

INDONESIAN CHILD SURVIVAL IN TRANSITION PROJECT  
PRIVATE PROVISION OF PREVENTIVE SERVICES COMPONENT

FINAL REPORT



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IQC Contract # PDC-1406-I-00-7113-00

PD-ABC-246

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Thomas Bossert, Ph.D  
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## I. INTRODUCTION

The potential for this AID project to strengthen the Indonesian private sector in its provision of child survival and other preventive health activities is a major innovation that could provide important lessons not only for the future health policy in Indonesia but for many other countries and other donors as well. As an important sub-component in a broader child survival project, this initiative has far reaching implications.

Building on an already significant but neglected private sector delivery of major child survival activities, this project will seek to improve skills and services of private providers, provide mechanisms for quality control in this largely un-monitored sector, and develop incentives for private hospitals and employers to cross-subsidize preventive care. Since the private sector is already important and government policy will encourage greater utilization of private practice, it is likely that improvements in quality of that service will result in improved general health levels of infants, children and mothers.

This report is based in part on the analysis presented in **Indonesia: Background Paper on Private Provision of Preventive Services**, which should be referred to for a basic review of the current situation in the Indonesian private sector and basic justifications for project activities designed to strengthen the delivery of preventive services and other Child Survival activities in the private sector.

The analysis presented in this report is also the result of five weeks of interviewing and discussion with major actors in the public and private sector to develop specific project components. A major effort was made to gain consensus among those who will be responsible for implementing and monitoring the project.

It is important, however, to emphasize that the ideas and suggestions presented in this report are only those of the author and do not reflect any commitment by A.I.D., Depkes, or any of the other associations involved in this process. This report includes many options and suggestions that should be weighed and selected by the appropriate officials. It is by no means an official document of any agency.

It is useful here to review several elements that have emerged as general issues and principles of this project design process.

First, it is clear that there already exists significant private sector activity in preventive and Child Survival areas. Most health providers are active in both the public and private sectors -- providing services in their afternoon private practice that are similar to the services that they provide in the public sector.

Most striking is the dominance of the private sector in maternal and child health -- especially in births. Only a small portion of births occur in public facilities. Most occur at home with a traditional birth attendant. In addition, a significant portion of immunizations, especially in the urban areas, is also currently being given by private providers.

Given the current importance of the private sector a first priority of this project should be to assure that the services delivered in this sector improve in quality. The continuing high levels of infant mortality (70 per 1000), child mortality (46 per 1000) and maternal mortality (6 per 1000) as well as the regional variations within Indonesia suggest that major improvements in private sector perinatal care should be targeted as priority. Secondly, with greater immunization coverage provided by the private sector and with an anticipated expansion of this coverage, the quality of immunization services should be assured so that coverage actually reflects protection. This implies the need to provide improved training and equipment for the private sector providers. It also implies a major improvement in the quality control of the private sector -- through a combined program of information, monitoring, inspection and sanctions implemented through a private-public partnership.

Secondly, there exist several private NGOs that can be strengthened as vehicles for improving the delivery of services in the private sector and for quality control. The most important are the professional associations, however, several private voluntary organizations might also support this effort, although they currently mainly support public sector activities.

Third, Indonesian government policy supports cooperative development. The government looks favorably on programs to initiate cooperatives in various areas. This project could capitalize on this emphasis by initiating cooperatives for purchase and credit for key equipment for MCH and immunization services in the private sector.

Fourth, there are significant current opportunities to expand private hospital provision of preventive services through private clinics and outreach programs. Current regulations governing the non-for-profit hospitals can be revised to encourage an expansion of these services. Additional opportunities may exist for employer-provided clinics as well.

Although this project proposes some new areas for A.I.D. interventions, by and large it will support and strengthen on-going and existing activities that are provided by the private sector, by Ngos, and by current public-private cooperation.

The activities described in this sub-component should be integrated with the social marketing and pharmaceutical supply subcomponent which will explore methods of expanding and shifting demand for EPI, ARI, ORT and perinatal care toward the private sector and providing incentives for private supplies of immunizations and other child survival and mothers' health pharmaceuticals.

As the Health Sector Financing Project begins to develop social marketing mechanisms, coordination between the activities described in this sub-component and those of the Health Sector Financing Project should be developed. Where financing mechanisms can be made available for financing services of private providers, these options should be encouraged as long as they continue also to provide for equity of access and progressive redistribution of the premium burden.

**Project Component Goal:**

**Strengthen Provision of Quality Preventive Services in the Private Sector**

**Sub-Components:**

**A. Private Preventive Service Delivery Systems**

**Development of a private sector delivery system through training, supervision, credit and health education activities of Professional Associations and through development of private sector outreach systems from private hospitals and employers.**

**B. Public-Private Quality Control Process**

**Development of public-private mechanisms of quality control of private sector primary health care services through information and monitoring systems, ethics review, inspection and sanctions processes.**

## II. PREVENTIVE CARE SERVICE DELIVERY IN PRIVATE SECTOR

### **A. Problems and Issues**

While significant gains have been made in infant, child and maternal mortality over the last twenty years, major problems remain. Indonesia's epidemiological patterns are lower than its usual referent groups in South East Asia, and similar to those of Guatemala and Honduras -- among the least developed in Latin America. IMR and immunization coverage rates require continued efforts for improvement. Diarrhea, acute respiratory infection (ARI) and perinatal causes continue to be the major causes of mortality and morbidity. Maternal mortality is still high.

Both the public and private sectors are major providers of child survival services. Another component of this project will strengthen public services, however if the problem described above are to be addressed, the current and future activities of the private sector will also have to be strengthened.

The private sector is already a major provider of child survival activities. The 1986 Household Health Survey found that 62.3% of the births in Indonesia were attended by traditional birth attendants and another 27.9% were attended by professional midwives -- mostly in their private practice.

A recent study of the location of births in Bali found that 74% of the births were in the mother's own house or the house of a professional midwife. Only 25.6% occurred in a hospital (some of which are private) or puskesmas. While only 12.2% were attended by a physician, professional midwives were the major providers, attending 47.3% of the births.

While use of TBAs appears to be experiencing a secular decline, it still remains high. The Bali data suggests that overall 25.7% of the last reported births were attended by **dukun** (TBA) and 14.8% by other family members, who might be considered similar to TBAs. An age breakdown of these data showed that young women from 20 to 29 were less likely to use traditional birth attendants than were older women, suggesting that there may be a declining use of TBAs. Nevertheless, 20% of these women still used TBAs. Overall, the highest utilization of TBAs occurred in the poorest kabupaten.

Studies of private sector immunizations suggest that from 25 to 35% of the immunizations in urban areas are provided by private practitioners. A WHO study in 1987 found that private solo delivery accounted for 24% of the immunizations in Jakarta.[WHO, 1987] This finding is consistent with other more

recent data from Jakarta, where data is now kept on private delivery, which shows that 27.6% of Polio 3 vaccines are given in the private sector, with 75% of those vaccines given by midwives or nurses. [Dinas Kesehatan DKI Jakarta, April-June 1989]. The WHO study found, however that in other study areas (East and West Java, Aceh, South Sulawesi and South-East Sulawesi) private delivery was only between 2% and 7% of immunizations. These estimates, however, probably reflect significant underreporting. The private sector data for physicians only includes pediatricians, it does not include general practitioners. Furthermore, a survey of private providers in five urban areas found that while 40% of the respondents gave immunizations in private practice, 60% of them did not report their immunizations to the public health authorities. [Proyek Pengembangan FKM di Indonesia, 1988]

While rural areas are still heavily dependent on public immunizations, some recent data suggests that there is greater demand for private immunizations than official statistics suggest. One rural puskesmas in Bali reports that 60% of its TT1, 22% BCG and 16% Polio1 is provided by private sector.

While we have some indications of the importance of private child survival activities, we have no direct evaluations of the quality of those services. Nevertheless, anecdotal observations and the high rates of perinatal and maternal mortality where services are largely private suggest the need for significant efforts to improve quality in the private sector.

### **Perinatal and Mothers' Health**

As noted above most of the births in Indonesia occur in the private sector. The quality of these services has not been studied; however, high maternal mortality and infant mortality caused by perinatal complications suggest that major improvements in this private service are necessary.

In 1986, perinatal causes are listed as the second cause of infant mortality, after tetanus, accounting for 18.4% of the infant deaths. [GOI-UNICEF, 1989] Maternal mortality rates are estimated between 150 and 780 per 100,000 live births. Compared to other ASEAN countries, even the low estimates of MMR are high.

In a major new initiative, the Ministry of Health plans to place 18,000 new professional midwives in communities throughout Indonesia by the end of the Fifth Five Year Plan. It is estimated that each of these midwives will be able to serve two or three communities. There is currently no clear policy on how the midwives will practice once they are in the field. They are expected to work in the community, perhaps in

a special birthing clinic provided by the community. Some may work out of the local puskesmas pembantu. They are likely to be allowed to charge for birth services, although, pre- and post-natal visits may be provided as part of their government service. It is unclear how these midwives will be supervised.

Maternity Clinics (Ruma Bersalin) which are run by professional midwives and are located mainly in urban areas, are monitored by the Ministry of Health, although rarely are they inspected. A physician, however, is responsible for supervising the clinic (under the "prolonged arm" principle which does not require direct observation) and is called for problem births.

The rest of the private birthing practice is relatively unregulated and unsupervised. Professional midwives in solo practice are officially supervised by a local physician, however, this practice is unsystematic. Referral capabilities are generally poor, with puskesmas often unequipped for emergencies and with no official relationship between puskesmas and district hospitals. [Anna Alisjahbana, 1989]

For many years Indonesian health officials and private voluntary organizations have attempted to train, licence and supervise the TBAs. Most programs recruit TBAs into short training programs conducted by puskesmas staff -- usually the professional midwife. At the end of training, they receive a certificate of licence and a basic UNICEF kit. The puskesmas midwife is then responsible for supervising the TBA activities, usually in monthly meetings. TBAs are expected to report births and to refer problem cases to the puskesmas.

Many of these efforts have led to failure. Often the training has not resulted in changed practices. Training methodologies often are didactic and not interactive. Education of the mothers is poor. Supervision is not well understood or systematically practiced. Conflicts of interest between the professional midwives and the TBAs who compete for clients have also complicated this practice.

There are, however, several models of improved training and supervision which have been developed by research projects and by Ngos which could be explored to develop a more appropriate approach to improving birthing practices.

Data from Bali suggests that, although younger women may be less likely than older women to turn to TBAs, at least 20% nevertheless continue to use them. Studies in other areas suggest that women express continued confidence in and preference for TBAs. [Dewi Rita Mintarshi, 1989] TBAs are likely to remain significant health providers in the foreseeable future and their services need to be improved.

Preliminary results of a current research project in perinatal care suggest the need for improved identification of mothers at risk, transportation capabilities for emergency deliveries, better referral systems, with better equipment, blood supplies and improved skills at the puskesmas and hospital levels.[Anna Alisjahbada, 1989]

## EPI

A Recent evaluation of the cold chain in the public sector found that cold chain maintenance was inadequate in 45% of the puskesmas visited, 53% of the district level facilities and 13% of the provincial facilities.[Bass] Observations of the cold chain in private practice suggests that the situation in the private sector is worse. Few private refrigerators appear to have thermometers. There are no forms for daily temperature checks. Since many are the only refrigerator in the residence they are also used for food storage which leads to significant variations in temperature.

Unsterile procedures are often observed in puskesmas and in posyandu. Needles are often reused, even if they are disposable. There is a growing market in used needles and vials.

It is also reported that few general physicians are interested in providing immunizations. Only pediatricians routinely give immunizations in their private practice. Indeed few physicians give immunizations in public practice since this is the role of nurses and immunizers in the puskesmas.

## ORT

While there is some evidence that posyandu and puskesmas diarrhea treatment has improved, private practice lags significantly behind. A recent survey found that posyandu and volunteers gave ORS to 91.7% of the cases and puskesmas and hospitals gave it to 38.2%, however, in the private sector only 14.5% of patients with diarrhea were given ORS by physicians, who preferred syrup (77.7%) and pills (56%). [HealthCom 1989] Nurses and midwives in private practice were even less likely to treat diarrhea with ORS -- prescribing ORS in only 9.3% of the cases. It is commonly noted that private practitioners feel that they must prescribe a costly medicine to justify their fees. Some prescribe the more expensive pre-mixed ORS that has been positioned in the market as a medicine. A variety of studies have found that there is a widespread tendency among health workers to over-prescribe antibiotics for both diarrhea and ARI. [Quick and Forman, 1988; CHIPPS Final Evaluation, 1989]

## **ARI**

ARI is currently not part of the national posyandu program and has not received much emphasis from Child Survival Programs. Currently there is a pilot research project in Lombok to evaluate a program of ARI which trains kader to identify high risk cases and prescribe antibiotics. Operations research projects implemented by the University of Indonesia Child Survival Center have found an over utilization of health facilities for mild cases of ARI, but under-utilization for moderate and severe cases. These studies found a general tendency to overprescribe anti-biotics for mild cases of ARI -- in some areas 100% of the children with mild ARI were treated with antibiotics. [Center for Child Survival, 1988].

The evidence presented above suggests that both in public facilities and perhaps more so in private practice, health workers need program activities to improve their skills and practices for Perinatal and Mothers' Health, EPI, ORT and ARI. This project would target private practice and would utilize professional associations and other Ngos as the appropriate vehicle for developing and implementing a private sector continuing education training program in these areas.

### **Professional Associations and other NGOs**

A central effort should begin with the five associations of professional health workers: the Indonesian Doctors Association (IDI); the Indonesian Midwives Association (IBI); the Indonesian Nurses Association (PPNI); the Indonesian Pharmacists Association (ISFI), and the Indonesian Public Health Association (IAKMI).

IDI already has continuing education training programs in many branches throughout the country. It provides seminars and workshops for its members and grants continuing education credits that are necessary for maintaining the licence for private practice.

IBI is developing its role in continuing education for family planning with the assistance of several programs sponsored by AID through BKKBN. A manual for family planning has been developed and training programs begun in 11 cities.

The Nurses Association has just approved a new leadership which is interested in expanding its activities to provide a continuing education program. Although currently nurses are not licensed for private practice, many do have private practices and are in need of education programs to improve

their services. The Nurses Association also plans to lobby for licensing.

The Indonesian Pharmacists Association holds seminars and workshops for its members.

The Indonesian Public Health Association holds continuing education seminars for its members and is currently developing a training unit to develop Association training programs.

Many NGOs have been active in designing and implementing in-service Child Survival training programs largely for government programs at the posyandu level. These organizations could participate in the design of new training materials for private sector delivery of child survival services. Perhaps the most active NGOs in this area are the Center for Child Survival at the University of Indonesia and YIS, a service and consulting foundation.

#### **Private Sector Service Delivery Sub-Component**

##### **Project Objective:**

**Improve EPI, ARI, ORT, Perinatal and Mothers' Health Services in Private Sector through:**

- a. Development of Support Capability in Professional Associations and other Ngos**
- b. Promotion of Private Preventive Clinic Network (Balkesmas System and Employers Clinics)**

##### **Project Outputs:**

- a. Marketing and Operations Research Projects**
- b. Continuing Education Training Programs in EPI, ARI, ORT, Perinatal and Mothers' Health provided by Professional Association and other NGOs**
- c. Association-Sponsored Purchasing and Credit Cooperatives for Equipment in these areas**
- d. Improved administrative and financial systems to promote Association Sustainability**
- e. Regulation, Policy, Pilots to promote Balkesmas Systems and Employer Clinics**

## **B. Activities**

### **1. EPI, ORT, ARI, Perinatal and Mothers' Health**

#### **a. Marketing and Operations Research**

Although there is already a significant demand for private preventive services, it is nevertheless important for policy and for project activities to determine the economic feasibility of the continuation and expansion of these services. It would be particularly useful to examine the potential for expanding the rural market for private preventive services; the potential for expanding nurses' practices (and the implied competition with existing providers). It would also be useful to examine the effects of different pricing and fee schedules. In addition, some of the activities described below (e.g. fee for training; credit for equipment) imply costs to the providers. Preliminary studies of the potential for marginal providers (especially nurses and TBAs) to pay for these services should be implemented.

Since much of this project is designed to provide information for policy in this area -- through model pilot and demonstration projects -- a significant portion of the project should be devoted to market and operations research which can demonstrate the effectiveness of the implemented interventions. It is important to have well implemented studies to demonstrate to policy makers the utility of continuing or expanding these pilot and demonstration project activities. The effectiveness of this approach has been demonstrated by both the Health Sector Financing Project and by operations research projects in family planning.

It might be useful to create a policy unit within Depkes for overseeing and contracting these studies. This unit might be attached to or coordinate with the Economic and Policy Unit of the Planning Bureau. A priority should be placed on the involvement of key decision-makers in priority setting, design and review of findings of these policy studies.

There are several private and semi-private firms and centers which could be employed by this component to implement market feasibility and operations research studies. Currently both URC and MSH are providing important operations research for family planning policy. SRI has done major studies for social marketing in family planning. The Center for Child Survival at the University of Indonesia is a major source of expertise in operations research for diarrhea, ARI and immunizations. Private Indonesian management consulting firms -- such as YIS and Business Management Advisory -- have also provided quality research.

The research agenda for this component might start with market feasibility studies of:

- 1) impact of expanding nurses private practice through legalizing their practice -- examining current market, projecting different models of expansion of nurses' practices, projections based on different fee schedules, etc.
- 2) market potential in rural areas
- 3) current and projected price differentials among different types of providers

Other market and Operations research studies will be discussed in conjunction with each activity discussed below.

**b. Association Training Programs in EPI, ORT, ARI, Perinatal and Mothers' Health**

While most health workers have received some training in child survival interventions -- both in pre-service and in-service training programs -- there is still a need for continuing refresher courses to improve skills and practices in these areas. Practice in the public sector is still inadequate, however there is significant evidence that health providers are less likely to follow appropriate procedures in their private practice.

This component would support several of the professional associations and NGOs in the development and implementation of a pilot and demonstration project for private sector training in Child Survival.

The project would focus on training at the kabupaten level with the local branches of IDI, IBI, and PPNI, working together as the core implementing units. Selection of kabupaten for pilot activities would require an active branch organization of each association at the selected kabupaten. These organizations would work closely with local and international technical assistance as well as other associations and NGOs to develop, field test and implement the pilot program. While the module development and training of trainers program would probably begin at the national level, the branch (kabupaten) organizations would be expected to provide the trainers for their kabupaten membership. It might be appropriate to develop multi-professional kabupaten teams to develop and teach each subject module -- although training materials for physicians are likely to differ from those targeted to midwives and nurses.

It would be useful to begin the training program with the development of a single module -- perhaps on EPI -- and to combine that training with the program for cooperative equipment purchase and credit discussed below (section c.). The training program then could focus on the importance of cold chain and sterile procedures at the same time as the cooperatives would be making this equipment available to their members. It could be combined with a social marketing effort (see social marketing report, forthcoming) that would promote demand for private immunizations and expand availability of private sector supply channels.

The component on perinatal and mothers' health should focus on improving the skills and performance of both the professional midwives in their private practice and the TBAs. The training modules should develop a system by which midwives and TBAs work together in "collaborative perinatal care" so that training involves a combination of training and supervision that emphasizes interactive educative techniques and reinforcement of positive practices. Non-didactic methods, especially for training the TBAs should be emphasized. Pictorial cards and other educational materials should be used and a special emphasis should be placed on improving methods and practices for educating mothers in identifying risks and problems, in nutrition during and after pregnancy and in treatment for neonatal infections.

This program should be implemented by IBI with support from IDI which already has a proposal for TBA training. The educational materials being prepared by the Center for Child Survival should also be reviewed for this module. The project should support the incorporation of MCH material in the recently distributed looseleaf IBI manual for family planning.

The sub-component should pay special attention to the needs of midwives private practice and should be coordinated with supply of equipment through the cooperative purchase and credit program described below.

For ORT, the training program should address the reluctance of providers to prescribe ORS in their private practice. Doctors, midwives and nurses should be targeted. Again special efforts to develop educational approaches for teaching mothers should be developed -- with a special emphasis on how to use the particularities of private practice -- more time for each consultation, better provider-client relations, etc. A combined training program on ORT by IDI, IBI, PPNI, and ISFI could be coordinated with a social marketing effort. This social marketing effort would attempt to shift patient demand away from costly and inappropriate anti-biotics and toward effective treatment for dehydration. Training detail men for educating practitioners and pharmacists may also be useful.

The training component on ARI should emphasize identification of mild, moderate and severe cases. Treatment with antibiotics should be reserved for moderate and severe cases only. Studies performed by the Center for Child Survival and the Lombok studies should be examined for relevant practices and methodologies. This module should also address the pharmacists who often prescribe anti-biotics to their clients.

As discussed below in Section VI -- many of the activities discussed here and elsewhere should be integrated into pilot activities that can be developed together in selected pilot areas. However, each module and component should be developed so that demonstration projects building off of the pilots do not require full integration of activities to be implemented.

The participation of the Indonesian Public Health Association, the Indonesian Pharmacists Association and other NGOs would initially focus on assisting in the design of training materials for the pilot areas. These associations could be contracted to provide specific in-puts into the training module development and personnel for training of trainers seminars. In addition, research and training institutions such as the Center for Child Survival and YIS could provide local technical assistance. The Center for Child Survival is already working with the Ministry of Health's In-service Training Center to develop training materials for TBAs.

The project would provide funding for local and international technical assistance for module development and field testing, Training of Trainers, and production of module materials and manuals and training evaluations. Seminars and workshops for these activities would also be funded. Costs of production of materials, and per-diem, travel and salaries of trainers would also be covered by the project for the initial pilot areas. Demonstration costs should be borne partly by the Associations and their members through fee-for-training charges and improved dues collection.

Pilot areas should be 10 kabupaten in three provinces with a range of characteristics. Most of the pilot areas should be in urban areas where there is greater private practice and where association organization is strongest. The project should then envision expansion to a larger demonstration area (20 additional kabupaten in other provinces or expand to all kabupaten in the original provinces) with less direct funding from the project and with greater responsibilities assumed by the implementing associations.

### **c. Cooperatives for Equipment Purchasing and Credit**

Many practitioners require some form of credit in order to begin practice and to improve their equipment. Private practice for many practitioners, especially non-physicians, does not generate large income flows. Recent graduates of medical school also require some credit for beginning practice. There are, however, several loan programs sponsored by IDI and IBI and supported by the Bank of Indonesia to assist these providers obtain loans for their initial practices.

However, one of the weaknesses of private practice is the lack of appropriate equipment. Many private offices lack basic cold chain equipment -- refrigerators and thermometers. Often the refrigerators that are available are too large for the low level of demand for immunizations and are therefore used for multiple purposes. Accurate weighing scales for women, blood pressure gauge and other diagnostic equipment, appropriate beds and curtains, and headlamps are needed by midwives in their solo practices.

This project will provide assistance to develop cooperatives for professional association members which would purchase equipment and extend credit to members to allow them to upgrade their equipment in cold chain and MCH.

IDI is already forming a cooperative at the national level for equipment purchase and credit. This initiative could be supported and expanded to include participation of IBI and PPNI. The project could support the establishment of local branch cooperatives which would manage revolving funds for purchase and credit at the kabupaten level.

Project funds could provide initial capital for cooperatives and training in cooperative management in pilot areas. As the revolving funds recapitalize with repayment of loans, the project could be reimbursed so funds could be used for other project purposes. This activity should be integrated with efforts (discussed below) to improve the management and financial systems of professional associations. It might also be useful to implement the training module for EPI discussed above with a coop purchase of appropriate sized small refrigerators and thermometers.

The project should fund technical assistance for the development of the cooperatives, capital for the initial revolving funds for 10 kabupaten and operations research for evaluating and revising cooperative schemes.

#### **d. Administrative and Financial Sustainability of Professional Associations**

The professional associations will require some level of administrative and financial strengthening in order to assume a sustainable role in strengthening the private sector delivery of preventive services. Currently all of these organizations are improving their organizational structures, however, as they assume greater tasks and improve their provincial and kabupaten level organization, they will require a stronger central administration, better fund raising and dues collection capability, greater technical skills for training and monitoring of private sector activities, and a strengthened management information system. If they assume responsibility for a purchasing and credit cooperative, they will need additional financial and procurement capabilities.

Currently, the Indonesian Doctors Association (IDI) is the strongest and most financially viable institution. Its central staff, national budget and association activities are comparatively well developed. Approximately 90% of the physicians are members and dues of Rp. 1,500 per month are routinely collected. With a national paid staff of 40 and a yearly budget of US\$570,000, it operates in 15 provinces and has branch organizations in 170 kabupaten in the country, 31 of which are part of significant training and monitoring activities.

The Indonesian Midwives Association (IBI) has 15,453 registered professional midwives in 27 provincial Chapters and 263 regency Branches. IBI estimates that only 13,000 of their members are currently practicing; however, with the expanded national program to place an additional 18,000 midwives in public service by 1993, the association anticipates a significant growth in membership. The central office has 25 staff and a budget of US\$85,000. Dues are Rp. 500 per month, however, only 40% of the members pay.

IBI has played a central role in the family planning program, most recently supporting the KB Mindiri and Blue Circle campaigns. A small grant from A.I.D. assisted in the development of a Midwife Family Planning Manual and a training program. Several informants felt that the manual could easily be expanded to cover other MCH activities with additional support. Through the family planning program, IBI has received technical assistance and support for institutional development. Greater support for IBI is anticipated in the up-coming Private Sector Family Planning Project.

Indonesian Nursing Association has an estimated 100,000 members in 27 provincial Chapters and approximately 300 regency Branches. The association has two officials and 5 staff

members. Dues are Rp. 1,000 per month, but only an estimated 40% of the members pay. Its members are graduates of the Nursing Schools (SPK) a three year program after junior high school. It provides continuing education for its members. The recent national congress approved the development of ethics committees in the Association.

There are two umbrella NGO organizations which might be used to organize NGO participation in training programs. The Indonesian Communication Forum of Community Health Organizations (FKPKMI) is an association of major health related NGOs, largely religious organizations. It includes health related organizations of Muslim, Catholic, Protestant, Buddhist, Hindu social service organizations, and one non-religious foundation -- YIS. It currently is primarily a forum for communication and coordination among the NGOs. It holds seminars and workshops and provides special training programs twice a year.

A second umbrella organization, NGO/UN Cooperation Forum, is funded by UNDP and unites 57 active NGOs, including many health organizations. While not exclusively an organization of health sector NGOs it could provide a vehicle for organizing a wider sector of NGO programs. It currently has four full time staff and supports coordination and training activities, largely for management and financial strengthening of member NGOs.

Following the example of the Indonesian Forum on Family Planning, one or both of these organizations might be supported to provide a grant program for its members to assist in the development and implementation of private sector Child Survival training programs.

Each of these associations provides a potential private channel for reaching private providers of preventive services. Most of them already have some continuing education program, lobbying capabilities and access to policy-makers, established decentralized networks in most provinces and many kabupaten. Several have initiated programs to promote specific activities in primary health care.

This project will provide technical assistance in management and financial systems, computers and office equipment for IDI, IBI, PPNI, ISFI, and IAKMI to assist them during the period of implementation of pilot and demonstration projects and to develop a sustainable capability to expand these services. On a selective basis salaries for some core staff will be provided to assist the institutions until they develop improved financial capabilities.

It should be noted that the anticipated Private Sector Family Planning Project will provide support for administrative and financial strengthening of IBI. The support in this project should complement these activities to assure that other child survival activities are strengthened in IBI. However, much of the support in this component should be targeted to assisting the Nurses Association -- the weakest of the professional associations.

Some caution should be exercised in assisting these organizations in their expansion into new roles. IBI in particular is already assuming a major new role in family planning. While there are many areas where it would be complementary to develop the association's capabilities in child survival and mothers' health as well as family planning activities, the organization will require significant institutional strengthening and expansion in order to manage additional roles.

## **2. Preventive Clinic Network (Balkesmas System and Employer Clinics)**

One of the more innovative activities that this project will support is the development of private preventive clinic networks. This activity will build on existing systems and encourage the expansion of these networks through changes in regulations and taxation and the implementation of demonstration models.

### **Balkesmas**

The first type of preventive clinic network is supported by private not-for-profit hospitals in urban areas. These networks, called Balkesmas, are similar to the government puskesmas system, however, they are heavily subsidized by the private hospitals. They provide an opportunity for cross subsidization of preventive care by fees for curative care -- a relatively unusual opportunity in health systems. While there is no census of balkesmas, their numbers are relatively small. Sint Carolus Hospital appears to have the largest network -- with 7 active balkesmas. Islam Hospital has had one balkesmas for several years and recently initiated a second. It plans to support two additional balkesmas during the coming year. Atma Jaya Hospital has one balkesmas. One or two other hospitals in Jakarta are reported to have balkesmas systems. Similar systems are reported to be functioning in a few hospitals in Surabaya and Yogyakarta.

The balkesmas system has the same services and is open during the same hours as the government-funded puskesmas. Each

balkesmas has a network of posyandu for which it provides basic support. It also runs school health programs and home visit nursing. Under the official supervision of the district puskesmas, the balkesmas functions in areas that are underserved by the public facilities.

The private hospitals that have balkesmas systems subsidize them through payment of basic capital costs -- land and buildings -- and through salaries and supplies. The balkesmas act as satellites of the hospital. Some balkesmas are in very poor marginal urban areas. Others serve lower and lower-middle income groups. Balkesmas charge higher rates than puskesmas for consultations and for medicines. Their charges range from two to three times the public rates.

Preliminary findings of a study of the financing of balkesmas suggest that subsidies from the hospitals to the balkesmas may range from Rp. 10 million/year to Rp. 40 million/year. [see study by Budi Harsono] There is one case of an independent self-sufficient balkesmas in Surabaya that is managed by the Indonesian Public Health Association. This balkesmas may demonstrate that under some conditions balkesmas fees may be sufficient to support preventive clinic activities. This situation appears to be rare but merits investigation.

There are several potential incentives for hospitals to provide this type of out-reach service. One incentive is the potential for referral of patients from the satellite clinics to the hospitals. No study of direct and indirect referrals has been done, however, it is likely that many balkesmas patients seek additional care from the sponsoring hospital, whether or not they are referred by balkesmas staff. This referral system is likely to enlarge the potential clientele of a private hospital. The project could implement operations research projects to determine the referral potential of such clinics.

A second incentive may come with the revisions of regulations on not-for-profit hospitals. Currently new regulations are being developed to allow the creation of for-profit hospitals and for foreign investment in hospitals. It is anticipated that this regulation will be approved in 1990.

Currently all hospitals are supposed to be not-for-profit and are supposed to adhere to government established tariff standards and provide 25% of their beds at the third or fourth class level for the poor. They are also expected to serve the indigent if they present letters from local authorities attesting to their poverty. This system is widely recognized to be inadequate. Few hospitals are able to set aside 25% of their beds for the poor and there are many obstacles which

prevent the indigent from receiving service from private hospitals.

Hospitals are organized under associations that combine both public and private hospitals. The Indonesian Hospital Association has recently established a standing committee on the Promotion of Primary Health Care in Hospitals. Along with the Jakarta Hospital Association, the IHA has been lobbying for revisions in regulations for for-profit hospitals. These associations provide a vehicle for developing models and policy for balkesmas systems.

Working with Depkes and the hospital associations, this project will provide studies of the not-for-profit sector and the balkesmas systems to assist the government in the development of policy and regulations to encourage better outreach service in return for not-for-profit status. The studies will review the current financial status of hospitals, evaluate their capabilities for supporting outreach clinics, review the 25% bed rule and evaluate options for shifting this requirement to outreach clinics, and develop standards for outreach clinic requirements. Currently a review of the not-for-profit regulations is not planned until later in 1990 or 1991. This project could provide important in-put into this review.

The project will also fund feasibility studies, seminars and local technical assistance for private hospitals interested in initiating or expanding their balkesmas systems. Modules could be developed for efficient management and financing of this type of outreach service. This support could be designed to work through the hospital associations.

Additional funding would be provided to encourage experimentation with the balkesmas services. This support would assist in the design and evaluation through operations research of alternative models to the current systems. For instance, private balkesmas might provide service in the afternoon and evening as an alternative to the government morning services. This option would allow the balkesmas health professionals to offer their private practice in the morning. Research could evaluate the effect this alternative service could have on the demand for private services. The private balkesmas could also provide different packages of services from those offered by the official puskesmas system. They could provide a laboratory for evaluating changes in this system. For instance, unlike the public system in which the puskesmas is not responsible to the district hospital and in which referral from puskesmas to hospital is difficult, the private system could be organized to facilitate referral. This model could be a basis for developing regionalization of MCH services.

## **Employer Clinics**

Using a methodology developed by University Research Corporation and the TIPPS Project, several factories in North Jakarta have contracted with the Atma Jaya Hospital, located in that area, to provide family planning and health services to their employees. [URC, 1989] This experiment involved data gathering through rapid surveys and data analysis to demonstrate the cost-effectiveness to employers of providing such services. The reduction in fertility among young women employees and the declines in absenteeism from illness were shown through a simulation model to save Rp. 7.51 for each rupia invested by the companies. Twenty four companies currently subscribe to the Atma Jaya clinic services.

Except for the family planning activity, most clinic activities are strictly curative and are not targeted to MCH, immunizations or other child survival activities. One problem in reaching children is that the clinics are located in or near the factories and workers do not bring their children to the workplace.

The project could initiate a pilot activity to explore the potential for employer clinics to provide more pre-natal care for pregnant workers at the factory and to support evening posyandus in the communities where its workers reside.

## **Immunization Clinics**

Bio Farma has recently developed a proposal to establish private immunization clinics in Jakarta. The proposal is currently under review by Depkes. These clinics would charge for immunizations and would only provide immunizations. They could provide an important means of expanding private delivery of EPI. With higher volume than solo clinics, these services might better monitor cold chain and sterile procedures.

This innovative intervention could be evaluated in terms of market feasibility and operations research projects could examine alternative models for such clinics.

### III. PUBLIC - PRIVATE QUALITY CONTROL PROCESS

Along with efforts to improve skills and practices by training programs and by providing appropriate equipment, this project will also support efforts to create a public/private system of quality control. Currently the private sector is largely unregulated. The Ministry of Health is primarily a manager of health services and has not developed an appropriate system to monitor, inspect or sanction the quality of service provided in the private sector. This regulatory effort should be developed as a cooperative program with representatives from the private sector participating in the development and implementation of monitoring, inspection, and sanction processes.

Currently health regulations are not sufficiently clear, there are no clear standards and review processes and MOH enforcement capability is weak or nonexistent. In addition, there is no malpractice protection by which beneficiaries could initiate correctives in the system.

The difficulty of monitoring private sector is a major issue. Most important is the lack of systematic reporting by private providers. A recent study of private providers found that 60% of them did not report their immunizations to the public health authorities. [Proyek Pengembangan FKM di Indonesia, 1988] It appears that only in systems where the government is the sole supplier of vaccines (as in Bali) and where they have established an outreach information system from the Kabupaten (in which the Kabupaten arranges data collection) is there any confidence that EPI provision by the private sector is reported. It is even difficult to assure that births in the private sector are recorded. Lack of this information makes it difficult to evaluate coverage targets. It also prevents adequate monitoring and regulating of private sector activities to improve quality of services.

In addition, there are no clear standards and review processes. At each administrative level there are Ethics Committees which include members of the professional associations. These committees are charged with evaluating complaints about individual providers and with sanctioning unethical or substandard providers. Very seldom do these committees enforce sanctions.

Currently there are several vehicles for regulating the private sector through inspection and sanctions: 1) Kabupaten officials are expected to inspect private premises before granting initial licences; 2) Kabupaten officials inspect and review cases of complaints; 3) the semi-official process of Ethics Review through the professional associations in

conjunction with the Kabupaten staff hears complaints, reviews cases and imposes sanctions; 4) the POM staff at the kabupaten level inspects pharmacies and wholesalers on a sample basis throughout the year.

With the possible exception of the POM inspections, in most cases the inspections respond only to cases that come to the attention of the kabupaten officials through complaints, or through outbreaks of public health problems. There is no real proactive inspection done on a routine or random basis to identify problems in the private sector before they become hazards to the health of clients. One major problem is the lack of proper maintenance of cold chain in the private sector.

Health officials have little training in inspection of private facilities -- most of their training involves supervision of public facilities. There are no clear routines for inspection of private facilities. Work loads, transportation, etc. are seldom assigned to private sector inspection. Policy, planning, training and resources, especially at the kabupaten level, are necessary to develop and implement an appropriate system of inspection.

Peer review has also been found to favor the provider, with only the most public cases being given significant sanctions. In most cases, providers who have been found to practice unethical or unprofessional activities have had their licenses suspended for a brief period, without publicity. They return to practice with little continuing review.

Peer review processes currently do not include any input from consumers, although on a national level there are consumer advocacy organizations.

Licensing and supervisory regulations are generally loosely enforced. Licensing usually requires a small payment and a visit to the premises by the kabupaten or kanwil staff, after which there is no routine inspection. The "prolonged arm principle" of supervision allows most professional midwives to perform any birth procedures without direct observation of the supervising physician. Indeed, the physician is not legally responsible for the actions of the midwives, unless the physician has given direct instructions in a specific case. Many nurses and nurse-injectionists have openly known private practices even though they do not have licenses.

Recent changes (1988) in physician licensing regulations have removed the professional associations from the licensing process and have shifted the review process for licences from one that required three year reapplications to an as-yet-undeveloped process of review by local (kabupaten) committees of Kanwil and IDI committee. It is expected that this

committee will review each physician's physical, mental, professional and ethical conduct to recommend withdrawal of licenses if standards are not maintained. One of the professional standards is the expectation that each physician receive 10 credits of continuing education. IDI is now developing standards for private facilities and may initiate a routine review of facilities as part of the licensing review process.

**A. Objective:**

**Improved Public-Private Quality Control Capability of the Ministry of Health and Professional Associations**

**B. Output:**

**Public-Private System to Monitor and Regulate Private Delivery of Preventive Services through:**

- a. Model Private Sector Information and Monitoring System for Preventive Activities**
- b. Model MOH-Professional Association Regulatory System**
- c. Model Licensing Procedures**
- d. Regulation and Policy on Nurses' Private Practice**

**C. Activities**

**1. Information and Monitoring System**

The importance of information from private sector lies in several areas: 1) need for monitoring private sector, especially to assure adequate coverage levels of key immunizable diseases and use of antibiotics; 2) need to monitor private delivery for quality (i.e. adequate cold chain); 3) need to plan drug supplies and other public sector activity; 4) need to develop compatible and cross check information systems for insurance schemes and control of public subsidization of vaccines for private sector.

This component should develop a process for improving private sector information that can be useful to several "clients":

- 1) the private providers themselves -- the system should not impose a burden on private providers that is not compatible with their own needs for managing their practices. Feedback

mechanisms should encourage providers to compare their services with group averages and other benchmarks.

2) private professional associations of providers and suppliers which, working with the government regulatory mechanisms, can monitor activities, initiate quality control, provide peer review and sanctions, etc.

3) public, semi-public and private insurance schemes -- the different insurance mechanisms and public subsidies to private sector should develop compatible information systems for appropriate reimbursements and for monitoring quality.

4) Kabupaten, Provincial and National level planning and monitoring activities -- the project should provide for the integration of data into the Integrated Health Information System of Binkesmas to allow government to plan and regulate private sector activities as it shifts responsibility for care to private sector.

Potential issues to be developed in this component include: 1) development of a standardized record form for essential reporting information (i.e. immunizations) and for optional monitoring (quality control) -- could be both hard copy and computer soft-ware to facilitate reporting; 2) development of local sample surveys for quality control and monitoring; 3) developing incentive structure for reporting to puskesmas; 4) developing guidelines for regulations and policy related to information systems and reporting requirements and sanctions.

This project should begin developing a model information system in the pilot kabupaten in three provinces. Beginning with the Integrated Health Information System, the model should be designed with the participation of the national and chapter levels of the professional associations of physicians (IDI and subspecialties - peds and obgyn), midwives (IBI), nurses (PPNI), pharmacists (ISFI), as well as trade association of pharmaceuticals. In addition, the insurance companies, in cooperation with the HSF project, should participate in this model development. Attempts should be made to develop a parsimonious system that does not impose large reporting burden on the private sector.

It is important that the information system be developed by technical experts in HIS/MIS along with the ultimate users and providers of information. Consensus should be developed over appropriate data that is useful to each of the "clients". Operations research project should evaluate several different models of information systems.

Considerable effort should focus on the problem of assuring reporting. This implies much more than reiterating or modifying current regulations. It implies development of 1) incentives and sanctions for those expected to report as well as those expected to provide feedback, and 2) development of a means of financing the information system. To make the system sustainable and responsive to the providers, the system might require nominal fees from providers for the kabupaten to collect data and provide feedback (as in Bali and Jakarta systems). Incentives to providers might also include a subsidy of public vaccines provided to the private sector in return for reporting, although this subsidy might decline over time.

The project should support pilot projects in 10 kabupaten in three provinces. Funds to support consensus building process at national, provincial, and kabupaten levels, short term technical assistance (might be national consultants with support from existing international consultants/staff) and commodities (computers, etc.) should be included in the project. Baseline and operations research projects (including cost analysis) should also be included.

## 2. Inspection and Sanctions

This project should provide assistance in four major areas of public/private cooperation: 1) the development of model proactive inspection systems; 2) the development of model ethics review processes; 3) development of model licensing procedures; and 4) extension of licences for private nursing practice.

These models would be developed in the pilot kabupaten and then implemented in selected demonstration areas. (see Section IV below)

While the central focus of these activities might be on Child Survival activities, there is no reason to limit the system design and training to these activities. Inspections and sanctions should be developed as wholistic and integrated activities to improve MOH and professional association capabilities to assure quality of care on a wide range of issues.

**Proactive Inspection System:** This project would assist in the development of cooperation between associations and health officials in selected pilot kabupaten to develop a model proactive inspection system. Technical assistance in inspection systems from other countries would be provided. Cost analysis and operations research would also be funded to evaluate the model.

**Model ethics review processes:** Following a study of current practices in the ethics review process of selected kabupaten, provinces and national level, technical assistance would be provided for cooperative development of standard review procedures by the professional associations, the kabupaten health officials, and if possible, consumer representatives. The project would test the model review procedures in pilot areas through operations research projects and support expansion into demonstration areas.

**Association Role in Licensing:** The project would support an evaluation of the current role of professional associations and health officials in licensing processes for private practice and develop appropriate models for improving the granting and review process. Attention should be paid to the process of licensing TBAs.

**Licensing for Nurses Private Practice in EPI, ORT, ARI:** A special problem emerges for the licensing of nurses in private practice. Currently nurses are not licensed for private solo practice, however, many openly practice without license. Especially for the provision of preventive Child Survival activities, it would seem useful to consider licensing nurses for private solo practice, in order to expand the availability of these services to patients who would be willing to pay a low fee for such service. The nurses association estimates its membership at over 100,000, a significant number of providers who could expand child survival program activities especially in afternoon periods when public services are not available.

Since many nurses already have private practice, a means of licensing their practice would also provide a means of regulating and providing quality control over their practice. Licensing could also specify areas in which private nursing practice would be allowed (i.e. child survival activities) and where it would be prohibited (complicated curative care). Currently, there is no way to monitor or sanction such practice without completely closing a nurse's private practice.

The licensing requirement could be based on attendance in continuing education programs in EPI, ORT and ARI described above (section II.B.1.b). The licence could use the "prolonged arm principle" with physician supervision that is currently used for midwife practices.

The project would develop policy on licensing private nursing practice. Funding would support studies of current practice and seminars and workshops in professional associations. Pilot operations research projects to evaluate impact of different regulations should also be provided.

## IV. PROJECT IMPLEMENTATION OPTIONS

### A. Pilot and Demonstration Projects

This project will be designed primarily to demonstrate effective means of improving quality and expanding service in the private sector. It cannot develop a nation wide program with the limited funds available. It is also important to recognize that knowledge of practices and markets for private sector is extremely limited and that effective programs can only be developed by careful research and testing of interventions.

It is important, however, to design pilot and demonstration projects so that their lessons can influence national policy and can be transformed into national programs.

This project in general will follow a four phase process: 1) pilot interventions (including base line research and operations research) in 10 kabupaten in three provinces; 2) seminars and policy review of pilot results; 3) expansion of pilot to larger demonstration areas -- either all kabupaten in the three provinces or to 30 more kabupaten in other provinces; 4) seminars and policy review of results of demonstration projects with recommendations for national policy.

This process might also include commitments by Ministry of Health and by Professional Associations to assume increasing portions of the costs of the project after the pilot stage.

This design follows lessons learned from sustainability studies, which found that sustainability was more likely with 1) participation of officials from the implementing institutions in the design of projects and 2) absorption of increasing portions of project costs by local sources (national budget or cost-recovery) during the life of the project. [Bossert, 1990]

Pilot sites should be selected based on several pre-established criteria.

- 1) The sample should be weighted toward urban areas (but not exclusively) where the private sector is more active.

- 2) sites should be chosen based on the current strength of the kabupaten-level professional associations. The pilots should be implemented in areas which already have strong branch associations, preferably with experience in cooperation with each other and with Ministry of Health officials. Once the pilots are established, the expansion to demonstration sites might include some with less well-developed associations.
- 3) sites should also be selected to reflect both socio-economically advantaged and disadvantaged locations
- 4) some sites might be established in areas which already have some baseline data -- such as the West Java survey area for the Center for Child Survival.

The pilot areas will require significant research efforts both for market analysis and for operations research interventions. The potential for buy-ins to centrally funded programs such as PRICOR, Mother Care, and others should be explored as part of project development. Where possible these programs should work with established local institutions -- such as the Center for Child Survival, SRI, YIS and other consulting firms.

#### B. Integrated Approach vs. Separate Sub-component Interventions

It is probably best to select the specific kabupaten for pilot activities and attempt to implement most of the project activities in the same areas. This integrated approach would allow for a greater impact and for economies of technical assistance and training activities. Training modules could be developed and tested as institutional strengthening is implemented and as the local branches are developing quality control mechanisms. Project management would be facilitated by the concentration on the same areas. Given the limited funding for this sub-component and the need for coordination among the same organizations (MOH, professional associations, NGOs and research and consulting firms at both national and kabupaten levels) for implementation of most of the activities, such a strategy is probably most efficient.

However, there are risks and problems with an integrated approach which should be considered. First, as was found in the CHIPPS project, activities which focus all donor resources on selected provinces tend to be viewed as special "Cadillac" activities which are thought to be unreplicable. Secondly, it will be difficult to determine how to replicate selected interventions if they are all implemented as an integrated

pilot activity. Thirdly, focusing all resources on only a small number of kabupaten in three provinces does not allow for the wider recognition and involvement that could come from implementing separate interventions in a larger number of sites.

A compromise strategy might overcome some of these problems. First, each module of training and each model of quality control could be developed as a separate unit that would be evaluated in sequence. Secondly, cost-benefit studies could be implemented for each sub-activity to demonstrate the potential costs for replication. Thirdly, as the pilots are expanded to demonstration sites, other provinces and other kabupaten would become involved. It might be best to plan to concentrate pilot activities in one integrated package and to implement demonstrations as separate sub-activity interventions.

### C. Long Term Technical Assistance

While this sub-component is only one portion of a larger project, its complexity and importance for future Indonesian health policy suggests that the sub-component be supported by one long-term consultant with wide experience, broad expertise in child survival areas and a strong working knowledge of Indonesia.

This component will be effective only if the pilot and demonstration projects are well designed and managed, their results well researched and if project activities involve many different officials and individuals in both the public and private sectors. A long term consultant with experience in coordinating and involving decision-makers and implementers in project implementation and evaluation would be useful for disseminating the results of pilot activities and for future implementation of lessons learned.

Project counterparts in both the Ministry of Health and in professional associations should be assigned to manage the project. Full time commitment by key officials will be necessary for the lessons of these pilot and demonstration projects to be implemented on a wider scale.

## V. PUSKESMAS BLOCK GRANT PILOT

This proposal grew out of a proposal for private delivery of public services through contracts with Depkes. The original proposal would have designed a pilot project in which private companies or provider cooperatives would bid to provide puskesmas/posyandu services for a given geographic area. Depkes would define the expected services and pay a capitation rate for these services. An experiment in Costa Rica in which public services were privatized in a similar fashion produced increased efficiency and higher coverage than the previous public service had.

This proposal was felt to be premature and would face major legal and organizational hurdles.

The Depkes/USAID design team, however, thought that a pilot activity that remained in the public sector but had similar potential for demonstrating the effectiveness and cost savings that might come from consolidating budget sources, providing funding on a capitation basis, and placing local facility managers at risk for success or failure would be a useful demonstration for broader policy choices by Depkes, Ministry of Finance, and BAPPENAS.

This project would support a pilot program in which budgets for each of two or three puskesmas would be in effect consolidated, the local managers would be responsible for providing a measurable level of utilization and quality of service, and, within some specified constraints, would be able to decide how to utilize the expected surplus generated by the expected increased efficiency. By putting managers at risk for success or failure, it is expected that greater efficiency and better quality of service could be provided. This pilot could then demonstrate to policy makers the improvements of quality and efficiency that could come with local level management and risk taking.

For each puskesmas the budgets for each of the seven different sources (DIP and DIK for APDI, APBDII, and Central; and INPRES) would be planned in the normal budgetary process. Then all non-salary items would be summed and granted by the project to the management of the puskesmas as a lump-sum block grant. The original sources of this budget would be allowed to keep the funds in return for some flexibility on how the revenue from user fees would be distributed. Government-wide legal requirements which place strict limitations on the budgetary and accounting processes make it almost impossible to provide a block grant from the original sources so project funding would be necessary at this stage to implement a consolidated budget and block grant model. The grant of

project funding would mean that the puskesmas would not be receiving any direct funds, except salaries, from the seven budgetary sources and therefore could avoid the legal restrictions. The project, however, might provide for project support for the first year or two with an agreement that the government would make specific exceptions and provide support for the following years.

The project would then have to experiment with several options for retention of user fees by the puskesmas. It is likely that the greatest incentives to provide better and more efficient service will come from retention of all fees by the puskesmas. If the puskesmas is allowed to keep all fees it may have an incentive to increase utilization and improve efficiency in the use of fee revenues. However, currently user-fees are remitted to the kabupaten exchequer and used as local revenue with only a small portion returned to the health sector. During the pilot project a revenue sharing scheme could be established by which the original budget that would have been granted to the puskesmas by the kabupaten could be retained by the kabupaten and the puskesmas could pass through a specified percentage of the fees, retaining the rest as an incentive. An alternative could be for the puskesmas to pass through the same amount as the previous year and be allowed to retain any surplus. Any of these options could be used in an operations research project to evaluate the impact of different schemes.

The pilot would then also have to develop criteria for evaluating and auditing the puskesmas to assure that the facility was providing quality care and maintaining or expanding utilization. Sanctions would also have to be specified and applied if the puskesmas failed to achieve expected quality and utilization.

Finally, criteria for redistributing the anticipated surplus would also have to be developed. Percent limits might be established for how much could be used in 1) an incentive program for staff, 2) renovation and capital improvements, 3) expanded operations.

This project would have to be carefully evaluated and monitored so that its effects can be persuasive to policy makers. Pilot puskesmas would have to be chosen based on a criteria which would include management capability of the original staff, but also allow for replication to less well qualified staff.