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# *A REPORT ON THE INTERIM EVALUATION OF THE CHILD SURVIVAL SUPPORT PROJECT IN PAPUA NEW GUINEA*

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G. This appendix was prepared and provided by JSI. Note: These scopes of work were not prepared by the evaluation team, and are only provided here as a reference.

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The following consists of DOH, CSSP and JSI Technical Documentation to which reference has been made by the evaluation team in the text of the evaluation report. This documentation is bulky and costly to reproduce for multiple file copies. The evaluators suggested that it seemed appropriate to refer readers to the voluminous material by indicating source locations at which it is available. RDO/SP received and acknowledged this suggestion.


1. Alpers, Michael, Carol Jenkins and Jane Thomason. "Child Survival Support Project Research Agenda Planning Group: Final Report." April 1992.

   (Locations: CSSP office, PNG; Institute of Medical Research, Goroka, PNG; RDO/SP, Suva, Fiji.)

2. Beracochea, Elvira, Ramona Dickson, Paul Freeman and Jane Thomason. "A Study of Health Worker Case Management in Rural Health Services in Papua New Guinea." Submitted to Child Survival Support Project, USAID Project 492-0017-C-00-0073-00, c. June 1992.

   (Locations: Department of Community Medicine, UPNG; CSSP office, Port Moresby; RDO/SP offices in Fiji and in PNG.)

3. Government of Papua New Guinea, Department of Health. "National Health Plan: 1990-1995."

   (Locations: DOH office, PNG; CSSP office; and both RDO/SP offices in PNG and Fiji.)

4. Government of Papua New Guinea, Department of Health. Documentation file of the minutes of committee meetings held in 1992 by the DOH's CSSP Implementation Committee. Examined at DOH headquarters in Port Moresby on April 8, 1993.

   (Location: Minutes of these meetings are on file with the First Assistant Secretary of Health for Primary Health Care, DOH Headquarters, Port Moresby, PNG.)

5. John Snow, Inc. (JSI). "Papua New Guinea Child Survival Support Project. Technical Proposal: RFP No. 89-012." January 16, 1990.

   (Locations: JSI offices in Boston, MA, and Port Moresby, PNG; RDO/SP offices in Suva, Fiji and in PNG.)

6. JSI. "CSSP Research Agenda: A Proposal." PNG, December 1990.

   (Locations: CSSP office in PNG; RDO/SP in Suva.)

7. JSI. "Child Survival Support Project." Reports prepared by John Snow, Inc., under AID contract No. 492-0017-C-00-0073-00:

   Reports examined covering the periods:
   - September 1990 through March 1991
   - April 1991 through September 1991
   - October 1991 through March 1992

(Locations: CSSP offices, PNG; RDO/SP offices, PNG and Fiji; JSI office, Boston, MA.)

8. JSI. "A Briefing Book Prepared for the Team Evaluating CSSP Phase I." March 17, 1993.

   (Locations: CSSP office, PNG; RDO/SP offices, PNG and Fiji; The Futures Group, Washington, DC.)

9. JSI. A file of CSSP communications (letters, facsimiles) covering the period: January 1991 through April 1993 concerning developments in the selection, training and final posting of a course coordinator for the Community Health Nursing Administration Diploma course at CAHS, Port Moresby. File provided to evaluators by the CHNAA at CAHS, April 1993.

   (Locations: CSSP office and CAHS, PNG; RDO/SP office, Fiji.)

10. Siwi, Mrs. Lillian. A file of correspondence involving the following principals: CSSP Advisors; the Secretary of Health; University of New South Wales School of Medical Education; and Mrs. Lillian Siwi, a PNG community health nurse sponsored by CSSP for graduate training in Australia. This correspondence covers the period: September 1992 through April 1993.

    (Locations: Mrs. Lillian Siwi's files at her office in Goroka, Eastern Highlands Province, PNG; The Futures Group, Washington, DC.)

11. USAID. "Papua New Guinea, Workshop/Needs Assessment for Child Survival Support Project (879-0017)," May 1989.

    (Location: Apparently, only available at RDO/SP, Suva.)

12. USAID, "A Project Paper (Unclassified). Papua New Guinea Child Survival Project No. 879-0017," May 1989. Full documentation incorporates 16 referenced annexes attached to the text.

    (Locations: USAID, Washington, DC; RDO/SP, Fiji. Partial documentation available at CSSP office in PNG.)

## ACRONYMS

| | |
|---|---|
| ADB | Asian Development Bank |
| AID | U.S. Agency for International Development (USAID) |
| ALRI | Acute lower respiratory infection |
| AMS | Area Medical Stores |
| APO | Aid Post Orderly |
| ASH | Provincial Assistant Secretary for Health |
| CAHS | College of Allied Health Sciences |
| CHD-UPNG | Community Health Division of the University of Papua New Guinea |
| CHN | Community Health Nurse |
| CHNA | Diploma course in Community Health Nursing Administration |
| CHNAA | Technical Advisor to the diploma course in Community Health Nursing Administration |
| COP | Chief of Party |
| CSSP | Child Survival Support Project |
| CSSPRAC | Child Survival Support Project Research Advisory Committee |
| DOF | PNG National Department of Planning and Finance |
| DOH | PNG National Department of Health |
| DPM | PNG National Department of Personnel Management |
| EHP | Eastern Highlands Province, PNG |
| EOPS | End of Project Status Indicators |
| EPI | Expanded Program of Immunizations |
| EPINT | EPI Information Tracking mechanism |
| FAS, PHS | First Assistant Secretary for Primary Health Services at the Department of Health |

| | |
|---|---|
| GPNG | The Government of Papua New Guinea |
| GTC | Goroka Teachers College, Goroka, EHP |
| HEO | Health Extension Officer |
| HIS | Health Information Systems |
| HPN | Health, Population Nutrition Office, RDO/SP |
| HRD | Human Resources Development, a PNG firm |
| HSMA/COP | Health Services Management Advisor/Chief of Party |
| JSI | John Snow, Inc., the U.S contractor for the Child Survival Support Project |
| LMA | Logistics Management Advisor |
| MCH | Maternal and Child Health |
| MCHP | Maternal and Child Health Physician Advisor |
| MOMASE | The region of PNG comprised by four provinces on the island's north coast: Morobe, Madang, East Sepik, West Sepik |
| NCD | National Capitol District |
| OIC | Officer in charge of health center/subcenter |
| ORS | Oral rehydration salts |
| ORT | Oral rehydration therapy |
| PCI | Project Concern International, a U.S. nongovernmental organization |
| PDA | Population Development Association |
| PHD | Provincial Health Division |
| PHEO | Provincial Health Extension Officer |
| PIP | Public Investment Programme |
| PNGIMR | The PNG Institute of Medical Research, a statutory body located at Goroka, EHP |
| POM | Port Moresby, Papua New Guinea |
| PP | Project Paper, a USAID final project design document |

| | |
|---|---|
| RDO/SP | U.S. Agency for International Development/Regional Development Office for South Pacific located in Suva, Fiji |
| RDO/SP/PNG | The suboffice of RDO/SP located in PNG |
| RE | Regional Epidemiologist |
| REACH | Resources for Child Health, a Co-operative Agreement between AID/R+D/Health and JSI |
| REU | Regional Epidemiology Unit |
| RFP | Request for Proposal |
| RSU | Regional Support Unit |
| SCF-UK | Save the Children Fund, United Kingdom |
| SEATS | Services Extension to Africa and Technical Services a Co-operative Agreement between AID/R+D/Population and JSI |
| STDs/HIV-AIDS | Sexually Transmitted Diseases/Human Immuno-Virus-Acquired Immuno-Deficiency Syndrome |
| TA | Technical Assistance |
| TB | Tuberculosis |
| UNICEF | United Nations Children's Education Fund |
| UPNG | University of Papua New Guinea |
| VBA | Village Birth Attendant |
| WHO | World Health Organization |

## EXECUTIVE SUMMARY

### Background

To evaluate the PNG Child Survival Support Project, three persons worked barely three weeks in a nation whose citizens follow life-styles dating to the Stone Age. The burden of illness and death in PNG today falls heaviest on mothers and young children. PNG's Health Department, charged with seeing that adequate health services are delivered to society's vulnerable members, has sought assistance from donors. In 1989 PNG requested USAID's help to improve maternal and child health services delivery. In July 1990 AID awarded a technical assistance contract to John Snow Inc, (JSI) for six years to guide the DOH in meeting the project's objectives. The Child Survival Support Project (CSSP) was designed for two phases:

- Phase I was to be a preparatory phase of three years (the JSI contract was only awarded in the second year of Phase I).

- Phase II, the intervention phase, will last four years until 1996.

The project design called for strengthening the technical and institutional capacity, particularly through the Regional Support Unit (RSU) structure, before initiating Phase II. This is to be carried out through technical assistance to RSUs and provincial health workers, training and applied research. The project will develop a permanent capability at the College of Allied Health Sciences to offer a diploma course in Community Health Nursing Administration.

Recent CSSP studies indicate rural health facilities are performing poorly. Under a decentralized financing structure, many provinces reallocated to other sectors public funds designated by the Government of Papua New Guinea (GPNG) for rural health services. Funds for vaccination and supervision patrols suffered drastic reductions when GPNG ordered a 3.4 percent across-the-board budget cut for public services in 1990.

The evaluators found abundant Phase I evidence of work done for the technical sustainability of the project. However, CSSP's institutional sustainability focus did not receive comparable technical assistance. The fact that CSSP lacks an identified viable institutional mechanism to continue its work after 1996 is a serious shortcoming at the end of Phase I.

### Recommendations

The strategic plan for Phase II of CSSP needs immediate attention. The Department of Health (DOH) may soon make a decision to disband the strategy of using RSUs to improve rural health services delivery. JSI's contract with AID specifically ties CSSP technical assistance to the RSUs. JSI may need to amend its contract duties in this regard. CSSP sees a duty to help the DOH ensure that future cycles of CHNA diploma courses are supported by a permanent human resource. Options for providing CHNA technical advice beyond 1993 need to be increased.

# THE CSSP END OF PHASE I EVALUATION REPORT

## Section 1. Purpose and Method of the Phase I Evaluation

A team of evaluators conducted an end of Phase I assessment for the CSSP, during March 18-April 10, 1993. The evaluation's stated purpose was "to evaluate AID's PNG Child Survival Support Project, and make recommendations concerning future project directions, activities, and correctional actions, if any, needed."

The evaluation exercise was launched by brief contact with the U.S. contractor (JSI) in the U.S.A., and a critical one-day briefing from the perspective of RDO/SP HPN Advisor, Dr. Patrick Lowry, who oriented the team leader at RDO/SP on March 15, 1993, and through subsequent contacts. The focus questions for the evaluation were taken from the Scope of Work given to the contractor by AID (pages 3 and 4). These served as departure points from which evaluators organized open-ended interviews designed to generate answers to the specified questions. CSSP data files were examined in PNG and Suva.

Proceeding from this point of orientation, the team interpreted its mandate to be that of verifying that CSSP design assumptions are valid still, comparing proposed work activities for technical advisors with documentation submitted to RDO/SP by the contractor, using up-country and island-based field visits and interviews to supplement armchair impressions.

The exercise, as executed, adhered closely to the instructions given by RDO/SP under the "Section IV. Methodology" in the "Scope of Work for the Interim Evaluation of PNG child Survival Support Project (879-0017)." All three team members had prior involvement with CSSP at a point in time: one person was commissioned to write a technical review of a CSSP special study (MUAC); another led a team of UPNG faculty who conducted a Rural health Services Assessment for CSSP in 1992; the evaluation team leader in 1989 was a member of the CSSP project paper writing team. These links, and their bearing on the teams' deliberations, were discussed with CSSP principals up front.

## Section 2. The CSSP Project Antecedents and Start-Up

PNG's profile of community health status continues to give cause for alarm. Bipartisan PNG legislators were shocked to find that 47 percent of citizens have no access to clean water and drainage; the infant mortality rate is reportedly at 56 per 1,000 live births (Source: PNG Times, 9 March 1993). PNG's immunization coverage (EPI) declined from 1990 to 1991, associated with reduced financial and commodity support by the major donor, UNICEF. Maternal health status, for which GPNG collects little useful data, is a cause of concern for providers. Even without reliable data, the maternal death rate is believed to be alarmingly high due to post-partum hemorrhage at unassisted births and puerperal sepsis.

The present Health Minister's Task Force reported that, as of November 1992, the organization and delivery of public health services in PNG is characterized by the following situations:

- Public health services are not matched with needs.

- The 1990 national health budget was reduced by 3.4 percent across-the-board. Despite small adjustments for civil services salary increases, GPNG funds available for provinces and the DOH to pay for patrols and supervision have decreased from 1990 to date.

- Decentralization occurred without adequate management and technical help in provincial health divisions (PHDs) to ensure that delivery is well organized, with attention to patrols/supervision.

- Provincial health departments are given inadequate funds to do their job of seeing that health services are permanently available via both mobile and fixed clinic mechanisms, especially to mothers and children.

- Chronic undersupply of basic medications and essential supplies at all levels of the delivery system have contributed to a rapid deterioration of health services.

- Abuse of PHD budget allocations by Provincial governments severely curtails the ability of Provincial health departments to contain, let alone avoid, disease outbreaks in the capital as well as up-country.

There is well-known documentation that service demands have arisen while public financed services have contracted. Impressions gathered by the evaluation team's site visits to the Regional Support Units (RSUs) reinforced this notion. The UPNG Community Health Department recently reported that, based on surveys of private clinic utilization in the capital, some 40 percent of patients borrowed money to seek care from private providers.

**A. DOH's Partial Response to Demands of Decentralization: RSUs**

During the late 1980s, the DOH struggled to clarify its role as a distant partner in helping the provinces to mobilize and manage the delivery of services to match the community's needs. Internally, central managers pursued in-service training and technical assistance strategies for helping PHD managers, who are clinicians (today many are health extension officers and sanitarians), without management training, to meet work tasks they faced for the first time, namely, in planning, budgeting, resource allocation and supervision.

One new initiative was the Management Support for Provinces Program, housed in the DOH's planning office, an effort nurtured by expatriate DOH officers and WHO consultants. The then-Secretary of Health, Dr. Quentin Reilly, wanted to create a dedicated form of technical assistance to help provincial program staff in managing scarce resources for health services delivered through rural providers, namely, health centers, subcenters, aid posts and community health worker sites. DOH leaders tried to reorganize the role and structure of the modest Regional Epidemiology Units (REUs) set up in 1985. Notionally, the idea took shape as a form of on-site technical assistance strategically located nearby the PHDs. The new configuration was meant to serve as a broker's role. However, the broker has no authority, so the advice could be accepted or ignored by the provincial managers.

The focus of the REUs was narrow: disease surveillance, on-site troubleshooting, the control of childhood disease outbreaks and some training. The RSU role was to be broader: RSUs serve as technical resources across a spectrum of interventions, still including the core REU role. Grafted onto it was a vague instruction to assist the provinces to strengthen the delivery of rural health services. The role was based on an assumption that total resources available to provincial health

divisions would at least be similar, if not increase, for the life of the proposed CSSP. In fact, during 1990-1991, public financing of health services decreased, by 3.4 percent compared to 1990 levels, severely hindering the extension of rural services at community levels. Vaccination patrols halted for lack of funds for travel support. Routine supervision became rare.

**B. CSSP Project Design Exercise**

DOH central staff provided the inputs and laid the groundwork for the first written DOH draft on the RSU concept during late 1988. During February and March 1989, an AID Project Paper team joined the DOH's discussions to give shape to the RSU concept. Of the six design team members, three were in PNG for the first time, two were residents there for more than ten years each, and one had visited the country once briefly. The AID consultants were invited to conduct the Project Needs Analysis exercise to secure some consensus on project design and required resources. The exercise was initiated by tapping the designated users of CSSP services: PHD Assistant Secretaries for Health and their line program managers.

Anticipating AID assistance would be made available shortly (during 1989), DOH drafted a tentative timetable of action points for itself and RDO/SP (later modified in PP documents) which suggested:

- By April 1988, DOH expected to secure DPM approval on the RSU structure, accepting that the RSUs will become a part of the national DOH organizational chart, and that RSUs will comprise both existing personnel and new DOH positions to be sanctioned.

- By September 1989, DOH expected that AID contracting officers would be able to invite competitive proposals from U.S. contractors to provide the technical assistance, select a winning proposal in consultation with GPNG, and structure a calendar so that the TA Team Leader arrived in PNG within 5-6 months after the period in which the consultants prepared the CSSP Project Paper.

However, reality intervened. The preparation of a US-GPNG bilateral agreement, and then the contracting of a U.S. firm, required more than one year. In short, DOH was without a co-pilot during 1989, and proceeded to launch the first year of Phase I unassisted.

**C. Interruptions at DOH: Changes in Leadership**

Since Phase I of the CSSP project began, there have been many DOH personnel changes. There have been three Secretaries of Health appointed since 1989. Continuity was lost in defining the RSU theory. Decision-makers in prominent DOH posts inherited an ill-fitting idea to which they did not attach any loyalty. Ambivalence to the RSU idea became the norm, save for energetic efforts by the acting FAS, PHS, Dr. Tim Piyakalia and a few senior DOH staff, mostly expatriate contractors or WHO technical advisors.

**D. Reorganization of the DOH, 1991-1992**

The Secretary for Health in 1991-1992, Dr. Levi Sialis, was faced with a situation that required that the RSU structure be inserted on the DOH organizational chart. It was reported that he chose to accomplish this by calling for a reorganization of the Department, annulling the appointments of all civil servants to their posts at central headquarters. The procedure for advertising positions, and for incumbents to re-apply competitively, was halted by the new Minister for Health, Hon. Francis

Koimanrea, in late 1992. Recruitment is delayed now for filling new posts, such as that of the National EPI Logistics Coordinator, a key CSSP counterpart.

The DOH's organizational chart as it appeared in March 1993 (Appendix D) shows the four RSUs as part of the national structure. However, interviews conducted with informants gave the evaluators a contrasting view of the RSU situation. In general, it was reported that RSU officers have tenuous, fragile links to the PHD program managers to whom they are providing technical assistance.

The exceptions to this rule are: the MOMASE RSU, which was reported to be well considered by the provincial assistant secretaries for health in the four provinces of PNG's north coast (East Sepik, West Sepik, Madang and Morobe); and one instance in which the assistant secretary for health, East New Britain Province, singled out for commendation the work of three of the Islands RSU officers (Disease Control Officer, Nutritionist and Scientific Officer). Beyond these reports, feedback was either negative (provincial and district staff are not visited by RSU advisors), or failed to verify that RSU workers provided technical advice on CSSP interventions.

**E. Start-up of the RSUs: National Workshop and Task Forces**

The RSU concept was assigned, by its creators, a technical advisory role to support PHDs to improve the delivery of rural health services, especially MCH. The term "support" is still ill-defined. In 1989 when the DOH began to designate the REUs as RSUs, an operational definition was lacking. The National Workshop on RSUs, followed immediately by the Regional Task Forces, was to define what child survival support meant, provide a clear RSU definition, finish that work and help the RSUs get started. However, no formal notice was provided by the DOH to provincial governments to recognize the RSUs' existence, much less their support role. The DOH proceeded with the idea and assumed that the contacts made by the CSSP design team with the provincial assistant secretaries for health might be considered sufficient consultation to advance.

National Workshop and Task Forces to Develop RSUs: Theory

The CSSP project paper proposed two logical steps for the DOH to follow to give a working definition to the RSUs:

1. A national workshop of provincial assistant secretaries for health with pertinent DOH authorities would be organized during Phase I. Initially the DOH proposed to use GPNG funds for the workshop activity. (This was modified so that CSSP funds would be disbursed by the U.S. contractor.) DOH officers in both Primary Health Services and Policy and Planning divisions were tagged as the likely organizers. A few days of well-centered discussion using group process were felt to be adequate to flesh out the RSU theory.

2. DOH and AID wanted the momentum of this start-up to be continued. A further structure was offered, with AID financing. Regional Task Forces would be formed as an ideas exchange forum, during the life of Phase I, to provide working definition for the jobs of the RSU staff. Program managers (the Matrons, PHEOs, In-service Coordinators) from each Province were invited to fit the job descriptions of the RSU officers to meet the needs of PHD managers for specific types of child survival technical advice.

National Workshop and Task Forces to Develop RSUs: In Practice

The DOH prime organizers moved ahead in 1989-1990, setting aside the idea of a National Workshop (possibly, DOH was unaware of how to secure AID funds prior to the JSI team arrival in late 1990). The DOH accepted the draft description of RSUs found in the CSSP Project Paper. The conversion of REUs into RSUs proceeded as an internal paperwork adjustment in the eye of the DOH. No binding DOH instrument was designed to formalize the conversion. No notice was provided at the time by the DOH to provincial governments. The RSU structure bears no resemblance to any other GPNG institution. It was reported that today many of these officials are indifferent to, or even unaware of, the activities of the RSUs.

The idea of the Regional Task Forces became a reality, initiated by the same core DOH group of prime movers. However, the provinces were ambivalent about an RSU idea which several ASHs now claim that they did not request. The task force meetings took on a different agenda, divorced from defining the RSU role. Today the task force meetings, financed from provincial travel budgets, are a forum for ASHs to bring management issues for group discussion and problem solving over a wide variety of topics: parliamentary vote-seeking, provincial statutory discussions, and more. The forum lends itself to interim sessions of the once-a-year annual meeting of the assistant secretaries for health. RSUs are still vaguely defined, a situation today not much different from when CSSP began in 1989.

**F. JSI Team Travel for Provincial Assistance and Task Force Meetings**

At the outset of the Phase I evaluation, the opinion was stated by the HSMA/COP that he had the understanding that JSI's contract specified duty to help establish the RSU structures was modified and de-emphasized in Phase I. Consistent with that interpretation, he altered the assignment of JSI's assistance to the DOH for both technical and institutional capacity building. During Phase I, JSI shifted the weight of its advisory services toward special studies and child survival technology support which JSI believed would provide a firm basis for launching CSSP Phase II. Because of this shift in emphasis away from the PP design (i.e., RSU development as the key institutional mechanism to launch on-going child survival activities), the JSI team adopted a position of minimal technical support to the DOH efforts which were in progress for establishing the RSUs.

One evaluator examined a recent summary of JSI expenditure data (provided as a facsimile photocopy of a spreadsheet dated March 25, 1993). It appeared to reflect the contractor's decision to restrain in-country travel expenditures so that the JSI advisors would be concentrating on visits to provincial sites mainly for CSSP technical capacity building activities such as training and special studies.

Examples mentioned include: Dr. Edward's field trips to PHD sites at times when regional task forces meetings were to be held, Mr. Bass' EPI/cold chain survey trips and Ms. Street's travel related to the CHN job analysis study, maternal-health nursing and VBA-focused field observation visits to pilot sites in selected provinces where NGOs are pioneering in the work on VBA training.

As noted in Section 10 of this report, JSI team members have spent about 60 percent of the amount forecasted as needed for in-country air travel during Phase I, and 25 percent of the per diem amounts budgeted for the same period. Consecutive lists of the in-country trips made by JSI advisors during Phase I, copied from the reports which JSI prepares for RDO/SP periodically, are assembled as Appendix I to this evaluation report.

## Section 3. Background on Status and Institutional Setting for Health Services Delivery in PNG Today

### A. Current Issues in MCH Services in Papua New Guinea

Government financing of the delivery of rural health services is a significant determinant of the quality of these services. Until 1986, the government expanded the provision of health services, and the health sector received favorable budgetary treatment. The government had adopted a decentralized administrative strategy to achieve greater equity between richer and poorer provinces. The Department of Health undertook the Management Support Program to support the development of management capability in the provinces. In 1986, the government changed its policy in favor of the income-producing sectors at the cost of reductions in the social sectors. In spite of the efforts of the DOH, inequities between provinces have become more marked and the impact on access to health care is documented in the 1992 CSSP study by E. Beracochea et al.

During 1992, the aforementioned study effort gathered baseline data on the knowledge and skills of health workers in rural health services in Papua New Guinea. This study was conducted by researchers of the Department of Community Medicine of the University of Papua New Guinea and the PNG Institute of Medical Research, Goroka, EHP.

A systematic approach was used to assess the health worker case management skills and knowledge, and the performance of the facility as a whole was also studied. The different participants of the provincial health system from the Provincial Assistant Secretary to the Officer-in-charge of the health facility were also considered. The environment in which health workers have to practice and supervision and in service training of rural health workers were specially studied. The views of the communities served by the studied facilities were gathered in focus group discussions.

The evaluation team considers that it is important to comment on some of the findings of this study. First, the coverage of maternal health services was low, with a mean new antenatal attendance rate of 28.3 percent and supervised deliveries rate of 20.6 percent. This finding was supported by comments provided by community residents in the focus groups' discussions about the problems of pregnant women to deliver their babies and receive adequate care.

Second, children's health has been negatively affected as well. Immunization coverage for all vaccines in the studied facilities was lower than the national average. This can be explained by the lack of extension work that was reported, with only 42 percent of the twelve health centers having completed 60 percent or more of the scheduled MCH clinics in the past two months.

Third, shortages of drugs and essential items such as syringes were very common. Half of the health centers did not have standard treatment manuals, and 25 percent of them did not have a separate delivery area. Eighty-three percent had a functioning vacuum extractor and 92 percent had oxygen. Although all health centers needed extensive maintenance, only 33 percent of them had received any in the previous year. No facility had been visited by a medical officer in the previous year.

Finally, in regard to case management of the CSSP target conditions, health workers' knowledge and skills showed serious weaknesses: only 19 percent of the 105 health center workers reported correct malaria diagnosis and treatment; two health workers reported correct acute respiratory infection management; 89 percent of the workers reported correct management of oral rehydration, but only 50 percent reported the complete correct treatment for severe diarrhoea; and only 42 percent reported correct malnutrition management. Performance at the aid post level was much weaker.

It was concluded that the problems identified are not problems of health centers and aid posts but of the entire district health system. A systematic approach to the revitalization and development of rural health facilities is necessary before the decline is irreversible. Isolated health facilities need managers at the district level who can plan and allocate resources. Training in management was identified as a priority.

Supervision, and other support from provincial health offices were also inadequate and with a lot of variation from facility to facility. Some health centers received no visits while others had five or more visits from different members of the health office. However, none of the four studied provinces had a program of clinical supervision, and only four of the twelve health centers had a visit by a clinician in the last year. Aid post supervision by health centers was equally infrequent, with 7 aid posts out of 24 receiving no visits at all in the past year. An effective supervision system starting at the provincial level is necessary to improve case management performance and management procedures in rural health services. At the provincial level there is no mechanism to implement supervision, nor are there standards for assessing the communication skills needed to supervise rural health workers effectively.

Weaknesses in the provision of in-service training to rural health workers were also found. Provincial authorities estimated that fewer than 50 percent of the workers had an in-service training opportunity in the year preceding the study. The study found that 33.5 percent of the health center staff had attended an in-service course in the past three years. A comprehensive human resources development program is necessary to sustain the clinical and managerial skills of rural health workers.

**B. The Department of Health Institutional Setting**

The structure of health services in PNG is pyramidal with aid posts at the base, health centers in the middle and provincial and national referral hospitals at the top. It is from health centers that health services are managed and delivered to the rural population. Churches, which receive government subsidies for the health services they deliver, operate almost 50 percent of rural health services and contribute substantially to the training of rural health workers.

Prior to independence, health services in PNG were centrally controlled from Port Moresby. Under this structure essentially all technical assistance to the provinces was provided from the center.

In 1977, a policy of decentralization was adopted to transfer administrative authority for many health service functions to the provincial level. A reorganization giving effect to this policy was instituted in 1983. It involved a complicated mix of national, provincial and delegated health powers for different health functions. Full responsibility for the operation of rural health services, which included aid posts, health subcenters and health centers, was transferred to provincial governments. Some other functions were delegated to the provinces. Delegated functions are those for which the provinces have responsibility but the national government retains ultimate authority. These include hospital services, malaria control and community health services such as maternal and child health. National functions, those for which full power and authority is retained at the center, include planning, policy formulation, pharmaceutical services, training and assurance of the quality of health care. With this reorganization the ability of the center to provide technical assistance to the provinces was significantly impaired.

Since the mid-1980s there has been increasing recognition that decentralization has been one of the important factors contributing to the weaknesses of health care delivery in rural areas and that one

of the important constraints was lack of an effective institutional mechanism of central support to provincial health offices. In an effort to overcome this constraint the DOH, in 1985, created four Regional Epidemiology Units to provide technical and other assistance to provinces. One of the major activities proposed under the CSSP was the strengthening of these units through their conversion to Regional Support Units.

The sentiment against decentralization has gathered strength recently. The current government, elected toward the end of 1992, announced a policy of recentralization which may eventually include the abolition of provincial governments and the installation of an administrator, an agent of the central government, in their place.

Within the health sector, the new Minister has announced plans for the centralization of control over all hospitals. There is a clear desire by the GPNG to regain control over other aspects of the health services as well. However, the situation as to which powers will be taken back by the center and which will remain with the provinces is unlikely to become clear in the near future. These changes will also have considerable, but at the moment unknown, implications for the funding mechanisms to be used in the future.

These recent and major developments, and the fact that they are not yet complete, mean that there is considerable uncertainty about the structure of health services in the medium term. This uncertainty extends to the future of the Regional Support Units as well.

## Section 4. The Child Survival Support Project Today

### A. Current Situation of the RSUs: A Rapid Appraisal

The RSUs never fully graduated from their prototype as Malaria Offices with additional functions (in technical assistance in MCH program management, planning, budgeting, supervision). Today, three of the four RSUs appear to function mostly as disease surveillance units, as information centers, or as logistics advisors for technical courses organized by DOH national program coordinators. The Islands RSU, after a hibernation during 1992 for lack of funds and on-site leadership, is re-emerging and taking on a training role with provincial program managers.

During March-April 1993, two evaluators traveled to each of the four RSUs for at least two half-day sessions at each regional site. The MOMASE and Islands RSUs were the more active; the impressions of the Highlands and Southern RSUs were less clear. On paper, all RSUs state bold plans for 1993, but with differing budgets. In the Islands Region, where inter-island travel is expensive, the 1993 RSU budget was comparatively small for air travel and staff support when compared to the Highlands RSU budget. In the latter case, all PHDs and many health centers are accessible from the Highlands Highway, the main East-West road artery. Travel ought to cost less.

### B. RSU Staffing: 1991 and Today

Today's RSU staffing (see accompanying table) looks different than what was suggested in the early design phase of CSSP. The heart of the MCH focus within the RSU structure was to be the core advisors who provide technical assistance in Child Survival and other MCH practices, nutrition and targeted management advice (the latter geared to the needs of PHD program managers). At the same time, the DOH tried to re-activate the post of Provincial Health Educator. The duties

corresponding to this post, eliminated in the 1980s, were apportioned among existing PHD staff, citing "Every DOH worker is a health educator."

**Department of Health**

**Regional Support Units: Staff Positions Occupied**

| Approved staff positions | Papuan Region | | Highlands Region | | MOMASE Region | | Islands Region | |
|---|---|---|---|---|---|---|---|---|
| | 1991 | 1993 | 1991 | 1993 | 1991 | 1993 | 1991 | 1993 |
| Epidemiologist | F(E) | F(N) | F(E) | F(E) | F(E) | F(E) | F(N) | F(N) |
| Disease control Officer | F(N) | F(N) | F(N) | F(L) | F(N) | F(N) | F(N) | F(N) |
| Nutritionist | - | - | F(E) | F(N) | F | F | F(N) | F(L) |
| Scientific Officer | - | - | - | - | F(N) | F | F(N) | F(L) |
| Nursing Officer | - | - | - | - | - | - | - | - |
| Technical Officer | F | F | F | F(L) | F | - | F(N) | F(N) |
| Health Inspector | - | F | - | - | - | F | - | - |
| Health Educator | - | - | - | - | - | - | - | - |
| Statistical Clerk | - | F | - | - | - | - | - | F |
| Medical Lab Trainer | - | F | F(E) | F(E) | - | F | F | F |
| Keyboard Operator | - | F | - | F | - | F | - | - |
| Driver | F | F | F | F | - | F | - | - |
| Cleaner | F | F | F | F | F | F | F | F |
| Other | 2 | 1 | 3 | 2 | 2 | 1 | 2 | 1 |
| TOTAL | 8 | 10 | 10 | 10 | 9 | 10 | 9 | 9 |

Legend: F = Position filled
N = PNG national
E = Expatriate
L = On leave

Sources: 1991 Data (JSI Reports to AID); 1993 Data (Collected by evaluators, March-April 1993)

During the period 1989-1993, the DOH was unable (until 3/93) to secure approval from the DPM and DOF for all the intended positions to staff the RSUs for expanded functions. The parties decided on an agreement in 1989 to put key staff (Family Health Advisors/Nurses and Nutritionists)

in each RSU to be the center of technical responsibility for helping assistant secretaries for health, program managers and line staff to improve the organization and delivery of community health services. A few nutritionists, including NGO expatriate volunteers, were added in the early 1990s.

But the heart of the MCH focus, the four RSU Nursing Officers were only selected a week before the Phase I evaluators arrived in PNG. RSU staffing and ability to function have been further handicapped by a practice of allowing key officers to attend professional courses during the years of start-up. For the Highlands RSU, two officers are away for 1 year. In the Islands RSU, one officer went to Japan for 6 months' specialty training during 1992, then enrolled in the one-year UPNG Community Health Diploma program.

A clear strong identifiable mother-child health focus, beyond disease reporting, is still absent from the advisory work plans of the present RSUs. Workshops on MCH themes are conducted annually; but little follow-through is possible due to severe budget limitations on PHD program managers' travel within their work areas for routine supervision.

### C. Notes on Budgets and GPNG Funds for CSSP (Counterpart)

The evaluation team only gained notions of the history and mechanics of the CSSP counterpart fund mechanism. Apparently, GPNG created a Public Investment Programme (PIP) mechanism to channel the GPNG's contribution to meet the CSSP matching requirements. A table and narrative on the CSSP counterpart issue, prepared for the evaluators by JSI on short notice, seems to show a pattern of repeated underexpenditure of PIP funds for the budget years 1990, 1991 and 1992. If the figures reflect government accounts accurately (time was insufficient to cross-check the data with responsible officials), only 25 percent of GPNG funds available in 1992 were drawn down for all categories of costs. Appendix E, prepared by the HSMA/COP, provided the basis for the calculation.

During RSU visits to the MOMASE and Highlands Regions, evaluators were given photocopies of hand-copied figures in response to queries about each RSU's 1993 budget to meet recurrent costs. The hand-copied data appeared to be inconsistent with 1993 budget data for recurring costs for the four RSUs provided by the National Epidemiologist. There is no disagreement that the RSU budget for salaries is fully utilized. The evaluators could not secure a coherent picture, for 1992 RSU allocations, of the percentage of available funds drawn to meet the RSUs' recurring costs. These cost categories are the critical areas of vehicle fuel and allowances for RSU officers to perform their regional travel duties.

For the GPNG 1992 budget year, at least two of four RSUs reported returning unused amounts estimated to be between 40-50 percent of their recurring cost budget. RSU Coordinators explained this is due to, among other reasons, the tendency for the funds to be disbursed slowly after the second quarter and then accumulate in the fourth quarter without time to fully complete the planned expenditure. During 1992, the Islands RSU received an amount (20,000 Kina) too small to enable meaningful technical support visits to be carried out for the year. (Estimates of inter-island travel centered around 1,000 Kina per person per week.) In the face of being anchored at his desk for lack of travel funds, the otherwise well-qualified RSU director secured a temporary post with the World Bank Feasibility Study team for five months.

Wide variations exist in the allocation of financial resources for recurring costs at each of the RSUs. The team could not discover what criteria might be used by DOH authorities for the variable allocation to recurring cost categories within each RSU's budget.

The Highlands RSU received a 1992 budget of 40,000 Kina for recurrent costs. The expatriate contractor for the lead position arrived in March 1992 and discovered that no funds for travel had been disbursed to that time (although a CSSP Project vehicle was delivered to the RSU in April 1992). No GPNG funds for travel were disbursed to the RSU until September 1992. The result was an abandonment of planned technical assistance visits to the service Provider levels until the fourth quarter, 1992. About 50 percent of the 1992 allocation for recurrent costs was returned to the DOF. A similar explanation was presented by the MOMASE RSU coordinator, estimating that about 40 percent of his 1992 budget was returned.

**D. Budget Preparations and Management at DOH for RSU Funds**

A vague notion is gathered of the counterpart PIP request process:

- A notional request is prepared for the year in advance by the FAS, PHS and National Epidemiologist. This latter position was created for monitoring the Disease Control and information gathering and field activities of the RSUs.

- At a later time the DOH principals draw another estimate:

  -- The costs that are easiest to estimate are staff wages and capital formation (construction funds for staff accommodations, office and lab facilities).

  -- Estimates of recurrent expenditures seem to be generated without analyzing for any of the RSUs their use of recurrent funds in the previous year.

Further, the central DOH managers employ an ad hoc method of responding to urgent calls from RSU staff, requesting additional funds. Shifts in planned allocations from one RSU's budget to another are authorized by DOH staff without consulting the affected RSU officers whose current operating budget will be reduced.

- RSU budget and activity monitoring is conducted at twice-yearly meetings. However, no evidence was discovered that there is any attempt to relate RSU budgets to the volume of health service activities in the PHDs comprising that Region. Nor is the forecast related to the volume of anticipated RSU technical visits to PHDs and districts or the distances to be traveled or length of proposed stay at PHD sites to conduct proposed activities.

**E. Role of TA Contractor and MOH Organizational Issues**

The evaluators listened to briefings and reviewed documentation about the directions of JSI's technical assistance. As evident from the preceding section, the RSUs were intended to be a center of gravity around which CSSP assistance was to be organized. There were instructions in the AID-JSI contract directing the JSI team to assist DOH to establish the RSUs as a permanent institutional vehicle for improving MCH services delivery in the provinces.

The RSU mechanism, however, appears to be a weak investment to expect an ongoing return, and JSI has documented its weaknesses regularly. Nonetheless, JSI did not request from AID, to date, a modification of the instructions to establish the RSUs as the permanent structure for continuing the largest portion of CSSP planned interventions. At present, the CSSP strategic plan fails to identify clearly the CSSP's institutional mechanism for continuing child survival interventions beyond 1996. The mechanism may need to be changed, and in that event, the contractor needs to be

assisting the DOH in identification and development of alternate mechanisms. In the opinion of the evaluators, the contractor did not use Phase I to secure adequate consensus among CSSP principals on the specific mechanism, either the RSU structure or a replacement, for enabling the DOH to build and institutional capacity to go on with child survival initiative after the departure of the JSI team.

- The DOH assigned lead responsibility for RSU coordination and development to DOH staff.

- Regional Task Forces on RSUs evolved as a PHD problem-solving exercise, detached from defining the role of the RSUs.

During 1991-1992, major time investments of the JSI team were spent on preparing the CSSP Strategic Plan iterations. The document, after consultations with national DOH counterparts, was reviewed formally with AID at a two-day work session in August 1992 in PNG.

The planning document is interesting as an exercise. However, the evaluation team made a judgment that, since August 1992, the writing exercise proceeded on the following assumptions: (1) the DOH endorsements of the plan presumed that the RSUs would continue to serve as a backbone for strengthening the knowledge and practice of child survival technologies in the provinces; and (2) a vague notion that, if the RSU structure disappears, the CSSP may opt to utilize the structure of provincial in-service training staff as the main provincial level partner of CSSP. These assumptions appear unfounded when viewed in light of the debate occurring in the DOH, and among provincial assistant secretaries for health (March-April 1993), concerning the future of the RSUs as a DOH institutional mechanism for improving the delivery of community health services.

The new Secretary of Health wants to capture this moment of change within the DOH and review the RSU design's usefulness against a background of emerging priorities to pump cash and commodities into the provinces targeted at renewing rural services delivery. The evaluators had two meetings with the secretary; he shared some of his thoughts on the immediate future in the DOH. Partial notions of this early DOH thinking are found in Section 8 of this report.

A further version of a strategic planning document for CSSP Phase II is required, in light of the present discussions. The call is for a document that clearly identifies the existing, or alternate, mechanism which the DOH is designating to take responsibility for continuation of CSSP activities beyond 1996. Technical assistance, of the most senior calibre, from the JSI corporate pool of professionals should be made available to assist the JSI team in PNG with the steps required to produce a further version of the CSSP strategic plan.

## Section 5. Implementation Status of Some Other Phase I Components

### A. Community Health Nursing Administration (CHNA) Activities

In 1989 the DOH determined that it would establish a specialized training course within PNG's health sector to train as administrators several senior-standing Community Health Nurses, initially from PHDs and from the headquarters of various Mission Medical Services in PNG. JSI had provided the technical services for three related CSSP aspects:

- To organize a study to analyze the job of the community health nurse.

- To develop and organize a core curriculum for training administrators of community health nursing services, and subsequently facilitate the first course cycle.

- To assist other CSSP/DOH resource persons, notably the Maternal-Child Health Physician, to develop instructional modules for use in the in-service training of provincial and district level staff for improving the delivery of child survival and maternal health services.

The JSI team completed the Community Health Nurse Job Analysis with the help of a committee of PNG nurses, drawn from several offices. This served as the basis for JSI to proceed with the curriculum for a diploma course in Community Health Nursing Administration. The Assistant Secretary for Training, along with other nurse-reviewers, examined the documentation, but their day-to-day participation in the deliberations is unknown. Course content appeared adequate to the evaluator familiar with nursing education.

The CHNAA generated a home-based Mother's Health Record, printed in Pidgin as well as several technical documents related to the training of trainers for preparing Village Birth Attendants. In 1992, JSI organized a national workshop to coalesce the lessons learned to date from the PNG experience (mostly organized by NGOs) in promoting the utilization of VBAs to attend births of women not considered to be at high risk for complicated delivery.

A contentious issue is the one of who will assume responsibility for the continuation of the CHNA course at the College of Allied Health Sciences in late 1993, when JSI is scheduled to depart PNG.

The location of the course was, at first, thought to be appropriate for the Goroka Teachers' College (GTC) in Eastern Highlands Province. GTC is a campus of the University of Papua New Guinea. Although training of educators is the main activity in GTC, training in other fields such as agriculture and health also takes place. The CSSP advisor visited the college in 1991 and recommended that the course be conducted in Port Moresby due to the presence of more teaching resources in NCD. A comparison of the cost of conducting the course at either GTC or CAHS in Port Moresby was done by JSI. The data presented stated there would be no costs to the DOH under the option of holding the course at CAHS. This led to the final decision in June 1992 to see the course installed at CAHS in Port Moresby. The evaluators believe that the cost comparison did not state adequately that the DOH would incur costs by conducting the course at CAHS.

JSI's evaluation of the potential of GTC as a site for the course was partial because it did not consider the advantages of the institution for the sustainability of the course in a university setting. The report failed to consider the possibility of joint work with the GTC staff to improve their proposed curriculum. This joint work would have allowed the course to get started in 1992, a year earlier. This would have allowed JSI to complete the scope of work in the given period. JSI would also have had counterparts in the staff of GTC. The financial comparison did not consider the cost of the CSSP advisor as a full-time course coordinator and relies on participation of guest lecturers with very diverse background and teaching experience. A nurse tutor has been recently attached to the course but she has not community health or teaching experience, so her participation in the course is still very limited. At the moment, continuation of the course is stated to be dependent upon the presence of JSI. CSSP has not yet developed alternatives to the lack of a qualified national coordinator for the CHNA course.

### B. CSSP-Sponsored Training

Two DOH physicians are receiving graduate-level training in public health at U.S. universities sponsored by CSSP. The candidates were selected only during the second year of Phase I. Their participation is not scheduled to be factored into CSSP activities until mid-1993. A CSSP-sponsored nurse attended graduate training in the Health Personnel Education at the University of New South Wales but did not complete degree requirements to date.

Appendix F contains: an updated statement on the training strategy currently used by the CSSP staff; a one-page summary of the CSSP in-country training activities; and a Phase I budget schedule of expenditures incurred under CSSP training categories.

### C. Project-Financed Construction

The DOH requested that AID assist the project with CSSP funds for construction in two instances: (1) accommodations for the post of CHNA course coordinator at CAHS, Port Moresby, for which a sum of $60,000 is to be allocated; and (2) a contribution of $40,000 toward construction of facilities nearby to Rabaul in order to establish a permanent office site for the Island Provinces RSU. An amendment to the AID-JSI contract, to add this $100,000 amount for these purposes, is in preparation by AID's Regional Contracts Office in Manila.

### D. CSSP Commodities Procured

The JSI contract required that CSSP vehicles, desk-top and lap-top computers, facsimile and other office equipment were to be procured for the four RSUs. Appendix H gives a summary of the status of the distribution of these items. The vehicle for the MOMASE RSU has been ordered for delivery to Lae later in 1993.

## Section 6. CSSP Preparedness to Launch Phase II

Based on the Phase I experience and the vagueness of the strategic plan, the evaluators do not find that the CSSP project has a sound base, i.e., a well-identified permanent CSSP resource and training capability, for stepping off into Phase II.

The evaluators do recognize the merits of many well-developed and potentially useful studies, consultancy products and tools executed or in progress. The CSSP advisors and several counterparts invested admirable labor to create think pieces and useful tools to address the "how to" part of delivering and improving child survival technology dissemination in the provinces. However, there is a void in which there ought to appear a well-grounded strategy statement, clear in identifying the institutional mechanism for carrying the work forward by qualified national staff to replace the JSI team working at national and provincial levels.

## Section 7. Outstanding Phase I Issues for Comment

### A. CSSP Project Design Assumptions

The major assumptions, both explicit and implicit, of the design document are that:

- The general structure of the government with an emphasis on decentralization would continue for the life of the project.

- Effective and appropriate technologies are available for maternal and child health improvement.

- Enough funds were available for the delivery of these technologies by the rural health services and that they would continue to be funded at the same real level for the life of the project.

- Staffing levels in the rural health services were generally adequate.

- The main problem limiting improvement in health of mothers and children was an ability to deliver these technologies to rural people.

- The main factor limiting the ability to deliver these technologies to rural people was inadequate management of the health services at the national, provincial and district levels and a lack of appropriate technical advice to the provinces.

- The most effective way to improve management and provide technical assistance was through regional units.

- The regional units would be fully supported, both financially and technically, by the PNG Department of Health.

- Enough medically qualified national staff with a genuine interest in public health would be available to staff the units.

- The provinces would view the regional units as a resource to be tapped for the improvement of their management skills and technical capacity.

- The interventions specified would be able to make a significant difference to the health of women and children in the life of the project.

- The HIS would provide accurate, timely and reliable information on the indicators selected.

The evaluation team considered that, today, nine of these twelve project design assumptions are no longer valid.

**B. Examination of Existing End of Project Status Indicators**

The overall purpose of the project is to improve the delivery of maternal and child health services in the provinces. The original project design specified endpoints (or targets) and assumed that the Health Information System (HIS) would be the source. The Project Log Frame has been included for reference as Appendix M. Implicit in this design is a sequence of events that are thought to have to occur if changes are to take place in the endpoints or goals.

There is no doubt that information is inadequate with respect to the goals. Thus, measuring changes in infant and maternal mortality within the life of the project, even at the national level, would not be feasible as the sample sizes needed would be costly.

Consequently, it is necessary to use indicators related to the intervening sequence of events for judging the effect of the project. The original CSSP design specified five service areas: supervised deliveries of high-risk pregnancies; institutional case fatality rates for ALRI; diarrhoea and malaria, immunization coverage; ORT availability and use; and malnutrition surveillance. However, little attention is devoted in the original design to the question of the geographic and administrative level at which the targets will be judged. This is a particularly impor nt issue for judging whether an observed change is statistically significant.

The information available for these indicators through the HIS, and its limitations, are discussed in the document "End of Project Status Indicators (EOPS)" prepared by the MCHP. It is clear that there are major problems with the EOPS indicators. Moreover,it would be a difficult and costly exercise to establish the level of achievement with any degree of certainty. Thus, the evaluators support the CSSP call for a revision of the targets as necessary.

At the August 1992 meeting between USAID and the JSI team to develop a Strategic Plan, the revision of the EOPS indicators was discussed. A revised statement of objectives and indicators was adopted. A comparison of the original and revised indicators is shown in the 1993 Strategic Plan document.

We believe that some modification of the design of Phase II is needed. In this event some of the objectives may change. In any case, we believe that the question of indicators should be reviewed and, where possible, more quantitative indicators adopted. They may nevertheless be mostly process, rather than outcome or impact, indicators. The actual indicators used will depend on an explicit statement of the conceptual framework underlying the interventions from which can be derived a set of possible indicators. The final indicators used will then depend on assessment of the availability of realizable, timely and valid information that can be used to judge project status and whether baseline data is available.

## Section 8. Vision Statement: Where Does the DOH Go from Here?

### A. Restatement of Conditions and Priorities

There is general agreement about the health problems of women and children in PNG. For children the main problems, apart from those that can be prevented through immunization, are ALRI, diarrhoea, malaria and malnutrition. Although several of these disease problems also affect adult women, the greatest risks are those associated with pregnancy and childbirth.

In addition, there is also reasonable consensus about the main maternal and child survival technologies that need to be used if the health situation of women and children is to be improved. These have been described in considerable detail by the MCHP. They include both preventive and curative activities. CSSP actors and others have re-stated the relationship between the noted disease conditions and the efficacy of child survival technologies to relieve that burden.

For children, the most important preventive activities are immunization and the promotion of good nutrition. Curative activities include effective management of cases, particularly at the aid post and health center.

For women, preventive activities include effective antenatal care and the availability of acceptable and effective supervision during delivery, especially for high-risk individuals. In some areas this may

involve village birth attendants. Other activities important for the health of women include access to family planning and the control of STDs/AIDS. Curative activities involve effective management of cases that arise as a result of infectious and noninfectious disease, childbirth and reproduction.

Despite the general consensus, as embodied in the National Health Plan, about what should be done and the impressive distribution of health facilities, rural health services have been deteriorating for at least a decade and are now in a state approaching crisis. The most recent documentation of this situation comes from the study by Beracochea et al., partly funded by the CSSP. As a result of this deterioration, the health status of the population in a number of areas of the country is probably deteriorating, and may not be substantially better than it was at independence.

**B. Inadequacy of the DOH Response**

The main reasons for this state of affairs are

- Decentralization of health services (described in Section 3).

- Decrease in the per capita expenditure on health. Although the total public expenditure on health has been increasing, the rate of increase is not as great as that of population growth, and per capita expenditures have thus decreased. Perhaps the most significant effect on health services has been a decrease in operating funds available to rural health services.

- Deterioration in the law and order situation in rural areas and a consequent cutback in outreach activities by health staff. However, even in areas where the law and order situation has not deteriorated to the same extent there has been a decrease in the delivery of heath services to the rural population.

In the time since the initial design of this project some of these factors have worsened, particularly with respect to money available for rural health services. In addition, there has been a very significant and unforeseen shift in the administration of government services with the imminent recentralization of significant government functions now delegated or transferred to the provinces. This applies to health as well as other government services.

As we noted above, the main effect of decentralization of government services was to decrease the money available to meet the operating expenses of rural health services with a resultant decline in outreach activities and supervision and support of health center and aid post staff. There has been a reduction in the supply of drugs and other essential items. The maintenance of facilities and equipment has fallen behind. In addition there was a significant decline in the technical support available to the provinces from the center.

**C. The Immediate Future**

The recentralization of health services provides an opportunity to make some changes in this project to meet the emerging situation. The overall aim of the changes, as in the current project, would be <u>to improve maternal and child health through more effective delivery of rural health services</u>. The main elements would include:

- Increased financial support for rural health services, especially by increasing the budget for operating expenses such as transport and meals allowance for patrols. This may involve the

Department of Health engaging in special negotiations with the Department of Finance under the mooted recentralization of health services.

- Revitalization of rural health services through a renewed approach, which includes the following activities:

  -- Improved management of health services at all levels. This could particularly include assistance with budgeting and planning at the provincial level. Within the provinces, particular emphasis should be placed on budgeting for, and management of, those activities which involve the delivery of rural health services as outlined below. The WHO 5-year planning workshops, though well publicized, did not effectively link the workshop product to a negotiating process to secure additional provincial resources. DOH needs to use leverage in government to steer more resources to meeting the demand for rural health services.

  -- Improved supervision and support for rural health centers and aid posts. This will include supervision and support of health centers by doctors stationed at the provincial capitals, supervision and support of aid posts by health center staff. Particular attention should be paid to the possible use of radios at provincial, health center and aid post levels in raising levels of support and improving case management. An area in which immediate gains could be expected would be cold chain management.

  -- Improved medical supplies at the provincial, district and aid post levels. This would also involve application and extension of the work already begun by the LMA. Two important issues that emerge here are (1) the provision of adequate physical transportation for supervision visits, patrols and supplies to health centers and aid posts, and (2) attention to training (beyond their annual meeting) of Area Medical Store Superintendents to upgrade technical and managerial skills.

  -- Improve the delivery of effective vaccines to those living in rural areas. Particular attention will need to be paid to ensuring the integrity of the cold chain and to outreach activities that improve coverage. Here, much of the work on the cold chain carried out by the LMA through the CSSP will be most important.

  -- Improved case management at the health center and aid post. This involves implementation of many of the activities on which the project's MCHP has been working.

  -- Increasing the safety of childbirth. This will involve encouraging high-risk mothers to seek supervision for childbirth and improving the supervision of births at the health center. Within the community the elements are less clear, but where appropriate, and provided they can be supported by the heath services, should involve the use of village birth attendants.

  -- In-service training. The provision of in-service training for staff at all levels will be critical to the success of attempts to improve the delivery of rural health services. Particular attention should be paid to use of the health center and its staff for the provision of regular in-service training for APOs at the time of their regular visits to the center. This may involve the provision of appropriate video material for the nursing officers at health centers to use in extending their own in-service training to APOs.

- Continuation of the attempts to integrate government and mission health services. This should include attention to agreements between the missions and provincial and national governments which specify the responsibilities of the governments and the missions as well as the mechanisms for provision of funds.

It is clear that such a wide ranging attempt to revitalize rural health services will require considerable additional inputs. The most important is the funds necessary for the functions of rural health services to be carried out. In addition, there will be a need for additional technical inputs. As outlined above, the core of many of these additional inputs have already been identified by the CSSP activities to date. The need now is to look to the future and determine how these might be included as part of a comprehensive revitalization of rural health services.

The nature of what has been reviewed here and the limits to the resources available through the remainder of the project precludes implementing a national program immediately. We believe that the attempts in the remainder of this project should be directed through interventions in four provinces, one in each region. These need to be chosen in consultation with the national government. Initial negotiations would include explicit attention to financing of rural health services through the national and provincial budgets and the particular structure of health services under the proposed recentralization of health services.

## Section 9. Research Agenda Implementation

### A. Background

In the original concept of the CSSP, the first two years were to be a research and planning phase (Phase I) which would involve a modest number of special studies grouped as applied research.

Although research studies were described in the RFP, funds were not included in the original contract for this set of activities, but were dependent on the preparation of a research plan as the basis for a contract amendment. JSI prepared a research plan which was approved in May 1991. Subsequently USAID requested that an external group, composed of Drs. Michael Alpers and Carol Jenkins of PNGIMR and Ms. Jane Thomason of UPNG, make recommendations on the research agenda. These documents were examined at the CSSP Office. For brevity, they are not appended here, but incorporated by reference.

### B. CSSP Studies Completed or Considered as "In-Progress"

A listing of studies completed and in progress as of the end of Phase I is shown in the "CSSP Research Agenda" (Appendix K). At the time of the Phase I evaluation, the status of some of these studies had changed in that some which were "in-progress" at the time the document was prepared are now completed. The studies fall into two categories, those funded through the CSSP research budget, and those carried out by CSSP but which did not utilize resources from the CSSP research budget.

Studies in the first category have been carried out by staff of the Department of Health, the PNG Institute of Medical Research, the Department of Community Medicine at the University of Papua New Guinea, and CSSP staff. The eight studies funded to date are for a total value of 183,686.70 Kina. (See Table 2 of the Briefing Book presented to the evaluation team on March 17, 1993.)

In addition, a further six studies which are essentially health services research projects have been carried out by the CSSP staff without use of CSSP research budget.

**C. Studies in Preparation**

A wide range of studies are in preparation. These include both more basic studies and those which are more operational in nature. These are also shown in Appendix K, which was developed by Dr. Keith Edwards from the "CSSP Research Agenda" document dated April 1992.

**D. Review Process**

The evaluators requested information about the steps through which a CSSP research proposal must pass on its way to approval (or rejection). Further, request was made to see an estimate of the time required for each of the successive review steps. There was no match between the information presented by the HSMA/COP on this estimate with what could be confirmed from reviewing the data with RDO/SP. The matter of research proposal review process ought to be a topic of regular review among the principal CSSP partners.

A number of issues remain to be resolved. First, there are two documents that present a research agenda (the original document prepared by JSI in the first months of their contract and a separate document prepared by Alpers et al.). One principal agency, RDO/SP, prefers to consider the version by Alpers et al. as the best available statement of the CSSP Research Agenda.

There is basically no conflict between the two documents. However, the document prepared by Alpers et al. is more generic in nature and presents examples of the types of research that might be expected to be carried out under each of the main areas identified. Thus, we recommend that the Alpers at al. document be accepted as providing the overall research agenda. Nevertheless, it is important that the agenda is open to revision throughout the life of the project in order that new issues of importance which became apparent during the project can also be addressed.

The second issue is the research approval process. The evaluators concurred that an approval process that allows a timely response to proposals is required. The issue of where responsibility rests for the final approval of proposals was examined. Initial consideration of proposals begins with consideration by the CSSPRAC on which USAID is represented. As it stands at the moment, final approval also rests with the Suva office of USAID. This is the case in bilateral projects for reasons of technical direction, financial control and ethical considerations as defined by U.S. government policies.

The third issue is the creation of research capacity. This project has given considerable prominence to research. In addition it has also stressed, as do all USAID projects, the importance of sustainability. However, the current design pays little attention to the sustainability of research for which the basis is creation of research capacity. Although the nomination of national counterparts is important and the holding of workshops on research techniques is helpful, neither is sufficient to contribute to the creation of research capacity in the absence of postgraduate training in research techniques such as occurs through post-graduate training in research. This is of utmost importance in PNG as the pool of trained national biomedical researchers is very small. We recommend that the project should include increased emphasis on research training.

Fourth, we need to return to earlier comments about the current version of the CSSP Strategy. The CSSP team of advisors designates its work as employing research tools, and, therefore, designates

the CSSP Project as a Research Project. In one sense, this seemed a misnomer to the evaluation team. We did recognize the diversity of study topics addressed by CSSP principals in wanting to make use of answers to planning questions being asked.

## Section 10. Other Evaluation Issues: CSSP Technical Assistance Reporting, Coordination Mechanism and JSI Budget

### A. Reporting

The AID-JSI contract signed July 1990, "Section F. Deliveries or Performance" specifies in "Item 3. Reporting" the three categories of reports to AID that constitute deliverables for this contract:

Annual Work Plans

Documentation was seen, embedded within the routine written reports from JSI to RDO/SP that these work plans are updated, even more frequently than once a year. In fact, they form a part of the twice yearly reporting to RDO/SP on Phase I CSSP activities.

Detailed Project Progress Report

The contract specifies the content and frequency of these reports. The team examined the content of the reports; they follow the outline of the AID-JSI contract as specified. At a point in Phase I, RDO/SP provided verbal feedback to the contractor, requesting that the work plan charting be complemented by a narrative summary. This summary, labeled "Issues," serves to highlight: (1) CSSP work on topics treated in the Issues section; and (2) commentary on the DOH decision-making environment, e.g, effects on CSSP work of the departmental reorganization during 1991-1992 and the changes in leadership in the Office of the Secretary.

The frequency of the contractor's reporting does not match the instructions set forth in the AID-JSI contract. A narrative report is specified to be produced within one month after the end of each quarter. What was discovered is that JSI submits narrative reports to RDO/SP on a six-monthly reporting basis. Three such reports were examined corresponding to the reporting periods:

September 1990 through March 1991
April 1991 through September 1991
October 1991 through March 1992

However, since April 1992, no six-monthly report to AID was produced. The contractor's explanation is that RDO/SP offered guidance to JSI encouraging that the strategic plan production be the focus of reporting activities. The HSMA/COP invested a portion of time in 1992 to produce a version of the strategic plan, which was then reviewed by the DOH in April 1992 and with RDO/SP/HPN in August 1992.

Upon the evaluation team's arrival in PNG on March 17, 1993, each team member was presented with a "Briefing Book" prepared by the CSSP team. The second section of the Briefing Book is entitled "Phase I Report" and serves to fill in the void in the reporting period from April 1992 to March 1993.

Trip Reports of Travel within PNG by JSI Advisors

A series of tables (Appendix I) displays the contract-related in-country travel itineraries by time period and by the JSI team during Phase I. Illustrative trip reports were examined and there appeared to be a match between use of the budget resources for Phase I activities and content of the reports examined.

**B. Coordination Mechanisms Used by CSSP Principals**

Comments:

Since a CSSP Coordinating Committee was never formed, there seems not to be in place the type of GPNG oversight management of the direction of the CSSP that was pledged in the Technical Proposal and addressed in the AID-JSI contract.

It is unclear if the DOH managers (Acting FAS who became the Acting Secretary of Health, and his alternate, during 1990-1992) were adequately informed about the nature of their duty to review the AID-financed technical assistance contractor's work. The leadership appears to have accepted CSSP advisors as a mirror image of the WHO Country Office, providing generalized TA in a number of health sector support areas, several of which attempt to strengthen the DOH's and the PHDs' planning for Child Survival services. The AID-JSI contract calls for the DOH to convene a CSSP Project Coordinating Committee with representation from within the DOH, RDO/SP, RDO/SP/PNG and JSI. In fact the instruction to form a contract-specified Coordinating Committee was never acted upon by DOH or JSI.

Rather, a substitute group was formed and named the CSSP Implementation Review Committee, which has met twice during Phase I. There is little match between evidence on file in PNG of the deliberations of this group and the monitoring structure specified in the JSI contract. RDO/SP appointed a local staff person in PNG to attend several of the Implementation and CSSP Research Advisory Committee meetings, but that person serves largely a listening function. The designated person does not speak for RDO/SP in providing technical input to the Committees' deliberations. Final approval of research proposal recommendations made in PNG rests with the Secretary of Health. A further approval by RDO/SP is required on all CSSP recommended research funding because of financial, ethical and technical considerations in AID financing.

**C. Budget-Related Comments**

One evaluator examined a JSI contract budget summary spreadsheet, stated as current reporting on expenses incurred through September 1992 (which is approximately the end of Phase I by a calendar estimate). Many expenditure levels appeared to be within the limits of the amounts forecasted as need by JSI during Phase I. Notable "cost growths" included expenditures for long-term staff's quarter's allowances, communications, expendable supplies and the per diem and airfare expenses within PNG for JSI Home Office staff.

The design of the CSSP technical assistance package presumed that Phase I would be characterized by vigorous regular travel to the Provincial partners, especially at the service levels, by the long-term advisors. Examination of CSSP six-monthly and financial reports (that this line item has been only spent at half the rate of execution forecasted) leads to the observation that this travel coverage was not sustained during Phase I; and points to less utilization of the resource budget than AID and JSI forecasted at the outset of the CSSP contract.

**D. Use of JSI Collaborators and CSSP Organizational Partners**

JSI's 1989 Technical Response Proposal to the RFP issued by AID to secure contract technical services for the CSSP spoke emphatically to JSI's plans to offer formal subcontracting agreements to its identified collaborators (PNGIMR, HRD, PDA) and individual staff and external collaborators (35 experts were presented in the Proposal).

To date, only a subcontract was executed with HRD for marketing services in pursuit of a CSSP intent to promote the development and use of rice-based ORS under CSSP sponsorship. PNGIMR, the nation's major provider of the health sector biomedical and experimental research, is still a distant associate at the end of Phase I.

In 1992, CSSP did commission a study on the state of rural health services in PNG. Several of the investigators are faculty members of the Community Health Division, UPNG School of Medicine. But no institutional cooperation agreement exists between CSSP/CHD-UPNG.

To date, JSI has used only 2 of the 34 names identified as experts (and both these individuals are past or present JSI corporate employees) to perform short-term consultancies to move CSSP forward on strategy development. In brief, this project resource seems not to be as fully utilized as it might be for getting help in making the CSSP focus clear and sound. JSI records show there were six temporary consultations at CSSP by the following JSI staff or associates as indicated:

| | | |
|---|---|---|
| Mr. Charles Simon | 1991 | (Staff member of JSI/REACH) |
| Ms. Pat Taylor | 1991 | (Staff member of JSI/Mothercare) |
| Dr. Norbert Hirschhorn | 1992 | (Dr. Hirschhorn is a JSI Associate) |
| Dr. David Pyle | 1992 | |
| Dr. Richard Moore | 1992 | |
| Ms. Victoria Francis | 1992 | |

The generation of work tasks for the above assignments produced a match with just JSI's internal staff capabilities, since the firm is the recipient of several multi-year cooperative agreements with USAID worldwide. No other consultants external to JSI employees were identified to perform these tasks. One exception was a short consultation in 1991 performed by Ms. Jane Thomason, then the Chairperson of the Community Medicine Division of the UPNG.

## Section 11. Recommendations

The recommendations offered here have to be tentative ones, since the focus of this evaluation was based on an interpretation of the evaluator's Scope of Work as explained in Section 1 of this report.

This exercise documented that the CSSP contractor made efforts to comply with contract instructions to use Phase I as a planning period to put in order the pieces of CSSP work in order to launch Phase II. There were commendable technical support activities performed to help the DOH and Provinces strengthen the content of PNG's Rural Health Services segments of the current 5-Year National Health Plan. An impressive array of free-standing technical documents, curricula and audio-visual material, all centered appropriately on child survival technologies and messages, has been produced by energetic collaborators.

However,a clear picture did not emerge from our examination of the commitments made by the principals (GPNG, DOH, AID and CSSP external advisors) to use Phase I to lay the groundwork

for a **specific** "effective institutional mechanism to support provincial health offices" in improving services delivery in a way that is different from the situation at the outset of the CSSP Project in 1989.

**Recommendation No. 1**

**RDO/SP and JSI should agree to amend their present contract in order to delete language that refers to the obligation to employing RSUs as the main institutional vehicle for implementing the activities foreseen in Phases I and II of the CSSP.**

Discussion

From the viewpoint of the external evaluators, the two partners to the AID-JSI technical assistance contract do not have a current common understanding of JSI's duty to identify a viable institutional mechanism to continue CSSP efforts beyond 1996. The present AID-JSI contract Scope of Work does not match the present state of CSSP work plans and the current version of the CSSP Strategic Plan. The 1990 contract instructs the contractor to provide technical assistance and other services to the DOH in specific institutional development through the RSU mechanism. Viewing the contract from that point required JSI to show evidence that its long-term technical assistance effort during Phase I assisted the DOH to establish RSUs.

Option

AID/RDO/SP may wish to consider the following option of an amendment to the existing contract. There could be a modification of the instructions for JSI to channel its technical resources in establishing RSUs as the **sole effective institutional mechanism** for continuing CSSP support to provincial health divisions.

JSI might be requested to draft a position statement, which centers on the options available to the DOH in considering alternate vehicles for locating a permanent resource capability to continue the lines of CSSP support initiated under the current two phases of the project. To generate a menu of alternative mechanisms for on-going CSSP technical support will require further rounds of consultations with the co-pilots for CSSP implementation: RDO/SP DOH, representatives of PHDs, key agency partners (particularly PNGIMR and, perhaps, UPNG Community Health Division) and JSI.

In the view of JSI, the wording of Amendment 2 to the JSI contract appeared to emphasize that Phase I efforts are expected to produce only basic information for Phase II planning through the CSSP Research Agenda and special studies. These products would be used by an appropriate DOH institutional mechanism to carry on the targeted re-enforcement of child survival messages, tools and staff actions.

**Recommendation No. 2**

**Expert assistance from JSI corporate sources is needed right now to generate a revised CSSP strategic plan for Phase II.**

Discussion

JSI's worldwide resource base of experts in support of the design, implementation and management of Child Survival Programs is a known quantity resource. The evaluators found that resources were drawn down in a way that does not match the declared intentions of the contractor's response to AID's CSSP Request for Proposals. Moreover, there is proportionately little evidence (six short-term consultancies in Phase I, at least one of which was mainly for office management support) that JSI is channeling senior-standing oversight advice to the in-country team. There is an urgent need for JSI corporate management to consider the findings of this assessment and generate an action response.

The 1990 Technical Proposal submitted to RDO/SP in response to the CSSP Request for Proposals identified that corporate JSI pledged resources to conduct once a year Internal Management Audits of its contractor performance within the CSSP context. The evaluators could find no documentation that such appraisals were carried out conforming to the describing given those activities in the JSI proposal. Senior staff from JSI did visit the project in both March and August 1992. We were told that their visits contributed to the elaboration of the 1993 version of the CSSP Strategic Plan and its companion piece, the Implementation Plan. Despite those collaborations, the institutional capacity building focus of the CSSP strategy remains unclear to external reviewers.

The evaluators were informed of the JSI, Inc. policy, announced in mid-1992, that one of three corporate officials (Messrs. Lamstien, Moore and Olivola) will conduct a site visit to each major AID Mission contract project site at least once a year. The situation at CSSP requires that plans for a field visit by one of the three named corporate officers should be accelerated.

**Recommendation No. 3**

**Options should be considered in addition to the proposed one-year contract extension for the Community Health Nursing Administration Advisor.**

The discussion in Section 5 of this report related the unfortunate history of today's situation in which the project has a curriculum and a course in progress, but no identified course coordinator to continue successive offerings of the course. The evaluators believe it would be reasonable for RDO/SP to consider the proposed one-year contract extension for the CHNAA position, subject to two qualifying conditions to be considered by all three principal partners:

- The CHNAA is preparing several work products that are to reflect joint collaboration in their evolution and production. The principals should request substantive evidence be offered of the minuted discussions of that joint collaboration. The purpose here is to provide adequate back-up material for the DOH so that the approval to use the DOH logo as an endorsement is substantiated by identifying the respective contributions of the authors.

- The evaluators considered feedback from several informants who were surprised that not more than one candidate was selected as the likely facilitator for continuing the CHNA course. Assurances were offered that among PNG's community of senior-standing community

health-oriented nurses, several prospective candidates could be recommended quickly. It was further speculated that CAHS might secure non-CSSP funding to secure a diploma qualification (but not a Master's degree) in a pertinent aspect of community health nursing management for several such candidates within the next 12 months. It would seem logical, that, if such promises can be made reality, the present CHNAA coordinator would continue to have an ongoing advisory role to the CAHS course facilitator beyond 1993. A number of options should be considered, e.g., establishing a series of short-term consultancies for the incumbent CHNAA, or a comparable professional, to return periodically to PNG to conduct in-progress reviews of future offerings of the CHNA course cycle.

**Appendix A**

**SCOPE OF WORK**

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SCOPE OF WORK

for

THE INTERIM EVALUATION

OF

THE PNG CHILD SURVIVAL SUPPORT PROJECT

(879-0017)

## I. Purpose and End Product:

The purpose of this contract or work order is to evaluate A.I.D.'s Papua New Guinea Child Survival Support Project (CSSP) and make recommendations concerning future project directions, activities, and correctional actions, if any, needed. The end product is to be an evaluation report as described in [illegible] submitted in draft to RDO/SP before the team's return to the U.S., and in final NLT one month after the contractor receives RDO/SP's comments on the draft.

## II. Background:

The Papua New Guinea Child Survival Support Project was authorized on August 11, 1989 for an A.I.D. contribution of $9.4 million, with a PACD of August 31, 1997.

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The purpose of the CSSP project is to improve maternal and child health service delivery in the rural areas. This is both A.I.D.'s first major bilateral project in PNG, and RDO/SP's first major bilateral project in the South Pacific. What is more, GPNG has had little prior experience with large bilateral projects of this type. Because of that lack of experience on what works and how in PNG, the project was divided into a "preparatory phase" (Phase I), of approximately three years (most of the first year of Phase I was relegated to project related contracting and involved no in-country implementation), and a "intervention phase" (Phase II), of approximately five years. Phase I was to lay the technical, programmatic and organizational foundation for Phase II, as well as ensure that minimum skill and knowledge levels essential to strengthening capacity exist and that conditions required to established operative mechanisms for institutionalizing capacity are met. Phasing highlights the reinforcing relationship between the technical and the institutional strengthening aspects of the project.

The project was designed in the second quarter of FY 1989 by RDO/SP, the PNG Department of Health, and a team provided by John Snow, Inc. (JSI). It was authorized and signed in August 1989. The RFP for the major contractor was let in October 1989 and a contract was signed with the winning offeror, JSI, in June 1990, to provide technical assistance and other services for the project. The four long-term, JSI resident advisors for the project arrived



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in-country in September/October 1990. Funds to support operational research and special studies were provided through an amendment to the JSI contract in June 1991 in order to streamline administration of that research as much as was feasible. Expenditures and accruals to date for the contract as a whole are $2,178,000 of $6,394,000 total contract, and for special studies and operations research are approximately $170,000 out of an approved $877,000.

III. Focus of Evaluation:

The evaluation will focus on (1) how well the contractor has fulfilled the tasks outlined in the project paper, RFP and contract for Phase I; (2) how well the individual advisors have performed their duties and responsibilities; (3) whether child survival technologies are being adequately and pro-actively promoted to PNG health system workers and other relevant officials; (4) whether adequate attention has been paid by the resident advisors and the project to provincial coordination and consensus building; (5) whether adequate preparation has been made to proceed into Phase II, and, if not, what remedial actions need to be taken to insure successful movement into Phase II; (5) whether key institutional mechanisms for implementation of the project, most notably the Regional Support Units, still seem appropriate to meet project objectives; (6) whether the End of Project Status (EOPS) indicators remain appropriate to judge project success; (7) whether the funds for research and special studies are being used in a



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timely and appropriate manner to facilitate project implementation and progression into Phase II; (8) whether adequate planning and special studies for training activities in-country have been performed and whether Phase II training activities are operationally ready to begin; (9) whether project "assumptions" were correct or still valid; (10) whether GPNG is meeting its commitments under the Grant Agreement; (11) whether the project has been responsive to emerging health issues, and consequently has sufficiently explored alternative approaches to meet these issues; (12) whether JSI is meeting all its committments of its contract; and (13) whether expenditures to date are within the budget.

The EOPS indicators are meant to be measurable indicators of progress toward improving maternal and child health services delivery (see Project Paper and JSI Contract). These may be of limited use in this Phase I evaluation, however, and, based on project experience to date, the team may recommend modifications to the EOPS at this time to reflect more appropriate indicators of long term project progress.

The project benchmarks and [illegible] for Phase I are described in the PP and in project work plan.

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IV. Methodology:

The methodology for this evaluation is as follows:

1. Obtain from A.I.D./W a copy of the project paper, including the Needs Analysis, JSI contract, and other documents related to this project.

2. Discuss with relevant JSI home office staff in Boston and/or Washington issues of project progress, home office support, and plans (interviews should include at minimum David Pyle and Richard Moore).

3. Stop in Fiji on the way to PNG to allow RDO/SP/HPN to brief team leader on its perspective and views of the project (Evaluation team leader only).

4. Review CSSP records, documents, reports and administrative set-up in Port Moresby.

5. Meet in Port Moresby with CSSP staff, Department of Health personnel and project counterparts, and pertinent officials at the Ministry of Finance and Planning, Office of International Development Assistance, to discuss the status of the project implementation, including accomplishments, difficulties and plans for the future. In particular, there should be meetings with the



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Secretary of Health; the First Assistant Secretary for Primary Health Care; the Assistant Secretary (AS) for Family Health; the AS for Policy, Planning and Research; The Chief Pharmaceutical Officer; the head and staff of the Departments of Community Medicine and Child Health at the Faculty of Medicine at the University of Papua New Guinea (UPNG); the Dean and staff of the College of Allied Health Sciences, especially those involved in developing and implementing the Community Health Nursing Administration course; with WHO; and with RDO/SP/PNG Assistant Director.

6. Travel separately to Rabaul in East New Britain Province, Lae in Morobe Province, Goroka in Eastern Highlands Province, and in East Sepik and Milne Bay Provinces, to meet with the staff of the Regional Support Units, with provincial health staff, with NGO's involved in child survival activities and to review some of the project's special studies.

The meetings with the staff of the RSUs (Goroka, Lae, Rabaul), provincial health officials and NGO staff should provide information to evaluate the relevance and quality of assistance from the project, including strengths and weakness of the technical assistance, and the state of the RSUs' preparation and interest in implementing Phase II of the project. It is especially important that every effort be made to meet with the head of each RSU and key staff.

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At the provincial level, the team should meet try to meet with the provincial Assistant Secretary for Health; the provincial (MCH) matron; and the provincial Health Extension Officer (HEO); the provincial pharmacy officer; and other pertinent health staff, as well as make an effort to visit some district health centers or sub-centers and aid posts. In provinces where there are Regional Medical Stores, the team should also meet with pharmacists in charge of the stores. In provinces where special studies funded by the project are taking place, the team should attempt to visit some of the study sites and meet with staff involved.

In Goroka, in addition to meeting with the above officials, the team should meet Dr. Michael Alpers, Director of the Institute of Medical Research (IMR), and Dr. Carol Jenkins, an anthropologist with IMR.

7. Draft evaluation report after travels, interviews and reviews are completed.

8. Brief RDO/SP/PNG, DOH, and OIDA officials prior to leaving PNG on findings and recommendations. The COP should travel back through Suva, Fiji upon departure from PNG to brief RDO/SP and leave preliminary draft evluation report.

9. Revise evaluation report after receiving comments from RDO/SP and issue in final form, within one month of receiving



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RDO/SP comments. The final report will be circulated to RDO/SP, RDO/SP/PNG, GPNG and JSI. If the evaluators believe that some of their findings may be too sensitive for those audiences, they may submit a separate report to RDO/SP on those sensitive issues.

V. Composition of Evaluation Team:

The contractor is to provide three people for total of approximately 83 work days, including travel time. It is anticipated that one person will be hired locally in PNG, while the other two people will be Americans. One of the two expatriate consultants should have a strong background in health systems management and operations research in developing countries and be very experienced in the planning, management and implementation of health services projects. The other should be an expert in child survival technologies, and in research and implementation of child survival projects. The local-hire person should be a health systems expert, with extensive experience in PNG in the health field vis a vis management, planning, implementation and evaluation of health projects, as well as familiarity with the PNG health situation. RDO/SP will approve the nominations by the contractor.

The local hire consultant will work 20 days on the evaluation, while the team leader will work approximately 35 days and the other 28 days. The chief of party will be required to stop in Suva, Fiji upon completion of the evaluation to debrief RDO/SP.

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VI. Logistics:

The contractor will be responsible for arranging all travel and providing airline tickets for the team. The local travel budget line item may be used to rent cars if needed in PNG. The team members should bring laptop computer(s) and a printer. RDO/SP will not be able to provide office space, secretarial or logistics support, so the team should plan on working out of their hotel rooms. A six-day work week is authorized.

VII. Tentative Schedule:

Since airline schedules and availability of team personnel cannot be predicted at this time, the following schedule is tentative for planning purposes and is based on present airline schedules and the availability of CSSP contractor and host country staff.

Team Member A (COP)

medical reasons
3-4 overnight →

February 18, Thursday - ETA Suva, Fiji
February 20 - Saturday - ETD Suva
February 21, Sunday - ETA Port Moresby, PNG.
March 1, Monday - Fly to Alotau, Milne Bay Province.
March 2, Tuesday - Fly to special projects sites in the provinces.

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March 3, Wednesday - Return to Alotau.

March 4, Thursday - Fly to Rabaul.

March 8, Monday - Fly to Goroka, Eastern Highlands.

March 10, Wednesday - Fly to Port Moresby.

March 20, Saturday - ETD Port Moresby

March 22, Monday - ETA Suva, Fiji

March 25, Thursday - ETD Suva.

Team Member B

March 1, Monday - Fly to Wewak, East Sepik (accompanied by local team member to E. Sepik, Morobe, and Goroka).

March 4, Thursday - Fly to Lae, Morobe.

March 7, Sunday - Fly to Goroka, Eastern Highlands.

March 10, Wednesday - Fly to Port Moresby.

March 20, Saturday - ETD Port Moresby

March 22, Monday - ETA the United States

The team would use March 10-19 for additional interviews and to draft their report.

Team COP will be responsible for visiting Suva, debriefing RDO/SP and submitting the evaluation report in draft before his/her departure.

## Appendix B

## EVALUATION TEAM'S TIMETABLE

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# CHILD SURVIVAL SUPPORT PROJECT
# MID-TERM REVIEW

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## TENTATIVE SCHEDULE FOR REVIEW TEAM

**17 MARCH - 14 APRIL 1993**

| DAY | DATE | TIME | LOCATION | FLIGHT NO. | PERSONS\PROGRAMS\EVENTS | ACCOMMODATION |
|---|---|---|---|---|---|---|
| Monday | 15/03/93 | | Port Moresby | | | |
| Tuesday | 16/03/93 | | | | | |
| Wednesday | 17/03/93 | 1:15 p.m. | Port Moresby | PX 004 | John Gilespie & Peter Heywood arrive | Islander Hotel |
| | | 2:45 p.m. | Islander Hotel | | USAID to pick up for 3:30 meeting | |
| Thursday | 18/3/93 | 8 a.m. - 12 noon | **Port Moresby** | | Meet with CSSP Team | |
| | | 12 noon | | | Lunch | |
| | | 2:30 p.m. | Family H. Office | | A.S., Family Health, Mr. Enoch Posani | |
| | | 3:30 p.m. | Primary Health Services | | FAS/PHS, Mr. Lindsay Pilowas | |
| Friday | 19/03/93 | 8 a.m. | CAHS, Street's Office | | M. Street/K. Edwards, Maternal Health | |
| | | 9 a.m. ? | | | ditto | |
| | | 10 a.m. ? | | | ? (A) A.S., Policy & Planning, Mr. Andrew Pasong | |
| | | 11 a.m. - 12 noon | ARI Office | | Coord., ARI, Dr. Gilbert Hiyawaler | |
| | | 1 p.m. | HIS/Policy & Planning | | Coord., HIS, Mr. Raka Guma | |
| | | 2 p.m. | Secretary's Office | | Secretary for Health, Dr. Isaac Ake | |
| | | 3 p.m. | CSSP Office | | | |
| **Saturday** | **20/03/93** | **12 noon** | **Port Moresby** | | **Weekend: Reception at J. Russell's** | **Davetari Dr., Lot 98, Sec. 5** |
| **Sunday** | **21/03/93** | **9AM - 11AM** | **Port Moresby** | | **Weekend Team Review of Report outline** | |
| Monday | 22/03/93 | 8 a.m. | | | | |
| | | 9 a.m. | CAHS | | Peter Eaepae, Dean of College of Allied Health Sciences | |
| | | 10 a.m. | | | | |
| | | 10:30 a.m. | Nat'l Epid. Office | | Nat'l Epid., Dr. Sarath Ruberu | |
| | | 1 p.m. | Training Office | | Andrew Emang, A.S./Training | |

# CHILD SURVIVAL SUPPORT PROJECT
# MID-TERM REVIEW

BEST AVAILABLE DOCUMENT

## TENTATIVE SCHEDULE FOR REVIEW TEAM

**17 MARCH - 14 APRIL 1993**

| DAY | DATE | TIME | LOCATION | FLIGHT NO. | PERSONS\PROGRAMS\EVENTS | ACCOMMODATION |
|---|---|---|---|---|---|---|
| | 10:30 | ~~11 a.m.~~ ? | Nat'l Epid. Office | | ? Nat'l Epid., Dr. Sarath Ruberu | |
| | | ~~1:30 - 3:30 p.m.~~ | CAHS/Street Office | | M.Street: Diploma Course review | |
| | | 1-2 | Child Health | | AS, IQN A. Emang Training | |
| | | 2-4 | Keith + ~~[illegible]~~ | | Margaret - Trau | |
| | | 6p-8:30p | POM-Wewak | PX126 (a) | Travel POM to Wewak | Wewak Peninsula Inn |
| Tuesday | 23/03/93 | | **Wewak, E. Sepik** | | ~~Carol Jenkins joins team in Wewak~~ | |
| | | | Prov. DOH | | A.S./Health, Dr. John Sairere | |
| | | | | | 2:00 PM - WHO/DEC | Fr. Terry Russell |
| | | | Green River, W.Sepik | MAF (b) | MUAC Nutrition Pilot Project | |
| Tuesday | 23/03/93 | 8:00 a.m. | **POM: Islander Hotel** | | Dr. Harumi Karel, Director, Project Concern 8:30 | WHO/DEC |
| | | 10:30 a.m. | Pharmaceutical Services | | Mr. Steve Clein, Chief, Pharm. Services Office | |
| | | | | | | |
| | | 11:15-11:30 AM | | | ~~Andrew Parsons~~ Andrew Emang | |
| | | | | | | |
| | | ~~1:00 PM~~ | | | Tuesday P.M - MoH ECP/Bass on Mortality Review Emang | |
| | | | | | | |
| | | | | | | |
| Wednesday | 24/03/93 | 7:00 a.m. | | PX100 | Gillespie & Beracochea travel to Lae | |
| | | | | | Dr. Thale Likom, Assist | |
| | | | | | Dr. Jay Atilaka, Health Coordtr + Staff | |
| | | | | | Mr. Andrew Parsons in Lae | |
| Thursday | 25/03/93 | | Vanimo, W.Sepik | MAF (b) | A.S./Health, Dr. Marcus Woibun | Vanimo Resort Hotel |
| | | | | | | |
| | | | | | | |
| | | | | | Gillespie / Beracochea arrival from Lae | |
| Friday | 26/03/93 | 11 a.m. - 11:40 a.m. | Vanimo to Wewak | PX141 (b) | Travel Vanemo to Wewak | |
| | | 12:05 p. - 1:25 p.m. | Wewak-POM | PX141 (a) | Travel Wewak to Port Moresby | Islander Hotel |
| | | | | | 8-11 AM: All team Bass + Islander | |
| | | | | | PM - NCD - RSU | |



4:30 PM Steve Karel

Neil Tong - RSU Tomorrow

18/03/93

# CHILD SURVIVAL SUPPORT PROJECT
# MID-TERM REVIEW

## TENTATIVE SCHEDULE FOR REVIEW TEAM

**17 MARCH - 14 APRIL 1993**

BEST AVAILABLE DOCUMENT

| DAY | DATE | TIME | LOCATION | FLIGHT NO. | PERSONS\PROGRAMS\EVENTS | ACCOMMODATION |
|---|---|---|---|---|---|---|
| | | | | | | |
| **Saturday** | **27/03/93** | | | | **Weekend** | (Meet Dr. AKC) Conf |
| **Sunday** | **28/03/93** | **9:45 a.m. - 10:35 a.m** | **POM - Goroko** | **PX160 (c)** | **Travel POM to Goroko, visit IMR & Highlands RSU** | **Bird of Paradise Hotel** |
| Monday | 29/03/93 | 8:00 a.m. | IMR | | Dr. Michael Alpers | |
| | | 12 ~~10:30~~ a.m. Now | **Highlands RSU** | | **Dr. Dias** 10: AM – NS [illegible] | Asst Sec'y Health, |
| | | **4:40 a.m. - 5:30 p.m.** | **Goroko - POM** | **PX163 (d)** | **Travel Goroka to POM** See Lillian Sim | Islander Hotel |
| Monday | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Tuesday | 30/03/93 | 8:00 a.m. | Port Moresby | | See Lindsay Filimas, Gnoc, | |
| | | 9:00 a.m. | Port Moresby | | | |
| | | 10:00 a.m. | Port Moresby | | | |
| | | 11:00 a.m. | Port Moresby | | | |
| | | 12:00 a.m. | Port Moresby | | | |
| | | 1:00 a.m. | Port Moresby | | | |
| | | 2:00 a.m. | Port Moresby | | | |
| | | 3:00 a.m. | Port Moresby | | or NCD - call. | |
| Wednesday | 31/03/93 | 6:30 a.m. - 7:55 a.m. | POM - Rabaul | PX204 (e) | Travel POM to Rabul, visit Islands RSU 9:30 AM – Assistant Sec, | |
| | | 4:20 p.m. - 5:40 p.m. | Rabaul - POM | PX205 (e) | Travel Rabaul to POM | |
| Thursday | 01/04/93 | | Port Moresby | | Report Writing | |
| Friday | 02/04/93 | | Port Moresby | | Report Writing Debrief Dr AK before Peter [illegible] | |
| **Saturday** | **03/04/93** | **11:30 a.m.** | | **PX 60** | **Weekend; Peter Heywood departs PNG** | |
| **Sunday** | **04/04/93** | | | | **Weekend** | |
| Monday | 05/04/93 | | Port Moresby | | Report Writing | |
| Tuesday | 06/04/93 | | Port Moresby | | Report Writing | |

other site visits to be programmed to Highlands service centers as feasible from POM

# CHILD SURVIVAL SUPPORT PROJECT
# MID-TERM REVIEW
## TENTATIVE SCHEDULE FOR REVIEW TEAM
### 17 MARCH - 14 APRIL 1993

| DAY | DATE | TIME | LOCATION | FLIGHT NO. | PERSONS\PROGRAMS\EVENTS | ACCOMMODATION |
|---|---|---|---|---|---|---|
| Wednesday | 07/04/93 | | Port Moresby | | Report Writing | |
| Thursday | 08/04/93 | | Port Moresby | | Report Writing; ~~C. Jenkins last work day~~ | |
| Friday | 09/04/93 | | Port Moresby | | Public Holiday: Good Friday | |
| Saturday | 10/04/93 | | Port Moresby | | Weekend | |
| Sunday | 11/04/93 | | Port Moresby | | Weekend: Easter | |
| Monday | 12/04/93 | | Port Moresby | | Public Holiday: Easter Monday | |
| Tuesday | 13/04/93 | | Port Moresby | | Report Writing | |
| Wednesday | 14/04/93 | | Port Moresby | | Report Writing | |
| Thursday | 15/04/93 | | Port Moresby | | Report Writing | |
| Friday | 16/04/93 | | Port Moresby | | Report Writing | |
| Saturday | 17/04/93 | 9 a.m. | Port Moresby | SA 707 | John Gillespie departs PNG | |
| | | | Port Moresby | | | |

**NOTES (passengers on flights)**

(a) K. Edwards, P. Heywood
(b) K. Edwards, P. Heywood, C. Jenkins
(c) A. Bass, J. Gilespie, P. Heywood, E. Beracochea, Clement Malau
(d) A. Bass, J. Gilespie, P. Heywood, E. Beracochea, Jenkins
(e) J. Russell, J. Gilespie, P. Heywood, E. Beracochea, C. Jenkins, L. Pilowas

**POSSIBLE OTHER PERSONS TO INTERVIEW**

(a) Steve Cline, Pharmaceutical Supplies * Scheduled 22 03 93
(b) Ville Postila, WHO EPI/CDD Advisor *
(c) Joji Urbiztondo, Systems Analyst, Health Information Office
(d) Raka Guma, Coordinator, Health Information System * * Done 19 03 93

(f) Kwana Vavai, Coordinator EPI and CDD
(g) Steve Karel, WHO Management & Planning Advisor . Done 20 3 93
(h) Harumi Karel, Director, Project Concern International Sched. 22.03.93
(i) Powa Wanena, Liaison Officer, Church Medical Council
(j) Leonard Loh, (A)FAS, Administration and Finance Done 22 03 93
(k) John Vince, Professor of Pediatrics, UPNG Medical School
(l) Mr. E. Dekel, Country Representative, WHO Scheduled 22 03
(m) A.S., Training, Mr. Andrew Emang Scheduled 22 03

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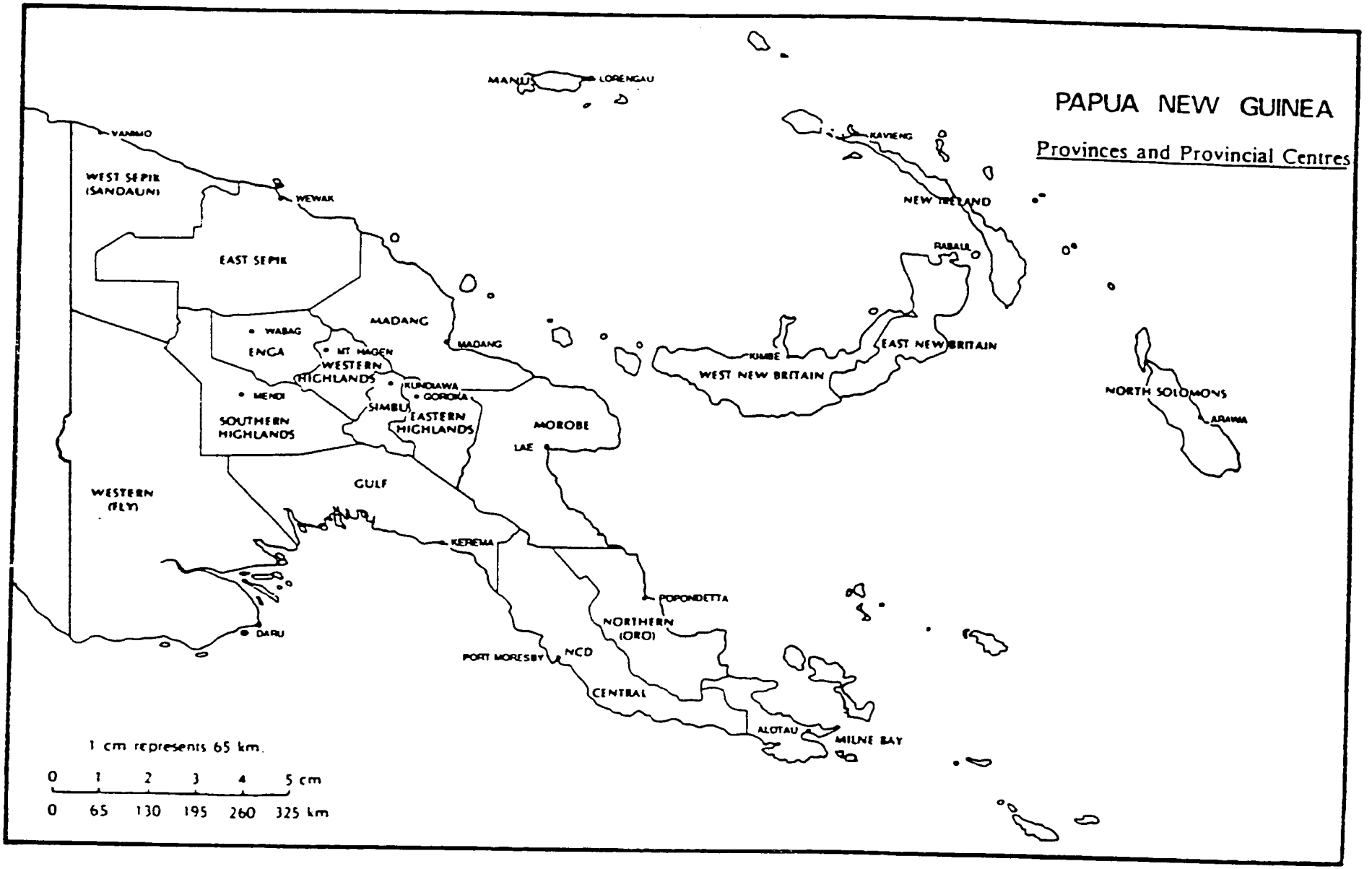
## Appendix C

## MAP OF PAPUA NEW GUINEA




Map of Papua New Guinea

## Appendix D

## PRIMARY HEALTH SERVICES DIVISION ORGANIZATIONAL CHART

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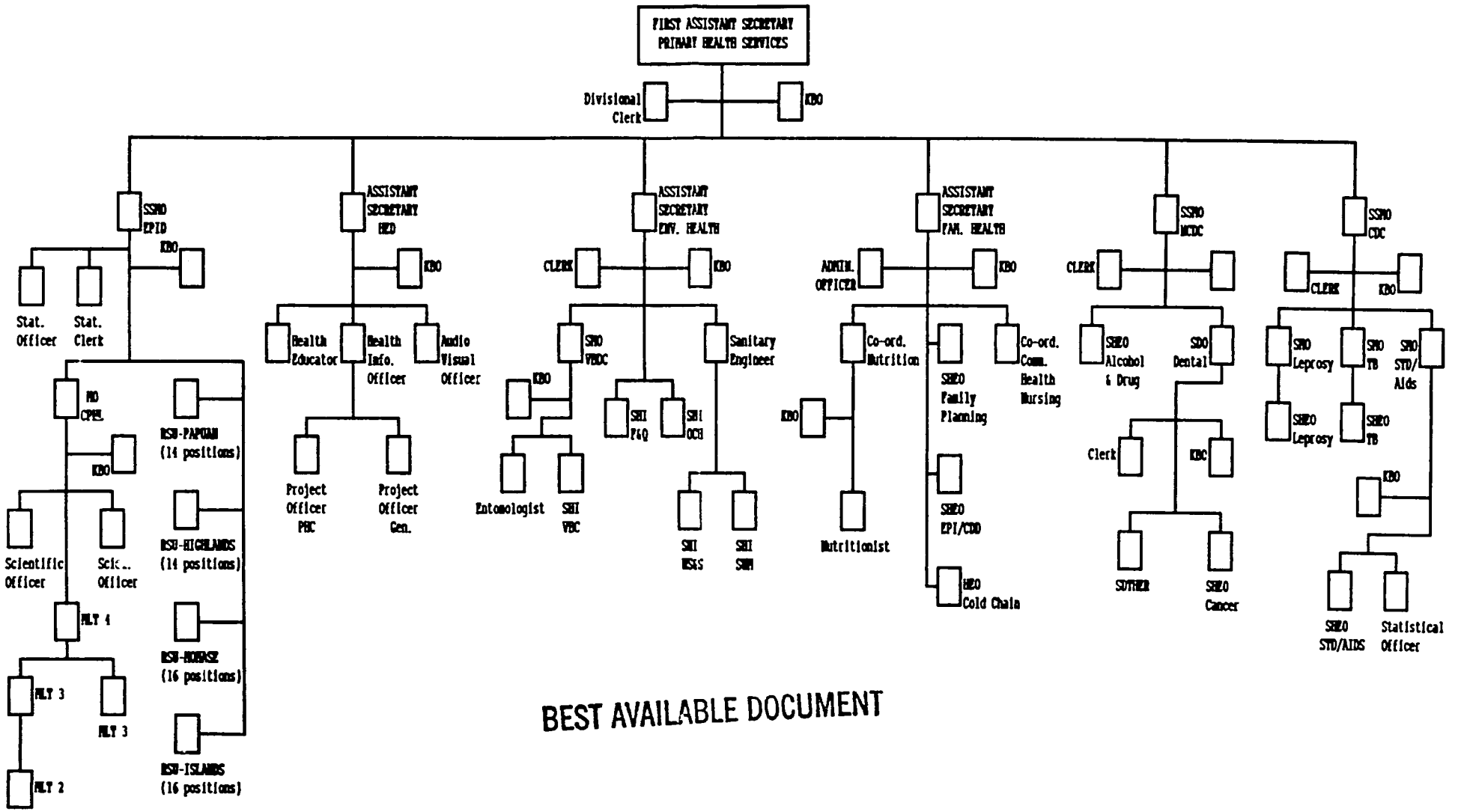
# PRIMARY HEALTH SERVICES DIVISION STRUCTURE

## DPM APPROVAL 24 MARCH 1992

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**Appendix E**

**HISTORY OF DOH CHILD SURVIVAL PROJECT BUDGET UNDER GPNG PUBLIC INVESTMENT PROGRAMMES — 1991-1995**

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Original Budget Request for 1993
as Submitted by P.H.S.

## ACTIVITY CHILD SURVIVAL SERVICES (240–2201–2–104)

A. Expenditure (in Thousands of Kina)

| Expenditure Items | Actual 1990 | Actual 1991 | Appropriation 1992 | Requested for 1993 |
|---|---|---|---|---|
| 111 Salaries and Allowances | 0.0 | 0.0 | 101.8 | 0.0 |
| 112 Wages | –18.7 | 10.3 | 14.8 | 0.0 |
| 114 Leave Fares | 20.1 | 0.0 | 1.9 | 0.0 |
| 121 Travel and Subsistance Expenses | 42.9 | 49.7 | 37.2 | 60.0 |
| 122 Utilities | 1.7 | 2.2 | 4.8 | 5.0 |
| 123 Office Materials and Supplies | 0.0 | 7.5 | 10.4 | 10.0 |
| 124 Operational Materials and Supplies | 45.0 | 11.0 | 8.0 | 50.0 |
| 125 Transport and Fuel | 17.0 | 35.5 | 0.0 | 60.0 |
| 128 Routine Maintenance Expenses | 14.6 | 0.0 | 0.0 | 20.0 |
| 135 Other Operational Expenses | 0.0 | 0.0 | 0.0 | 790.5 |
| 221 Office Furniture and Equipment | 10.9 | 13.6 | 6.1 | 20.0 |
| 223 Feasibility Studies, Project Preparations and Design | 0.0 | 1.2 | 0.0 | 20.0 |
| 224 Plant, Equipment and Machinery | 3.0 | 0.0 | 0.0 | 131.2 |
| 228 Construction, Renovation and Improvement (DOW) | 0.0 | 87.5 | 415.0 | 295.0 |
| Total | 136.5 | 218.5 | 600.0 | 1461.7 |

B. Other Data in 1993

1. Additional inputs from external grants: TA: USAID 48 person months; research; and training
2. Performance Indicators/Targets: To improve child and maternal health services in the rural areas and mainly consists of health education, curriculum development, training and operational research. Many of the operations will be carried out through the 4 Regional Support Units.

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ACTIVITY CHILD SURVIVAL SERVICES (240-2201-2-104)

A. Expenditure (in Thousands of Kina)

| Expenditure Items | 1993 | | 1994 | | 1995 | | 1996 | |
|---|---|---|---|---|---|---|---|---|
| | Subtotals | Totals | Subtotals | Totals | Subtotals | Totals | Subtotals | Totals |
| 111 Salaries and Allowances | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| 112 Wages | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| 114 Leave Fares | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| 121 Travel and Subsistance Expenses | 60.0 | 60.0 | 68.0 | 68.0 | | | | |
| 122 Utilities | 5.0 | 5.0 | 6.0 | 6.0 | | | | |
| 123 Office Materials and Supplies | 10.0 | 10.0 | 12.0 | 12.0 | | | | |
| 124 Operational Materials and Supplies | 50.0 | 50.0 | 50.0 | 50.0 | | | | |
| 125 Transport and Fuel | 60.0 | 60.0 | 64.0 | 64.0 | | | | |
| 128 Routine Maintenance Expenses | 20.0 | 20.0 | 20.0 | 20.0 | | | | |
| 135 Other Operational Expenses | | 790.5 | | 463.8 | | | | |
| a) MCH/EPI Training Programs | 654.3 | | 383.8 | | | | | |
| b) Travel to convert kerosine refrigerators to LP Gas | 61.2 | | 0.0 | | | | | |
| c) Other Travel and Subsistance | 75.0 | | 80.0 | | | | | |
| 221 Office Furniture and Equipment | 20.0 | 20.0 | 20.0 | 20.0 | | | | |
| 223 Feasibility Studies, Project Preparations and Design | 20.0 | 20.0 | 20.0 | 20.0 | | | | |
| 224 Plant, Equipment and Machinery | | 131.2 | | 0.0 | | | | |
| a) LP gas conversion kits for friges | 10.2 | | 0.0 | | | | | |
| b) Cold storage equipment for provincial-level Vaccine Stores | 121.0 | | 0.0 | | | | | |
| 228 Construction, Renovation and Improvement (DOW) | 295.0 | 295.0 | 295.0 | 295.0 | | | | |
| Total | | 1461.7 | | 1018.8 | | 757.25 | | 757.25 |

Notes:

1. Salaries, Allowances, Wages and Leave Fares are included in the regular recurrent budget of the DOH.
2. Details for the training and EPI equipment are provided in the attached budget.

B. Other Data in 1993

1. Additional inputs from external grants: TA: USAID 48 person months.
2. Performance Indicators/Targets: To improve child and maternal health services in the rural areas and mainly consists of health education, curriculum development, training and operational research. Many of the operations will be carried out through the 4 Regional Support Units.

C. Summary Budget:

| Year | Actual Expenditure | Estimated 1992 Exp. | Budget Remaining | Totals |
|---|---|---|---|---|
| 1990 | 136.50 | • | • | 136.50 |
| 1991 | 218.50 | • | • | 218.50 |
| 1992 | • | 250.00 | • | 250.00 |
| 1993 | • | • | 1,461.70 | 1,461.70 |
| 1994 | • | • | 1,018.80 | 1,018.80 |
| 1995 | • | • | 757.25 | 757.25 |
| 1996 | • | • | 757.25 | 757.25 |
| Totals | 355.00 | 250.00 | 3,995.00 | 4,600.00 |

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**Appendix F**

# TRAINING STRATEGY FOR THE CHILD SURVIVAL SUPPORT PROJECT

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# Training Strategy for the Child Survival Support Project

**Pattern of Existing Training:** In-service training activities for the CSSP target diseases and conditions has been occuring sporadically in the provinces since the early 1980s. This training most often involves the same provincial staff being removed to a central location. Materials used have often been those prepared for other countries by the World Health Organization and are not consistent with Standard treatment regimes in PNG. The cost of the training has largely been met by donor agencies and there is very little evidence that the persons attending the training courses have passed on any of the knowledge and skills to their fellow workers. The disruption to normal working activities has been high as the same key staff are repeatedly removed for training and hardly have opportunity to practise new knowledge and skills before they are again removed. Because, training content has tended to be varied and incomplete, it is difficult for participants to pass on knowledge without either serious information errors occuring or a loss of status due to poor performance.

**CSSP training strategy:** For maximum success, training should: properly reinforce PNG standard treatment regimes; be low cost, cause minimum disruption to routine work patterns, be easily repeatable and maintain quality of information and skill transfer. These criteria can be fulfilled by the preparation of suitable 2-level training materials (for health centre and aidpost level staff) and using health centre based training with core material available on video tape.

This training should be facilitated by the provincial In-service Coordinator who will travel to each health centre to assist with initial training.

Because of this key function, CSSP is planning to upgrade the Training of Trainer skills of these workers by holding a TOT training course for them.

The monitoring of the provincial in-service training activities should be assisted by the RSU staff and such items as number and content of courses and more importantly, number and identity of staff who are trained should be monitored and advice fed back to provinces. It is important that RSU staff do not play a key role in actual teaching as this is not practical due to simple logistics and will delay the number of courses and the quantity of staff trained. If the RSU concept is abandoned by the Government of PNG then the Health Curriculum and Media Unit in Port Moresby should take on this role.

Special Note: The reliance on video for supporting quality of teaching does have several implications:

- Suitable Videos need to be prepared.(In both Pidgin and English)
- Portable TV/VCR Units need to be available (CSSP has identified a suitable model which is a combined TV/VCR unit which is powered by 12 or 240 volts and costs around K500-00.
- Teaching can be reinforced by playing the video more than once so that maximum transfer of information is achieved.

As a result of the points outlined above, the main thrust of the CSSP to date has been in the preparation of materials. This has been the case for the following reasons:

There is a need to rationalize and improve existing materials and develop new materials in neglected areas e.g., community education.

It is essential that in-service training materials are consistent with standard treatment regimes.

2 levels of materials are needed for health centre staff and aidpost staff.

Video is an important methodology to facilitate health centre based training and these do not exist.

The following chart summarises interventions which have training implications which address CSSP targets diseases or conditions. Each intervention is coded as follows: completed or near completed (✓); in the process of development (⊙); about to commence ( ).

CSSP MCH Physician has been taking part in all National DOH coordinated training programmes and has used this opportunity to adapt materials and to guide DOH, donor and RSU personnel a more coordinated approach to training activities.

Precise fianalization of CSSP training activities depends on the completion of the required materials, adequate provision of the PNG Government counterpart funds, adequate funding of the provincial rural health activity vote, adequate funding and staffing of the RSUs. CSSP training has already occurred as part of pilot project activities and the already completed materials will be in use in 1993. We expect that 1994 will see the commencement of large scale district level training.

## INTERVENTIONS TO ADDRESS TARGET DISEASES AND CONDITIONS

| TARGET | HEALTH CENTRE | | AIDPOST | | COMMUNITY | |
|---|---|---|---|---|---|---|
| 1. Pneumonia | In-service Training | ⊙ | In-service Training | ⊙ | Flipchart | ✓ |
| | Module | ✓ | MCH Handbook | ⊙ | Poster | |
| | Flowchart | ✓ | Flowchart | ✓ | Adult Literacy Book | |
| | Video | ✓ | Video | ✓ | Radio Programme | |
| | Bacterial Resistance Study | | Bacterial Resistance study | | | |
| | Tuberculosis Score Chart | ✓ | Tuberculosis Score Chart | ✓ | | |
| | Respiratory Rate Timer | ✓ | Respiratory Rate Timer | ✓ | | |
| 2. Diarrhoea | In-Service Training | ⊙ | In-service Training | ⊙ | Flipchart | ✓ |
| | Module | ⊙ | MCH Handbook | ⊙ | Poster | |
| | Video | ✓ | Video | ✓ | Adult Literacy Book | |
| | flowchart | ✓ | flowchart | ✓ | Radio Programme | |
| | Single cup rice based ORS | ⊙ | Single cup rice based ORS | ⊙ | Single cup rice based ORS | ⊙ |
| 3. Malaria | In-service Training | ⊙ | In-service Training | ⊙ | Flipchart | ✓ |
| | Module | ✓ | MCH Handbook | ⊙ | Poster | ✓ |
| | Flowchart | ✓ | Flowchart | ⊙ | Adult literacy Book | |
| | Video | | Video | | Radio Programme | |
| | Treated Bednets | ✓ | Treated Bednets | ⊙ | Treated Bednets | ⊙ |
| 4. Malnutrition | In-service Training | ⊙ | In-service Training | ⊙ | Flipchart | ✓ |
| | MUAC Tape +6-step | ✓ | MUAC Tape + 6 step | ✓ | Poster | |
| | Module | ✓ | MCH Handbook | ⊙ | Adult Literacy Book | |
| | Nutrition Units + garden | ⊙ | | | Radio Programme | |
| 5. Immunizations | In-service Training | | Tetanus toxoid to women | | Flipchart | |
| | Module | | MCH Handbook | ⊙ | Poster | |
| | Video | | | | Adult Literacy Book | |
| | Cold Chain Equipment | | | | Radio Programme | |
| 6. High Risk Pregnancy | In-service Training | | In-service Training | ⊙ | VBA Programmes | ✓ |
| | Module | | MCH Handbook | ⊙ | Flipchart | ✓ |
| | Video | | Ergometrine Intervention | ✓ | Poster | ✓ |
| | | | Fefol given at aidpost | | Adult Literacy Book | ✓ |
| | Delivery Equipment | | Video | | Radio Programme | ✓ |
| 7. Global | Medical Imprest | | Medical Imprest | ✓ | Village Health Aides | |
| | Standard Treatment Book | ✓ | CHW Training Texts | ⊙ | Village Devt. Committees | |
| | Sick Child 10-step checklist | ⊙ | Vitamin A - thin children | ⊙ | | |
| | Provincial MCH Vote | ⊙ | Provincial MCH Vote | ⊙ | | |
| | Radio Supervision | ⊙ | Quality Circle | ⊙ | | |

## Other CSSP sponsored training

The evaluation team assessed the In-country training and workshops program as stated in the contract:

1. National RSU Policy (workshop). This was not conducted because the team felt that the policy had been set up before their arrival.

2. Regional RSU Task Forces (workshops). Members of the CSSP team attend meetings which seemed to have been set up before their arrival.

3. Job analysis - Community Health Nurse Supervisor (workshop). This took place and report has been produced.

4. Community Nutrition Assessment (training). This is part of the MUAC pilot project.

5. Planning for Village Midwives Program (workshop). This took place in Goroka in 1991 and a report has been produced.

6. Village Midwives (training). With DOH staff the training guidelines and the curriculum have been produced but no training has been carried out.

7. Evaluation of Village Midwives Program (workshop). The team looked at the different training programs in Morobe and in Milne Bay provinces. However, no evaluation workshop was carried out.

8. Machik II (training). This is plnned for phase II.

9. Aidpost Management of common illnesses (training). This was includedn in the MUAC pilot project.

10. Logistics (training). Training of Area Medical Stores staff took place and further training is planned for phase II.

11. Design of Inservice training in Management (workshop). This is planned for phase II. The training modules prepared with WHO will be used.

12. In-service training in Management (training). This is planned for phase II.

13. Design of Inservice training for MCH (training). This is planned for phase II. Some training materials have been prepared.

14. In-service training in MCH (training). This is planned for phase II.

15. Training Modules Preparation (for future training purposes). This is planned for phase II.

**Appendix G**

**PNG CHILD SURVIVAL SUPPORT PROJECT**
**SCOPES OF WORK AND COMMENTS**
**PREPARED BY JSI TEAM**

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**PNG CHILD SURVIVAL SUPPORT PROJECT**
**ANNOTATED SCOPE OF WORK FROM USAID - JSI CONTRACT**
**FOR JERRY RUSSELL, CHIEF OF PARTY AND MANAGEMENT ADVISOR**

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| 1a | Represents, as C.O.P., the contractor to A.I.D. and the GPNG. | Schedule and/or attend all meetings with A.I.D. and GPNG; prepare reports; insures all parties are kept informed of contractual progress and issues. | This is a normal part of the duties of a C.O.P. It is much easier when the A.I.D. mission is located in the same country as the contract team and project. |
| 1b | Works in close liaison with counterparts to have a good working relationship with the DOH and other GPNG health officials. | As C.O.P., am a member of the P.H.S. Divisional Staff Committee, the D.O.H. Child Survival Implementation Committee and am a participant in most major D.O.H workshops and conferences, including the annual meetings of the Provincial Assistant Secretaries and the semi-annual R.S.U. staff meetings. Listen carefully to counterparts, other DOH staff, donors, NGOs and team members to detect and resolve issues before they become major problems. | Relationships of team members with their counterparts are cordial and productive. It is unfortunate, however, that team members have a number of expatriate contract employees of the DOH as counterparts, for a basic purpose of technical assistance is to help national counterparts learn and master the assistance being provided. |
| 1c | Serves as primary point of coordination between the Contractor, AID and the DOH, and between the Contractor's field staff and its home office in terms of overall management of activities and resolution of problems impeding performance. | Regularly brief the Secretary for Health and FAS/PHS on the progress of the CSSP, including problems and issues in project implementation. Talk and correspond with A.I.D. when there are problems and work toward their resolution. Have prepared submissions to home office and A.I.D. for contract amendments (research, construction and staff extensions), which would resolve some of the contractual problems. | This responsibility has taken quite a bit of my time and, certainly, not all "problems impeding performance have been resolved. However, they have been identified and we are working together to resolve them, e.g., status of RSUs, DOH CSP Budget, EOP Targets, need for an overall Strategic Plan, need for extension of EPI and Nursing Advisors and mariagement of research program. |
| 2 | Serves on the project coordination committee and appraises it of progress and problems. | Work on a daily basis with D.O.H. counterparts and, as needed, brief the Secretary for Health and D.O.H. Child Survival Project Implementation Committee on progress of the project and problems which need resolution. Have had only one meeting which included both D.O.H. counterparts and A.I.D./Suva representatives. | A formal Project Coordination Committee was never established. A.I.D./POM participates in the CSSP Research Advisory Committee which meets fairly frequently, meets with the CSSP staff frequently and meets on a reasonably frequent basis with D.O.H. officials. A.I.D./POM staff and CSSP staff are often participants in meetings with D.O.H. staff. In addition, the C.O.P. is a member of the D.O.H.'s Child Survival Project Implementation Committee. |

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**PNG CHILD SURVIVAL SUPPORT PROJECT**
**ANNOTATED SCOPE OF WORK FROM USAID - JSI CONTRACT**
**FOR JERRY RUSSELL, CHIEF OF PARTY AND MANAGEMENT ADVISOR**

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| 3a | Provides technical leadership and direction. | Led development of initial work plan (October 1990) and revised workplan based on Strategic Plan (October 1992); led and coordinated development of initial research strategy and research amendment proposal (December 1990); hold weekly staff meetings for discussion of and coordination of all activities; and work with individual team members in all activities to insure compatibility with overall project plan and consistency work of other team members. | The individual advisors require little technical "direction" although we work together on coordination among the team members, and preparing presentations for DOH and AID. |
| 3b | Supervises work of all long term and short term expatriates and contract staff to ensure that planned outputs are provided on schedule. | Through weekly staff meetings and ad hoc meetings with team members, as well as periodic review of work plan implementation, work to insure that planned outputs are provided on schedule. | Because of so many changes over the life of the project, including DOH leadership, DOH counterparts, approval of a new 5-Year Health Plan, declining support for the RSUs, delays in selecting candidates for CSSP overseas training and RSU family health staff, schedules have had to be constantly modified. We have tried to adhere to the contract phasing schedule (as amended), but it has not always been possible.. |
| 4a | Ensures technical linkage, consistency, and reinforcement between project components. | This task is closely related to Task 3a, above and the work performed largely the same. I encourage the team members to work closely together and, where there is apparent overlap between their activities, to share responsibilities. For example, teaching materials developed by one are often useful to others. | Encouragement of this type cooperation is not difficult within the team. Everyone feels a strong bond to the team and assists each other in many ways. One set of examples is the goal of reduced maternal mortality: the Nursing/Midwifery Advisor concentrates on the VBA activities and Mothers' Books, while assisting the MCH Advisor in designing the Study of CHWs' use of Ergometrine and the EPI Advisor in improving the TT immunization program for pregnant women. |

BEST AVAILABLE DOCUMENT

**PNG CHILD SURVIVAL SUPPORT PROJECT**
**ANNOTATED SCOPE OF WORK FROM USAID - JSI CONTRACT**
**FOR JERRY RUSSELL, CHIEF OF PARTY AND MANAGEMENT ADVISOR**

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| 4b | Identifies key questions for research and studies. | Led development of Research Amendment Proposal, which included preliminary identification of research/study topics; led discussions with external experts for their suggestions for CSSP research; worked with team to identify information needs related to CSSP objectives and planned activities, and steps required to obtain the information, including research and studies. | In this process, consulted with external experts for their ideas and incorporated them into CSSP Research Proposal and Plan. These consultations included the same persons later requested by A.I.D. to submit a separate suggested research agenda for the project. Inadvertantly, there was considerable overlap. |
| 4c | Monitors preparation of studies and research and ensures that findings are applied to project activities. | Lead team in solicitation of research proposals, participate in all negotiations, review proposals, and prepare subcontracts. Work with team and researchers to identify ways to apply findings to work of project. | This will become more important as we move into the implementation phase. |
| 5 | Prepares and/or submits all progress reports and project documents to AID and the GPNG. | Have prepared 6-monthly progress reports for A.I.D. and the D.O.H. Have provided each with copies of all research reports and other significant documents prepared by the project. | A.I.D. has been supportive of changing the reporting requirement from quarterly to six-monthly. |
| 6a | Assists the FAS/PHS and the AS/FHS to design and initiate a concensus building process for preparing an acceptable implementation plan for establishing the RSUs. | The RSUs were already established when the team arrived. Worked with DOH Coordinator for RSUs (National Epidemiologist) to develop scope of work for the RSU Family Health Nurse, semi-annual meetings for RSUs, to conduct a facility and equipment survey of the RSUs and provided a consultant to the RSUs for HIS needs assessment and recommendations on computer requirements, including training. | Plans apart, the DOH has not provided the necessary support to the RSUs to make them fully functional and useful. To date, they have not been fully staffed, they have not had the budget required to do their jobs and they have not had clear and consistent policy support and direction. National staff could have been recruited and trained as Regional Epidemiologists, but the first national was recruited in mid-1991. Still there are two expatriate contract Regional Epidemiologists. The annual budgets for the two RSUs headed by nationals are significantly lower than those headed by expatriates, even though those headed by nationals are more completely staffed. |



BEST AVAILABLE DOCUMENT

**PNG CHILD SURVIVAL SUPPORT PROJECT**
**ANNOTATED SCOPE OF WORK FROM USAID - JSI CONTRACT**
**FOR JERRY RUSSELL, CHIEF OF PARTY AND MANAGEMENT ADVISOR**

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| 6b | Facilitates the organization of a national workshop to institute the planning process, and | Since the RSUs were already established, a national workshop was not required. | The National Task Force on RSUs had completed its work and submitted its report and recommendations prior to arrival of the CSSP team. |
| 6c | monitor regional task forces' work schedules, meetings, and the production of an RSU detailed program plan. | The CSSP team members have participated in meetings of the regional Assistant Secretaries and RSU staff. | The DOH has given responsibility for their planning and meetings to the National Epidemiologist, working in cooperation with the Regional Epidemiologists. |
| 7a | Serves as the principal resource person for the FAS/PHS and the AS/FHS in maintaining the momentum of the consensus building and planning exercise. | The National RSU Coordinator is in charge of the work of the RSUs. Have worked with him, as appropriate and acceptable to him, to | The same comment, as above, applies. |
| 7b | Assists the FAS/PHS and REU directors in charting the progress of the regional task forces, in conducting quarterly reviews of their draft documentation and consolidating the elements into an acceptable implementation plan. | CSSP staff have been invited to participate in the regional meetings of Provincial Assistant Secretaries and RSU meetings. | These meetings tend to be forums for discussing problems in the provinces and ways in which the RSUs can assist. Lately they have included a major focus on finalization of the provincial 5-year work plans. |
| 8 | Advises and provides on-the-job training to the provincial assistant secretaries of health (ASHs) and the present REU staff so that the REUs are able to provide in-service instruction in specific delivery support areas such as management and training techniques, resource allocation budgeting, and transport reinforcement practices in these new skill areas by provincial and district health managers. | As indicated in the CSSP work plans (original - - December, 1990 and revised - August, 1992), training for RSU staff and provincial assistant secretaries is to start in Phase Two of the project (1993). The major exception was the identification of two RSU staff candidates and sending them abroad for MPHs in 1992. | Phase Two will certainly focus on training for provincial staff, including Assistant Secretaries for Health. The extent to which RSU staff will participate will depend upon current deliberations on the future role of RSUs and, if they are continued, on their complete staffing and adequate budgetary support. |

BEST AVAILABLE DOCUMENT

**PNG CHILD SURVIVAL SUPPORT PROJECT**
**ANNOTATED SCOPE OF WORK FROM USAID - JSI CONTRACT**
**FOR JERRY RUSSELL, CHIEF OF PARTY AND MANAGEMENT ADVISOR**

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| 9 | Works with such national resources as the CAHS, the National Training Support Unit of the DOH (NTSU), the Administrative College of PNG (ADCOL) and private firms or institutes to design competency-based curricula and teaching methods to upgrade the instruction of HEOs in health services planning and management during their professional training. | As stated above, the CSSP contract and work plans have scheduled most training activities for Phase Two, starting in 1993. The plan was developed in this manner so that the results of the studies and research could be used in the planning for straining. | It is likely the RSUs will continue in some form for at least another 2 years. Since they will have the staff and responsibility for assisting the provinces in maternal and child health programs, the CSSP continues to plan for training of trainers courses for RSU staff, as well as training in technical areas identified by the CSSP as effective and applicable to rural health services.<br>The ADB currently has in PNG for the next 2 years a curriculum advisor for the HEO training program. Already the CSSP team is working with him . |
| 10 | Works with the Community Health Nursing Advisor to design the new diploma course in nursing administration. | Worked closely with the Nursing Advisor on this task, particularly with regard to its location, the training for the national Tutor/Coordinator and resources required by the program. | The entire team assisted in this task, although the Nursing Advisor certainly carried most of the responsibility. |
| 11 | Helps the FAS/PHS to identify provincial candidates to assume management and technical responsibilities in staffing the future RSUs, and develops training plans to match these candidates' skills building needs with appropriate in-country and out-of-country instructional resources. | With other team members and help from the JSI/Boston office, identified appropriate MPH programs in the US. Worked with the DOH to select 2 candidates for RSU-related positions, including Regional Epidemiologist and National Epidemiologist (recently promoted to FAS/PHS). Am in process of identifying appropriate 2-month community participation training in Thailand for the 4 newly appointed Family Health Nurses. | Until the DOH decides otherwise, we are continuing to work with the RSUs and to plan training programs for RSU staff. |
| 12 | Advertises for, selects and manages sub-contractual agreements with PNG firms or external institutes to conduct special studies to support project implementation or provide required technical assistance, such as management curriculum development. | Have played primary role in CSSP Team in solicitation of proposals, their review, selection and contracting. Developed alternative contract models (cost reimbursable and fixed cost contracts). | During Phase Two, will begin to contract, as needed and appropriate, with individuals and organizations to assist in curriculum development and training. |



BEST AVAILABLE DOCUMENT

# ANNOTATED SCOPE OF WORK

FROM THE USAID - JSI CONTRACT (P. C-28)

**Dr Keith N. Edwards,** MCH PHYSICIAN

PNG CHILD SURVIVAL SUPPORT PROJECT

| PRINCIPLE RESPONSIBILITIES | WORK PERFORMED | COMMENTS |
|---|---|---|
| 1. Advises and assists the Assistant Secretary, Family Health, and other national counterparts in the development of maternal and child health services. | Assistance to AS/FHS:<br>❒ Facilitator at Regional MCH Planning Workshops.<br>❒ Member and rapporter of National DOH MCH Working Committee<br>❒ Regular Counterpart Meetings.<br>Advice and assistance to RSUs:<br>❒ Attendance and presentation of MCH Service strategy/interventions to biannual National RSU meetings (1990,1991,1992)<br>Advice and assistance to provinces:<br>❒ Attendance and presentation of CSSP MCH Strategy/interventions to Annual ASH of provinces meetings (1991, 1992) | A major constraint in this area is the low level of staffing of the National DOH in the family health services section. In particular, there is only one officer who has responsibility for the areas of ARI, CDD and EPI. |
| 2. Advises and supports DOH counterparts in the establishment of the family health services component of the RSUs. | Review and modification of existing job descriptions for the Regional Epidemiologist and the Regional Family Health Advisors.<br>Promotion of the F.H.A. as the most urgent new staff required for the RSUs along with Regional Health Educator (National RSU Conferences) | Delay in appointing FHAs caused by:<br>❒ Multiple resubmissions and rejections of National DOH Structure to DPM.<br>❒ Freeze on DOH Positions.<br>❒ Delay in housing construction.<br>❒ Ambivalence by National DOH to the RSU concept |
| 3. Assists with the selection of appropriate people as the family health advisors in the RSUs, provision of their subsequent on-the-job training, and supervision in the performance of all their assigned responsibilities. | Family Health Advisors appointed by DOH Committee without consultation to CSSP. This occurred without warning when I was out of Port Moresby on a field visit and was part of the global advertising and appointing exercise that is ongoing for all National DOH positions. | Because of Housing restrictions, a major factor taken into account in selection was the possession of housing by the applicant. |

| | | |
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| 4. Collaborates with the national Assistant Secretary for Training, and the Community Health Nursing Advisor in assisting the Dean and staff of CAHS in the preparation of the community health nursing administration course targeted at the needs of MCH matrons and deputy matrons in the provinces. | ❒ Review of Course Curriculum as prepared by CSSP CHN Advisor.<br>❒ Participation in course teaching in Child Health component of first Semester. | Course delayed by National DOH deliberations on the location of the course and the dificulty in identifying a suitable candidate for course tutor be sent overseas for MPH training. |
| 5. Collaborates with appropriate counterparts in the preparation of various training programs and modules in child survival and maternal health care techniques for use in in-service training of provincial rural health staff. | Principle role in the preparation of the following materials:<br>❒ ARI Diagnosis and Treatment Module*.<br>❒ ARI Diagnosis and Treatment Flowchart.<br>❒ ARI Community Education Flipchart.<br>❒ CDD Diagnosis and Treatment Video<br>❒ CDD Diagnosis and Treatment Flowchart<br>❒ CDD Community Education Flipchart.<br>❒ Malaria Diagnosis and Treatment Module<br>❒ Malaria Diagnosis and Treatment Flowcharts.<br>❒ Malnutrition Diagnosis and Treatment Module.<br>❒ Special MUAC tape for Use by APOs<br>❒ Malnutrition Community Education Flipchart.<br>❒ APO involvement in Village Delivery Module.*<br>❒ Safe Childbirth Community Education Flipchart<br>❒ Safe Childbirth Adult Literacy book.<br>❒ Safe Childbirth Poster and Play<br>❒ 6th Edition of the Standard Treatment for Common illnesses of Children in Papua New Guinea.<br>❒ MCH Handbook for Aid Post Workers*<br>❒ CHW Training texts and Handbook.<br>❒ 10-step Checklist for all Sick Children.<br>❒ Disease monitoring and Outbreak Control Manual<br>❒ STD Handbook | * ongoing and nearing completion.<br><br>Many of these materials are currently in the pretesting phase of their production.<br><br>The CSSP MCH Physician is the Principle Medical Editor for the Health Curriculum and Media Unit (HCMU) of the National Health Department. |

| | | |
|---|---|---|
| 6. Then trains and assists the family health advisors in the use of these training materials. | Family Health Advisors appointed March 1993 and not yet on the job. | See above (2) for delay in appointing FHAs to RSUs. |
| 7. Acts as resource to facilitate effective training of MCH and Child Survival at provincial level. | Principle facilitator at the following Provincial Workshops:<br>❒ Regional MCH Planning Workshops (Port Moresby, Lae and Rabaul)<br>❒ VBA Workshop (Eastern Highlands)<br>❒ Provincial 5-year Health Planning Workshops (Milne Bay, and East Sepik)<br>❒ Malaria Diagnosis and Treatment and Treated Bednet Workshops (Southern Highlands and Manus)<br>❒ ARI and CDD Diagnosis and Treatment trainer of trainer workshops (East New Britain and Manus)<br>❒ Malnutrition Diagnosis and Treatment for Aidpost Workers (East Sepik and West Sepik) | These workshops were performed in collaboration with National DOH, WHO and UNICEF. |
| 8. Provide TA to FHA for training of provincial staff. | FHAs not yet on the job | See item (2) above |

| | | |
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| 9. Helps the ASH/FHS to identify suitable MCH services topics for operations research and then monitors the preparation of the studies through to the presentation and discussion of results. | Appointed as CSSP Research Coordinator by Chief of Party: AS/FHS consulted on possible research projects as a member of CSSP Research Advisory Committee.<br><br>The following research projects were approved and funded:<br>A. Student Research Projects, Community Medicine Department, Medical Faculty, UPNG.<br>B. Rural Health Services Study<br>C. MUAC Malnutrition Detection and Treatment Pilot Project.<br>D. Reproductive Knowledge and Behaviour Study<br>E. Pneumococcal Vaccine for Children Field Trial.<br>F. Pneumococcal Vaccine for Pregnant Women Field Trial.<br>G. Child Health Division Student Research Grants, Medical Faculty, UPNG.<br>H. Community Medicine Department Degree Students Grants.<br><br>The following research project is nearing final approval:<br>I. The involvement of Aid Post Workers in Village Delivery.<br><br>The following research projects are under active development.<br>J. Single Cup Size, Rice based Packet ORS for home use: acceptibility and social marketing studies.<br>K. Radio Supervision Pilot Project.<br>L. Cross-sectional survey of Serum Vitamin A in PNG Children.<br>M. Ethnography of Diarrhoea.<br>N. Household Cluster Survey on ARI and CDD. | Contract Ammendment with USAID concerning CSSP Research Strategy.<br><br>A, B , D and H have been completed, presented and the results discussed. The implications of the Rural Health Services Study are the basis of current planning for district level training activities.and the preparation of training materials. |

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# ANNOTATED SCOPE OF WORK

## FROM THE USAID - JSI CONTRACT

## ALLAN G. BASS

### LOGISTICS MANAGEMENT ADVISOR
### PNG CHILD SURVIVAL SUPPORT PROJECT

Under the direction of the COP, the Advisor

| PARA | TASK | TASK | WORK PERFORMED | COMMENTS |
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| B. | 1 | assists the Assistant Secretary/Family Health Services to improve key features of PNG's cold chain capability in nineteen provinces. | Assisted and continues to assist the A/S Family Health Services | A/S FH was not identified by the GPNG as counterpart to the advisor. |
| | 2 | This requires attention to transport scheduling of vaccine and supply shipments sent to distribution points by sea, air and road and to | Conducted an assessment of the vaccine cold chain including vaccine transport and distribution. | Transport scheduling is not within the purview of the A/S FH nor is this a major problem |
| | 3 | training of provincial AMS health personnel. | Some limited training of AMS personnel was carried out. | It was not possible to carry out proper training so long as the appropriate vaccine storage and distribution equipment was lacking. |
| 1. | 4 | Works with identified counterparts in each of the four REUs to conduct a thorough inventory of the cold chain equipment items existing at provincial health branches, district health centers and sub-centers | This was carried out by Paul Crouch (SCF,UK) in consultation with AGB. | REUs/RSUs not involved as the inventory was carried out by post. |

| PARA | TASK | TASK | WORK PERFORMED | COMMENTS |
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| | 5 | reviews the number and kinds of equipment in use, the current operating status of the equipment, fuel requirements, | The outcome of this review was an agreed national policy on cold chain equipment types, procurement, and approvals procedures. | This appeared to work for 6 months, though some provinces and donors continue to follow the procedures. Provincial compliance is optional. Assisting NIP with conversion from kerosene to LPG refrigeration. |
| | 6 | identification of refrigerator spare parts needed for a 4-year period as well as | Worked with Paul Crouch SCFUK, AMS, and several provinces to identify needs and | Previously these spares were provided by UNICEF and also by local purchase in each province. |
| | 7 | details for procuring such parts outside PNG, and | with several provinces to regularize procurement | Now national procurement from the regular budget, plus some local procurement |
| | 8 | lists of personnel trained and type of training in cold chain repairs/ maintenance in each health district | Conducted EPI & cold chain training for O-I-Cs in Western Highlands and New Ireland Provinces in October 1992. Conducted training of students at UPNG Dept. of Community Health in EPI, CC, & logistics assessment., & EPI evaluation | No NDOH or CSSP funding for this training was made available in 1990-91-92. These training courses were funded directly by these provinces.<br><br>These students return to senior level posts in their provinces health departments on completion of their studies. |

| PARA | TASK | TASK | WORK PERFORMED | COMMENTS |
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| | 9 | consults with air and maritime shipping agents to assess their refrigeration capabilities for the temporary storage of DOH vaccines enroute to health centers. | Included in the 1990-1991 Review of EPI operations. | The common carriers cold chain capability was found to be inadequate. Without substantial public investment it will remain inadequate. A strategy to work around this has been devised and partially implemented. |
| 2 | 10 | assists REU counterparts and provincial administration officer to draw up detailed requirement for equipment and spare parts to improve cold chain capability and for training | Assisted National EPI Coordinator (SCFUK) and NDOH Pharmaceutical Services Division. SCF UK provided refrigerators to Schools of Nursing. | Conducted 2 annual briefings at RSU national meetings. Limited staff, personnel, activity, and interest from REUs/RSUs. |
| | 11 | together with the REU staff in each region, works with provincial health branches on preparing documentation for PHOs to submit in their annual provincial budget cycle substantiating their needs for EPI support items and services | Directly assisted 3 provinces through the provincial 5 year health planning process. this was successful in New Ireland Province. The other provinces engaged lost control of health budgets. | See comments for task 10 on REU/RSU capability.<br>Most provincial health offices do not understand the provincial budget process,. Many provinces have decentralized budgets to district level, with little control or influence remaining at the provincial level. |

| PARA | TASK | TASK | WORK PERFORMED | COMMENTS |
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| | 12 | additionally, identifies external funding sources (e.g. PVOs, donors) which are likely to donate cold chain equipment to provinces. | Direct discussions with UNICEF PNG, Manila, and Bangkok as well as WHO Geneva and Manila (personal connections).Met with Rotary PNG and Queensland AUS. As ADB consultant designed assistance to AMS and 10 provincial sub-stores ($4m) | UNICEF was unresponsive, while WHO support has proven to be limited. Some WHO Geneva support has been blocked by WHO WPRO.<br>Rotary PNG is providing some equipment in selected provinces, while Rotary Queensland has verbally promised some support (disposable transport boxes). |
| 3 | 13 | analyzes the commodities flow and user notification requirements for ensuring dependable transport scheduling of vaccine shipments. | Included in the 1990-1991 review of EPI operations. | This contributed to the development of the 600 cc ice pack strategy - essentially a work around for unreliable transport and communications. |
| | 14 | Helps PHO and Area Medical Stores chiefs to develop procedural documentation (e.g., an EPI transport scheduling manual) for ongoing use in commodities logistics management . | Conducted visits to AMS for discussions. Sponsored and coordinated 2 meetings of all national Medical Supply Officers for problem solving and deciding on procedures for vaccine supply. | Full procedural documentation and a manual awaits the implementation of the 600 cc ice pack strategy and the provision of the appropriate equipment .<br>Transport scheduling is the least of the cold chain and logistics problems. |

| PARA | TASK | TASK | WORK PERFORMED | COMMENTS |
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| 4 | 15 | studies the effectiveness of time temperature markers for determining vaccine viability during storage and transit. This will be structured as a joint activity involving UNICEF/PNG who imported the markers for EPI support. | Participation in the WHO TECHNET. The WHO does not recommend the use of Vaccine Monitor Markers except for international transport and special studies. Cooperating with WHO to implement the use of vaccine vial time-temperature indicators. | UNICEF did not import markers for routine use. The use of the markers requires training of all health workers who receive or handle vaccines (training funds could be better used). The Review of EPI Operations produced sufficient information at lower cost to enable directed action to improve the cold chain. |
| 5 | 16 | assists counterparts and local organizations (CAHS or private firms) to design a series of in-service courses for Area Medical Store Supply Chiefs and provincial staff | Currently working on the design of these training courses. Awaiting appropriate equipment. Conducted limited training. | Counterparts were not identified by the NDOH. Working with the NDOH Pharmaceutical Services Division on this course design. Sufficient Funding for these courses not identified. |
| | 17 | the courses' content will focus on key aspects dealing with transport scheduling practices to preserve cold chain storage intact during the air and land shipment of vaccines to health centers and sub-centres. | The Review of EPI Operations identified the necessary content of these courses. | The nature of the operational problems and therefore the training requirement is much greater than envisaged in the contract. |

ANNOTATED SCOPE OF WORK
FROM THE USAID - JSI CONTRACT

MARGARET R. STREET.

COMMUNITY HEALTH NURSING ADVISOR
PNG CHILD SURVIVAL SUPPORT PROJECT.

7/4/93.

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| | Under the direction of the COP, the Advisor: | | |
| 1 | assists appropriate counterparts in DOH & CAHS to establish DCHN Ad course in Community Health Nursing Administration. | assisted the AS Medical training in the preparation of a job description, the selection of a suitable Master's Programme, in sending the tutor selected for training in 1992. | It has been incredibly difficult for DOH to work through the issues related to the siting of the course; finding a suitable Bachelor level nurse willing to go for Master's studies and then accept a DOH position at CC9 in either Goroko or Morseby but not sure where the course would finally be held.. Housing,DOH car, salary and career structure were issues raised by prospective candidates.<br><br>The nurse selected by DOH and sent for Masters course decided not to become the tutor of DCHN Ad in the 2nd semester of the Master's course work.<br><br>DOH advertised all training positions in June 92 but did not hold a selection panel till January 1993.No appointment was made because MS Siwi had not applied and there were no suitable applicants. |

| NO. | TASK | WORK PERFORMED | COMMENTS |
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| | | | If the position is readvertised with housing available in Port Moresby DOH & CAHS believe it will attract applicants, with some of the required prequisites. It has been requested that I work with this person until October 1994 to see the programme firmly established and prepare the curriculum for transfer to the UPNG as an Advanced Diploma together with the the current post basic courses in Midwifery and Paediatrics. See attached note. |
| | Conduct Job analysis. | This work was undertaken with a DOH appointed committee, chaired by AS Training, following discussions with Dr Ake (FAS Administration). The full report and an abreaviated edition have been printed. | The format and work plan was changed at Dr Ake's request and sections on HEO and CHW added. The format used was similar to a task analysis project undertaken by MTSU in secondary health nursing in the same year.<br><br>The results have been:<br>discussed with Provincial CHN Supervisors and tutors involved in pre-service and post basic<br><br>curriculum development of health courses;<br><br>used in DCHN Ad curriculum development;<br>used in inservice module development. |

| NO. | TASK | WORK PERFORMED | COMMENTS |
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| 1b. | Design a curriculum based on job analysis. | The curriculum has been developed by a committee under the chairmanship of Mr Emang, AS Training and approved by both the PNG Nursing Council and the CAHS Board. | The learning materials, teaching plans,clinical and field learning experiences are not included in the published document as this is not part of the format required for Nursing Council and CAHS approvals. The working draft of these areas is being refined as the first course proceeds. I am still hoping to be able to involve the tutor yet to be appointed in this process. |
| c. | Evaluation of effects of the course on graduates. | The course did not commence in 1992, as set out in my Advisors job description. Therefore this activity is planned to commence from June 1994. This is the earliest graduates could be expected to have made changes within their work situations. | Evaluation protocols for the programme and the graduates should be developed by DOH and used by the Nursing Department of CAHS in conjunction with the Inservice Section of Training Division.<br><br>This could be commenced in 1994 providing CAHS & DOH were willing to be involved.Both the DOH Inservice Section head and the Head of Nursing at CAHS are on study leave at present. |

| NO. | TASK | WORK PERFORMED | COMMENTS |
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| d. | **Assists the Dean CAHS with advise on CH aspects of other programmes.** | Assistance, as requested has been given to tutors and consultants involved in curriculum developemnt and implementation. | This has included: the sharing of results of the Job analysis Maternal Health REM study and the Rural Health study; participation in regular CAHS curriculum meetings. |
| 2. | **Assist the AS Family Health on selection of FH Nurses for four RSU positions.** | Assistance was given in the preparation of job descriptions. Positions were advertised in June 1992 and the selection panel met in late March 1993.The names have not yet been made public.<br><br>Discussions have been held with the FAS FH on an orientation programme for these nurses. At present their CV's have not been sited. | Neither the AS FH or the FAS Primary Health were involved in the selection. This was done by the Epidemiologists of the current RSU's.It was considered they should select persons suitable to them.<br><br>Selections were made on the basis that the person lived in the town where the RSU is situated, and did not need housing, execpt a male nurse who was selected because he was the only male applicant and a Papuan.<br><br>None of the persons selected have previously undertaken Diploma Nursing studies and none had applied to do the course in 1993.<br><br>These nurses would need to be willing to undertake the Diploma course in 1994 to equip them to fulfil the requirements of their job description. |

| NO. | TASK | WORK PERFORMED | COMMENTS |
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| 2. Contd. | | | In my opinion, this is much more important to their future functioning at a senior level of the community health nursing services than sending them to Thailand for 2 months rural experience.<br><br>It would be of immediate practical use to send the tutor, when appointed, and three of the present DCHN Ad students to Thailand for 2 months at the end of 1993. They will have already experienced the application of PHC abd Community Participation in the second third and fourth terms of the DCHN Ad course.<br><br>If RSU's were restructured so the FH RSU nurses worked from DOH, as has been suggested by some, three would require housing in Moresby and need to be willing to relocate their families. This was the problem Ms Siwi was unable to resolve. |

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| 3. | **Preparation of inservice modules for use at provincial and district levels.** | Assistance has been given to the AS Training Division in undertaking an Assessment of Provincial Inserivice Units. This document has been printed and has recommendations for further PNG CSSP involvement in this area. | The National Inservice Cooordinator has been on study leave since 1991.<br><br>Assistance has been received from the DOH FH nurse, Provincial Community Health Nursing Supervisors and Provinncial Inservice Coordinators in the development of a series of modules I have used them in workshops at WHP,Manus, North Fly and NIP.<br><br>It is planned for the DCHN Ad students to use these modules in their September- November 7 weeks district health centre experience, so they gain confidence after completing a Trainer of Trainers module and can then become facilitators for their use in 1994..<br><br>Following the use with DCHN Ad students the modules will be ready for refinement and printing in 1994.I expect Dr Edwards to be more directly involved in some of this process.<br><br>See separate note for details of the competencies required and modules being prepared. |

| NO. | TASK | WORK PERFORMED | COMMENTS |
|---|---|---|---|
| 4. | Collaborate with AS of RSU's to train FH RSU nurses on the job after their appointment. | Discussions have been held with the FAS FH with regard to this. | See comments above in regard to the persons appointed, and their needs to undertake the DCHN Ad course and other ways to train provincial and district level senior staff in the use of training modules and evaluation excercies. |
| 5. | Assists the COP and other team team members in achieving the outcome indicators of the PNG CSSP Project. | Assistance has been given in the development of a Maternal Health package.This is being used in four provinces and includes inservice training in AN labour, post natal and family planning, development of IEC materials and the introduction of a mothers' home-based health record book.<br><br>A DOH Maternal Health committee under AS FH has been working with me on these developments. It is anticipated this will develop into a DOH Maternal health Task force and involve the SMO's Obstetrics and other groups outside of DOH who are working to reduce maternal mortality in PNG. | Following evaluation in late 1993, using the DCHN Ad students this package will be availbale to all provinces.DOH plans to print the MHRB and make it available to all provinces. Assistance has been given in the holding of a VBA workshop, development of Provincial guidelines and a VBA curriculum guide.<br><br>A Trainer of Trainers course is in the planning stage for ?August 1993 in conjunction with the DCHN Ad course.<br><br>IEC materials have also been developed. |

**Appendix H**

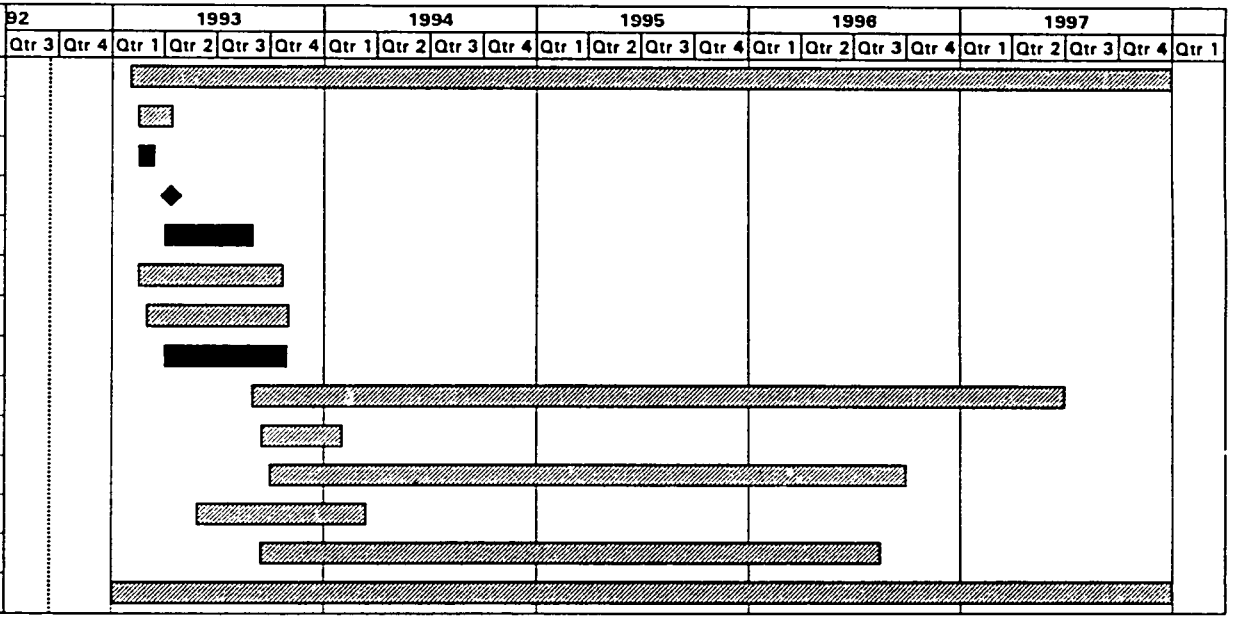
**CSSP PROCUREMENT OF FACILITIES EQUIPMENT AND SUPPLIES**

BEST AVAILABLE DOCUMENT

BEST AVAILABLE DOCUMENT

# ANNEX 1
# ILLUSTRATIVE IMPLEMENTATION SCHEDULE

| ID | Name |
|---|---|
| 1 | LOAN DURATION |
| 2 | COMMISSION AMS & PROVINCIAL STORES DESIGN |
| 3 | SPECIFY SUPPLIES & EQUIPMENT REQUIREMENT |
| 4 | INITIATE SUPPLY & EQUIPMENT PROCUREMENT |
| 5 | SUPPLIES AND TENDER PROCESS |
| 6 | INITIATE RECRUITMENT TA FINANCE |
| 7 | NEGOTIATE PROVINCIAL SUBSTORES |
| 8 | PUBLIC TENDER AMS IMPROVEMENTS |
| 9 | SUPPLIES ARRIVE IN COUNTRY |
| 10 | STORAGE SYSTEMS INSTALLED AMS |
| 11 | TA FINANCE IN PLACE |
| 12 | AREA MEDICAL STORES EXPANSION WORKS |
| 13 | PROVINCIAL STORES DEVELOPMENT |
| 14 | LIFE OF PROJECT |



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**ANNEX 2**

# AREA MEDICAL STORES SERVICE AREA POPULATION

| PROVINCE NAME | 1990 POPULATION | AREA MEDICAL STORES | MAIN AREA MEDICAL STORES | SERVICE POPULATION | SERVICE PROPORTION |
|---|---|---|---|---|---|
| WESTERN | 108,998 | PORT MORESBY | PORT MORESBY | 671,694 | 18% |
| GULF | 68,122 | PORT MORESBY | PORT MORESBY | | |
| CENTRAL | 141,312 | PORT MORESBY | PORT MORESBY | | |
| NATIONAL CAPITAL DISTRICT | 195,382 | PORT MORESBY | PORT MORESBY | | |
| MILNE BAY | 157,880 | PORT MORESBY | PORT MORESBY | | |
| NORTHERN | 96,638 | LAE | LAE | 2,524,535 | 67% |
| EASTERN HIGHLANDS | 299,445 | LAE | LAE | | |
| MOROBE | 364,563 | LAE | LAE | | |
| MANUS | 32,830 | LAE | LAE | | |
| MADANG | 269,600 | MADANG | LAE | | |
| SOUTHERN HIGHLANDS | 321,349 | MOUNT HAGEN | LAE | | |
| ENGA | 238,988 | MOUNT HAGEN | LAE | | |
| WESTERN HIGHLANDS | 324,127 | MOUNT HAGEN | LAE | | |
| CHIMBU | 185,684 | MOUNT HAGEN | LAE | | |
| EAST SEPIK | 251,853 | WEWAK | LAE | | |
| WEST SEPIK | 139,458 | WEWAK | LAE | | |
| NEW IRELAND | 86,867 | RABAUL | RABAUL | 571,256 | 15% |
| EAST NEW BRITAIN | 184,941 | RABAUL | RABAUL | | |
| WEST NEW BRITAIN | 128,348 | RABAUL | RABAUL | | |
| NORTH SOLOMONS * 1990 | 171,100 | RABAUL | RABAUL | | |
| TOTAL POPULATION | 3,767,485 | | TOTALS | 3,767,485 | 100% |

POPULATION DATA: PAPUA NEW GUINEA PRELIMINARY COUNTS REPORT - POPULATION CENSUS 1990
NORTH SOLOMONS POPULATION IS FROM THE 1980 CENSUS PROJECTION FOR 1990
SOURCE: THE PNG NATIONAL STATISTICAL OFFICE

BEST AVAILABLE DOCUMENT

| PAPUA NEW GUINEA DOH | ANNEX 3 | PLAN OF ACTION | PAGE 1 of 1 |
|---|---|---|---|
| PROGRAM AREA >>> | SUPPLY MANAGEMENT AT AID POSTS & HEALTH CENTRES | | YEARS: 1993 to 1994 |

**OBJECTIVE**

TO IMPROVE SUPPLY MANAGEMENT AT AID POSTS AND HEALTH CENTRES BY THE END OF 1994

**STRATEGY**

DEVELOPMENT AND INTRODUCTION OF A STOCK REGISTER BOOK, IMPROVE THE COMPLETION OF MEDICAL SUPPLY ORDER FORMS, AND TRAIN HEALTH WORKERS IN SUPPLY MANAGEMENT IN THEIR FACILITIES.

| ACTIVITIES RELATED TO THIS OBJECTIVE | RESPONSIBILITY WHO? | TIME-FRAME FROM TO | BUDGET COST ESTIMATE | PRIORITY | FUNDING SOURCE | INDICATORS OF ACHIEVEMENT |
|---|---|---|---|---|---|---|
| 1. DESIGN STOCK REGISTER BOOKS FOR AID POST AND HEALTH CENTRE USE. | PHARMACEUTICAL SERVICES CHILD SURVIVAL | FEB 1993 to JULY 1993 | NO ADDITIONAL COST | | N\A | REGISTER DESIGN COMPLETED |
| 2. OBTAIN APPROVAL. | PAC | AUG 1993 | NO COST | | N\A | APPROVAL OBTAINED |
| 3. OBTAIN PROVINCIAL AGREEMENT. | AMS/ CSSP | | K 3,000 | | DONORS? | PROVINCES AGREE |
| 4. OBTAIN FUNDS AND PRINT REGISTERS | DOH | ???? | K 5,000 | | DONORS? | PRINTING COMPLETED |
| 5. PREPARE TRAINING MODULE IN SUPPLY MANAGEMENT FOR HEALTH WORKERS. | PHARMACEUTICAL SERVICES CHILD SURVIVAL | MAY 1993 to SEPT 1993 | NO ADDITIONAL COST | | N\A | DRAFT MODULE COMPLETED |
| 6. TEST MODULE, REVISE | PS & CSSP | OCT 1993 to DEC 1993 | NO COST | | N\A | MODULE REVISED |
| 7. PRINT TRAINING MODULE | DOH MEDIA UNIT | JAN 1994 to MAR 1994 | K 1,000 | | DONORS? | MODULE PRINTED |
| 8. PROVIDE TRAINING:<br>-SET TRAINING SCHEDULE<br>-TRAIN TRAINERS<br>-CONDUCT TRAINING IN PROVINCES | MSP & RSU PHARMACEUTICAL SERVICES CSSP | APRIL 1994 to OCT 1994 | K 40,000 | | DONORS? | TRAINING COURSES HELD |
| 9. DISTRIBUTE STOCK REGISTERS | PS | APRIL 1994 to OCT 1994 | NO COST | | N\A | REGISTERS DISTRIBUTED |
| 10. SUPERVISE<br>-CONDUCT IN-SERVICE TRAINING | PROVINCES<br>PS/AMS/ CSSP | | K 10,000 | | DONORS | SUPERVISORY VISITS COMPLETED |
| 11. EVALUATE OR ASSESS | PS | FEB to MARCH 1995 | ???? | | DONORS | ASSESSMENT REPORT |

NOTES:
PS = DOH PHARMACEUTICAL SERVICES
PAC = PHARMACEUTICAL ADVISORY COMMITTEE
CSSP = CHILD SURVIVAL SUPPORT PROJECT
MSP = MANAGEMENT SUPPORT TO PROVINCES UNIT, DOH DIVISION OF POLICY, PLANNING, AND EVALUATION

ANNEX 4

# MEDICAL STORES UPGRADE
# ADB - WB POPULATION PROJECT
## COST ESTIMATES

| REQUIREMENTS | | AREA MEDICAL STORES | | | | | |
|---|---|---|---|---|---|---|---|
| | | PORT MORESBY | LAE | RABAUL | MOUNT HAGEN | WEWAK | MADANG |
| **EXPANSION** | | | | | | A NEW FACILITY IS TO BE CONSTRUCTED IN 1992 AND 1993 | THE EVENTUAL STATUS OF THIS FACILITY IS UNKNOWN |
| GENERAL SPACE | FLOOR AREA M2 | ?? | NONE | | | | |
| | COST | | | | | | |
| MANUFACTURING | FLOOR AREA M2 | | NONE | | 100 | | |
| | COST | | | | K50,000 | | |
| **CORROSIVES STORAGE** | | | | | | | |
| | FLOOR AREA M2 | K50 | K50 | K50 | K50 | | |
| | COST | K20,000 | K20,000 | K20,000 | K20,000 | | |
| **+25 COOL STORAGE** | | | | | | | |
| +25C COOL ROOM | FLOOR AREA M2 | 100 | 100 | 100 | | | |
| | COST | K 50,000 | K 50,000 | K 50,000 | | | |
| AIR CONDITIONING | 6 UNIT SPLIT SYS | K 30,000 | K 30,000 | K 35,000 | | | |
| **+4'C TO + 8'C STORAGE** | | | | | | | |
| +4-8 C COLD ROOMS | QUANTITY | 1 | 1 | 1 | 1 | | |
| | COST EACH | K 7,000 | K 7,000 | K 7,000 | K 7,000 | | |
| ICE LINED | REFRIGERATOR | 2 | 2 | 2 | 2 | | |
| | COST | K 2,200 | K 2,200 | K 2,200 | K 2,200 | | |
| | FREEZER | 4 | 4 | 4 | 4 | | |
| | COST | K 4,400 | K 4,400 | K 4,400 | K 4,400 | | |
| ICE PACK FREEZER | QUANTITY | 2 | 3 | 3 | 3 | | |
| | COST | K 2,200 | K 2,200 | K 2,200 | K 2,200 | | |
| **BULK STORAGE** | | | | | | | |
| RACKING SYSTEMS | SIZE M2 | 300 | 500 | 500 | 500 | | |
| | COST | K 57,000 | K 95,000 | K 100,000 | K 100,000 | | |
| **PACKING & STORAGE** | | | | | | | |
| SHELVING SYSTEMS | SIZE M2 | 200 | 200 | 200 | | | |
| | COST | K 46,000 | K 46,000 | K 50,000 | | | |
| MEZZANINE | SIZE M2 | | 100 | 90 | 100 | | |
| | COST | | K 1,000 | K8,000 | K 1,000 | | |
| **MATERIALS HANDLING** | | | | | | | |
| FORK LIFT TRUCK | REACH TRUCK | 1 | 1 | 1 | 1 | | |
| | COST | K 25,000 | K 25,000 | K 25,000 | K 25,000 | | |
| **DISTRIBUTION TRANSPORT** | | | | | | | |
| UTILITY TRUCK 4WD 2.5 TON | | | | K 20,000 | K 20,000 | | |
| **HAZARDOUS WASTE DISPOSAL** | | | | | | | |
| INCINERATOR | | K 36,000 | K 36,000 | K 36,000 | K 36,000 | K 36,000 | K 36,000 |
| **SAFETY EQUIPMENT** | | | | | | | |
| HAZARDS: FIRE, CHEMICAL, COLD | | K2,000 | K3,000 | K2,000 | K2,000 | K2,000 | K2,000 |
| **REPAIR AND MODIFICATION** | | | | | | | |
| DRAINAGE | | | | K30,000 | | | |
| BUILDING | | | | K5,000 | K5,000 | | |
| PAVING ROADWAY | | | | | K10,000 | | |
| WATER SUPPLY | | | | | K1,000 | | |
| LIGHTING | | K10,000 | K5,000 | K8,000 | K10,000 | | |
| COLD ROOM REPAIR | | K4,500 | K3,000 | K3,000 | | | |
| TEMPERATURE MONITORING EQUIPMENT | | K7,200 | K4,800 | K3,600 | K2,400 | K2,400 | K2,400 |
| **TOTALS** | KINA | K303,500 | K334,600 | K411,400 | K298,200 | K 40,400 | K 40,400 |
| | US$ | $321,710 | $354,676 | $436,084 | $316,092 | $42,824 | $42,824 |

| EXCHANGE RATE | KINA TO US$ | 1.06 |
|---|---|---|

| GRAND TOTAL | KINA | K1,428,500 |
|---|---|---|
| | US$ | $1,514,210 |

BEST AVAILABLE DOCUMENT

# PAPUA NEW GUINEA
# DEPARTMENT OF HEALTH
# PHARMACEUTICAL SERVICES
# 1992 MEDICAL SUPPLIES BUDGET ALLOCATION TO PROVINCES

## ANNEX 5

| | | |
|---|---|---|
| 1992 TOTAL PHARMACEUTICAL SERVICES BUDGET | | K 13,695,000 |
| LESS AMS OPERATING COSTS | | K 902,000 |
| LESS ESTIMATED PROJECT COSTS | | |
| | TB & LEPROSY | K 350,000 |
| | AIDS & STD | K 100,000 |
| | EPI | K 750,000 |
| | DENTAL SUPPLIES | K 100,000 |
| NOT INCLUDED IN NCD 1991 and 1992 BUDGET ALLOCATION | MEDICAL GASES | K 350,000 |
| | PMGH LABORATORY | K 350,000 |
| | PMGH X-RAY | K 75,000 |
| | AIR TRANSPORT | K 198,000 |
| 1992 SUPPLIES BUDGET AVAILABLE TO PROVINCES | | K 10,520,000 |

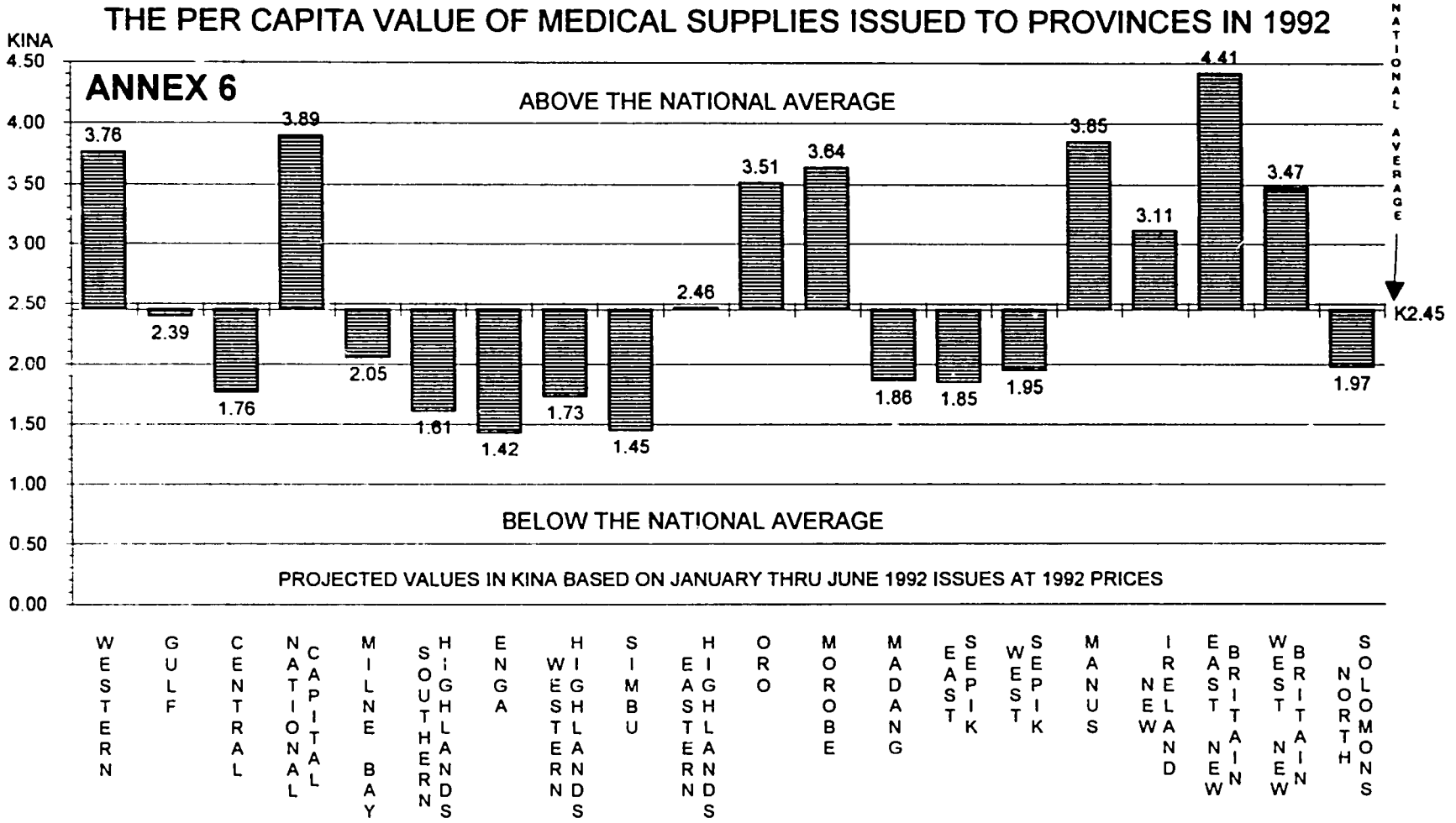
| | | | |
|---|---|---|---|
| 1991 TOTAL PHARMACEUTICAL SERVICES BUDGET | K 11,695,000 | PER CAPITA VALUE | K 3.03 |
| 1992 TOTAL PHARMACEUTICAL SERVICES BUDGET | K 13,695,000 | PER CAPITA VALUE | K 3.58 |
| 1992 SUPPLIES BUDGET AVAILABLE TO PROVINCES | K 10,520,000 | PER CAPITA VALUE | K 2.75 |

| PROVINCE | PROVINCIAL POPULATION 1991 | PERCENT OF 1991 NATIONAL SUPPLIES | VALUE OF MEDICAL SUPPLIES RECEIVED IN 1991 | 1991 PER CAPITA MEDICAL SUPPLIES RECEIVED | PROPOSED ALLOCATION IN 1992 ON 1991 BASIS | PROPOSED 1992 PER CAPITA ALLOCATION |
|---|---|---|---|---|---|---|
| WESTERN | 103,900 | 4.32% | K 355,031 | K 3.42 | K 454,401 | K 4.37 |
| GULF | 78,400 | 3.23% | K 265,640 | K 3.39 | K 339,990 | K 4.34 |
| **CENTRAL** | **147,700** | **3.07%** | **K 252,063** | **K 1.71** | **K 322,639** | **K 2.18** |
| NATIONAL CAPITAL | 162,600 | 8.60% | K 707,246 | K 4.35 | K 905,197 | K 5.57 |
| MILNE BAY | 170,500 | 7.15% | K 587,766 | K 3.45 | K 752,276 | K 4.41 |
| **SOUTHERN HIGHLANDS** | **283,000** | **4.52%** | **K 371,479** | **K 1.31** | **K 475,452** | **K 1.68** |
| **ENGA** | **192,700** | **3.31%** | **K 271,795** | **K 1.41** | **K 347,868** | **K 1.81** |
| **WESTERN HIGHLANDS** | **331,000** | **6.72%** | **K 552,345** | **K 1.67** | **K 706,941** | **K 2.14** |
| **SIMBU** | **193,600** | **3.59%** | **K 294,714** | **K 1.52** | **K 377,202** | **K 1.95** |
| **EASTERN HIGHLANDS** | **333,400** | **7.23%** | **K 594,319** | **K 1.78** | **K 760,663** | **K 2.28** |
| ORO | 102,300 | 3.15% | K 259,317 | K 2.53 | K 331,897 | K 3.24 |
| MOROBE | 403,300 | 13.06% | K 1,073,703 | K 2.66 | K 1,374,222 | K 3.41 |
| **MADANG** | **283,700** | **5.42%** | **K 445,521** | **K 1.57** | **K 570,218** | **K 2.01** |
| **EAST SEPIK** | **288,800** | **5.71%** | **K 469,565** | **K 1.63** | **K 600,992** | **K 2.08** |
| **WEST SEPIK** | **141,300** | **2.92%** | **K 240,058** | **K 1.70** | **K 307,248** | **K 2.17** |
| MANUS | 33,900 | 1.15% | K 94,710 | K 2.79 | K 121,218 | K 3.58 |
| NEW IRELAND | 88,000 | 2.88% | K 236,390 | K 2.69 | K 302,553 | K 3.44 |
| EAST NEW BRITAIN | 176,800 | 6.79% | K 557,760 | K 3.15 | K 713,872 | K 4.04 |
| WEST NEW BRITAIN | 125,600 | 4.16% | K 342,014 | K 2.72 | K 437,740 | K 3.49 |
| **NORTH SOLOMONS** | **182,300** | **3.02%** | **K 247,998** | **K 1.36** | **K 317,410** | **K 1.74** |
| **TOTALS** | 3,822,800 | 100.00% | K 8,219,454 | **AVERAGE = K 2.11** | K 10,520,000 | **K 2.75** |

= BELOW THE NATIONAL PER CAPITA AVERAGE

BELOW THE NATIONAL PER CAPITA AVERAGE =

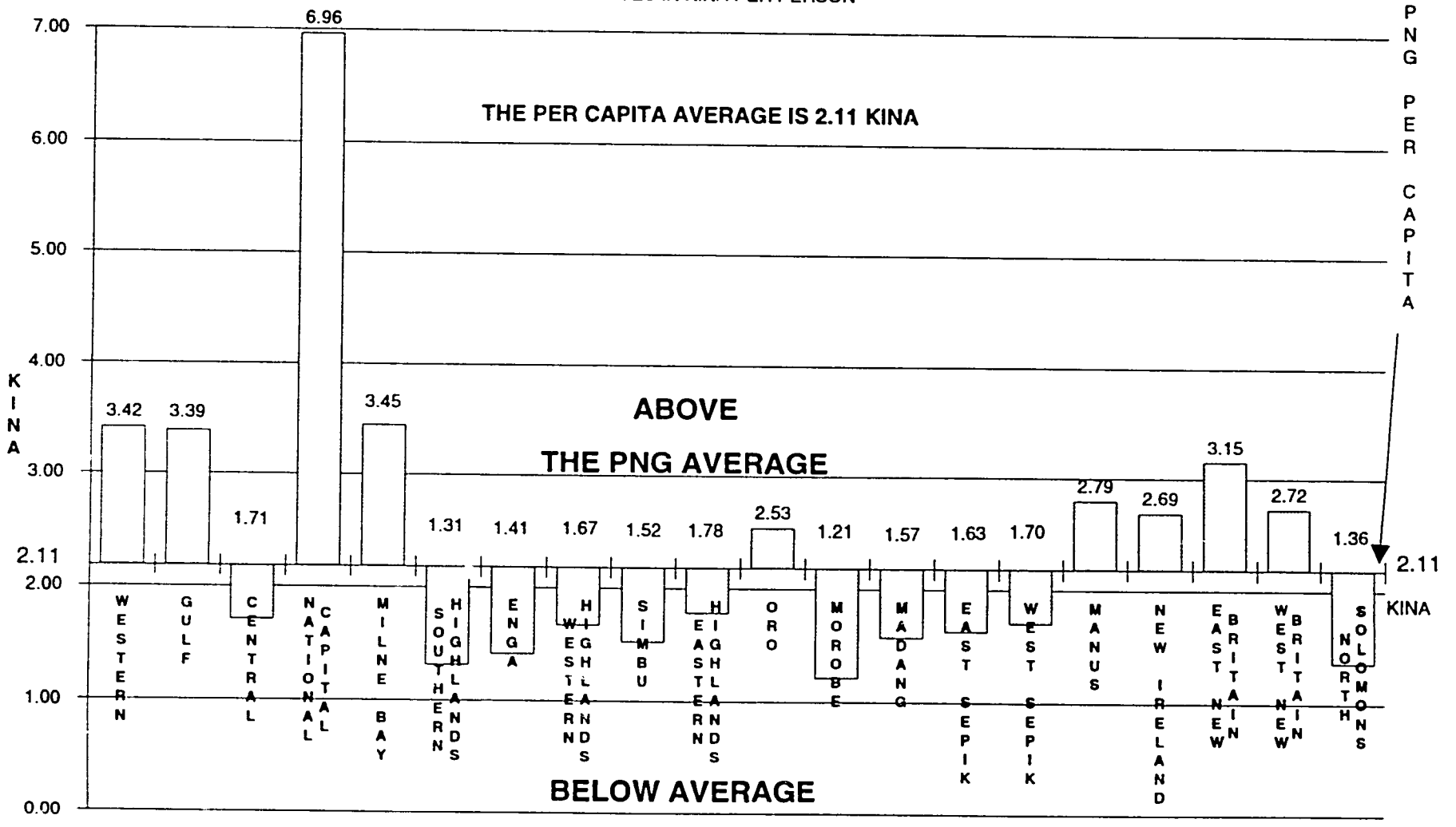
BEST AVAILABLE DOCUMENT


THE PER CAPITA VALUE OF MEDICAL SUPPLIES ISSUED TO PROVINCES IN 1992
ANNEX 6
KINA
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
ABOVE THE NATIONAL AVERAGE
BELOW THE NATIONAL AVERAGE
PROJECTED VALUES IN KINA BASED ON JANUARY THRU JUNE 1992 ISSUES AT 1992 PRICES
NATIONAL AVERAGE
K2.45
3.76
2.39
1.76
3.89
2.05
1.61
1.42
1.73
1.45
2.46
3.51
3.64
1.86
1.85
1.95
3.85
3.11
4.41
3.47
1.97
WESTERN
GULF
CENTRAL
NATIONAL CAPITAL
MILNE BAY
SOUTHERN HIGHLANDS
ENGA
WESTERN HIGHLANDS
SIMBU
EASTERN HIGHLANDS
ORO
MOROBE
MADANG
EAST SEPIK
WEST SEPIK
MANUS
NEW IRELAND
EAST NEW BRITAIN
WEST NEW BRITAIN
NORTH SOLOMONS

# THE PER CAPITA VALUE OF MEDICAL SUPPLIES TO PROVINCES FOR 1991

## ANNEX 7

AT 1988 PRICES IN KINA PER PERSON



BEST AVAILABLE DOCUMENT

SEATS8.XLS

ANNEX 8

# SEATS PROJECT CONTRACEPTIVE SUPPLY PROJECTION FOR 1992

| UTILIZATION FACTORS | | | | | KITS PER YEAR | | PER KIT FACILITY LEVEL | | PER MONTH FACILITY LEVEL | | | | PER YEAR FACILITY LEVEL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FACILITY | PROVINCE | POP SERVED | FACILITIES | AGREG POP SERVED | SUPPLY RATE | SUPPLY % | CONDOMS | PILLS | CONDOMS | USERS | PILLS | USERS | CONDOMS | PILLS |
| AID POSTS | ALL | 1000 | 600 | 600,000 | 6 | 31.73% | 400 | 100 | 200 | 10 | 50 | 50 | 1,440,000 | 360,000 |
| HEALTH CENTRES | NCD | 11300 | 16 | 180,800 | 6 | 9.56% | 900 | 200 | 450 | 22.5 | 100 | 100 | 86,400 | 19,200 |
| HEALTH CENTRES | CENTRAL | 11300 | 27 | 305,100 | 6 | 16.14% | 800 | 200 | 400 | 20 | 100 | 100 | 129,600 | 32,400 |
| HEALTH CENTRES | E HIGHLANDS | 8300 | 36 | 298,800 | 6 | 15.80% | 800 | 200 | 400 | 20 | 100 | 100 | 172,800 | 43,200 |
| HEALTH CENTRES | MOROBE | 7600 | 30 | 228,000 | 6 | 12.06% | 800 | 200 | 400 | 20 | 100 | 100 | 144,000 | 36,000 |
| HEALTH CENTRES | E SEPIK | 7600 | 29 | 220,400 | 6 | 11.66% | 800 | 200 | 400 | 20 | 100 | 100 | 139,200 | 34,800 |
| HEALTH CENTRES | MANUS | 7200 | 8 | 57,600 | 6 | 3.05% | 800 | 200 | 400 | 20 | 100 | 100 | 38,400 | 9,600 |
| | | | TOTAL | 1,890,700 | 6 | 100.00% | | | | | | | 2,150,400 | 635,200 |
| | | POPULATION | TOTAL | 1,442,000 | | | | | | | | | TOTALS | |
| | | | | ^CENSUS DATA^ | | | | | | | | | | |
| | | | INCREASE | 448,700 | | | | | | | | | | |
| | | | OVER CEN | 131% | | | | | | | | | | |

| ISSUE RATE= | 20 | ISSUE RATE= | 1 |
|---|---|---|---|

| FACILITY | PROVINCE | POP SERVED | KIT SCALE | AGREG POP SERVED | KIT PER YEAR | FACILITIES | PER KIT FACILITY LEVEL CONDOMS | PER KIT FACILITY LEVEL PILLS | PER MONTH FACILITY LEVEL CONDOMS | USERS | PILLS | USERS | PER YEAR FACILITY LEVEL CONDOMS | PILLS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMG HOSPITAL | NCD | | 1 | | 6 | 1 | 10,000 | 2,000 | 5,000 | 250 | 1,000 | 1,000 | 60,000 | 12,000 |
| GOROKA HOSPITAL | E HIGHLANDS | | 1 | | 6 | 1 | 10,000 | 2,000 | 5,000 | 250 | 1,000 | 1,000 | 60,000 | 12,000 |
| ANGAU HOSPITAL | MOROBE | | 1 | | 6 | 1 | 20,000 | 4,000 | 10,000 | 500 | 2,000 | 2,000 | 120,000 | 24,000 |
| WEWAK HOSPITAL | E SEPIK | | 1 | | 6 | 1 | 10,000 | 2,000 | 5,000 | 250 | 1,000 | 1,000 | 60,000 | 12,000 |
| LORENGAU HOSP | MANUS | | 1 | | 6 | 1 | 5,000 | 1,000 | 2,500 | 125 | 500 | 500 | 30,000 | 6,000 |
| | | | | | | | | | | | HOSPITAL TOTALS>> | | 330,000 | 66,000 |

| CONDOMS | PILLS |
|---|---|
| 25% | 25% |
| RESERVE FACTORS | |

| | | CONDOMS | PILLS |
|---|---|---|---|
| | ALL HEALTH FACILITY TOTAL> | 2,480,400 | 601,200 |
| | PLUS RESERVE >> | 620,100 | 150,300 |
| | GRAND TOTALS | 3,100,500 | 751,500 |
| | 1992 SUPPLIES RECEIVED | 438,000 | 210,000 |
| FINAL | 1992 SUPPLY REQUIREMENT | 2,562,500 | 541,500 |

BEST AVAILABLE DOCUMENT

ANNEX 9

ADB - WB POPULATION PROJECT

# PROVINCIAL SUBSTORES DEVELOPMENT

COST ESTIMATES

| PROJECT PROVINCES | | EXPANSION | | | EQUIPMENT | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PROVINCIAL STORES | LOCATION | EXISTS NOW | GENERAL SPACE FLOOR AREA | GENERAL SPACE COST | ICE LINED REFRIG | ICE LINED COST | ICE LINED FREEZER | ICE LINED COST | ICE PACK FREEZER QUANTITY | ICE PACK FREEZER COST | VOLTAGE STABILIZER QUANTITY | VOLTAGE STABILIZER COST | SHELVING SYSTEMS SIZE M2 | SHELVING SYSTEMS COST | LOCKING CABINETS QUANTITY | LOCKING CABINETS COST | TOTALS KINA | TOTALS US$ |
| EASTERN HIGHLANDS | GAROKA HOSP | YES | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| | KAINANTU | NO | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| | MARAWAKA | NO | 50 | 50,000 | 2 | 1,200 | 1 | 1,200 | 1 | 1,200 | 4 | 1,539 | 25 | 6,000 | 2 | 450 | 61,589 | 65,284 |
| WESTERN HIGHLANDS | JIMI VALLEY | NO | 50 | 50,000 | 2 | 1,200 | 1 | 1,200 | 1 | 1,200 | 4 | 1,539 | 25 | 6,000 | 2 | 450 | 61,589 | 65,284 |
| | TINSLEY | NO | 50 | 50,000 | 2 | 1,200 | 1 | 1,200 | 1 | 1,200 | 4 | 1,539 | 25 | 6,000 | 2 | 450 | 61,589 | 65,284 |
| SOUTHERN HIGHLANDS | MENDI | YES | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| | TARI | NO | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| | IALIBU | NO | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| EAST NEW BRITAIN | NONGA HOSP | NO | 50 | 50,000 | 2 | 1,200 | 1 | 1,200 | 1 | 1,200 | 4 | 1,539 | 25 | 6,000 | 2 | 450 | 61,589 | 65,284 |
| | POMIO | NO | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| MOPOBE | FINSCHAFEN | NO | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| | MANIYAMAYA | NO | 100 | 100,000 | 2 | 1,200 | 2 | 2,400 | 1 | 1,200 | 5 | 1,924 | 50 | 12,000 | 3 | 675 | 119,399 | 126,563 |
| | | | | | | | | | | | VACCINE STORAGE EQUIPMENT: SPARES AND TRANSPORT | | | | | | 37,174 | 39,404 |
| | | | | | | | | | | | | | | | | TOTAL | K1,238,722 | $1,313,045 |

| VACCINE STORAGE EQUIPMENT | | |
|---|---|---|
| VACCINE STORAGE EQUIPMENT SUBTOTAL | | $74,348 |
| SPARE PARTS REQUIREMENT | 20% | $14,870 |
| TRANSPORT COST | 25% | $22,304 |
| | TOTAL | $111,522 |

BEST AVAILABLE DOCUMENT

ANNEX 10

# ADB - WB POPULATION PROJECT CONTRACEPTIVE SUPPLY PROJECTION 1993

## AID POSTS AND HEALTH CENTRES

| FACILITY | PROVINCE | POP SERVED | FACILITIES | AGREGATE POP SERVED | KITS PER YEAR SUPPLY RATE | SUPPLY % | PER KIT CONDOMS | PER KIT DEPO | PER KIT PILLS |
|---|---|---|---|---|---|---|---|---|---|
| AID POSTS | [illegible] | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | [illegible] |
| HEALTH CENTRES | [illegible] | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | [illegible] |
| HEALTH CENTRES | [illegible] | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | 210 |
| HEALTH CENTRES | [illegible] | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | 210 |
| HEALTH CENTRES | [illegible] | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | [illegible] |
| HEALTH CENTRES | [illegible] | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | 200 |
| HEALTH CENTRES | [illegible] | [illegible] | [illegible] | [illegible] | 6 | [illegible] | [illegible] | [illegible] | [illegible] |
| | | | [illegible] | [illegible] | 6 | [illegible] | | | |

| PER MONTH CONDOMS | USERS | NUSERS | DEPO | USERS | NUSERS | PILLS | USERS | NUSERS | PER YEAR CONDOMS | PER YEAR DEPO | PER YEAR PILLS | VOLUME PER KIT CM3 | VOLUME PER YEAR CM3 | FACILITY | PROVINCE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 500 | 15 | 5.72% | 10 | 40 | 10.64% | 50 | 50 | 20.80% | 2,031,120 | 67,700 | 310,520 | 15,820 | 95,527 | AID POSTS | ALL |
| 1000 | 50 | 68% | 100 | 400 | 14.72% | 150 | 150 | 5.57% | 192,000 | 19,200 | 28,800 | 52,880 | 317,841 | HEALTH CENTRES | NCD |
| 800 | 40 | 1.86% | 75 | 300 | 15.04% | 100 | 100 | 5.01% | 432,000 | 40,500 | 54,000 | 41,278 | 247,673 | HEALTH CENTRES | S HIGHLANDS |
| 800 | 41 | 1.86% | 75 | 300 | 15.04% | 100 | 100 | 5.01% | 201,600 | 18,800 | 25,20[illegible] | 41,278 | 247,673 | HEALTH CENTRES | W HIGHLANDS |
| 800 | 40 | 1.82% | 75 | 300 | 15.04% | 100 | 100 | 5.01% | 345,600 | 32,400 | 43,200 | 41,278 | 247,673 | HEALTH CENTRES | E HIGHLANDS |
| 700 | 35 | 1.78% | 50 | 200 | 10.69% | 100 | 100 | 5.47% | 252,000 | 18,000 | 30,000 | 36,580 | 219,539 | HEALTH CENTRES | MOROBE |
| 600 | 30 | 1.58% | 50 | 200 | 11.55% | 100 | 100 | 5.78% | [illegible] | 12,800 | 25,700 | 32,701 | 193,205 | HEALTH CENTRES | E NEW BRITAIN |
| CONDOMS | | | INJECTABLES | | | PILLS | | | [illegible] | [illegible] | [illegible] | | | | |
| | | | | | | | | | HEALTH CENTRES AND AID POST TOTALS | | | | | | |

## HOSPITALS

| FACILITY | PROVINCE | HEALTH CENTRE POP SERVED | SERVICE SCALE | AGREGATE POP SERVED | KIT PER YEAR | FACILITIES | PER KIT CONDOMS | PER KIT DEPO | PER KIT PILLS |
|---|---|---|---|---|---|---|---|---|---|
| [illegible] | [illegible] | [illegible] | 4 | [illegible] | 6 | 1 | [illegible] | [illegible] | 4,000 |
| [illegible] | [illegible] | [illegible] | 4 | [illegible] | 6 | 1 | 10,000 | 600 | 2,000 |
| [illegible] | [illegible] | [illegible] | 4 | [illegible] | 6 | 1 | 10,000 | 600 | 2,000 |
| [illegible] | [illegible] | [illegible] | 4 | [illegible] | 6 | 1 | 10,000 | 600 | 2,000 |
| [illegible] | [illegible] | [illegible] | 4 | [illegible] | 6 | 1 | 20,000 | [illegible] | 4,000 |
| [illegible] | [illegible] | [illegible] | 4 | [illegible] | 6 | 1 | 10,000 | 600 | 2,000 |
| | | | | 222,8[illegible] | | | | | |

| PER MONTH CONDOMS | USERS | NUSERS | DEPO | USERS | NUSERS | PILLS | USERS | NUSERS | PER YEAR CONDOMS | PER YEAR DEPO | PER YEAR PILLS | VOLUME PER KIT CM3 | VOLUME PER YEAR CM3 | FACILITY | PROVINCE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10,000 | 500 | 4.27% | 800 | 2,400 | 22.08% | 2,000 | 2,000 | 18.41% | 480,000 | 28,800 | 96,000 | 551,438 | 3,308,610 | PNG HOSPITAL | NCD/CENTRAL |
| 5,000 | 250 | [illegible] | 300 | 1,200 | 15.04% | 1,000 | 1,000 | 12.53% | 240,000 | 14,400 | 48,000 | 275,719 | 1,654,308 | MENDI HOSPITAL | S HIGHLANDS |
| 5,000 | 250 | 2.87% | 300 | 1,200 | 15.04% | 1,000 | 1,000 | 12.53% | 240,000 | 14,400 | 48,000 | 275,719 | 1,654,308 | MT. HAGEN HOSPITAL | W HIGHLANDS |
| 5,000 | 250 | 2.87% | 300 | 1,200 | 15.04% | 1,000 | 1,000 | 12.53% | 240,000 | 14,400 | 48,000 | 275,719 | 1,654,308 | GOROKA HOSPITAL | E HIGHLANDS |
| 10,000 | 500 | 8.27% | 800 | 2,400 | 32.84% | 2,000 | 2,000 | 27.37% | 480,000 | 28,800 | 96,000 | 551,438 | 3,308,610 | ANGAU HOSPITAL | MOROBE |
| 5,000 | 250 | 1.31% | 300 | 1,200 | 17.33% | 1,000 | 1,000 | 14.44% | 240,000 | 14,400 | 48,000 | 275,719 | 1,654,308 | NONGA HOSPITAL | E NEW BRITAIN |
| CONDOMS | | | INJECTABLES | | | PILLS | | | [illegible] | [illegible] | [illegible] | | | | |
| | | | | | | | | | HOSPITAL TOTALS | | | | | | |

| 1990 PRELIMINARY CENSUS POPULATION | |
|---|---|
| PROVINCE | POPULATION |
| NCD | [illegible] |
| S HIGHLANDS | [illegible] |
| W HIGHLANDS | 334,127 |
| E HIGHLANDS | [illegible] |
| MOROBE | [illegible] |
| E NEW BRITAIN | [illegible] |
| TOTAL POPULATION | [illegible] |

| AID POST ESTIMATOR | |
|---|---|
| [illegible] | [illegible] |
| [illegible] | 70% |
| [illegible] | 564 |

| POPULATION GROWTH MULTIPLIERS RELATIVE TO 1990 CENSUS |
|---|
| 1990 = 1.00 |
| 1991 = 1.03 |
| 1992 = 1.06 |
| 1993 = 1.09 |
| 1994 = 1.13 |
| 1995 = 1.16 |

| SERVICE AREA POPULATION AID POSTS-HEALTH CENTRE-FP CLINICS | | |
|---|---|---|
| CENSUS DATA | 1990 CENSUS | [illegible] |
| | GROWTH/ANNUM | [illegible] |
| | EST 1991 POP | [illegible] |
| | EST 1992 POP | 1,782,7[illegible] |
| | EST 1993 POP | 1,848,4[illegible] |
| AID POST & HEALTH CENTRE | AGREG. POP | 2,153,540 |
| | INCREASE OVER | 380,830 |
| | CENSUS ESTIMATE | 121% |
| HOSP FP CLINIC POPULATION | | 222,818 |
| PROJECT AREA AGREGATE POP | | 2,376,403 |
| [illegible] AGREGATION | INCREASE OVER | 583,749 |
| | CENSUS ESTIMATE | 131% |
| ESTIMATED POPULATION DISTRIBUTION | | |
| MALES 15 TO 50 YEARS | | 24% |
| FEMALES 15 TO 45 YEARS | | 22% |

| ALL HEALTH FACILITY MONTHLY ISSUE RATES | | | | | |
|---|---|---|---|---|---|
| CONDOMS | | INJECTABLES | | PILLS CYCLES | |
| ISSUE RATE | 20 | ISSUE RATE | 0.25 | ISSUE RATE | 1 |

| MEDICAL STORES PACKAGE UNITS FOR FAMILY PLANNING PROGRAMMES | | | | | |
|---|---|---|---|---|---|
| CONDOMS | | INJECTABLES | | PILLS CYCLES | |
| [illegible] | 100 | UNIT [illegible] | 1 | UNIT [illegible] | 100 |

| RESERVE PLUS WASTAGE FACTORS | | |
|---|---|---|
| CONDOMS | DEPO | PILLS |
| [illegible]% | 25% | 25% |

| STORAGE VOLUME | | |
|---|---|---|
| COMMODITY | QUANTITY | VOLUME cm3 |
| CONDOMS | 100 | [illegible] |
| INJECTABLES | 1 | 5 |
| PILLS | 100 | [illegible] |
| INCLUDES PACKAGING | | |

## ANNUAL SUPPLY REQUIERMENTS AND SERVICE DELIVERY :STOCK LEVEL MODEL

| CONTINUING USERS | | |
|---|---|---|
| AID POST AND HEALTH CENTRES | | |
| CONDOMS | DEPO | PILLS |
| 15,023 | 80,700 | 45,910 |
| HOSPITAL | | |
| 8,000 | 115,200 | 32,000 |
| CONDOMS | DEPO | PILLS |
| TOTAL ALL FACILITIES | | |
| CONDOMS | DEPO | PILLS |
| 23,023 | 196,900 | 77,910 |
| % POP CONTINUING USERS | | |
| 5.4% | 46.9% | 18.9% |
| METHOD MIX | | |
| 8% | 65% | 27% |

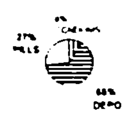
| TOTAL CYP ALL METHODS |
|---|
| 285,801 |

| ANNUAL SUPPLY REQUIREMENT | CONDOMS | DEPO | PILLS |
|---|---|---|---|
| ALL HEALTH FACILITY TOTAL> | 5,525,520 | 324,504 | 934,920 |
| PLUS RESERVE >> | 1,381,380 | 81,126 | 233,730 |
| GRAND TOTALS | [illegible] | 405,630 | 1,168,650 |
| 1992 SUPPLIES RECEIVED | 0 | 0 | 0 |
| 1993 SUPPLY REQUIREMENT | 6,906,900 | 405,630 | 1,168,650 |

| ESTIMATED 1993 COSTS | | |
|---|---|---|
| ITEM | UNIT COST | TOTAL COST |
| CONDOMS | $0.06 | $414,414 |
| INJECTABLES | $0.67 | $271,772 |
| PILLS | $0.15 | $175,298 |
| TRANSPORT (EST) | 25% | $171,547 |
| TOTAL ESTIMATED COMMODITY COST | | $1,033,030 |

| STORAGE VOLUMES | | | |
|---|---|---|---|
| VOLUME CM3 | 1[illegible],571,021 | 2,433,780 | 30,775,220 |
| VOLUME M3 | 1[illegible]1.57 | 2.43 | 30.78 |
| METHOD | CONDOMS | DEPO | PILLS |

METHOD MIX




COMMODITY COSTS 1993

NOTES

THIS MODEL OF THE CONTRACEPTIVE SUPPLY SYSTEM IS SUPPLY ORIENTED AND SUPPORTS A PUSH SYSTEM DUE TO CHRONIC SHORTAGES AND UNDERSUPPLY IN PAPUA NEW GUINEA THERE IS NO HISTORICAL USAGE DATA ON WHICH TO BASE SUPPLY REQUIREMENT FORECASTS THE MEDICAL SUPPLY SYSTEM IS A PULL SYSTEM WITH HEALTH WORKERS ORDERING SUPPLIES AS NEEDED THE RECENT EXPERIENCE WITH CONDOMS FOR STD/AIDS PREVENTION HAS DEMONSTRATED THAT THE PULL SYSTEM DOES NOT WORK WELL

1 PROVINCIAL POPULATION ESTIMATES ARE BASED ON THE PRELIMINARY POPULATION COUNTS REPORT OF THE 1990 POPULATION CENSUS
2 POPULATION SERVED IS BASED ON RECENT DATA FOR REGIONAL AVERAGE CATCHMENT SIZE FOR FACILITIES OF EACH TYPE
3 HOSPITAL FP CLINIC AGGREGATED POPULATIONS ARE BASED ON ASSUMED CLIENT LOAD EQUIVALENCE TO 4 HEALTH CENTRES
4 USERS AND CONTINUING USER NUMBERS ARE BASED ON THE POPULATION OF FEMALES 15 to 45 AND MALES 15 to 50 RESPECTIVELY
5 VOLUMES ARE EXPRESSED IN CUBIC CENTIMETERS EXCEPT WERE NOTED
6 VOLUMES INCLUDE PACKAGING MATERIALS
7 THE SUPPLY RATES PER KIT ARE THE PRIMARY VARIABLES AND CAN BE CHANGED FOR EACH PROVINCE OR FACILITY
8 THE SUPPLY LEVELS ARE CALCULATED ON THE BASIS OF POPULATION SERVED AT EACH TYPE OF FACILITY FOR EACH PROVINCE
9 THE OVERALL STOCK LEVEL AT EACH FACILITY HAVE BEEN CHOSEN ON THE BASIS OF PROVIDING A MINIMUM LEVEL OF STOCK TO PROVIDE FOR THE ESTIMATED CLIENT LOAD AND THE PRACTICALITIES OF KIT AND REGULAR SUPPLY PACKING USING MEDICAL STORES STANDARD UNITS OF ISSUE
10 COST ESTIMATES ARE BASED ON THE MOST RECENT (1992) NATIONAL OR DONOR PROCUREMENT FOR EACH TYPE OF COMODITY

8/13/92 9:04 PM

ANNEX 11

# LOGISTICS SURVEY
## DATA SUMMARY TABLE
## HEALTH FACILITIES

| LOGISTIC ELEMENTS | CHECK LIST | ELEMENT | SUB ELEMENT | HC 1 | HC 2 | HC 3 | HOSP 1 | HOSP 2 |
|---|---|---|---|---|---|---|---|---|
| PROCURING | 1 | PURCHASE PROCEDURES | | NO | NO | NO | NO | NO |
| | 2 | REQUISITION PROCEDURE | | NO | NO | NO | NO | YES |
| RECEIVING | 1 | RECEIVING PROCEDURES | | YES | YES | YES | YES | YES |
| & INSPECTING | 2 | INSPECTION PROCEDURES | | NO | NO | NO | NO | NO |
| STORAGE & | 1 | PHYSICAL ARRANGEMENTS | STRUCTURE | NO | NO | YES | YES | YES |
| WAREHOUSING | | OF STORAGE AREA | SECURITY | NO | NO | NO | NO | YES |
| | | OR PHARMACY | SERVICES | NO | YES | NO | YES | YES |
| | | | CAPACITY | NO | NO | YES | YES | YES |
| | 3 | NO OF TRAINED STAFF SUFFICIENT | | NO | NO | NO | NO | YES |
| | 4 | STANDARD STOCK LIST | | YES | YES | YES | YES | YES |
| | 5 | SPECIAL STORAGE | CONTROLED DRUGS | NO | YES | YES | YES | YES |
| | | | CONTAMINANTS * | NO | NO | NO | NO | NO |
| | | | VACCINES * | YES | YES | YES | YES | YES |
| | | | HEAT SENSI * | NO | NO | NO | NO | YES |
| | | | DENTAL-SURGICAL | NO | NO | NO | YES | YES |
| | 6 | SUPERVISION | | NO | NO | NO | NO | YES |
| INVENTORY | 1 | RECORDING SATISFACTORY | | NO | NO | NO | NO | YES |
| CONTROL | 2 | STOCK LEVEL SUFFICIENT | | NO | NO | NO | NO | NO |
| | | NUMBER OF BI-MONTHLY ORDERS REVIEWED | | 2 | 1 | 1 | 2 | 2 |
| | | TOTAL NUMBER OF ITEMS ORDERED | | 117 | 82 | 67 | 208 | 240 |
| | | TOTAL NUMBER REPORTED NIL STOCK | | 26 | 25 | 24 | 77 | 86 |
| | | TOTAL NUMBER OF ITEMS RECEIVED | **NOT FULLY SUPPLIED | 91 | 57 | 43 | 131 | 154 |
| | | PERCENTAGE OF ORDER RECEIVED | | 78% | 70% | 64% | 63% | 64% |
| | 3 | STOCK LEVELSUFFICIENT AT ALL TIMES | | NO | NO | NO | NO | NO |
| SUPPLY | 1 | DOCUMENTS SATISFACTORY | | NO | NO | NO | NO | YES |
| | 2 | ADEQUATE SUPPLY TO AID POSTS | | NO | NO | NO | NO | N/A |
| & TRANSPORT | 2 | DISTRIBUTION TO AID POSTS | | NO | NO | NO | NO | N/A |
| | 3 | TRANSPORT SUFFICIENT | | YES | NO | YES | NO | YES |
| MAINTENANCE | 1 | VEHICLES: EFFECTIVE SYS | | NO | N/A | NO | NO | NO |
| & REPAIR | 2 | EQUIPMENT: EFFECTIVE SYS | | NO | NO | NO | NO | NO |
| | 3 | BUILDINGS: EFFECTIVE SYS | | NO | NO | NO | NO | NO |
| COMMUNICATIONS | 1 | STAFF COMMUNICATIONS | | YES | YES | YES | YES | YES |
| | 2 | EQUIPMENT SATISFACTORY | | YES | YES | NO | YES | YES |
| ENVIRONMENTAL | 1 | NECESSARY STANDARDS OF | CLEANING | NO | NO | YES | YES | YES |
| MANAGEMENT | | CLEANLINESS, HYGIENE, | HYGIENE | NO | NO | YES | YES | YES |
| | | AND SAFETY MAINTAINED | SAFETY | NO | NO | NO | NO | NO |
| RECORDS & | 1 | PERIPHERY REPORTING? | | NO | NO | NO | NO | N/A |
| REPORTING | | MID-LEVEL REPORTING? | | NO | NO | NO | NO | YES |
| SUPERVISION | 1 | EFFECTIVE SUPERVISION? | | NO | NO | NO | NO | YES |
| LOGISTICS | 1 | EFFECTIVE SYSTEM FOR | | | | | | |
| TRAINING | | TRAINING AND RETRAINING? | | NO | NO | NO | NO | NO |

NOTES
1 SURVEY CONDUCTED IN 1991 AND 1992 WAS BASED ON 'HOW TO ASSESS HEALTH SERVICE LOGISTICS WITH PARTICULAR REFERENCE TO PERIPHERAL HEALTH FACILITIES' BY ANTHONY BATTERSBY, WORLD HEALTH ORGANIZATION GENEVA, 1985 [SHS/85 9]

* EPI SURVEY IN PNG ALLAN G BASS USAID JSI PNG CHILD SURVIVAL SUPPORT PROJECT PORT MORESBY JUNE 1991

DATA NOTES
YES = ALL CHECKLIST ITEMS WERE YES, ELEMENT IS SATISFACTORY
NO = NOT ALL CHECK LIST ITEMS WERE YES ELEMENT UNSATISFACTORY
N/A = NOT APPLICABLE TO THIS FACILITY OR OBSERVATION NOT MADE
U = UNCERTAIN OR COULD NOT BE DEFINED
** = MANY ITEMS ORDERED WERE ONLY PART SUPPLIED (AN ESTIMATED 25% OF ITEMS WERE RATIONED)

BEST AVAILABLE DOCUMENT

**ANNEX 12**

# LOGISTICS SURVEY
## DATA SUMMARY TABLE
## PHARMACEUTICAL SERVICES DIVISION

| LOGISTIC ELEMENTS | CHECK LIST | ELEMENT | SUB ELEMENT | PHARM HQ | AMS MORESBY | AMS LAE | AMS HAGEN | AMS RABAUL | AMS WEWAK | AMS MADANG |
|---|---|---|---|---|---|---|---|---|---|---|
| MANAGEMENT | 1 | OTHER DEPARTMENTS AND DONORS | DEPARTMENTS | | | | | | | |
| | | | DONORS | | | | | | | |
| | 2 | EFFECTIVE? | | | | | | | | |
| PLANNING | 1 | IN HEALTH SERVICE CONTEXT | | | | | | | | |
| | 1 A * | IN MCH SERVICES CONTEXT | PRIORITIES | | | | | | | |
| & BUDGETING | 2 | IN NATIONAL CONTEXT | | | | | | | | |
| | 3 | IN LOCAL CONTEXT | | | | | | | | |
| | 4 | ECONOMICS DEFINED | | | | | | | | |
| | 5 | BUDGET ADEQUATE | | | | | | | | |
| | 6 | BUDGETING PROCEDURES | | | | | | | | |
| | 7 | STAFFING LEVEL SUFFICIENT | | | | | | | | |
| PROCURING | 1 | PURCHASE PROCEDURES | | | | | | | | |
| | 2 | REQUISITION PROCEDURE | | | | | | | | |
| RECEIVING | 1 | RECEIVING PROCEDURES | | | | | | | | |
| & INSPECTING | 2 | INSPECTION PROCEDURES | | | | | | | | |
| STORAGE & | 1 | PHYSICAL ARRANGEMENTS | STRUCTURE | | | | | | | |
| WAREHOUSING | | | SECURITY | | | | | | | |
| | | | SERVICES | | | | | | | |
| | | | CAPACITY | | | | | | | |
| | 2 | HANDLING FACILITIES | | | | | | | | |
| | 3 | NO OF TRAINED STAFF SUFFICIENT | | | | | | | | |
| | 4 | STANDARD STOCK LIST | | | | | | | | |
| | 5 | SPECIAL STORAGE | CONTROL DRUG | | | | | | | |
| | | | CONTAMINANTS * | | | | | | | |
| | | | FLAMABLES | | | | | | | |
| | | | VACCINES * | | | | | | | |
| | | | HEAT SENSI * | | | | | | | |
| | | | DENTAL-SURGICAL | | | | | | | |
| | 6 | SUPERVISION | | | | | | | | |
| INVENTORY | 1 ** | RECORDING SATISFACTORY | | | | | | | | |
| CONTROL | 2 | STOCK LEVEL SUFFICIENT | | | | | | | | |
| | 3 | SUFFICIENT AT ALL TIMES | | | | | | | | |
| SUPPLY | 1 | DOCUMENTS SATISFACTORY | | | | | | | | |
| | 2 | SUBSTORES LEVELS ADEQUATE | | | | | | | | |
| DISTRIBUTION | 1 * | DISTRIBUTION OK? | | | | | | | | |
| & TRANSPORT | 2 * | TRANSPORT PLAN | | | | | | | | |
| | 3 | TRANSPORT SUFFICIENT | | | | | | | | |
| MAINTENANCE | 1 | VEHICLES EFFECTIVE SYS | | | | | | | | |
| & REPAIR | 2 * | EQUIPMENT EFFECTIVE SYS | | | | | | | | |
| | 3 * | BUILDINGS EFFECTIVE SYS | | | | | | | | |
| COMMUNICATIONS | 1 | STAFF COMMUNICATIONS | | | | | | | | |
| | 2 | EQUIPMENT SATISFACTORY | | | | | | | | |
| ENVIRONMENTAL | 1 | NECESSARY STANDARDS OF | CLEANING | | | | | | | |
| MANAGEMENT | | CLEANLINESS, HYGIENE, | HYGIENE | | | | | | | |
| | | AND SAFETY MAINTAINED | SAFETY | | | | | | | |
| RECORDS & | 1 | PERIPHERY REPORTING? | | | | | | | | |
| REPORTING | | MID-LEVEL REPORTING? | | | | | | | | |
| SUPERVISION | 1 | EFFECTIVE SUPERVISION? | WAREHOUSE | | | | | | | |
| | | | PERIPHERY | | | | | | | |
| LOGISTICS | 1 | EFFECTIVE SYSTEM FOR | | | | | | | | |
| TRAINING | | TRAINING AND RETRAINING? | | | | | | | | |

NOTES
1 BASED ON 'HOW TO ASSESS HEALTH SERVICE LOGISTICS WITH PARTICULAR REFERENCE TO PERIPHERAL HEALTH FACILITIES' BY ANTONY BATTERSBY. WORLD HEALTH ORGANIZATION GENEVA, 1985 [SHS/85 9]
* EPI SURVEY IN PNG, ALLAN G BASS, USAID JSI PNG CHILD SURVIVAL SUPPORT PROJECT, PORT MORESBY JUNE 1991
** TRIP REPORT, HEALTH SERVICE INVENTORY CONTROL SOFTWARE IN PAPUA NEW GUINEA, THE REACH PROJECT, ARLINGTON VIRIGINIA USA 1991

DATA NOTES
YES = ALL CHECKLIST ITEMS WERE YES, ELEMENT IS SATISFACTORY
NO = NOT ALL CHECK LIST ITEMS WERE YES, ELEMENT UNSATISFACTORY
N/A = NOT APPLICABLE TO THIS FACILITY OR OBSERVATION NOT MADE
U = UNCERTAIN OR COULD NOT BE DEFINED

BEST AVAILABLE DOCUMENT

# ANNEX 13 PRIVATE SECTOR CONTRACEPTIVE SUPPLIES
## PRICE CONTROL POTENTIAL

EXAMPLE 1: PRESENT — PRIVATE SECTOR: OWN SOURCES

| METHOD | ESTIMATED WHOLESALE UNIT COST | ESTIMATED TOTAL MARKUP | RETAIL UNIT PRICE | ESTIMATED MARKET QUANTITY | WHOLESALE TOTAL VALUE | RETAIL TOTAL VALUE | ESTIMATED CPY | TOTAL MARGIN ON SALES |
|---|---|---|---|---|---|---|---|---|
| ORAL | K 1.625 | 200% | K 3.25 | 96,000 | K 156,000 | K 312,000 | 8,000 | K 156,000 |
| CONDOMS | K 0.13 | 200% | K 0.25 | 600,000 | K 75,000 | K 150,000 | 2,500 | K 75,000 |
| | | | | | | | TOTAL MARGIN | K 231,000 |

EXAMPLE 2 — PRIVATE SECTOR: DOH SOURCED

| METHOD | ESTIMATED WHOLESALE UNIT COST | SUGGESTED TOTAL MARKUP | RETAIL UNIT PRICE | ESTIMATED MARKET QUANTITY | WHOLESALE TOTAL VALUE | RETAIL TOTAL VALUE | ESTIMATED CPY | TOTAL MARGIN ON SALES |
|---|---|---|---|---|---|---|---|---|
| ORAL | K 0.192 | 200% | K 0.38 | 96,000 | K 18,386 | K 36,772 | 8,000 | K 18,386 |
| CONDOMS | K 0.10 | 200% | K 0.20 | 600,000 | K 58,800 | K 117,600 | 2,500 | K 58,800 |
| | | | | | | | TOTAL MARGIN | K 77,186 |

EXAMPLE 3 — PRIVATE SECTOR: DOH SOURCED

| METHOD | ESTIMATED WHOLESALE UNIT COST | SUGGESTED TOTAL MARKUP | RETAIL UNIT PRICE | ESTIMATED MARKET QUANTITY | WHOLESALE TOTAL VALUE | RETAIL TOTAL VALUE | ESTIMATED CPY | TOTAL MARGIN ON SALES |
|---|---|---|---|---|---|---|---|---|
| ORAL | K 0.192 | 520% | K 1.00 | 96,000 | K 18,386 | K 95,607 | 8,000 | K 77,221 |
| CONDOMS | K 0.10 | 200% | K 0.20 | 600,000 | K 58,800 | K 117,600 | 2,500 | K 58,800 |
| | | | | | | | TOTAL MARGIN | K 136,021 |

EXAMPLE 4 — PRIVATE SECTOR: DOH SOURCED

| METHOD | ESTIMATED WHOLESALE UNIT COST | SUGGESTED TOTAL MARKUP | RETAIL UNIT PRICE | ESTIMATED MARKET QUANTITY | WHOLESALE TOTAL VALUE | RETAIL TOTAL VALUE | ESTIMATED CPY | TOTAL MARGIN ON SALES |
|---|---|---|---|---|---|---|---|---|
| ORAL | K 0.19 | 520% | K 1.00 | 192,000 | K 36,772 | K 191,214 | 16,000 | K 154,442 |
| CONDOMS | K 0.10 | 200% | K 0.20 | 1,000,000 | K 98,000 | K 196,000 | 4,167 | K 98,000 |
| | | | | | | | TOTAL MARGIN | K 252,442 |

DEPARTMENT OF HEALTH

| METHOD | ESTIMATED DOH UNIT COST | SUGGESTED TOTAL MARKUP | ESTIMATED WHOLESALE UNIT PRICE | ESTIMATED MARKET QUANTITY | ESTIMATED UNIT REVENUE | WHOLESALE TOTAL VALUE | ESTIMATED CPY | REVENUE GENERATED |
|---|---|---|---|---|---|---|---|---|
| ORAL | K 0.14 | 140% | K 0.19 | 96,000 | K 0.05 | K 18,386 | 8,000 | K 5,253.12 |
| CONDOMS | K 0.07 | 140% | K 0.10 | 600,000 | K 0.03 | K 58,800 | 2,500 | K 16,800.00 |
| ORAL | K 0.14 | 140% | K 0.19 | 192,000 | K 0.05 | K 36,772 | 16,000 | K 10,506.24 |
| CONDOMS | K 0.07 | 140% | K 0.10 | 1,000,000 | K 0.03 | K 98,000 | 4,167 | K 28,000.00 |

NOTES:

THIS IS AN ILLUSTRATIVE EXAMPLE OF THE POTENTIAL FOR THE DEPARTMENT OF HEALTH TO REDUCE THE RETAIL PRICE OF CONTRACEPTIVES IN THE PRIVATE PHARMACEUTICAL MARKET

THESE EXAMPLES DEMONSTRATE THE POTENTIAL FOR BOTH LOWERING THE RETAIL PRICE AND FOR RESTORING MARGINS ON SALES IN THE PRIVATE SECTOR, WHILE GENERATING REVENUE FOR THE DEPARTMENT OF HEALTH

TO ENABLE THIS, THE RELIABILITY OF THE DOH AS A SUPPLIER NEEDS TO BE PROVEN, THE ENABLING LEGISLATION ON SALES ENACTED, AND OVERALL PRIVATE SECTOR SALES INCREASED

THE PRIVATE SECTOR UNIT COSTS AND MARKUPS ARE ILLUSTRATIVE COMPOSITES DERIVED FROM DISCUSSIONS WITH SEVERAL FIRMS

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## ANNEX 14

### ILLUSTRATIVE BUDGET: LOGISTICS SUPPORT POPULATION PROJECT 1993 - 1997

| ACTIVITY | KINA | US$ |
|---|---|---|
| TECHNICAL ASSISTANCE: FINANCE (3 YEARS TA) | | $700,000 |
| UPGRADE OF AREA MEDICAL STORES | K 1,428,500 | $1,514,210 |
| DEVELOPMENT OF SUBSTORES | K 1,238,722 | $1,313,045 |
| SUPPLY KIT LABELING EQUIPMENT | K 6,000 | $6,360 |
| SUPPLY MANAGEMENT AT HEALTH FACILITIES | K 60,000 | $63,600 |
| CONSTRUCTION: LAE TRANSIT STORE | K 300,000 | $318,000 |
| | TOTAL | $3,915,215 |

| SUPPLIES | YEAR | EST. COST |
|---|---|---|
| CONTRACEPTIVE SUPPLIES | 1993 | $1,033,030 |
| KIT PACKAGING MATERIALS | 1993 | $6,000 |
| CONTRACEPTIVE SUPPLIES | 1994 | $1,084,682 |
| KIT PACKAGING MATERIALS | 1994 | $6,300 |
| CONTRACEPTIVE SUPPLIES | 1995 | $1,138,916 |
| KIT PACKAGING MATERIALS | 1995 | $6,615 |
| CONTRACEPTIVE SUPPLIES | 1996 | $1,195,861 |
| KIT PACKAGING MATERIALS | 1996 | $6,946 |
| CONTRACEPTIVE SUPPLIES | 1997 | $1,255,654 |
| KIT PACKAGING MATERIALS | 1997 | $7,293 |
| FIVE YEAR SUPPLY ESTIMATED TOTAL COST | | $5,741,297 |

| | |
|---|---|
| EXCHANGE RATE US$/KINA | 1.06 |
| ANNUAL INFLATION | 5% |

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**Appendix I**

**LIST OF TRIPS TEAM MADE**
**AUGUST 1990 - OCTOBER 1992**

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LIST OF TRIPS TEAM MADE
AUG '90 - MAR 31, '91

| DATE | PLACE | PURPOSE | TEAM MEMBERS |
|---|---|---|---|
| Aug. '91 | Nil | Nil | Nil |
| Sept. '90 19/09/91 | Goroka-EHP | Attend Provincial A.S. Meeting | J. Russel |
| Oct. '90 | Nil | Nil | Nil |
| Nov. '90 19/11/90 - 22/11/90 | Lae&Kaiapit-MP | Visit P.C.I. VBA Project | J. Russell, A. Bass, K. Edwards, M. Street |
| Nov. '90 | Goroka-EHP | Visit Goroka Teachers Coll. | M. Street |
| Dec. '90 | Nil | Nil | Nil |
| Jan. '91 | Nil | Nil | Nil |
| Feb. '91 05/02/91 | Rabaul-ENBP | Regional MCH Planning Meeting | J. Russell K. Edwards M. Street A. Bass |
| Feb. '91 20/02/91 - 01/03/91 | Lae-MP | Momase/NGI Mainland - Regional MCH Planning Workshop | J. Russell A. Bass K. Edwards M. Street |
| Mar. '91 10/03/91 - 16/03/91 | Alotau&Losuia-MBP | Visit VBA Program | J. Russell K. Edwards M. Street |
| Mar. '91 25/03/91 - 28/03/91 | Mendi,Nipa&Tari SHP | Visit VBA Program & IMR/Tari | M. Street J. Russell K. Edwards |

LIST OF TRIPS TEAM MADE
1ST APRIL, 1991 - 30TH SEPT, 1991

| DATE | PLACE | PURPOSE | TEAM MEMBERS |
|---|---|---|---|
| April 1991 21/04/91- 26/04/91 | Goroka | VBA Workshop | K Edwards M Street J Russell |
| April 1991 10/04/91- 20/04/91 | Rabaul Kavieng | Cold Chain/ Medical Supplies check | A Bass |
| April/May 1991 26/04/91- 03/05/91 | Madang | To attend Provincial Planning meeting | A Bass |
| May 1991 09/05/91 | Hagen | To attend Provincial Planning Meeting | A Bass |
| May 1991 22/05/91- 25/05/91 | Manus | To attend Malaria Workshop | K Edwards |
| | | | |
| July 1991 03/07/91- 06/07/91 | Wewak | Collect info re Malaria Research | K Edwards |
| July 1991 04/07/91 | Mendi | To attend Malaria Workshop | K Edwards |
| August 1991 13/08/91- 15/08/91 | Lae | To attend Assistant Secretary's meeting | K Edwards M Street J Rusell |
| August 1991 19/08/91 | Goroka Lae Rabaul | To assess equipment needs for the RSU's | J Russell |
| Sept 1991 26/09/91 | Lae | CAHS - Job Analysis | M Street |
| | | | |
| | | | |

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Attachment III

## LIST OF TRIPS TEAM MADE

## OCTOBER 1, 1991 THROUGH MARCH 31, 1992

| DATE | PLACE | PURPOSE | TEAM MEMBERS |
|---|---|---|---|
| October 1991 | | | |
| 1-3/10/91 | Lae | Working Committee - Job Analysis Project | M Street |
| 20/10/91 | Wewak | Duty Travel & MUAC | K Edwards |
| | Madang | Facilitate Disease Survellance Polio Eradication Workshop | A Bass |
| November 1991 | | | |
| 11-20/11/91 | Tabubil/Kiunga/ Balimo | Job Analysis | M Street |
| 20/11/91 | Rabaul | DOH Epint Workshop | K Edwards |
| 24/11-04/12/91 | Manus/Madang | Job Analysis | M Street |
| December 1991 | | | |
| 09-15/12/91 | Kundiawa | Job Analysis | M Street |
| Dec. 1991 | Nil | Nil<br>Note: Tickets purchased in December was done in Jan 92 | Nil |
| January 1992 | | | |
| 20/01/92 | Wewak | MUAC Survey | K Edwards |
| 24/01/92 | Goroka | Visit IMR & SEATS | A Bass |
| 28/01/92 | Alotau | Visit Ergometrine Pilot Study | K Edwards |
| February 1992 | | | |
| 12/02/92 | Alotau/Losuia | To arrange for Dr P Lowery to visit Ergometrine Survey Pilot Sites | K Edwards |
| [illegible] | Madang | To attend Food & Nutrition Policy [illegible] | K Edwards |
| 26/02/92 | Goroka | Accompany Bert Hirschhorn re Rice ORS and attend Research Agenda Meeting IMR | J Russell<br>K Edwards |
| March 1992 | | | |
| 04/03/92 | Wewak | To accompany D Pyle, M Youngwerth to visit MUAC Study Sites | K Edwards |
| Mar. 1992 | Nil | Nil<br>Note: Tickets purchased in Feb. but actual travels were done in March 92 | Nil |

## LIST OF TRIPS TEAM MADE
## APRIL 1992 TO SEPTEMBER 1992

| DATE | PLACE | PURPOSE | NAMES |
|---|---|---|---|
| APRIL 1992 | | | |
| 29/04/92-30/04/92 | Tari | Duty Travel to Highlands Medical Symposium | K Edwards |
| MAY 1992 | | | |
| 06/05/92 to 07/05/92 | Alotau | Duty Travel | K Edwards |
| 10/05/92 to 14/05/92 | Kavieng | To Attend National Health Conference | J Russell |
| 10/05/92 to 14/05/92 | Kavieng | A/S Conference & Meeting with Nip Provincial Staff | M Street |
| 10/05/92 to 14/05/92 | Kavieng | ASH - Conference | K Edwards |
| 14/05/92 to 16/05/92 | Madang | HEO Curriculum Workshop | K Edwards |
| JUNE 1992 | | | |
| 10/06/92 to 12/06/92 | Wewak | Duty Travel | K Edwards |
| 23/06/92 to 24/06/92 | Goroka | Visit the IMR | A Bass |
| JULY 1992 | | | |
| 21/06/92 to 01/07/92 | Wewak | To Take part in Pre-Survey Workshop MUAC Study | K Edwards |
| 06/07/92 to 10/07/92 | Alotau | To attend 5 Year Planning Workshop | K Edwards |
| 15/07/92 to 18/07/92 | Karawori, Ambunti, Green River, Wewak | Review, Visit Nutrition Survey MUAC Pilot Project | K Edwards |
| AUGUST 1992 | | | |
| 06/08/92 to 11/08/92 | Goroka & Mt Hagen | Attend Church Medical Council & Projects in WHP | M Street |
| 07/08/92 to 12/08/92 | Wewak | To Conduct Workshop for Health Centre Staff-MUAC Pilot Project | K Edwards |
| 26/08/92 to 29/08/92 | Wewak | To Attend 2nd Workshop-MUAC Pilot Project | K Edwards |
| AUG/SEPT 1992 | | | |
| 30/08/92 to 05/09/92 | Wewak | To Attend 3rd Workshop-MUAC Pilot Project | K Edwards |
| 13/09/92 to 20/09/92 | Wewak | To Conduct APO Inservice-Ambunti MUAC Pilot Project | K Edwards |
| 26/09/92 to 28/09/92 | Wewak | To Conduct APO In-service Green River-MUAC Pilot Project | K Edwards |

## LIST OF TRIPS TEAM MADE

## OCTOBER 1992 - MARCH 1993

| DATE | PLACE | PURPOSE | TEAM MEMBER |
|---|---|---|---|
| **October 1992** | | | |
| 12/10/92-15/10/92 | Kavieng | To conduct EPI/Cold Chain Training Courses for OICs | A Bass |
| 18/10/92-24/10/92 | Wewak | To facilitate 5 yr Health Planning Workshop | K Edwards |
| 18/10/92-30/10/92 | Kavieng & Manus | Mother's Health Record Project, Disposable Syringe Project | M Street |
| 26/10/92-28/10/92 | Mt Hagen | To conduct EPI/Cold Chain Training Courses for OICs | A Bass |
| 30/09/92-16/10/92 | Mt Hagen & Western Province | Maternal Health & Injection Control Training | M Street |
| **November 1992** | | | |
| 08/11/92-20/11/92 | Rabaul | To facilitate A.R.I. Workshop | K Edwards |
| **December 1992** | | | |
| NIL | NIL | NIL | NIL |
| **January1993** | | | |
| NIL | NIL | NIL | NIL |
| **February 1993** | | | |
| 10/02/93-12/02/93 | Alotau | Co-ordination visit to Develop Ergometrine Pilot for start-up | K Edwards |
| 23/02/93 to 26/02/93 | Manus | To take part in ARI/CDD Supervisory Skills Workshop for Health Centre Staff | K Edwards |
| 24/02/93-28/02/93 | Kavieng | Provincial visit - Disposable Syringe Project, Mother's Health Record Books, Nursing Standard | M Street |
| **March 1993** | | | |
| 02/03/93-05/03/93 | Vanimo/ Wewak | To visit Provincial Health Divisions, East & West Sepik re: 5 Yr Planning Workshop, MUAC, Evaluation Visit | K Edwards |
| 22/03/93-26/03/93 | Wewak/ Vanimo | CSSP Mid-Term Evaluation Visit to East & West Sepik | K Edwards |
| 31/03/93-01/04/93 | Rabaul | CSSP Mid-Term Evaluation of RSU-Rabaul | J Russell |

## Appendix J

## LIST OF PERSONS INTERVIEWED

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## LIST OF PERSONS INTERVIEWED

**Government of Papua New Guinea**
**Department of Health,**
**Hohola, National Capitol District**

Dr. Isaac Ake, Secretary of Health

Mr. Lindsay Piliwas, First Assistant Secretary for Primary Health Services

Mr. Andrew Emang, Assistant Secretary, Health, for Training

Mr. Enoch Ponsai, Assistant Secretary, Family Health Services

Dr. S. Rubero, National Epidemiologist

Dr. Gilbert Hiawalyer, Senior Medical Officer for Non-Communicable Diseases and Coordinator of National EPI and ALRI Programmes

Dr. Clement Malau, Senior Medical Officer, Communicable Diseases

Dr. I.S. Dulay, Assistant Secretary, Environmental Health Services

Mr. Raka Guma, Head, Information Section, Office of Policy and Planning

Mr. Powa Warena, Churches Medical Council, Department of Health

Mrs. Tapora Lokoloko, Nursing Training Division

Mrs. Louise Jones, Nursing Council, NDOH

Mrs. Felicity Dukaduka, Nursing Council, NDOH

**Department of Finance and Planning, Port Moresby**
**Office of International Development Assistance (OIDA)**

Mrs. Mariana Ellingson, Assistant Director, Bilateral Programmes Branch
Mr. Paul Enni, Desk Officer, Bilateral Programmes Branch

**Office of the Prime Minister of Papua New Guinea**

Mr. Paul Barth, Policy Advisor (Agricultural Sector) to the Prime Minister of PNG



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**College of Allied Health Sciences, Taurama, Port Moresby, NCD**

Mr. Peter Eaepae, Dean
Mrs. Dorothy Kapitum, Acting Head of the Nursing Studies Division
Mrs. Martha Magdi, Lecturer, Community Health Nursing Administration Section

**List of Students in Diploma Course in Community Health Nursing Administration at CAHS**

Regina Nua
Agnes Naimaru
Joseph Simon
Dinah Vesikula
Gabriel Ogun
Mek Pure
Timothy Hebawe
Jenny Pokiton
Helen Kassam
Sister Kostka
Brigida Yala
Margaret Losane
Carol Tenain
Rachel Kalmos (Vanuatu)

**Child Survival Support Project Office at the Department of Health**

**John Snow, Inc. Technical Assistance Contractor Team**

**In Papua New Guinea:**

Dr. Jerry Russell, HSMA/COP
Dr. Keith Edwards, MCHP Advisor
Ms. Margaret Street, CHNA Advisor
Mr. Allan Bass, LMA

**In the United States:**

John Snow, Inc.

**Washington, DC:**

Dr. Richard Moore, Vice President, International Division

**REACH/JSI in PNG:**

Ms. Waneen Polly, Coordinator

**Visit to Morobe Province (24-25 March 1993)**

o MOMASE Regional Support Unit

Dr. J. Jayatilaka, RSU Coordinator
Mr. John Mangeu, RSU Disease Control Officer
Mr. Simon Yala, Regional Health Inspector

o Morobe Provincial Health Division

Dr. Likey Theo, Assistant Secretary, Health
Mr. Napa Sua, Acting Coordinator for Health Resources and Coordinator for Policy and Planning
Mr. Louis Sokolamis, Provincial In-Service Coordinator

o Angau Memorial Hospital

Dr. Maliake, Pediatric Registrar
Mrs. Samoa, Nursing assistant, Diarrhoeal Rehydration Training Unit
Dr. Garap, Pediatrician, Hospital Pediatrics Service

o Milfordhaven Urban Clinic (subcenter)

Mrs. Natan, Sister-in-Charge

o Morobe Province Area Medical Store, Lae

Mr. Alan Peterson, Area Medical Store Manager

**Field Visit to the Highlands, RSU and Eastern Highlands Provincial Health Division, Goroka, EHP (28-30 March)**

(Evaluators were accompanied By Dr. Celment Malau and Mrs. Barbara Freeman)

**Regional Support Unit Staff:**

Dr. Diaz, Regional Epidemiologist
Mr. Rajan Deb, VSO Volunteer, Regional Laboratory Assistant Training Programme for Malaria

**Eastern Highlands Provincial (EHP) Health Division:**

Mrs. Julie Livico, Assistant Secretary, Health for EHP
Mr. Ken Wai, EHP Provincial Health Extension/Administration Officer
Mr. Jebi Andi, EHP Community Health Nursing Supervisor (Matron)
Mr. Tombe Mukap, Coordinator of Churches Medical Services
Mr. Jack Kutin, Officer-in-Charge, Asaro Health Center
Mr. Kairu Opa, Provincial In-service Training Coordinator

**PNG Institute of Medical Research (PNGIMR), Goroka, EHP**

Dr. Michael Alpers, Director
Dr. Deborah Lehmann, Deputy Director
Dr. Carol Jenkins, Associate in Social Science Research
Ms. Martina, PNGIMR Administrator

**Goroka Teachers College, Goroka, Eastern Highlands Province**

Mr. Arnold Parapi, Lecturer in Education, GTC
Dr. K. Jayalath, Lecturer
Mrs. Lilian Siwi, Head of Nursing School and proposed diploma course coordinator
Mr. Mark Solon, Pro-Vice-Chancellor, Goroka Teachers's College, UPNG
Mrs. Susan Maesa, Lecturer, Diploma course in Health Education

**University of Papua New Guinea**
**Community Health Division, Faculty of Medicine**

Prof. Adrian Sleigh, Head of the Department of Community Medicine, Medical Faculty, UPNG
Prof. John Vince, Head of Paediatric Division, Medical Faculty, UPNG

**Field visits to the Southern (Papuan) Regional Support Unit, Port Moresby, NCD (26 March and 30 March):**

Dr. Reya Taufa, Regional Epidemiologist and Coordinator for the Southern Regional Support Unit
Mr. Cary, Statistical Officer, Souther RSU, Port Moresby
Mr. John Kaiulo, Assistant Secretary for NCD Urban Health Services

**U.S. Agency for International Development**
**RDO/SP**
**Suva, Fiji**

Dr. David Calder, Chief, Office of Health, Population and Nutrition (HPN)
Dr. Patrick Lowry, HPN Advisor, Project Officer for CSSP
Mr. Manoa Bale, Project Officer, HPN Office
Ms. Antoinette Ferraro, RDO/SP Program Officer
Mr. Ralph Singleton, Advisor to the Program Office, RDO/SP

**USAID/RDO/SP Sub-Office**
**Port Moresby, PNG**

Mr. Louis Kuhn, Director of the RDO/SP Sub-Office
Mrs. Barbara Freeman, Program Assistant

**Asian Development Bank (Headquarters),**
**Manila, Philippines**

Ms. Jane Thomason, Health Specialist
(Interviewed by telephone on two occasions)

**In Papua New Guinea, interviewed ADB consultants**

Dr. Ray Carlaw
Dr. Riitta-Liisa Aitken
Dr. Clydette Powell

**UNICEF in Papua New Guinea**

Mr. Tony Naleo, Project Officer-UNICEF

**World Health Organization**
**Country Office for Papua New Guinea**

Mr. Eli Dekel, WHO Resident Representative
Mr. Steven Karel, Advisor for Health Systems Strengthening
Mr. Villie Postilla, EPI/CDD-WHO Advisor

**U.S. Non-Governmental Organization Representative**

Dr. Harumi Karel, Project Concern International

# Appendix K

# CSSP RESEARCH AGENDA

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Needs a complete review, look at the university lecturer
(a) Discuss yesterday PNG decides what it wants
(b) Stick to generic approach as areas suggested (not a shopping list)
(c) implement if not to change focus
(d) Contractor is mass-trained, incomplete

As of 31, 1990 distributed

# CSSP RESEARCH AGENDA[1]

Keith Edwards MCH Physician, CSSP

**SUMMARY OF PROPOSED, APPROVED AND COMPLETED RESEARCH PROJECTS AND THEIR RELEVANCE TO CSSP OBJECTIVES.**

**July 1992**

## 1. Funded Research Projects which are On-going or Completed:

1.1. **Rural Health Services:** This proposal is to obtain baseline data representative of the four regions and relevant to project targets. Especially clinical skills of health centre and aid post staff in the diagnosis and treatment of pneumonia, diarrhoea, malaria and malnutrition in children. But also management constraints, supervision and community interaction aspects of quality of care. The results of this research will assist the project to focus on the key issues affecting the quality of care. The proposal has been approved, funded and data has already been collected. The project has now been completed and the results are available.

Relevant to objective / activity No: A7), A8), A9), B2), D2), E2), F2), K1), K5), L)[2]

1.2. **Pneumococcal Vaccine Field Trial:** This proposal is relevant to the lowering of childhood case fatality from pneumonia. The trial is to test the efficacy of the 23 polyvalent pneumococcal vaccine using the routine MCH system rather than administration of the vaccine by a research programme. The study is approved for partial funding and is now in its second year.

Relevant to objective / activity No: C1).

1.3. **Mid-Upper Arm Circumference Tape Pilot Project:** This project addresses the objective to increase the diagnosis and treatment of children with malnutrition. We know that although there is good coverage

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[1] This agenda includes projects proposed by the CSSP Longterm Advisors and those suggested by the CSSP Research Advisors. Jane Thomason, Michael Alpers, Carol Jenkins
[2] These numbers refer to those used in the PNG Child Survival Support Project Strategic Plan document.

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for infant weight for age assessment (around 90%), there is rarely any treatment given for children found to have a low weight for age. In contrast, we know that the coverage for weight for age assessment for 1 to 4 year old children is very low (around 10%) and that this is due to low attendance of this age group at MCH clinics. This is ironic as malnutrition incidence peaks at around 2 years of life in Papua New Guinea. This project is to test whether the use of a Mid Upper Arm Circumference tape with a linked 6-step treatment regime by aid post level workers can increase the number of children under surveillance for malnutrition and increase the number treated effectively. The project is to be pilot tested in the Sepik River Basin The project is approved for funding and commenced in June 1992, having been delayed by the flooding disaster situation on the river

Relevant to objective / activity No A5), C2), D2), F1), F2)

1.4. **Reproductive Knowledge and Behaviour Study:** This study is to sample rural beliefs related to childbirth so that effective community education can be tailor-made to encourage a change in beliefs / practices to allow increased supervision of high risk pregnancies. The study has been approved and funded and data collection has been performed. Results are expected in the second quarter 1992.

Relevant to objective / activity No: A5), J3)

1.5. **Community Medicine Department:** This proposal is to fund ~~postgraduate~~ research projects relevant to the CSSP targets. The project is already approved and funded and is ongoing. K5,000 has been provided for the years 1992-3. This activity allows the institutionalization of MCH priorities in that it gives this emphasis to the postgraduate students. They take this experience and knowledge back with them to their province

1.5.1. **A Survey of Papua New Guinea's Health Priorities and the Cost of Medical Supplies:** This survey is being conducted by Mr John T. Levi, Diploma of Community Medicine Student. It seeks to determine the proportion of pharmaceuticals allocated to hospitals and primary health services, the differences in expenditure on supplies between major hospitals, and to identify the sources of inequality.

Relevant to objective / activity No: L).

1.5.2. **A Study of Drug Wastage Rates:** This survey is being conducted by Ms Miriam Pahun, Diploma of Community Medicine Student. It seeks to compare the pharmaceuticals used in the treatment of

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patients in a health centre with the usage suggested by the appropriate standard treatment book over a one month period

Relevant to objective / activity No: L).

1.5.3. **A Study to Identify Unreported Neonatal Tetanus in Port Moresby General Hospital Records:** This survey was conducted by third year Community Medicine students. It sought to identify unreported and undiagnosed cases of neonatal tetanus by comparing case records with WHO criteria for neonatal tetanus identification The study has been completed though it's findings have not been presented.

Relevant to objective / activity No: K6)

1.5.4 **A Study to Determine the Immunization Status of Children Admitted with Tuberculous Meningitis:** This survey was conducted by third year Community Medicine Students. It sought to verify anecdotal data suggesting that BCG immunization absolutely prevents Tuberculous meningitis

Relevant to objective / activity No: K6)

where paid for?

## 2. Studies Performed by CSSP without Use of the CSSP Research Budget

2.1. **Evaluation of PNG Programmes in Maternal Health, Family Planning and Immunization (R.E.M.):** This study is designed to rapidly and cost effectively collect information on the quality, quantity and outcomes of services, with the use of locally available resources. It was performed in collaboration with the D.O.H., W.H.O. and the Department of Community Medicine, UPNG. The results are now available

Relevant to objective / activity No A7), I1)

2.2. **Community Health Nursing Job Analysis Study:** This study is designed to identify the areas of competance needing to be developed by Senior Nursing Officers which has maximum relevance to the quality of community health district level health services. It includes: the comparison of nurses work expectations with those of both Health Extension Officers and Community Health Workers who work with them; the comparison of

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expected functions of nurses working in government and church health services

Relevant to objective / activity No A1), A7)

2.3. **Medical Supply and Logistics Survey:** This survey was conducted in 1991 and 1992 by Allan G.Bass. It seeks to assess the logistics system at national, regional and health facilities. Su tabulated and analyzed.

Relevant to objective / activity No. L).

2.4. **Cold Chain and EPI Survey:** This surve 1991 by Allan G. Bass. The survey asse the national immunization program. Ser quality were identified and solutions prc

Relevant to objective / activity No K4)

Ask: report of Andrew EMANG and Margaret Street (got response from 17) accept it is Jerry's editing

ask for copy

2.5. **Study of Provincial In-service Opera Activities:** This study is a situational a here are the policies within provincial in-service departments and how these are currently operating. This will be used to develop appropriate in-service training policy guidelines and training materials in the management of provincial in-service programmes. The study commenced in June 1992 and should be completed by October 1992

Relevant to objective / activity No. A7)

Structure: Nat'l. Dist. Tr. Centre

## 3. Research Projects which are Under Active Development:

3.1. **Pneumococcal Vaccine for Pregnant Women:** This study is relevant to the lowering of infant case fatality from pneumonia. The aim is to investigate the effect of immunizing the mother with 23 polyvalent pneumococcal vaccine during pregnancy on the immune status of the newborn infant in regard to passive antibody protection from the mother. The project is in the final stages of approval by the Child Survival Support Project Research Committee.

Relevant to objective / activity No: C1).

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3.2. **Ergometrine Pilot Project:** This project addresses the desire to lower maternal mortality from postpartum haemorrhage and puerperal sepsis due to village childbirth and also to lower the neonatal mortality from neonatal sepsis. We know that about 50% of women still deliver in the village without supervision. We also have good evidence that the maternal mortality is between 8-20 per 1000 births for these women. This project aims to involve the aid post level worker more in village childbirth. The community will be encouraged to call the APO when a woman is in labour. The APO will be trained to stand-by to resuscitate the baby if necessary, give a postpartum injection of ergometrine, give a cord clamp and advice on cord care, supply a bottle of acriflavine in spirit for the mother to paint the cord. The mother will be advised on hygienic practices and warned about signs of puerperal sepsis and neonatal sepsis. The project will be pilot tested in the Esa'ala district of Milne Bay Province. This project is awaiting external review and approval by the Child Survival Support Project Research Committee

Relevant to objective / activity No: A5), J2).

3.3. **Pneumonia Treatment Study:** The current standard treatment for severe pneumonia in PNG children includes the use of lanoxin if there is evidence of heart failure (pulse more than 160/min and an enlarged liver). Anecdotal experience by paediatricians is that this is a life saving treatment, however, the efficacy of such treatment has never been investigated or proven. There is some developed country experience which implies that this treatment may be detrimental to some children. This proposal aims to investigate the value of lanoxin for the treatment of severe pneumonia in PNG children. It is intended that the study will be controlled and double blinded and designed so that the study is terminated as soon as a significant difference is obtained. The Paediatric Division of the Clinical Sciences Department of the University of PNG has proposed this study and it has obvious relevance to the pneumonia case fatality target. This study has been rejected for funding through the CSSP research budget because of ethical issues. Currentlly, discussions are under way to obtain funding through another donor.

Relevant to objective / activity No: B2).

3.4. **Paediatic Div, Clinical Sciences:** This proposal is identical to that for the Department of Community Medicine and is to fund projects by postgraduate students in the Child Health Division of the Department of Clinical Sciences. This has been provisionally approved for specific topics only.

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Relevant to objective / activity No A5)

This is the bulk of Phase II

## 4. Projects which are at the Concept Stage

### 4.1. Projects rated by CSSPRAC as high

#### 4.1.1. Radio Supervision Pilot Stuc

developed but is seen as an in
and quality of care in governm
health centre level

We know that the management of many government health centres is poor. Vehicles are misused, transport is not coordinated, reports are not submitted, supplies are not monitored and most importantly, patients are not assessed or reviewed adequately. This results in very low quality care with sick patients being wrongly treated or transferred too late, MCH patrols and clinics being delayed or canceled

In contrast, many mission health centres maintain high quality supervision of management issues and patient care by the use of a "radio sched" system. (e.g. Evangelical Church of Papua at Rumginae and Balimo, Western Province) Daily "rounds" are done of health centre or aid post patients by a doctor at a remote location. Often, diagnoses are improved and the selection of patients for referral is precisely controlled. In addition, management problems are dealt with and a morale boosting effect is seen to occur for the remote health worker

At the present time, many government health centres have been fitted with a VHF radio system by the ADBI and II projects. The use of these radios is by and large not controlled and there is no system by which health workers use the radios. They are generally used to pass on isolated items of information and "chat" to other centres. It is a fact that there has not been any training on the use of these radios. It is also a fact that they are rarely used in an organised way to review patient diagnosis and treatment.

This proposal is to study the existing mission systems and to survey the number of government health centres with a functioning radio. Utilizing this information, a system of radio supervision will be devised and piloted as a training programme in one province.

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Effects on patient care, medical supplies and health centre efficiency will be monitored

Relevant to objective / activity No A4), B2), D2), E2), F2), I1).

4.1.2. **ORT Field Tests:** These studies address the target to increase the use of Oral Rehydration Therapy (ORT) for childhood diarrhoea in Papua New Guinea. We know that both mothers and health workers are disillusioned with the use of glucose-ORS. This is partly because many babies do not take it very well and partly because it has no observed effect on stool volume, frequency and duration of diarrhoea. There are also problems of mixing the 1 litre preparation both at health facilities and in the home. This proposal is to introduce and test a pre-packaged single cup size, rice based ORS It is proposed to test a low salt rice ORS for acceptability and to investigate ways of promoting safe home use of this preparation. A short term consultant, Dr Norbert Hirshhorn has advised the CSSP on the best composition for the rice-ORS preparation and the methodology of the acceptability trials.

Relevant to objective / activity No E3)

4.1.3. **Food-based Home Made ORT:** This proposal addresses the use of ORT by parents at home and the aim is to investigate what cereal based ORS preparation might be suitable to promote in the different areas of PNG. Both cultural considerations and staple availability will be taken into account. A study on the effectiveness of sweet potato based ORS is planned by the Division of Child Health, Medical Faculty, UPNG.

Relevant to objective / activity No: E3)

4.1.4. **Vaccine Viability and Contamination Study:** Initial study by the CSSP has revealed serious problems with the cold chain in PNG. The aim of this proposal is to sample vaccine (measles) at the MCH clinic level and test for viability. It is also proposed to sample multiple dose measles vaccine vials for the presence of hepatitis B contamination. This study is relevant to the immunization targets of the project and is required to provide strong evidence for improving the cold chain and injection practices as both these areas have large funding implications

Relevant to objective / activity No: K5)

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4.1.5. **Equipment Sterilization Field Survey:** This study is to investigate current sterilization practices in PNG. CSSP has collected evidence that sterilization is often omitted or not effective and has serious implications for the spread of HIV infection through the community. This does not address current CSSP targets but is considered an important area of concern and information gathered will be useful to proposed health staff training.

Relevant to objective / activity No. K1).

4.1.6. **Height Stick Training Project:** There is good evidence that significant drug dose errors are common in aid posts in Papua New Guinea. A study in the highlands revealed that children are often underdosed by aid post level workers. Most aid posts do not have weighing scales and the prospect for supplying them and maintaining them is not good. This proposal is to complete the field testing of a height stick method of assessing children for drug dosage. It addresses the pneumonia, malaria and diarrhoea case fatality targets as incorrect dosage with antimalarials and penicillin is relevant to outcome for these diseases.

Relevant to objective / activity No: B2), D2), E2), F2).

4.1.7 **Antibiotic Resistance Study:** The treatment of pneumonia and meningitis in Papua New Guinea relies on the use of standard treatment regimes utilizing specific antibiotics. Penicillin is a first line antibiotic and chloramphenicol is the main second line antibiotic. Resistance to these drugs by bacteria is an important cause of failure to respond to treatment. Antibiotic resistance has been studied intermittently by the PNGIMR. It is proposed that a system of regular resistance assessment should be set-up to allow changes to be made to standard treatment regimes when such changes are indicated. This proposal addresses the case fatality target for pneumonia. This study is needed because of poor capabilities in provincial hospitals for bacteriological studies. Ideally, this project should aim to improve the ability of provincial hospitals to perform bacteriology.

Relevant to objective / activity No: B3).

4.1.8. **Antimalarial Resistance Study:** Chloroquine/camoquin resistance is common in PNG. The last survey performed was in 1980 by David Gibson of the PNGIMR. Levels of R2 and R3 resistance should be monitored to allow changes in standard treatment regimes. Quinine resistance has never been assessed in

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PNG and is of critical importance for the treatment of Severe Malaria and Treatment Failure Malaria (e g., possible initial double dose of quinine). This study could ideally be performed through the regional support units and have the goal of setting them up as surveillance posts.

Relevant to objective / activity No: D3).

4.1.9. **Pneumonia Aetiology Study:** There is evidence that Chlamydia is a common pathogen in the genital tract of antenatal women (up to 30%). The concern is that this organism may be a significant cause of neonatal sepsis and neonatal pneumonia and that the current standard treatment does not satisfactorily address this possibility. The proposal is to study the incidence of chlamydial infections in newborns and to devise ways that this can be diagnosed and treated by health workers down to the health centre level.

Relevant to objective / activity No. B2).

4.1.10. **Assessment of School Health Education:** Assessment of Health Education curriculae used in community schools, vocational schools and high schools in relation to reproductive health, childbirth and child survival issues This assessment will be used in the development by DOH of PDOH School Health programme guidelines with inter-departmental involvement in the development, adoption and implementation phases of the study.

Relevant to objective / activity No: A6), K6).

4.1.11. **Study of Community Relationships and Health Workers in PNG:** Many of the health centres in PNG are not functioning effectively because of poor relationships with the community This effects early attendance with illness and also preventative aspects of disease. In addition, many mothers do not attend the health centre for delivery because of the "bad reputation" of the centre or the staff. This study is to examine the origins of these poor relationship phenomena and to find ways to prevent and reduce such occurrences. This is relevant to all the targets of the CSSP as poor compliance adversely effects all health work.

Relevant to objective / activity No: A5), A7), A8), A9), B1), D1), E1), F1), J3), J4), K6).

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4.1.12. **Systems Analysis of Pharmaceutical Purchase and Distribution System:** This is to study the current system with the aim of improving it's efficiency.

Relevant to objective / activity No: L).

4.1.13. **Study to Estimate the Wastage Rates in Drugs and Propose Ways of Reducing Them.:** This study aims at reducing current drug shortages by addressing the problem of wastage.

Relevant to objective / activity No: L).

4.1.14. **An Analysis of Current Drug Allocation Practices and the Recommendation of Criteria to be Used to Allocate Pharmaceuticals on the Basis of Need and Equity:** This study would help prevent stock-outs of medicine especially at the aidpost level

Relevant to objective / activity No L)

4.1.15. **Study of the Factors Affecting the Demand for Health Services:** A community based study to discover the reasons why health services are not utilized.

Relevant to objective / activity No. A5), A8), A9).

4.1.16. **An Analysis of the Function of Community Health Boards:** This study would determine whether community health boards have positively affected the function of health facilities in Papua New Guinea and make recommendations for the terms of reference for such boards.

Relevant to objective / activity No: A5), A8), A9).

4.1.17. **Trial of Alternative Modes of Disseminating Information to Health Workers:** Newsletter, 2-way radio, local radio.

Relevant to objective / activity No: A7), K6).

4.1.18. **Pilot Testing of Incentive Schemes for the Motivation of Rural Health Workers:** This study would assist identify short term solutions to poor health worker motivation.

Relevant to objective / activity No A5), A8), A9), K5)

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4.1.19. **Testing of Community Education Methodology to Encourage Acceptance of Oral Treatments Over Injection:** Currently, there is considerable community demand for injection treatment. We need to determine ways to reduce this demand to an appropriate level.

Relevant to objective / activity No. A5), B1)

4.1.20. **Trialing of Maternity Waiting Houses to Increase the Number of Supervised Deliveries in Women Considered to be at High Risk.:** Women often need to travel long distances before labour starts in order to be at the health centre for their delivery. This study will determine whether the provision of culturally acceptable waiting houses increases the attendance of women for delivery

Relevant to objective / activity No: J5)

4.1.21 **Ethnography of ARI, Malaria, Diarrhoea and Malnutrition:** A focused ethnographic study of the ethnological beliefs perceptions and therapeutic recourse for paediatric diseases in the community, with the aim of developing of a health education campaign in collaboration with DOH

Relevant to objective / activity No A5), B1), D1), E1), F1).

4.1.22. **Social Marketing of Treated Bed Nets Including Personal Retreatment:** The Health Department is overwhelmed by requests for treated bed nets. This study will determine whether both nets and retreatment packages can be made available through trade stores and be as effective as the current health department treated nets.

Relevant to objective / activity No: D4).

4.1.23. **Pilot Study on the Use of Co-trimoxazole by Aid Post and Health Centre Staff to Treat Mild Pneumonia:** The current danger of HIV transmission via unsterile injections dictates that injections should be avoided if possible. Amoxycillin requires to be taken three times daily to be effective. Cotrimoxazole is a twice daily dose and compliance is more likely. Penicillin has been overused for many years and resistance is widespread. Co-trimoxazole is likely to be more effective in the treatment of mild pneumonia. The two disadvantages of co-trimoxazole are that (i) it's widespread use may promote malarial parasite resistance to

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Fansidar, and (ii) it cannot be given by injection if the child vomits (whereas penicillin can).

Relevant to objective / activity No: B2).

4.1.24. **Pilot Study on the Involvement of Aidpost Staff in the Giving of Tetanus Toxoid Immunization and Weekly Chloroquine and Folic Acid to Pregnant Women:** The Aidpost is the closest health facility to the community. Many pregnant women run out of chloroquine and folic acid and some miss their tetanus toxoid. The result is anaemia in women which is another factor contributing to death in childbirth due to postpartum haemorrhage and neonatal tetanus in the newborn baby. Tetanus toxoid does not require refrigeration and could be stored and given at the aidpost. Against this study is the possibility of discouraging attendance at the antenatal clinic

Relevant to objective / activity No: J2).

4.1.25 **Pilot Study of a Supervision System Using Quality of Care Indicators and Peer Review at District Level:** This study will use the results of the R.E.M. study, the Rural Health Services study and the Job analysis study to develop quality of care indicators and use these in a system of district supervision with peer review between districts within a province. The study will be pilot tested by students in the 1993 Diploma of Community Health Nursing Administration as part of their operational research course work.

Relevant to objective / activity No: A4), A7), A8), A9)

**4.2. Studies rated by CSSPRAC as lower priority:**

4.2.1. **An Evaluation of the Institute of Medical Research Rainwater Catchment and Wash Houses Project and Other Successful Sustained Community Water and Sanitation Schemes:** To assess their application elsewhere in the country

Relevant to objective / activity No. nil

4.2.2. <u>Chronic Diarrhoea Study:</u> Chronic diarrhoea in PNG is a serious problem associated with severe malnutrition and is a more important cause of death from diarrhoea than acute diarrhoea in other countries. There have not been any studies on this problem in PNG and it's association with malnutrition. This proposal is to

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investigate the causes of chronic diarrhoea in PNG with a view to improving current management. The study should clarify the role of bowel pathogens, bacterial overgrowth, vitamin A deficiency and micro nutrient deficiency (e.g. zinc, folic acid) in PNG children with chronic diarrhoea. It is proposed to study both hospitalized and community children.

Relevant to objective / activity No: E2), F2).

4.2.4. **Transport Availability Study:** The study is to find ways to ensure that transport is allocated to MCH on a reliable, regular basis. A study of current transport control measures is proposed. It is also proposed to test the effectiveness of a time sheet system for the management of all aspects of efficient transport control.

Relevant to objective / activity No: A8), A9).

4.2.5. **Community Based Epidemiological Surveillance:** The project is to collect aidpost and health centre out-patient data and attempt to use it as a means of surveying community level epidemiological information. More detail has been requested from the proposers.

Relevant to objective / activity No: Nil

4.2.6. **National Nutrition Survey 1993:** This will be based on the previous national survey (82-83) and will provide information on malnutrition trends province by province.

Relevant to objective / activity No: Nil

4.2.7. **Growth Monitoring of School Children.** This project will both provide data on the growth of school children in PNG but also will be an educational exercise for the children

Relevant to objective / activity No: F).

**4.3. Studies rejected by CSSPRAC as being not within CSSP scope of work**

4.3.1. **Study to Determine the Best Way of Giving Effective Health Education on STDs to Different Audiences and of Distributing Condoms and Educating People in Their Use.**

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4.3.2. **Communicating Information on Sex and Reproduction in PNG:** Developing a program of health education concerning sex and reproduction for rural Papua New Guineans

4.3.3. **Improving the Sex and Reproduction Knowledge Among Health Workers:** Testing health workers knowledge and upgrading it through focused educational efforts.

4.3.4. **Women's and Men's Health Clinics:** A trial reorganization of clinic facilities at hospitals with improved training of staff and improved ambiance for patients

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# Appendix L

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## Appendix M

## LOGICAL FRAMEWORK

ANNEX D1.

Logical Framework

Papua New Guinea Child Survival (879-0017)

| Goal | Measures of Goal | Means of Verification | Important Assumptions |
|---|---|---|---|
| To reduce child and maternal mortality in Papua New Guinea. | Reduce child mortality by 20% and maternal mortality by 15% by 1995 | Regional Survey reports | - No major outbreaks of diseases or natural disasters.<br>- Provincial services are effective in improving health status of target beneficiaries.<br>- GPNG allocates adequate resources to the health sector. |
| **Purpose** | **End of Project Status (EOPS)** | **Means of Verification** | **Assumptions** |
| To improve the delivery of MCH/CS health services in the rural areas. | 1. Increased coverage by 15% for the number of high risk pregnancies with a supervised delivery. | 1. Project studies, reviews, evaluations, and consultant reports. | 1. DOH and provincial health offices maintain emphasis on MCH/CS health care. |
| | 2. Reduce by 20% the institutional case fatality rates for acute respiratory infections, diarrhea and malaria. | 2. National health statistics. | 2. Regional Support Units are effective in helping provinces improve planning and delivery of services. |

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| Purpose | End of Project Status (EOPS) | Means of Verification | Assumptions |
|---|---|---|---|
| | 3. Increase immunization coverage for measles by 25% (to 60%) and for third dose of diptheria, (DPT) by 20% (to 60%). | 3. Surveys and other studies. | 3. Improved technical and managerial training of health workers in provinces will lead to increased productivity, efficiencies, and improved program performance. |
| | 4. Increase the availability and distribution of oral rehydration salts (ORS) by 100% and increase the effective use of ORT. | | 4. Increased community understanding of health care and improved delivery will stimulate utilization of services and encourage preventive health practices. |
| | 5. Increase by 50% the number of children 0-5 under surveillance for diagnosis and treatment of malnutrition by 50%. | | 5. Necessary institutions exist or can be created at the village level to mobilize community participation in accepting and using a full range of MCH services. |
| | | | 6. Cultural, procedural and economic changes needed to implement the project can take place. |
| | | | 7. Excellent cooperation and coordination among donors in child survival and |

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| Outputs | Magnitude of Outputs | Means of Verification | Assumptions |
|---|---|---|---|
| 1. Improved technologies and approaches to planning, management and delivery of child survival and maternal health care. | 1.a Improved formulations of ORT tested and developed.<br><br>b. Improved methods for conducting surveys and analysis in community nutrition including upgraded instruction in use of data for planning and materials production.<br><br>c. Improved training and education models for reproductive health developed.<br><br>d. Training modules developed for use in provincial in-service workshops to improve child survival and maternal health care services.<br><br>e. Service modules developed demonstrating improvements in the delivery of mother child health care.<br><br>f. Techniques to improve aid post management of common illnesses developed.<br><br>g. Training modules developed for family health advisors. | 1. Project reports, studies, and evaluations.<br><br>2. Field visits and interviews. | 1. High quality technical advisors can be recruited to work in PNG.<br><br>2. DOH and provinces assign sufficiently qualified counterparts and other personnel to implement the project.<br><br>3. DOH and provinces make available necessary housing and physical facilities to support project implementation.<br><br>4. Other donor and AID funds and programs are available as currently projected. |

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| Outputs | Magnitude of Outputs | Means of Verification | Assumptions |
|---|---|---|---|
| 2. Trained health service providers capable of delivering child survival/maternal health care more efficiently. | 2.a Improved in-service training.<br><br>b. Health workers at the regional level trained.<br><br>c. Health workers in provinces trained .<br><br>d. Service providers in villages trained. | | |
| 3. Improved approaches to mobilizing communities to support and participate in their health care. | 3.a Improved techniques for communicating with communities.<br><br>b. Study results indicating successful approaches to mobilize community participation. | | |
| 4. Institutional mechanisms created and operating effectively at the national and regional levels to support provincial health offices. | 4.a Regional support units established.<br><br>b. Diploma course in community health nursing administration established.<br><br>c. Family Health Advisors and Planning/Management Advisors established at each of the four RSUs.<br><br>d. Regional RSU Task Forces comprised of provincial health managers established during Phase 1. | | |
| 5. Village level mechanism for improving maternal health | 5. Increase in the number of supervised village midwives being utilized. | | |

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| Outputs | Magnitude of Outputs | Means of Verification | Assumptions |
|---|---|---|---|
| 6. Increased efficiency in delivery of child survival and maternal health services. | 6.a Reduced levels of vaccine wastage due to overordering, inefficient handling and interruption of the cold chain coverage. | | |
| | b. Improvements in the flow of commodities distributed to provincial and local facilities. | | |
| | c. Increase in the frequency of use of HIS data for monitoring and planning. | | |
| | d. Increase in observed use of standard checklists for supervision visits. | | |
| | e. Improved supervision and management support. | | |

| Inputs | Level of Inputs (US$ 000) | Means of Verification | Assumptions |
|---|---|---|---|
| A.I.D. | 9,400 | | |
| A. Technical Assistance | | AID Financial reports and records. GPNG budget records | 1. AID obligations made in timely fashion. 2. GPNG health budget is not decreased. |
| 1. Long-term technical assistance | 17 py - 4,250 | | |
| 2. Short-term technical assistance | 12 pm - 180 | | |
| 3. Adm/Operating Costs | 410 | | |

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| Inputs | Level of Inputs | Means of Verification | Assumptions |
|---|---|---|---|
| B. Training | | | |
| - Long-term U.S. | 3 - 75 | | |
| - Short-term U.S. | 4 - 40 | | |
| - In-country | 347 - 865 | | |
| C. Commodities for RSU | | | |
| vehicles, microcomputers, office equipment | 150 | | |
| D. Special studies | 250 | | |
| E. Renovations | 100 | | |
| F. Evaluations & Audits | 250 | | |
| G. Project Coordination | 900 | | |
| GPNG | 4,600 | | |
| A. Staff housing (16 units) | 550 | | |
| B. Training | 545 | | |
| C. Project Operations | 2,725 | | |
| D. Inflation & Contingency | 780 | | |

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