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# HEALTH CARE FINANCING IN INDONESIA

USAID/Jakarta

September, 1986

## Resources for Child Health Project

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### REACH



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## ACRONYMS

AID/W	Agency for International Development, Washington, DC
APINDO	Organization that does labor force review reports
ASABRI	Health insurance for military personnel, administered by the Ministry of Defense
ASKES	Government of Indonesia employee health insurance program
ASTEK	Indonesia Social Security system
BAPPENAS	Ministry of Long Range Planning for Health Services and Expenditures
BKKBN	National Family Planning Coordinating Board
BPDPKM	Central body for funding health maintenance development; has been renamed Husada Bakti
CLUSA	Cooperative League of the United States of America (currently called the National Council for Cooperative Business)
DKPW	Investment Coordinating Board
DPM	Indonesian House of Representatives
DRG	Diagnostic Related Group
DUKM	Term to describe Government sponsored demonstration program of prepaid health service delivery schemes
GOI	Government of Indonesia
GP	General Practitioner
HCFA	Health Care Financing Administration
HMO	Health Maintenance Organization
IDI	Indonesian Doctor's Association
KUDS	Cooperative service center
MCH	Maternal and Child health
MIS	Management Information Systems
MOH	Ministry of Health
NGO	Non-government Organization
OHMO	Office of Health Maintenance Organizations
ORT	Oral Rehydration Therapy
PKTK	Proposed program of social security financed health insurance for private sector workers; jointly administered by ASTEK and D'JKM
PPO	Preferred Provider Organization
REACH	Resources for Child Health Project
Rp	Rupiah (Indonesian currency)
UI	University of Indonesia
US	United States (of America)
USAID	United States Agency for International Development

## EXECUTIVE SUMMARY

The overall goal of this consultancy was to identify management and policy issues, procedures and potential problems in health care financing in private and public sector programs and to propose options for the GOI and USAID that would test policy issues and improve efficiency. The general approach was to review previous consultant reports and work together with other consultants from REACH, the Enterprise Program, and USAID Mission staff to minimize duplication. A counterpart from ASKES (the GOI employee health insurance program) fully participated in all site visits, analyses, and reviews of the draft report. Interviews were conducted with MOH officials, hospitals, professional associations, and representatives of business, labor, cooperatives, and community-based health funds. In addition, officials of the Ministries of Manpower, Finance, Home Affairs, and Cooperatives, and the military were interviewed. Data from the MOH Bureau of Planning, the WHO, and the World Bank were reviewed and synthesized. Based on these data, specific recommendations were made on various markets for health insurance, based upon type of work, income source and current sources of health care. Prepaid health care delivery, incorporating cost-saving incentives, alternative revenue sources (e.g., user fees), health insurance premiums, and the rate setting based on actuarially-defined risk, may serve to reduce government's financial responsibilities for curative health services in the face of budgetary stringency. The development of prepaid health plans must include proper management if they are to try keep the private, urban, curative segments of the health industry from bidding up the cost of scarce resources and thereby compromising equity.

ASKES, the health care and insurance program for civil servants, represents a model for PKTK (the proposed program of social security-financed health insurance for private sector workers). ASKES utilizes mandatory wage deductions and public sector resources. Recently reorganized as a Perum (government enterprise responsible for revenues and expenditures that reports independently to the Minister of Finance), ASKES personnel, administrative and incentive policies can be vigorously pursued.

The key findings with respect to public systems financing efforts are:

- o ASKES (Husada Bakti) has rising expenditures for secondary and tertiary services, particularly for prescription drugs and specialist care. These are rising faster than primary health care costs.
- o ASKES is faced with unpredicted hospital costs due to local discretion in rate setting.
- o There are discrepancies in the utilization of some services in ASKES. For example, higher level civil servants use specialist care, brand name drugs, glasses and hearing aids far out of proportion to their numbers. This tends to favor claims that ASKES is financed by hidden subsidies. However, this issue is far from clear.
- o ASKES has difficulties with paying bills to providers, and lags in recording of expenses, claims control and flow of information from hospitals. These problems will become more critical as Perum Husada Bakti will have to conform to the rules of a self-funded enterprise.
- o ASKES continues to require strengthening in audit, inspection, fiscal control and quality assurance functions.
- o ASKES has made important efforts in experimenting with new methods of reimbursement, development of management information systems and procedures for purchasing health care.

The PKTK pilot project is considerably below enrollment projections because:

- o Until recently ASTEK (Indonesia's social security system) was responsible for marketing, which was not done aggressively.
- o The pricing of PKTK, at 7 percent of payroll, favors the enrollment of lower paid workers. The PKTK, moreover, would find it exceedingly difficult to reach breakeven without some flat per person charge.
- o There is a reluctance by wage-based workers eligible for PKTK to use public facilities.
- o PKTK needs to face the fact that most employees have prior arrangements for health care in their own facilities, through health allowances or prepayment.

PKTK has problems both in slow payment of bills and with prompt receipt of revenues from ASTEK. Assumptions for the average wage received by ASTEK are probably too high outside of Jakarta to meet financial projections, even under a mandatory system.

For the private sector some findings are:

- o There is a great variation in premiums, from Rp. 26,000 - 700,000 per contract per year. This ranges from 5-35 percent of payroll.
- o There is as yet no real study for Indonesia of prepaid medical schemes or company-provided or purchased health care. Some studies have been done in Jakarta or are underway at the MOH's Bureau of Planning.
- o Little is known about the prices, costs and practice patterns of private practitioners, especially paramedical personnel in rural areas.
- o The size of the market for prepaid health care ranges from 7-10 million contracts or 25-40 million persons, depending on the methodology used. This potential will take several years to realize.

Prepaid plans are expected to face different management problems at different points in their development. In the early stages, the barriers to development are:

- o Availability of capital. There are few formal sources of equity or debt capital.
- o Management capacity. Persons new to the health care field and persons already working will need to be trained and personnel policies will have to be adopted.
- o Lack of organized providers. Providers have not developed coordinated group arrangements making utilization control and incentive reimbursement based on group norms or peer review difficult.

In the operational stages, difficulties could arise in:

- o provider relations, including remuneration and productivity standards,
- o billing and information systems,
- o financial management and cash flow, and
- o strategic planning, expansion decisions and their impact on management.

In rural areas and in the non-wage based segment of the population, health care financing is characterized by:

- o a lack of sufficient purchasing power and sufficiently large groups for pooling risk,
- o the fact that cooperatives have not yet harnessed their purchasing power to extend activities to health care,
- o distance and transportation costs, which appear to be barriers to the utilization of public health care facilities, and
- o hours of operation, which also appear to contribute to the under utilization of public primary care facilities.

Some recommendations are:

- o Continue to experiment with pilot projects under DUKM but extend delivery to existing labor-sponsored clinics and private practitioners.
- o Support ASKES efforts in developing a management information system with the University of Indonesia's Computer Center.
- o Modify the proposed DUKM law to allow for employers to opt out, provided they can offer equivalent or better health care:
  - on a prepaid basis,
  - to workers and families,
  - by capitation to providers,
  - with comprehensive benefits,
  - with consistent data and reporting, and
  - with quality and utilization control.

To assure that these provisions are carried out, the government could develop technical assistance and regulatory capacity with input from other ministries and governmental units.

- o Modify tax laws to allow some deduction for company-provided and purchased care up to a limit (e.g., Rp. 100,000/family/year).
- o Establish a fund for the development of new health care financing arrangements with grant, loan, and loan guarantee authority. Some of the types of activities supported by the fund could be:
  - prepaid health plans sponsored by hospitals, consortiums of employers, etc.;
  - voucher systems for the non-wage based sector;
  - development of prepaid plans in discrete geographic areas such as Batam Island;
  - costs containment, pricing and cost recovery arrangements and their evaluation in public sector facilities;
  - studies of health fringe benefits and their effect on wages, employment and productivity;
  - routinization and expansion of household surveys; and
  - development of drug utilization review and training of providers and consumers in appropriate use and prescribing of drugs.
- o Develop both in-service and pre-service management training programs.
- o Strengthen subcenters to increase utilization of public primary health facilities.
- o Experiment with prepayment of a package of child survival interventions.
- o Experiment with prepaid medical transport systems and changing health center hours.
- o Begin funding cooperatives to purchase or deliver health activities.
- o Develop a federation of village-based health funds to purchase health care wherever feasible.

- o Give incentives to parastatal companies and plantations to offer insured or prepaid health care to temporary workers and surrounding populations. This should emphasize outreach and cost-effective primary health care services.
- o Develop risk pools among other groups of the urban and rural non-wage based populations.

Pilot projects for consideration could include the following:

- o Addition to health financing to include credit expansion, income generation or agricultural service activities. The Puspeta in Klaten in Central Java has been suggested.
- o Extension of health care by PTP XXI-XXIV in East Java to seasonal workers living in proximity to the sugar refinery which employs them for six months per year.
- o Develop a federation of Dana Sehat in a defined geographic area to increase both purchasing power and enhance outreach.
- o Continue support of the Jakarta PRTK pilot project in the absence of mandatory contributions. This would include technical assistance in marketing, enrollment, billing, staff organization and rate setting. Assistance would be found in both the U.S. and within Indonesia.
- o Incorporation of existing ASTEK clinics in Surabaya into DUKM as a model public-private system in the blue collar wage-based population.
- o Continuation of an ASKES-University of Indonesia Computer Center project to improve management, incorporating medical care, inventory, finance and personnel modules already in the implementation phase. Budget cuts will stop this project unless part of the \$2-3 million hardware and \$700,000 software and training costs are funded. Benefits will spill over to the Ministry of Health. This project should be a high priority.

- o Institution of a "development fund for health care financing and delivery" would create a funding mechanism for research and demonstration in health financing. A similar scheme is underway in the Philippines.
- o Development of a national health care financing commission with technical, start-up assistance from U.S. Government agencies with parallel responsibilities.
- o Organize and implement training activities for high-level policy-makers as well as for program managers in the principles and implications of appropriate health financing mechanisms.

## 1. INTRODUCTION

In summer 1986 USAID/Indonesia requested the REACH project to provide consultation on several aspects of health care financing, including:

- o Review and analyze the proposed DUKM health insurance system developed by the Ministry of Health and Ministry of Manpower and the pilot project in Jakarta, including suggestions for improving the performance of the pilot project.
- o Review and analyze prepaid health insurance for the wage-based sector to assess both demand and enrollee potential and to identify private and state organizations willing to collaborate.
- o Review developmental and operational issues for prepaid health insurance and evaluate the business climate for these schemes including capital availability, management capability and unmet need. This should, if time is available, include operational problems and technical assistance needs of Perum Husada Bakti, the existing program for financing health care for government employees.
- o Explore potential for prepayment schemes among the non-wage based, unorganized and rural population which would have the effect of strengthening impact on child survival.

In each of these areas, long-term and short-term evaluative, policy-analytic and demonstration projects are to be suggested and outlined as part of a larger plan by USAID. The principal components of the overall plan are:

- o an expanded social marketing program,
- o the introduction of prepaid public and private health service delivery schemes,
- o private sector assumption of management responsibilities for government hospitals,

- o an improved private sector capacity for research and development of health technologies, and
- o the formation of a policy coordinating mechanism to formulate policies regarding private sector participation in health care in Indonesia.

In order to develop a project encompassing these components, information will need to be gathered and analyzed and an overall program developed. Basic economic data about the private sector's participation in the health sector are inconsistent in quality and completeness. The extent of entrepreneurial commitment and specific management expertise are unknown.

Prepaid health care delivery, incorporating cost-saving incentives, alternative revenue sources such as user fees, health insurance premiums, and rate setting based on actuarially-defined risk for specific population groups, may serve to reduce government's financial responsibilities for curative health services in the face of budgetary stringency. There appears to be interest in various combinations of HMOs, PPOs, IPAs and in additional insurance products. USAID has been seeking information about the involvement of the private sector, reviewing the status of existing prepaid delivery systems, and the feasibility of Pertamina's conversion of its company facilities to a prepaid plan based on the HMO model. In addition, USAID is exploring the privatization of government hospitals, health industry legal status, and defining an optimum data set to assist with allocation decisions.

The term privatization can be used to describe several different health policy changes and types of government action, all of which respond to a shortage of resources allocated from general tax revenues, perceived operational inefficiency of public sector institutions, or the inefficient allocation of public resources. This is often reflected by geographic maldistribution of government facilities, underutilization of primary care centers, large and increasing expenditures for secondary and tertiary hospitals, and rapidly rising total costs for health.

First, privatization can mean selling or leasing government assets to the private sector. This was done with several nationalized companies in the U.K. This course of action can raise public revenue if there are willing buyers or lessees, but control is lost.

Second, privatization could mean that the government contracts with the private sector to manage public assets. The experience with contracts in numerous U.S. cities and counties for public hospitals and other public services has shown that unless management has full management discretion including personnel, pricing and service delivery, the efficiencies wrought are minimal and often temporary.

A third strategy of privatization is to require a government agency to operate like a private enterprise being fully accountable for all revenues and expenses. In Indonesia there are several stages of autonomy possible including the Perjan, the more autonomous Perum, and the fully independent state-owned enterprise - the Persero, examples of which are Pertamina and the government's tin mining concession.

A fourth strategy is the deliberate promotion of competition by the government by mobilizing market incentives. Competition can also serve to lower prices if monopoly power does not develop. The U.S. Government's HMO assistance program is an example of creating alternatives and consumer choice.

## 2. BACKGROUND

### 2.1 Allocation of Public Funds for Health

The developed sectors of most countries absorb most of their medical resources for expensive, curative treatment and medicine. While the urban and rural poor areas have the higher burdens of premature mortality, morbidity and disability, the wealthy spend more than the poor on medical care. That the best hospitals, equipment and modern insurance should be used by the employed urban sector should not be a surprise. Indeed, the point of developing the management capabilities of both public and NGO resources and developing prepaid health plans is to try keep the private, urban, curative segments of the health industry from bidding up the cost of scarce resources in the future and compromising equity (1).

Between 1975-76 and 1981-1982, the number of physicians in Indonesia increased by 90 percent to 15,400 (IDI estimates the present number to be approximately 20,000). Over this same period, midwives increased by 16 percent to 16,298, nurses by 110 percent to 21,589 and medical assistants by 50 percent to 41,026.

The mere fact that these types of manpower have increased does not mean either that they can be absorbed or that they will move to the areas or specialties of greatest need. It has been stated that more than one third of the 1500 physicians graduating each year cannot be posted by MOH and must work as "Doctor Jaga" (without a license). Nurses present another problem in absorption. Many female nurses return the cost of their education to their training institution to avoid doing service in underserved areas. Meanwhile, male nurses who do move to rural areas have high dropout rates.

What Indonesia faces are shortages in some areas and excesses in others. Any strategy for financing health care must consider the implications of working in an environment where there are excess physicians who can drive up utilization, while severe shortages exist in other parts of the country.

Medical care costs have been increasing at a rate of 15 percent per annum compounded. This is about the same rate of increase as consumer prices have experienced in general. However, an increasing proportion of medical expenditures is in the private sector. The population seeking health care in the private sector has been expanding since the 1970s as the share of household payments has continued to increase. In 1982/83 the World Bank found that the share of the Indonesian private sector in health was 58.6 percent and the largest single expenditure by the provider category was 23.1 percent, for retail drug sales. Both the aggregate private share and amount spent for drugs continue to rise as drug utilization and prices increase. This is blamed on the price of imported raw materials, the absence of patent protection, commissions paid to doctors, and consumers' demand for brand name drugs.

Another factor affecting Indonesia's allocation of public health funds is the reduction in health budgets of central, provincial and local governments. From 1984/85 to 1988/89 it will cost Rp. 429,047 billion (in 1984/85 prices) from the routine budgets for community health and Rp. 2,508,743 billion in investment costs for the health sector (in addition to the value of assets in existence before 1984/85) to build and maintain over 5500 Puskesmas. In 1986/87 almost Rp. 214,000 billion in investment costs are estimated for the health service programs, Rp. 65,600 billion for manpower development, and almost Rp. 103,000 billion for community health. It was stated by the Director General for Community Health that \$115 million was allocated to health centers for next year (\$20,000 per unit).

Since most of the budgets for all levels originate centrally, reductions in the MOH budget of 13.7 percent from 1982/83 to 1983/84 and 5.7 percent from 1983/84 to 1984/85 (in constant prices) means a greater share is likely to come from private sources.

PER CAPITA TOTAL BUDGET ALLOCATIONS (CONSTANT PRICES--Rp. 000)

	<u>79/80</u>	<u>80/81</u>	<u>81/82</u>	<u>82/83</u>	<u>83/84</u>	<u>84/85</u>
Routine	0.40	0.530	0.687	0.654	0.583	0.589
Development	0.981	1.262	1.594	1.854	1.537	1.369
a) DIP	0.613	0.770	0.885	1.015	0.841	0.749
b) Inpres	<u>0.367</u>	<u>0.492</u>	<u>0.709</u>	<u>0.839</u>	<u>0.696</u>	<u>0.620</u>
TOTAL	1.384	1.792	2.281	2.506	2.119	1.958

Source: Bureau of Planning MOH, 1986

It can be seen that the routine budget peaked in 1981/82 while the development budget did not peak until 1982/83 and declined more sharply for 1984/85. Officials within the government do not expect a reversal of these cuts. Although Indonesia's debt service ratio in 1982 was only 8.3 percent of exports, it has been rising and is likely to create pressures for more austerity which does not bode well for increases in the MOH budget. One aspect of the MOH budget bears note. Despite the fact that 40 percent of the INPRES budget and some smaller proportion of the DIP budget are for what could be classified as routine expenditures, the proportion of spending for the investment budget is a staggering 50 percent. The MOH has hovered at 1.3 percent of central government expenditures for twenty years, has increased slowly as a proportion of GDP, and may be vulnerable to severe cuts in coming years.

The following table from a 1983 World Bank study of expenditure and financing issues shows that retail drug sales is the largest expenditure by the provider category followed by private practice (both in the private sector). This is followed by public hospitals and closely trailed by private hospitals. This situation exists despite the fact that public hospitals operate 72,000 beds vs. 31,000 for the private sector. Recurrent costs appear to be \$2500 per bed in the public sector. However, if 20 percent were added for amortization and interest costs, these costs would increase to \$3000 (at a 75 percent occupancy

rate, this would require at least \$11 per day, or twice the average charge). Although this figure is projected to rise to \$13.89/day by 1989, undoubtedly, variable costs such as utilities, drugs, supplies, etc. will increase as well while wage rates cannot remain low and continue a bed/personnel ratio of over 3:1 (2).

EXPENDITURE BY PROVIDER CATEGORIES  
PUBLIC AND PRIVATE, FY 1982/83

Providers of Health Services	(Rp billions)	%
<u>Public</u>		
Hospitals	211.4	14.3
Health centers	172.9	11.7
Special programs*	60.2	4.1
Supporting services**	93.0	6.2
Armed forces facilities	40.9	2.8
Other facilities (non-MCH agencies and state enterprises)	34.3	2.3
SUBTOTAL	512.7	41.4
<u>Private</u>		
Hospitals	205.0	13.8
Private practice	280.7	18.9
Traditional practitioners	40.8	2.8
Retail drug sales	343.0	23.1
SUBTOTAL	869.5	58.6
<u>TOTAL</u>	1,482.2	100

Source: World Bank mission estimates.

\* E.g., malaria control, Expanded Program of Immunization, other communicable disease control measures, water and sanitation (other than Ministry of Public Works Programs), and some training and research.

\*\* Includes central administration.

Public facilities are priced below marginal costs, even for those able to pay. Furthermore, revenues from fees (even the Puskesmas has required a Rp. 150/visit fee since 1977) often constitute a revenue for district (regency) governments and only in some areas is it returned to the Puskesmas. This phenomenon began with the ICW laws dating from 1925 stating that private practitioners must work in both the public and private systems although, with a few recent exceptions, most general hospitals are owned and operated by charitable (often religious) foundations and speciality hospitals (most often maternity hospitals) are proprietary (often physician owned although ostensibly owned by a foundation). Few physicians sever their ties with the public sector (although it is theoretically possible after 15 years and the few who do appear to reap high incomes). Numerous nurses and other paramedical personnel have private practices as well, although, unlike physicians, private practice is illegal for them. A household survey in 1960 found that 14.7 percent of those who were sick within a one month period sought care from paramedics in private practice - the largest single source of care (3).

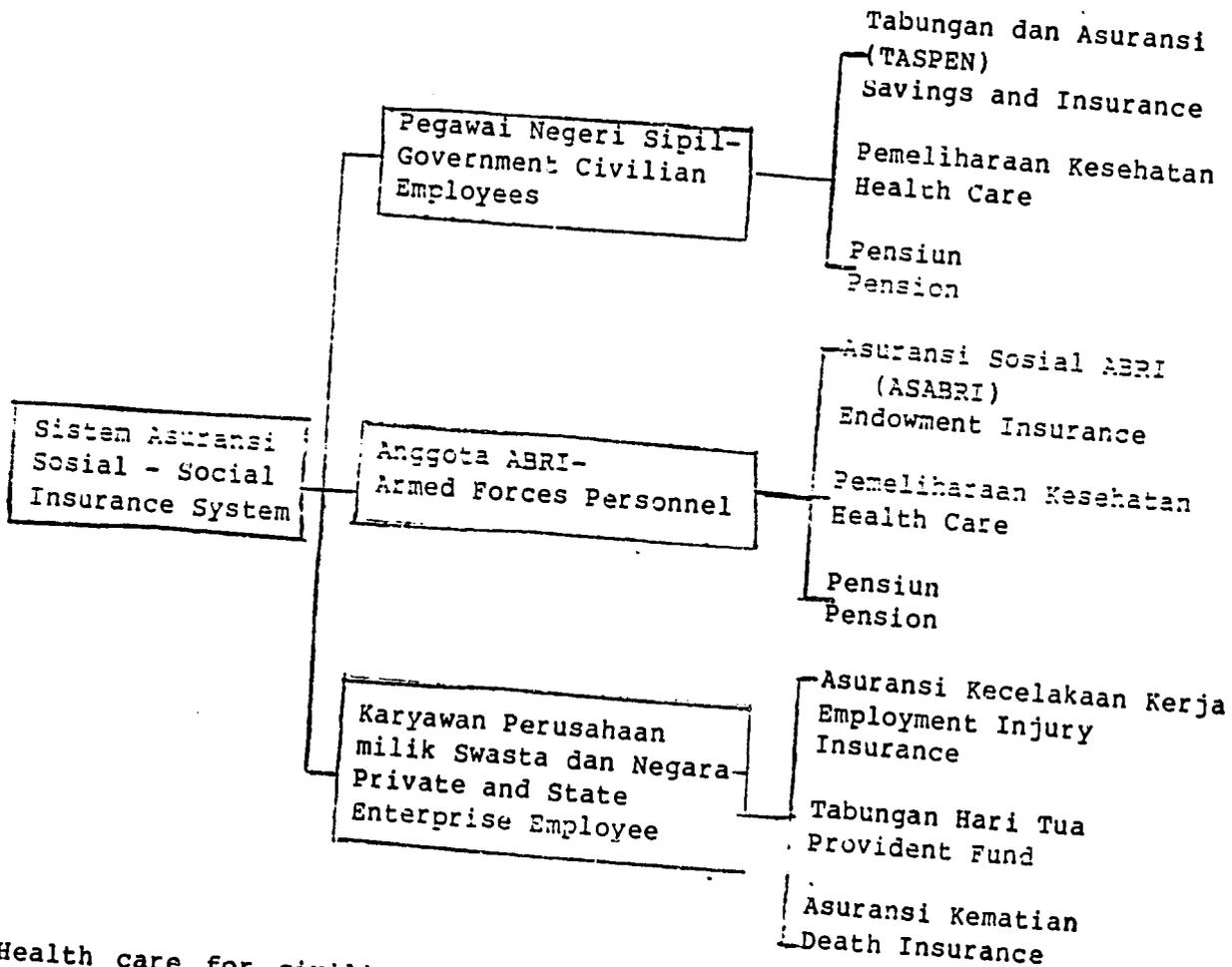
It appears that the public-private barrier in health care delivery is increasingly permeable. Whether the private health care business is profitable or would yield an adequate return on investment leads to the question of whether a free market for medical care can coexist with a complex, regionalized public health care system without drawing away precious resources.

## 2.2 Financing Health Care in Indonesia

Since Dutch colonial days, the state has assumed the responsibility of caring for the poor; the tradition of free care in public and religiously-sponsored voluntary hospitals continues to this day. In Indonesia, social insurance schemes are formulated under law Number 14 of 1969. Article 15 of this law states that the government administers the social insurance programs for workers, including sickness, maternity, disability, old age, death and unemployment. The law provides further that the cost of social insurance is paid by employers and employees. The benefits were implemented in stages through social security contributions.

Currently three major programs provide benefits for employment injury, provident fund, and death benefits under the insurance system of ASTEK (Asuransi Sosial Tenaga Kerja - Social Insurance for Labor). A public enterprise, Perum ASTEK was established in 1977 to administer the system. Although the basic law, followed by a series of ministerial decrees, established the entitlement of the worker and the responsibility of the employer for health care, the mechanism for payment was not implemented.

The social insurance system in Indonesia is divided into three separate schemes covering civilian government employees, armed forces personnel, and employees of private and state enterprises.



Health care for civilian employees and their families is covered through a 2 percent deduction from wages; armed forces personnel and their families are similarly covered through a 2 percent deduction. The government employees and

military receive care through the network of centrally funded-locally administered health centers and hospitals.

Most companies participating in ASTEK have made arrangements for the health care of their employees and most do so for their families as well. In a survey of 173 companies in greater Jakarta in 1984, 171 had some degree of health coverage for all employees. These vary from care in company facilities to arrangements with selected providers on a fee schedule, either fee for time or on a capitation basis or some combination. ASTEK has developed its own clinics which serve 70,000 workers and their dependents in seven cities on a pilot basis. State enterprises such as tin mining, railroads, telephone and oil industries have their own systems, some of which are comprehensive and of apparent high quality.

The largest "insured" program for health care is for civilian government employees, including employees of provincial and regency (district) governments. Approximately 3,200,000 employees and over 13,000,000 eligible persons are covered. This program is administered by Eusada Bakti/ASKES (health insurance), which arranges for care in public facilities and in non-governmental facilities when warranted by availability, need and preference at no cost to the public employee (unless first or second class facilities are used, in which case a surcharge is imposed). ASKES has been recently reorganized into a state enterprise, reporting to the Ministries of Health and Finance and exercising more autonomy. The choice of name reflects the original idea of making ASKES the national health insurance system of Indonesia.

It has been decreed in 1985 by for the Minister of Health and the Minister of Manpower (who have joint supervision over Ferum ASTEK - the social security system) to provide coverage to private industry and state enterprises, for which a charge of 7 percent of payroll is to be paid through ASTEK and delivered through the same public facilities that serve ASKES through PKTK (Health Services for Waged Based Employees). There is a law under consideration to make the contribution mandatory. In the meanwhile, the two ministries have been collaborating on pilot projects to test the feasibility

of these arrangements, one of which has been to collect contributions from employers on a voluntary basis and arranging health care in the greater Jakarta area. Other pilot projects are planned for Bali, Semarang, Jambi, Batam Island, West Java, and Riau.

During the time this was being planned, Indonesian tax laws were being changed to use the same principles that informed changes in the U.S. Tax Code, namely, that loopholes be closed in return for lowering the top rate. It is expected that tax avoidance will be reduced and more revenue will be collected as a result of these changes. Many believe that large companies were avoiding taxes by paying rich fringe benefits (free meals, housing, electricity and health care) and article 6 of the new tax code makes benefits paid in kind subject to tax, while insurance premiums remain a pre-tax cost of doing business. This has the effect of making the cost of company health services and health allowances taxable to the company, while health insurance (or an imputed wage increase to cover premiums) is taxable to the employee. In return, the top rate was reduced from 45 percent to 35 percent (with an effective rate of 30 percent). The shift from employer to employee would not create a serious tax burden to workers since no tax is due on incomes of less than Rp. 1 million a month. More than 80 percent of Indonesian tax revenues are derived from corporate taxes.

This effected the large state enterprises most acutely because many had developed the tradition of caring for their employees in company-owned and operated clinics and hospitals. One of these, Pertamina, the state-owned oil company, is making plans to divest its health system to its wholly-owned subsidiary Tugu Mandiri, a life insurance company headed by Pertamina's former Vice President for Finance. Pertamina plans to operate its health plan much like a health maintenance organization using its own physicians and facilities (which are reputed to be among the best in the country) and to market this product to other large private firms and state enterprises.

At the same time, other insurance companies are developing products for the same market. Providers (including several hospitals in Jakarta, physicians groups and the Indonesian Medical Association) have expressed interest in

developing prepaid health insurance products parallel to Blue Shield, preferred provider organizations, and a voucher system. Health insurance has not become popular probably because the concept of prepayment is new to many firms and because of restrictive insurance laws.

PKTK, which has been receiving technical assistance from Professor Brian Abel-Smith, an expert on the British National Health Service, has been growing slowly. Opposition has been generated to the mandatory contribution on the grounds that it would require the dismantling of successful company health plans, force everyone to use government health facilities which do not have enough capacity, and would be unacceptable to employees used to more luxurious and probably higher quality services.

Recently also, complaints about the rising cost of health care, fueled by the ever-increasing cost of drugs, have been heard by employers and individuals. These developments primarily effect the 5 percent of Indonesians who work for large firms for regular wages and to a lesser extent the 13 million civil servants and their families who would be using the same public facilities as PKTK and on whose program much of the new plan is modeled.

The majority who remain in the unorganized non wage-based sector would be largely unaffected, although PKTK has indicated that it would cover rural populations sometime in the future. Most rural and urban poor are entitled to use the system of Puskesmas (health centers) subcenters and village-based health activities (Posyandu). Many villages or sub-villages have contributed to health funds known as Dana Sehat. The problem in the rural areas has been one of underutilization in the face of a high incidence of infectious disease.

If one looks at sources of revenue as well as categories of expenditures in the health sector, one notes that more than one third of revenues are derived from fees for private services and nearly one-quarter more from purchases of drugs from commercial outlets. Thus, less than a third of health sector revenues are from public funds. The essential question is whether encouraging private financing will draw off governmental and PVO resources for the rural and urban poor by leading to increases in spending for urban, curative, high

technology care. Will it create demand that will drive up costs without meeting basic health needs? Will it create a multi-class system and is this avoidable or undesirable? Under the pluralistic system that now exists, can reforms be made in that system?

The Executive Board of WHO said of health care financing alternatives:

In many countries, there is a reluctance to look seriously at these alternatives. Social security is rejected either because it is considered socially divisive or because it is feared that it will place burdens on vulnerable enterprises or become a centre of power outside the control of the Ministry of Health. Employers' liability is rejected because it is feared that it will not be possible to control the services that employers develop or again because some enterprises are financially vulnerable. Charging for services is rejected as a political impossibility, foreign to the traditions and aims of the government, even though millions of people are paying already to avoid the queues and shortages of underfinanced and understaffed government services. In many cases, community financing of health insurance has never been considered, let alone attempted. But the rejection of all these options may add up to a total rejection of the financial feasibility of health for all. Services will remain accessible only to a few because of a lack of the political will to find innovative ways of making them available to all (4).

### 3. PREPAID HEALTH INSURANCE IN THE PUBLIC SECTOR

#### 3.1 The Current Situation

Indonesia has assumed responsibility for providing health care to civil servants since Dutch colonial times. In 1934 under the system of "Rustitucie Regeling," civil servants with salaries of less than Rp. 1800 per year were entitled to free care in every public facility (De Rechthebbenden). Those earning over 1800 Dutch Guilders a year (De Niet Rechthebbenden) could go to any provider and submit a claim to the government for reimbursement according to a set fee schedule. In 1948 the cutoff point was raised to 3000 Dutch Guilders per year and in 1949 to 5040 Dutch Guilders per year.

In 1950 the Government of Indonesia changed the thrust of the entitlement and issued regulations for the "Sistem Restituci" in which all civil servants and their families could receive care from any provider and submit a claim to the MOH or receive free care at public facilities.

During the next decade the number of civil servants increased. The dual system continued in practice since private facilities were not available to all civil servants, but were but largely confined to those working at the central level. Moreover, only those of higher ranks had enough money to pay for care and wait for reimbursement, or the confidence and education to negotiate the bureaucratic obstacles of the claims process. During this time a shortage of funds developed for the program.

In 1960 the MOH started a pilot project in Jakarta to test the feasibility of a mandatory premium. Individual claims were used together with fee-for-service payment to physicians. The premium was set at 3 percent of salary. The pilot project indicated that a premium payment was feasible but that costs would continue at about the same level.

In 1968 a Presidential Decree (Number 230) created BPDPK (Badan Penyelenggara Dana Pemeliharaan Kesehatan Pusat or Central Body for Funding Health

Maintenance Development), also known as ASKES. This decree created a budget through earmarked funds for nationwide health care for civil servants and pensioners, paid through a mandatory 2 percent wage checkoff and delivered through public and private resources.

The system left in tact the free choice of provider but changed the reimbursement process from individual claims paid retroactively by MOH to one where claims were paid by SPDPK. Control of funds, however, remained outside the purview of both the MOH Inspector General and the Ministry of Finance. The Head of the District Health Service was also the representative of ASKES. Claims were paid from the central level, and administered and paid by the district which issued ID cards.

This second phase in the evolution of the public employees health system was marked by overutilization, mismanagement and bill-padding by private providers. In addition, the public system did not collect much revenue since under the ICW regulations revenues had to be returned to the general treasury. Part-time health personnel had their public sector salaries supplemented with a modest (Rp. 40,000/month) honorarium. As a result, administrators spent little time on the program, which then ran large deficits. Budgets were allocated to 300 districts who planned and organized their own services. Often monthly budgets were spent in one or two weeks.

These problems led to the reorganization of ASKES in 1975. Coordination was moved to the provincial level, reducing the span of control from 300 regencies (districts) and municipalities to 26 (now 27) provinces. Free choice of provider was ended and civil servants were required to use the Puskesmas and public hospitals. Initially, payments were made to private physicians and hospitals. The system was changed to one in which individuals were reimbursed for claims to one in which public sector providers submitted monthly aggregate claims directly to ASKES. Benefits included prevention and treatment at the Puskesmas in special afternoon clinics dedicated to ASKES beneficiaries (although many still go in the morning for convenience and because some services such as immunizations are only available then), laboratory fees, drugs available from special stocks from the essential drug list, diagnostic

tests, and referral to district hospitals for special and unlimited in-patient care in third class beds. For a time, care was allowed by private physicians in emergency situations, but as one ASKES official described it, "this safety valve was closed." Referral to provincial hospitals is by letter from the district. Dental care was excluded but later provided as a benefit.

In 1977 a single rate of Rp. 150 per visit, including drugs, was established for all health centers where ASKES pays for civil servants. Hospital rates, however, continued (and still continue) to vary according to the particular district and province. Attempts were made to upgrade district hospitals by posting an internist, pediatrician, ob-gyn, and surgeon to each hospital.

For a while it appeared that the 1975 reforms were successful. However, lack of fiscal accountability continued as did the need to rely on underpaid, part-time staff. The provincial health officer (who usually is both the MOH representative of Kanwil and Kadinas accountable to the Governor) was also head of ASKES for the province. The financial condition of ASKES improved and a large enough surplus has been accumulated to yield Rp. 6 billion in interest income last year. However, some concerns about accountability, combined with government fears about increasing demand in the face of reduced budgets, the need for full-time staff and more flexible personnel policies resulted in a reorganization of ASKES as a Perum or government enterprise responsible for both revenues and expenditures and with an independent governing board reporting to the Minister of Health and Minister of Finance. Government enterprises can be organized as increasingly independent organizations such as the Perjan (e.g., the telephone company) which is heavily subsidized, the Perum (e.g., ASTEK), the social security system, which is more autonomous and the Persero (e.g., tin mining company) which are expected to make profits.

As a Perum, full-time staff can be hired, salary levels and other personnel policies can be changed, fiscal administration can be monitored, and rational pricing and incentive policies can be pursued. However, much of the indirect subsidy from the district and provincial levels could end and Husada Bakti/ASKES will have to incur the risks of a private enterprise. The provincial health officer will no longer be the head of the provincial Husada

Bakti and new people will be recruited and trained. It will thus be necessary to function as a purchaser of health care and not as an MOH official. Some tension between buyer (Husada Bakti) and seller (local government) can (and perhaps should) occur. What is certain is that this new organization has both its opportunities and its risks.

Some problems faced by ASKES as currently configured are:

- o Excessive use of and expenditures for drugs. This is a problem endemic to health care in Indonesia. Approximately half of all ASKES health care costs are for drugs. Puskesmas stocks use the essential drug list while specialist-prescribed drugs are the most rapidly increasing cost. Nevertheless, even Puskesmas drugs purchased, earmarked and packaged for ASKES sometimes get mixed with the general supply. Controls through ASKES purchasing at the provincial level, physician education, development of hospital formularies, and the organization of pharmacy and therapeutics committees have been funded by ASKES. In Bali a pharmacist was hired to monitor and control specialist drug use and has saved ASKES Rp. 5 million a month in drug costs. Class A and B drugs (i.e., those manufactured by Indofarma and Kimia Farma - public drug manufacturers) represent 50 percent of Husada Bakti expenses for Puskesmas drugs, while class C drugs (those manufactured by private firms) represent the other 50 percent. Shortages occur in class C drugs, but seldom among A and B drugs. The supply of drugs in hospitals is reported to represent only 30 percent of the need while 70 percent is purchased by patients. The purchase of drugs in hospitals goes beyond the essential drug list.

What are the reasons for this imbalance? According to reports in the Jakarta Post and Times, most of the increase in costs is due to unit price increases resulting from rupiah devaluations, part from the fact that almost all raw materials are imported (it is not certain whether these raw materials are basic chemicals or active therapeutic ingredients but given the absence of patent protection it is likely to be the latter). Drug costs also are increased by over-prescribing and over-utilization. One drug company official estimated that 40 percent of the cost could be attributed to commissions to doctors.

Some of the solutions are being tried by Husada Bakti. As a Perum perhaps it will have more freedom to implement drug purchasing policies, develop physician and patient education, formularies, pharmacy and therapeutics committees and computerized drug utilization reviews. Another possibility is dispensing prescriptions through Husada Bakti pharmacies, which could generate revenue as well as cut costs. Funds spent for research and development in this area would likely not only be cost-effective for Husada Bakti but could also lead to approaches to solving a serious national health care problem.

A related problem is procedures for drugs for chronic disease. The Puskesmas refers these patients to the district hospital, increasing travel time and waiting time. Sometimes these patients are given only the regulation three-day supply, necessitating repeated return visits.

- o Increasing demand for expensive tertiary care. On the outer islands this is compounded by the cost of transportation. This system problem can be approached from the perspective of provider and patient education as well as by using incentives and disincentives such as placing physicians at risk for hospitalization and specialist drugs beyond a certain amount, patient cost-sharing at higher levels of care, and preauthorization for hospital care as well as the development of peer review mechanisms to monitor utilization.
- o Hospitals set their own rates, resulting in lack of predictability for ASKES among geographic areas and over time. Emergency admissions are sometimes abused, as are admissions to private hospitals. ASKES may need to use its purchasing power to negotiate with local governments, work with provincial health officers and participate in hospital planning and pricing policy formulation. Cooperation with local governments and the Ministry of Home Affairs would be essential. Wherever possible, ASKES should stimulate price competition and contracting with alternative delivery systems, and experiment with different payment systems such as inclusive rates, DRG-type prospective payment, annual global budgets or reserving a block of beds. Yet ASKES

needs to consider how its role as a purchaser of care affects resources use and the public interest. From the point of view of the hospital, ASKES is slow to pay and hospitals purport to "lose money" on short-stay ASKES patients. Perhaps capitated, prepaid contracts or prospective rates could help control inappropriate use and help hospital cash flow.

- o ASKES patients use care out of proportion to their numbers in the population. This appears to be true in many places. For example, in South Sulawesi ASKES patients are 42 percent of inpatients, 25 percent of OB patients and 48 percent of eye patients. Contacts in Puskesmas and subcenters vary from 0.27 - 1.50 contacts per year for the general public and 3.0 - 4.0 per year for ASKES members. If this, in fact, is a problem depends on whether ASKES draws away resources from the rest of the population. Does this represent excess utilization by government employees or under-utilization by the general public?\* Do the non-ASKES people get their care in the private sector (modern or traditional)?

There also may be systematic under-reporting of non-ASKES patients since Rp. 150 is collected for each visit while for ASKES nothing is collected at the time of service.

- o ASKES patients do not feel they are treated well by the Puskesmas (the largest source of dissatisfaction according to ASKES surveys). Perhaps because ASKES patients do not pay at the time of the visit, Puskesmas staff see them as non-paying patients. ASKES does, however, pay the local government incentives for Puskesmas staff and contributes Rp. 1100 per month per person for drugs. ASKES patients are mostly

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\* While Indonesia records 0.5 contacts per year per person, Kenya and Sri Lanka have 4.0, the U.S. has 4.0 and Tanzania has 5.0.

seen in afternoon clinics separate from the general public which should increase satisfaction.

- o Higher ranking civil servants use much more of certain services. ASKES surveys indicate that 16 percent of eligible civil servants never obtain an ID card. Among those with ID cards, drug utilization is much higher for Grades III and IV. Glasses, hearing aids, and specialist care are also used more by higher-grade civil servants. In 1983/84 Level I (the lowest ranked) numbered 710,000 and represented 26 percent of the active civil service population, Level II were 1,762,000 (65 percent), Level III totalled 231,000 (8.5 percent), and Level IV 15,000 (0.6 percent). Level I decreased their proportion from 1979/80 while Level II increased from 1979/80. Retired civil servants increased from 1,981,000 in 1979/80 to 2,585,000 in 1983/84. This group could represent higher costs in the future, especially for hospital care, specialists and drugs.
- o Surcharges for second class and first class hospital rooms for ASKES patients are discounted compared to other patients. These prices, which are discounted from charges, come close to actual cost. If hospitals were to charge full costs to all patients instead of shifting costs to first and second class, it would allow for decisions on bed allocation to be made on the basis of real costs. From the hospital's perspective, cost-shifting is rational, profit maximizing behavior and is considered part of the Indonesian tradition of mutual self help.
- o ASKES has a weak claim control system. A photocopy is made of the ID card and signatures are compared, but it is likely that a number of ineligible patients obtain care.
- o Accrual accounting is not fully implemented. Actual accounts payable and receivable are not known.

- o Information systems do not capture eligibility, claims, utilization or management information such as personnel, inventory or accounting on a timely basis. This is partly a result of poor recording and record keeping at the local level where files are not updated and partly the result of manual data systems that are not well planned. One serious result is the unknown amount of costs that are incurred but not reported. This interacts with the slow payment and receipt by ASKES of bills (about 3-6 months lag) which distorts reported financial conditions). The University of Indonesia Computer Center has developed a data system for financial, medical care, eligibility and personnel which could not only help ASKES but could also improve the information systems of hospitals and local governments.
- o Little or no cost or revenue data are available from hospitals. This makes billing and price negotiations difficult.
- o Audit and inspection procedures are not well developed. As a purchaser of care, ASKES needs to develop and train a cadre of management and financial auditors.
- o There are no quality checks done by ASKES. A system of quality assurance should be implemented and staff trained in its use. This could be done in conjunction with utilization reviews since both work from utilization data and can operate through peer review committees.
- o Better epidemiologic and service planning need to take place to meet the needs of pensioners. At the present time, nearly a million pensioners pay 2 percent of their pensions to ASKES. Rates of utilization do not reflect the higher morbidity and more expensive diseases found in this group.

- o More experimentation is needed in new reimbursement and delivery system configurations. Examples would be the expansion of capitation to the Puskesmas as started in Yogyakarta, expansion and analysis of the use of private physicians that could be made wholly or partly on capitation (as started in Surabaya), and contracting for care for ASKES patients with a prepaid managed health care system and even experimenting with a local government to privatize a Puskesmas (by sale, lease, or more likely by management contract).

### 3.2 Future Plans

When ASKES was formed in 1968, it was to be the precursor for the Indonesian health insurance system, starting with civil servants and later covering the employed population. The final phase of this process was to integrate ASKES insurance with health care delivery. The development of DUKM for the population working in the wage-based private sector incorporated these principles into its design. In that sense DUKM represents the realization of earlier plans for ASKES. ASKES, as Perum Husada Bakti, is becoming a purchaser rather than a provider of health care.

### 3.3 DUKM

Dana Upaya Kesehatan Nasional (DUKM) is an umbrella term coined to describe the wide range of socially financed pre-paid health service delivery schemes which are emerging in Indonesia. It is a concept and set of ideas, not a single new program, to encompass many ideas that are related to health insurance and health service financing.

There are five parts to the DUKM concept as shown below:

- o the basic law which will legalize the concept
- o a national health insurance supervisory body

- o individual health insurance and health financing, both public and private
- o provincial coordinates of health care service program
- o health programs for actual provision of services, both public and private

Under the DUKM concept, the social financing of health services in Indonesia will be carried out by organized programs of insurance offered under both public and private auspices. Currently functioning insurance programs such as ASKES, ASTEK, ASABRI (Health insurance for military personnel administered by the Ministry of Defense) and Dana Sehat fall within the DUKM rubric and privately owned and operated health insurance programs would necessarily be included under DUKM.

In 1985 it was announced that the Ministry of Health and the Ministry of Manpower (which have authority over Perum ASTEK (Asuransi Sosial Tenaga Kerja or Social Insurance for Workers, the Indonesian Social Security agency) were developing a program of health insurance for waged based employees workers and their families (PKTK). This program would be funded through a 7 percent mandatory employer contribution to ASTEK and administered by local ASTEK and local health authorities. Although basic principles were enunciated, including the use of all existing facilities, it appears that most care would be channeled through the Puskesmas. The employee is to register with the Puskesmas of his choice. The concept and its implementation are in the process of development. The concept of employee entitlement to health insurance was established in 1952 and 1957 decrees, which extended "sickness and pregnancy" benefits to families. A 1969 decree enabled wage deductions for this purpose and the formation of Perum ASTEK in 1977 provided the funding mechanism.

In 1985 ASTEK announced a joint decree by the Ministries of Manpower and Health that expanded current health insurance entitlements under DUKM. This decree also formed the basis for developing PKTK pilot projects. Legislation is being developed that would revise general public health laws. One article

of that law would legitimize DUKM. A second piece of legislation which will establish the operational parameters of DUKM is currently being formulated for consideration by the Cabinet Secretary.

Questions about employer contributions, copayments, the role of non-government providers, reporting requirements, exemptions and buy-out provisions included in this legislation are being discussed. The law appears to be in a rather early stage of development and the Minister of Health has only recently proposed the DUKM legislation to the President for consideration.

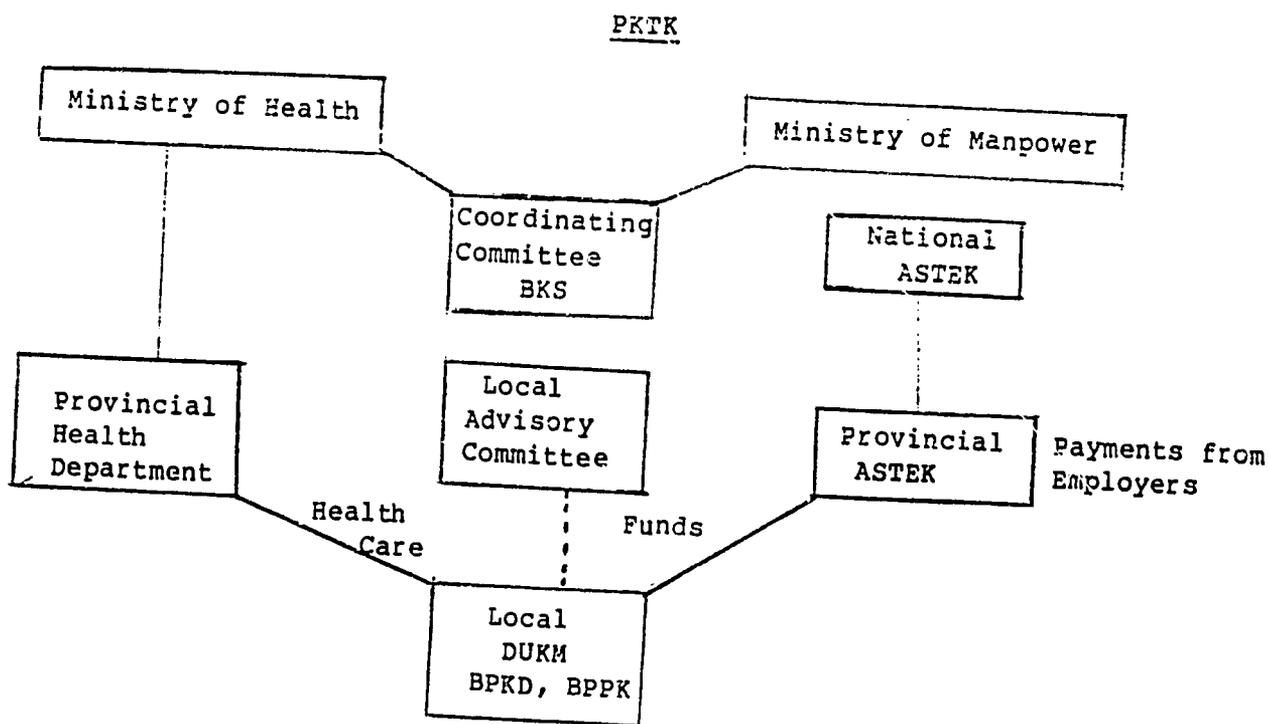
In 1964 ASTEK had tried to implement health insurance through Yayasan Dana Jaminan Sosial (Foundation for Funding Social Benefits) which developed clinics for workers (not including families) in several cities. The plan was voluntary and subject to adverse selection. Most of the workers joining were casual workers who had serious health needs. High utilization created deficits and after several years the clinics were closed. In 1978 ASTEK again opened clinics especially for workers as well as their families. Eligible members can use either ASTEK clinics, employer clinics or Puskesmas and are covered for outpatient care, drugs, specialist care and hospital care in public facilities. At the present time 70,000 persons are covered. This attempt appears more successful and in 1985 contributions exceeded expenses by 25 percent.\* In Surabaya ASTEK indicated they did not wish to expand although there is interest by employers and workers. ASTEK proposed to modify this

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\* Three hundred fifty companies enroll their workers at premiums negotiated between ASTEK and the firm, ranging from 4-11 percent of payroll. For all seven cities annual premiums are about Rp. 30,000 a family. In Surabaya premiums are Rp. 40,000.

policy and build several more clinics for PKTK in Surabaya (where Puskesmas appear to be full). These clinics are said to serve the lower income blue collar workers and penetration is highest in heavy industries such as steel and warehousing. Clearly, ASTEK clinics should be studied to see how they are able to finance and deliver health care to a vulnerable population at comparatively low cost.\*

The DUKM concept was refined in the PKTK pilot project with the assistance of Professor Brian Abel-Smith and a set of principles were enunciated including the central role of family physicians, who are to be paid by capitation and refer patients for more specialized care. PKTK is to be administered on an area-wide basis and incorporate cost-sharing, is to promote good working relations among providers and patients, and is to arrange for the delivery of care through the integration of public and private facilities.



\* ASTEK also pays for medical care under workmen's compensation (industrial sickness and accident benefits) and reimburses up to Rp. 1.5 million a case for medical care. Income is derived from employer contributions ranging from 0.24-3.60 percent of payroll.

PKTK is administered jointly by the Ministries of Health and Manpower, with policies determined centrally by a coordinating committee (BKS). The payment system is administered by ASTEK which delegates collection to local ASTEK. On the health side, responsibility is delegated to the Provincial Health Officer (Kanwil, MOH) who relates to the local DUKM (BPKD, BPPK) which is administered in each province by a coordinator with advice from an advisory committee (Femina) appointed by the Governor. Each local DUKM is to keep a master list of covered employees and dependents obtained from regional ASTEK offices, and pay providers (which would include both Puskesmas and surrounding private physicians). Regional ASTEK collects premiums payments and updated lists of eligibles from employers and submits these to DUKM after taking 10 percent for administration and 10 percent for reserves as part of their procedures for other ASTEK programs.

In order to begin to test these concepts and implement management procedures, several pilot projects were planned. The project in Jakarta began in April 1985. Projects in several other cities are planned and one in Bali is ready to begin operation. Initial reserves, staff costs, office and marketing expenses are obtained through loans from ASTEK.

While the provisions of law and regulations are being drafted, the Jakarta pilot project is continuing to operate. The development of new pilot projects is proceeding slowly and there do not appear to be any plans to test the impact of mandatory contributions.

#### 3.4 DUKM's Jakarta Pilot Project (PKTK)

The Jakarta pilot project enrollment forecasts were based on the fact that 300,000 workers are covered by ASTEK in the area and initial assumptions appeared to consider 100 percent penetration and a enrolled population of over 1,000,000 (perhaps this assumes the implementation of a compulsory

contribution to ASTEK). Currently 35 employers are participating (about 1 percent) and 8300 persons (around 0.5 percent) are enrolled. Initially, a survey of employers indicated a much larger market share. Although few disenrollments are reported, obviously the rate of growth is slow. In the first seven months 3200 people enrolled and in the next eight months 3000 more enrolled. Assuming an average family size of four, this gives only 2100 contracts. More creative and aggressive marketing is one area in which the Jakarta pilot project could use help. Some of the reasons for slow enrollment growth in this free market test of PKTK may be:

- o ASTEK originally was responsible for marketing, presumably because they had more contact with employers. ASTEK, as part of the Ministry of Labor, is a public sector revenue collection and regulatory agency (combining some of the functions of a social security system and an occupational health and safety agency) and is not well received by many employers who complain that they could more effectively self insure than ASTEK can provide benefits. ASTEK officials, moreover, have not been trained or oriented to marketing. Recently a marketing person was added to PKTK staff.
- o The price for employers was either 7 percent of payroll (an increase of ASTEK payments of 25-300 percent to employers) or Rp. 2500 per month per person. In the 7 percent option, the incentive is to enroll the lower paid workers. No negotiations for rates take place nor are volume discounts offered.
- o Most employers and employees do not want to use the Puskesmas as first contact care. This was voiced by the consumer organization during a PKTK orientation seminar.
- o Many employers that pay into ASTEK have their own health care arrangements which are thought to be superior to what PKTK offers. In a recent survey, 171 of 173 employers in Jakarta had made arrangements for health care and almost half had their own clinic.

### 3.5 Pricing Policy

Approximately half of the PKTK members pay Rp. 2,500 per month. This option is for small companies and low income workers. In practice, revenue derived from the "flat fee" exceeds that derived from the 7 percent contribution since the Rp. 2500 is per person and the 7 percent is per contract (or worker). Even without interest and depreciation, revenue requirements would dictate a premium of Rp. 123,000/year/worker, a surplus of about Rp. 500 per contract, while the 7 percent option would result in a deficit of around Rp. 4000 per contract.\* Clearly this reflects a need for changing pricing policy for PKTK under a voluntary contribution and foreshadows problems of pricing by fixed percentage of salary. A compromise between per person charges and percentage of payroll in terms of spreading risk, competitive pricing and equity is the step rating system used by most insurance companies. Rates could be 2-step (worker and family), 3-step (single worker, couple, family) or 4-step (single worker, couple, family with one child, family with more than one child).

### 3.6 Management Issues

The Jakarta pilot project ostensibly uses 38 Puskesmas to deliver care. In practice, only eight of the 118 Puskesmas in Jakarta account for most care. Capitation payment has not been implemented and various physicians staff the afternoon clinics which PKTK patients share with ASKES patients. Physicians have been known not to show up and patients have complained of shabby conditions. Some of the Puskesmas used were obviously the best in the city. In most of the Puskesmas visited, the afternoon staff does not recall treating many PKTK patients. Two non-governmental hospitals indicated that several

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\* According to Abel-Smith's estimates, per capita costs are approximately Rp. 2000 per month. At that rate, average wages would have to be over Rp. 100,000 a month to break even, assuming an average contract size of four persons and using a premium of 7 percent of payroll. In Jakarta average revenue per contract is Rp. 3440 vs. Rp. 9000 for those paying a flat fee.

PKTK patients were admitted but that PKTK was slow to pay. Physicians have also not been paid. A major management issue is the lack of information about accrued costs and costs incurred but not reported through the accounting system. The PKTK pilot project is repeating the mistakes of ASKES by not using accrual accounting. PKTK drugs were packaged separately from ASKES drugs and used strips instead of plastic bags. Drug supplies and inventory control, while not mentioned, are always potential trouble spots. Management information, while adequate now, would be difficult to manage at 20-30,000 members.

The ten pilot project staff are making efforts to remedy this situation. Although it was envisioned that private physicians would be used along with Puskesmas, this will not be implemented until membership reaches 20,000. Clearly, the most pressing need is for greater enrollment. PKTK staff would like to pay commissions to marketers to attract more members and at this point it is worth trying.

Although average wages were underestimated (at around Rp. 45,000 per month instead of Rp. 55,000), no adverse selection of high utilizers is apparent and the impact of lower than predicted revenue has not been compounded by higher than expected costs. Outpatient use averages the predicted two visits per person per year (as opposed to four for ASKES), while hospital use is a modest 210 days per 1000 per year. The number of prescriptions is only .1 per member per year, which is far lower than expected and probably reflects out-of-plan use and does not even include drugs provided at the Puskesmas. Indeed, known out-of-plan use is high (bills reaching Rp. 1 million a month).

The PKTK pilot project planned for Bali is in negotiation and there has been confusion between developmental and operating costs and payment of incentives to the Puskesmas. Further, the Provincial Health Officer believes that assumptions of Rp. 50,000 for the average monthly wage are too high.

At this time, PKTK appears able to control unauthorized use through ID cards with photos of eligible family members. Cash flow from ASTEK presents persistent problems in receiving lists of workers and money arriving a month late. Bank-to-bank transfer of funds maintains reasonable cash control.

### 3.7 Implementation Issues

The futures of the Jakarta pilot project and DUKM are vastly different, depending on whether contributions through ASTEK are made mandatory for PKTK. Some of the key questions of making the payment mandatory are:

- o Will it discourage contributions to ASTEK for other social insurance?  
The increase in contributions of 7 percent could serve to decrease the rate of compliance with ASTEK with respect to the number of firms and/or number of employees listed by a firm. This would be particularly true in labor intensive industries and would increase in periods of economic stagnation.
- o Would a voluntary system lead to adverse selection? This could include covering only lower-paid members, members with larger families, or members that use more services either because they are sicker or simply expect more health care. A mandatory system would ensure more equitable risk selection.
- o Would a mandatory system cause the reduction of wages, other benefits or layoffs? Several employers indicated that it could.
- o Would the costs of collection and administration substantially increase premiums? PKTK managed to negotiate with ASKES in Jakarta to keep administrative costs down to 10 percent. However, reserves, clinical administration and amortization of initial development costs will raise this.
- o Would a voluntary system create different levels of care among employers and within firms? Different levels of care already exist and even with a mandatory system, employers would provide or purchase supplementary benefits and services for their higher-level employees.

4. PREPAID HEALTH CARE IN THE WAGE-BASED SECTOR

4.1 Introduction to the Market

The markets for many prepaid health care arrangements are those with some predictable source of income and some access to care, either through the workplace or through other groups that can pool funds to spread the risks of illness.

HEALTH BENEFITS, COST PER FAMILY PER YEAR (in Rupiah)

<u>Aneka Tambang</u> 300,000 (national) 720,000 (in Jakarta) 20% copayment for care outside company	<u>ASTEK Pilot</u> 42,000 single level of care (4th class hospital)	<u>Husada Bakti</u> 26,000 (expenditures by ASKES)	<u>Batam Island</u> (oil related firms) 96,000 50% copay for family members
<u>British American Tobacco</u> 480,000 (3 levels of benefits)	<u>Coca Cola</u> 400,000 20% copay for family members 3 plan levels	<u>DUKM</u> 120,000 (projected)	<u>Dept. of Sea Communications</u> 180,000 capitation to Port Hospital
<u>Medical Scheme</u> 640,000 (outpatient and drugs)	<u>Pertamina</u> 400,000 (possible offset from fee for service revenue)	<u>P T P</u> <u>XXI-XXIV</u> 104,000	<u>Survey of 173 Jakarta Employers</u> 132,000 (1984) (50% have copay for families)
<u>Unilever</u> 360,000 3 plan levels	<u>Timor Jauh/Aetna</u> 360,000 PPO-type indemnity 360,000-600,000 HMO-like service benefits		

The list above indicates how varied the costs of health care are to purchasers. As a percentage of payroll, costs vary from 30 percent for Aneka Tambang and other parastatals to 2 percent for ASKES government employees. However, a mining or oil company with widely-dispersed facilities has special needs, as does a program for government civil services purchasers operating through public facilities. Most companies appear to be in the 15-20 percent

range. Up to half of this amount is paid out for the cost of drugs. The market is segmented into plans for those who would otherwise seek care outside the country (the medical scheme), and provide high cost plans essentially serving the upper middle class (BAT, Unilever, etc.), plans that serve the middle class (Sea Communications), and plans that serve blue collar urban and rural employees (ASTEK, PTP, DUKM).

#### 4.2 Extent of the Wage-Based Sector

The chairman of APINDO estimated the size of the wage-based sector to be 15,000,000 people, with another 15,000,000 unemployed and 33,000,000 in agriculture.\* Not all of these 15 million can manage to pay many of the costs of health care either through individual or employer paid premiums. Tax rates are 15, 25, and 35 percent and minimum taxable income is Rp. 1 million for a single person and 2.8 million per family. Only 30 percent of workers in the formal wage-based sector have incomes sufficient to be taxed.

#### 4.3 Current Medical Arrangements

##### 4.3.1 Prepaid Medical Schemes

Many prepaid medical schemes exist in Jakarta and have been identified by Torrens (5). However, no systematic survey has been made of these plans, which can be characterized as physician sponsored, usually part of a fee-for-service clinic, and mainly providing outpatient physician and drug benefits. Many also include dental care on a prepaid or fee for service basis and are not highly capitalized. One consequence of being thinly capitalized is a lack of stability marked by high attrition of these small enterprises.

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\* The Director of ASTEK estimated that while they cover 16,000 employers with over 25 employees each for Rp. 10 million per month, the actual number of companies in the wage-based sector is 60,000.

Although they have an insurance function, they are not subject to any insurance regulation.

#### 4.3.2 Health Insurance Policies

Current insurance regulation requires that any policy sold by a general insurance company cover only in-patient care to individuals on an indemnity basis. Life insurance companies can sell group health insurance policies as a rider with a benefit three times the face value of the life policy. This necessitates that in order to sell health insurance, a company has to include life insurance as well.\* Only four companies in Indonesia now sell group health insurance and cover less than 30,000 people. Individual policies may double that number. Several companies interviewed indicated these policies were sold to round out their lines of business. Most companies purchasing health insurance have different policies for different classes of a company's staff, with higher-paid workers having higher limits and more freedom of choice. Timur Jauh/Aetna offered a capitated, prevention-oriented benefit at Rp. 30-50,000 per month per family and found few purchasers interested. The company now sells a fee for service package using a group of 40 physicians (GPs and specialists) for Rp. 30,000 per month which is selling better. An official of Bumi Putera feels that the problem for health insurers is the availability of medical resources to guarantee access. A solution to this would tend to favor an HMO-like arrangement, but insurers feel uncertain about the participation of providers and prefer to stick to indemnity.

The new insurance law contains provisions about reserve requirements for solvency, Ministry of Finance supervision, directors' liability and disclosure. Several of these provisions have implications for health insurance.

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\* This situation is similar to single premium annuity policies in the U.S. It was not a constraint under the former tax code and should still not represent much of a marketing barrier.

#### 4.3.3 Care in Company-Owned Facilities

No systematic research appears to have been done on the capacity, utilization, costs and potential of company-owned facilities. These facilities are operated by nearly half of all companies, 7 percent of which also own a laboratory and 27.5 percent of which own their own pharmacies according to a survey done by ASKES for companies in Jakarta. Only 5 percent of these clinics are used exclusively by employees, but in 40 percent of companies, these clinics are used in conjunction with outside clinics. Many of these clinics are small, staffed by a nurse and used for emergencies. Many are used for occupational health surveillance. In some instances company physicians review outside claims and act as gatekeepers for more expensive types of care. Ministry of Manpower laws require that companies provide for the health care of their employees. Outside of Jakarta, particularly in many remote areas, much health care for the wage-based sector is delivered in this way.

Company-owned facilities have potential not only as focal points for more comprehensive health care delivery but also as an outreach mechanism to families for health education, social marketing and child survival interventions (i.e., ORT, immunization, family planning, growth monitoring and nutritional supplementation) to augment and reinforce public and voluntary village-based sites.

#### 4.3.4 Allowances for Care

Many companies simply pay for medical expenses as they are incurred. Since these in-kind benefits are now taxable, more companies are either insuring for care or giving a fixed allowance for medical care. The ASKES survey of Jakarta companies noted that most companies post-pay or self-insure. The cost per worker is Rp. 11,000 per month and is higher in small companies, while the lowest costs are found in firms with 500-1000 employees. About 81 percent of these plans cover some benefits for the worker's family, with 66 percent of these limiting services to spouses, often to the first three children, and imposing copayments on families. All companies with health benefits covered general outpatient care while only 18 percent fully covered maternity,

25 percent covered dental care, and 47 percent covered preventive services. These plans are highly utilized and the survey indicated that there are 6 visits a year per worker (it is uncertain if this includes the family; if so, it would bring the contact rate down to 1.5-2.0 per year, which corresponds with DUKM projections). Most of these costs are paid by the employer with only a few requiring cost sharing. Most of the expenditures (52.5 percent) are spent for drugs, followed by 22.7 percent for doctors' fees and 17.9 percent for hospitalization.\*

In absolute terms drugs totaled nearly Rp. 70,000 per year, with physician fees following at Rp. 30,000 per year. It was reported that there was some misuse of these benefits such as use by unauthorized persons and submission of fraudulent or inflated claims, with most abuses on the part of the member rather than the provider. It is important for planning services that surveys like this be repeated, refined and expanded to cover more companies and areas outside of Jakarta (6).

#### 4.3.5 Arrangements with Hospitals

In Jakarta several hospitals have contracted in exclusive arrangements with factories. The Islamic Hospital, on the day we visited, had 77 of 315 occupied beds paid by these contracts.\*\* The hospital has 51 separate factory contracts which it markets to plants. St. Carolus Hospital also has a number of direct contracts which account for some of the 25 percent of its operating revenue derived from third party payments. With its six health centers around Jakarta, St. Carolus can deliver comprehensive care and is interested in developing a prepaid system.

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\* In contrast, most employer health costs in the U.S. are for hospitalization, then physicians' services, with drugs accounting for 10 percent of costs.

\*\* This represents 25 percent of occupied beds, with ASKES using 30 percent, and the remainder self-paying.

Another hospital in Jakarta that has experience with direct contracts is the Port Hospital, which until recently had arrangements with the Port of Jakarta and the Department of Sea Communications to deliver complete care for Rp. 15,000/family/month. The recent drop in export earnings adversely affected the finances of the Port of Jakarta and they ended the arrangement. Their employees now go to Puskemas with ASKES patients. The termination of this contract resulted in a dramatic drop in occupancy for the Port Hospital, from 84 percent to 60 percent, reflecting the risk of relying heavily on a single purchaser of care in a deflationary economy.

#### 4.4 The Size of the Market for Prepaid Health Care

One can approach sizing the market in several ways. For the wage-based sector, one can look first at employers. Most of the market is concentrated among those working for employers stable enough to provide health care. By this criterion, most companies paying into ASTEK form a potential market. The best prospects are likely to be parastatals and firms that are large and high paying (foreign joint ventures seem to have particularly rich benefits).

Using aggressive marketing techniques, developing several products and pricing by the costs of different benefit packages, one could expect to obtain a 30 percent market share. This would include 1,000,000 employees from private firms and another 1,000,000 from parastatals (many of which have their own health facilities but are under increasing pressure to reduce costs as well to reduce their tax liabilities). These accounts could be supplemented by marketing to individuals who now self pay or buy insurance in order to receive care in the offices of private practitioners. Others, such as shopkeepers, etc., represent an additional pool of customers. In addition, an insurance plan could contract with Husada Bakti in some places. Any initial effort will tap higher income, better educated groups. Later, other groups can be included through subsidies. Developing purchasing units and risk pools for the unorganized sector can spread risk while providing access for more people.

Another way of looking at the market of enrollees is by extrapolating current patterns of care. There was a household survey conducted in 1980 and another in 1985, the data from which are not yet analyzed.

Using the 1980 survey one finds that 6.3 percent of those interviewed said they were sick in the last month, 30.9 percent of them self treated (which could mean no care or the use of some OTC drug or home remedy), 14.7 percent went to a paramedic in private practice, 14.1 percent went to the Puskesmas, 13.6 percent went to a physician in private practice, 10.2 percent went to a subcenter, 7.1 percent went to a public hospital, 6.3 percent went to a traditional practitioner, and 3.1 percent obtained care in other ways.

If one assumes: 1) a prepaid health plan will reach only 25 percent of the population initially, 2) those who would be attracted would now seek care from modern practitioners, and 3) those who would enroll are technology oriented, then (using a 1986 population projection of 168 million) approximately 7 million seek care in any 30-day period. If 10 percent of these see a paramedic in private practice, 20 percent see a private physician, and 15 percent seek care in a public hospital, the health plan would enroll 400,000 per quarter. What the upper limit is would depend on perceived need, geographic and fiscal accessibility, etc.

#### 4.5 Developmental and Management Issues

The development of a prepaid health product that would finance and deliver care through a managed health care system could be started de novo or build on established health financing and/or delivery. The following arrangements are possible.

- |                                   |  |  |
|-----------------------------------|--|--|
| <u>A. Financing</u>               | <u>B. Delivery</u>   | <u>C. Payment to Providers</u>             |
| 1. employer financed              | 1. hospital managed  | 1. fee for service plus percentage at risk |
| 2. individual financed            | 2. group practice  | 2. capitation                              |
| 3. consumer group financed        | 3. individual physicians in managed system   | 3. salary plus incentives                  |
| 4. government purchase of care    | 4. company facilities  | 4. combination                             |
|                                   | 5. combination   |  |
| <br>                              |  |  |
| <u>D. Sponsorship</u>             | <u>E. Controls</u>   |  |
| 1. insurance company              | 1. payment to providers at risk (the extent of risk and services for which risk is assumed vary) |  |
| 2. clinic                         | 2. peer review   |  |
| 3. hospital                       | 3. providers are full time employees   |  |
| 4. labor or consumer group        | 4. budget limits   |  |
| 5. employer or group of employers |  |  |
| 6. public enterprise              |  |  |
| 7. consortium                     |  |  |
| 8. foundation                     |  |  |

Thus, at least 2000 permutations of a managed health system are possible. In addition, different configurations for urban and rural areas, payment to specialists and GPs, hospitals, pharmacies, etc. are likely. One could build a Kaiser-Permanente type facility out of these components (1, 2 and 4 from Column B, 3 from Column C, 8 from Column E and 1, 2, 3, 4 from Column E) as well as a preferred provider organization, an individual practice association, or something unique to Indonesia. What distinguishes a managed from a non-managed health care system is an enrolled population, a controlled number of providers, and the participation of the financier in managing the delivery system.

Any prepaid managed health care system will have a cluster of problems that arise at different stages of development. In the development (pre-operational) phase, potential problems are:

- o availability of capital,
- o provider relations and contracting,
- o scheduling of progress toward operations,

- o availability of staff,
- o public and customer relations,
- o relations with licensure and regulatory agencies,
- o benefit design,
- o design and location of facilities,
- o rate setting,
- o design of inter-personal communications, and
- o building of administrative infrastructure,  
(accounting, personnel, medical and management information).

In the early operational phase, some critical problems would be:

- o cash flow,
- o development of financial control systems,
- o marketing effectiveness,
- o government relations,
- o public image,
- o testing of interpersonal communications (touching on governance, labor relations and consumer relations),
- o testing and refinement of administrative procedures and policies (including payment to providers),
- o effectiveness of hardware (facilities and equipment),
- o coordination of medical, marketing and informational modules, and
- o competition with existing providers (and insurers).

As the plan matures and is accepted in the market, different challenges may emerge such as:

- o managing provider reimbursement and grievances,
- o expansion (geographically and into different enrollee groups),
- o maintenance and modernization of facilities,
- o keeping information and communication abreast of growing enrollment,
- o (or) epidemiologic and risk selection problems of a stagnant membership,
- o new competition in the market,
- o maintaining market share and increasing penetration,

- o development of new products, services and more efficient procedures,
- o maintaining good customer and patient relations,
- o keeping track of costs, and
- o assuring good quality care.

For the development of prepaid, managed health care for Indonesia, three major constraints need to be addressed:

- o The availability of capital. Indonesia is in a period of economic stress; the drop in oil prices and consequent balance of payment problems have resulted in several devaluations of the Rupiah. The most recent of September 12, 1986 devaluated the Rupiah by 45 percent, which will steeply raise the price of all imported goods and services. Theoretically, the devaluation will reduce incentives to take money out of Indonesia and will improve the balance of payments.

The situation affects capital availability. Criteria are very strict: private lenders want to get a return on their capital of 25-30 percent per year. Foreign banks are reportedly pulling out of the country. State banks have money but a shortage of credit-worthy borrowers. Real interest rates (interest rates less inflation) are around 15 percent, so risk capital is difficult to obtain. Private companies are "over-leveraged" and are wary of incurring more debt. In general, credit was available until 1983; since then it has become increasingly harder to obtain and lenders are cautious. Asset-rich investments are preferred rather than intangibles such as insurance or prepaid health plans.

Foreign investment, while encouraged for some things, is subject to government regulation including a steeply-declining foreign share. For insurance these regulations are even more stringent, with foreign share required to be 30 percent after ten years vs. 49 percent in other industries.

The only health-related investment that appears in the "Priority List for Investment" published by the Investment Coordinating Board (DKPW) is drug manufacturing. A group of individual private investors, discouraged by the

government's investment policy opened hospitals in Singapore such as Mount Elizabeth which is used mainly by Indonesians.

With the country facing a negative growth rate (predictions range from 0-1.5 percent in the face of a 2.2 percent population increase), the government is embarking on a program of austerity. The MOH's 1986/87 development budget (DIP) has been reduced by 40 percent to approximately \$60 billion. The routine (operating) budget will also be reduced but not as drastically, while special Presidential funds that have both development and operating components (INPRES, BANPRES, etc.) are also being curtailed. Therefore, there is little chance of GOI support for health care financing and delivery reform despite the fact that 45-50 percent of the MOH's budget is spent to support facilities such as hospitals.

The equity market in Indonesia is very thin and constrained by government regulation. In order to be listed on the stock exchange, a company has to show a strong record of profitability and fluctuations in price are controlled to protect investors. Furthermore, a stock is required to pay dividends at a rate nearly equal to time deposits which are tax free after one month, while dividends are taxable. As a result, there are only about 20 companies listed on the Indonesian stock exchange and most of those went public as a means of divesting foreign shares of ownership. Even if health care companies were permitted to be owned by investors, there would be no vehicle to raise equity capital.

One way of minimizing capital for new ventures is to build on organizations that already have financing and delivery resources in place. Otherwise, it falls upon bilateral and multilateral donor agencies to stimulate the growth of health care alternatives in this environment.

- o Management capacity. One can categorize management capacity into people, training and systems. People with management skills are available within the health sector and from other industries. Training in different aspects of health administration can be developed by existing university programs in management and public health, and by

provider organizations. Management systems need to be adapted for the Indonesian situation. Several kinds of institutions will be the recipients of training. The first level of training will need to develop some management capacity in the Puskesmas. This will require short courses for paramedical personnel who are selected to prepare for self-sufficiency. Additional training will be needed for persons working at the district and provincial levels. Also in the public sector, training in hospital management is required to develop the capacity to manage revenues and expenditures in preparation for privatization (whether by sale or lease, management contract or development toward self-sufficiency). Finally, Husada Bakti personnel will need to be trained in skill areas appropriate to management of the purchase of care such as the audit and cost funding, research and development, and negotiation functions.

In the private sector, managers of managed care plans will need training in marketing, finance, medical management and underwriting. This can be accomplished through short courses supplemented by on-the-job training. It is probable that some long-term consultation would be needed for rather complex curriculum design and guidance for preceptorships. Much of the substantive skills can be found in other sectors--banking (MIS, verification) insurance (claims processing, underwriting) and manufacturing (cost accounting, personnel and human engineering), which can be adapted to health insurance. The implementation of an insurance law will require familiarity with review, monitoring and financial analysis. These generic skills will require complementary ones for physicians to develop utilization review and other medical management techniques.

With regard to physicians, this requires not only the acquisition of facts and skills but also a change in values and orientation. The concept of peer review requires the relinquishing of some clinical authority. The concept of continuity of care requires the acceptance of the patient as a whole person. The concept of risk sharing means a broadened understanding of medical care. This is best done through the medical education process.

Management techniques must be informed by a health orientation and some understanding of the interpersonal and socio-biological foundations of health care. For this reason, schools of public health will need to cooperate with schools of management.

Many of the people who will require training will already be working and a series of linked short courses should be developed, interspersed with on-the-job assignments. The Indonesian Hospital Association has expressed the need for in-country programs of this type, concentrating on the fiscal, clinical support (CSS; medical records, laboratory, nursing, administration) and hotel functions of hospitals.

One view expressed was that while medical manpower will reach adequate levels, nurses will be in short supply. This training, if given to persons willing to relocate and put down roots in rural areas, can increase access to health in the outer islands and could be the focal point in mobilizing village-level structures, NGOs and non-health sector resources for child survival activities. Nurses can be the full-time paid person needed to make the much-vaunted system of village volunteers really work.

o Provider groups' willingness to collaborate. The development of any financing system will falter if there are not enough providers willing and able to participate. Many of the providers seen, such as Ikatan Dokter Indonesia (Indonesian Doctors Association), St. Carolus Hospital, and Bethesda Hospital in Yogyakarta, are considering developing comprehensive systems and are amenable to combining this with prepayment. Several hospitals have the rudiments of a cost accounting system and could become trainers for administrators of public hospitals (or contract for management of these hospitals). The 167 religious hospitals appear better funded and managed than public hospitals and St. Carolus has taken the step of paying physicians enough so they will work full time without the distraction of a private practice (Rp. 1 - 1.5 million per month). Pharmacies can be helpful in the control of excessive drug prescribing, if drug information systems have been developed, and could act as a control mechanism within a

prepaid plan. The excess capacity of many rural hospitals, combined with the surplus of recent medical graduates, increase the availability of providers.

#### 4.6 Research and Demonstration Projects to Develop Managed Health Care in the Private Sector

Five possible projects are discussed here. The first would be the creation of a health delivery system, through a trade zone close to Singapore, which would be developed to capture the overflow of industries from Singapore. The Batam Island Development Authority has expressed interest in developing a health financing system through the 40 employers (mostly foreign) that operate on the island. Several companies visited also expressed interest. The existing Batam Island hospital is being expanded from its current capacity of 50 beds to a 100 bed facility. Several BIDA Puskesmas and company clinics operate on the island, and a few government subcenters exist on several of the 96 surrounding islands. Almost all companies have coverage for workers and their families, at an average of Rp. 96,000 per month. The average wage is Rp. 100,000 per month and BIDA imports skilled labor from other parts of Indonesia. A suggestion was made that the building of a large, modern hospital would attract people with secondary considerations of job creation and support for economic development.

The second is the development of a U.S. - Indonesian fund for health research and development. This fund will fill the need for capital through loans, grants and loan guarantees. Loan guarantees would be evaluated by investment criteria of return on investment, collateral and credit-worthiness, and would be used for funding private sector ventures in health delivery.

An example of a possible project would be IDI's proposed voucher system in Sumatra in which coupons would be exchanged for a doctor office visit. The loan could be used for the purchase of a hospital "wraparound" policy, supplies, administration and for requirements that may be necessary under insurance law. Loan guarantees might also fund the building of clinics and

hospitals if justified by need. Loans would be available for non-profit organizations' expansion of services (an example would be St. Carolus' development of its health centers and 150-bed base hospitals into a comprehensive, prepaid managed health care system). Grants would be used for new financing and delivery systems to increase access by underserved groups and to promote U.S. - Indonesian health goals.

Third is the research and evaluation of incentives, reimbursement and new organizational forms. One area would be institutionalizing household surveys and speeding up data collection and analysis. Other areas would be to strengthen and evaluate pilot projects started by ASKES, MOH and industry to promote incentives for efficiency through reimbursement policies and organizational reforms.

Another possibility would be to develop shared services (e.g., purchasing, medical equipment, hard-to-find specialists) among hospitals through the Indonesian Hospital Association. Another would be to develop comparative epidemiological data by giving technical assistance to develop better medical records systems and donating the hardware to do this.

Other questions need to be answered in the Indonesian setting. These include how to prevent over-referral to specialists under capitation payment and incentives to physicians and patients for appropriate drug use.

Fourth is assistance to Pertamina. Several USAID consultants have provided assistance to Pertamina to develop an HMO-like product using existing resources. Additional assistance is needed for a short time to develop a business plan.

Last is management training. Some of the programs discussed earlier could be implemented through the use of USAID funds. Assistance could be from Mission funds or through the use of AID/W central contracts.

## 5. RURAL PREPAYMENT SCHEMES AND THEIR IMPACT ON CHILD SURVIVAL

### 5.1 Child Survival in Rural Areas

The fifth largest nation in the world and second in terms of natural resources, Indonesia remains largely a rural nation despite its rapid urbanization. In 1980, 78.0 percent of the country was rural compared to 82.5 percent in 1971 and 85.0 percent in 1961. However, both people who remain in the rural areas and the large proportion of those emigrating to cities remain in the unorganized sector.

Persons living in rural areas tend to have lower and less predictable incomes, less access to health care, lower educational attainment and higher infant mortality rates. Agriculture is projected to increase to over 32 million persons employed, an increase of at least 2 million in absolute numbers from 1983, and will continue to constitute a majority of the country's work force (7).

This majority presents difficult problems in the implementation of prepaid health schemes for the reasons above. Rural populations, according to the latest SUSENAS data, spend far less of their disposable income for health care than urban dwellers. The average per capita expenditure for health is Rp. 356 per month in urban and Rp. 174 per month in rural areas. In the highest expenditure class (Rp. 80,000+/month) health expenses average Rp. 438 (8).

In Indonesia, the morbidity rate is slightly lower for rural areas than for the country as a whole, although for several provinces it is significantly higher (9).

Any discussion of the health situation of the rural population must concern itself with the fact that crude rates of child survival have not improved and a disproportionate percentage of total deaths occur in children less than five years of age. Indonesia's infant mortality rate is the highest in Southeast Asia and exceeds 0/1000/year. The child mortality rate (CMR) exceeds 20/1000/year for children ages 1-4.

Current child survival programs consist largely of five key areas: nutrition, immunization, diarrheal disease prevention, family planning and maternal-child health, all of which address problems of the rural poor. Indeed, nutritional deficiency is a problem of the rural poor. Low rates of immunization coverage (e.g., 34 percent for tetanus and 26 percent for measles) are worse in rural areas. Most of the country's 400-500,000 yearly diarrheal deaths occur in the predominantly rural population. Acceptance rates for family planning, despite the marked drop in crude birth rate (to 32 per 1000), remain high in rural areas and high parity rates, births not properly spaced and births to very young mothers increase infant mortality. Low birth weight, prematurity and neonatal tetanus comprise 65 percent of neonatal deaths. Maternal morbidity and mortality also are disproportionately found among the rural poor. The irony is that most of these deaths are preventable through inexpensive and available means such as immunization, ORT, and breastfeeding.

These programs are compromised by reduced health budgets, most of which continue to be used for curative services and the maintenance of stationary facilities. With resources shrinking it becomes imperative to search for ways that the delivery system serving the rural poor can become more efficient and new resources can be found to pay for services.

A high degree of centralization, combined with multiple vertical programs, serve to duplicate program resources, facilities, equipment, and personnel, and squander the time of village volunteers. If one looks at causes of death, one finds the leading cause to be lower respiratory tract infection, largely the pneumonias. This is a secondary source of death that is visited on children weakened by malnutrition, infection, and dehydration. One could say that the problem, as in most of the developing world, is not simply prematurity, malnutrition, high birth rates, diarrhea, and communicable disease, but the total care of mothers and children in the context of economic and social development. One strategy for integrating these programs is to link them whenever possible with income-generating activities or other services consumed by rural populations. It should be possible, in that light, to prepay for an integrated package of child survival interventions.

## 5.2 Patterns of Care

A number of factors appear to characterize patterns of care in rural areas of Indonesia. Researchers at the University of Indonesia and the Ministry of Health found that Puskesmas and subcenters were underutilized in many instances, particularly by people not living close to the facility. For Puskesmas, 90 percent of the patients lived within 7 km, for district hospitals, 90 percent lived within 12 km, and for village health posts, 90 percent lived within 1 km.

Much has been discussed about the Dana Sehat, the sub-village level health funds. These are promoted by the Puskesmas and by voluntary hospitals such as Bethesda Hospital in Yogyakarta. These funds are comprised of 75-80 families and are used to pay for some health care. About 600 of these have been identified by MOH and pool resources for paying for care at the Puskesmas, a drug supply or other health-related expenses. These grassroots-level organizations have been seen to stimulate demand at the Puskesmas (which is reasonable, with a contact rate of 0.3/person/year). However, it has also been reported that the richer families don't join. A more rigorous look at the potential of these organizations is required. At first glance, while useful for promoting outreach, it does not appear that they have the numbers or purchasing power on which to build a viable group for a prepayment scheme. MOH, moreover, does not wish to interfere with the Dana Sehat's autonomy or spontaneity and little is done to set standards or to suggest services. If these organizations were to have much role in creating a basis for revenue generation, they would have to be strengthened and restructured.

On the other hand, the subcenters, which could serve up to 5000 persons, are underused and understaffed. Some experimentation with these facilities might be useful to serve health care needs in rural areas.

The household surveys conducted by the Central Bureau of Statistics point to the use of paramedical personnel in private practice. Why this pattern should prevail when public facilities exist is puzzling. The Director General for Community Health suggests that familiarity and face-to-face contact are the

critical ingredients. Information is needed on the structure and function of private paramedical practice in rural areas and whether this adds to or detracts from accessibility. Plantations, both public and private, have some health care resources, and monies are spent much as they are in the rest of the wage-based sector. These plantations often use migratory and casual workers as well as full-time employees.

Parastatal organizations in such industries as oil and mining are located in remote areas and serve the surrounding community. Whether these firms could be induced to provide more outreach, preventive and other primary care services would be interesting to consider.

The essence of a cooperative is the pooling of funds to purchase or provide services. Almost 21,000,000 persons are served by 13,000 cooperatives (12.5 percent of the population, higher in rural areas). Of these, over 15,000,000 (9 percent) are full members (10). Cooperatives can build health on to existing economic activities, and both primary and secondary cooperatives (i.e., cooperative service centers) can be mobilized for prepayment of health care including interventions for child survival. With decreased central resources for health and patterns of health care marked by low demand and high real costs of travel, attempts must be made to bring paramedical personnel closer to people, to build a well-managed health system out of the health center, review the role of private practitioners to see how they can be included, and create incentives to providers and consumers to strengthen child survival.

### 5.3 Interventions in Financing Child Survival

- o Strengthen cooperatives through initial capitalization via loans and grants for health activities.

- o Link cooperatives to child survival activities through sponsorship of multipurpose MCH clinics at cooperative service centers. These need not compete with village-level services but would rather incorporate them where they exist and use the LKMD structure to extend service outreach.
- o Combine this with insurance for higher level care through rate setting and premium stabilization funds.
- o Act as the agent for social marketing.
- o Sell lower cost drugs at cooperative pharmacies.
- o Hire nurses and doctors for special clinics (in the long run, this could move medical personnel to rural areas if opportunities arise).
- o Work with Puskesmas and subcenters as a buyer of supplemental services.
- o Develop a confederation of Dana Sehat to pool funds for insuring health. Donor funds could form a reinsurance pool.
- o Develop management capacity in cooperatives for health delivery. Among the specific management needs for cooperatives and other potential and existing health delivery points in rural areas are:
  - Accounting reporting and recording.
  - Training, both for clinical and management skills.
  - Social marketing in a coordinated fashion to promote CRT, breastfeeding, family planning, immunization and proper use of the system. This could reinforce the development of cooperatives as managed care systems.

- Drug management and distribution systems. This includes drug purchasing cooperatives, training in purchasing drugs for health centers, etc., drug education for consumers, seminars in prescribing for physicians and other providers who prescribe and dispense drugs, experimentation with physician and consumer incentives for appropriate prescribing and drug use, storage and inventory control, development and implementation of formularies and pharmacy and therapeutics committees in district hospitals, as well as purchasing, storage and allocation from provincial levels and opening alternative sources of supply at the manufacturing (wholesale and retail) level to promote competition in price and quality. Another area is the use of pharmacies as first contact care. The extent of this use of pharmacies is unknown, as are patterns of use and payment. Interventions can be formulated involving training and the coordination of pharmacists who function as ad hoc primary care practitioners.
- o Develop methods of public-private sector cooperation because many people in rural areas seek care from private practitioners of various kinds. The supply and utilization of private paramedical personnel need to be studied to look at the effect on the public system and rural health expenditures. Some collaborative ventures can be attempted and because of their interest in the public health delivery system, Husada Bakti would make a natural partner. They are currently engaged in various pilot studies of using private practitioners as an adjunct to health centers, funding of drug utilization review activities, capitation payment of health centers, and are planning to open Husada Bakti pharmacies outside of the Puskesmas. These efforts can be expanded, evaluated and leveraged.
- o Another integral part of a rural health strategy is to strengthen the use of subcenters. What resources would attract people to the subcenter and whether these facilities have a role between the village and the Puskesmas in the maintenance of health must be taken into account.

- o Still another component of rural health to be evaluated, and one that is amenable to private sector financing and delivery, is transport. If money is used to provide transport, the real costs of health could be reduced.
- o Another closely related factor is the hours of operation of health facilities and providers. Questions of when are different providers available and when patients are able to use services with minimum lost time need to be analyzed. Husada Bakti uses afternoon clinics in the Puskesmas, but many civil servants come in the mornings when immunizations and other services are available. Most private practitioners have office hours in the evenings.
- o Design experiments to accredit and create incentives through payments to change the patterns of practice of rural providers, to conserve resources, and to promote and deliver effective child survival interventions.

#### 5.4 Specific Projects of Potential Interest to USAID

One possible project is to provide funding for Puspeta, a secondary dairy, rice milling and manufacturing cooperative in Central Java. This cooperative is highly regarded and well integrated with primary KUD (or farmers groups). It has the managerial and informational capacity and the interest to develop health financing and delivery as another service. The Ministry of Cooperatives suggested that this organization be the pilot for a more extensive project in another area in the future. Funds would be used to develop alternative health programs and supplement existing ones at the farmer groups.

A second pilot project with ramifications for future programming is the extension of the plantation health services for PTP XXI-XXIV in East Java to seasonal workers through an insurance mechanism. Udayana University's Department of Community Medicine in Bali is developing a project serving

migrant workers on PTP XXVI in a remote part of East Java. These efforts can yield answers on how better to serve rural populations that are partially in the unorganized non-wage based sector.

A third project concerns parastatal companies -- particularly oil services, mining and agriculture -- which often are the only available facilities in remote areas. These facilities often serve persons at a late stage of illness and cost these companies more money per case or admission than their own employees. Greater cooperation with the MOH can develop better preventive and outreach programs.

A fourth would be the development of a confederation of Dana Sehat in a district (to act in concert with the local authorities to pay for and improve health care). A key to this, as is true for other programs dependent on village-level volunteers, is the use of a paid coordinator. If these grass roots organizations are going to have any health risk pooling functions, someone with some administrative skills will have to coordinate these efforts.

A fifth and complementary activity is the strengthening of the autonomy and efficiency of the Puskesmas. This would require training staff to cope with new administrative discretion and accountability as well as with multiple sources of revenue.

Sixth, another adjunct to new delivery and payment options in rural areas is the increase in effectiveness of village-level workers. Careful development of multi-purpose village health workers could lead to greater effectiveness, but the dangers of damage to existing vertical programs exist. This exercise would look at the optimum package of training, incentives and supervision to combine skills, interests and practices.

Last, one needs to consider the applicability of these suggestions to the unorganized urban sector, which while smaller than the unorganized rural sector, is a growing segment of the population. Before proposing financing mechanisms, social and economic factors, health needs, and the structure of the labor market need to be understood. Ultimately, as for the rural poor,

government will be the payer and provider of last resort. Still, this group has unique needs. For example, barriers to care could be a lack of organization rather than travel time or costs. Some possible vehicles for pooling payment for health care could be geographical (e.g., the block or neighborhood), by economic interest (e.g., associations of local shopkeepers, bajaj drivers, etc.) or consuming a service that is delivered to a defined group (e.g., enrollment as utility users). This group, like the rural poor, is the real challenge to donor agencies and will be the ultimate recipients of efficiencies obtained by private sector involvement.

## 6. RECOMMENDATIONS AND SUGGESTIONS FOR PROJECT DEVELOPMENT

### 6.1 Developing Regulatory Capacity

A high priority should be given to the initial development of a National Health Care Financing Commission. Much can be done to assist in developing its regulatory, planning, financial management and technical assistance functions as well as to facilitate the organization's development by funding selected costs. Technical assistance to the Commission could well come from U.S. governmental agencies with parallel purposes such as the Health Care Financing Administration (HCFA) and the Office of HMOs (OHMO) of the U.S. Department of Health and Human Services, in addition to the National Association of Insurance Commissioners. Much technical expertise also resides in U.S. and multinational insurance companies as well as other state-level regulatory and planning bodies.

A reasonable set of standards for purchasers of health care might be: 1) families must be covered, 2) physicians and other primary care providers are paid by capitation or salary plus an incentive bonus, 3) primary care providers assume risk for the cost of drugs, specialist care and hospital care (the precise arrangements will be developed to suit the needs of particular covered groups and health care environments), 4) primary care providers participate in quality of care (which can be monitored through outcome measures such as infant mortality, lowered incidence of low birth weight babies or process measures such as family planning acceptance rates, contract rates or immunization coverage), 5) a minimum data set is to be made available (on enrollee characteristics, providers, utilization, participation rates and income and expenses as broad categories), and 6) a uniform chart of accounts and procedures to help in monitoring, management and financial audits is necessary.

The agency that would regulate the arrangements would incorporate the functions of a state insurance commission in the U.S., with planning, quality assurance on behalf of purchasers and technical assistance, loan guarantee and

ombudsman functions. This would likely be done through the lawmaking process and would entail a governmental unit empowered to:

- o plan for the development of purchasing units either through prepayment or direct provision of services;
- o set standards for coverage, minimum benefit packages and provider arrangements;
- o set standards for fiscal solvency and mechanisms for subsidizing payment for groups with little purchasing power;
- o monitor quality of care through procedures incorporating review of health outcomes and processes as well as structural standards (the actual responsibility review of quality could be provincial);
- o monitor administration, particularly the enrollment, accounting information systems and provider contracts;
- o accredit and regulate according to standards set; and
- o audit income, expenditures, assets, liabilities and net worth of purchasers. This would be facilitated by the development of a simple financial reporting system.

These functions require the collaboration of the Ministries of Health (health planning and quality monitoring), Finance (insurance regulation, tax aspects, and control of revenues), Manpower (monitoring employment-based fringe benefits, employer-supplied health care), BAPPENAS (long range planning for health resources and expenditures), and the Ministry of Home Affairs (to determine and review the role of local governments in regulation and changes in the provision of care through public facilities). In addition, representatives of consumers (individuals, employees and cooperatives) and employers (private, parastatal and public) would be involved. This unit could be designated as the "National Insurance Commission" or "Health Care Financing Commission."

A law governing all lines of insurance will soon be before the Cabinet or House of Representatives (DPM). This Commission should be consistent with the provisions of that law.

What would such an expansion of purchasing power mean for providers of services? In some cases, such as for existing plantations and company facilities, it will mean more stringent budgeting, in effect a global budget for comprehensive care. For the majority of public and private physicians, clinics, Puskesmas and hospitals, it would mean pricing at closer to marginal cost to accommodate the newly-emerging market. In areas with few providers, it will mean some reforms in management but few shifts in resource use. For public facilities down to the Puskesmas level, it means learning to operate as an autonomous unit, collecting revenues from purchasers of care and having greater responsibilities for expenditures. In addition to revenues from purchasers of care, budgets for preventive programs will continue to be allocated from central sources. One of the more serious questions raised by the creation of a system to delegate market power to purchasers of care is the capacity to manage such a system.

To answer this, one must realize that current and prospective purchasers of care, such as companies and cooperatives, already have some managerial talent. Much of the ability to purchase care prudently will be incorporated into the design and regulation of the system. In other cases, such as for new risk pools, decisions will have to be made on enrollment, billing and claims. For unorganized urban and rural populations, the public sector remains virtually the sole provider. On the provider side, the development of risk pools will require development of information and accounting systems and training of personnel to manage multiple sources of revenue. At the Puskesmas this will mean the training of a person responsible for administration. For public hospitals, including provincial and vertical teaching hospitals, it will mean new responsibilities for cost funding, marketing, provider relations and financial reporting.

Many hospitals will have to expand the responsibilities of their financial officers. In some large hospitals, information systems exist but need to be adapted. Hospitals will have more incentives to bundle their services and to sell services to purchasers, and prospective budgeting would have to be implemented. Several European countries and more recently the U.S. have acquired experience in prospective budgeting for hospitals through diagnostic related groups (DRGs) and other methods.

To complement this Commission, it would be useful to enact changes in the tax code defining health insurance benefits considered to be a deductible expense to employers. One possibility would be to allow a set amount (e.g., Rp. 100,000 per year per employee) either paid into a risk pool, insurance company or directly provided for health care. This should be allowed to increase at less than the rate of inflation to assure that the wage-based sector's costs will be contained and not allowed to drive up the price of finite health resources.

The type of purchasers can be: existing large companies and state enterprises with their own facilities, companies using contracting with existing schemes or using a combination of their facilities, existing ASTEK health clinics, labor-sponsored health schemes, trust funds developed specifically to pool risk and capital for small unorganized urban groups, consumers, credit or producer cooperatives that expand existing income generating activities to purchase health care, all unces of Dana Sehat which may receive some technical assistance and subsidy for the collective purchase of comprehensive health care in rural communities, and risk pools of unrelated individuals who do not fall into other groups. In some remote areas, perhaps the sub-district or Kecamatan could become the risk pool.

In some cases, little developmental effort will be needed, for example, in the case of an existing wage-based group. A group such as Pertamina may wish to expand its capacity for a relatively expensive HMO-like product, and standards can be met with little external technical assistance or external capital. In other cases such as in unorganized urban and rural areas, loan funds, assistance in working with providers, and claims processing would be provided. For others, subsidies could be provided (and monitored) either at the point of collection of premiums or the point of provision of service through loans or grants to well-organized purchasing groups or through vouchers for outpatient care (with protection against abuse and underservice built in through "wrap around" coverage for more serious care and limits on the of use vouchers). In some cases this would mean the acceleration of existing ASKES pilot projects.

It appears that most of the scenarios for changing the financing and management of health care require the development of administrative capacity. Included under that rubric will be the need for administrators in public hospitals and Puskesmas to develop cost recovery capabilities and autonomous governance. Persons familiar with MIS, marketing and accounting will be needed for this task. There are numerous Indonesian universities with schools of management as well as several schools of public health in existence and in the process of development that could help provide these skills. The major challenge is to combine education in management techniques with an understanding of the structure and problems of health.

In the short run, the need will be centered around continuing education for those currently working in the field. Both MOH and the Indonesian Hospital Association have identified this need. Some experience in implementing these courses exists, including that of the staff of the Economics Department at the University of Aceh. Depending on what changes are effected in the health care system, single courses may be insufficient without using the experience based on preceptorships, on-the-job training, or an on-campus program.

One experience that may be salient is the National HMO Fellowship Program funded by the U.S. Department of Health and Human Services to the Group Health Association of America and Georgetown University. This provided a selected group of experienced managers with two periods of academic study of 2-4 weeks with two guided preceptorships. Although costly in time and money, it may be useful to modify this approach for Indonesia.

## 6.2 Rural Health Financing Strategies

Also complementary to this changed role for government is the management of public facilities as self-sufficient enterprises managing revenues as well as expenditures. These facilities (particularly the Puskesmas at the sub-district level) should be given more discretion in the use of funds from earmarked vertical programs. A flow of funds chart by Volpatti and Wheeler identified at least 18 separate earmarked accounts.

If separate earmarked programmatic accounts were included, this would show only the top of the iceberg. More spending discretion at lower levels, however, would require new management systems at the regency and provincial levels.

The preceding recommendations lend themselves to suggestion for three pilot projects and technical assistance to promote their implementation.

#### 6.2.1 Cooperative-Based Health Care

The development of cooperative-based financing can be one of the mainstays of a rural health delivery system that can strengthen and broaden primary health services. Informed sources report that in some cases, cooperatives have lost the trust of their members. Nevertheless, as of March 1986, nearly 21 million people received services from 14,022 cooperatives. A project that adds health financing to credit expansion, income generating activities and agricultural services can serve as a model for other rural health and development activities.

The Puspeta in Klaten in Central Java was suggested as a pilot by both the manager and the Ministry of Cooperatives. As mentioned earlier in this report, this manufacturing, rice milling and dairy cooperative was started with a USAID loan from PL 480 monies in 1979. It has grown with assistance from CLUSA\* to cover 22 farmer groups with 4400 farmers per unit (assuming an average family size of five or 22,000 persons per unit). A pilot project of this size (or even smaller) would allow the collective financing of a variety of health services that would increase child survival and agricultural productivity.

One possibility would be to use a portion of the income to promote services at the KUDs (Cooperative Service Centers) which would be tied to the Puskesmas.

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\* Cooperative League of the USA (now called the National Council for Cooperative Business).

Hospital care and drugs could be directly funded or purchased through the insurance firm that covers Puspeta's furniture factory workers. Alternatively, private providers may be used and paid by capitation or fee schedule as a substitute or supplement to the public system.

#### 6.2.2 Plantation-Based Systems

Another pilot project in a rural area would be the extension of health care coverage by PTP XXI-XXIV in East Java to seasonal workers. As marginal farmers or landless poor, these workers live in proximity to the sugar refinery where they work and get care for six months a year. These workers earn Rp. 30,000 a month for seven-day work weeks for the months they work. PTP indicated its willingness to withhold an affordable amount to pay for care for the time they work and provide care for them and their families for the six months they do not work. It is estimated that a deduction of Rp. 2,000 a month would suffice, although this would have to be more accurately determined in the light of actuarial soundness and family affordability.

The Puskesmas in this area are crowded and PTP reports that many people in advanced stages of disease are seen, and the company medical care system makes an effort to care for them. This project could not only test the costs and benefits of covering seasonally-employed rural workers, but could also study the role of plantation health services using their off-season excess capacity to serve the surrounding population for preventive and other primary health care.

#### 6.2.3 Village-Based Systems

Still another project addressing the needs of the rural population would be to develop a federation of Dana Sehat in a defined geographic area to increase their purchasing power to cover a full range of care on the one hand, and promote enhanced village outreach on the other. This federation could act as the reinsuror of secondary and higher levels of care and the funding body for the village-level outreach. BKKBN (The National Family Planning Coordinating Board) pioneered the use of full time support staff for volunteers and this

experience could be applied by this federation. This project would see what support Dana Sehat need and how their role might expand. However, such a federation would, of necessity, require more uniformity of these village-level organizations than the MOH currently envisions. If this can be done without diminishing grassroots commitment while encouraging increased participation of all income levels in villages and seeding the soil for new Dana Sehat, the trade-off would be justified.

### 6.3 Health Financing in Urban Areas

In the urban environment, a useful project would be to continue the Jakarta DUKM pilot project in the absence of any mandatory contribution. Several issues need to be studied, including whether and how the public sector can compete in the prepaid health care market. Technical assistance is needed in the areas of marketing, enrollment, file maintenance and billing, medical staff organization and payment, and rate-setting. Some of the assistance may come from the U.S. while other resources can be found in Indonesia. Since many of the developmental costs have already been invested by MOH and ASKES, the continued support of some central staff may pay dividends in the form of building expertise in managing prepaid health care, information about the wage-based population, and impact of pricing and delivery system decisions on growth and financial viability. Among the configurations to be evaluated would be private physicians' offices as delivery sites. The Jakarta pilot project appears to sell health care mainly to small employers without extensive prior health care arrangements for blue collar workers. The project, moreover, would balance the USAID portfolio in health financing in light of its assistance to Pertamina.

Since plans are being made to expand the PKTK pilot project to other cities, a potential project of some significance in developing a pluralistic, public-private system in the wage-based population would be to support and study existing ASTEK clinics in Surabaya. These clinics were founded in 1967 by ASTEK's Foundation for Health Care. ASTEK has offered to expand its delivery system serving blue collar workers in Surabaya for PKTK. There are currently twelve clinics serving 11,500 employees and 31,000 covered persons, mostly from heavy industry (the average wage is Rp. 30,000 a month). Since the population is similar to the Jakarta pilot project, the offer, if accepted, would make an interesting comparison. ASTEK appears to have good data and the project would look at alternatives for blue collar populations. For the present, ASTEK has made a decision not to expand its clinics despite demand from companies and unions. At a current premium of Rp. 42,000/family/year, this is a low cost plan. Perhaps at a later time this evaluation could be expanded to cover clinics in several cities in Sumatra.

#### 6.4 ASKES (Perum Husada Bakti)

The largest single purchaser of health care, Husada Bakti, has been evaluating new financing and delivery mechanisms (capitated private physicians in Surabaya, drug utilization reviews in Bali and East Java, and capitation payments to the Puskesmas in Yogyakarta) and strengthening its management capability as a buyer of health care. One of the most important efforts in this area is a contract with the Computer Center of the University of Indonesia to develop a medical and management information system.

With nearly 3 million eligible government employees, claims, registration, and utilization of data present an enormous problem for Husada Bakti. UI started in February 1968 using eight districts in three provinces. They began by looking at a manual system, then proposed a global design incorporating

medical care, inventory, finance, and personnel modules. UI is currently in the design and implementation phase, using two districts' (one reimbursing by capitation and the other through fee for service), Puskesmas, a district hospital and a provincial hospital. Cuts in the budget mean that work on this project will be stopped. ASKES has already spent part of the \$2-3 million for hardware costs and will require \$700,000 over three years for software and training costs.

Continuation of this activity would appear to be one of the most cost-effective projects that USAID/Indonesia could support. For not only would this provide the infrastructural linchpin for developing a purchaser-centered health care system, but also much of this work will have spillover benefits to the MOH and local public health systems.

Currently, it is reported that while banks and insurance companies have good data management systems, public hospitals have virtually none, partly because they are not designed to run in a cost recovery mode. Thus, if any forms of "privatization" are envisioned, a system of this kind is essential. Further, one can build on the Husada Bakti system to obtain automated patient records (Pertamina reportedly already has such capability) and to create an on-line management information base. UI Computer Center staff indicate Indonesia has the telecommunications system to do this through modems (data transmission through telephone), but that cost is the major barrier. Whatever direction the GOI decides with regard to the health care system, assistance to Husada Bakti will have an impact on health because it finances health care for 12.5 million people (8 percent of the Indonesian population) and has revenues in excess of Rp. 66 billion a year (or 22 percent of the 1984/85 MOH budget, or over 10 percent of central government expenditures for health and over 3 percent of all public and private health expenditures).

Another project involving ASKES would be the funding of training in the design and management of health care for public employees. A start can be made within the year by funding a tour for several Husada Bakti officials to the U.S. Office of Personnel Management and several state civil service systems (e.g., New York, California, and possibly Texas using U.S. counterparts).

#### 6.5 Other Potential Projects

A project with high potential impact would be the development of a funding mechanism for research and demonstration for health financing. This mechanism would be similar to a grant review process and could disburse monies for multi-year funding. A joint U.S.-Indonesian committee representing the public and private sectors could solicit reviews and fund proposals. A similar mechanism was tried by USAID in the Philippines, called the Philippine Council for Health Research and Development, and the design should try to replicate that project's advantages and avoid its mistakes. The composition and procedures of the committee need to be developed to speed disbursement of funds and to apply technical rather than political criteria for grants and loans.

Specific activities that could be considered through this mechanism include: 1) the design, implementation, and evaluation of cost recovery in public hospitals and health centers; 2) expansion of current efforts in provider and patient education on drug-prescribing and use, including a drug utilization review system which could pinpoint possible inappropriate patterns of use and abuse; 3) studies of employee fringe benefits and patterns of utilization, particularly out-of-pocket expenditures for private and traditional health practitioners (employee fringe benefits are periodically surveyed by APINDO); 4) the regularization of the 1980 Household Survey (in the same way that the U.S. National Center for Health Statistics periodically collects, analyzes and publishes information); and 5) there would also be an opportunity to demonstrate the effects of cost sharing on patterns of utilization and supplier response.

The funding mechanism could have loan as well as grant authority that would be appropriate for feasibility studies of new financing and delivery systems such as the HMO-like systems that have sparked the interest of St. Carolus Hospital and the voucher and Blue Shield-type systems proposed by IDI (Indonesian Doctors Association).

Another possible project is the Batam Island Development Authority's suggestion for an employer consortium to finance and deliver health care to the population of this industrial development zone within sight of Singapore, a concept which echoes the earliest involvement of Kaiser industries in health care.

#### 6.6 USAID Health Financing Activities for the Next Twelve Months

Among the projects noted here and identified by other consultants working on the proposed health financing project paper, the following could constitute a short-run Mission workplan in the area.

- o Support the continuation of Perum Husada Bakti's information system because the project has built considerable momentum, UI staff are currently working on it, and it represents a large commitment of in-country resources.
- o Continue assistance to Pertamina because it will require only a relatively modest investment of resources which are available from central funds out of AID/W and have spill-over effects on longer-term infrastructure development.
- o Provide assistance to Puspeta in Klaten because it fits within current AID child survival priorities. Moreover, management capability and organizational structure are present in this cooperative.

- o Initiate the design of health care financing and delivery of grant and loan funds, because they can be a vehicle for cooperative assistance that can integrate other donor agencies and be used as a model for other missions.
- o Provide assistance to PTP because it also addresses child survival concerns and can be implemented quickly through existing soft loan authority.
- o Support the continuation of the PKTK Jakarta pilot project because the additional support costs are modest and can be leveraged through ASTEK. The PKTK project addresses the thorny problem of insuring low-income urban working populations and has child survival implications.

This analysis and prescription would be incomplete if they did not raise two broad issues implicit in the recommendations. The first is whether the recommendations and project suggestions would stimulate excessive demand. There is a need to incorporate incentives and disincentives to promote primary health care and, whenever possible, to discourage the inappropriate use of high technology health care, discourage the use of expensive drugs, and prevent inflation in the urban wage-based sector. There appears to be some underutilization of the network of national primary health care resources. Whether this is true or only an artifact borne of incomplete information is a matter of conjecture. There is a need worldwide to define an optimum level and mix of care that would enable necessary contact for good primary health care to take place. Dr. Oscar Gish of WHO suggests that three contacts per year per child and adult are adequate to achieve full immunization status and other necessary services. Second, there is the issue of equity and whether the commitment to the concept of "persamaan" can be maintained in the face of a strategy of market segmentation and encouraging a pluralistic system which in effect means different kinds of services to different people.

This strategy however, simply builds on existing institutions and realities. Developing organized purchasing power makes use of public and private incentives, i.e., promotes regulation and competition using a mixture of revenue sources including social insurance user fees. This strategy, involving both risk sharing and self-help, appears to be compatible with the professed philosophical basis of the Indonesian State.

## NOTES

- (1) Statistik Indonesia 1984 gives data on per capita expenditures per month for Jakarta and for all Indonesia. One finds that 23 percent of all households spend less than Rp. 24,000 per month (for the poor, expenditures should roughly equal income) and 59 percent of households spend (or earn) less than Rp. 40,000 per month. This proportion is 16 percent in Jakarta. For incomes less than Rp. 80,000 per month, the proportions are 90 percent nationally and 62 percent for Jakarta. For incomes less than Rp. 120,000 per month, the proportions rise to 96 percent nationwide and 83 percent for Jakarta. Only 1.5 percent of the national population in 1981 and 9 percent of the population of Jakarta had expenditures of over Rp. 160,000/month. These rates would have to be adjusted to present prices (the CPI = 100 in 1980 and over 150 in 1985). Thus, 3.5 million persons would have incomes over Rp. 240,000/month, while over 50 million people reside in households with less than Rp. 35,000/month expenditures. The effect on insurability is that few have financial resources for formal insurance. In addition, there is a labor force participation rate of 54 percent and the number of workers that are employed is over 19,000,000 (33 percent). Because of definitions used (including partially employed, unemployed, etc.), by applying the proportion working 45+ hours a week to this figure, we get 12,000,000 theoretically eligible. However, ASTEK compliance, even including casual workers covered, is about 25 percent.

ASTEK may be able to cover smaller, labor intensive businesses, especially outside of Jakarta, or develop new mechanisms such as labor management trust funds (an urban variant of cooperatives). Fifty five per cent of employment is still in agriculture.

It has been stated in an AID concept paper that 80,000 firms exist with over 50 employees. This would give a minimum of 4,000,000 people who are

insurable or 1-2 million people not currently paying into ASTEK. To its credit, it must be noted that the number covered by ASTEK has grown by 300,000 a year for the past four years.

- (2) Capital costs of hospital are similar in the public and private (NGO) sectors. A bed in St. Carolus (a highly-regarded Jakarta hospital) costs US\$30,000 to build and equip while the standard unit cost for a Class A (teaching) hospital is \$35,000 and a Class B hospital is \$22,500, not counting any land acquisition costs. In the U.S., by comparison, a 500-1000 bed hospital would cost approximately \$150,000 per bed.
- (3) Table 2 in Overview of Health Sector Financing in FY 1982-83 was synthesized from several government sources in 1983 and is noted in the draft of "Expenditures and Financing Issues in the Health Sector in Indonesia."
- (4) Executive Board, WHO, "Planning the Financing of Health for All: Economic Strategies to Support the Strategy of Health for All, Report by the Director General," November 1985.
- (5) Torrens, Paul, Report to USAID. Jakarta, September 1986.
- (6) Perum Husada Bakti, "Survey of Jakarta Employers," 1986.
- (7) ASTEK, "Insuring the Health of Workers," 1985.
- (8) Statistik Indonesia, Central Statistical Bureau, 1984.
- (9) Ibid.
- (10) Ministry of Cooperatives, 1986.

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APPENDIX B: PRESENTATION BY DR. HAROLD R. HUNTER  
FOR THE DUKM SEMINAR, JAKARTA  
AUGUST 12, 1986

ARE THERE ANY LESSONS FOR INDONESIA IN THE U.S. HEALTH CARE EXPERIENCE?

Often in health care, as in other areas of human endeavor, the lessons of the past are overlooked in a search for new solutions. Santayana's words "he who does not learn the lessons of history is doomed to repeat it" can have meaning even in the age of artificial hearts and nuclear magnetic imaging.

This seminar is to discuss issues about health insurance. Often these discussions talk about health maintenance organizations or HMOs, by which is meant a comprehensive, prepaid, managed health care system. Various health insurance programs and many prototype HMOs have been tried in the U.S. Indeed, the success of an idea like an HMO depends on both external factors such as economic conditions, restrictive laws and population shifts, as well as internal ones such as leadership and management technology.

The sponsorship of the collective financing and delivery of health care emerged from sources such as immigrant groups, farm communities, labor organizations and industries with differing degrees of support from government. In the nineteenth century groups such as French immigrants and Cuban cigar makers developed mutual benefit plans which included pooling funds to pay for some medical care, similar to the Dana Sehat that exist in many of Indonesia's rural areas. Yet in the U.S., most of these organizations are gone.

In Indonesia your government has built a network of community health centers - the Puskesmas - and district hospitals; it required a mandatory service from new physicians to work in underserved, areas but rural/urban differences in accessibility and health status remain. You've developed experience in financing through the insurance program for government employees - ASKES.

There has been renewed interest in health insurance both in the private sector and through the social security system (ASTEK) by the DUKM program. Your own history of health care runs from the Dutch colonial period through the post-war development period, the oil boom and recent recession. From the Dutch, a tradition of payment for medical care continues, albeit at rates far below cost of service.

Previous speakers have mentioned programs for financing health care, such as Medicare, the way in which health care for the elderly and disabled is financed through social security, and the recent growth of HMOs. Yet, there is no single right way, and you need to learn from the mistakes as well as the successes of industrialized countries.

The ideas of health insurance and HMOs are not new; many variations on these themes have been attempted. Some have become self-sustaining, serving their members. Others no longer exist.

Most of the mutual benefit societies fell victim to population shifts, industrial changes and assimilation where subsequent generations did not participate in mutual benefit activities. Company health services were reduced or dismantled as better transportation, communication and changes in technology made many mines, factories and other companies less isolated and more accessible. Labor-sponsored health programs grew in the early part of the twentieth century but they too shrunk in response to many of the same forces.

In addition, new laws and regulations created different health delivery incentives. One of the most significant was a decision by the U.S. Supreme Court that fringe benefit increases, including health insurance, did not violate the wartime wage-price freeze. As a result over 80 percent of U.S. workers have some type of health insurance coverage, mostly through the 100. Blue Cross and Blue Shield plans, hundreds of commercial insurance companies and increasingly through HMOs.

Labor sponsored health plans were included in the health insurance purchased through the workplace. Competition between Blue Cross and Blue Shield plans offering service benefits and insurance companies offering cash benefits for sickness followed the laws of competition where the best risks were able to obtain the best coverage or least expensive premium. Some industries, however, did not have large production units that were easily insurable. Others such as construction, trucking, and maritime trades involved workers going from job to job, from construction site to construction site, and from ship to ship. Which employer was responsible for contributing to health care protection?

This was resolved through passage of the Taft Hartley Act and subsequent laws which created labor-management and multi-employer trust funds. Contributions were based on hours worked for each of many employers. Labor organizations participated equally in governance with employers.

In Indonesia the large majority of workers are not on monthly salaries. Farmers, taxi drivers, and casual workers have highly variable incomes. Some method should be tried to bring the principles of insurance - the magic of large numbers to meet the challenge of catastrophic events - to this sector of Indonesian society. Recently Article 4 and Article 6 of the Indonesian tax code made fringe benefits such as housing, medical allowances and other in-kind benefits taxable. This will make the indirect provision of health services through insurance more attractive.

In the 1930s many health plans sponsored through cooperatives began. Of the hundreds that started with such high hopes, only a few survive, among them several large HMOs in Seattle, Minnesota and Washington, D.C. Why did so many of these well-meaning and conceptually sound organizations fail? One could blame the depression that ravaged the U.S. in the 1930s followed by the austerity and manpower shortages of World War II. In many cases, however, it was a lack of sound management practices that made it difficult for these organizations to continue to operate.

During the 1960s and 1970s several large health care financing and social welfare programs were begun. One, the Medicare program, financed health care for the elderly (those over 65 years old and later the permanently disabled) through contributions to the social security system. The social security system began in 1935 as a Federal system funding pensions and did not cover health care until 1967. The amendments to the Social Security Act in 1966 also included entitlement to health care for many of the poor through a joint federal and state contribution called Medicaid. These programs, however, specifically did not alter the method of payment to providers or the delivery of medical services. While expanding access to previously-underserved segments of the population, they planted the seeds for an unprecedented escalation in medical care costs, especially for hospital care.

During this period which was labeled "The Great Society" for its reforms in health, welfare and civil rights, the Office of Economic Opportunity spearheaded the building of community health centers in low income urban and rural areas. These centers were very similar to Puskesmas except that they were federally financed but under the control of community boards. These centers were expected to improve the health status of the poorest segments of the population.

While very popular at first, they were found to suffer from lack of community leadership and, with federal budget cutbacks, from lack of funds. Also, incentives for efficient management were not present. A government audit revealed higher than average unit costs.

Some community health centers have managed to prosper using sound business principles, but many are in trouble. In several cases attempts were made to convert these centers into HMO-like enterprises, receiving periodic payments from Medicaid and other insurers as well from non-insured consumers based on ability to pay. Had these practices been implemented from the beginning, these centers would be on sound financial footing and access to health care would be greater. Today, many community health center administrations are receiving training in management information systems, financial administration and marketing. Perhaps there is a lesson here as well.

The U.S. Federal HMO program is also illustrative. This program began in 1973 after several years of legislative debate. Some Senators wished to use this program to reform the entire health care system and wanted to subsidize care for the poor. Other policymakers wished to see a free market test of an alternative delivery system with a fairly minimal benefit package. The program started but the compromises took several more years and changes in law.

From 1973 until 1983 over 100 health maintenance organizations were supported with grants, loans and loan guarantees. About 50 more existing HMOs, including the Kaiser-Permanente Medical Care System, decided to become federally qualified. This process entails submitting a detailed application containing information about financial condition, facilities, providers and health service delivery. The advantage of this qualification to an operating HMO was that by law employers are required to offer an HMO if available in the service area, thus building in consumer choice and competition between delivery systems. The advantage of an HMO to an employer (or other purchaser of care) is that it uses about half the number of hospital days per year that other services use, use fewer services of super-specialists and has total costs 10-40 percent less than comparable health insurance. To the consumer it offers continuity of care, opportunities of preventive services, and health education and coverage for both routine and catastrophic costs. In 1986 about 10 percent of the U.S. is enrolled in HMOs.

Yet the HMO is not a panacea; prices of HMO premiums often shadow the prices of rival insurance products rather than the savings being passed on to the consumer. (One could argue, however, that these surpluses are used for expansion or paying investors which reduces the cost of capital later.) Several HMOs have gone bankrupt or to were forced to merge with other plans, sometimes leaving employers and members stuck with medical bills. Occasionally, there are complaints of underservice or assembly line medicine by dissatisfied members or providers.

Yet on balance, the U.S. experiment with HMOs has been a success; most loans have been paid back and the majority of consumers remain enrolled and satisfied with their care. The Medicare program has, after several years of

demonstrations, allowed HMOs to serve the elderly and disabled covered under social security. Today in many cities there are multiple HMOs of different varieties competing with one another with traditional insurance products (Blue Cross, Blue Shield, commercial firms) and with newer systems such as preferred provider organizations (called PPOs), which essentially offer discounted medical care by a panel of providers. This new competition will count some casualties, but insurance law will assure continuity of care and hold consumers and purchasers harmless. The HMO, along with prospective payment of Medicare and interest in cost containment by employers, has begun to dampen the spiral of accelerating health care costs.

Despite its success in the U.S., several words of caution are in order for Indonesia. First, the U.S. had twenty years of experience to develop a health insurance industry. Moreover, it has built a regulatory infrastructure to protect consumers against insolvency and poor quality. Indonesia has an insurance law on its way to the Parliament now which could serve this purpose. However, training and adaptation to the Indonesian situation is needed. Some reminders from the U.S. experience with the federal HMO Assistance Program may yield parallels in terms of its successes and failures.

Several major problems reoccurred in HMOs that found themselves in difficulty:

1. A lack of clear contracts between physicians, hospitals, and the HMO specifying services, payments and procedures.
2. A management information system that did not put outstanding bills (from outside specialists and hospitals) into the accounting system fast enough, thus not giving management time to act.
3. Physicians who were not trained to be gatekeepers for expensive specialist and hospital care, which most often had to be paid by the HMO. Incentives provided to act as gatekeeper were insufficient or the physician was not trained to respond.

4. Administrators did not understand the market which was reflected in decisions on location of facilities, pricing of products, and lack of actuarial skills and resulted in poor underwriting practices and poor management of the medical group, staff or IPA. It was apparent that special training was needed for HMO managers, both didactic and on the job. If Indonesia wishes to develop HMOs, both managers and regulators will have to be trained and information systems developed. In addition, physician behavior patterns will need to change in response to incentives that involve sharing of risk.

The HMO in the U.S. has been and continues to be a mainstream system for the working (and retired) population. The problem of adapting this type of organization for the poor and rural groups has proven to be more difficult. This has recently been borne out by a study conducted by the RAND corporation which indicated that poor enrollees did not obtain the same improvement in health status from HMOs as the general population.

Another example of the difficulty of serving the poor in prepaid, capitated systems was the program in California where Medicaid (the public health insurance program for the poor) contracted with HMO-like organizations on a capitated basis. While a few served their population well, many made false promises, did not provide services and did not fulfill their legal obligations, resulting in investigations, scandal, and criminal charges. This is not to say HMO-like organizations cannot serve the poor. In Michigan, with stricter state standards and regulation, HMOs have served the poor all along. Even in California, new laws and enforcement procedures have enabled many poor to enroll once again, this time with better results. In addition, many community health centers are developing viable prepaid plans.

Rural areas present a special problem. Often there are neither the critical mass of people to be enrolled nor providers to give care. Yet even here some form of capitation payment, an enrolled population and group practice have helped public or foundation-sponsored medical systems to deliver more preventive and primary care services to more people. Those concepts of organization and management could be helpful, especially in the underserved outer islands of Indonesia.

Finally, there have been efforts in the U.S. to develop public HMOs. Plans were developed in Denver, in East Harlem in New York, in Los Angeles and in Contra Costa County California. This is particularly important in the light of efforts to develop DUKM through payments to ASTEK and the delivery of services through the Ministry of Health. In fact, to those of us here today, both government officials and employers, this experience is most relevant.

One problem was the control of staff by civil service regulations. Since an HMO needs flexibility to hire, reduce and deploy staff, this control proved to be a problem. The high overhead costs of public facilities (which are often teaching hospitals as well) increase the overall costs. Public accounting systems do not operate using cost centers, much less revenue centers, making allocation decisions difficult. Physicians, too, in a public system were not used to essentially private incentives to change clinical practice patterns. Most important, public beneficiaries saw no advantage in enrolling in a public HMO which was stigmatized by association with a "provider of last resort," preferring poor quality fee-for-service care. Moreover, it was difficult to market to employed groups in that situation keeping the public HMO a system for the poor only.

In Contra Costa County, a separate organization was set up, separate facilities built, and medical and paramedical staff were essentially full time and committed to the HMO. In this case, public employees and other workers enrolled and the HMO survived in a highly competitive market. The lesson of this to DUKM bears close investigation.

One factor that has promoted the growth of HMOs and similar systems has been the new efforts of employers to contain health care costs which have been taking on increasing shares of payroll. Costs in Indonesia are also escalating for drugs, for specialists, and for hospitals. It is up to employers, for the sake of improved productivity as well as more efficient health care, to take an interest in health care management, and to support innovation and training. The problem of an increasing elderly population, increasing technology and increasing demand will arise soon in Indonesia as

well. I hope we can all work together toward solutions that meet the needs of all.

Thank you for giving me the privilege of addressing you today and for us to consider ways of working together.