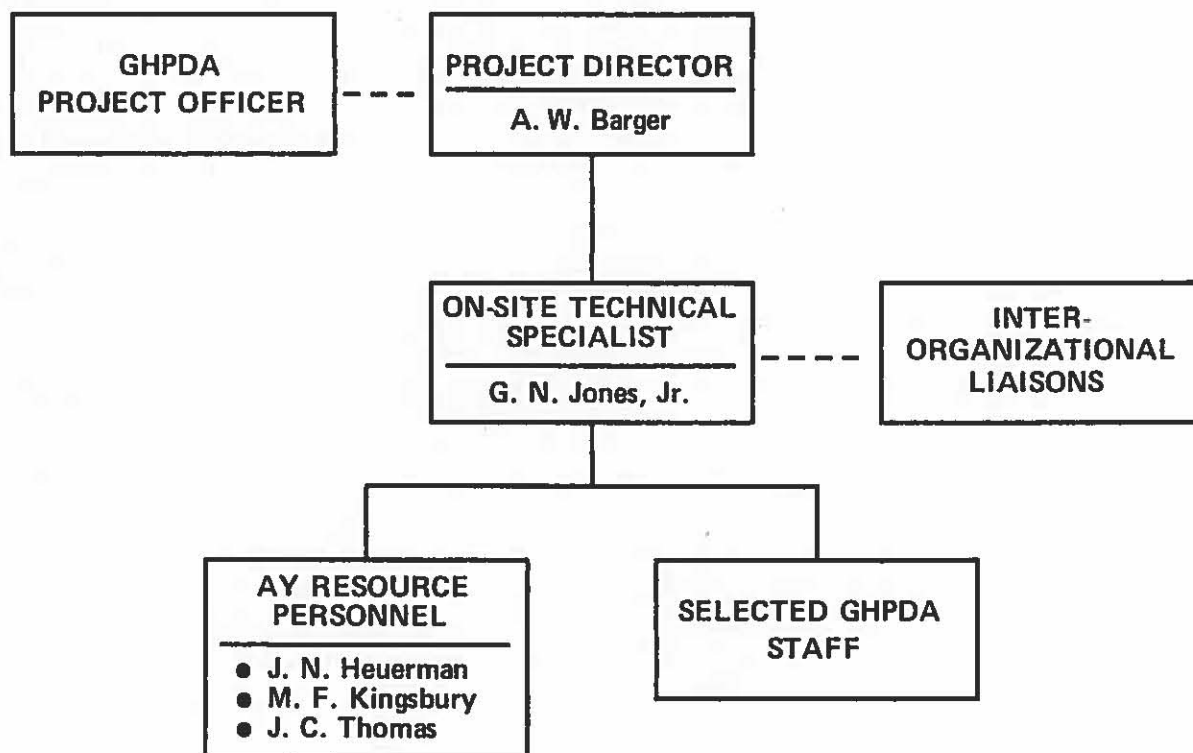
After a careful review of the requirements of this project, we have selected individuals from three of our West Coast offices to participate in this project. Their combined experience and education cover three areas of knowledge which are essential to this project, i.e., the health planning process, health care data management and analysis, and system analysis and design. In addition, collectively they embody a broad base of specific knowledge about the environment and unique characteristics of Guam itself.

Exhibit III.1 on the following page shows the proposed organization for the project. It will be noted that we have included and expect to require the services of selected GHPDA staff. These individuals would be assigned to the project and work under our direction on specific tasks. In the following paragraphs we shall introduce the individuals from Arthur Young & Company who will work on the project and describe their roles therein. A detailed statement of professional experience and qualifications of each of these individuals is contained in the remainder of this section.

Aaron W. Barger - Project Director

Mr. Barger has managed and conducted two engagements on Guam in the area of emergency medical services. He is familiar with the health care delivery system and data constraints on the island. His background in plan development and technical assistance to health planning agencies is extensive. As Project Director of this engagement he will be responsible for the conduct of the engagement.

**GUAM HEALTH PLANNING DATA
PROJECT ORGANIZATION AND STAFFING CHART**



Grover N. Jones, Jr. - On-site Technical Specialist

Mr. Jones has had a great deal of experience in the design and implementation of health information systems in both planning and provider areas. He has served in both management and technical specialist capacities on numerous engagements involving the evaluation, design and implementation of both manual and computer-based information systems. Most recently he has been heavily involved in developing recommendations for the collection and use of economic and financial data for health planning purposes at both HSA and SHPDA levels. He has an in-depth knowledge of existing efforts to develop health planning data sets nationally, the most notable of which is the Cooperative Health Statistics System which has many close parallels to much of the proposed work.

Mr. Jones will serve as the primary on-site specialist in this project drawing upon resource personnel as needed.

Michael Kingsbury - Technical Resource

Mr. Kingsbury has substantial experience in the development and implementation of financial and management information systems. He also brings to the project substantial prior experience in Guam and familiarity with the EDP capabilities on the island. Mr. Kingsbury's primary involvement in the project will be the evaluation of HIS, development of data set specifications in several tasks and the coordination of the development of programs to access the GMH medical abstracts.

James Heuerman - Technical Resource

Mr. Heuerman has extensive experience in managing and conducting health planning technical assistance engagements for the Bureau of Health Planning in Maryland, as well as in DHEW Region IX, including Hawaii, American Samoa, Guam, and the Trust Territory. His role on the project team is to serve as a technical resource in the area of data needs to carry out agency plan development and implementation.

John Thomas - Technical Resource

Mr. Thomas recently completed an engagement in Guam regarding the provision of emergency medical services on the island. In his work involved assessing the data needs of all providers of emergency medical services and assessing an EMT training course. He is knowledgeable concerning the providers and organizations who keep health care data, the type, format of the data, and its accessibility to planners.

AARON W. BARGER - PROJECT DIRECTOR

EDUCATION

1969

California State University, San Diego
B.A. Political Science
M.S. Public Administration

EXPERIENCE

Mr. Barger is a Manager in our Sacramento Office and works with the Northern California Health Care Group. His consulting experience includes managing health care engagements which have involved assessing and planning primary health care programs, hospital services, and specialty services. His experience with the Firm includes:

- Government of Guam, Office of Comprehensive Health Planning - Conducted an analysis of emergency medical services on Guam. Based upon our findings drafted an initial EMS Plan for Guam. The engagement involved local residents and providers, and was funded by Public Law 93-154, Section 1202.
- Government of Guam, Guam Health Planning and Development Agency - Managed an engagement to supplement the Guam EMS plan. Additions included a recommendation for an EMS management and organizational plan, the assessment of existing data and data needs relative to the 15 EMS system components, and an analysis of the current EMS legislation in Guam.
- HEW Regions VIII and IX - Providing technical assistance to Comprehensive Health Planning (CHP) "a" and "b" Agencies. Projects include:
 - Channel County CHP - Evaluated a demand/supply projection model to determine validity of application.
 - Nor-Coa Health - Presented an evaluation methodology to the agency's staff. Provided technical assistance in the utilization and implementation of the method.
 - Region VIII, IX, and X - Developed a generic document which describes the Firm's proposed approach to plan development. The methods described will be utilized in future technical assistance provided under an existing contract with HEW.
 - Montana State CHP "b" Agency - Provided technical assistance in the development of their state planning document for 1975.

- Superior Northern California Comprehensive Health Planning Agency - Providing technical assistance to the agency in developing their first primary health care plan. This project required assisting the staff in setting their plan's missions and goals as well as the planning approach and work schedule.
 - Hawaii State CHP "a" Agency - Provided technical assistance in the development of their State planning document for 1975.
 - Region IX - Project Manager providing technical assistance to HSA's and Resource Center during the transition, development and implementation of various management, planning, and staff activities.
- Santa Clara County Bureau of Alcoholism Services - Project Manager of an evaluation of their Deukmejian 72-Hour Detoxification Facility and its impact on the rehabilitation of inebriates.
 - Los Angeles County Department of Health Services - Project Manager of an evaluation of a 1204 funded MICU paramedic program for the County Board of Supervisors. This analysis was conducted to determine the paramedic resources, capabilities, and performance during the first year of funding.
 - Sacramento County, Emergency Medical Service Program - Providing technical assistance in the implementation of their 1203 funded EMS project through the evaluation of the system. The evaluation consists of monitoring the project's progress and recommending changes where necessary.
 - Nevada State Alcohol and Drug Abuse Division - Evaluated existing drug abuse licensing practice, and developed recommendations on changes and/or additions to their licensing and certification program.
 - State of California, Department of Health - Conducted an analysis of the mobile intensive care paramedic program for the Emergency Medical Service Section. This analysis was conducted to determine the program's accomplishments and defects.
 - Sacramento County, Community Health Department - The objective of this project was to produce an Emergency Medical Service Plan which meets the emergency service planning needs of Western Sierra and Sacramento Valley. To achieve this objective, he provided technical assistance in the development of the format and content of the Plan, and the review, writing, and editing necessary for specific sections of the Plan.

- State of Wyoming, Mental Health and Mental Retardation Services - Reviewed existing licensing and certification practices in Wyoming. Developed a report which was used by the staff and Advisory Board in determining criteria, standards, and regulations applicable to the licensing and certification of drug abuse clinical personnel.
- State of Idaho, Alcohol and Drug Abuse Division - Developed a work plan and method for establishing criteria and standards for certifying counselors. Also drafted a report for the Division concerning the organization and implementation of a management system for certifying personnel.

MISCELLANEOUS

Prior to joining Arthur Young & Company, Mr. Barger was Director of a Health Care Demonstration Project at the University of California, Davis, School of Medicine. His primary responsibility was for the development of several models of rural health care delivery in Northern and Central California. He also was responsible for developing interdisciplinary programs in health economics, finance, and other applied health fields within the University's teaching and clinical programs.

GROVER N. JONES, JR. - ON-SITE TECHNICAL SPECIALIST

EDUCATION

1967

Purdue University, Lafayette, Indiana
B.S. in Electrical Engineering

EXPERIENCE

Mr. Jones is a Manager in our San Francisco Office. He has over twelve years' experience in the field of medical and financial information systems. His background includes the management, design, implementation, and evaluation of business, and scientific computer applications. In addition, Mr. Jones has considerable depth in the area of health care provider financing, particularly in the areas of billing and reimbursement. A representative selection of his consulting experience includes the following:

- Currently involved in a project to assist the National Center for Health Statistics in determining the feasibility of developing cost/price data component within the Cooperative Health Statistics System.
- Managed a project to develop and demonstrate a methodology for the economic description and analysis of area-wide health care delivery systems. The key element in this project was the development of the Health System Economic Profile (HSEP). The HSEP is a set of seven statistical and financial profiles designed to provide health planning agencies with an integrated picture of the operation and delivery of services by an area's providers to a predefined population.
- Provided technical assistance to the State of Arizona Department of Health Services in formulating an approach for the development of the Hospital Care Component of the Cooperative Health Statistics System in Arizona.
- Developed training materials used by the Western Center for Health Planning dealing with the development and use of health planning data.
- Consulted with the Maine Medical Center, Portland, Maine regarding the purchase and implementation of a comprehensive hospital information system for this major teaching hospital.
- Managed the design and implementation of clinical and financial information systems in several large institutions including a university medical center and a one-thousand bed hospital in the mid-west.

- Responsible for the review, analysis, and modification of patient accounting and financial systems at several California County Hospitals. This work encompassed the organizational, procedural, and data processing aspects of these functions.
- Developed a computer time-sharing package for assisting hospitals in the preparation of Medicare Cost Reports and in reimbursement maximization for general use by clients of Arthur Young & Company.
- Developed a time-sharing computer-based hospital flexible budgeting and reporting system "FLEX" for general use by clients of Arthur Young & Company.
- Consulted with the College of American Pathologists in Chicago concerning design and implementation of a national comprehensive laboratory survey proficiency testing program.

MISCELLANEOUS

Professional Affiliations

Mr. Jones is a holder of the Certificate in Data Processing. Among his professional memberships are the following:

- Hospital Management Systems Society
- Institute of Electronic and Electrical Engineering Computer Group
- Association for Computing Machinery
- Data Processing Managers Association
- Electronic Computing Hospital Oriented (ECHO)

Publications

Mr. Jones has written an article entitled "Application of Bivariate Analysis to Clinical Laboratory Quality Reporting and Control" that was published in the BULLETIN OF THE COLLEGE OF AMERICAN PATHOLOGISTS.

Teaching Experience

Mr. Jones has taught courses in numerical analysis and digital and analog computer programming at Universities in New York and in the Mid-West.

JAMES N. HEUERMAN - TECHNICAL RESOURCE

EDUCATION

- | | |
|------|--|
| 1971 | University of Minnesota
Master of Hospital and Health Care
Administration |
| 1965 | University of Minnesota
Bachelor of Arts Degree
Major, Business Administration |

EXPERIENCE

Mr. Heuerman is the Principal responsible for our Northern California Health Care Group located in San Francisco. A representative selection of the recent engagements in which he has participated and managed are reviewed below:

- Is currently directing the development and implementation of a long-range planning process for John Muir Hospital in Walnut Creek, California.
- Responsible for technical supervision and direct management of health planning technical assistance projects in Region IX, A partial summary of the work includes:
 - State of Hawaii - Developed a framework for a state plan, outlining the plan, and assisting state personnel in preparing the first state plan.
 - Phoenix CHP - Worked with the Agency over a two-year period in the areas of: work plan development, internal organization planning, health plan development, data collection, public accountability and bylaws.
 - Health Planning Branch, Region IX - Provided assistance in the development of application materials and evaluation of applications for funding under PL 93-641.
 - American Samoa, Guam and Trust Territory - Directed 18 person-months of technical assistance to the developing State Planning Agencies under PL 93-641.

- Under a contract with the American Public Health Association has provided training and technical assistance in Comprehensive Health Plan Development to State and local health planning agencies in California, Arizona, Hawaii, Montana, Guam, and the Trust Territory of the Pacific.
- Worked with the Comprehensive Health Planning Council of San Mateo on a project to develop a comprehensive health services plan. The process involved the organization of a consortium of the county's fifteen major providers of health services. This project involved the establishment of a comprehensive statement of needs to provide directives for future action by all providers.
- Project Manager and principal investigator on a project to develop a comprehensive health plan for Josephine and Jackson Counties in Oregon. This project resulted in specific recommendations regarding future bed needs and hospital operations.
- Worked on design and implementation of a computerized financial model for Children's Hospital of San Francisco.
- Has directed engagements to provide EMS Plans in Guam and the Trust Territory of the Pacific.
- Over the past year has worked with Sequoia Hospital District, Children's Hospital at Stanford, and Children's Hospital of Oakland in the development and implementation of both operational and long-range planning programs. The work has included the development of the planning process, conduct of management retreats, and ongoing process management consultation.
- Is currently directing the work on several DHEW contracts within Region IX. These contracts relate to the development of an MBO (Management By Objectives) process for state and local planning agencies authorized under PL 93-641, the Medicare/Medi-Cal validation process program monitoring, and, the development of an Emergency Medical Services Plan for the Trust Territory of the Pacific.

- On January 31, 1977 completed the management of a three year contract with the Bureau of Health Planning and Resource Development of DHEW. This engagement required the provisions of approximately 10 man-years of effort within DHEW Regions VIII, IX, and X. This effort was directed toward the implementation of federal health planning legislation PL 93-641. Mr. Heuerman directed the administration of the engagement and was personally responsible for all work of a generic nature, assistance in Region IX and the Pacific Basin. Significant products produced during the engagement included:

- On-site assistance to more than 20 health planning agencies
- Conducting approximately 10 educational services
- Development of generic documents related to
 - . Analysis of PL 93-641
 - . HSA Compensation
 - . HSA Personnel Policies
 - . Records Management
 - . HSA Accounting Systems
 - . Plan Development Framework

Prior to joining Arthur Young & Company, Mr. Heuerman was an assistant administrator at Evanston Hospital, Evanston, Illinois. Evanston Hospital is a 522-bed teaching institution affiliated with the Northwestern McGraw Medical Center. He was also an administrative resident at the Blue Cross Association in Chicago, Illinois.

Prior to entering graduate school Mr. Heuerman worked as an administrative assistant to Fairview Southdale Hospital, Minneapolis, Minnesota.

From 1965-1969 Mr. Heuerman worked as a medical marketing representative for the Data Processing Division of the IBM Corporation.

MISCELLANEOUS

Mr. Heuerman is a nominee of the American College of Hospital Administrators and is an active member of the American Association of Comprehensive Health Planning. For the past several years he has been active in the Contra Costa County Comprehensive Health Planning Council and is currently a member of the County Subarea Advisory Council to East Bay Health Systems Agency. Presently serves on the Health Subcommittee of the State of California Chamber of Commerce Committee on Insurance and Employee Benefits.

MICHAEL F. KINGSBURY - TECHNICAL RESOURCE

EDUCATION

1968	Graduate School of Business Administration University of California, Berkeley M.B.A. in Accounting
1966	School of Business Administration University of California, Berkeley B.S. in Accounting

EXPERIENCE

Mr. Kingsbury is a Principal in our San Diego Office and has extensive experience in public agency projects. His consulting experience includes financial planning, budgeting and accounting, management reporting systems, and management/operational audits. He also has experience in the planning, design and implementation of computer systems in a variety of functional areas.

Representative engagements related to this project include:

- Project Manager on an operational audit of the contracting procurement procedures and practices of the Government of Guam. This work included a review of the major capital expenditures contracts, fund authorizations for those contracts and compliance with funding and legal restrictions on the use of the funds. He developed recommendations for new policies to improve control of funds and to promote training of purchasing personnel.
- Managed a project to assist in the phase-out of an internal data processing department and the transfer of computer processing to a service bureau for a multidivisional corporation based in Guam.
- Managed the design and installation of a sophisticated accounts receivable and credit management control and credit rating system for a multidivisional corporation based in Guam.
- Project Manager on an engagement at the California Department of Public Health for design and implementation of a Program Accounting and Management Information System which performs all fund accounting for the Department. This engagement involved the design of the most advanced financial information system in any California State government agency. He assisted in implementing this system, including training of agency personnel in system operation and establishment of an on-going training program for new personnel.

- Project Manager on engagements to develop county-wide cost allocation plans for the Counties of Stanislaus, Contra Costa, Marin, and Sonoma. In each case, the cost plan was developed in conjunction with the county to fulfill the requirements of the Bureau of the Budget Circular A-87 which provides for the claiming of the indirect costs against Federally aided projects. For each county, he also developed an on-going cost allocation system that provided for recharging of accumulated costs from the general fund to project, capital outlay, and enterprise funds.
- Managed the selection and implementation of a service bureau hospital general ledger system to satisfy the requirements of the California Hospital Commission for a major Northern California county hospital. This included both the hospital's management data requirements and the necessary county interfaces.
- Project Consultant on an engagement with the City of San Jose to develop a five-year Data Processing Master Plan. He assisted the Departments of Public Works, Planning and Finance, and Personnel to analyze their data processing requirements and the impact of the potential applications on their organization, staff, and level of service to the public. The project team approach used included training of over two hundred city personnel in data gathering, systems review, and analysis.
- Participated in the preparation of the five-year data processing master plan for a major California city. This plan included a priority list of needed systems, computer hardware requirements, and cost estimates for implementation.

MISCELLANEOUS

Professional Affiliations

Mr. Kingsbury is a Certified Public Accountant in the State of California and is a member of the following organizations:

- Municipal Finance Officer Association
- International City Managers Association
- California State Municipal Finance Office Administration
- American Institute of Certified Public Accountants
- California Institute of Certified Public Accountants
- Hospital Financial Management Association

Teaching Activities

Mr. Kingsbury served as an instructor in accounting and computer programming while a graduate student at the University of California.

JOHN C. THOMAS

EDUCATION

1975	Ohio State University M.B.A. in Finance
1972	Ohio State University B.S. in Business Administration

EXPERIENCE

Mr. Thomas is a Consultant in our Sacramento Office. He has experience with governmental agencies at the Federal, State, and local levels. His recent consulting experience includes:

- Government of Guam - Consultant on a project to update the Guam Emergency Medical Services Plan. Activities included assessing existing data and data needs relative to the 15 EMS system components, both civilian and military; and an evaluation of the emergency medical technician (EMT) training program on the Island.
- California Judicial Council - Consultant on a project for the Judicial Council to determine the fiscal impact of State-provided interpreter services for non-English speaking residents. The project also includes the provision of technical assistance during the implementation of a pilot interpreter program.
- U.S. Department of Health, Education and Welfare - Consultant on the Health Systems Economic Profile project to determine the effects of capital expenditures on the delivery of local health care services. Activities included extensive data collection for the site test in the Golden Empire Health Systems Agency.

Mr. Thomas' experience prior to joining our Firm includes the following:

- Department of Administrative Services, State of Ohio - Finance Officer responsible for budget allocation planning, establishing accounting system procedures, auditing participant agency expenditures, determining cost effectiveness, performing statistical research and maintaining follow-up reporting.

- Department of Finance, State of Ohio - Budget/Management Analyst responsible for preparation of biennium budgets, conducting management improvement studies in the divisions of Printing and Purchasing, developing a system of inter-agency fund transfers and assisting in the consolidation of several agencies.
- U.S. Small Business Administration - Loan Officer responsible for determining applicant repayment ability, examining credit worthiness, establishing repayment terms, assigning collateral and verifying eligibility. Additional duties included management counseling to small businesses, conducting statistical research for the Director of Management Assistance and coordinating the Small Business Institute Program with colleges and universities in Ohio.

IV. ARTHUR YOUNG & COMPANY
RELATED EXPERIENCE

IV. ARTHUR YOUNG & COMPANY RELATED EXPERIENCE

The following engagements are representative of work done by Arthur Young & Company that directly relate to the engagement being proposed. They will be presented in three categories of related experience: health planning data, health planning/plan development, and previous health care engagements on Guam.

A. HEALTH PLANNING DATA

- Development of the Health Systems Economic Profile (HSEP)

Our work involved a review and selection of available techniques for conducting economic analysis and description of area wide health care systems; the adaptation of those techniques for use by HSAs; and on-site testing of the methodology in the Golden Empire Health Services Area centered in Sacramento, California. The major emphasis of this project was the development of a uniform financial and economic data sets and a reporting system that can be practically implemented by HSAs for use in the project review function as well as for general evaluative and planning use.

The project has resulted in the definition of a Health System Economic Profile (HSEP) and a set of comparison methodologies for its preparation and use by the HSA. We developed two documents, one describing the HSEP and its conceptual foundations, and the other providing instructions on its preparation and use. This engagement was under a contract with DHEW, Region IX, Division of Financing and Health Economics and the Division of Resource Development.

- Study of the Feasibility of Collecting Data in the Cooperative Health Statistics Systems (CHSS) on Medical Prices and Costs

Currently in progress, this study looks at the feasibility of adding a financial component to the Cooperative Health Statistics System, either as an eighth component or as a part of one of the existing components. A minimum data set for the

financial component is being prepared. This engagement is sponsored by the National Center for Health Statistics.

- Development of Training Materials on Health Planning Data

We developed training materials for HSA and SHPDA staffs and volunteers on health planning data uses and sources. This work was done for the Western Center for Health Planning in San Francisco.

B. HEALTH PLANNING/PLAN DEVELOPMENT

- Technical Assistance to Planning Agencies in DHEW Regions VIII, IX and X

In Region IX our work has involved extensive on-site assistance to state and local agencies throughout the region, including American Samoa, Guam, the Trust Territory and Hawaii. Activities have emphasized the development of comprehensive annual work programs as well as project work programs. A great deal of our work was based upon the original comprehensive health planning assessment results which served as an evaluation mechanism for 314 a and b agencies. After the passage of P.L. 93-641, Arthur Young & Company consultants provided assistance to regional staff in analyzing P.L. 93-641; aided in developing designation application instructions, specifically the work program format; and assisted in evaluating designated applications.

Under this contract we have also developed a number of generic documents for the BHPRD in Rockville, Maryland related to:

- HSA Compensation;
- HSA Personnel Policies;
- Records Management;
- HSA Accounting Systems;
- Plan Development Framework;
- Agency Work Programs;
- HSA Performance Standards.

- Guidelines to Project Review

Developed under a contract with DHEW, Bureau of Health Planning and Resource Development, this document was designed to assist the HSAs SHPDAs and SHCCs in the review process. It describes the responsibilities of HSAs, SHPDAs and SHCCs, discusses the intentions of P.L. 93-641 and its practical applicability to review policies, procedures, and criteria, and to the conduct of reviews by agency staff and volunteers.

- Analysis of Public Law 93-641 and Recommendations for Organizing and Staffing the State and Local Health Planning and Resource Development Agencies

We prepared this document under a contract for DHEW to aid in the orientation and education of consumers, providers, and agency staff in regard to P.L. 93-641. In addition, we made recommendations concerning the organizational structure and staffing of the HSA's and SHPDA's.

- Specific Technical Assistance in the Area of Plan Development

Through the work with several SHPs, HSAs, and SHPDAs we have developed a health planning framework which has been used in several states and agencies to develop the HSP and AIP. Consisting of detailed, individual plans for each service, the framework responds to the need for criteria and standards in the review process by establishing and documenting them during the development of plans.

- Health Systems Agency and State Health Planning and Development Agency Work Program Development

The project phases involved the development of an agency work program process, methodology, and format; the testing of that process in three agencies; and the conduct of two seminars for planning agencies throughout the region. The work program process represents a generic approach to organizational goal setting, objective development, resource allocation, scheduling, monitoring, and feedback.

C. PREVIOUS HEALTH CARE ENGAGEMENTS IN GUAM

- Development of Emergency Medical Services Plan For Guam

During Phase I of this engagement under the former Comprehensive Health Planning Agency, an analysis of Guam's emergency medical services was conducted and an initial draft of the Guam Emergency Medical Services Plan was developed. A supplemental engagement in 1977 produced the following additions to the EMS Plan: recommendations for an EMS management and organizational plan, the identification of data and data sources relative to the 15 components, and an analysis of current EMS legislation in Guam.

- Technical Assistance to the Guam Health Planning and Development Agency

Under the technical assistance contract with the Bureau of Health Planning, six months of on-site technical assistance was conducted with the new GHPDA and staff. Areas of emphasis were in Agency management and operations and plan development. Data collection and analysis were carried out for a demographic analysis and a description of the population's health status. Cooperation was sought and achieved with Guam Memorial Hospital, the Department of Health and Social Services and other Government of Guam agencies.

V. ESTIMATE OF PROJECT COSTS

V. ESTIMATE OF PROJECT COSTS

In this section we describe Arthur Young & Company's estimate of the costs of the proposed project. Our estimates are based on our understanding of the work to be carried out as described in Section II of this proposal. We estimate that the costs to complete this project will be \$77,950. The remainder of this section provides a detailed description of the components of this estimate.

Our consulting fees have been computed in the conventional manner for all fixed price and CPFF contracts. This computation is based on a direct hour labor cost computed by dividing the total annual remuneration of each employee by 2,080 hours and adding fringe benefits at a rate of 17.5%. Overhead is added to this cost at a rate of 105% which is based on analysis of actual overhead during the past year. The final step in the computation of the consulting rate is the application of a fee or profit rate in the 7% to 12% range, depending on the scope of work and potential risk associated with the effort. We have selected a rate of 8% for this engagement.

It is the policy of Arthur Young & Company to reimburse staff for actual costs incurred for meals and lodging. We have estimated our expenses based on our experience and estimated Federal per diem rates.

We expect to retain the services of a local data processing service (Institute Data) for the programming to be completed in Task II.C. We estimate that this will require approximately one person-month of effort at a rate of \$31.25 per hour. We have assumed that all costs for computer processing, storage, keypunching, and material will be born by the GHPDA.

Consulting Fees

Estimated hours of professional time
at an average fee of \$47/hr
1,240 hours @ \$47 =

\$58,280

Expenses

Airfare - 10 round trips
West Coast U.S. to Guam

10 trips @ \$800/trip = 8,000

Per Diem - 53 days on-site work

53 days @ \$50/day = 2,650

Ground transportation -
Guam car rental

53 days @ \$15/day = 795

Other expenses - related to
communications, clerical, repro-
duction, and graphics

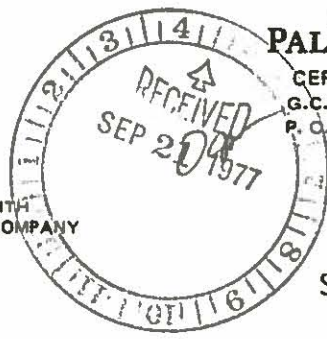
3,225

Contract Programming

5,000

ESTIMATE OF TOTAL PROJECT COSTS \$77,950

DATA CONSULTANT



PALMER, SMITH & HESTON

CERTIFIED PUBLIC ACCOUNTANTS
G.C.I.C. BUILDING, 9th FLOOR SUITE
P. O. BOX 2996, AGANA, GUAM 96910
477-9041, 477-9042
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AFFILIATED WITH
ARTHUR YOUNG & COMPANY

AFFILIATE OFFICE
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SAIPAN PROFESSIONAL CENTER
P. O. BOX 308, SAIPAN, MARIANA ISLANDS 96950
TEL: 6264

September 15, 1977

Mr. Ernesto A. Cid
Acting Director
Department of Public Health
and Social Service
Government of Guam
Agana, Guam 96910

Dear Mr. Cid:

Transmitted herewith are five (5) bound copies of "A PROPOSAL TO ASSIST IN IMPROVING THE AVAILABILITY AND USE OF HEALTH PLANNING DATA ON GUAM" dated September 15, 1977 which we are delivering for Arthur Young and Company.

Please acknowledge receipt of these proposals by signing and returning to our office the attached copy of this letter.

Very truly yours,

G. Lee Palmer

GLP:pah
Enclosures