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UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

INDONESIA
FACULTIES OF PUBLIC HEALTH
PROJECT PAPER
497-0348

JUNE 1985

USAID/INDONESIA

UNCLASSIFIED

PD 477

AGENCY FOR INTERNATIONAL DEVELOPMENT			1. TRANSACTION CODE		DOCUMENT CODE
PROJECT DATA SHEET			<input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete	Amendment Number _____	3
2. COUNTRY/ENTITY Indonesia			3. PROJECT NUMBER 497-0348		
4. BUREAU/OFFICE ASIA			5. PROJECT TITLE (maximum 40 characters) Faculties of Public Health		
6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 06 30 92			7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4) A. Initial FY 85 B. Quarter 3 C. Final FY 86		

8. COSTS (\$000 OR EQUIVALENT \$1 =)						
A. FUNDING SOURCE	FIRST FY 85			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	4,120	2,880	7,000	5,022	3,978	9,000
(Grant)	(902)	(1,098)	(2,000)	(1,804)	(2,196)	(4,000)
(Loan)	(3,218)	(1,782)	(5,000)	(3,218)	(1,782)	(5,000)
Other U.S.						
1.						
2.						
Host Country	254	6,820	7,074	327	8,769	9,096
Other Donor(s)						
TOTALS	4,374	9,700	14,074	5,349	12,747	18,096

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) HE	520B	560	560			4,000	5,000	4,000	5,000
(2)									
(3)									
(4)									
TOTALS						4,000	5,000	4,000	5,000

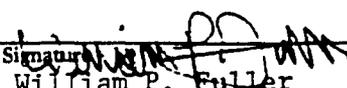
10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) 510 530 978					11. SECONDARY PURPOSE C				
12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)									
A. Code	NUTR	TNG	PART	RDEV					
B. Amount									

13. PROJECT PURPOSE (maximum 480 characters)

To expand and regionalize public health education and research in Indonesia.

14. SCHEDULED EVALUATIONS					15. SOURCE/ORIGIN OF GOODS AND SERVICES				
Interim	MM YY	MM YY	Final	MM YY	<input checked="" type="checkbox"/> 000	<input checked="" type="checkbox"/> 941	<input checked="" type="checkbox"/> Local	<input type="checkbox"/> Other (Specify)	
	07 89			05 92					

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment)

17. APPROVED BY	Signature:  William P. Fuller			18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
	Title: Director USAID/Indonesia	Date Signed: MM DD YY 06 26 85	MM DD YY	

FACULTIES OF PUBLIC HEALTH

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PROJECT AUTHORIZATION

INDONESIA

FACULTIES OF PUBLIC HEALTH
PROJECT NO. 497-0348

1. Pursuant to Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Faculties of Public Health Project for Indonesia, the "Cooperating Country", involving planned obligations of not to exceed \$5,000,000 in loan funds and \$4,000,000 in grant funds over a three year period from date of authorization subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the project is seven years from the date of initial obligation.
2. The project consists of assisting the Government of Indonesia to expand and regionalize public health education and research by strengthening Public Health training programs in selected universities. The project will provide technical assistance, training, support for research and seminars, commodities, and funds for operating costs of the Project Management Unit.
3. The Project Agreements, which may be negotiated and executed by the officers to whom such authority is delegated in accordance with A.I.D. regulations and Delegation of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.
4. a. Interest Rate and Terms of Repayment

The Cooperating Country shall repay the Loan to A.I.D. in U.S. Dollars within forty (40) years from the date of first disbursement of the Loan, including a grace period of not to exceed ten (10) years. The Cooperating Country shall pay to A.I.D. in U.S. Dollars interest from the date of first disbursement of the Loan at the rate of (a) two percent (2%) per annum during the first ten (10) years, and (b) three percent (3%) per annum thereafter, on the outstanding disbursed balance of the Loan and any due and unpaid interest accrued thereon.

- b. Source and Origin of Commodities, Nationality of Services

Commodities financed by A.I.D. under the Loan shall have their source and origin in the Cooperating Country or in countries included in A.I.D. Geographic Code 941 except as

A.I.D. may otherwise agree in writing. Except for ocean shipping, suppliers of commodities or services funded under the Loan shall have the Cooperating Country or countries included in Code 941 as their place of nationality, except as A.I.D. may otherwise agree in writing.

Commodities financed under the Grant shall have their source and origin in the Cooperating Country or the United States, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, suppliers of commodities or services funded under the Grant shall have the Cooperating Country or the United States as their nationality, except as A.I.D. may otherwise agree in writing.

Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States, if grant-funded, or Indonesia and Code 941 countries if loan-funded.

c. Conditions Precedent

(i) Prior to disbursement of funds for project activities other than technical assistance, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, provide evidence that a Project Management Unit has been formally established, and shall provide the names of those persons assigned full-time to the Unit and a description of their responsibilities within the Unit.

(ii) Prior to disbursement of funds for computer equipment or for teaching equipment for the PMU, or for project-assisted Faculties of Public Health, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, submit an assessment of equipment needs, a list of equipment specifications and a plan for procurement.

d. Covenants

Except as A.I.D. may otherwise agree in writing, the Cooperating Country shall agree:

(i) To provide sufficient funds to maintain and provide supplies for equipment furnished under the Project.

(ii) To take all necessary steps to ensure that participant trainees return to positions which fulfill the purpose of their training and of project objectives.

5. I hereby waive the requirement that the Cooperating Country bear the international travel costs of short-term participants (less than one year) and one round trip fare for long-term participants returning to Indonesia for research.

Signature: William P. Fuller
William P. Fuller
Director

Date : 26/6/85

Clearances: PRO:SHadley: (in draft)
OPH:MVoulgaropoulos: (in draft)
PRO:JSperling: (in draft)
DD :RClark: File

Drafted:PRO:MBonner:06/26/85, mai

GLOSSARY OF TERMS

BAPPEDA	- Local Planning Boards
BAPPENAS	- National Planning Board
BKKBN	- National Family Planning Coordinating Board
CBR	- Crude Birth Rate
CDSS	- Country Development Strategy Statement
CHS	- Consortium of Health Science
CMR	- Childhood Mortality Rate
DINAS PROPINSI	- Ministry of Home Affairs Provincial Health Offices
Fakultas Pembina	- National Resource Center
FKM	- Faculty of Public Health
FKM-UI	- Faculty of Public Health, University of Indonesia
GOI	- Government of Indonesia
IFY	- Indonesia Fiscal Year
IMR	- Infant Mortality Rate
KA KANDEP	- Chief, Ministry of Health District Health Office
KANDEP	- Ministry of Health District (Kabupaten) Health Office
KANWIL	- Ministry of Health Provincial Health Offices
LMU	- Local Management Units
MEC	- Ministry of Education and Culture
MMR	- Maternal Mortality Rate
MOH	- Ministry of Health
MPH	- Master of Public Health Degree
O/PH	- Office of Population and Health, USAID
OTU	- Overseas Training Unit
PEMDA	- Local Government
PMU	- Project Management Unit
PUSKESMAS	- Community Health Center
Repelita	- Five Year Development Plan
S ₁	- Bachelors Level Degree, generally requiring 4 years of study except, in cases of holders of certain previous degrees, requiring only 2 years of study
S ₂	- Masters Level Degree, requiring 2 years of study beyond the S ₁ degree
S ₃	- Doctorate Level Degree, requiring the completion of a dissertation after the S ₂ degree
SKN	- National Health System
SMA	- High School
TFR	- Total Fertility Rate
UNAIR	- Airlangga University, Surabaya
UNDIP	- Diponegoro University, Semarang
UNHAS	- Hasanuddin University, Ujung Pandang
USU	- University of North Sumatra, Medan

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I. BACKGROUND AND PROJECT DESCRIPTION

A. Project Background

1. Major Health and Population Problems in Indonesia

Persistently high levels of fertility and mortality pose major obstacles to the pursuit of Indonesia's development objectives. The 1984 mid-year population of 161 million people is increasing by 3.2 million people annually. Projections based upon current growth rates indicate a decline to replacement fertility by 2020, with the total population levelling at 380-400 million by the 22nd century. Such robust growth will tax the Government's ability to feed, clothe, house, educate and find meaningful employment for a population nearly two and one half times its present size.

General mortality has declined steadily since 1945, but data suggest that a disproportionate number of deaths occur among pregnant women and children less than five years of age. In 1980 infant, child, and maternal mortality accounted for more than 50% of total deaths in Indonesia. The major causes of death among infants and children in Indonesia are tetanus, respiratory infections and diarrheal diseases. Major causes of maternal mortality are related to closely spaced high parity pregnancies. Given the proper public health interventions, the great majority of this mortality is preventable.

Global descriptions of the causes of high fertility and infant, child, and maternal mortality in Indonesia mask tremendous regional and even provincial differences in fertility and mortality indicators. Although Indonesia's average Infant Mortality Rate (IMR), based on 1980 census data, was 98/1000 live births, province specific IMR varied from 62/1000 live births in Jogjakarta to 187/1000 live births in West Nusa Tenggara, a range of 125/1000 live births. Similar differentials occur with Total Fertility Rates (TFR) which range from 3.10 in Jogjakarta to 5.93 in the Maluku. The proximate determinants of fertility and infant mortality vary accordingly, making it extremely difficult to apply uniform national strategies to what are often region specific problems.

Recognizing these problems, the Government of Indonesia has made reductions in crude birth rates (CBR), infant mortality rates (IMR), child mortality rates (CMR) and maternal mortality rates (MMR) the centerpieces of its health and family planning policy. With the promulgation of a National Health System (SKN or Sistim Kesehatan Nasional) in 1982, it has adopted a public health, primary health care strategy for health service delivery which emphasizes health promotion and disease prevention at community levels, as opposed to the more costly and less effective traditional medical approach of treatment and rehabilitation of disease. The Government has also become increasingly conscious of the wide provincial disparities in environmental and social conditions which cause large variations in fertility and mortality indicators and of the necessity for health programs and personnel which take these variations into account.

2. GOI Efforts in Health and Population

Policies, plans, and operational strategies for reducing CBR, IMR and MMR in Indonesia are elaborated in the Fourth Five Year Development Plans (REPELITA IV) of the Ministry of Health (MOH) and the National Family Planning Coordinating Board (BKKBN). In these plans both agencies acknowledge that although the biomedical technologies and public health strategies which have been proven effective in reducing fertility and mortality have been available for many years in Indonesia, their effectiveness is limited by several major constraints. As identified by the MOH and BKKBN, these are:

- a. the delivery systems, management expertise, and technically trained manpower needed to make these technologies more accessible to rural communities are still rudimentary and inadequate;
- b. existing health programs and delivery systems do not adequately address the regional variations which cause regional differences in health and fertility status;
- c. the epidemiologic data base at the provincial level is still inadequate to support a more decentralized planning approach.

According to the Ministry of Health, as described in the SKN, elements which must be strengthened in order to more effectively organize, implement, and evaluate its health programs are:

- a. community participation and involvement;
- b. multisectoral program coordination;
- c. decentralized planning and management;
- d. development of policies and programs responsive to provincial and regional differences;
- e. adequately trained technical manpower with the managerial capacity to implement health programs using existing biomedical technologies and proven public health strategies.

During the first three Five Year Development Plans GOI efforts have concentrated upon establishing a health and family planning infrastructure, devising primary health care approaches to solving health problems, designing delivery systems which can bring preventive and curative health services to rural communities, and developing management systems and capacities needed to operate a nationwide public health service program. Hospitals have been built in provincial and district capitals, and community health centers (PusKesMas) now exist in almost every Sub-district (Kecamatan) in the country. Both clinical and outreach services revolve around maternal/child health, family planning, immunizations, diarrheal disease control, and health education -- a singularly preventive Public Health perspective. Community based service

delivery has been institutionalized in family planning and pioneered in health. Attention is continuing in these areas but is now expanding to include a concentrated focus on critical improvements in the quantity and quality of manpower required to sustain efforts in these program directions.*

Manpower policies of the MOH and other agencies involved in health and family planning service delivery acknowledge the importance of the SKN's emphasis on the provision of appropriately trained technical manpower. The MOH's fourth Five Year Plan identifies the inadequate number and quality of health personnel as the Ministry's major manpower issue to be faced during the next five years. MOH planners are acutely aware that the GOI's current educational institutions cannot produce the health managers required. An especially vexing problem is the shortage of trained persons with the public health, as opposed to medical, background required to manage and implement the national public health program. Physicians and nurses occupy the overwhelming majority of middle and upper level management positions at present. Yet both are trained in predominantly curative and rehabilitative medicine, with only a perfunctory understanding of the principles of public health and preventive approaches. Their training in no way provides the technical knowledge or managerial skills needed to operate a public health system.

To address the problem the MOH is now seeking increasing numbers of personnel with Public Health training, and has identified the Bachelors Degree (S₁) and Masters Degree (S₂) in Public Health as the benchmark educational credentials for its middle and upper level managers in the future. These degrees were chosen because they provide students with the background in epidemiology, statistics, administration and management, nutrition, maternal child health, health education, and environmental health needed to implement the public health service program and because they provide a preventive approach to balance the curative, medically oriented educations of physicians and nurses.

BKKBN also requires increasing numbers of public health trained staff. It has identified five fields of educational specialization for its middle and upper level managers: management and administration, public health, demography and the social sciences, education, and communications. However, data from BKKBN's Personnel Bureau show the shortage of persons with these qualifications. The primary educational qualifications of new staff with bachelors degrees have, over the past three years, been religion and law. These persons must receive on the job training in health and family planning before they are ready to work. More public health graduates would be eagerly recruited.

Long range plans from the MOH and BKKBN indicate the specific roles which these agencies foresee for the utilization of this category of manpower (details are provided in the Technical Analysis). For S₁

* Annex K describes ongoing USAID support for public health programs of this type.

degree holders,* MOH manpower projections call for filling key positions in the subdistrict, district, and provincial health infrastructure with S₁ graduates in Public Health as follows:

- a. Phase I (Repelitas IV and V): province and district level managerial and technical personnel who currently hold staff positions and who are graduates of three-year nursing, sanitation or midwifery academies will be upgraded to the level of S₁ in Public Health through two-year S₁ degree programs.
- b. Phase II (Repelitas V and VI): Graduates from four-year S₁ programs will be recruited to fill the three section chief positions in MOH District Health Offices, and the two section chief positions in each Ministry of Home Affairs District Health Office.
- c. Phase III (Repelitas VI and beyond): S₁ graduates from four-year S₁ programs will be recruited to staff the public health management research and development positions in all MOH sub-district community development centers (Puskesmas).

Although present BKKBN manpower policies require third and fourth echelon managers to have a minimum of a Bachelor level (S₁) education, this has not been achieved. During Repelita IV, BKKBN plans to upgrade the educational status of 520 persons in these positions to the required S₁ level. Although an S₁ in Public Health degree training is preferred, very few of these staff have sufficient background in health sciences to enter a two year S₁ Public Health program. Consequently, only about 120 persons will be able to receive such training during Repelita IV. All of these (120) persons already hold positions to which they will return following completion of their studies. In addition, beginning in Repelita V, BKKBN plans to recruit four-year S₁ graduates to fill each province's four positions and each district's position for section chiefs in charge of program operations. It will simultaneously begin recruiting four-year S₁ graduates for the position of family planning fieldworker supervisor at the sub-district level. This policy will continue through Repelita VI.

For S₂ Public Health degree holders, both MOH and BKKBN see a clear role particularly at the central administrative level in Jakarta. The Ministry of Health estimates its S₂ manpower needs at national, provincial and lower levels as follows:

- a. Kabupaten level: Each physician heading an MOH District Health Office (Ka KanDep) and Home Affairs Health Office (Ka Dinas) will hold an S₂ degree;
- b. Provincial level: Division chiefs of the MOH and Home Affairs provincial health offices (12 persons/province) will hold S₂ degrees;

* as discussed in more detail on page 5, an S₁ degree is the approximate equivalent of a Bachelor's degree; both two-year and four-year S₁ academic programs are anticipated. An S₂ degree is the approximate equivalent of a Master's degree.

- c. Central Level: Directorate and Division chief positions in each of the 5 Directorate General Offices will be occupied by S₂ holders.

The MOH projects that a total of 1,344 positions in its District, Provincial, and Central offices will require S₂ training in Public Health by 1999. BKKBN projections are less specific. Other institutions and agencies requiring persons with S₂ training in Public Health are the Ministry of Education (Faculties of Public Health, Faculties of Medicine, Faculties of Dentistry, and Faculties of Nursing), the Armed Services, Department of Agriculture and private sector medical faculties and health service delivery agencies.

3. Current GOI Capacity and Future Plans for Higher Education in Public Health

The Government of Indonesia has adopted a phased strategy to produce S₁ degree Public Health graduates. The two tiers in this system are:

- a. Two-year S₁ degree: This program requires 60 credit hours and takes two years to complete. Applicants must be graduates of one of the three year academy programs in nutrition, sanitation, midwifery, or nursing. The curriculum of the program has been developed to complement the curricula of these academies. The program has been established to provide immediate S₁ graduates and is seen as an interim measure lasting approximately 8-10 years.
- b. Four-year S₁ degree: This program requires 140 credit hours and four years to complete. Applicants must have a minimum of SMA (senior high school) education. The program will be introduced midway through the current Five Year Plan and will remain the standard S₁ program for the future.

There are currently only two Faculties of Public Health in Indonesia that are producing this type of manpower. The Faculty of Public Health at the University of Indonesia (FKM-UI) was established in 1965 and graduates 50 persons annually at the two-year S₁ degree level and 25 persons at the S₂ degree level. In response to the urgent need, a second Faculty of Public Health was opened at Hasanuddin University in Ujung Pandang. It began accepting students for the two-year S₁ degree program in 1982, and now graduates approximately 50 persons annually at that level. No university will graduate four-year S₁ public health students until 1989. Given projected requirements (the MOH and BKKBN alone, for example, are requesting 4,170 two-year public health S₁ graduates by 1989), existing Public Health training capacity is clearly inadequate to meet even the most conservative manpower requirements of Repelita IV and beyond. The table below, drawn from the "most conservative" demand projection of the Technical Analysis, uses "with project" demand and supply estimates for four-year S₁ graduates to illustrate the shortage of Public Health personnel generally.

Table 1: Projected Demand and Supply of Graduates from Four-Year Public Health S₁ Programs

	Number of Graduates	Employers' Demand for Graduates		
		MOH	BKKBN	Total
1985 - 1991 (with project support)	205	2,100	840	2,940
1992 - 1999 (after project)	1,450	2,100	840	2,940
T O T A L	1,655	4,200	1,680	5,880

Insufficient in-country public health training capacity has forced both the MOH and BKKBN to resort to the expensive and less educationally appropriate alternative of sending students abroad for training in public health (see Economic Analysis for a comparison of costs). This strategy is viewed as a stopgap measure while the GOI strengthens in-country capacity to provide public health training. According to GOI manpower policies, overseas training in the future should be continued for faculty and staff of universities, while manpower needs of line agencies should be met by indigenous institutions. This policy will be impossible to realize in the short term or long term unless attention and resources are directed toward developing in-country educational institutions in public health.

B. Project Description

1. Goal and Purpose

The goal of this project is to assist the Government of Indonesia (GOI) to achieve its fertility and mortality objectives determined for Pelita IV (1984-1985) and beyond by producing appropriately trained public health manpower to manage its national public health program. The purpose of this project is to expand and regionalize public health education and research. This will be done by strengthening public health training programs in selected universities to supply manpower, conduct research, and provide technical assistance to the Ministry of Health, BKKBN and other public and private sector agencies concerned with health and family planning service delivery.

The project supports the existing GOI program for developing Public Health higher education capabilities. The Consortium of Health Science (CHS) coordinates the development of higher education in Public Health for the Ministry of Education and Culture (MEC). Under CHS' auspice, four regional Faculties of Public Health offering diploma, S₁, and S₂ degree education will be established at four regional universities:

- a. Hasanuddin University, Ujung Pandang (UNHAS)*
- b. Airlangga University, Surabaya (UNAIR)
- c. Diponegoro University, Semarang (UNDIP)
- d. University of North Sumatera, Medan (USU)

CHS also plans for FKM-UI to develop a Doctoral level program to further develop its Masters program, and to serve as a National Resource Center (Fakultas Pembina) to support the development of higher education in Public Health at the four regional universities and, ultimately, elsewhere in Indonesia.

The project will establish four regional Faculties of Public Health. It will assist to develop S₁ programs at all four regional universities and an S₂ program at Airlangga University. It will also assist FKM-UI to evolve into its role as a National Resource Center for higher education in Public Health in Indonesia. The anticipated status of the FKMs at the completion of the project is compared to their status today in Table 2.

2. Project Strategy

To achieve its purpose and goal, the project will employ the following strategy:

- a. Strengthen the Public Health training, research, and community service capacities of the Public Health Department of the Medical Faculties at UNAIR, UNDIP, and USU to enable them to meet MEC accreditation requirements for becoming Faculties of Public Health by 1990.** This will be done in three phases:

Phase 1 : establish by September, 1985 a "program of study" within the Public Health Department of Medical Faculties at USU and UNDIP. This will permit these universities to offer the two-year S₁ degree in Public Health despite the fact that a separate Faculty of Public has not yet been formally established. A four-year S₁ program will also begin at UNAIR.

* The faculty of Public Health at UNHAS was established in 1982; it offers a rudimentary two-year S₁ program only. Like the three other regional universities assisted by the project, it will, with project support, develop a four-year S₁ program. Henceforth, the Project Paper may refer to four new regional FKMs; this should be read to include UNHAS.

** Faculty accreditation is conferred by Presidential Decree. Accreditation requires that the Faculty first demonstrate a capability in education, research, and community service. Criteria for accreditation, in these three areas, are set by the Ministry of Education and Culture. Presidential decrees are generally granted for specific universities in five year cycles or when requirements for Faculty accreditation are satisfied.

Table 2: Comparison of Present and Anticipated Capabilities of Project-Assisted Institutions

	Present Capabilities	Capabilities at End of Project
Hasanuddin University (UNHAS)	Faculty of Public Health Offering: • two-year S ₁ degree	Faculty of Public Health Offering: • two-year S ₁ degree • four-year S ₁ degree
University of North Sumatra (USU)	Department of Public Health within the Faculty of Medicine offering: • two-year S ₁ degree*	Faculty of Public Health offering: • two-year S ₁ degree • four-year S ₁ degree
Diponegoro University (UNDIP)	Department of Public Health within the Faculty of Medicine offering: • two-year S ₁ degree*	Faculty of Public Health offering: • two-year S ₁ degree • four-year S ₁ degree
Airlangga University (UNAIR)	Department of Public Health within the Faculty of Medicine offering: • two-year S ₁ degree • four-year S ₁ degree*	Faculty of Public Health offering: • two-year S ₁ degree • four-year S ₁ degree • S ₂ degree
University of Indonesia (UI)	Faculty of Public Health Offering: • two-year S ₁ degree • S ₂ degree	Faculty of Public Health/Resource Center offering: • two-year S ₁ degree • four-year S ₁ degree • S ₂ degree • S ₃ degree • Support services

* These programs, to be assisted by the project, begin in September, 1985.

Phase II : establish, by 1987, a second "program of study" at each university to permit all five to offer the four-year S₁ Degree in Public Health.

Phase III: fulfill MEC accreditation requirements to achieve Public Health Faculty status at USU, UNDIP and UNAIR by 1990.

- b. Strengthen Public Health training, research, and community service capacity at FKM/UNHAS to keep pace with institutional development at the three other emerging regional Faculties of Public Health.
- c. By building on the considerable administrative and technical skills of FKM-UI, assist to develop it as a National Resource Center (Fakultas Pembina) for supporting the development of the new Faculties of Public Health (FKM-UI's role is discussed in detail in the Administrative Analysis).
- d. In all aspects of the project's implementation, actively encourage cooperation between the FKMs and regional health and family planning implementing agencies. Cooperation is necessary not only to expose students to the problems and decisions they will encounter professionally, but also to involve the FKMs directly in assisting to solve local health problems. The project will seek to avoid the FKMs' isolation as educational institutions producing manpower and conducting research that has little relevance to local priorities and needs, a situation which has characterized Public Health education in other parts of the world.

3. End of Project Status

The following conditions will exist at the end of the project:

- a. There will be four fully accredited FKMs at UNHAS, UNAIR, USU, and UNDIP. Each will have a consolidated two-year and four-year S₁ program producing 60 graduates annually. Each Faculty will have instituted comprehensive research and public service programs, which will include periodic establishment of research policies and priorities, quality standards, linkages with local health and family planning agencies, publication and utilization of research findings, and mechanisms for obtaining continuing financial support for research. FKM-UNAIR will also have an S₂ program producing 10 graduates annually.
- b. FKM-UI will be operating as a Pembina Faculty, and will have assisted the four regional FKMs to upgrade their teaching, research, and public service capabilities. FKM-UI will have expanded its S₂ program to produce 50 graduates annually.

Thirty Faculty members from the regional FKMs will have received their S₂ degrees from this expanded program. An S₃ consolidated* program will be operating from which 10 graduates will be teaching at regional FKMs. FKM-UI will have an up-to-date microfiche data base of journal articles which are being utilized by the regional FKMs to assist their teaching and research programs. Finally, FKM-UI will have aided each FKM to develop its research capability by conducting at least one collaborative research study with each.

- c. A total of 1,120 S₁ graduates, 360 S₂ graduates and 10 S₃ graduates will have graduated from the five FKMs during the life of the project. S₁ graduates will be working with the MOH, BKKBN, or other health and family planning agencies; approximately 320 S₂ graduates will be working with health and family planning agencies, and 40 S₂ graduates will be faculty members at the four regional FKMs. The S₃ graduates will be faculty members at FKMs.

4. Project Outputs

The project will have four distinct outputs. The first and most important will be the establishment of four new Faculties of Public Health in Indonesia. Each Faculty will have:

- a. a minimum teaching staff of 30 persons with the academic credentials to teach on the S₁ or S₂ level as appropriate; improved faculty technical knowledge and expertise in specialty areas; and improved teaching and research skills. The project will upgrade 70 faculty members to the S₂ level and 20 to the S₃ level;
- b. improved information resources to support academic and research programs; this will consist of an expanded library capacity for access to national and international books and periodicals and epidemiologic data generated from FKM research;
- c. systems for educational administration and management to support academic programs;
- d. an improved capacity to utilize and produce new teaching methods and materials;
- e. two-year and four-year S₁ programs at all four regional FKMs plus an S₂ program at UNAIR.

* "consolidated" includes the existence of standardized detailed curricula which reflect region-specific needs, student enrollment numbers in line with each Faculty's Five Year Development Plan, and a full complement of staff in each academic department with the requisite academic qualifications to teach at the degree level for which students are enrolled.

The second output will be the strengthened capacity of FKM-UI to act as a National Resource Center for Public Health. With project training support, 25 additional full time faculty members will join FKM-UI's existing staff. An S₃ program will be developed to train faculty members from the other universities to teach at the S₂ level. FKM-UI will conduct in-service training programs for faculty and staff members from the other FKMs and will provide technical assistance as necessary to support development of their new academic and research programs (these services, though part of the Pembina function, will be on the request of and at a cost to regional FKMs, not UI itself). FKM-UI will also coordinate a national information resource network to increase the accessibility of technical information in Public Health to faculty and students at regional FKMs.

The third output will be completed research, pilot projects and feasibility studies. These will be efforts conducted by the regional FKMs and FKM/UI in collaboration with local health authorities. Research is discussed in detail on page 18. Briefly, it will provide faculty and students with the opportunity to focus attention on region-specific public health problems. Collaboration with local and national health authorities will provide the opportunity for research results to influence public health programs and a venue for continued collaboration after project completion. The data collected and research results analyzed will begin to redress the shortage of epidemiologic information at the regional level which is required for any serious effort to regionalize public health programs. Finally, a demonstrated research capability will facilitate accreditation of the new FKMs in 1990. At least five distinct research efforts will be completed by each FKM, including UI, during the project.

The fourth output will be the 1,120 S₁ graduates and 360 S₂ graduates to be produced during the seven year life of the project. By August 1985, all new FKMs will have accepted their first class of two-year S₁ students, scheduled for graduation in June 1987, and UNAIR will accept its first intake of four-year S₁ students, scheduled for graduation in June 1989. The other three FKMs (UNHAS, USU and UNDIP) project their first intake of four-year S₁ students for August 1987 with graduation expected in June 1991. FKM-UI will expand its S₂ training capacity in 1987 and institute its S₃ program. UNAIR will graduate its first class of S₂ students in 1987.

5. Project Inputs

a. Faculty and Staff Training

At USU, UNAIR and UNDIP, where limited public health courses are now taught out of Public Health Departments within Faculties of Medicine, the majority of faculty members teaching such courses hold only the S₁-level M.D. Degree. Only a few faculty members have any advanced training in Public Health. The same is true for UNHAS despite the recent founding of a separate Public Health Faculty. Ministry of Education and Culture regulations require faculty members teaching S₁ students to have a minimum S₂ education in their specialty area; faculty members teaching at the S₂ level should have S₃ level education; and faculty

teaching at the S₃ level must have S₃ degrees. In order to meet MEC requirements to achieve Faculty status, the formal academic credentials of staff members at USU, UNAIR and UNZIP must be upgraded accordingly. Formal academic credentials at UI and UNAIR must also be upgraded for these institutions to be accredited to offer, respectively, new S₃ and S₂ programs.

MEC regulations regarding teaching credentials can also be satisfied by experience and seniority. Senior faculty members lacking the S₂ degree nonetheless hold important positions in university Public Health departments and can be expected to continue to play an important role in the future Faculties. They will need upgraded technical, didactic, and administrative skills to maximize their contribution to the new schools.

The training component of this project will address both qualitative and quantitative deficiencies of FKM staff. Training will be provided to:

- (1) upgrade the academic credentials and technical qualifications of faculty members at the four regional universities to meet MEC requirements for teaching at the four-year S₁ level;
- (2) produce sufficient quantities of faculty members with S₃ level training to support an S₃ program at FKM-UI; to support S₂ programs at UNAIR and FKM-UI; and to seed the other FKMs with Ph.D.'s to improve their research capacities;
- (3) upgrade technical qualifications of existing faculty and staff members in support of specific activities being undertaken in this project.

Three types of training are planned:

(1) Degree training in Indonesia and Abroad

The project will place 40 persons in Masters degree programs in Indonesia and 30 overseas.* 10 persons will be placed in Ph.D. programs in Indonesia and 10 persons in the U.S. Candidates for Masters degrees will be recruited predominantly from the four regional FKMs; candidates for doctoral training will be recruited predominantly from FKM-UI and FKM-UNAIR. Faculty candidates for training will be drawn from the permanent teaching staff of each Department or Faculty of Public Health. In selected cases, training may also be provided to lecturers from other Faculties in each university who teach part-time on public health topics. These lecturers - sociologists, anthropologists, management specialists, or statisticians - teach subjects which are an integral part of public health training but which are not yet allocated permanent staff positions in the FKMs. Upgrading the public health education of such staff in selected cases will strengthen FKM programs.

* Overseas training will be predominantly in the U.S. The project may also utilize the strong regional public health programs at Mahidol University in Bangkok and the University of the Philippines in Manila should the need arise.

Support for in-country Ph.D. training will contain a component to allow candidates to attend up to two semesters at a U.S. university as part of a "sandwich" Ph.D. program where the degree is granted by the Indonesian university but portions of the academic or dissertation requirements are completed abroad.* The workplan for degree level training is presented in Table 3.

Participants for long-term degree training will be nominated by their universities. The Project Management Unit (PMU - see p. 22) will identify suitable universities for each candidate. Assistance will be provided by BKKBN's Division for Overseas Training to apply applicants to overseas universities, obtain acceptances, and channel maintenance support to participants overseas. The Project Management Unit will perform the same functions for domestic trainees and, for all trainees, will monitor academic progress during training and evaluate the training upon completion.

Participants scheduled to attend degree level overseas training will be given up to four months of intensive English language training in Indonesia. Two additional months of pre-academic English training combined with study skills preparation and orientation to life in the U.S. will be available to each participant accepted at a U.S. university. All participants enrolled in graduate programs both overseas and in-country will attend specialized training of trainers courses of 1-2 months duration. The purpose of these course will be to improve the participants' didactic skills and prepare them specifically for roles as teachers when they return to Faculty positions. Overseas participants will attend training of trainers courses in the summer session between second and third semesters. The in-country courses will be included in Short Courses in Indonesia (below).

(2) Short Courses and Teaching Externships Abroad

This category will be aimed at senior faculty members not eligible for degree training. Its aim is to improve technical qualifications and teaching skills. A total of 25 persons, five from each of the universities involved in this project, will be given the opportunity to attend short courses of up to three months in duration offered by universities and training institutions in the U.S. and other countries.

The project will also make available 10 teaching externships abroad of up to six months duration. The target group will be Department Chairmen of each of the five Departments at the five FKMs involved in the project. Externs will spend one semester as a visiting faculty member at a School of Public Health or related institution in the U.S. The purpose is to familiarize them with new educational approaches, state of the art didactic (teaching) technologies and library resource materials used in Public Health higher education in the U.S., and to allow them to observe

* The "sandwich" approach has been used by the MEC in the past to expedite completion of in-country Doctoral degrees and to overcome constraints caused by the absence of indigenous dissertation advisors with Doctoral level education in a candidate's specialty area.

Table 3: Workplan for Degree and Short Term Training
(by Indonesian Fiscal Year)

	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	TOTAL
1. OVERSEAS TRAINING								
A. Masters Degree			13	9	8			30
B. Ph.D. Degrees		4	6					10
C. Sandwich				5	5			10
D. Short Courses		5	5	5	5	5		25
E. Externships		2	2	2	2	2		10
2. IN-COUNTRY TRAINING								
A. Masters Degree (S2)			12	7	10	11		40
B. Ph.D. (S3)			5	5				10
C. Short Courses	3	3	3	3	2	2		16

* Figures for MA and Ph.D. degrees represent the number of matriculants and are entered in the year of matriculation. All other figures represent short-term training and can be assumed to show both the starting date and completion of the training concerned.

allow them to observe administrative procedures in a well-established School of Public Health. During the externship each participant will be expected to team teach at least one course, and participate as a full faculty member in other academic and administrative matters. Following one academic semester at a university; the externs will visit other educational institutions, government, or private agencies involved in Public Health education or service delivery in the U.S.

(3) Short courses in Indonesia

This category of training will upgrade technical skills of faculty and staff at the four regional FKMs in support of specific activities in the project. Although most short courses will be designed specifically for the project and will be conducted, primarily, at FKM/UI, funds may be used to enroll faculty or staff in appropriate existing courses conducted by other educational institutions in Indonesia.

A total of sixteen short courses are projected during the life of this project. Topics for short-term courses to be funded by the project will be determined annually as described in the Administrative Analysis. However, three course topics required to launch project implementation are known now and will be conducted in the first year. These include a course on Research Methodology and Data Analysis to prepare faculty members for the research component of this project; a second course on Development of S₁ Curricula in Public Health to assist the Faculties to finalize curricula and course outlines; and a third course on Administration of a Faculty of Public Health to introduce administrative concepts and techniques now used by FKM-UI for managing student enrollment, academic record keeping, and finances.

An illustrative list of short course topics below is based on the existing FKM five year plans in which each new FKM has identified priority areas of in-service short-term training to effect immediate improvements in staff capability. Short courses funded by the project will likely fall into these areas:

- . Computer Utilization
- . Audio-Visual Educational Technologies
- . Population and Demography
- . Administration and Management
- . Biostatistics
- . Epidemiology
- . Health Education
- . Environmental Health
- . Hospital Administration
- . Data Processing
- . Public Health Nutrition

Short courses on computer utilization and audio-visual educational technologies will be phased to coincide with procurement of computer and audio-visual commodities for the FKMs scheduled for the second and third year of project activity.

In-country short course funds may be used to support in-country faculty externships in which selected regional FKM staff would spend up to three months at FKM-UI for exposure to FKM administrative and teaching innovations. Externs would be expected to teach during their time at UI. The number of externships will be limited and the need for them will be assessed, as the project proceeds, in view of the benefits obtained and the cost to the regional FKM of a temporary cut in teaching staff.

b. Commodities

The new FKMs will emerge from existing Public Health Departments in Medical Faculties. The facilities and equipment of the Departments are rudimentary. All are presently housed in temporary facilities "on loan" from their universities. New buildings are planned for completion in IFY 1988/89 but will be fitted with only basic furniture and equipment.* The project will supplement this basic equipment with commodities considered essential for improving academic quality, research programs, and Faculty administration. Commodities financed by the project will include:

(1) Library Materials and Information Dissemination

Library resources for public health sciences were nearly non-existent at the regional universities when FKM feasibility studies were commissioned in 1983, and are identified by each of the Faculties in their Five Year Development Plans as a high priority. The Faculties of Public Health project will continue AID's previous assistance for the procurement of library books** and will also assist to provide access to current public health periodicals.

The project will provide \$15,000 of books to each of the five Faculties to supplement existing libraries. It is expected that book requirements of each Faculty will be dissimilar, reflecting the different areas of specialization emphasized by each. Books procured for USU, UNDIP, and UNHAS will be appropriate to support S₁ programs; books procured for UNAIR will be geared to S₁ and S₂ programs; and books for UI will support their S₂ and S₃ programs. The PMU will coordinate the identification and selection of lists for each FKM. It is anticipated that 75% of costs will be for English language publications, and 25% for Indonesian language books.

* Although construction plans appear firm, the costs of construction are not included as a GOI counterpart contribution under the project because the new facilities are not considered critical to achieving the project purpose. The total value of construction, all GOI-funded, is projected to be \$3,900,000. The supplemental AID-financed commodities will be of use in either new or existing facilities.

** Funds from USAID Family Planning Services II Project (497-0327) have been used to purchase core library books needed for the two year S₁ programs which commence in August 1985. A standard set of books from each of the five specialty areas in Public Health was formulated by CHS, and will be provided to the FKMs by June 1985.

While library resources obtained through this and previous AID projects are sufficient to begin the new academic programs, the FKMs will still be woefully short of information to keep faculty members and students current with the latest advances in their disciplines. The project will provide microfiche reader/printers to the FKMs and will procure back and current microfiche subscriptions to public health periodicals as detailed in the Procurement Plan. Recurrent maintenance costs and, after the first two years, the microfiche subscription costs will be borne by the FKMs.

To increase the volume of published technical resources in the Indonesian language, the project will support the development of several types of publication and information dissemination efforts. The specific number, the type of publication and dissemination efforts such as seminars, will be determined at the annual project planning and review meeting for all Faculties. The publications may include such items as a Technical Report Series encompassing the academic disciplines of Public Health, a journal primarily for the publication of research findings and other academic and training matters of interest to the Faculties. The material published and disseminated will be original pieces written by faculty members or translations of English language publications into Indonesia. FKM-UI in its capacity as a Pembina Fakultas will be the lead agency in producing and disseminating this information and publications.

(2) Teaching equipment packages

The lecture/question/answer approach is still the predominant teaching method used in Indonesia. Research has found that this approach is inefficient, ineffective, and reinforces passive rather than active learning. University lecturers have been reluctant to adopt new methods that incorporate more two way communication and student participation.

Under the TA element of the project, assistance will be provided to design more effective curricula that incorporate participatory educational technologies and audio-visual media. The project will provide teaching equipment packages to facilitate these innovations.

Project funds, up to \$45,000 per FKM, will procure audio-visual replay, and media production equipment as appropriate to each Faculty. The types of items to be procured will be determined by a survey of each FKMs needs and capabilities. Although the procurement list for each Faculty will differ, the types of equipment anticipated include such items as overhead and slide projectors, video recorders and players. At FKM-UI, approximately \$25,000 from the allocated funds for teaching equipment will be used for the purchase of an electric composing machine, mini-offset duplicator, cutting and binding machines, and a layout setting table for printing translations and publications. All copies of translations, publications and journals produced through this project will be printed using this equipment. Initial training required for any of the teaching equipment will be provided from the funds budgeted above. Maintenance and supplies costs will be paid by the GOI.

(3) Micro-Computers

Other than FKM-UI, none of the Faculties currently has direct access to computer facilities. The project will provide two micro-computers to each Faculty for administration and for data analysis in support of research programs (funds equal to the value of two micro-computers are reserved for UI in the event special equipment is necessary to assure full compatibility between new micros at regional FKMs and existing ones at FKM-UI). PDS funds are being used to fund an assessment of micro-computer requirements: software compatibility will be essential, since software for educational administration and data analysis developed at FKM-UI will be used in other Faculties. Local maintenance and service capability will also be essential. AID funds for micro-computers will include provisions for software and initial training, with maintenance and supplies supplied by the GOI.

(4) Administrative Equipment

The project will supply office equipment essential for administration of the Project Management Unit. The PMU will receive a photocopy machine, typewriters, a micro-computer, and a mimeograph machine. The regional FKMs will each receive a photocopy and mimeograph machine. FKM-UI may receive a photocopy machine if warranted by the increased library use resulting from additional library books, periodicals and microfiche provided by the project.

c. Research, National Research/Policy Seminars, and Pilot Demonstration Projects

Funding for research and pilot demonstrations is required for several reasons. First, proven research capability is a prerequisite to Faculty accreditation. Before a Department offering a "program of study" in Public Health can achieve Faculty status, the MEC requires that it demonstrate capabilities in teaching, research, and community service. The same is true for a Faculty opening a new degree program. The establishment of two-year and four-year S₁ programs under the project will satisfy the teaching requirement for new Faculties. AID funding for research and pilot demonstrations, \$170,000 per FKM (including U.I.) over the life of the project, will assist to satisfy the research and community service requirements. Second, the quality of education received by students at the new FKMs can be considerably enhanced by their exposure to region-specific research above and beyond research that might be carried out for a perfunctory fulfillment of accreditation requirements. Third, the research and data generated will expand the regional epidemiologic data base necessary for region-specific planning of health and family planning programs. Finally, incorporating research into the project provides the opportunity to elicit the involvement of local public health agencies in setting research priorities for the FKMs, in identifying specific research projects and, ultimately, in funding FKM research themselves. Such collaboration will represent an important step towards the SKN's goal of region-specific planning of public health programs.

At present, the research potential of FKM-UI and, particularly, FKM-UNHAS and the Public Health Departments of Medical Faculties at the three other universities is underutilized. Inadequate research experience, a lack of faith in FKM research abilities on the part of public health agencies, and limited university funding for research are the major reasons. At the same time, the MOH and BKKBN have research budgets which go unused for lack of qualified research institutions.

AID funds will be used to initiate research programs at each of the FKMs. Local MOH and BKKBN representatives will be members of a local advisory board at each University to assist in setting yearly research priorities and research topics. Their participation will help ensure that research conducted is considered relevant to the needs of the local agencies responsible for implementation of health and family planning programs. It is expected that this mechanism will also enable the MOH, BKKBN, and other local agencies to see for themselves the quality of research which the new FKMs are capable of producing, thereby increasing the new FKMs credibility as research institutions, and increasing the FKMs' abilities to attract research funds from those agencies both during and after the project.

Funding will be provided for National Research/Policy Seminars in which project research findings on specific subjects will be presented to a national forum of policy makers from the MOH, MEC, BKKBN, BAPPENAS and Home Affairs Ministry. The purpose of the seminars will be to link project research findings to policy analysis and formulation on a national level. A seminar might, for example, review region-specific proximate determinants of infant mortality as shown by FKM project research, then analyze the policy and program implications for concerned agencies. The project anticipates the seminars will increase the role of educational institutions and region-specific empirical research in the health policy formulation process, a GOI and USAID priority. National level policy seminars are scheduled beginning in 1987/88, the third year of project implementation, when research findings will begin to become available or when need is determined by the project planning and review meetings.

Demonstration projects are included within the research category to help close the gap between research and the programmatic application of research results. Pilot demonstrations e.g. use of a vaccine cold chain to deliver immunization services or improvements to urban sanitation systems, are also viewed as a community service and will assist the Faculties to fulfill the community service requirement for Faculty accreditation. Pilot demonstrations will, in addition, provide field practice opportunities for the field work component of the S₁ program.

Although research priorities and topics will be determined annually by project implementors, two topics have been pre-selected: one will be an investigation into the private sector's role in public health service

delivery, financing, and education; the second will be a study to identify potential collaborating institutions for the four regional FKMs.*

Research will, where geographically appropriate and to the extent possible, be coordinated with research being conducted through other projects in the AID O/PH portfolio. CHIPPS, HTR&D, EPI, Village Family Planning Services II, and the FP/MCH project all have significant research components. Research capacities being developed in the project can be tapped to conduct research in these other ongoing projects; or conversely, research findings from the project can support the data and policy needs toward which research is directed in the other O/PH portfolio projects.

The projected annual research allocation for all five FKMs is depicted graphically in Figure 1. Funding for research will begin in IFY 1986/87 when \$100,000 of USAID funding (an average of \$20,000/Faculty) will be matched by \$75,000 from GOI sources. Funding will peak in 1988/89, to coincide with the return of faculty members from the first group of Masters trainees, at a combined AID/GOI level of \$375,000 (\$75,000/Faculty) and is projected to remain at that level or above for the remainder of the project. The AID contribution will peak at \$250,000 in 1988/89, and decrease incrementally thereafter while the GOI contribution increases proportionally. It is anticipated that 3-4 years of heavily AID funded research will sufficiently establish the new FKMs research credibility to attract increasing (presently unused) research funding from GOI agencies such as BKKBN and MOH to maintain annual FKM research levels at \$75,000/Faculty/year.

Most of the GOI research contribution will come from research allocations held by the MOH and BKKBN ("Other GOI Funding" in Figure 1), based upon the assumption that project assisted improvements in research capabilities will make the regional FKM's more attractive research institutions to these agencies. However, the MEC will make a contribution of \$250,000 towards research funding during the life of the project. These funds will be reserved outside of the general research allocation for the MEC's Research and Development branch, for exclusive use by the FKM's ("MEC Funding" in Figure 1).

d. Technical Assistance

Foreign and Indonesian expertise will be utilized to upgrade the teaching, technical, administrative and research capacities of the FKMs. Indonesian consultants will be used wherever possible. The project will

* Within the "region" of each of the new FKMs are a variety of public and private institutions which may be involved in public health higher education in the future. The study would assess ways in which these institutions could be assisted by the FKMs established under the project.

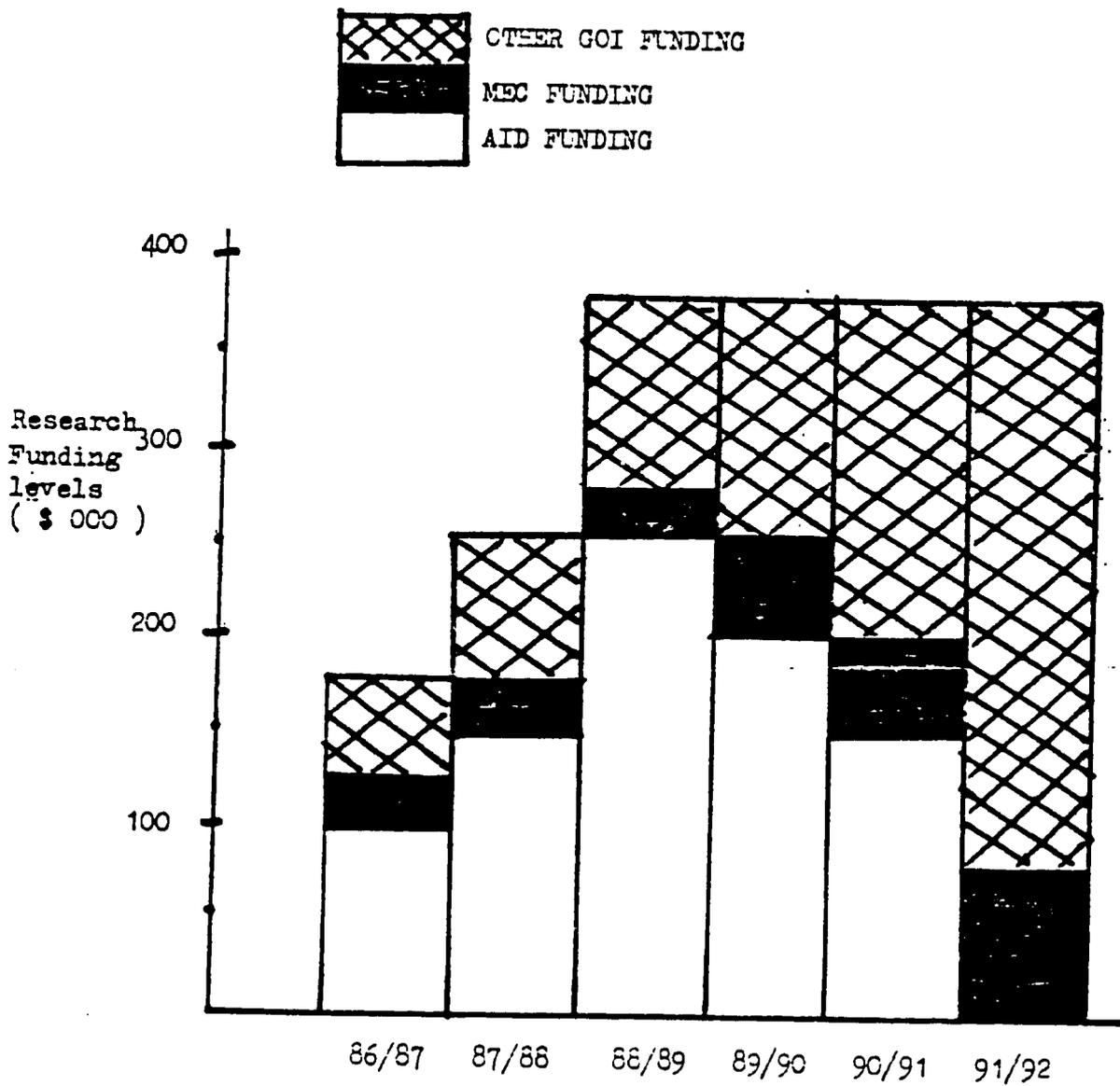


Figure 1 : Annual Project Research Allocation by Source of Funding

provide 100 person-months of short term domestic technical assistance, 65 person-months of short term international technical assistance, and 60 person-months of the services of a long term advisor who will work with the Project Management Unit and assist the Director of the PMU to coordinate implementation of the project. Draft scopes of work for the long-term advisor and for a firm to provide short term international TA are provided in Annex L.

Short-term technical assistance will be utilized in a number of areas including, but not limited to, the following:

- (1) teaching, in collaboration with colleagues from FKM-UI, selected short courses in specialized areas;
- (2) education administration and management;
- (3) research design, methodology and data analysis;
- (4) curriculum development;
- (5) instructional design and technologies, audio visual technologies;
- (6) technical subjects in Public Health (Biostatistics, Epidemiology, Health Education, Health Administration, Environmental Health etc.);
- (7) improvements in the English language training capability of FKMs (English language training is required for S₁ students at each Faculty) to enable students to take advantage of the library resources provided through this project, and Public Health resources in the English language in general;
- (8) computer applications to Public Health;
- (9) improvements in the field practice component of the S₁ curriculum.

e. Project Planning and Review Meetings

The project will fund six national project planning and review meetings, one per year, to review project progress and set project policy guidelines.* Thirty local project review meetings (one per year at each Faculty beginning in year 2) will be funded to translate national project policy guidelines into local annual work plans appropriate to each FKM.

f. Project Administration/Coordination

The project will be implemented through the office of the Director General for Higher Education in the Ministry of Education and Culture. Within this Directorate General, direct responsibility for the project

* To plan upcoming activities in synchronization with the GOI annual funding cycle, these seminars must be held by September of the year prior to the fiscal year concerned. The project's initial Conditions Precedent may not be met by September of 1985. The planning seminar for IFY 1986/87 will therefore not be project funded, but funded by PD&S as a pre-implementation activity.

will fall to the Directorate for Academic Infrastructure Development, and will be coordinated by a Project Management Unit. The PMU will have a full-time Director, two full-time Associate Directors and an administrative assistant. At each of the project-assisted Faculties, a Local Management Unit (LMU) consisting of a part-time Director, Financial Officer, and secretary, all drawn from existing Faculty staff, will assist to coordinate project activities. Responsibilities of these units are described in the Administrative Analysis. Necessary operating expenses, base salary, a salary supplement*, honoraria and travel/per diem for the PMU will be provided with a combination of AID and GOI funds. LMU costs will be borne by the GOI.

The PMU and LMUs will exist only for the life of the project and will be gradually phased out during the project's last two years. As discussed in more detail in the Financial Plan, a portion of GOI financial support for the PMU will, as the PMU phases out, be transferred to support the increased responsibilities of the CHS that will result from the larger number of FKMs at the end of the project. The PMU will be staffed by seconded MEC personnel with technical backgrounds in Public Health, with technical assistance from the long term PSC advisor.

g. Evaluation and Audit

Evaluation plans are discussed below. Five person-months of short-term TA have been budgeted for evaluation and audit.

* This supplement is provided on an exception basis to normal Mission policy.

II. FINANCIAL PLAN

A. Overview

Faculties of Public Health will be a seven-year project. The total cost will be \$18.0 million of which \$9.0 million will be AID-funded (\$5.0 Loan; \$4.0 Grant) and \$9.0 million will be funded by the GOI. Tables 4 and 5 show project expenditures by project element, Loan and Grant funding, and by Indonesian Fiscal Year. Annex J provides a detailed breakdown of anticipated expenditures for each element over time and includes explanations of planned AID/GOI cost allocations for each project activity.

Expenditures were calculated by assigning a unit cost to each activity under each project element, determining which components were properly GOI and which AID-funded (see below), determining which items of cost were foreign exchange and which local currency costs, and scheduling unit costs through the seven-year period in accordance with anticipated implementation. Contingency and inflation is 15% of the total AID contribution. Although this is slightly lower than normal, it is considered adequate; all local currency costs were converted at an exchange rate of U.S.\$1.00 = Rp.1,000 which, because it is about 10% lower than the actual present rate, overestimates local currency costs. The margin provided will increase with the anticipated continued depreciation of the Rupiah.

AID contributions are concentrated in the training (\$3.5 million), technical assistance (\$2.2 million) and research (\$0.9 million) elements. GOI contributions, including approximately \$1.2 million of contributions in-kind, are concentrated in the training (\$1.2 million), infrastructure operations (including salary costs of additional teaching staff \$5.0 million), and commodities (\$1.2 million) elements. A potential GOI contribution of \$3.9 million for planned construction of new facilities for the regional FKM's in IFY 1988/89 has not been included since major new facilities, although required for the long-term development of FKM's, are not considered critical to the purpose of this project.

For major activities, the primary elements of AID/GOI cost splits will be as follows:

1. academic and/or overseas training (AID: tuition, fees, language preparation, some airfares; GOI: most airfares, salaries in training);
2. in-country non-academic training (AID: curriculum development and instructor costs; GOI: all participant costs);
3. commodities (AID: initial purchase, initial training; GOI: maintenance, supplies, subsequent training);

TABLE 4
SUMMARY COST ESTIMATE AND FINANCIAL PLAN
(US \$ 000)

S O U R C E	A I D				H O S T C O U N T R Y		T O T A L
	L O A N		G R A N T		FX	LC	
	FX	LC	FX	LC	FX	LC	
Training	2,684	858	0	0	150	1,090	4,782
Commodities	149	511	0	0	27	1,140	1,827
Technical Assistance	0	0	1,492	752	0	110	2,354
Research	0	0	0	879	0	1,071	1,950
Planning Meetings	0	82	0	0	0	107	189
Infrastructure Operations	0	0	0	0	0	5,013	5,013
Project Management	0	0	0	340	0	292	632
Evaluation/Audit	0	0	76	18	0	0	94
Inflation/Contingency		716		443	0	0	1,117
T O T A L	\$ 5,000		\$ 4,000		\$ 177	\$ 8,823	\$ 18,000

TABLE 5
PROJECTION OF EXPENDITURES BY GOI FISCAL YEAR
(US \$ 000)

S O U R C E	A I D			H O S T C O U N T R Y	T O T A L
	LOAN	GRANT	TOTAL		
IFY 1985/86	17	99	116	467	583
IFY 1986/87	706	507	1,213	770	1,983
IFY 1987/88	822	657	1,479	975	2,454
IFY 1988/89	1,019	814	1,833	1,790	3,623
IFY 1989/90	903	739	1,642	1,620	3,262
IFY 1990/91	619	475	1,094	1,733	2,827
IFY 1991/92	197	267	464	1,645	2,109
Inflation/Contingency	716	443	1,159	0	1,159
T O T A L*	\$ 5,000	\$ 4,000	\$ 9,000	\$ 9,000	\$ 18,000

*Sum errors due to rounding

4. infrastructure operations (all GOI);
5. long-term technical assistance (AID: salary, benefits, housing, supplemental per diem; GOI: in-country travel, per diem);
6. short-term international technical assistance (all AID);
7. short-term domestic technical assistance (AID: salary; GOI: travel, per diem);
8. research (the same costs for both the GOI and AID but with GOI contributions phased in over time). Complete details are provided in Annex J.

B. Recurrent Costs and Institutional Development

A number of important recurrent cost obligations are incurred by the GOI under the project. The largest single item is the salary cost of new staff at the FKM's anticipated to be \$1.3 million over the life of the project and about \$0.3 million per year thereafter. Once permanent positions ("formasi") are opened for new staff, budgets for salary are guaranteed. However, although there is no question the MEC intends to open these positions, "formasi" are subject to concurrence of the National Manpower Administration Agency (BAKN) which is not a party to the project. If new positions are opened, funds for the recurrent cost are assured. If new positions are not created, there is no recurrent cost problem but, rather, a serious setback to the project as a whole.

Short-term courses in Indonesia may continue to be an important mechanism to upgrade public health faculty members once the project is completed. Under the project, about 85% of the cost of such short courses will be borne by the GOI, indicating that continued funding after the project should not pose a problem.

The costs of maintenance and supplies for commodities will be assumed by the GOI from the outset. The only exception will be subscriptions to microfiched journals and journal indexes. AID will pay the first two years of subscriptions to introduce the technology. The GOI will assume subscription costs thereafter.

The continuation of FKM research once the project is complete will be critically important to the FKMs' success in promoting region-specific public health approaches. As discussed in the Project Description, GOI contributions to project-supported research begin slowly but are anticipated to increase with time to the point that solely GOI funds support a viable research program at each institution. GOI contributions will need to be monitored carefully as the project proceeds.

Although PMU and CHS functions are distinct (see Administrative Analysis) and the PMU is strictly a project entity, it is clear that CHS' public health education oversight role will increase with the creation of additional FKMs under the project. The possibility that GOI oversight of higher education may shift to a Graduate Board system now being adopted under World Bank financed projects in Indonesia clouds the picture. The concern is that for whatever system of oversight evolves, GOI funds will be available to adequately maintain the future development and standards of FKM's once the intensive development period of the project is complete. It is anticipated that one-third of the PMU's costs and all of the cost of LMU's will be borne by the GOI during the project. As the PMU phases out during the last two years of implementation, it is anticipated that reductions in operating costs (utilities, communications, travel and per diem) will be re-allocated by the MEC to the CHS or to whatever alternative body may exist at that time. Structural changes in the MEC will require that this arrangement be reviewed about halfway through the project's life.

By the end of the project, the GOI/MEC will have assumed the responsibility for all recurrent costs. These amounts are minimal in comparison to the entire recurrent cost budget of the MEC, and should present no difficulty.

C. Methods of Implementation and Financing

Method of Implementation	Method of Financing	Approximate Amount Grant	Loan
		(U.S. 000)	
Technical Assistance	Direct Payment to Suppliers	2,244	
Overseas Training	Bank Letter of Commitment		2,684
In-Country Training	Direct Reimbursement to GOI		858
Commodities			
-Office equipment, microcomputers microfiche equipment, teaching equipment packages	Direct Reimbursement to GOI		585
-English language books	Direct Payment to Suppliers		56
-Indonesian Language Books	Direct Reimbursement to GOI		19
Research	Direct Reimbursement to GOI	879	
Project Management (Salaries)	Direct Reimbursement to GOI	340	
Evaluation/Audit	Direct Payment to Suppliers/ Reimbursement to GOI	94	
Inflation/Contingency	-	443	716
Planning Meetings	Direct Reimbursement to GOI		82
TOTAL		4,000	5,000

AID contributions will not be prefinanced through the DUP/DIP system, but will, with the exceptions noted below, be disbursed directly in accordance with annual project plans following AID standard procedures. Most technical assistance, long and short term, will be funded via direct contracts with direct payment to suppliers.

Overseas training will be financed via a Bank Letter of Commitment, for the payment of university application fees, tuition, maintenance allowances, per diem and transportation, health insurance, and other costs. The use of this mechanism (1) will result in savings of at least 25% when compared to AID standard costs and overhead rates, (2) provides additional protection because of inclusion of the requirement for USAID approval of documents prior to payment, and (3) allows for the use of BKKBN's proven capabilities to perform all programming services relating to the administration of participants. At present, training costs using Bank Letters of Commitment 497-Q-069-03, 497-Q-082-03 and 497-U-081-02 are funded under Project 270, Family Planning Development and Services and Project 327, Family Planning II. This is a mechanism whereby Citibank, N.A. is the L/Com bank and payment are made either locally or in the U.S. via Citibank Jakarta. There is no Letter of Credit and banking charges have been most reasonable.

The costs of English language books which, it is anticipated, will be procured through the American Overseas Book Company will be reimbursed to AID/W via Advice of Charge procedures. Microcomputers, photocopy machines, electric typewriters, stencil machines, microfiche equipment and teaching equipment packages will be procured directly by the GOI following AID approval by PILs. The GOI will be reimbursed for the cost of these commodities. If direct payment to suppliers is required, individual contracts will be reviewed and approved by USAID through Implementation letters, and payments will be made based on certification of receipt and acceptance of the commodities by the GOI and other requirements specified in PILs.

It is anticipated that in-country training, research costs, Indonesian language books, shelf-items and other locally procured goods and services will be funded based on annual plans approved and committed by PILs. Since the value of the Host Country contracts for anticipated domestic technical assistance will be less than \$100,000.00, guidance on procedures for utilizing project funds for this purpose, including the required AID mandatory clauses, will be provided by PILs. For the funding of the above local costs, advances of funds will be made to the GOI to allow for more timely and efficient procurement. Advance will be based on projected cash needs, and liquidated upon submission and approval of financial accounting on the utilization of funds and supporting documentation.

Technical assistance financed by AID direct contracts are subject to audit by AID/IG/AUD. In order to minimize vulnerability, the Mission Controller will conduct periodic examination of records in support of disbursements against the Bank Letter of Commitment, and as part of its voucher examination program, will also review GOI accounting procedures and documentation relating to their direct procurement. Project funding is also available for audit of Host Country contracts, following guidelines from AID/IG. This audit coverage will be performed by auditors through local representatives of US CPA firms, the selection of which will be made by AID/Washington with assistance from RIG/A/Manila. These services will be procured by AID direct contract following direct payment procedures.

III. IMPLEMENTATION PLAN

A. Contracting for Technical Assistance

Technical Assistance funded under the project will consist of the following:

Long-Term Advisor to Project Management Unit	60 person months
Short-Term Indonesian Consultants to:	
- develop and teach project short courses	
- advise on FKM administration/curricula	
- design and assess FKM research efforts	100 person months
Short-Term International Consultants to:	
- develop and teach project short courses	
- advise on FKM administration/curricula	
- design and assess FKM research efforts	65 person months

TA services will be procured in a variety of ways. The long-term advisor, expected to be an expatriate, will be hired under a Direct Personal Services Contract for the first two years; at that time, consideration will be given to incorporating the advisor's services into the institutional contract (see below). The long term advisor is required as soon as possible in order to assist the PMU to start up quickly; it is anticipated that a contract will be signed immediately following the satisfaction of initial Conditions Precedent. A draft scope of work is attached in Annex L.

Short-term international consultants will be provided under a direct long-term contract with an 8a firm. Although, the arrival of short-term international consultants is not critical until mid-1986, the relative speed of 8a contracting procedures will permit their services to be tapped for miscellaneous purposes as early as December, 1985. Consideration will be given, in the third year of the project, to an amendment which would fold the long-term advisor into the 8a contract. Factors considered in this decision will include a) the desirability of formal links of responsibility between the long-term and short-term consultants, b) the potential to reduce the AID/GOI administrative burden, and c) the added cost to the project of additional overhead and fixed fee charges. A draft scope of work for the firm to supply short-term international consultants is provided in Annex L.

Approximately 80 of the 100 person-months of short-term Indonesian consultant services will be provided by specialists from public health or medical Faculties of public Indonesian universities. The remaining person-months will be provided by non-government specialists from private Indonesian universities and the private sector. It is anticipated that these persons will be contracted by means of Host Country grant-funded contracts between the Ministry of Education and Culture and the individuals concerned. A standard contract format, a selection procedure which follows informal competition guidelines, and an accounting system

will be approved by USAID via a PIL for this purpose. A schedule of permissible billing rates will be provided in the same PIL. It is expected that these contracts will be funded from an advance provided to the MEC which will be periodically liquidated and replenished. AID commitments to fund the advance will provide no more than 12 months funds at a time to allow for regular AID review of the contracting mechanism.

B. Project Management Unit

The Indonesian staff of the Project Management Unit will be GOI employees seconded to the PMU full-time initially but only part-time in the last two years of the project. Four professionals (a Director, two Assistant Directors, and one Administrative Assistant) and three secretaries will be provided. Base salaries and normal honoraria, travel, per diem and office operating costs will be provided by the GOI. Project funds will support necessary salary supplements over and above honoraria. The creation of the PMU, naming of its staff, a first year workplan, and a detailed description of staff responsibilities will be a Condition Precedent to the disbursement of funds. A general description of PMU responsibilities is provided in the Administrative Analysis.

C. Procurement of Commodities

Commodities procured under the project fall into several groups based on the time they are required and the desired procurement mode:

1. Project Management Unit Office Equipment

<u>Item</u>	<u>Estimated Base Price</u>	<u>Procured By</u>
1- photocopy machine	\$ 7,000	GOI
3- electric type-writers (@\$1,250)	\$ 3,750	GOI
1- stencil machine	\$ 5,000	GOI
1- micro-computer package (CPU, keyboard, monitor UPS, spread- sheet and word-processing software, initial training)	\$12,000	GOI
	<u>\$27,750</u>	

Project Management Unit office equipment is required as soon as possible in order that the PMU can quickly assume project coordination responsibilities. All pieces of equipment qualify as shelf-item purchases. Micro-computer specifications will be provided through a PDS-funded survey of project-wide micro-computer requirements; a waiver may be required to permit proprietary procurement for compatibility reasons. Procurement will be made by the MEC in accordance with small-value procurement regulations and based on submission to USAID of a procurement list and AID approval and commitment of funds via a PIL. Reimbursement to GOI or direct payments to suppliers, if required, will be made.

2. Microfiche Equipment

<u>Item</u>	<u>Estimated Base Price</u>	<u>Procured By</u>
University of Indonesia:		
1 - reader/printer	\$10,000	GOI
1 - duplicator	2,000	GOI
3 - readers @ \$300	900	GOI
1 - microfiche storage cabinet	1,000	GOI
3 years, 50-title, back subscriptions @ \$40	6,000	GOI
2 years, 50-title, current subscriptions @ \$40	4,000	GOI
3 years back indexes @ \$300	900	GOI
2 years current indexes @ \$300	600	GOI
Total	\$25,400	

Airlangga, Hasanuddin, North Sumatra & Diponegoro:

1 - reader/printer @ \$10,000 x 4 universities	\$40,000	GOI
1 - reader @ \$300 x 4 universities	1,200	GOI
1 - microfiche cabinet @ \$1,000 x 4 universities	4,000	GOI
3 years, 20-title, back subscriptions @ \$40 x 4 universities	9,600	GOI
2 years, 20-title, current subscriptions @ \$40 x 4 universities	6,400	GOI
3 years back indexes @ \$300 x 4 universities	3,600	GOI
2 years current indexes @ \$300 x 4 universities	2,400	GOI
Total	\$67,200	
Grand Total	\$92,600	

The timing of procurement is not critical; however the earlier delivery is made, the earlier current public health periodicals will be available to FKM staff and students. A waiver may be required to permit proprietary Code 899 procurement of Minolta RP 505 reader/printers and readers. All other items will be U.S. source/origin and will be procured by the GOI in accordance with small-value procurement regulations.

3. Books

<u>Item</u>	<u>Estimated Base Price</u>	<u>Procured By</u>
Indonesian language books	\$18,750	GOI
English language books	\$56,250	AID

Indonesian language public health books will be procured by the MEC based upon submission to USAID of a book procurement list for each FKM and USAID approval and commitment of funds via a PIL. English language public health books will be procured by USAID through the AID/Washington IQC with the American Overseas Book Company or alternative means in existence at the time of the procurement. English language book lists will be submitted to USAID by the MEC for approval.

4. FKM Administrative/Instructional Equipment

<u>Item</u>	<u>Estimated Base Price</u>	<u>Procured By</u>
5- photocopy machines (@ \$7,000)	\$ 35,000	GOI
10- micro-computer packages (CPU; Key board;monitor UPS; spreadsheet, statistical and wordprocessing software, initial training) (@ \$12,000)	\$120,000	GOI
5- teaching equipment packages (@ 45,000 each, individual lists/specifications to be prepared by short-term consultant)	<u>\$255,000</u>	GOI
	<u>\$410,000</u>	

Administrative and instructional equipment for the FKMs will be divided into two separate procurements. Photocopy machines and the micro-computer packages are required during the first eighteen months of the project for installation at FKMs. Micro-computer specifications are being determined through a PDS-funded survey of project micro-computer needs. Each FKM will procure these items directly in accordance with small-value procurement regulations following the MEC's submission to USAID of a procurement list and AID approval and commitment of funds via a PIL. Direct payment will be made by AID to suppliers. Waivers to permit proprietary procurement of micro-computers may be required for reasons of compatibility and/or service capability. Requirements and specifications for teaching equipment will be determined in project year 1 or 2 by a project-funded survey (Short-Term Indonesian TA). It is anticipated that procurement will be made by the MEC, off-the-shelf, during the second year of the project in accordance with AID small-value procurement procedures. Reimbursement to GOI or direct payment to suppliers, if required, will be made. Proprietary waivers may be required.

5. Implementation Schedule

The schedule below is detailed for the first eighteen months only; benchmarks are noted for the remaining years of the project. Project activities will be planned annually, synchronized with the GOI DUP/DIP cycle, in order to assure coordination of AID and GOI funds. Note, however, that annual project planning will not fully synchronize with the DUP/DIP cycle until the planning period for IFY 1987/88. The annual sequence of events in the project planning/funding cycle is illustrated in the Administrative Analysis.

Schedule of Major Actions:

<u>Action</u>	<u>Estimated Completion Date</u>	<u>Responsible Party</u>
Project Agreements signed	July, 1985	GOI/AID
PDS-funded Planning/Policy Seminar for IFY 1986/87; Results: guidance and detailed implementation plan for IFY 1986/87 activities	July, 1985	GOI/AID
Implementation Letter No.1 issued	August, 1985	AID
Initial Conditions Precedent satisfied and PMU established	October, 1985	GOI
Initiate PMU and FKM administra- tive equipment procurement	November, 1985	GOI
Contract with Long-Term Advisor PSC	November, 1985	AID
Establish overseas training financial arrangements with BKKBN	December, 1985	GOI/AID
Special in-country short-courses: - Research methodology - FKM administration - SI curriculum development	Jan-March, 1986	GOI/AID
Sign contract - Short-term International TA	January, 1986	AID
Initiate procurement of microfiche equipment	January, 1986	AID
Initiate procurement of FKM micro-computers	January, 1986	GOI
First year of activities for: -domestic and international short term courses -international externships -FKM research -seminars (regional and national program/planning) -short-term Indonesian TA	April, 1986-- March, 1987	GOI/AID
Installation of PMU and FKM administrative equipment	April, 1986	GOI

Local Project planning meetings (for IFY 87/88)	May, 1986	GOI
First group of overseas PhD trainees depart	June, 1986	GOI/AID
Overseas book lists complete, initiate procurement	June, 1986	GOI/AID
Installation of FKM micro- computers	July, 1986	GOI
Survey of FKM teaching equipment needs	July, 1986	GOI/AID
National project planning meeting (for IFY 87/88)	July, 1986	GOI
Installation of microfiche equipment	September, 1986	GOI
Initiate FKM teaching equipment procurement	December, 1986	GOI
Delivery of overseas books	January, 1987	GOI
First year of activity for national research/policy seminars	April, 1987- March, 1988	GOI/AID
First group of overseas MA trainees depart	June, 1987	GOI/AID
Second group of overseas Ph.D trainees depart	June, 1987	GOI/AID
First group of in-country MA trainees matriculate	September, 1987	GOI/AID
First group of in-country Ph.D trainees matriculate	September, 1987	GOI/AID
Second Group of overseas MA trainees depart	June, 1988	GOI/AID
Mid-Project Review	July, 1988	GOI/AID
Second group of in-country MA trainees matriculate	September, 1988	GOI/AID
Second group of in-country Ph.D trainees matriculate	September, 1988	GOI/AID

Third group of overseas MA trainees depart	July, 1989	GOI/AID
Third group of in-country MA trainees matriculate	September, 1989	GOI/AID
Fourth group of in-country MA trainees matriculate	September, 1990	GOI/AID
Project Assistance Completion Date	June, 1992	

IV. MONITORING AND EVALUATION PLAN

A. Monitoring

1. Monitoring Responsibility

Responsibility for supervising and overseeing monitoring of project implementation rests primarily with the Project Management Unit. Although Local Management Units at each university will play an important role in reporting on project activities, the Project Management Unit will have access to information from all five universities and will be in a position to collect, analyze and report this information. This Unit will be responsible for the formulation of monitoring reports.

2. Use of Monitoring Information

Monitoring information will be collected routinely for inclusion in semi-annual reports. These reports will be timed to feed into the annual project planning meetings. In this way they will provide information on activities, achievements, problems and issues which the planning meetings must address. This feed-back to project planners is essential if the formulation of annual plans is to be both realistic and to learn from past experience. This means that the Directorate of Academic Infrastructure Development, in consultation with USAID, must be prepared to alter planned allocations to individual universities depending on past performance. Where past performance indicates high achievement, annual planning meetings must be prepared to approve accelerated implementation schedules. Where performance lags, rescheduling or deferring planned activities must be possible.

For this reason, establishing, administering and using the information system is an important part of the role of the Project Management Unit. Reports will also be directed to the Directorate of Academic Infrastructure Development and the Project Steering Committee, as well as USAID.

3. Focus of Project Monitoring

The information system established by the Project Management Unit will be concerned with three major components of the project: a. the establishment of sound and viable Faculties of Public Health at four institutions; b. the development of the Faculty of Public Health at Universitas Indonesia as a "Pembina" Faculty; and c. the production of qualified public health graduates who can and do contribute to the development of the national health system.

a. Establishing Faculties of Public Health

There are specific major benchmarks to indicate that project objectives of establishing Faculties of Public Health are being achieved. These include the following:

- 1) first intake of two-year S1 students at USU and UNDIP in 1985;
- 2) first intake for four-year S1 students at USU, UNDIP and UNHAS in 1987;
- 3) accreditation of new Faculties of Public Health at UNAIR, USU, and UNDIP by 1990.

While these are important milestones, and should receive attention in any monitoring system, they are not particularly useful for the kind of continuous management needs which the monitoring system ought to serve. What is required is more detailed kinds of information which will provide planners and policy-makers more immediate feed-back on the progress of project implementation and the progress toward the achievement of project objectives.

To identify the kinds of information which will be required on a more continuous basis, the monitoring system needs to be more specific about the indicators of gradual progress toward the creation of strong and viable Faculties of Public Health which help meet the needs of the national health system and contribute to an improvement in the health status of Indonesia's population. Amongst others, the establishment of a Faculty of Public Health requires sufficient number of qualified staff, appropriate curricula and teaching materials, an active research program, and a viable social service program. To support these activities, each university will need to develop appropriate administrative structures and procedures to ensure the coordination and utilization of project inputs and the smooth functioning of each Department or Faculty. The monitoring system will track progress in each of these areas in the following ways.

1) Faculty staff. As is noted in the social soundness analysis, one of the challenges to be faced in project implementation is ensuring that there are sufficient numbers of qualified staff to sustain Department or Faculty activities during period when significant numbers of staff are involved in training programs and are therefore not available for routine activities. The monitoring system will track each Department or Faculty, noting increases in permanent staff (dosen tetap), losses through enrollment in training programs, and remaining staff available to participate in and support teaching, research and public service programs. This information will be important in the formulation of annual training plans under the project. (This includes not only the four regional Faculties or Departments of Public Health, but also the Faculty of Public Health at the University of Indonesia. In particular, the monitoring system will provide information on the extent to which there are sufficient and appropriately qualified staff at FKM-UI for the successful teaching of S2 and S3 degree programs.)

In addition to the number of staff available for ongoing programs in each Faculty, the monitoring system will also track the qualifications of staff. There are two aspects to this part of the monitoring system. First, the Project Management Unit must be sure that appropriately qualified staff are available for the planned teaching, research and public service programs. Development plans cannot be allowed to outpace the available human resources.

Second, the progress of staff undergoing training (both overseas and domestic) needs to be recorded. It will be the responsibility of the Project Management Unit to ensure that individual Departments or Faculties plan the development of programs which are appropriate to the staff available. It will also be responsible for bringing to the attention of each university and the Directorate General of Academic Infrastructure Development the individual progress of staff undergoing training, noting any difficulties or delays encountered and ensuring that development plans are adjusted accordingly.

2) Teaching programs. In addition to monitoring staff development, the monitoring system must also provide information on the development of teaching programs in each university. This will include semi annual reports on the development of curricula, teaching materials, and library facilities. In monitoring the development of curricula, the monitoring system will provide information on the formulation and implementation of standardized courses, meeting appropriate criteria determined by the CHS, and the inclusion of innovations responsive to regional needs. Teaching materials and improved teaching methodologies supported by the project will also be part of the semi annual monitoring reports.

Here again, it is essential that this information be available before the annual planning meetings and form part of the basic material used in the formulation of plans for the next year of project activities and the allocation of project and GOI funds.

3) Research Program. The development of an active research program is one criterion for the establishment of a Faculty and constitutes another aspect of the monitoring system. The Project Management Unit will assist the Project Advisory Board and the Directorate of Academic Infrastructure Development in monitoring the growth of research activities and the use of project funds to support research. This will include reporting on the formulation of the research agenda for each Department or Faculty, the implementation of research projects, the quality and utility of results, and the extent to which research funds are being utilized in accordance with previously determined schedules.

4) Social Service Programs. In addition to research, Faculties are expected to undertake social service activities as another criterion for accreditation by the Ministry of Education and Culture. The Project Management Unit will monitor the kinds and relevance of social service programs planned, their implementation, and the results which have been achieved. This will provide part of the information required by the Ministry in determining whether a given Department has developed sufficiently to be granted Faculty status, and will also assist in the planning of the future use of project funds.

5) Academic Administration. The ongoing viability of a given Faculty depends in part on the extent to which it has been able to establish a system of academic administration which enables it to coordinate and manage both project funds and GOI budget allocations, to monitor student achievement, and sustain the efficient use of "capital" investments such as libraries and laboratory equipment. The Project Management Unit will monitor the progress made in each university towards the establishment of an efficient and effective system of administration.

b. FKM-UI as a Pembina Faculty

An essential element of the project strategy is the development of the Faculty of Public Health at the University of Indonesia as a "pembina" Faculty, capable of assisting the development of the four regional Departments or Faculties. As noted above, this will include the addition of the required number of permanent staff (dosen tetap) with the appropriate qualifications. In addition, the monitoring system will focus on the following aspects of the development of the FKM-UI.

1) Training Programs. By 1987 it is anticipated that FKM-UI will be able to accommodate 50 students in its S2 program in public health, and by 1990 will have a full S3 program. This includes appropriate curricula acceptable to the CHS, teaching materials and improved teaching methodologies. The monitoring activities of the Project Management Unit will track progress towards the realization of these benchmarks, including attention to the extent to which FKM-UI is adequately serving the needs of the four regional Faculties or Departments of Public Health.

2) Library and Information Dissemination System. The project plan calls for the establishment of an improved library system and periodical sharing program at FKM-UI. The Project Management Unit will monitor the use of project funds toward the establishment of such a system, highlighting the extent to which a viable and effective system has been established and is well utilized by regional Faculties and Departments.

A publication program is another aspect of the "pembina" role of FKM-UI. The monitoring system will provide periodic information on progress made in establishing a series of publications dealing with public health programs, including their quality, relevance and utility to both regional Faculties and Departments and other concerned agencies (Ministry of Health, BKKBN, and the provincial planning board or Bappeda). Indicators will include the number of publications, their professional quality, their distribution, and utility to the presumed audience.

3) Consultancies. Another aspect of the role of FKM-UI as a "pembina" Faculty is its ability to provide timely, useful and quality technical assistance to regional Departments and Faculties in the development of their programs of teaching, research and public service. The Project Management Unit will report on the extent to which there is a demand for such services from FKM-UI and an evaluation of the benefits which they have provided to the concerned institution.

c. Production of Trained Graduates

A basic rationale for the project is the production of trained graduates of public health Faculties to staff the nation's public health system. Therefore, a key responsibility of the monitoring system is to track the production of graduates from the four regional Faculties and

Departments of Public Health. The anticipated number of graduates is outlined below, and the Project Management Unit will provide regular information on progress toward achieving these benchmarks.

<u>Year</u>	<u>Cumulative Graduates</u>	
	<u>S1</u>	<u>S2</u>
1985	80	30
1986	190	60
1987	335	120
1988	480	180
1989	655	240
1990	830	300
1991	1120	360

A critical assumption of the project is that the graduates will not only be trained and successfully complete their studies, but also that a high number of them will go on from this training to serve in the national health system. It is important, therefore, that the monitoring system not only report on progress towards achieving these target figures, but also that the Ministry of Education and Culture and the Ministry of Health know that they go on to take up positions in the various units of the national health system. The Project Management Unit, therefore, will also be responsible for the first stages of a tracer study, reporting on how quickly graduates are employed, and whether they are employed in the national health system.

B. Evaluation

1. Mid-Term Evaluation

Using the routine monitoring information produced by the Project Management Unit, a mid-term evaluation of the project will be conducted after the third year of project implementation. It is anticipated that a team of four persons, consisting of domestic and external consultants, will be used for this purpose. The evaluation will examine the following:

- a. Progress towards the establishment of viable Faculties of Public Health at the four regional universities, examining staff numbers, qualifications, teaching, research, and public service programs for their quality, relevance, and efficacy, and the effectiveness of academic administration;
- b. the efficacy of FKM-UI as a pembina Faculty, including its S2 and S3 programs, library and information services, publications program, and consultation services; and the nature and appropriateness of the relationship between FKM-UI and the four regional Faculties of Public Health;

- c. The production of S1, S2 and S3 graduates, their employment and utility for the national health system (this will constitute a continuation of the tracer study initiated by the Project Management Unit as a part of its monitoring function);
- d. The appropriateness of project inputs to achieve project objectives;
- e. The appropriateness and efficiency of project administration;
- f. Required changes in project targets, administrative mechanisms, planning systems, and achievements.

The individuals conducting this evaluation should have some knowledge of the system of higher education in Indonesia, but should be independent of project implementation. One important focus of this evaluation will be recommendations on project implementation with the objective of improving the process of planning, executing, monitoring and assessing the use of project funds. At the same time, the evaluation will assess the validity of key project assumptions concerning the need for graduate of Faculties of Public Health and their utility in the nation's public health system.

2. Final evaluation

A final evaluation will be carried out during the last year of project implementation. The nature and focus of this evaluation will depend on the results of the mid-term evaluation and will be determined in the annual planning meetings. One task of the annual planning meeting will be the development and approval of key areas to be examined by the final evaluation team. Part of this effort will be internal assessments by each Faculty of Public Health concerning their progress toward the achievement of goals specified in their Five Year Development Plans. In addition, external consultants will be appointed to conduct an evaluation in accordance with the Scope of Work determined by the Directorate of Academic Infrastructure Development in consultation with USAID.

V. SUMMARY OF ANALYSES

A. Technical Analysis

The Technical Analysis documents the wide range of mortality and fertility indicators between regions in Indonesia and shows, through indirect indicators such as contraceptive prevalence, that the delivery and/or acceptance of proven health technologies varies tremendously between regions as well. Discrepancies are outlined between the public health strategies and service delivery approaches espoused by the MOH and BKKBN, and the capabilities of the predominantly medically trained personnel responsible for managing Indonesia's public health system. The analysis concludes that, public health training is suitable for managers at all levels. It outlines the manpower policies of the MOH and BKKBN as they affect public health graduates and presents three scenarios for the utilization of these persons by the two agencies between now and 1999. Under the first scenario, which is based on the desires of MOH and BKKBN program planners and which assumes continued growth in both agencies' programs and size, the cumulative maximum intake of new S1 and S2 public health graduates by 1999 would be 24,988 and 1,894 persons respectively. This far exceeds the "with project" anticipated supply of graduates of 3,150 and 860 persons. Under the second and more conservative scenario, based on manpower priority projections made by the field operations directors of each agency, the numbers decline to 12,658 new S1 and 1,344 new S2 employees by 1999. This still exceeds the anticipated availability of graduates by a considerable margin. Finally, scenario three, which postulates no growth at all in the size or personnel levels of either agency, indicates that the placement of four-year public health S1 degree holders into S1 designated positions which become vacant through normal attrition or advancement of non-S1 employees will alone require 5,880 new four-year S1 graduates by the turn of the century. Under this most conservative scenario, no employment difficulties are anticipated for two-year S1 or for S2 degree holders either since entrants to these programs, under all scenarios, are expected to be persons presently employed by these agencies who would return to their prior positions upon graduation. The analysis shows that anticipated positions for S3 graduates, primarily in teaching, will also exceed their availability over the period. Thus no employment difficulties for the graduates of either the S1, S2 or S3 programs supported by the project are expected.

B. Economic Analysis

The Economic Analysis details the cost-effectiveness of the project's approach with regard to 1) producing appropriately trained public health manpower, 2) upgrading faculty member skills, 3) improving faculty teaching and research, and 4) utilizing the PMU. The Analysis shows that the cost of utilizing upgraded Indonesian institutions to train public health manpower as required by the project goal is far less costly than the alternative of using U.S. schools. Project assistance will permit FKMs to graduate, over the life of the project, 560 S1's,

150 S2's and 10 S3's more than Indonesian institutions could produce over the same period without the project. As the Technical Analysis indicates, the supply of public health degree holders even with the project will not match demand by employers. Yet U.S. training for the 150 S2's alone, at about \$7.5 million, would almost exhaust the project budget. This ignores, of course, training savings after the project ends.

With regard to faculty upgrading, the Economic Analysis compares the total cost of the variety of faculty training offered by the project with the alternative cost of placing long-term expatriate staff at each FKM to teach both students and staff. The cost of this alternative would be prohibitive and significant negative indirect effects on the institutions would also be felt. A second alternative would be to train all faculty in Indonesia. Aside from the fact that the capability does not now exist in Indonesia to train the number of S3 faculty candidates planned under the project, the unquantifiable benefits of exposing S2 and S3 candidates to the U.S. credit system, to teaching methods used in the U.S., to well-established administration of public health education programs, and to professionals overseas with whom these graduates will maintain contact are believed to outweigh the additional cost.

In conjunction with the costs of the PMU, the analysis compares the estimated cost of assigning PMU project coordination responsibilities to expatriate contractors. The PMU approach is far less expensive and has the added benefit of transferring management skills and experience to Indonesians.

C. Social Soundness Analysis

The Social Soundness Analysis focuses primarily on the institutional aspects of the project. It reviews the present capabilities of each of the FKMs' the project will support and outlines the multiple institutional pressures they face in Indonesia such as the FKMs struggle for recognition and, ultimately, budgets against a pre-disposition toward medicine rather than public health. They must respond to direct guidance from the CHS, from the Rector of the university in which each is located and to the indirect demands of the MOH and BKKBN. One manifestation of the difficulties this can pose is that FKMs themselves often have little control over which students they accept.

A second set of pressures is imposed by the staff weaknesses the project is designed to address. Shortages of full-time qualified staff compel FKMs to rely on part-time lecturers whose partial integration into the teaching and research community often dilutes the quality of education offered. The limited number of full-time staff, though increasing over the life of the project, means that project-funded faculty training must not so further dilute the full-time staff that the initiation of new S1, S2 and research programs is jeopardized. During implementation, the number of faculty members departing for project financed training, must be managed carefully to assure a sufficient core staff remains in place.

The analysis, while cautioning that the project should not inadvertently encourage an overcentralized Pembina function, notes that FKM-UI is, in absolute terms, still a young institution. The demands of Pembinaan must not be set too high.

D. Administrative Analysis

The Administrative Analysis summarizes the roles of the CHS, PMU, the LMUs and FKM-UI in project administration. The Annex discussion is brief and is not repeated here.

VI. CONDITIONS AND COVENANTS

A. Conditions Precedent to First Disbursement

1. An opinion of the Minister of Justice of the Borrower that this Agreement has been duly authorized and/or ratified by, and executed on behalf of the Borrower/Grantee, and that it constitutes a valid and legally binding obligation of the Borrower/Grantee in accordance with all of its terms; and

2. A statement of the name of the person holding or acting in the Office of the Director General of Higher Education of the Ministry of Education and Culture specified in Section 9.2 of the Loan Agreement and Section 8.2. of the Grant Agreement; and of any additional representatives, together with a specimen signature of each person specified in such statement.

B. Condition Precedent to Disbursement for Project Activities Other than Technical Assistance:

Prior to disbursement of funds for project activities other than technical assistance, the Borrower/Grantee shall, except as A.I.D. may otherwise agree in writing, provide evidence that a Project Management Unit has been formally established, including a description of the Unit's positions, the names of persons assigned full-time to those positions, a first year's workplan and an outline of the general responsibilities of the Unit with regard to each major component of the project.

C. Conditions Precedent for Selected Activities

1. Condition Precedent to Disbursement for Training Activities after IFY 85/86. Prior to the disbursement of funds under the Loan, or to issuance by A.I.D. of documentation pursuant to which disbursement will be made for training activities after IFY 85/86, the Borrower/Grantee shall, except as AID may otherwise agree in writing, submit an annual training plan acceptable to AID for that project year. The first annual plan which includes long term training overseas, shall lay out the mechanisms to undertake this training including any necessary contractual arrangements with BKKBN.

2. Conditions Precedent to Disbursement for Research. Prior to disbursement of funds for research the Borrower/Grantee shall, except as AID may otherwise agree in writing, submit a research plan acceptable to AID which, for the succeeding twelve month period of the project, lists the criteria used to select project-funded research studies, explains the relationship of each proposed research study to project objectives, and describes the purpose, methodology and estimated costs of each proposed research study.

3. Condition Precedent to Disbursement for Computer Equipment or Teaching Equipment. Prior to disbursement of funds for computer equipment or for teaching equipment for the PMU, or for project-assisted FKMs, the Borrower/Grantee shall, except as AID may otherwise agree in writing, submit an assessment of equipment needs, a list of equipment specifications and a plan for procurement.

D. Covenants

1. The Borrower/Grantee agrees to provide sufficient funds to maintain and supply equipment furnished under the Project.
2. The Borrower/Grantee agrees to take all necessary steps to ensure that participant trainees return to positions which fulfill the purpose of their training and of project objectives.
3. The Borrower/Grantee agrees that loan funds may be used to finance the costs of in-country and off-shore short term training, or training of less than 90 days duration.
4. The Parties agree to establish an evaluation program as part of the Project. Except as the Parties otherwise agree in writing, the program will include, during the implementation of the Project and at one or more points thereafter: (a) evaluation of progress toward attainment of the objectives of the Project; (b) identification and evaluation of problem areas or constraints which may inhibit such attainment; (c) assessment of how such information may be used to help overcome such problems; and (d) evaluation, to the degree feasible, of the overall development impact of the Project.

AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT IDENTIFICATION DOCUMENT
FACESHEET (PID)

1. TRANSACTION CODE

Revision No.

DOCUMENT
CODE

1

 A = Add
 C = Change
 D = Delete

2. COUNTRY/ENTITY

Indonesia

3. PROJECT NUMBER

497 -0348

4. BUREAU/OFFICE

A. Symbol

ASIA

B. Code

04

5. PROJECT TITLE (maximum 40 characters)

Faculties of Public Health

6. ESTIMATED FY OF AUTHORIZATION/OBLIGATION/COMPLETION

A. Initial FY 85

B. Final FY 86

C. PACD 92

7. ESTIMATED COSTS (\$000 OR EQUIVALENT, \$1 =)

FUNDING SOURCE		LIFE OF PROJECT
A. AID		9,000
B. Other	1	
U.S.	2	
C. Host Country		3,750
D. Other Donor(s)		
TOTAL		14,750

8. PROPOSED BUDGET AID FUNDS (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. 1ST FY 85		E. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1)	520	4000	5000	1500	5000	4000	5000
(2)							
(3)							
(4)							
TOTALS				1500	5000	4000	5000

9. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

560 631 510 530 978

10. SECONDARY PURPOSE CODE

11. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	NUTR	TNG	PART	RDEV
B. Amount	2000	1150	1000	100

12. PROJECT PURPOSE (maximum 480 characters)

To develop regional centers of excellence in public health education and research by strengthening the public health training programs in selected universities.

13. RESOURCES REQUIRED FOR PROJECT DEVELOPMENT

Staff: Mission Project Committee: 6 people
No AID/W TDY required

Funds PDS FY 85: \$40,000

- Support for the 3-day consultative meeting;
- Three man-months of support for host-country counterpart.

14. ORIGINATING
OFFICE
CLEARANCE

Signature

Title

Chief
Office of Population & Health

Date Signed

MM DD YY
01 25 8515. DATE DOCUMENT RECEIVED IN
AID/W. OR FOR AID/W. DOCU-
MENTS, DATE OF DISTRIBUTION

MM DD YY

16. PROJECT DOCUMENT ACTION TAKEN

S = Suspended CA = Conditionally Approved
 A = Approved DD = Decision Deferred
 D = Disapproved

17. COMMENTS

18. ACTION
APPROVED
BY

Signature

Title

William P. Fuller
Director, HEATH/Indonesia

19. ACTION REFERENCE

20. ACTION DATE

MM DD YY
01 25 85

FACULTIES OF PUBLIC HEALTH
LUDFHWAL

Annex B

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																																
To assist the GOI to achieve its fertility and mortality objectives by providing the appropriately trained public health manpower.	-fertility, infant mortality, child mortality and maternal mortality rates. -increased intake of graduates trained by the project into public health services and the private sector.	-annual deptes reports giving IHR, MFR, CMR and ChR. -FAM records of graduate placements: Deptes, BIR/BR, and ABRI records of employee educational background.	-the quality and quantity of trained public health manpower is a necessary condition for achieving GOI public health goals. -sufficient GOI budgets for additional health staff positions. -sustained or increased GOI funding for public health and family planning programs. -continued GOI adherence to health strategy policy stated in the National Health System (SNM).																																
To expand and regionalize public health education and research in Indonesia.	1. Four fully accredited FMs at UHMAS, UNAIR, USU, and UNIF. 2. FAM-UI being utilized as a Feasina Faculty by the regional Universities. 3. Graduates of the FMs employed by MDH, BIR/BR, MEC, and other health and family planning agencies (1120 S1s and 360 S2s).	-routine reports from FMU based upon monitoring information system. -midproject review/final evaluation -FAM records of graduate employment. -GOI faculty accreditation process.	-project demonstrates the value to local and national health authorities of FAM contributions to research, policy, and program analysis and formulation. -Feasina role of FAM-UI is maximized by regional FMs. -there are sufficient candidates to fill the new S1, S2, and S3 student intake capacity of the FMs.																																
1. four new faculties of public health (FAM) each with: -a minimum of 30 full-time teaching staff with improved teaching/research capability. -upgraded library, data, lab and admin. resources -operational S1 and S2 degree programs 2. capability of FAM-UI as Feasina institution: -25 additional full-time teaching staff -upgraded staff teaching/research capability -upgraded library, data, lab and admin. resources -an operational S3 degree program 3. completed research/pilot projects/feas. studies: -at least 5 per FAM (including UI) conducted in collaboration with local and national public health authorities 4. a total of 1,210 S1 and 140 S2 graduates from the five cooperating universities in FYs 85/86 through 91/92.	-the first intake of students into new two-year S1, new four-year S1 and new S2 programs. -the first intake of students into the FAM-UI S3 program. -formal recognition of the creation of new FAM s.	-regional FAM records. -midproject review/final evaluation -FAM-UI records. -Presidential Decree. -research results reports and discussion with FRI and public health staff.	-MS and PhD candidates in training overseas (project 47/52) or due to depart under that project by 1987 complete their programs and assume FAM staff positions. -additional staff trainees supported by the project complete their programs and assume FAM staff positions. -local health and family planning authorities contribute, financially and substantively, to collaborative research, pilot projects, and feasibility studies with the FAM s. -annual FAM increases in staff positions are approved annually by BIR/BR.																																
-faculty and staff training -commodities -technical assistance -research/feasibility studies/pilot projects -seminars -infrastructure operations -project management -evaluation/audit -inflation/contingenc. TOTAL	<table border="1"> <thead> <tr> <th></th> <th>USAID</th> <th>GOI</th> </tr> </thead> <tbody> <tr> <td></td> <td>3,612</td> <td>1,412</td> </tr> <tr> <td></td> <td>650</td> <td>1,164</td> </tr> <tr> <td></td> <td>2,244</td> <td>110</td> </tr> <tr> <td></td> <td>850</td> <td>900</td> </tr> <tr> <td></td> <td>83</td> <td>205</td> </tr> <tr> <td></td> <td></td> <td>5,013</td> </tr> <tr> <td></td> <td>340</td> <td>292</td> </tr> <tr> <td></td> <td>94</td> <td></td> </tr> <tr> <td></td> <td>1,117</td> <td></td> </tr> <tr> <td>TOTAL</td> <td>7,000</td> <td>5,076</td> </tr> </tbody> </table>		USAID	GOI		3,612	1,412		650	1,164		2,244	110		850	900		83	205			5,013		340	292		94			1,117		TOTAL	7,000	5,076	-project conditions precedent are met as scheduled. -annual GOI project budgets are sufficient to meet counterpart funding targets. -sufficient candidates for faculty training.
	USAID	GOI																																	
	3,612	1,412																																	
	650	1,164																																	
	2,244	110																																	
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	340	292																																	
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	1,117																																		
TOTAL	7,000	5,076																																	

ANNEX B

STATUATORY CHECKLIST
PROJECT CHECKLIST

Listed below are statutory criteria applicable generally to projects under the FAA and project criteria applicable to individual funding sources: Development Assistance (with a subcategory for criteria applicable only to loans); and Economic Support Funds.

A. GENERAL CRITERIA FOR PROJECT

1. FY 1982 Appropriation Act, Sec. 523; FAA Sec. 634A; Sec. 653 (b).

(a) Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project;
(b) Is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that amount)?

a. The Committees in Appropriation of Senate and House were notified of the project through the FY85 Congressional Presentation (Asia Program Annex Page 91) and through a Congressional Notification (Jakarta 9838 and State 192749 reply to proceed).

b. Yes

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

Yes

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No further legislative action is required.

4. FAA Sec. 611(b); FY 1982 Appropriation Act Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources, dated October 25, 1973? N/A
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project? N/A
6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs. No
7. FAA Sec. 601(a). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives, and credit unions, and savings and loan associations; (d) The project has no direct bearing on a, c, d, e, or f. Project research into private sector opportunities in health service delivery will indirectly encourage b.

discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise.)
- The project will not directly encourage U.S. private trade and investment abroad. Private U.S. contractors are expected to provide all of the non-Indonesian Technical Assistance under the project.
9. FAA Sec. 612(b), 636(h); FY 1982 Appropriation Act Sec. 507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.
- Normal project disbursement procedures ensure this. In addition, the local currency contribution by the U.S. is only 31% of the total local currency costs. The U.S. does not have an excess of Rupiah for use under this project.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?
- No
11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?
- Yes

12. FY 1982 Appropriation Act Sec 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? N/A
13. FAA 118(c) and (d). Does the project take into account the impact on the environment and natural resources? If the project or program will significantly affect the global commons or the U.S. environment, has an environmental impact statement been prepared? If the project or program will significantly affect the environment of a foreign country, has an environmental assessment been prepared? Does the project or program take into consideration the problem of the destruction of tropical forests? The project consists primarily of training, technical assistance, and research. Impact on the environment will be negligible or none (see Environmental Certification).
14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)? N/A

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance
Project Criteria

a. FAA Sec. 102(b), 111, 113, 281 (a).

Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

b. FAA Sec. 103, 103A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used?

The project does not directly involve income-generating production enterprises or investment for production. It does not involve cooperatives or regional cooperation between countries. It does promote direct public health benefits for the primarily poor target population for whom public health services are the most effective health approach. The involvement of local institutions in determining health strategies appropriate to local conditions is a centerpiece of the project. Women's status is improved in two ways: a) public health service is one of the greatest areas of professional employment opportunity for women in Indonesia - a significant portion of project trainees (about 30%) will be women; b) maternal health is one of the primary targets for improvement by means of project-assisted improvements in public health manpower.

Yes

65

c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

The project does not involve income-generating activities or technology. In the field of public health, the project directly encourages development of appropriate health delivery systems i.e., preventative health programs tailored to local needs.

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

Yes

e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project over more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country "relatively least developed"?

No

f. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

Yes

g. FAA Sec. 281 (b). Describe extent to which program recognizes the particular needs,

The project supports established Indonesian government policy to pursue a public health approach to health care and, specifically, to

desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.

increase indigenous capacity and skills for further developing public health training and service delivery.

2. Development Assistance Project Criteria (Loans Only)

a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, at a reasonable rate of interest.

The Government of Indonesia is able to repay the loan and is not presently in default on any U.S. Government loans.

b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan?

N/A

c. ISDCA of 1981, Sec. 724(c) and (d). If for Nicaragua, does the loan agreement require that the funds be used to the maximum extent possible for the private sector? Does the project provide for monitoring under FAA Sec. 624(g)?

N/A

5C(3) - STANDARD ITEM CHECKLIST

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

- | | |
|---|-----|
| 1. <u>FAA Sec. 602.</u> Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed? | Yes |
| 2. <u>FAA Sec. 604(a).</u> Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him? | Yes |
| 3. <u>FAA Sec. 604(d).</u> If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company? | N/A |
| 4. <u>FAA Sec. 604(e); ISDCA of 1980 Sec. 705(a).</u> Is offshore procurement of agricultural commodity or product is to be | N/A |

financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.)

5. FAA Sec. 604(c). Will construction or engineering services be procured from firms of countries otherwise - eligible under Code 941, but which have attained a competitive capability in international markets in one or these areas? N/A
6. FAA Sec. 603. Is the shipping excluded from compliance with requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent that such vessels are available at fair and reasonable rates? No
7. FAA Sec. 621. If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? If the facilities of other Yes

Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

8. International Air Transport. Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available? Yes, although grant funded transportation is not anticipated.
9. FY 1982 Appropriation Act Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States? Yes
- B. Construction
1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services to be used? N/A
2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? - N/A

3. FAA Sec. §20(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the CP)? N/A

C. Other Restrictions

1. FAA Sec. 122(b). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter? Yes

2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? N/A

3. FAA Sec. 620(b). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? Yes

4. Will arrangements preclude use of financing:

- α. FAA Sec. 104(f); FY 1982 Appropriation Act Sec. 525: (1) To pay for performance of abortions as a method of family Yes

planning or to motivate or coerce persons to practice abortions; (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (3) to pay for any biomedical research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; (4) to lobby for abortion?

b. FAA Sec. 620(g). To compensate owners for expropriated nationalized property? Yes

c. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? Yes

d. FAA Sec. 662. For CIA activities? Yes

e. FAA Sec. 636(i). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? Yes

f. FY 1982 Appropriation Act, Sec. 503. To pay pensions, annuities, retirement pay, or

adjusted service
compensation for military
personnel?

g. FY 1982 Appropriation
Act, Sec. 505. To pay
U.N. assessments,
arrearages or dues?

Yes

h. FY 1982 Appropriation
Act, Sec. 506. To carry
out provisions of FAA
section 209(d) (Transfer
of FAA funds to
multilateral
organizations for
lending)?

Yes

i. FY 1982 Appropriation
Act, Sec. 510. To
finance the export of
nuclear equipment, fuel,
or technology or to train
foreign nationals in
nuclear fields?

Yes

j. FY 1982 Appropriation
Act, Sec. 511. Will
assistance be provided
for the purpose of aiding
the efforts of the
government of such
country to repress the
legitimate rights of the
population of such
country contrary to the
Universal Declaration of
Human Rights?

Arrangements preclude
financing for such
purposes.

k. FY 1982 Appropriation
Act, Sec. 515. To be
used for publicity or
propaganda purposes
within U.S. not
authorized by Congress?

Yes



**REPUBLIC OF INDONESIA
NATIONAL DEVELOPMENT PLANNING AGENCY**

2. Jl. Taman Suropati . Jakarta . Indonesia
Phone : 336207

No. : 7.53/K/6/1985

JAKARTA, June 10, 1985

Encl. :

Mr. William P. Fuller
Director
USAID Mission
c/o American Embassy
Jakarta

Re : Faculties of Public Health Project

Dear Mr. Fuller,

Having discussed the Faculties of Public Health Project with the Ministry of Education and Culture, Ministry of Health and the BKKBN, we herewith request a loan of up to 5 million United States Dollars (US\$ 5.0 million) and a grant of up to 4 million United States Dollars (US\$ 4.0 million). The Government of Indonesia will provide the Rupiah equivalent of US\$ 9.0 million in cash and in kind to support this project over its seven-year life.

The purposes of the project are as follow :

- A. To support the existing Government of Indonesia program for developing public health higher education capabilities;
- B. To establish four new faculties of public health at four universities : Hasanuddin University at Ujung Pandang, Airlangga University at Surabaya, Diponegoro University at Semarang and the University of North Sumatra at Medan;
- C. To strengthen the capacity of the Faculty of Public Health of the University of Indonesia to become a National Resource Center for Higher Education in public health throughout Indonesia; and
- D. To assist in the development of region-specific public health services through collaborative research with the new faculties of public health.

The project will be implemented by the Ministry of Education and Culture.

Looking forward to your favourable consideration.

Sincerely yours,



J.B. Sumarlin
National Development Planning/
Chairman of Bappenas

Cc. :

Minister of Education
and Culture

Environmental Assessment

This project fulfills the criteria for Categorical Exemption to Part 216, Environmental Procedures 2 [22CR]F as approved in the PID.

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TECHNICAL ANALYSIS

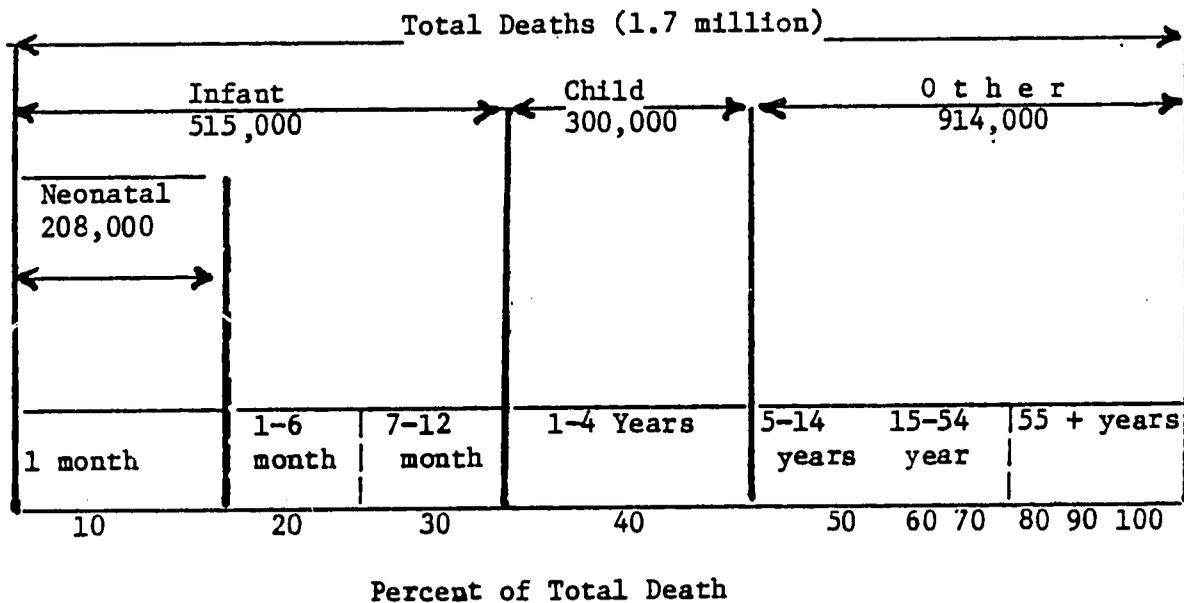
A. Fertility, Mortality and Regional Variations

The Indonesian archipelago is distinguished by its ethnic, cultural, social, and geographic diversity. Geographically, it varies from the semi-arid islands of Nusa Tenggara, to the lowland rainforests of Kalimantan, to the remote mountainous regions of Irian Jaya. From Merauke in the east to Sabang in the west, Indonesia's horizontal expanse is 5110 km., exceeding that of the continental U.S. The archipelago consists of 13,667 islands populated by no fewer than 320 ethnic groups, each with their own language, customs, and cultural heritage. About 62% of Indonesia's population lives on the island of Java which contains only 6.9% of its land mass. Java's population density of 733 persons/sq.km. makes it the densest agricultural land population in the world. In comparison, the other islands are relatively underpopulated. Although four times larger than Java, Sumatra has only one third its population. Kalimantan, roughly the size of Texas, has only 7 million people. Oil, natural gas, timber, minerals, and fertile agricultural land are found in abundance.

Despite its enormous natural wealth and consistently high economic growth, the Government of Indonesia has found the realization of some national development objectives elusive. Persistent high levels of fertility and the environmental and social determinants of high infant, child and maternal mortality have been identified as major obstacles. Indonesia's 1984 mid year population of 161 million people makes it the fifth most populous country in the world. The annual population growth rate of 2.0% translates into an absolute population increase of 3.2 million people yearly. High fertility during the 1960's and 1970's has left the population age structure skewed toward younger age groups, with about 41% of the total population below 15 years of age. Indonesia's youthful age structure will result in a net increase of 2.5 million eligible couples in the reproductive age groups each year for the next five years, and two million people will enter the work force annually, taxing the economy's ability to absorb them. Based upon 1980 census data the Total Fertility Rate in 1984 was in the range of 3.8 - 4.3 with a median value of 4.05; projections stipulate a decline to replacement fertility by 2020. The growth momentum generated by Indonesia's youthful age structure will result in continued absolute growth into the 22nd century with the population leveling off at 338-400 million, surpassing the anticipated populations of the U.S. and USSR and making Indonesia the fourth largest country in the world behind China, India and Nigeria.

Reductions in crude birth rates (44/1000 population in 1971 to 32.4/1000 population in 1984) have had a moderating effect upon absolute population growth. Equally impressive reductions have also been achieved in crude death rates (19/1000 population in 1971 to 11.7/1000 population in 1984). But a disproportionate percentage of deaths occur in children less than five years of age (Figure F.1). In 1980 there were 1.7 million total deaths in Indonesia, with 48% occurring in children less than five years of age, 30% in children less than one year of age, and 12% in children less than one month of age. Another 2.5% of deaths are caused by diseases of pregnancy and the puerperium. Together, infant, child, and maternal mortality comprise more than 50% of total mortality annually. Given proper public health interventions, the great majority is preventable.

Figure F.1: Age Distribution of Total Deaths in Indonesia, 1980



Source: An Analysis of the Situation of Children and Women in Indonesia, Central Bureau of Statistics and UNICEF, Jakarta, August 1984.

Major causes of death in the neonatal, post-natal, and childhood periods are shown in Table F.1. Tetanus neonatorum and birth related injuries comprise 66% of all mortality in the neo-natal period, and respiratory ailments and diarrheal diseases cause 65% of post-natal mortality. These plus meningitis account for 72% of all childhood mortality. Health technologies currently exist to prevent or treat all of these diseases.

Table F.1: Principal Causes of Infant and Child Death in Indonesia, 1980

	Neonatal (%) (0-1 month)	Post-Natal (%) (1-11 months)	Child % (1-4 years)	Total %
1. Infections and parasitic diseases	54	45	46	47
- diarrheal	(9)	(33)	(34)	(28)
- Tetanus	(43)	(5)	(2)	(13)
- Other	(2)	(7)	(10)	(6)
2. Influenza and Pneumonia	11	29	28	24
3. Birth injuries and other perinatal	23	-	-	6
4. Meningitis	2	11	14	10
5. Nutrition	-	1	1	05
6. All other causes	10	14	11	12

Source: Department of Health, Household Health Survey, 1980
Data from R. Puffer, "Infant & Childhood Mortality", 1983.

In 1980, the Infant Mortality Rate (IMR) was 98/1000 live births, and decreased to 90/1000 live births in 1984. The Childhood Mortality Rate (CMR) was estimated to be 21/1000 for children ages 1-4. As can be seen in Table F.2, Indonesia's IMR is nearly twice as high as its ASEAN neighbours in the Philippines and Thailand, and childhood mortality is five times the level of Sri Lanka and Thailand, and closer to rates in Afghanistan or Egypt. Childhood mortality is considered by some to be an even more sensitive indicator of poverty and social conditions than IMR, since the protective effects of breastfeeding are removed, and the experience of older children is more representative of health related environmental conditions than the experience of infants. Indonesia's high childhood mortality reflects the poor environmental and social conditions prevailing in most of the country.

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Table F.2: IMR and Childhood Mortality Rates (per 1000) in Selected Developing Countries

	IMR (1980)*	Childhood Mortality Rates** (1976)
Indonesia	98	21
Philippine	55	8
Thailand	55	4
Sri Lanka	44	4
Afghanistan	-	24
Egypt	-	25

* Source: World Bank World Development Report, 1989

** Source: Central Bureau of Statistics, The Indonesian Child in Maps

Data on maternal mortality is still incomplete because 80% of births occur in the home, and related deaths are usually unreported. Best estimates place Indonesia's Maternal Mortality Rate (MMR) at 37/1000 pregnancies, roughly eight times the rates in developed countries. Contributing risk factors are poor nutritional status and anemia, poor hygiene, close pregnancy intervals, high parity pregnancies, pregnancies in non-optimal childbearing ages, and inadequate ante-natal care.

Indonesia's ethnic, cultural, environmental and geographic diversity is reflected in the wide differentials of fertility and mortality within the country. Java's population density of 733 persons/sq. km. leaves the population readily accessible for the delivery of health and family planning services, unlike the larger and more sparsely inhabited outer islands. The population density in the mountainous and heavily forested islands of Sumatera, Kalimantan and Sulawesi is 66, 14, and 59 persons/sq.km respectively. The semi-arid islands of Nusa Tenggara have a population density of 101 persons/sq. km. These populations are more dispersed, living in regions more remote and less hospitable. This ultimately affects food availability, communications, and the accessibility, availability and acceptability of health and family planning services.

The diversity is reflected in provincial service and vital statistics as illustrated in Table F.3. IMR varies by 125 deaths/1000 live births, from 62 in Yogyakarta to 187 in West Nusa Tenggara. The TFR range is nearly 3 points, from 3.10 in Yogyakarta to 5.934 in Maluku. And contraceptive prevalence varies from 74% in Bali to 6.8 % in East Timur, a range of 67%. Significant differentials exist even within islands, with the most populated and accessible island, Java providing an excellent example. Although West Java is only a few hundred kilometers from Yogyakarta, its infant mortality rate is twice Yogyakarta's and its TFR is 60% higher. Strategies and delivery systems which are effective in Bali, Yogyakarta, and East Java might be inappropriate operationally for West Java, Maluku or Irian Jaya.

The diseases causing infant, child, and maternal mortality are all preventable with existing public health and biomedical technologies. Effective contraceptive technologies have been available for many years. Great progress has been achieved in reducing mortality and fertility, but further progress will depend upon more effective management of delivery systems to make these technologies accessible to rural populations. Manpower policies of both the MOH and BKKBN aim to provide appropriate manpower with the necessary technical and managerial skills to effectively manage existing systems for the delivery of health and family planning services. The MOH has established the S1 and S2 Public Health degrees as the requisite academic credentials for managers of its national public health program. BKKBN has identified public health as one of the five areas of professional expertise that its staff should possess. This project will provide both agencies with technical and managerial personnel with educational backgrounds in Public Health.

B. Academic Training in Public Health

The science and practice of Public Health is concerned with the prevention and control of disease in communities, as opposed to the science and practice of medicine which is concerned with the treatment of disease in individuals and rehabilitation following its sequelae. In view of the different philosophies, methodologies, and target audiences of these two components of "health care", the approach to training manpower in either discipline are necessarily divergent. The basic sciences of Public Health are Biostatistics and Epidemiology. The major disciplines are Administration and Management, Health Education, Maternal/Child Health, and Environmental Health. The basic medical sciences are Anatomy, Physiology, Biochemistry, Microbiology, Pathology and Pharmacology. The major medical disciplines are Internal Medicine, Surgery, Obstetrics/Gynecology, and Pediatrics. In theory, they are not mutually exclusive; a Public Health professional should have an educational foundation in the medical sciences and a medical professional should have an educational foundation in the Public Health Sciences. In practice they frequently operate at cross purposes.

Table F.3: Population Size, Population Density, Total Fertility Rates (TFR), Infant Mortality Rates (IMR) and Contraceptive Prevalence by Province

	Population* (000)	Density* (Person/Km)	TFR*	IMR*	Contraceptive ** Prevalence %
<u>Java</u>	<u>91,282</u>	<u>691</u>	-	-	-
D.K.I. Jak.	6.506	11,027	4.05	80	57.6
West Java	27.490	593	4.88	129	64.8
Central Java	25.365	742	4.10	96	71.3
DI Yogyakarta	2.745	866	3.10	62	73.4
East Java	29.175	609	3.38	99	72.8
<u>Sumatera</u>	<u>27.890</u>	<u>59</u>	-	-	-
DI Aceh	-	-	-	91	48.9
Lampung	4,622	138	5.55	97	53.3
Bengkulu	768	37	5.83	106	53.5
South Sumatera	4,621	44	5.28	98	57.1
Riau	2,163	22	5.13	113	21.7
Jambi	1,440	32	5.16	118	33.9
West Sumatera	3,402	68	4.92	121	52.1
North Sumatera	8,357	119	5.31	89	57.4
<u>Kalimantan</u>	<u>6,721</u>	<u>13</u>	-	-	-
West Kalimantan	2,483	17	5.12	116	49.4
C. Kalimantan	950	7	5.49	100	27.9
South Kalimantan	2,069	55	4.39	121	61.0
East Kalimantan	1.219	7	5.19	99	31.6
<u>Sulawesi</u>	<u>10,377</u>	<u>55</u>	-	-	-
Central Sulawesi	1,289	18	5.50	128	33.5
North Sulawesi	2.091	110	4.56	94	70.3
South Sulawesi	6,054	83	4.59	108	64.7
S.E. Sulawesi	943	34	5.69	114	32.4
<u>Bali</u>	<u>2,470</u>	<u>426</u>	<u>3.75</u>	<u>88</u>	<u>74.7</u>
<u>West Nusa Tenggara</u>	<u>2,724</u>	<u>135</u>	<u>5.57</u>	<u>187</u>	<u>56.3</u>
<u>East Nusa Tenggara</u>	<u>2,722</u>	<u>57</u>	<u>5.28</u>	<u>124</u>	<u>19.3</u>
<u>Maluku</u>	<u>1,407</u>	<u>19</u>	<u>5.93</u>	<u>124</u>	<u>19.8</u>
<u>Irian Jaya</u>	<u>1,146</u>	<u>3</u>	<u>5.41</u>	<u>106</u>	<u>11.8</u>
<u>East Timor</u>	<u>553</u>	<u>-</u>	<u>3.67</u>	<u>-</u>	<u>6.8</u>

* Source : 1980 Census Data

** Source : BKKBN Monthly Service Statistics February 1985

Indonesia's Ministry of Education and Culture, through its Consortium for Health Sciences, has developed a curriculum for a Bachelor of Science degree (S1) in Public Health. A total of 144 Semester credit hours of coursework is necessary to fulfill the academic requirements for a degree, of which 120 credit semester hours are compulsory coursework and the remainder electives. The compulsory courses consist of 10% basic social science, 20% basic medical science and internal medicine, and 70% (80 semester credit hours) in the public health sciences. Public health credits include the basic public health sciences and disciplines, plus coursework in minor public health disciplines such as nutrition, family planning, parasitology, and communicable disease control. Elective credits are used for more in-depth specialization in one of Public Health's basic or major/minor disciplines.

The Masters degree (S2) in Public Health in Indonesia is 60 semester credit hours in duration. Graduates can obtain the Masters of Public Health (MPH), a generalist degree, or the Master of Sciences in one of the eight areas of specialization. At present, applicants to the S2 program must be physicians, dentists, veterinarians, pharmacists, or holders of an S1 degree in Public Health. In the future, applicants with educational backgrounds in the social and administrative sciences will also be considered for admission to the S2 program in Public Health.

Nearly all upper and mid-level managers in the MOH's public health system have educational backgrounds in the medical sciences. The result is a gap between their educational backgrounds and the knowledge and skills needed to perform in their positions within a public health system. A similar situation exists within BKKBN; the technologies needed to reduce fertility and prevent the major causes of infant, child, and maternal mortality already exist in Indonesia. Delivery systems to make these technologies accessible to rural communities either have been developed and are currently in place, or are being developed and tested. Yet fertility and mortality remain relatively high, and service delivery sporadic and inconsistent. Both the MOH and BKKBN acknowledge that qualified manpower is the remaining ingredient necessary for more effective delivery of public health services, and that the first step will be recruiting personnel whose educational backgrounds prepare them with the skills they will need to do their jobs. At the present time an educational background in Public Health is considered the basic qualification needed by most lower and mid-level managers in the MOH, and a smaller yet significant percentage of managers in BKKBN.

C. Projected Utilization of Public Health Graduates

Both the MOH and BKKBN have developed personnel plans for utilizing public health graduates produced through this project. An understanding of these plans requires an analysis of organizational structures and personnel policies of each agency as described below.

1. Ministry of Health

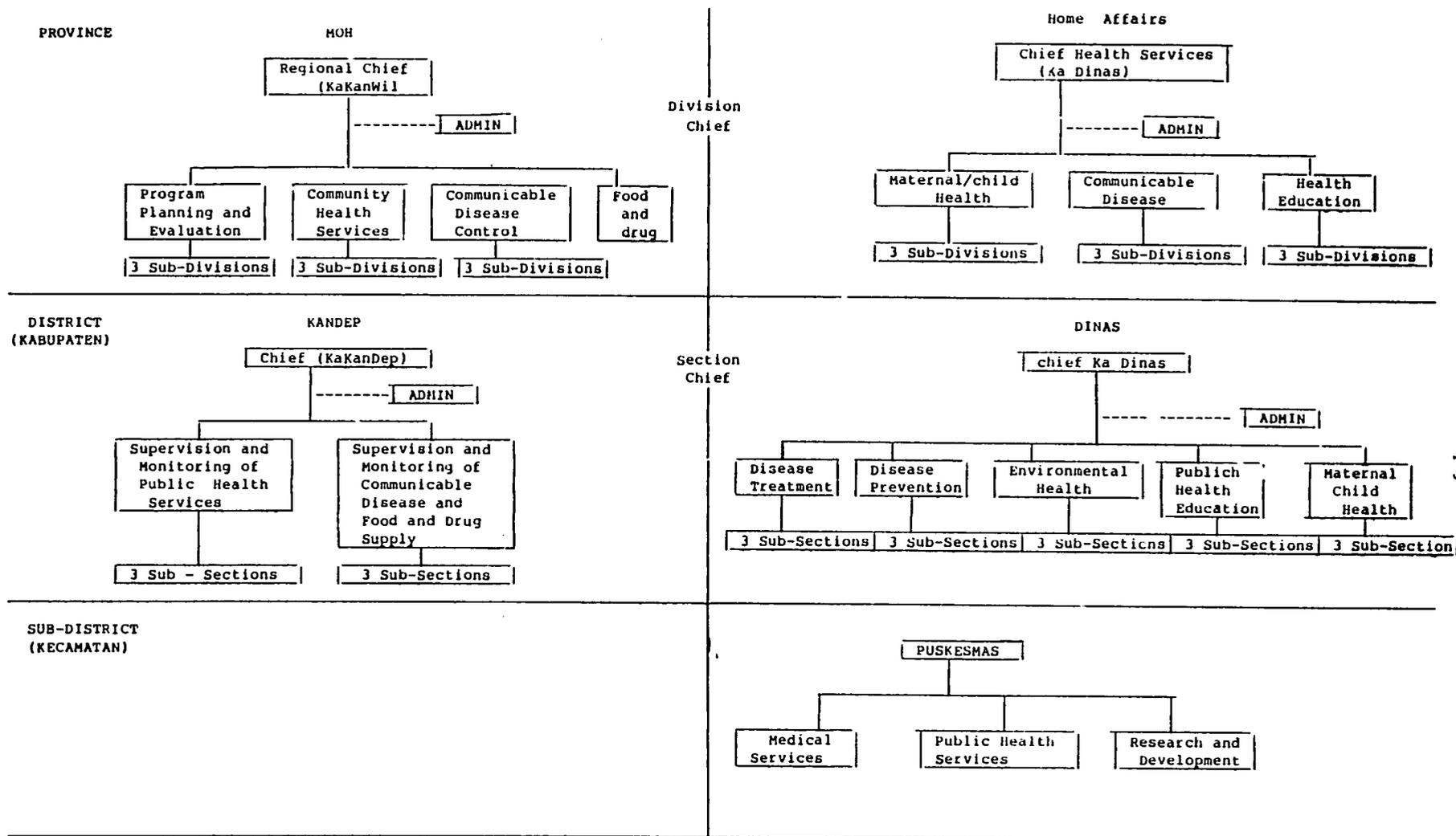
By far the largest employer of Public Health graduates, the MOH has identified specific roles for S1 and S2 graduates in its national public health delivery network over the next 15 years. Like other line Ministries, the MOH has a central organizational structure consisting of a Secretary General and Director Generals with accompanying Directorates and Sub-Directorates. At the provincial and district administrative levels, responsibility for health service delivery bifurcates as shown in Figure F.2, with the MOH responsible for planning and supervision, and the Ministry of Home Affairs, through the Governor and Bupati, responsible for service delivery. At the sub-district (Kecamatan) level, the health center or PUSKESMAS under Home Affairs is the major service delivery site. However, whether MOH or Home Affairs managed, personnel are provided by the MOH.

The separation of responsibility for health service planning and delivery at the province and kabupaten levels occurred in 1979. Effectiveness has been compromised by a lack of staff. In all provinces the Kanwil and KaDinas positions are occupied by the same person. The larger provinces have separate division and sub-division chief staff in the KanWil and Ka Dinas offices, but in the smaller, more remote provinces staff are forced to hold joint positions. At the sub-district level the Ka Kandep and Ka Dinas are the same person, and section chiefs from the Ka Dinas office occupy, by necessity, the section chief positions in the Kandep office. During Pelita IV, V and VI, the MOH plans to strengthen its Kandep Kabupaten services and develop its existing community health centers (PUSKESMAS) into Community Development Centers as shown in Figure F.2, with a medical service, public health service, and research and development branch.

The MOH envisions a prominent role for public health graduates in strengthening its public health infrastructure especially at the District and Sub-District levels. To understand the MOH's plan for utilization of graduates from the new Faculties of Public Health it is first necessary to explain the types of personnel who currently staff the MOH's Public Health program at the various administrative levels:

a. Provincial level: Division chiefs, either MOH or Home Affairs, from the larger provinces (Java, Bali, South Sulawesi, North Sumatera, etc.) are usually physicians or pharmacists (Food and Drug Division). Sub-Division chiefs are generally graduates of three-year technical academies in nursing, sanitation, or nutrition. In the smaller, more remote provinces Division Chiefs as well as Sub-Division Chiefs are frequently academy graduates. Managerial staff at the provincial level currently have more technical, medically-oriented educational backgrounds rather than skills in the public health sciences.

Figure F.2: Provincial and Sub-District Organizational Structure of MOH and Home Affairs Health Services



ht

b. District (Kabupaten) level: The Ka Kandep/Ka Dinas is always a physician. Section chiefs in the large provinces (East, Central, and West Java) are frequently physicians also, but their Sub-Section chiefs are usually Academy graduates. The Section and Sub-Section Chief positions in the KanDep office are jointly held by their counterparts in the Dinas Office.

c. Sub-District (Kecamatan) level: The Public Health Center (PUSKESMAS) is headed by a physician. Most of these are recent graduates posted to PUSKESMAS' throughout the country for two to five years through the InPres program. Their orientation is primarily medical and their tenure rarely exceeds the mandatory assignment. As a result, the PUSKESMAS functions primarily as a medical out-patient clinic with little public health perspective. The MOH plans to develop the PUSKESMAS into a Community Development Center by adding a staff person who will be in charge of Public Health Services as well as Research and Development, while the physician will remain in charge of medical services.

The Ministry of Health's plan for utilizing graduates from the new FKM's for PELITA IV, V, and VI is shown in Table F.4. It can be summarized as follows:

a. Repelita IV (1985 - 89): efforts will focus on upgrading provincial Division and Sub-Division Chiefs and district Section and Sub-Section Chiefs who are Academy graduates to the S1 level in Public Health through the two-year S1 degree program. The MOH estimates that there are 4,064 persons currently in this target category. Masters degrees in Public Health (S2) will be sought for Directorate and Sub-Directorate Chiefs at the Central level, and the Ka Dinas/Ka Kandep at the District level.

b. Repelita V (1989 - 94): the MOH will complete efforts to upgrade District Section and Sub-Section Chiefs in the Ka Dinas office to the S1 level begun during Repelita IV. It will begin recruiting four-year S1 graduates for the Administration and two Section Chief positions at the KanDep Office. Four-year S1 graduates will also be recruited for Section chief positions for Disease Prevention, Environmental Health, Public Health Education, Maternal Child Health, and Administration at the Ka Dinas office. The Kandep office positions will be given first priority in recruitment; these positions are presently unfilled - filling them is required to strengthen the MOH's planning, supervision and monitoring capacity. There are approximately 2700 structural positions that could eventually be held by S1 graduates at this level. S2 training would be directed towards Division Chiefs at the provincial level and the KaKandep/KaDinas at the Kabupaten level.

c. Repelita VI (1994-1999): the MOH will complete efforts to staff Section Chief and Sub-Section Chiefs at the District level with S1 graduates, will begin recruiting S1 graduates for the position of Public Health Manager of the projected Community Development Centers, and will begin recruiting S1 graduates for Sub-Section chief positions at the

District level. Placing an S1 graduate in each Community Development Center would create positions for 5000 S1 graduates. Placing an S1 graduate in each Sub-Section chief position would create positions for an additional 6000 S1 graduates in Public Health. S2 training will be directed toward central level Sub-Directorate Chiefs and provincial Sub-Division Chiefs.

2. BKKBN

Because its staff is smaller than the MOH's, and the nature of its mandate requires more diversified expertise, BKKBN will not rely as heavily upon public health manpower for staff. However, its projected needs will still be significant. BKKBN has identified five academic disciplines in which its professional staff should have expertise: (1) Social Sciences and Demography; (2) Communications; (3) Management and Administration; (4) Education; and (5) Public Health. BKKBN's central structure consists of a Chairman, and six Deputies with accompanying Bureau Chiefs. At the provincial and district level, BKKBN has an organizational structure as shown in Figure F.3. At the Sub-District level a family planning supervisor is responsible to the Camat and organizes all family planning activities in the Sub-District along with coordinating the activities of family planning field workers.

Government personnel policies require all managerial civil servants at the level of the family planning fieldwork coordinator and above to have a minimum of a bachelors degree education. However, shortages of graduates have made it impossible to fulfill this policy except at the Division and Sub-Division Chief level in the Central BKKBN, and the Division Chief level at provincial BKKBN offices. Placement of personnel with bachelors degrees below that level is sporadic and ad hoc. Recruiting personnel with bachelors degrees in one of the five desired academic disciplines is even more difficult. BKKBN recruited 411 new staff with bachelors degrees in 1984. The majority had bachelors degrees in law and religion; graduates from the other disciplines, including Public Health, were not available.

BKKBN's plan for utilizing graduates from the new FKM's is shown in Table F.4. BKKBN requires Public Health graduates to strengthen its operational and integrated programs. Projected uses of Public Health graduates can be summarized as follows:

- a. Repelita IV (1984 - 1989): BKKBN will use the two-year S1 Public Health program to upgrade Division and Sub-Division Chiefs at the national and provincial level to the S1 level. Since very few target staff possess the educational background (Academy graduates in nursing, sanitation, and nutrition) to enter the two-year S1 program, BKKBN only projects the upgrading of 120 persons to an S1 in Public Health during the current Repelita. Division Chiefs in the Operational Division at central and provincial levels will be recruited for S2 training.

Figure F.3 BKKBN Organizational Structure at Provincial, District, and Sub District Administrative Levels

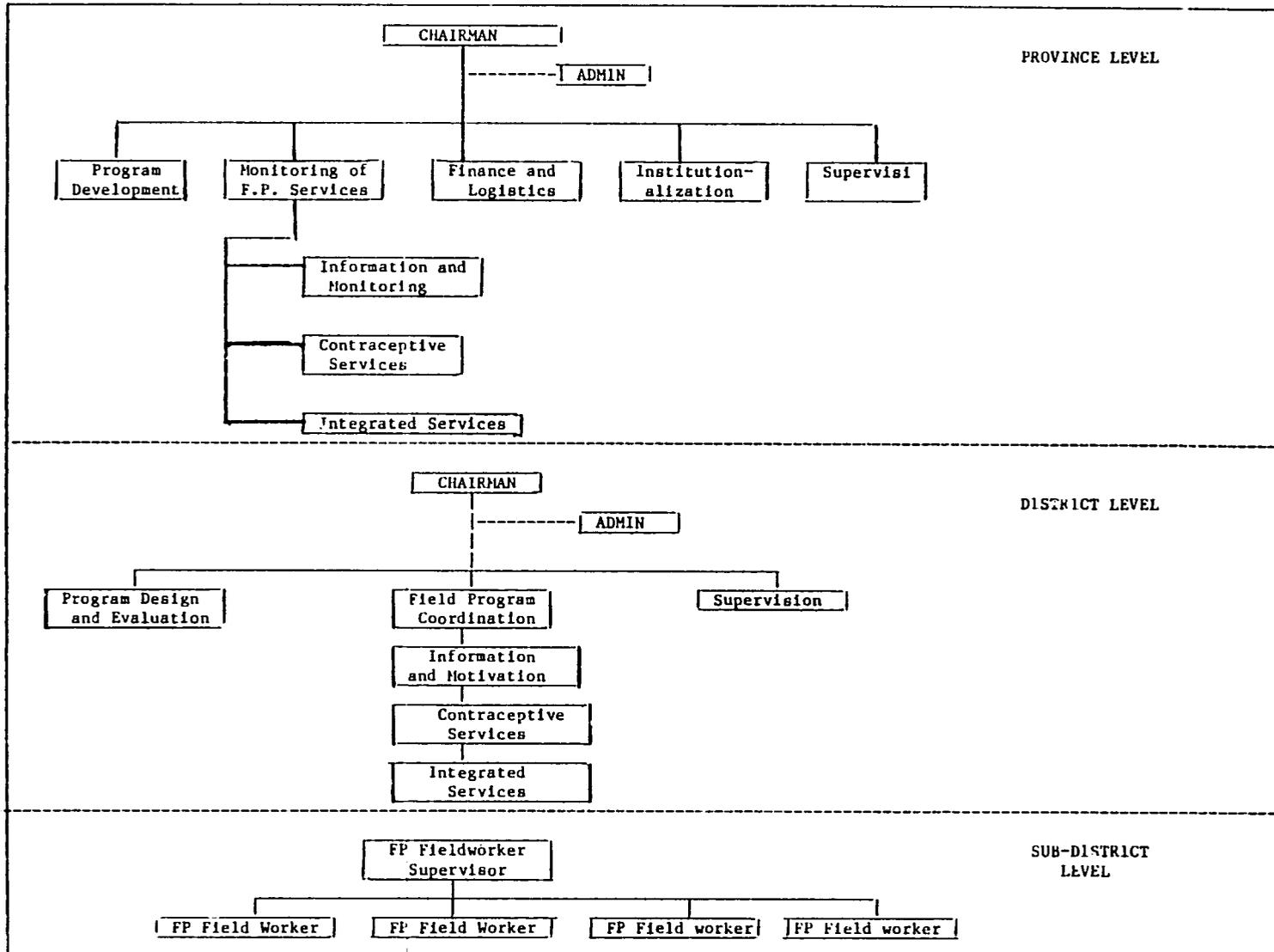


Table F.4: Projected Utilization of Public Health Graduates
by MOH and BKKBN during Repelita IV, Repelita V, and Repelita VI

ADMINISTRATIVE LEVEL	REPELITA IV		REPELITA V		REPELITA VI	
	MOH	BKKBN	MOH	BKKBN	MOH	BKKBN
NATIONAL (PUSAT)	S2 for Directorate and Sub-Directorate chiefs	S1 (two year) for staff currently holding structural managerial positions S2 for Bureau and Division Chiefs in the Operational Division	S2 for Directorate and Sub-Directorate chiefs	S1 (four year) for Sub-Division chiefs in the Operational Division S2 for Sub-Division Chiefs in the Operational Division	S2 for Sub-Directorate chiefs	S2 for Sub-Division Chiefs in the Operational Division
PROVINCIAL	S1 (two-year) for Staff holding structural managerial positions	S1 (two year) for staff currently holding structural managerial positions S2 for Division Chief in Operational Division	S2 for Division Chiefs	S1 (four-year) for Sub-Division chiefs in the operational Division S2 for Division chiefs in the Operational Division	S2 for Division and Sub-Division chiefs	S1 (four-year) for Sub-Division chiefs in the Operational Division S2 for Division chiefs in the Operational Division
DISTRICT (KABUPATEN)	S1 (two-year) for staff holding structural managerial position S2 for Chief of Kabupaten Health Services (DOKABU)		S1 (two-year) for staff holding structural managerial positions S2 for Chief of Kabupaten Health Services	S1 (four-year) for Section chiefs S1 (four-year) for Section chiefs	S1 (four-year) for Section and Sub-Section chief positions	S1 (four-year) for Sub-Section chiefs
SUB-DISTRICT (KECAMATAN)				S1 (four-year) for Fieldworker Supervisors	S1 (four-year) for Public Health Managers of Community Health Centers	S1 (four-year) for Fieldworker Supervisors

b. Repelita V (1989 - 1994): four-year S1 graduates will be recruited as provincial Division Chiefs for Monitoring of Family Planning Services (37 persons), district Section Chiefs for Program Coordination (300 persons), and Family Planning Fieldworker Supervisors at the sub-district level (3,500 persons). Candidates for S2 training will be recruited from the Sub-Division Chiefs at the central level, and Division chiefs at the provincial level.

c. Repelita VI (1994 - 1999): four-year S1 graduates will be recruited for provincial Sub-Division chiefs in the Division for Monitoring Family Planning Services (81 persons), and Sub-Section chiefs in the Field Program Coordination Section at the district level (900 persons). Candidates for S2 training will be chosen from the central, provincial and district levels as shown in Table F.4.

D. Manpower Analysis

Projected utilization of Public Health graduates by BKKBN and the MOH is summarized quantitatively in Table F.5. Potential utilization of Public Health graduates, which projects the number of structural managerial positions in the MOH and BKKBN which could accommodate either Bachelors or Masters degree graduates in Public Health by the end of Pelita VI (1999) are shown in the first column. The second column represents BKKBN and the MOH programmatic priorities for placement of Public Health graduates during the same time period, and is a more realistic estimate of both agencies' actual public health manpower needs.* A total of 8,488 four-year S1 graduates and 1,344 S2 graduates will be needed by 1999. The estimated figure for two-year S1 graduates is in accordance the Fourth Five Year Development Plans of the MOH and BKKBN.

The new FKM's developed through the project will produce 1,120 S1 graduates and 360 S2 graduates by 1992 as shown in Table F.6. The S1 graduates will consist of 915 persons from the two-year S1 program, and 205 from the four-year S1 program. The number of graduates is considerably below either the potential or the priority needs projected by BKKBN and MOH in Table F.5. Even under the most conservative estimates of hiring capacity, Public Health S1 and S2 graduates, during the life of project and beyond, will clearly be employed upon completion of their studies. This analysis has been made in Table F.7 and is explained below.

* these estimates were obtained from the Director General for Community Health Development and the Directorate Chief for Manpower at the MOH; at BKKBN, the estimates were obtained from the Deputy for Program Manpower Development and the Bureau Chief for Personnel.

Category of Personnel	1 Structural Positions which could Potentially be filled by Public Health Graduates in Repelitas IV, V and VI			2 Priority Needs for Placement of Public Health graduates during Repelitas IV, V, and VI		
	Two Year S1	Four Year S1	S2	Two Year S1	Four Year S1	S2
I. Central Level						
A. Directorate and Sub-Directorate Chiefs (MOH)			180			180
B. Division Chiefs in Operational Division (BKKBN)			5			5
C. Sub Division Chiefs (BKKBN)			25			25
II. Province			27			27
A. KanWil KaDinas						
B. Division Chiefs KanWil/Dinas	50		270	50		270
C. Sub Division Chiefs KanWil Dinas	400		900	400		400
D. Division Chiefs (BKKBN)	20	37	37	20	37	37
E. Sub-Division Chief (BKKBN)	100	81	150	100	81	100
III. Kabupaten						
A. Ka Kandep/KaDinas			300			300
B. Section Chiefs KanDep/Dinas	1000	2700		1000	1500	
C. Sub-Section Chiefs Kandep/Dinas	2600	8100		2600		
D. Section Chiefs (BKKBN)		300			300	
E. Sub Section Chiefs (BKKBN)		900				
IV. Sub District						
A. Public Health Manager (PUSKESMAS)		5000			5000	
B. FP Fieldworker Coordinator (BKKBN)		3700			1500	
TOTAL	4170	20818	1894	4170	8488	1344

Table F5: Projections and estimated priority needs for placement of public health graduates in the MOH and BKKBN during Pelita IV, Pelita V, and Pelita VI.

Table 1.2: Total Projected Numbers of Public Health Graduates (S1, S2, S3) by Institution during the Seven Year Life of Project (1985-1992)

I.F.Y. University	85 / 86		86 / 87		87 / 88		88 / 89		89 / 90			90 / 91			91 / 92			TOTAL		
	S1	S2	S3	S1	S2	S3	S1	S2	S3	S1	S2	S3								
HASANUDDIN	30	0	30	0	30	0	30	0	30	0	0	30	0	0	60	0	0	240	0	0
AIRLANGGA	0	0	30	0	30	10	30	10	60	10	0	60	10	0	60	10	0	270	50	0
DIPONEGORO	0	0	0	0	30	0	30	0	30	0	0	30	0	0	60	0	0	180	0	0
LSU	0	0	0	0	30	0	30	0	30	0	0	30	0	0	60	0	0	180	0	0
UI	50	30	50	30	25	50	25	50	25	50	-	25	50	5	50	50	5	250	310	10
Annual Total	80	30	110	30	145	60	145	60	175	60		175	60	5	290	60	5	1120	360	10

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	1			2		
	Projected Public Health Graduates			MOH and BKKBN's Projected Absorptive Capacity for Hiring Four-Year S1 Graduates		
	2-Year S1	4-Year S1	S2	MOH	BKKBN	TOTAL
Project funded 1985-1991	915	205	360	2100	840	2940
1992-1999	580	1450	520	2100	840	2940
	1495	1655	880	4200	1680	5880

Table F.7: Most Conservative Analysis of Estimated Numbers of Public Health Graduates Produced by 1999 and the MOH and BKKBN's Capacity to Absorb Them

Table F.7 shows that the S1 and S2 programs being established through the project will produce 1,495 two-year S1 graduates, 1,655 four-year S1 graduates, and 880 S2 graduates in public health by 1999. Placement of the two-year S1 graduates and the S2 graduates is not in question since participants in these programs will, in all cases, be drawn from personnel already holding staff positions who will return to those positions upon graduation. The 1,655 persons graduating from the four-year S1 programs are of concern since these persons will enter following high school, and must be hired by the MOH and BKKBN upon graduation.

Column 2 of Table F.7 shows cumulative numbers of four-year S1 graduates which the MOH and BKKBN would hire if total 1984 staff levels remained constant over the next 15 years (i.e., no organizational growth). Approximately 300 positions in the MOH, designated as S1 Public Health positions but held primarily by persons with lower qualifications, open up each year due to normal staff attrition.

Projected linearly through 1999, the total cumulative MOH S1 employment capacity, would be 4,200 persons, well above the combined cumulative FKM's output of 3,150 persons. For BKKBN, approximately 120 positions per year, designated for S1 graduates in Public Health, will open even with no organizational growth between now and 1999. The positions that would open represent both presently vacant positions as well as those projected from normal attrition. A minimum of 1,680 S1 graduates in Public Health would be hired by BKKBN by 1999, were they available.

This analysis excludes other potential employers of Public Health graduates such as universities the military and the private sector. There is little doubt that all graduates produced during the life of this project and until 1999 will be employed in their fields.

The S3 program at FKM-UI is expected to produce approximately four graduates annually beginning in 1990. By 1999 the program will have produced 36 S3 graduates in addition to the 10 produced under the project. S3 graduates will be utilized as follows:

- a. to support the S2 and S3 teaching programs at FKM-UI and to strengthen faculty research skills. FKM-UI projects that all of its faculty members should have Ph.D. degrees by 1999. Based upon this analysis, a target of 60% of all faculty members by 1999 is considered more feasible, requiring 50 Ph.Ds at FKM-UI. There are 4 Ph.D's on the FKM-UI faculty at present, two more are in training and 8 Ph.D's will be trained at FKM-UI under the project. UI alone will need an additional 36 Ph.D's by 1999.
- b. to support the S2 training program and to strengthen faculty research skills at UNAIR. It is projected that a minimum of 15 Ph.D's will be needed at UNAIR by 1999. Four faculty members are in training and two more Ph.D's will be trained in the project. UNAIR will need nine additional Ph.D's by 1999.
- c. to strengthen faculty research skills at USU, UNHAS and UNDIP. One Ph.D. in each of the five academic departments is considered the absolute minimum number of Ph.D's necessary to support the anticipated expansion of project-initiated research programs, requiring a total of 15 Ph.D's at these three FKM's. Two Ph.D's will be trained from each university in the project and an additional nine Ph.D's will be necessary by 1999.

To support the academic and research programs developed in the project, 54 additional Ph.D's will be needed by 1999. This estimate includes needs of the five FKM's developed in the project, and does not include Ph.D's that would be needed at the Public Health Departments in the 12 government medical schools, private medical schools, or to a much lesser extent, in agencies such as the MOH and BKKBN.

Given the increasing pressure for access to higher education in Indonesia there is also little doubt that there will be sufficient applicants to the FKM's. The two-year S1 program is temporary only and will be filled by present government employees. The four-year S1 program will require a high school education to enter: in 1983, 200,000 youths competed for about 70,000 vacancies in colleges and universities. In 1984 the number of applicants doubled to 400,000 while the number of vacancies remained unchanged. In 1985 it is estimated that nearly 1 million high school graduates will compete for the 90,000 vacancies expected to be available. Pressures on public health programs are no exception: 300 applications were received last year for FKM-UI's 25 person intake for the S2 in Public Health degree program.

ECONOMIC ANALYSIS

The nature of this project does not lend itself to formal cost-benefit analysis. Instead, alternative means of achieving the key project objectives are costed and compared. For this analysis we shall focus on A) training public health graduates, B) upgrading of faculty through advanced degree training, C) improving the quality of faculty teaching and research, and D) the Project Management Unit.

A. Public Health Graduates

As indicated in the Project Description and Technical Analysis, there are needs for more public health trained personnel at the S1 and S2 levels. To date insufficient in-country public health training capacity has forced the MOH and BKKBN to send manpower abroad for training. Under ongoing USAID-funded projects, for example, we have funded, are funding or will send within the next few months, 135 Masters and 12 Doctorate candidates in the field of public health at an estimated cost of \$7.9 million. This compares to a cost of \$ 2.8 million had these people been trained in-country.

The present university system cannot meet these needs and, without expanding the capacity of the universities as planned under this project, the only alternative would be to continue training off-shore. Under the present system, without the project, it is estimated that 560 S1's and 210 S2's could be trained in Indonesia during the next 7 years. With the project this jumps to 1120 S1's, 360 S2's and 10 S3's. If one assumes that without this project the additional 150 S2's and 10 S3's to be trained in Indonesia would be trained in the U.S. in addition to those for whom project-funded U.S. training is already planned, this would require over \$11 million $((180 \times \$48,250) + (20 \times \$120,600))$ of project funds for S2's and S3's respectively or \$2 million more than the planned AID contribution to the project as whole. The remaining one-half of the S1's would remain untrained. The costs for continuing training overseas versus investing in developing in-country training capacity clearly indicate the cost effectiveness of the latter.

B. Faculty Upgrading

It is important that a critical mass of well-trained faculty representing the various essential disciplines be assembled at each institution if academic programs are to have the requisite intellectual depth and rigor. The project proposes to provide U.S. graduate training through the Masters level for 30 faculty members and through the PhD level for 10 faculty members. In-country training will be provided at the Masters level for 40 persons and at the doctorate level for 10.

Faculty members will be educated at several U.S. universities in order to ensure a diversity of educational experiences and the development of a range of professional contacts. During this academic training, Indonesian faculty members will also be exposed to the American

model of higher education (credit hours, teaching and testing procedures, homework assignments, student-faculty relationships, college and departmental structure, and so forth). Although the U.S. model has been officially adopted for use in Indonesia, there are still problems in operationalizing the system. Exposure to the system in the U.S. will facilitate its implementation here. For PhD candidates trained in Indonesia, there is also provision for "sandwich" training. This two semester program at a university in the U.S. will add breadth to the in-country programs by allowing these candidates to also be exposed to the U.S. model of higher education.

The estimated uninflated cost of graduate training in the U.S. and in Indonesia are shown below:

1. <u>Masters Degree Costs (2 years):</u>	<u>Indonesia</u>	<u>United States</u>
Tuition, fees, maintenance, etc.	\$ 13,000	\$ 37,500
Domestic airfare	300	300
International airfare and exit fees	0	3,150
Salaries in training (@2400/year)	4,800	4,800
English language preparation	0	2,500
	<u>\$ 18,100</u>	<u>\$ 48,250</u>

2. PhD Degree Costs (5 years U.S., 2 years Indonesia plus 12 months sandwich program):

	<u>Indonesia</u>	<u>United States</u>
Tuition, fees, entry fees, maintenance	\$ 10,500	\$ 97,500
Domestic airfare	300	300
International airfare and exit fees	0	3,300
Salaries in training (@2400/year)	4,800	12,000
English language preparation	0	2,500
Research support (including RT airfare)	0	5,000
Sandwich program (costs for 12 months)	27,850	0
	<u>\$ 43,450</u>	<u>\$ 120,600</u>

The cost of producing a domestic PhD, even with the sandwich program, is about 35 percent of the cost of a U.S. Doctorate. Similarly the cost of a domestic Masters is less than 1/2 of a U.S. Masters. A less expensive alternative to be considered would be to carry out all graduate training in Indonesia. As mentioned above, however, there are a number of considerations of a practical nature which militate against this approach:

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1. Indonesian graduate programs do not yet have either the breadth or depth of academic offerings in many of the desired disciplines that can be obtained in most U.S. universities. Nor do they have Faculty members with PhDs in a variety of technical areas to advise students on dissertation research. This, for example, is why a "sandwich program" is being proposed for the in-country PhDs.

2. A PhD program will be initiated at FKM-UI in IFY 87/88 with the first graduates expected in IFY 90/91. The program for the first and second years will be entirely filled with the 10 PhD candidates sponsored under this project. It is therefore impossible to train more PhDs in-country during the life of the project than the 10 planned. Similarly there is no capability for UI and Airlangga to accept significantly increased numbers of Master's students over and above the 40 programmed by the project, if they expect to simultaneously meet the increased demand for Master's graduates for MOH and BKKBN staff positions (see Technical Analysis).

3. There are a number of additional benefits from studying in the U.S. which warrant training a portion of the faculty members in the U.S. These include:

a. Developing competence in the English language. This is of particular value in extending the range of professional public health materials (books, journals) to which FKM faculty will have access in the future (note that the upgrading of English language student training capabilities at the FKM's is deemed sufficiently important to merit short-term TA under the project). Broadening of experience through exposure to another (U.S.) culture is an unquantifiable but real spinoff;

b. The experience of studying within a system of education which Indonesia is presently adapting to its own needs, as it restructures Indonesian higher education, will facilitate the shift to more effective education administration and teaching methods;

c. The professional contacts which are established and drawn upon in future years are critical to the continued growth and development of the FKMs following termination of the project.

A second approach to upgrading faculty would be to contract expatriate teaching staff at one or more of the institutions and have them actually engage in teaching, research, and extension programs. This would require assigning sufficient numbers of American professors in each of the required disciplinary areas to provide quality graduate programs in each. The drawbacks to such an approach are obvious:

1. The number of professors required to develop a program which would approach the breadth of a U.S. graduate school is beyond consideration; even a small department in a U.S. university has 15-20 specialists in a single discipline;

2. At an estimated (uninflated) annual cost per expatriate of \$150,000 to \$200,000 per year, the costs would be prohibitive even if the requisite numbers of professors could be recruited;

3. The diversity and depth of the program would not approach that which can be offered at most U.S. universities;

4. All Indonesian faculty members (and students) would be receiving the same educational package, and thus the desired diversity of experience and future cross-fertilization of ideas would be foregone;

5. The risk would be high that the departure of expatriate faculty at the end of the project would cause severe dislocation and endanger the continuity of FKM programs.

C. Improved Quality of Teaching Materials, Teaching Programs, Research, and Public Service

The approach recommended in the Project Paper relies heavily on the use of local and U.S. short-term technical assistance (and on developing FKM-UI as a Pembina institution) to work with faculty members at the regional FKM's. These resources will be used to assist in the development of research projects, course syllabi, testing procedures, texts, laboratory assignments, and the application of visual aids and other materials. In addition, in-service training of faculty in intensive short courses and assistance in the development of research and public service activities will be provided. If one assigns to this output 50% of the costs of project seminars, research and pilot studies (assuming they have a skill-building as well as intrinsic value) and the full cost of in-country training courses, production of educational materials, library book purchases, and short-term specialists, the costs would be as follows:

	<u>AID</u>	<u>GOI</u>	<u>Total</u>
In-country ST Courses and Overseas Externships	\$ 380,980	\$ 583,450	\$ 964,430
Teaching Equipment Packages	225,000	270,000	495,000
Library Resources	232,400	195,400	427,800
Short-Term TA	1,428,500	50,000	1,478,500
Meetings (50%)	41,300	102,600	143,900
Research/pilot studies (50%)	425,000	450,000	875,000
Total	<u>2,733,180</u>	<u>1,651,450</u>	<u>4,384,630</u>

It is difficult to conceive of practical alternatives to the approach above. Any alternative approach would still either have to develop an institutional mechanism to bring together specialists in various disciplines from each of the FKMs, or individual programs would have to be mounted at each of the new Faculties. If the latter course of action

were selected, a possibility would be to assign a team of long-term specialists at each institution. Let us assume that to have any impact a minimum of three long-term specialists would have to be assigned to each. Assuming four FKMs (not UI), the cost of this technical assistance would be $12 \times \$200,000 \times 5 \text{ years} = \$12,000,000$. To this would be added the costs of library books and periodicals, production of educational materials and training courses. By varying the assumptions regarding the required amount of technical assistance and the mix of long-term specialists, and short-term specialists, various costs can be derived. However, the approach recommended appears to be the most efficient given the objectives of the project and the funding limits imposed.

D. Project Management Unit

The major responsibility for coordination of project implementation and for monitoring will be assumed by the Project Management Unit. The PMU will consist of a full-time Indonesian staff including a Director, two Assistant Directors, an Administrative Assistant and secretarial staff. The PMU will be assisted by a Long Term PSC Advisor. At each FKM, a part-time Local Management Unit will assist to coordinate project activities. The project will provide PMU staff with salary supplements in addition to GOI-funded base salaries and normal honoraria. LMU staff will receive usual GOI honoraria from GOI sources. Costs for these arrangements, including travel, per diem and office operating expenses, will be as follows:

	<u>AID</u>	<u>GOI</u>	<u>Total</u>
Project Management Unit	\$ 340,000	\$ 173,400	\$ 513,400
Local Management Units	0	95,760	95,760
PSC Advisor	816,000	60,000	876,000
Consortium Support	0	22,500	22,500
Total	<u>1,156,000</u>	<u>351,660</u>	<u>1,507,660</u>

The use of Indonesian staff to undertake the major responsibilities for project management and implementation, supplemented by one long term consultant experienced in dealing with AID, U.S. consulting firms, and U.S. training institutes is a much more cost-effective method than utilizing expatriate staff for the same tasks. A similar unit composed of U.S. staff, at the PSC rate, would cost a minimum of \$ 4 million ($5 \times \$876,000 = \$4,380,000$) to which would still need to be added office operating expenses and the costs of the Local Management Units. Although the use of a primarily Indonesian operated management unit requires salary supplements in order to compensate for time lost to private practise, the cost is still less than 1/3 of the alternative.

SOCIAL SOUNDNESS ANALYSIS

Because the proposed project is an institutional development project, with the objective of assisting in the creation of strong and active Faculties of Public Health in selected universities, a social soundness analysis necessarily must focus on the institutions and the context within which they operate. Social factors contributing to the success of the project or hindering its achievements must be addressed within an institutional context.

A. Status and Role of Public Health Training Institutions

In common with the various Faculties of Medicine, but unlike other faculties within the university system, both programs and Faculties of Public Health must be responsive to a number of different bodies, not all of which have the same priorities or agenda. First, the Faculties, through their respective universities, are part of the higher education system, and are therefore part of the responsibility of the Directorate-General of Higher Education in the Ministry of Education and Culture. This agency oversees and approves the development of annual budgets, forward planning, and monitoring the expenditure of government funds allocated to the public universities. All teaching and support staff are civil servants under the Ministry of Education and Culture. The management, administration and promotion of teaching and support staff is not an internal matter for either the Faculty or the university but must be in accordance with the general policies of the government and the specific policies of the Ministry. Through the Rector of the individual university, the Faculty receives its budget allocations, policy guidance and instructions from the Ministry.

Second, within a given university, public health training has only a tenuous independent institutional identity and capacity to pursue its own agenda and priorities. At present there are only two formally established Faculties of Public Health in the Indonesian public higher education system, at Universitas Indonesia (Jakarta), and at Universitas Hasanuddin (Ujung Pandang). At other institutions, public health programs are part of the established Medical Faculties, where they often are accorded a relatively low status and priority. As in the United States, the orientation of most Faculties of Medicine is curative and clinical rather than preventative. Consequently, budget allocations and staff support for the development of public health training programs are often inadequate and these programs remain a weak and dependent element of the overall Faculty program. (This is also reflected in the budget allocations of the Ministry of Health, which are largely devoted to clinical health care.)

Establishing a separate Faculty of Public Health is not a simple matter. Regulations and requirements governing the creation of a new Faculty are determined nationally by the Ministry of Education and Culture, and are not left to the discretion of individual universities.

Particularly in a time of stagnating resources, efforts to create new Faculties are examined with great care in Jakarta. Present policies require that a prospective Faculty be able to manage a full four-year S1 program before Faculty status can be awarded. (Under these criteria, neither the Faculty of Public Health at Universitas Indonesia nor the one at Universitas Airlangga would be permitted because they are presently only offering a two-year S1 degree for graduates from the post-secondary professional academies.) The primary criteria to be met is having sufficient numbers of qualified teaching staff (S2 or S3, or equivalent) to meet the demands for a full four-year undergraduate program. In addition, a prospective Faculty must demonstrate a strong research capacity and a public service program.

The Consortium of Health Sciences (CHS) is a third body affecting the operation of a Faculty or Department of Public Health. It is particularly important in the process of creating a new Faculty. The Consortium consists of senior professionals from the public universities who have been appointed by the Director-General of Higher Education to advise him on the academic quality and standards of health education. (There are similar consortia for other disciplines and professions.) As such, they advise on the establishment of standardized curricula for undergraduate education and the requirements which should be met for a university to create a new Faculty. To date, public health has not been granted its own consortium. Instead, a division has been established within the CHS to deal with public health education and training. This division faces the same attitudes within the Consortium that the individual public health faculties or Departments encounter with the Medical faculties within each university.

In addition to being responsive to policy directives, administrative controls and the institutional context established by the Ministry of Education and Culture, Faculties of Medicine and the CHS, both the Faculties of Public Health and the Faculties of Medicine must also work closely with and be responsive to two more agencies: the Ministry of Health and the National Family Planning Coordinating Board. The Ministry of Health is responsible for planning, budgeting, supervising and monitoring the national health systems. As such it is one of the primary employers of graduates from the Faculties of Public Health, provides support for postgraduate training through fellowships, and determines priorities for the development of the nation's health system.

In addition to the Ministry of Health, there is also the separate National Family Planning Coordinating Board (BKKBN), with significant funds and its own (related) priorities and programs. It, too, is a major employer of graduates from academies and universities trained in public health, and commands considerable national resources.

At present most undergraduate students registered for the two-year S1 degree are supported by scholarships from either the Ministry of Health or BKKBN. Unlike American institutions of higher learning, the provision of considerable scholarship funds for public health training through the Ministry of Health or BKKBN has meant that the selection of applicants is

not within the sole control of a university Faculty. The Ministry of Health is able to determine which students will receive assistance, and whether they will attend one Faculty of public health or another. These decisions are often made on the basis of administrative expediency and may or may not accord with the views and wishes of a given Faculty or student.

The ability of Faculties to exercise their own judgement in selecting students is greater at the S2 level, primarily because the funding from the Ministry of Health and BKKBN is less. There are likely to be other sources of scholarship funds (such as WHO) which are more directly under the control of individual Faculties.

B. Teaching Staff and Public Health Training

As can be seen from Table H.1 (below), the numbers of qualified staff for all Public Health Faculties or Departments are limited. The development of a Faculty capable of producing skilled graduates will clearly require investments in staff upgrading.

It is also important to note that to meet immediate shortfalls of qualified staff, most faculties and programs rely heavily on temporary, part-time lecturers recruited from outside. These may be individuals associated with the Faculty of Medicine or other Faculties at the university, with the regional office of the Ministry of Health or with BKKBN. Most Public Health Faculties or Departments employ approximately twice as many temporary outside lecturers as internal permanent staff. There are two important consequences of this. First, the development of the Faculty or program is hostage to expertise and human resources which are not within the control of the Faculty leadership and which cannot always be planned and utilized in an optimum fashion. Second, there is only a limited core of permanent qualified staff who can be relied upon over the long term to contribute to a coherent development program.

TABLE H.1
Full-time Public Health Teaching Staff (Dosen Tetap)
by Educational Qualification, 1985

	<u>UI</u>	<u>UNHAS</u>	<u>UNAIR</u>	<u>USU</u>	<u>UNDIP</u>
PhD (or equal)	4	1	4	0	0
MA/MPH (or equal)	44	7	19	6	2
BA (or equal)	11	9	11	5	11
Less than BA	<u>0</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>0</u>
TOTAL	59	17	39	11	13

Together these factors -- a need for improved quality of teaching staff and a need for greater numbers of teaching staff -- argue strongly for a heavy investment in human resources development if the public health training programs are to achieve their objective. Investments in laboratory equipment, library and physical plant alone will not be sufficient to ensure that the training in public health is of a sufficient standard to assist with the development of the nation's health system.

Because of the limited human resources of the various Faculties or Departments of Public Health, training is an important element of the project strategy and will receive a substantial proportion of project funds. It is important, however, that this training be planned so that sufficient staff are still available for on-going teaching, research and public service needs. Given the limited numbers of staff presently assigned on a full-time basis to these Faculties and Departments, training will have to be carefully phased over the life of the project to ensure that the Faculties and Departments can continue to function even when some staff members have entered various training programs.

Table H.2 presents a proposed training schedule and clearly indicates the difficulty in balancing long-term training needs against the requirements of a continuing teaching, research and public service program. For each university, the top line of the table shows the number of permanent teaching staff (dosen tetap) presently assigned to the Faculties or Departments, and those anticipated to be assigned over the life of the project. Subsequent lines show the number of staff expected to receive long-term training under this project, according to type of training and location (in-country, overseas). The bottom line for each university shows the number of staff remaining to carry on the functions of the individual Faculty or Department. (Because some long-term degree training will be offered to teaching staff from other Faculties who participate in and contribute to public health training, such as sociologists or anthropologists, the number of Public Health Faculty or Department staff remaining is likely to be marginally greater than is indicated in this table).

A key assumption underlying the feasibility of this proposed training schedule is the projected additions to teaching staff permanently assigned to the various Public Health Faculties and Departments. This is particularly the case with USU, UNDIP and UNHAS. (UNAIR and UI already have relatively large numbers of permanent teaching staff, and therefore have more of a margin in terms of accomodating the temporary loss of staff to long-term training programs.) There are some ways in which the pressure on remaining teaching staff can be eased. Universities can draw on outside lecturers (dosen luar biasa) for specific teaching responsibilities, in some cases drawing on neighboring institutions for assistance. UNDIP, for example, may be able to exploit the strength of the relatively nearby Universitas Gadjah Mada in Yogyakarta.

Nonetheless, the teaching staff of all these institutions will face heavy demands during most of the life of the project. As Table H.2 indicates, the benefits from staff returning from teaching programs will only begin to be fully realized in 1990/91, during the last two years of the project life. When it is recognized that these Faculties and Departments will not simply be attempting to maintain their current teaching, research and public service activities, but to both increase and improve them (with AID support), leading to the establishment of full Faculties during the early years of this project, the critical nature of a carefully planned and phased training program becomes even clearer.

TABLE H.2
Proposed Training Schedule and Permanent Teaching Staff

	IFY 85/86	IFY 86/87	IFY 87/88	IFY 88/89	IFY 89/90	IFY 90/91	IFY 91/92
USU	dosen tetap	11	16	24	28	30	30
	- overseas MA	0	0	3	5	5	3
	- overseas PhD	0	0	1	1	1	1
	- incountry MA	0	0	2	4	4	6
	- incountry PhD	0	0	1	2	2	1
	- overseas extern	0	0	1	0	1	0
	Net	11	16	16	16	17	19
UNHAS	dosen tetap	17	22	27	32	37	42
	- overseas MA	0	0	4	6	5	3
	- overseas PhD	0	0	1	1	1	1
	- incountry MA	0	0	3	6	7	8
	- incountry PhD	0	0	1	2	2	1
	- overseas extern	0	0	1	0	1	0
	Net	17	22	17	17	21	29
UNAIR	dosen tetap	42	51	60	69	78	87
	- overseas MA	0	0	2	4	3	1
	- overseas PhD	0	0	2	2	2	2
	- incountry MA	0	0	2	2	1	1
	- incountry PhD	0	0	1	2	2	1
	- overseas extern	0	1	0	1	0	0
	Net	42	50	53	58	70	82
UNDIP	dosen tetap	13	19	22	26	30	30
	- overseas MA	0	0	3	4	1	0
	- overseas PhD	0	0	1	1	1	1
	- incountry MA	0	0	2	4	7	6
	- incountry PhD	0	0	1	2	2	1
	- overseas extern	0	0	0	1	0	1
	Net	13	19	15	14	19	21
UI	dosen tetap	59	64	69	74	79	84
	- overseas MA	0	0	1	3	3	1
	- overseas PhD	0	4	5	5	5	5
	- incountry MA	0	0	3	3	0	0
	- incountry PhD	0	0	1	2	2	1
	- overseas extern	0	1	0	1	0	0
	Net	59	59	59	60	69	77

C. Public Health Research

Research activities undertaken by most Faculties and Departments have been limited to date. The budget support from the Ministry of Education and Culture is extremely limited, and there have been few funds available from the Ministry of Health or BKKBN. There are several reasons for this.

First, the Ministry of Health research agenda is largely determined at the national level and there is a strong tendency to rely on researchers from within that Ministry, from national agencies or from foreign institutions and donor agencies. The present research and planning system is highly oriented toward Jakarta and is largely top-down and directive in nature. Regional priorities and capacities have until recently not been a focus of attention. In addition, regional faculties or public health programs have not yet established a record as centers of expertise. Only recently has there begun to be knowledge of or confidence in their capacity to produce quality research that satisfies those who control research fund allocations in Jakarta for either the Ministry of Health or BKKBN.

Second, as has been noted with regard to the Faculties of Medicine, the Ministry of Health is largely oriented toward clinical medicine rather than public health programs. Although this orientation appears to be changing at present, most research funds are devoted to clinical issues. With these priorities in mind, it is not surprising to find that regional public health institutions are only infrequently involved in research supported by the Ministry of Health.

D. Women and Public Health Programs

Women will benefit from the proposed project in two important ways. First, both the GOI and AID have targetted maternal and child morbidity and mortality as key problems in the improvement of the nation's health. Reductions in both maternal and infant morbidity and mortality rates are key goals of the national health system, and key indicators of the success of health programs. The national public health system, which will be staffed by graduates of various Faculties and Departments of Public Health, will be oriented significantly to the needs of women. To the extent that more qualified graduates contribute to the functioning of the national health system, women will be major beneficiaries.

Second, women have traditionally constituted approximately 30% of the students in medical faculties and public health departments. This is about equal to the national average for all faculties in all state universities, although there are great variations amongst faculties. (Engineering and science faculties have few women; teacher training institutions have a majority female students.) The representation of women in institutions of higher learning is significant when it is recognized that, in common with other developing countries, female participation in education declines significantly after primary school. The project will seek to increase the number of women who receive training at the faculties and departments supported by this project.

E. Faculty of Public Health, University of Indonesia

Although the Faculty of Public Health at the University of Indonesia is the nation's oldest, it is nonetheless a young institution. The idea of establishing such a Faculty was first proposed in the early 1960's, but it was not until 1965 that an official decree formally establishing the Faculty was issued. Its early years were marked by a continued dependence on the Faculty of Medicine for staff, library and laboratory facilities and buildings. Only gradually did the Faculty come to establish its own separate identity with sufficient internal resources to become a sister institution to the Faculty of Medicine, rather than a step-child.

In 1972, after political stability returned to Indonesia and government development funds were increased, the first comprehensive five-year plan for the development of the Faculty was formulated. USAID, along with the China Medical Board, the World Health Organization and the University of Hawaii, provided assistance for this critical step in the institutional development of the Faculty. In 1978 plans were made for the adoption of the credit system, which became standard throughout the entire state higher education sector. This was formally introduced by the Faculty in 1982 and led to a greater range of courses, more flexibility for the formulation of individual student programs, and greater opportunities for both teaching staff and students to specialize in specific areas at the graduate level.

At present the Faculty is able to offer both undergraduate and postgraduate training, including the S1, S2 and S3 degrees. (The Faculty has also developed plans for an S3 degree which will be implemented during the life of this project.) As can be seen from Table H.3 (below) most students enroll for the S1 degree, although the development of S2 and S3 programs is an important aspect of the Faculty's role as the leading public health training institution. Relatively few students are expected to enter the S3 program and at the postgraduate level the S2 degree is the main focus of attention and Faculty resources. During the current academic year, eight areas of specialization are offered at the S2 level. These include:

- planning and health management;
- hospital administration;
- environmental health;
- occupational health;
- epidemiology;
- health education and behavior;
- biostatistics and health information;
- population and family planning.

To meet the needs of students in these areas, the Faculty currently has a library with 11,000 titles and 280 journals. In general, Indonesian university libraries are organized along Faculty lines, often with no central library or only a basic collection held at the central level. Library resources for students at the Faculty of Public Health, therefore, are complemented only by the resources of the Faculty of Medicine. In addition, the Faculty has computer facilities, audio-visual equipment and a laboratory for occupational health. The laboratory facilities of the Faculty of Medicine are also available.

The lack of physical facilities, however, is still a major constraint cited by the Faculty. Space is limited and as the Faculty not only develops its own programs but also seeks to fulfill its "pembina" function more actively (see below), there will be increasing demand for scarce physical facilities.

The Faculty of Public Health has also been designated by the Ministry of Education and Culture as a key leading and supporting institution ("facultas pembina") with the institutional capacity to assist the development of other Faculties and Public Health Departments at the university level. This means that the Faculty is expected to look beyond its own individual institutional needs to the priorities and needs of other Faculties or Departments in other institutions. For each of the three officially established functions of public universities (teaching, research and social service), the Faculty is expected to serve as an institutional resource for the guidance and development of other institutions.

For the development of public health teaching outside Universitas Indonesia, the Faculty has a responsibility to offer training for teaching staff from other institutions at the postgraduate (and particularly S3) level. It also has resources to assist with the development of curricula and provide technical assistance in specified areas for requesting institutions. For the development of public health research, the Faculty offers training in research methodology and statistical analysis, as well as to help establish an information network and documentation center. Finally, for the development of social service activities, the Faculty provides training in approaches to social service and establishes a "social laboratory" for its students which can serve as a model for other institutions.

This "pembina" function offers a number of challenges to FKM-UI. First, it creates competing demands on an institution which is still in the early stages of its development and which faces considerable constraints in establishing a capacity to meet its own most immediate needs. Second, even if there were no shortage of resources and no institutional constraints which impinged on the FKM-UI, fulfilling the "pembina" function will be a difficult and delicate task. While UI has greater expertise, more resources and greater experience than other public health institutions in Indonesia, any attempt to play a supervisory role will be strongly resisted by other institutions, and the possible image of the Faculty as a big brother who dominates and controls could be a significant danger. The challenge for the Faculty is not merely to make the best use of its limited resources, but to do so in a way which is acceptable to recipient institutions and which excites their active cooperation and support instead of engendering resentment and hostility.

TABLE H.3
Present Public Health Student Enrollment by Degree Level

	<u>UI</u>	<u>UNHAS</u>	<u>UNAIR</u>	<u>USU*</u>	<u>UNDIP*</u>
S1 (two year)	100	63	25	0	0
S1 (four year)	10	0	0	0	0
S2	50	0	0	0	0
S3	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
TOTAL	153	63	25	0	0

*USU and UNDIP are expected to admit their first class of students for the two-year S1 in August, 1985. The size of this incoming class is expected to be approximately 30 students.

F. Faculty of Public Health, UNHAS

Planning for the establishment of a Faculty of Public Health at Universitas Hasanuddin began in 1980, following an official request from the Minister of Health to the Rector of the university, pointing out the shortages of skilled manpower to implement public health programs in that province.

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The initial student intake of the planned Faculty was drawn from graduates of two-year post secondary academies. It was proposed that the Faculty concentrate on providing them with an additional two years of training to achieve the S1 degree. The establishment of a full four-year S1 degree, with students entering the program after completing only a secondary education, was planned to begin in 1987. These proposals, developed by UNHAS staff, were the basis of further discussions and consultations involving the Consortium of Health Sciences and the Faculty of Public Health at UI.

One result of these discussions was agreement that selection of students would be undertaken on a centralized basis, managed by the Public Health Division of the Consortium of Medical Sciences housed at the Faculty of Medicine, UI. This pattern has been maintained until the present, although there is now some suggestion that this system should be reviewed to see if greater opportunity can be given to institutions such as UNHAS to participate in the selection process, rather than relying so heavily on the Consortium.

Permission to establish a Faculty was given by the Director General of Higher Education in 1982, and the first courses began in the autumn of that year. A total of twenty-one students entered that first year. At present the annual intake has increased to approximately 30 new students each year. The five primary areas of study at the undergraduate level are similar to those offered by other Public Health Departments or Faculties. Each is handled by a separate division within the Faculty. These include the following:

- public health administration;
- public health education and behavioral sciences;
- population and biostatistics;
- epidemiology;
- environmental and occupational health.

Although the Faculty is expected to move to the new university campus within the next 12-18 months, its present facilities are limited. Library facilities for the Faculty consist only of five bookcases, and there are apparently few professional journals received on a regular basis. Approximately half the teaching staff are not full-time members of the Faculty and are "borrowed" from the Faculty of Medicine or outside institutions.

G. Program of Public Health, UNAIR

The first courses in public health education at Universitas Airlangga were initiated in 1955 by the Faculty of Medicine, one of Indonesia's leading medical schools. The development of public health training was not rapid, however. Only in 1978 was a postgraduate (S2) program established at the Faculty of Postgraduate Studies. In 1984, the University initiated a two-year S1 program for graduates of post-secondary academies and twenty-five students were admitted. This program is still managed by the Faculty of Medicine and no independent Faculty of Public Health yet exists.

Undergraduate divisions within the S1 program include the following areas of study:

- biostatistics and population;
- epidemiology;
- environmental and occupational health and hygiene;
- public health education;
- nutrition.

H. Program of Public Health, UNDIP

During the 1970's, the Faculty of Medicine at Universitas Diponegoro established an active community health program, including research into public health problems of rural areas and student public service programs in Central Java. In 1970 a program of postgraduate public health training was established offering a two-year S1 degree for physicians. Four areas of study are currently offered including:

- biostatistics;
- population and family planning;
- nutrition;
- communicative disease control.

In offering courses in these areas, the public health program continues to operate under the Faculty of Medicine and to rely heavily on their manpower resources and physical facilities.

I. Program of Public Health, USU

The program of public health training at Universitas Sumatera Utara includes training in the following areas:

- public health administration;
- epidemiology;
- biostatistics;
- public health and behavioral sciences;
- environmental and occupational health.

J. Summary and Conclusions

The above assessment of the general environment, as well as the brief profile of individual institutions, indicate that there are several significant factors which will require careful consideration if the project is to succeed.

First is the recognition that Faculties and Departments of Public Health must work in a complex institutional environment with a number of different actors and competing priorities. These include Faculties of Medicine, with their largely clinical orientation, the Ministry of Education and Culture, the Consortium of Health Sciences, the Ministry of Health and BKKBN. Successfully dealing with distinct priorities and different orientations will be critical to achieving project objectives.

Second is the fact that Faculties or Departments of Public Health are generally weak in term of human and physical resources, and are dependent both on Faculties of Medicine and on outside expertise. It is this fact which constitutes a major justification for the project. However, project implementation will need to clearly identify specific areas of dependency and develop strategies to overcome them in an effort to create a strong, viable and independent Faculty.

Particularly for FKM-UI, the pembina function presents considerable challenges. Within the complex institutional environment faced by Faculties and Departments of Public Health, if project objectives are to be achieved, FKM-UI's role in assisting other Faculties and Departments will need to be developed with care and sensitivity to their interest in maintaining distinct institutional identities and to the need for regional FKM programs to reflect region-specific health needs.

ADMINISTRATIVE ANALYSIS

The project will be administered through the Office of the Director General for Higher Education in the Ministry of Education and Culture (MEC). An organizational chart is presented in Figure I.1 and is explained below.

A. Organizational Structure

1. Project Organization at the Central Level

The Director General for Higher Education, through his Directorate for Academic Infrastructure Development, will have overall responsibility for the project. A Project Steering Committee, chaired by the Director General or his representative, will set policy and operational guidelines for project activities. Its members will include representatives from BKKBN, MOH, CHS, FKM-UI, BAPPENAS, and USAID. The Project Steering Committee will be assisted by a full time Project Management Unit (PMU) to coordinate project inputs and supervise routine implementation, providing a staff function to the Steering Committee. Specific responsibilities of the PMU are listed in Table I.1.

2. Project Organization at the Regional Level

Local Management Units (LMU) will be established at each project-assisted FKM to plan and coordinate project activities at their respective institutions. The LMUs will serve on a part-time, as needed, basis and will be the liaison between central project management and the FKMs. Each LMU will consist of two FKM faculty members, part-time, and one seconded part-time secretary. In addition, the representative of the Directorate for Academic Infrastructure Development (who works in the Rector's office at each university) will serve as an ex-officio member of the LMUs to provide direct links from the LMUs to the Rector and the Directorate. The LMUs will, as needed, consult with local Advisory Boards consisting of representatives from the local PEMDA, BAPPEDA, MOH, and BKKBN. These consultations will be for the purpose of setting local project policy guidelines and will assist to link the development of the FKMs to the public health interests of local government.

3. FKM-UI as National Resource Center

As the designated "Fakultas Pembina" for higher education in Public Health, FKM-UI is expected to develop its capacity to assist the regional FKMs in their training, research and community service agenda. FKM-UI will not play a management role in the project except for project-assisted activities undertaken at FKM-UI itself. The Pembina function, however, requires FKM-UI to have the capacity to support, "on-call", the development needs of the regional FKMs. The specific tasks FKM-UI will perform to meet its Pembina responsibilities under the project are listed in Table I.1. It will interact with the PMU and the regional universities through its own LMU.

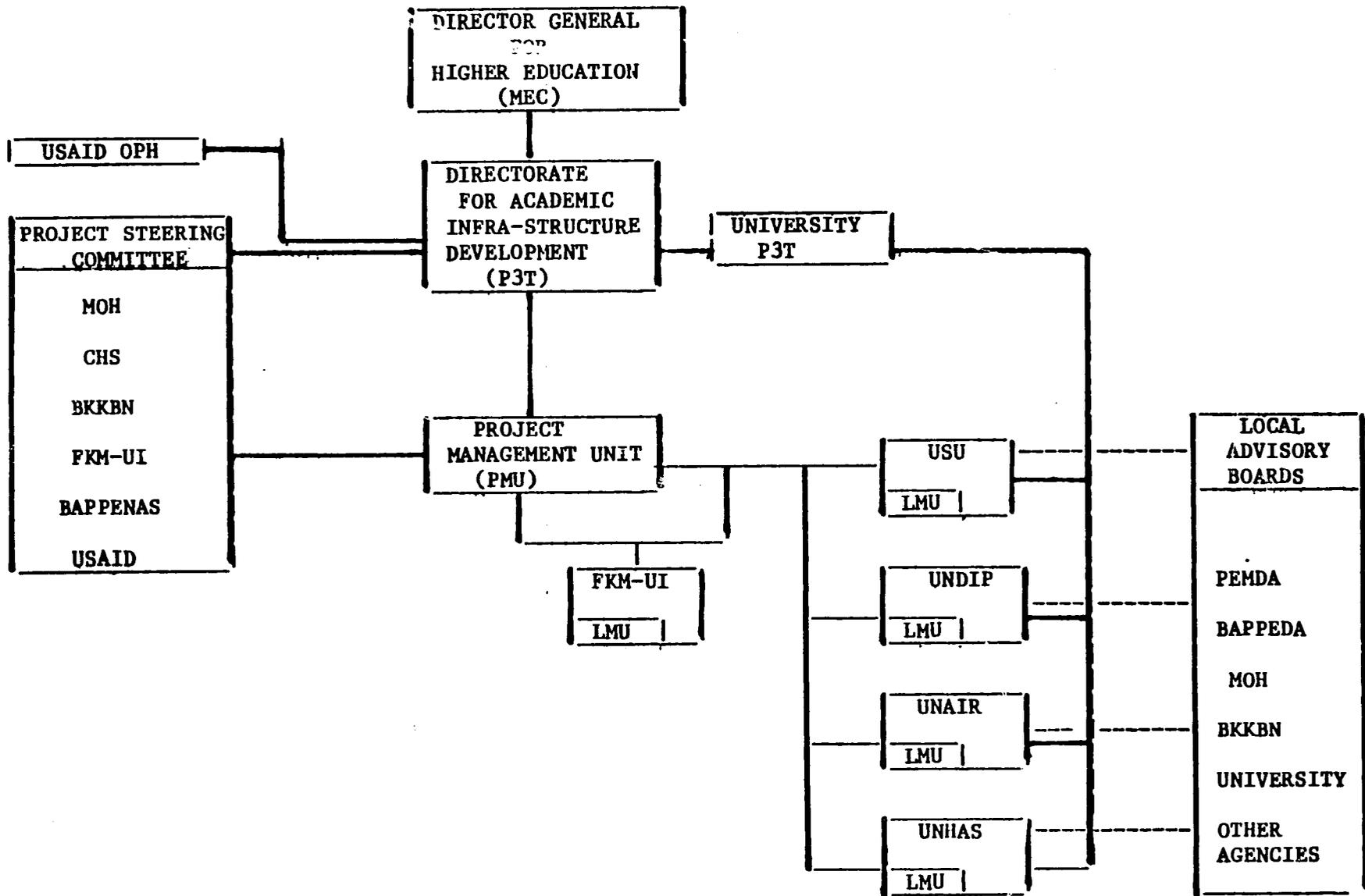


FIGURE I.1. Organizational Chart for the Faculties of Public Health Project

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4. Consortium of Health Sciences (CHS)

The CHS is responsible for advising the Director General for Higher Education on the development of health science education. Its Public Health Desk has been the primary GOI actor in planning the project (the CHS coordinated the feasibility studies and formulation of FKM Five Year Development Plans upon which the project is based). A representative from CHS will sit on the Project Steering Committee. CHS will also periodically assess progress made by each Faculty in fulfilling teaching, research, and community service requirements. Based on these assessments, the CHS will make recommendations to the Director General for Higher Education regarding approval for conferring Faculty status, which is formalized by Presidential Decree.*

5. Relationships between the Consortium of Health Sciences, the PMU and FKM-UI

The project requires close working relationships between the PMU, FKM-UI, and CHS. Each agency has distinct but related roles in the project as shown in Table I.1. In brief, CHS sets the curricular, teaching and research standards that the new FKM's must reach to achieve Faculty status. Its presence on the Project Steering Committee will help assure that project inputs coordinated by the PMU are directed towards meeting accreditation requirements. FKM-UI will make its staff and material resources available to the regional FKM's. It will be the task of the PMU to communicate the needs of the regional FKM's to FKM-UI and coordinate UI's technical resource assistance to the new Faculties. The PMU (and LMU's) will begin to phase out after the project's fifth year as the level of project activity decreases, and will close down upon completion of project activities.

B. Project Management

The PMU will be staffed by a Director, two Assistant Directors, and an Administrative Assistant. A Personal Services Contractor will assist the Director. This team will be responsible for coordinating project implementation and monitoring. General policies for training, technical assistance, research priorities, and recruitment of students for S1 programs will be set by the Directorate Chief for Academic Infrastructure Development through the Project Steering Committee within Grant and Loan Agreement guidelines. Yearly policy guidelines for project activities will be issued each April, one year prior to the beginning of the Indonesian fiscal year in which the activities will take place. The

* Accreditation of a new degree program, without a change in Departmental or Faculty status, is made by the graduate school authorities of the universities themselves. Requirements for accreditation--research, teaching and community service--are similar to those for conversion of a Department into a full-fledged Faculty.

Table I.1: Major functions of the Consortium of Health Sciences, Project Management Unit, and National Resource Center (FKM-UI)

Consortium of Health Sciences	Project Management Unit	FKM-UI
<p>Function: Advise Director General of Higher Education regarding development of Higher Education in Public Health</p>	<p>Function: Assist the Directorate Chief for Academic Infrastructure Development to coordinate project inputs</p>	<p>Function: Develop the capacity to serve as a National Resource Center to assist the development of Public Health education at regional Faculties of Public Health</p>
<p>Tasks:</p>	<p>Tasks:</p>	<p>Tasks:</p>
<ol style="list-style-type: none"> 1. Develop uniform curricular standards 2. Develop uniform standards for teaching 3. Develop acceptable minimum admissions criteria 4. Review and update faculty regulations 5. Review accreditation standards 6. Coordinate communications and relationship with Schools of Public Health in other countries 7. Assess feasibility for new Faculty development 8. Conduct accreditation reviews for attainment of Faculty status 	<ol style="list-style-type: none"> 1. Coordinate all long and short term training 2. Coordinate identification and placement of all technical assistance 3. Assist to procure commodities on local purchase 4. Conduct national policy seminars 5. Conduct financial review of all research proposals 6. Review and approve yearly project workplan for each faculty 7. Coordinate commitment of GOI counterpart budget in DUP/DIP cycles 8. Translate policy guidelines from Project Advisory Board into operational programmatic guidelines 9. Supervise project implementation 10. Financial control 	<ol style="list-style-type: none"> 1. Provide S2 & S3 training for Faculty members 2. Serve as teaching externship site for Faculty members 3. Provide short-term in-service training as necessary 4. Provide technical assistance as deemed necessary by the new Faculties 5. Conduct cooperative research activities 6. Second its staff to other Faculties to bolster their teaching staff 7. Maintain a public health information data base available to other Faculties 8. Publish a quarterly journal for research findings 9. Conduct technical review of all research proposals 10. Develop a continuing public health education program 11. Translate standard texts into Indonesian and publish technical report series on specialized areas of Public Health

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PMU will translate these guidelines into operational strategies for the regional FKMs. Staff of the regional FKMs, in consultation with their Local Advisory Board, will adapt these guidelines to their needs during local planning meetings held in May, and will produce operational workplans and draft DUP's for the upcoming fiscal year. A national planning meeting attended by representatives from the FKMs, their LMUs will be held in July to review and approve each workplan. The PMU will compile the workplans from each FKM into a comprehensive project workplan for, say, IFY 1987/88 for submission to USAID and the GOI by September 1, 1986. Commitment of AID project funds and GOI counterpart budgets would be expected by April 1, 1987. This planning and funding cycle coincides with the GOI DUP/DIP cycle to facilitate coordination of AID and GOI funds. The sequence of events for an illustrative year, IFY 1987/88, is presented graphically in Figure I.2.

Final authority for approving yearly funding levels at each regional FKM will be held by the Director General for Higher Education through his Steering Committee and PMU. Numbers of participants for long term training both in-country and abroad will be assigned to each FKM at the annual national planning seminar. It will be the responsibility of the individual FKM's to identify and nominate participants for long-term training based upon their allocation. Once allocations have been made, the PMU will only screen candidates (for English language and personnel requirements) for final processing with BKKBN's Division for Overseas Training. Requests for technical assistance and research funding will be managed in a similar fashion. Each faculty will submit technical assistance and research requests to the Steering Committee and PMU for discussions at the planning meeting for the upcoming fiscal year. Yearly allocations for research and technical assistance will be made for each FKM at that meeting, with final authority for assigning allocations the responsibility of the Steering Committee through the PMU. Once allocations have been made, the PMU must identify consultants and place them at each FKM according to schedules and scopes of work agreed upon at the annual planning meeting. Once research funding levels have been set, research proposals must be submitted to the PMU for financial review, and to FKM-UI for technical review, before funds can be committed.

Advisory Boards at the regional levels will play an important role in the yearly planning and funding cycles. The Local Advisory Boards will assist the FKM's to adapt these general project policies to local conditions, and will have significant input into determining the direction of project activities conducted at each FKM. The Advisory Boards' roles are designed by the project to encourage cooperation between the FKMs and local health and family planning agencies. Input from Local Advisory Boards will help insure that research and pilot demonstration projects conducted by the FKMs are considered relevant to local needs. Cooperation in research will permit regional FKMs to build their credibility as research institutions in the eyes of BKKBN, MOH, and other local agencies, a prerequisite to utilization of the FKMs as research institutions by these organizations during the project and once project funding has ceased.

It is anticipated that the Advisory Boards' role in effecting collaboration will have ramifications beyond the programming of project inputs in the annual planning/budgeting cycle. The FKMs may solicit the advice of their Advisory Boards regarding curriculum reviews and adaptations. Recruitment policies for the two-year and four-year S1 programs will also be reviewed by the Advisory Boards. It is anticipated that these mechanisms will ensure that FKM training is considered relevant to the needs of the potential employing agencies, and that students recruited for four-year S1 programs will have places with BKKBN, the MOH, or other local agencies upon graduation.

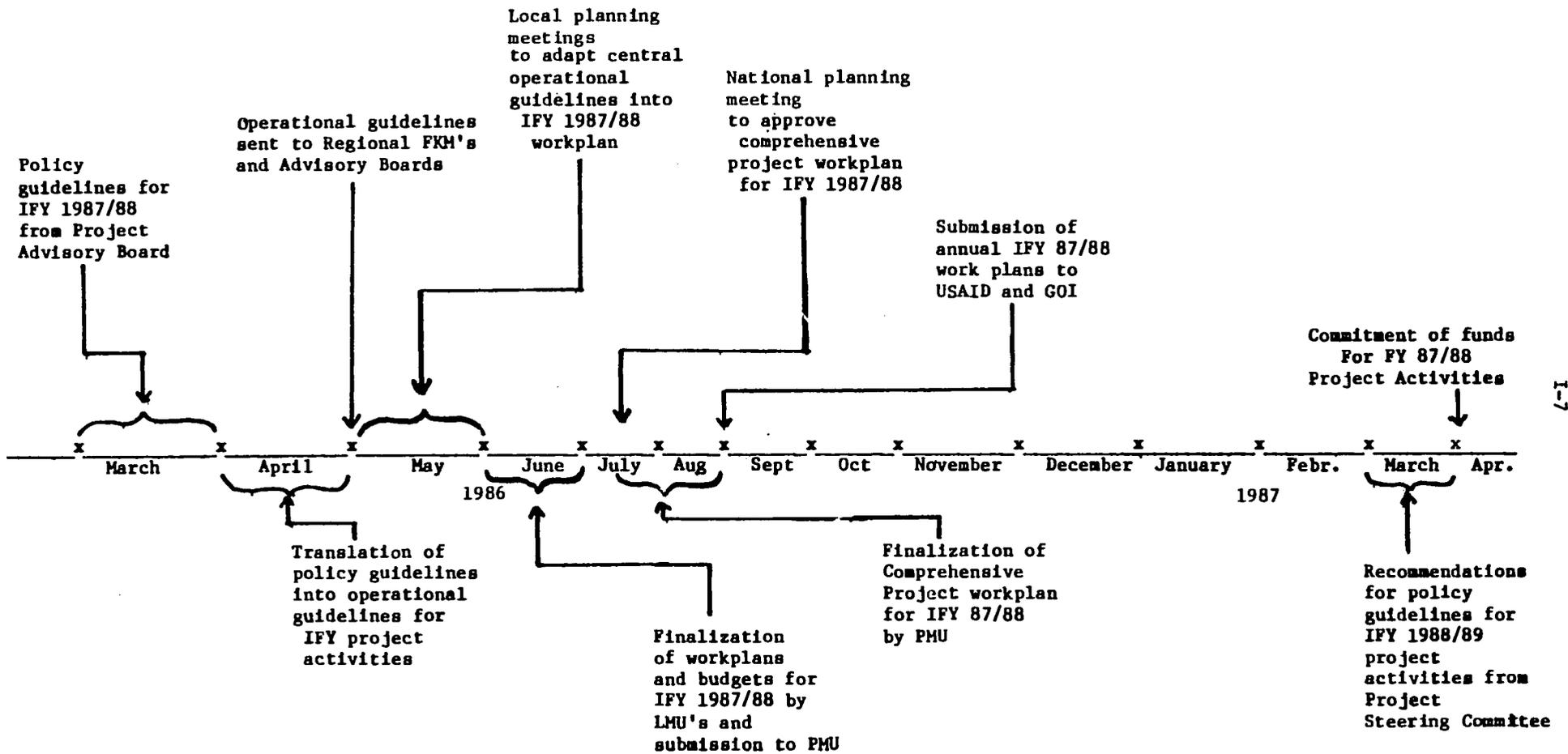


Figure I.2 : Annual Project Planning Cycle for IFY 1987/88

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FACULTIES OF PUBLIC HEALTH COST ESTIMATES
(US \$, US \$1.00 = Rp.1,000)

May 31, 1985

	Total Units	Per Unit Base Cost	IFI 85/86		IFI 86/87		IFI 87/88		IFI 88/89		IFI 89/90		Life of Project	Cost		
			Units	Costs	Units	Costs	Units	Costs	Units	Costs	Units	Costs				
FACULTY DEVELOPMENT (TRAINING)																
a. Graduate Degrees US:																
-Masters(20 degrees)																
AID FI (tuition, fees, maintenance, insurance, other)	27	18,750	0	0	0	0	13	243,750	22	412,500	17	318,750	8	150,000	0	0
AID LC (English language preparation)	26	1,250	0	0	0	0	13	16,250	22	27,500	17	21,250	8	10,000	0	0
GDI FI (international airfares)	26	1,500	0	0	0	0	13	19,500	22	33,000	17	25,500	8	12,000	0	0
GDI LC (don. airfare, salaries in training, exit fees)	50	2,625	0	0	0	0	13	34,125	22	57,750	17	44,625	8	21,000	0	0
-PhD(10 degrees)																
AID FI (tuition, fees, maint., ins., research & travel)	50	20,100	0	0	4	80,400	10	201,000	10	201,000	10	201,000	10	201,000	6	120,600
AID LC (English language prep., research support)	50	900	0	0	4	3,600	10	9,000	10	9,000	10	9,000	10	9,000	6	5,400
GDI FI (international airfares)	50	600	0	0	4	2,400	10	6,000	10	6,000	10	6,000	10	6,000	6	3,600
GDI LC (don. airfare, salaries in training, exit fees)	50	2,520	0	0	4	10,080	10	25,200	10	25,200	10	25,200	10	25,200	6	15,120
total AID FI						80,400		444,750		613,500		517,750		251,000		120,600
total AID LC						3,600		25,250		36,500		31,250		19,000		5,400
total GDI FI						2,400		25,500		39,000		31,500		18,000		3,600
total GDI LC						10,080		59,325		82,750		69,825		46,200		15,120
total graduate degrees US						96,480		554,825		771,750		651,325		434,200		144,720
b. Graduate Degrees Indonesia																
-Masters(40 degrees)																
AID FI (none)	80	0	0	0	0	0	12	0	19	0	17	0	21	0	11	0
AID LC (tuition, fees, maintenance)	80	6,250	0	0	0	0	12	75,000	15	113,750	17	106,250	21	131,250	11	68,750
GDI FI (none)	20	0	0	0	0	0	12	0	19	0	17	0	21	0	11	0
GDI LC (salaries in training, airfare, entry expenses)	80	2,800	0	0	0	0	12	33,600	15	53,200	17	47,600	21	58,800	11	30,800
-PhD(10 degrees)																
AID FI (none)	20	0	0	0	0	0	5	0	5	0	5	0	5	0	0	0
AID LC (tuition, fees(excluding research), maintenance)	20	5,000	0	0	0	0	5	25,000	5	25,000	5	25,000	5	25,000	0	0
GDI FI (none)	20	0	0	0	0	0	5	0	5	0	5	0	5	0	0	0
GDI LC (salaries in training, airfare, entry expenses)	20	2,800	0	0	0	0	5	14,000	5	14,000	5	14,000	5	14,000	0	0
-PhD sandwich overseas(10 persons)																
AID FI (tuition, fees, maint., ins.)	10	19,500	0	0	0	0	0	0	5	97,500	5	97,500	0	0	0	0
AID LC (English language preparation)	10	2,500	0	0	0	0	0	0	5	12,500	5	12,500	0	0	0	0
GDI FI (international airfares)	10	3,000	0	0	0	0	0	0	5	15,000	5	15,000	0	0	0	0
GDI LC (don. airfares, exit fees, salaries in training)	10	2,850	0	0	0	0	0	0	5	14,250	5	14,250	0	0	0	0
total AID FI						0		0		97,500		97,500		0		195,000
total AID LC						0		100,000		156,250		117,750		156,250		68,750
total GDI FI						0		0		15,000		15,000		0		30,000
total GDI LC						0		47,600		81,450		65,850		72,800		30,800
total graduate degrees Indonesia						0		147,600		350,200		322,100		229,050		99,550
c. Short-Term Training US																
-Externships for Existing Staff (10 externs)																
AID FI (maintenance, fees, insurance, intl. airfares)	10	14,000	0	0	2	28,000	2	28,000	2	28,000	2	28,000	2	28,000	0	0
AID LC (English language training)	10	700	0	0	2	1,400	2	1,400	2	1,400	2	1,400	2	1,400	0	0
GDI FI (none)	10	0	0	0	2	0	2	0	2	0	2	0	2	0	0	0
GDI LC (salaries in training, exit fees, don. airfares)	10	1,650	0	0	2	3,300	2	3,300	2	3,300	2	3,300	2	3,300	0	0
-Short Courses(25 persons)																
AID FI (tuition, maintenance, fees, ins., intl. airfares)	25	8,750	0	0	5	43,750	5	43,750	5	43,750	5	43,750	5	43,750	0	0

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FACULTIES OF PUBLIC HEALTH COST ESTIMATES
(US \$, US \$1.00 = Rp.1,000)

May 31, 1985

	Total	Per Unit	FY 85/86		FY 86/87		FY 87/88		FY 88/89		FY 89/90		FY 90/91		FY 91/92		Life of Project	Project Cost
	Units	Base Cost	Units	Costs	Units	Costs	Units	Costs	Units	Costs	Units	Costs	Units	Costs	Units	Costs		
AID LC (English language training)	25	700	0	0	5	3,500	5	3,500	5	3,500	5	3,500	5	3,500	0	0		
GOI F1 (none)	25	0	0	0	5	0	5	0	5	0	5	0	5	0	0	0		
GOI LC (exit fees, don. airfares)	25	450	0	0	5	2,250	5	2,250	5	2,250	5	2,250	5	2,250	0	0		
total AID F1				0		71,750		71,750		71,750		71,750		71,750		0		358,750
total AID LC				0		4,900		4,900		4,900		4,900		4,900		0		24,500
total GOI F1				0		0		0		0		0		0		0		0
total GOI LC				0		5,550		5,550		5,550		5,550		5,550		0		27,750
total short-term training US				0		82,200		82,200		82,200		82,200		82,200		0		411,000
d. Short-Term Training Indonesia																		
-Short Courses (16 courses)																		
AID F1 (none)	16	0	3	0	3	0	3	0	3	0	2	0	2	0	0	0		
AID LC (curriculum development and all other instructor-related costs, materials/supplies)	16	5,550	3	16,590	3	16,590	3	16,590	3	16,590	2	11,060	2	11,060	0	0		
GOI F1 (none)	16	0	3	0	3	0	3	0	3	0	2	0	2	0	0	0		
GOI LC (trainee costs: per diem, travel; org. comm. costs)	16	29,200	3	87,600	3	87,600	3	87,600	3	87,600	2	58,400	2	58,400	0	0		
total AID F1				0		0		0		0		0		0		0		0
total AID LC				16,590		16,590		16,590		16,590		11,060		11,060		0		88,480
total GOI F1				0		0		0		0		0		0		0		0
total GOI LC				57,600		87,600		87,600		87,600		58,400		58,400		0		467,200
total short-term training Indonesia				104,190		104,190		104,190		104,170		69,460		69,460		0		555,680
Sub-total AID F1				0		152,150		516,500		752,750		657,000		422,750		120,600		2,683,750
Sub-total AID LC				16,590		25,070		146,740		214,240		165,760		191,210		74,150		857,980
Sub-total GOI F1				0		2,400		25,500		54,000		45,000		18,000		3,600		150,000
Sub-total GOI LC				97,600		105,230		200,075		257,550		204,625		182,950		45,920		1,086,950
Sub-Total Faculty Development (training)				104,190		282,870		888,815		1,308,540		1,125,435		814,910		244,270		4,778,680
COMMODITIES																		
a. Project Management Unit (PMU)																		
-Photocopy machine (1)																		
AID F1 (none)	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
AID LC (initial purchase)	1	7,000	0	0	1	7,000	0	0	0	0	0	0	0	0	0	0		
GOI F1 (none)	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		
GOI LC (tax, maintenance and supplies)	6	1,400	0	0	1	1,400	1	1,400	1	1,400	1	1,400	1	1,400	1	1,400		
-Typewriters (3)																		
AID F1 (none)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AID LC (initial purchase)	3	1,250	0	0	3	3,750	0	0	0	0	0	0	0	0	0	0		
GOI F1 (none)	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GOI LC (tax, maintenance and supplies)	18	250	0	0	3	750	3	750	3	750	3	750	3	750	3	750		
-Micro-computer (1)																		
AID F1 (none)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AID LC (initial purchase, initial training)	1	12,000	0	0	1	12,000	0	0	0	0	0	0	0	0	0	0		
GOI F1 (none)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
GOI LC (tax, maint., subsequent training and supplies)	3	2,400	0	0	1	2,400	1	2,400	1	2,400	1	2,400	1	2,400	1	2,400		
-Stencil Machine (1)																		
AID F1 (none)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
AID LC (initial purchase)	1	5,000	0	0	1	5,000	0	0	0	0	0	0	0	0	0	0		

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FACILITIES OF PUBLIC HEALTH COST ESTIMATES
(US \$, US \$1.00 = Rp.1,000)

May 31, 1985

	Total Units	Per Unit Base Cost	IF1 85/26 Units	IF1 85/26 Costs	IF2 86/87 Units	IF2 86/87 Costs	IF3 87/88 Units	IF3 87/88 Costs	IF4 88/89 Units	IF4 88/89 Costs	IF5 89/90 Units	IF5 89/90 Costs	IF6 90/91 Units	IF6 90/91 Costs	IF7 91/92 Units	IF7 91/92 Costs	Life of Project Cost
GDI F1 (none)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI LC (tax, maintenance and supplies)	6	1,000	0	0	1	1,000	1	1,000	1	1,000	1	1,000	1	1,000	1	1,000	0
total AIG F1				0		0		0		0		0		0		0	0
total AIG LC				0		27,750		0		0		0		0		0	27,750
total GDI F1				0		0		0		0		0		0		0	0
total GDI LC				0		5,550		5,550		5,550		5,550		5,550		5,550	33,300
total Project Management Unit commodities				0		33,300		5,550		5,550		5,550		5,550		5,550	61,050
b. F1M s:																	
-Microfiche Equipment																	
AIG F1 (initial purchase of data & equipment CIF Jkt.)	1	92,600	0	0	1	92,600	0	0	0	0	0	0	0	0	0	0	0
AIG LC (none)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI F1 (none)	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI LC (tax, local equipment transport)	1	2,000	0	0	1	2,000	0	0	0	0	0	0	0	0	0	0	0
-Microfiche Recurrent Costs																	
AIG F1 (none)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIG LC (none)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI F1 (subscriptions, indexes)	4	6,700	0	0	0	0	0	1	6,700	1	6,700	1	6,700	1	6,700	1	6,700
GDI LC (staff time, mailing & supplies, maintenance)	6	20,400	0	0	1	20,400	1	20,400	1	20,400	1	20,400	1	20,400	1	20,400	0
-Micro-Computers (10)																	
AIG F1 (none)	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIG LC (initial purchase, initial training)	10	12,000	0	0	10	120,000	0	0	0	0	0	0	0	0	0	0	0
GDI F1 (none)	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI LC (tax, maint., subsequent training and supplies)	50	2,400	0	0	10	24,000	10	24,000	10	24,000	10	24,000	10	24,000	10	24,000	0
-Teaching Equipment Package (projectors, prod. equip., etc.)																	
AIG F1 (none)	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIG LC (initial purchase, initial training)	5	45,000	0	0	5	225,000	0	0	0	0	0	0	0	0	0	0	0
GDI F1 (none)	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI LC (tax, maint., subsequent training and supplies)	30	9,000	0	0	5	45,000	5	45,000	5	45,000	5	45,000	5	45,000	5	45,000	0
-Books																	
AIG F1 (initial purchase foreign books (75%))	5	11,250	0	0	0	0	5	56,250	0	0	0	0	0	0	0	0	0
AIG LC (initial purchase local books (25%))	5	3,750	0	0	5	18,750	0	0	0	0	0	0	0	0	0	0	0
GDI F1 (none)	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI LC (tax, in-country shipment)	5	500	0	0	0	0	5	2,500	0	0	0	0	0	0	0	0	0
-Technical Series Translations/Publications																	
AIG F1 (none)	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIG F1 (translation, writing, editing, typing)	19	2,700	0	0	5	13,500	5	13,500	3	8,100	3	8,100	2	5,400	1	2,700	0
GDI F1 (none)	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI LC (translation, writing, editing, typing)	11	2,700	0	0	0	0	0	2	5,400	2	5,400	3	8,100	4	10,800	0	0
-Journal Publication																	
AIG F1 (none)	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIG F1 (writing, editing, typing, miscellaneous)	9	1,500	0	0	0	0	2	3,000	3	4,500	4	6,000	0	0	0	0	0
GDI F1 (none)	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GDI LC (writing, editing, typing, miscellaneous)	8	1,500	0	0	0	0	0	0	0	0	0	4	6,000	4	6,000	0	0
-Photocopy machine (reg. F1M, 1 for UI library)																	
AIG F1 (none)	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AIG LC (initial purchase)	5	7,000	0	0	0	0	5	35,000	0	0	0	0	0	0	0	0	0
GDI F1 (none)	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

FACULTIES OF PUBLIC HEALTH COST ESTIMATES
(US \$, US \$1.00 = Rp.1,000)

May 31, 1985

	Total	Per Unit	IFY 85/86	IFY 86/87	IFY 87/88	IFY 88/89	IFY 89/90	IFY 90/91	IFY 91/92	Life of				
	Units	Base Cost	Units	Costs	Units	Costs	Units	Costs	Units	Costs	Project Costs			
GOI LC (tax, maintenance and supplies)	25	1,400	0	0	5	7,000	5	7,000	5	7,000	5	7,000		
-Stencil Machine														
AID FI (none)	4	0	0	0	0	0	0	0	0	0	0	0		
AID LC (initial purchase)	4	5,000	0	0	4	20,000	0	0	0	0	0	0		
GOI FI (none)	4	0	0	0	0	0	0	0	0	0	0	0		
GOI LC (tax, maintenance and supplies)	20	1,000	0	0	4	4,000	4	4,000	4	4,000	4	4,000		
-Vehicle Rentals														
AID FI (none)	56	0	0	0	0	0	0	0	0	0	0	0		
AID LC (none)	56	0	0	0	0	0	0	0	0	0	0	0		
GOI FI (none)	56	0	0	0	0	0	0	0	0	0	0	0		
GOI LC (2 vehicles/4 FKM s/7 years)	56	4,800	8	38,400	8	38,400	8	38,400	8	38,400	8	38,400		
-Laboratory Equipment														
AID FI (none)	5	0	0	0	0	0	0	0	0	0	0	0		
AID LC (none)	5	0	0	0	0	0	0	0	0	0	0	0		
GOI FI (none)	5	0	0	0	0	0	0	0	0	0	0	0		
GOI LC (initial purchase)	5	40,000	0	0	0	0	5	200,000	0	0	0	0		
total AID FI				92,600		56,250		0		0		0	148,850	
total AID LC				377,250		71,500		12,600		14,100		5,400	2,700	483,550
total GOI FI				0		0		6,700		6,700		6,700	6,700	26,800
total GOI LC			38,400	129,800		141,200		344,200		144,200		152,900	155,600	1,106,400
total FKM commodities			38,400	599,650		269,050		363,500		165,000		165,000	165,000	1,765,600
Sub-Total AID FI				92,600		56,250		0		0		0	0	148,850
Sub-Total AID LC				405,000		71,500		12,600		14,100		5,400	2,700	511,300
Sub-Total GOI FI				0		0		6,700		6,700		6,700	6,700	26,800
Sub-Total GOI LC			38,400	135,350		146,850		349,750		149,750		158,450	161,150	1,139,700
Sub-Total Commodities			38,400	632,950		274,600		369,050		170,550		170,550	170,550	1,826,650
INFRASTRUCTURE OPERATIONS														
a. Routine Operating Expenses														
-North Sumatera University														
AID FI (none)	11,906		0	0	0	0	0	0	0	0	0	0	0	0
AID LC (none)	11,906		0	0	0	0	0	0	0	0	0	0	0	0
GOI FI (none)	11,906		0	0	0	0	0	0	0	0	0	0	0	0
GOI LC (utilities & communications/meter 2/year)	11,906	60	486	29,160	486	29,160	486	29,160	2,612	156,720	2,612	156,720	2,612	156,720
-Hasanuddin University														
AID FI (none)	7,928		0	0	0	0	0	0	0	0	0	0	0	0
AID LC (none)	7,928		0	0	0	0	0	0	0	0	0	0	0	0
GOI FI (none)	7,928		0	0	0	0	0	0	0	0	0	0	0	0
GOI LC (utilities & communications/meter 2/year)	7,928	60	500	30,000	500	30,000	500	30,000	1,607	96,420	1,607	96,420	1,607	96,420
-Diponegoro University														
AID FI (none)	5,612		0	0	0	0	0	0	0	0	0	0	0	0
AID LC (none)	5,612		0	0	0	0	0	0	0	0	0	0	0	0
GOI FI (none)	5,612		0	0	0	0	0	0	0	0	0	0	0	0
GOI LC (utilities & communications/meter 2/year)	5,612	60	244	14,640	244	14,640	244	14,640	1,220	73,200	1,220	73,200	1,220	73,200
-Airlangga University														
AID FI (none)	13,108		0	0	0	0	0	0	0	0	0	0	0	0
AID LC (none)	13,108		0	0	0	0	0	0	0	0	0	0	0	0
GOI FI (none)	13,108		0	0	0	0	0	0	0	0	0	0	0	0
GOI LC (utilities & communications/meter 2/year)	13,108	60	776	46,560	776	46,560	776	46,560	2,675	161,700	2,675	161,700	2,675	161,700

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FACULTIES OF PUBLIC HEALTH COST ESTIMATES
 IUS \$, US \$1.00 = Rp.1,000

May 31, 1985

	Total Units	Per Unit Base Cost	FY 85/86		FY 86/87		FY 87/88		FY 88/89		FY 89/90		FY 90/91		FY 91/92		Life of Project Cost
			Units	Costs													
Total AID FI				0		0		0		0		0		0		0	0
total AID LC				0		0		0		0		0		0		0	0
total GOI FI				120,360		120,360		120,360		488,640		488,640		488,640		488,640	2,313,240
total GOI LC				120,360		120,360		120,360		488,640		488,640		488,640		488,640	2,313,240
total routine operating expenses																	
b. Value of Existing Space (in-kind)																	
-North Sumatera University																	
AID FI (none)	7			0		0		0		0		0		0		0	0
AID LC (none)	7			0		0		0		0		0		0		0	0
GOI FI (none)	7			0		0		0		0		0		0		0	0
GOI LC (approx. 800m ² @ \$5.25/m ² /mo. per year)	7	50,400		1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400
-Hasanuddin University																	
AID FI (none)	7			0		0		0		0		0		0		0	0
AID LC (none)	7			0		0		0		0		0		0		0	0
GOI FI (none)	7			0		0		0		0		0		0		0	0
GOI LC (approx. 800m ² @ \$5.25/m ² /mo. per year)	7	50,400		1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400
-Diponegoro University																	
AID FI (none)	7			0		0		0		0		0		0		0	0
AID LC (none)	7			0		0		0		0		0		0		0	0
GOI FI (none)	7			0		0		0		0		0		0		0	0
GOI LC (approx. 800m ² @ \$5.25/m ² /mo. per year)	7	50,400		1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400
-Airlangga University																	
AID FI (none)	7			0		0		0		0		0		0		0	0
AID LC (none)	7			0		0		0		0		0		0		0	0
GOI FI (none)	7			0		0		0		0		0		0		0	0
GOI LC (approx. 800m ² @ \$5.25/m ² /mo. per year)	7	50,400		1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400	1	50,400
total AID FI				0		0		0		0		0		0		0	0
total AID LC				0		0		0		0		0		0		0	0
total GOI FI				0		0		0		0		0		0		0	0
total GOI LC				201,600		201,600		201,600		201,600		201,600		201,600		201,600	1,411,200
total value of existing space				201,600		201,600		201,600		201,600		201,600		201,600		201,600	1,411,200
c. Salaries for Additional Staff																	
-North Sumatera University																	
AID FI (none)	92			0		0		0		0		0		0		0	0
AID LC (none)	92			0		0		0		0		0		0		0	0
GOI FI (none)	92			0		0		0		0		0		0		0	0
GOI LC (\$2400/instructor/year)	92	2,400		0	0	5	12,000	13	31,200	17	40,800	19	45,600	19	45,600	19	45,600
-Hasanuddin University																	
AID FI (none)	190			0		0		0		0		0		0		0	0
AID LC (none)	190			0		0		0		0		0		0		0	0
GOI FI (none)	100			0		0		0		0		0		0		0	0
GOI LC (\$2400/instructor/year)	100	2,400		0	0	5	12,000	10	24,000	15	36,000	20	48,000	25	60,000	25	60,000
-Diponegoro University																	
AID FI (none)	65			0		0		0		0		0		0		0	0
AID LC (none)	65			0		0		0		0		0		0		0	0
GOI FI (none)	65			0		0		0		0		0		0		0	0
GOI LC (\$2400/instructor/year)	65	2,400		0	0	3	7,200	6	14,400	9	21,600	12	28,800	17	40,800	17	40,800

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FACULTIES OF PUBLIC HEALTH COST ESTIMATES
(US \$, US \$1.00 = Rp.1,000)

May 31, 1985

	Total	Per Unit	IFY 85/86	IFY 86/87	IFY 87/88	IFY 88/89	IFY 89/90	IFY 90/91	IFY 91/92	Life of
	Units	Base Cost	Units	Units	Units	Units	Units	Units	Units	Project Cost
			Costs	Costs	Costs	Costs	Costs	Costs	Costs	
-Airlangga University										
AID FI (none)	130		0	0	0	0	0	0	0	0
AID LC (none)	150		0	0	0	0	0	0	0	0
GDI FI (none)	180		0	0	0	0	0	0	0	0
GDI LC (\$2400/instructor/year)	180	2,400	0	9 21,600	18 43,200	27 64,800	36 86,400	45 108,000	45 108,000	
-University of Indonesia										
AID FI (none)	100		0	0	0	0	0	0	0	0
AID LC (none)	100		0	0	0	0	0	0	0	0
GDI FI (none)	100		0	0	0	0	0	0	0	0
GDI LC (\$2400/instructor/year)	100	2,400	0	5 12,000	10 24,000	15 36,000	20 48,000	25 60,000	25 60,000	
<hr/>										
total AID FI			0	0	0	0	0	0	0	0
total AID LC			0	0	0	0	0	0	0	0
total GDI FI			0	0	0	0	0	0	0	0
total GDI LC			0	64,800	136,800	199,200	259,200	314,400	314,400	1,288,800
total salaries for additional staff			0	64,800	136,800	199,200	259,200	314,400	314,400	1,288,800
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Sub-Total AID FI			0	0	0	0	0	0	0	0
Sub-Total AID LC			0	0	0	0	0	0	0	0
Sub-Total GDI FI			0	0	0	0	0	0	0	0
Sub-Total GDI LC			321,960	386,760	458,760	688,840	948,340	1,004,040	1,004,040	5,013,240
Sub-total Infrastructure Operations			321,960	386,760	458,760	688,840	948,340	1,004,040	1,004,040	5,013,240
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TECHNICAL ASSISTANCE										
a. Long Term Advisor (60 person-months, at PSC rates)										
AID FI (salary, benefits, intl. travel)	60	8,400	5 42,000	12 100,800	12 100,800	12 100,800	12 100,800	7 58,800	0 0	
AID LC (housing, utilities, top up per diem)	60	5,200	5 26,000	12 62,400	12 62,400	12 62,400	12 62,400	7 36,400	0 0	
GDI FI (none)	50	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
GDI LC (in-country travel, GDI per diem, tax)	60	1,000	5 5,000	12 12,000	12 12,000	12 12,000	12 12,000	7 7,000	0 0	
b. Short Term Intl. (65 person-months, at commercial firm rates)										
AID FI (salary, benefits, overhead, fee, intl. travel)	65	15,200	0 0	10 152,000	14 212,800	14 212,800	12 177,600	9 136,800	5 76,000	
AID LC (housing, util., in-country, per diem & travel)	65	3,700	0 0	10 37,000	14 51,800	14 51,800	13 48,100	9 33,300	5 18,500	
GDI FI (none)	65	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
GDI LC (none)	65	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
c. Short Term Domestic (100 person-months)										
AID FI (none)	100	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
AID LC (honoraria or salary, benefits, overhead, fee)	100	2,000	3 6,000	10 20,000	12 24,000	20 40,000	20 40,000	20 40,000	15 30,000	
GDI FI (none)	100	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
GDI LC (in-country travel, GDI per diem, tax)	100	500	3 1,500	10 5,000	12 6,000	20 10,000	20 10,000	20 10,000	15 7,500	
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Sub-Total AID FI			42,000	252,800	313,600	313,600	248,400	195,600	76,000	1,492,000
Sub-Total AID LC			32,000	119,400	138,200	154,200	150,500	109,700	48,500	752,500
Sub-Total GDI FI			0	0	0	0	0	0	0	0
Sub-Total GDI LC			6,500	17,000	18,000	22,000	22,000	17,000	7,500	110,000
Sub-total Technical Assistance (nos)			80,500	389,200	469,800	469,800	470,900	322,300	132,000	2,354,500

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FACILITIES OF PUBLIC HEALTH COST ESTIMATES
(US \$, US \$1.00 = Rp.1,000)

May 31, 1985

	Total	Per Unit	FY 85/86		FY 86/87		FY 87/88		FY 88/89		FY 89/90		FY 90/91		FY 91/92		Life of Project Cost
	Units	Base Cost	Units	Costs	Units	Costs	Units	Costs	Units	Costs	Units	Costs	Units	Costs	Units	Costs	
PROJECT MANAGEMENT																	
a. Project Management Unit																	
AID F1 (none)	53	0		0		0		0		0		0		0		0	
AID LC (staff expense/salary, supplement)	22	5,000	5	25,000	12	60,000	12	60,000	12	60,000	12	60,000	9	45,000	6	30,000	
GDI F1 (none)	68	0		0		0		0		0		0		0		0	
GDI LC (base salary, honoraria, utils/comm., travel & per diem, honoraria steering committee)	68	2,550	5	12,750	12	30,600	12	30,600	12	30,600	12	30,600	9	22,950	6	15,300	
b. Local Management Units (5 F.M. s)																	
AID F1 (none)	63	0		0		0		0		0		0		0		0	
AID LC (none)	63	0		0		0		0		0		0		0		0	
GDI F1 (none)	63	0		0		0		0		0		0		0		0	
GDI LC (operating costs, honor. Strng. Comm., honoraria)	63	1,520		0	12	18,240	12	18,240	12	18,240	12	18,240	9	13,680	6	9,120	
c. CHS Support																	
AID F1 (none)																	
AID LC	9	0		0		0		0		0		0		0		0	
GDI LC (utilit)													3	7,500	6	15,000	
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Sub-Total AID F1				0		0		60,000		60,000		60,000		45,000		30,000	340,000
Sub-Total AID LC				25,000		60,000		60,000		60,000		60,000		45,000		30,000	0
Sub-Total GDI F1				0		0		0		0		0		0		0	0
Sub-Total GDI LC				12,750		48,840		48,840		48,840		48,840		44,130		35,420	291,660
Sub-total Project Management				37,750		108,840		108,840		108,840		108,840		89,130		67,420	631,660
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RESEARCH/FEASIBILITY STUDIES/PILOT PROJECTS																	
a. Research																	
AID F1 (none)	0	0		0		0		0		0		0		0		0	
AID LC (honoraria, travel, per diem, materials/supplies, enumerator fees)	N/A	N/A		0		75,000		125,000		225,000		225,000		125,000		75,000	
GDI F1 (none)	0	0		0		0		0		0		0		0		0	
GDI LC (honoraria, travel, per diem, materials/supplies, enumerator fees - inc. MEC & local gov't)	N/A	N/A		0		75,000		75,000		125,000		150,000		250,000		325,000	
b. National Research/Policy Seminars																	
AID F1 (none)	10	N/A		0		0		0		0		0		0		0	
AID LC (1 yr all AID, 2 yrs instrctr/site rent/print)	10	N/A		0		0		20,000		4,650		4,650		0		0	
GDI F1 (none)	10	N/A		0		0		0		0		0		0		0	
GDI LC (2 yrs all participant costs, 2 yrs all costs)	10	N/A		0		0		0		15,350		15,350		20,000		20,000	
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Sub-Total AID F1				0		0		0		0		0		0		0	0
Sub-Total AID LC				0		75,000		145,000		227,650		227,650		125,000		75,000	879,300
Sub-Total GDI F1				0		0		0		0		0		0		0	0
Sub-Total GDI LC				0		75,000		75,000		140,350		150,350		270,000		345,000	1,070,700
Sub-total Research/Feasibility Studies/Pilot Projects				0		150,000		220,000		370,000		370,000		395,000		420,000	1,950,000
<hr/>																	
PLANNING MEETINGS																	
a. National Program Review and Planning (additional 1 F15-funded)																	
AID F1 (none)	0	N/A		0		0		0		0		0		0		0	

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FACULTIES OF PUBLIC HEALTH COST ESTIMATES
(US \$, US \$1.00 = Rp.1,000)

May 31, 1985

	Total Units	Per Unit Base Cost	IFy 85/86 Units Costs	IFy 86/87 Units Costs	IFy 87/88 Units Costs	IFy 88/89 Units Costs	IFy 89/90 Units Costs	IFy 90/91 Units Costs	IFy 91/92 Units Costs	Life of Project	Cost
AID LC (2 yr all AID, 2 yrs instrctr/site rent/print)	0	N/A	0	1 8,800	1 8,800	1 1,675	1 1,675	0	0		0
GDI Fx (none)	0	N/A	0	0	0	0	0	0	0		0
GDI LC (2 yrs all participant costs, 2 yrs all costs)	0	N/A	0	0	0	1 7,125	1 7,125	1 8,800	1 8,800		0
b. Regional Program Review and Planning											
AID Fx (none)	30	N/A	0	0	0	0	0	0	0		0
AID LC (2 yr all AID, 2 yrs instrctr/site rent/print)	30	N/A	0	5 22,500	5 22,500	5 6,125	5 6,125	0	0		0
GDI Fx (none)	30	N/A	0	0	0	0	0	0	0		0
GDI LC (2 yrs all participant costs, 2 yrs all costs)	30	N/A	0	0	0	5 15,000	5 15,000	5 22,500	5 22,500		0
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Sub-Total AID Fx			0	0	0	0	0	0	0		0
Sub-Total AID LC			0	31,300	31,300	9,800	9,800	0	0		82,200
Sub-Total GDI Fx			0	0	0	0	0	0	0		0
Sub-Total GDI LC			0	0	0	22,125	22,125	31,300	31,300		106,850
Sub-Total Planning Meetings			0	31,300	31,300	31,925	31,925	31,300	31,300		189,050
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EVALUATION AND AUDIT											
AID Fx (salary, benefits, overhead, rec, intl travel)	5	15,200	0	0	0	0	0	0	0	2	30,400
AID LC (housing, util., in-countr., per diem & travel)	5	3,700	0	0	0	0	0	0	0	2	7,400
GDI Fx (none)	5	0	0	0	0	0	0	0	0	0	0
GDI LC (none)	5	0	0	0	0	0	0	0	0	0	0
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Sub-Total AID Fx			0	0	0	45,600	0	0	0	2	30,400
Sub-Total AID LC			0	0	0	11,100	0	0	0	2	7,400
Sub-Total GDI Fx			0	0	0	0	0	0	0	0	0
Sub-Total GDI LC			0	0	0	0	0	0	0	0	0
Sub-Total Evaluation and Audit			0	0	0	56,700	0	0	0	2	37,800
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CONTINGENCY/INFLATION											
Sub-Total AID Fx											648,267
Sub-Total AID LC											509,353
Sub-Total GDI Fx											0
Sub-Total GDI LC											0
Sub-Total Contingency/Inflation											1,157,620
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GRAND TOTAL											
Grand Total AID Fx			42,000	497,550	886,350	1,141,950	967,400	618,350	227,000		5,048,867
Grand Total AID LC			73,550	715,790	592,740	691,590	654,610	476,310	237,750		3,951,133
Grand Total GDI Fx			0	2,400	25,500	50,700	72,200	24,700	10,500		176,800
Grand Total GDI LC			687,210	766,190	947,525	1,729,455	1,522,525	1,707,870	1,634,320		8,819,100
Grand Total Project			1,82,800	1,981,920	2,452,115	3,623,675	3,167,140	2,827,230	2,109,280		17,995,900

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Relationship of Project to AID Policy, Mission Portfolio
and Mission Objectives

This project supports AID policies for health and population, and is consistent with both the Mission CDSS strategy and Office of Population and Health efforts to improve primary health care through improvements in training and management. USAID agrees with the GOI that managerial deficiencies and a shortage of skilled health manpower outweigh technical deficiencies as impediments to the delivery of programs for diarrheal disease control, nutrition, immunization, and family planning and to effective drug utilization and management. The new Faculties of Public Health will produce health personnel with the understanding of epidemiology, statistics, health administration and management needed to effectively manage existing public health programs.

The development of Faculties of Public Health is consistent with the Mission's human resource development strategy to support selected regional institutions of higher education which can provide skills in one of the Mission's three main program areas: improving primary health care and completing activities to fully institutionalize family planning. The 1985 CDSS states that "USAID plans to assist in improving epidemiology and public health programs at selected universities. The establishment of from four to seven schools of Public Health is currently under consideration, and USAID anticipates recommending support for them in FY 1985."

By initiating public health research of the Faculties of Public Health, and conducting national research/policy seminars, the project attempts to link research findings to policy analysis and to involve educational institutions in the health policy formulation process, another Mission priority. The project's emphasis on overseas participant training to provide a sizable portion of immediate faculty training needs while in-country capacity is being built up, and the project's reliance on indigenous administration of all long term training, both in-country and overseas, is also in accordance with Mission policy.

Public sector dominance in public health service delivery and education in Indonesia has not allowed sufficient consideration of the role that the private sector can play in this area. Although the project does not directly involve the private sector, it will consciously promote discussion on the private sector's role in public health service delivery, financing, and education. This approach is compatible with the AID Health Assistance Policy Paper's strategy to "stress private sector approaches to providing health care and health promoting measures and private resources to cover the costs generated by health programs." By exploring private sector involvement gradually through research and discussion at first, the project expects to avoid the opposition and resistance public sector organizations might otherwise display toward such approaches. It is anticipated that the question of the private sector's role will ultimately be raised to policy levels through national research/policy seminars.

The project responds to the AID Health Assistance Policy Paper's emphasis on improving the effectiveness of health programs through improved program design, management and implementation. It utilizes all three mechanisms proposed in the paper to deal with problems of health system effectiveness: technical assistance to strengthen administration; training programs for mid-level managers, in this case S₁ degree and S₂ degree level training in public health; and training of trainers.

The project complements the current O/PH project portfolio and utilizes the experience and administrative and funding mechanisms of BKKBN's AID-assisted participant training program. O/PH supports programs which develop health service delivery systems in the areas of immunization, diarrheal disease control, maternal/child health, and family planning. This project will strengthen the basic ingredient necessary for the success of all of these systems by providing manpower with the managerial and technical expertise essential for effective implementation. Regarding the BKKBN's participant training program, this project will retain overall responsibility and management for long and short term training in its management unit; BKKBN will provide routine administrative assistance for candidate recruitment, placement at universities, academic monitoring and financial support of participants.

Finally, the project will strengthen links between the new FKM's and the local PEMDA, BAPPEDA, MOH, BKKBN and other public and private agencies involved in health and family planning service delivery in areas where other projects in the O/PH portfolio are underway. The research capabilities, technical assistance, and manpower that the new FKM's will make available to these local agencies will strengthen the GOI's capacity to implement existing O/PH projects.

USAID's support for the development of Faculties of Public Health is demonstrated by the history of USAID/GOI collaboration in developing the project design. Prompted by inquiries from the Minister of Health, the Ministry of Education and Culture (MEC) in 1981 began seriously exploring the possibility of expanding its capacity for public health education. Since USAID was instrumental in developing the Faculty of Public Health of the University of Indonesia in 1972 by providing technical assistance to plan the Faculty and since USAID has continued to provide technical and monetary support to FKM/UI over the years, a similar request was put forward in 1982 to USAID by the Consortium of Health Sciences (CHS) which coordinates education in the health professions for the MEC's Directorate General for Higher Education.

With assistance from USAID through the Family Planning Development and Services I Project (497-0270), the CHS, in 1983, initiated a study of the feasibility of establishing new Faculties of Public Health at Diponegoro University, Airlangga University, and the University of North Sumatera. The feasibility of strengthening the new Faculty of Public Health at Hasanuddin University was also investigated. The results of this effort were Five Year FKM Development Plans which detailed facilities, staffing, material, and curricular requirements each Faculty would need. With assistance from the Family Planning Development and

Services II Project (497-327), funds were obtained for staff and curriculum development, and for core library materials. Twelve staff members from the four proposed new Faculties will depart for AID-funded long term academic training at the Masters and Doctoral level in the U.S. in 1985, and 10 more will depart in 1986. Nineteen staff members will begin AID-funded Masters training in Indonesia in 1985 and 10 more in 1986. Through Project Development and Support Funds (498-0249), and in view of the demonstrated commitment to this effort, CHS was provided an additional year of assistance to sustain the momentum created by these previous efforts and to assist in the planning for the development of a new project to develop the four Faculties of Public Health. Significant outcomes from this latter effort include the development of a standard core curriculum for S₁ degree training in public health and the identification of a pool of national consultants with the capacity to provide technical assistance in most areas of curriculum development and implementation of public health education programs.

DRAFT SCOPES OF WORK

A. Long Term Personal Services Contractor

The Contractor will, under the supervision of the USAID Chief, Office of Population and Health, assist the Director of the Faculties of Public Health Project Management Unit located in the Ministry of Education and Culture's Directorate for Higher Education. The Contractor will function integrally within the PMU in all aspects of its scope and mandate, and will provide linkages between the PMU and USAID.

Specifically, the Contractor will assist the PMU to:

1. Establish operating procedures and working mechanisms for all PMU tasks and responsibilities. These procedures and mechanisms will be formulated jointly with the PMU and revised periodically to conform with different phases in project implementation;
2. Design and operationalize an annual policy and planning cycle to obtain budgets for upcoming years' project activities. The annual cycle will include policy from a Project Steering Committee, its translation into operational guidelines, the solicitation and review of annual plans from regional FKMs and FKM-UI, the formulation of comprehensive annual workplans, and the realization of annual budgets from USAID and BKKBN;
3. Identify specific short-term technical assistance needs based upon yearly project workplans and communicate these needs to USAID and/or the Directorate for Higher Education, as appropriate, for the contracting of foreign or domestic short term consultants;
4. Advise project implementing bodies on AID requirements for commodity procurement;
5. Assist the Directorate General for Higher Education to prepare all correspondence with USAID;
6. Coordinate all long and short term training both in Indonesia and abroad. The Contractor will work with regional Faculties to develop realistic annual training plans, identify and select participants, and advise the PMU regarding the choice of academic programs and short training courses at suitable universities and training institutions. The consultant will also assist in the development and teaching of short in-service training courses where necessary;

7. Develop a project monitoring information system which will collect data on a routine basis for monitoring project implementation, inputs, finances and progress toward objectives. This information will be generated from the four regional FKMs and FKM-UI, will be compiled and analyzed by the PMU, and will be distributed bi-annually;
8. Formulate process and summative project evaluation designs for a mid-project process review and final project evaluation;
9. Establish mechanisms for the identification, preparation and submission to the PMU of FKM research projects, for review and funding of research proposals by the PMU, for monitoring progress of research in the field, and for the presentation of research findings. During the first 18 months of project implementation, the Contractor's efforts will focus on assisting the regional FKMs to develop research agendas and helping Faculty members to design sound research proposals. The consultant will be assisted by short-term technical assistance in this activity. Following this 18 month period, the consultant will focus efforts on facilitating the mechanisms for proposal review, approval, and funding by the PMU;
10. Identify important issues being researched through the project that have policy implications for the MOH and BKKBN, and arrange National Policy Seminars in which these issues are brought to the attention of policy-makers. The Contractor will maintain linkages with appropriate officials in the MOH and BKKBN through the Project Advisory Board to assess the relationship of project-funded research to policy issues. Through these linkages and discussions and with input from the Project Steering Committee, the PMU will identify issues to be discussed at the National Policy Seminars.

The Contractor will prepare a discussion paper every 12 months which assesses project implementation and makes recommendations for revision or modification of project activities. This discussion paper will be reviewed by the PMU and Project Steering Committee at their annual meeting prior to the formulation of project policy guidelines for project activities in the upcoming fiscal year.

The consultant will work directly in the Project Management Unit but will be expected to spend a portion of his/her time at the regional FKMs monitoring project implementation and providing direct assistance to faculty members.

In order to carry out these responsibilities the consultant should have a minimum of 10 years experience in public health. Prior experience working with Faculties of Public Health will be preferred. A general knowledge of technical areas in Public Health is necessary with specific expertise in training, management, and research. Fluency in written and spoken Bahasa Indonesia will be required of the Contractor.

B. Institutional Contract for Short Term Technical Assistance

Short term technical assistance will be funded directly by USAID/Indonesia through an 8(a) contract. Disbursement of funds will be made according to USAID regulations. Sub-contracts will be drawn up by the contractor and will be subject to prior GOI and USAID approval.

The Contractor will provide up to 65 person months of short term technical assistance (average one month) to assist with the development of four new Faculties of Public Health in Indonesia. Short term consultants will provide specialized expertise in technical areas related to public health. Their assistance will be used to develop curricula and instructional materials for the Bachelors of Public Health program being instituted at each Faculty, to teach selected short courses in specialized public health disciplines to Faculty staff members, to assist to formulate region-specific research programs at each new Faculty, and to advise on education administration and management systems.

The Contractor will identify and maintain listings of consultants with technical expertise in Biostatistics, Epidemiology, Health Education, Health Administration, Management, Environmental Health, Maternal/Child Health, Population and Demography, Nutrition, Educational Administration, Systems Design and Analysis, Computer Science, Instructional Materials Design, Teaching English as a Second Language, Research Design and Methodology, and Data Analysis. A list of available consultants in each of the above technical areas will be provided and updated annually by the Contractor. Consultants with previous academic experience will be preferred. An ability to work in the Indonesian language will be preferred but not required.

The technical consultants will work in collaboration with Indonesian colleagues from the Faculty of Public Health at the University of Indonesia and other university, private, and public sector agencies in Indonesia, who will be funded through other means. Consultants will assist the new Faculties of Public Health to:

1. Develop and teach selected in-service training programs for faculty members from the new Faculties of Public Health. The training programs will upgrade basic skills and introduce state of the art technological and scientific advances in technical public health disciplines;
2. Design administrative procedures and management systems for operating the new Faculties of Public Health;
3. Develop detailed curricula for the Bachelors of Science in Public Health Degree program which incorporate the latest technological and scientific advances, contain innovative participatory teaching methodologies, and integrate instructional materials such as video cassettes, slide tape series, etc.;

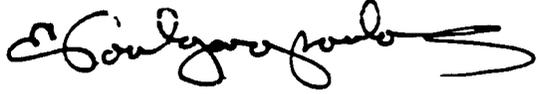
4. Devise systems to formulate research policies and priorities appropriate to the capabilities of the Faculties and Responsive to the public health needs of the surrounding region develop research agendas, maintain research quality standards, establish linkages with local health and family planning agencies for collaboration in conducting research, and utilize research, funding;
5. Integrate micro-computer applications into academic programs, into research, and into education administration and management systems;
6. Improve the English language training component of the existing Public Health curriculum to allow students to make more optimal use of Public Health information resources in the English language;
7. Maximize the field practicum portion of the Bachelors Degree in Public Health program.

The Contractor will maintain updated files of technical experts available on notice of as little as 2-3 months for the above activities. Liaison will be maintained with the USAID Project Officer. Scopes of work and desired consultancy schedules will be provided to the Contractor by USAID. The Contractor will nominate appropriate consultant candidates to USAID. Nominations will include full background of candidates including recent salary histories and times available to assist under the project. The Contractor will provide approved consultants with air tickets, salary, per diem, insurance, local travel, and miscellaneous expenses for the requested consultancy period. Final consultant reports will be submitted to the GOI and USAID by the contractor within 30 days of completion of the consultancy and will include a summary of work completed and summary recommendations of future Faculty needs in the... consultant's are a of specialization.

Although the prime responsibility of the Contractor is to provide short-term technical assistance, a contract amendment may be required during year 2 of the contract to provide the services of one long-term advisor who will act as the major consultant for the Project Management Unit.

Waiver Control No: IND/85/49

ACTION MEMORANDUM FOR THE DIRECTOR

DATE : June 5, 1985
FROM : Emmanuel Voulgaropoulos, O/PH 
SUBJECT : International Travel Costs of Selected Participants under the
Faculties of Public Health Project (497-0348)

Problem: A waiver is required to authorize AID loan funding of international travel costs for selected participants under the Faculties of Public Health Project.

Background: The above mentioned project contains loan funds in the amount of approximately \$2.5 million for long-term training overseas (40 participants, anticipated), with additional loan funds of approximately \$0.4 million for short-term overseas training. Long-term participants will include 10 Ph.D. candidates, some of whom are expected to return to Indonesia for approximately one year for field dissertation research. Short-term participants will consist of 10 faculty externs and 25 persons attending short courses.

It is anticipated that the Government of Indonesia will fund all trainee airfare costs under the project except for the round trip international airfare incurred for the purpose of Ph.D. research and except for airfare costs of the short term participants. The exception for Ph.D. research is due to a general GOI policy not to pay more than one round trip airfare for overseas participants. The GOI request for AID to finance the airfare cost of short-term overseas participants is based on the sensitivity of short-term training in some Government circles and the fact that the Government is already prepared to bear the burden of airfare costs of long-term overseas trainees. The uninflated airfare costs for the 10 Ph.D trainees to carry out research is \$30,000 and for the 35 short-term participants is \$105,000. GOI funds for long-term overseas participant travel will total \$120,000 at current prices.

Justification: GOI funds are not available to pay for either the cost of international travel of Ph.D. candidates to return to Indonesia to conduct dissertation research or for the international travel of project-funded short-term participants. AID Handbook 10, Chapter 15, requires that the host country pay the cost of international travel. The Mission Director has the authority to waive this requirement. Failure to fund these costs would hinder progress toward achieving the project's objectives

Recommendation: That, for one round trip for up to 10 project-supported overseas Ph.D candidates and for up to 25 short-term participants, you waive the requirement that the host country bear the costs of international travel under the Loan Agreement.

Approved: William P. Fuller
William P. Fuller
Director

Disapproved: _____
William P. Fuller
Director

Date: 8 July, 1965