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HEALTH SECTOR FINANCING PROJECT

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**ANALYSIS OF HEALTH FINANCING,
IN INDONESIA
1982/83-1986/87**

Monograph No. 4

Ministry of Health, Republic of Indonesia
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**ANALISYS OF HEALTH FINANCING,
IN INDONESIA
1982 - 1986**

A Research Report Prepared By

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is a joint project between the Ministry of Health and the United States Agency for International Development. Since its inception in June 1988, the project has provided technical assistance toward the development of a managed health care program (DUKM/JPKM), improved hospital management, efficient drug management and rational drug use, and health policy and economic analysis. The fundamental goal of the project is to reallocate and increase resources for child survival programs in Indonesia.

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- I. Title**
- II. Series**
 - 1. Health Financing**
 - 2. Hospitals**
 - 3. Pharmaceuticals**
 - 4. Health Economics**

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This document originally was written in Bahasa Indonesia, and represents the results of several significant research studies and analyses in health financing. These results have been compiled and rewritten into a single document presenting the most comprehensive information available concerning health financing in Indonesia to date.

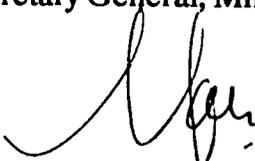
As is the case with any comprehensive undertaking, the compilation of this document underwent several stages of development. The initial draft was prepared by Dr. Kumara Rai, Dr. Ridwan Malik, and Dr. Paramita Sudharto based on various studies that were implemented or coordinated by the Bureau of Planning, Ministry of Health. Several senior officials of the Government of Indonesia and noted members of the academic community reviewed copious drafts of the document. The final editing of the Bahasa Indonesia version was done by Dr. Amal Syaaf, Yayasan Pengembangan Kesehatan Masyarakat. The document was completed in July 1990 after many months of collaborative efforts.

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/ Dr. M. Harly Soeradi, SKM

SECTION I: INTRODUCTION

A. Background

Development and improvement in the quantity and quality of health services delivered plays a significant role in maintaining and improving the health status of the community. National Development can be achieved according to the goals of the Nation, only if it is being implemented by healthy and intelligent people. By improving the health status of the community, the quality of human resources (or human capital) is improved resulting in an increase in the capacity of the nation to develop more rapidly. Thus, the development of the health services delivery system is an integral part of overall National Development. Success in health programs is essential for National Development to take place. (Department of Health, 1982).

Over the period beginning from the First Five Year Plan to the Fourth Five Year Plan (Pelita I- Pelita IV), significant achievements in health development and programs are apparent. Nevertheless, there still are many constraints that remain to be overcome during the period of the Fifth Five Year Plan (Pelita V).

There are three constraints that need particular attention and further discussion. These are as follows (Saifuddin, 1989):

- The emphasis of budget allocations in the Department of Health appears dominantly to be based on the premise that health problems can be overcome through the provision of curative as opposed to promotive and preventive services.
- Government funding for health programs is insufficient. Although the health budget increases every year, it is far short of the actual volume of funds that is required to serve the increasing number of the people who need health services.
- There are no clear guides, procedures, and policies concerning how the community and other elements of the private sector can participate in the planning, implementation, and development of health programs and activities, especially in terms of their rights and obligations.

To develop alternatives in solving these problems, in-depth study and analysis of the nature of these problems is required. These problems involve the fundamental issue concerning the appropriate level of health funding to be provided by Government and by the private sector. To assist in resolving some of these issues, a detailed analysis of the pattern of health expenditures and financing in Indonesia has been undertaken and the results are reported in this document.

B. Objectives

Based on the discussion above, the general and specific objectives of this paper are as follows:

1. General Objective:

To conduct an analysis of past patterns of health expenditures and financing in Indonesia based on sources of funds, allocation, and utilization.

2. Specific Objectives:

- a. To conduct an analysis of health funding by the Government based on sources of funding, allocation, utilization and previous trends;
- b. To conduct an analysis of health funding by the public sector, private sector, and foreign aid, based on sources, allocation, utilization, and trends;
- c. To discuss ways to improve resource mobilization and efficiency in the utilization of health development funds;
- d. To propose some alternatives in order to improve the financing of health services in Indonesia.

C. Organization of Paper

This paper is organized as follows:

- Section I.** Introduction: provides the background, objectives and organization of this paper.
- Section II.** National Development and Health in Indonesia: briefly presents the aims and phases of National Development and its relationship to health services delivery problems as well as to past achievements.
- Section III.** Health Expenditures in Indonesia: describes types of health expenditures by the government, public and private sectors, and foreign aid, according to funding sources, allocation, utilization, and past trends.
- Section IV.** Resource Mobilization Analysis: presents a description of fund mobilization efforts, based on the sources of funding, including government, out of pocket expenditures, user charges, semi-government payments for services, and payments by insurance

companies. This section also describes the levels and types of sources of funding from foreign aid and NGOs.

Section V. Efficient Fund Utilization Improvement Analysis: presents a description of efforts undertaken to increase the efficiency of resource utilization and resource mobilization in order to improve health programs.

SECTION II: NATIONAL DEVELOPMENT AND HEALTH IN INDONESIA

A. National Development

As written in the Preamble of the 1945 Constitution, the Nation's ultimate goal is the protection of the land and the people of Indonesia, to improve the education and the prosperity of the life, and to support a world order based on independence, eternal peace, and social justice. To achieve these goals, national development has been carried-out since the first Five Year Development Plan on the basis of sound planning in series of five year development plans and programs.

The essence of health national development goals are to improve the quality of the life of the Indonesian people, and to promote a just and equal prosperity of the community, both physical and spiritually, based on the Pancasila ideology... (Health Department, 1982).

National development planning was started in 1969, and is staged on a five-year basis, known as the Repelita. In order to facilitate the formulation of successive five year plans to further national development in achieving its goals, a general framework for development for the next 25 years is formulated at the beginning of each five year plan period. The goals are decided for each Repelita with a view that after the end of each five-year plan, an evaluation will be conducted to assure its suitability in accordance with needs of the people.

The long-term development priority and the major goal is to provide for the people's basic needs through the development of agriculture and industry. Progress toward achieving this goal has been achieved through the implementation of the following stages of Repelita, each having a particular emphasis as briefly described below (Health Department, 1989):

- Repelita I: Program emphasis on agriculture and primary industry.
- Repelita II: Program emphasis on agriculture, and in the development of manufacturing and raw materials producing industries.
- Repelita III: Program emphasis on agriculture sector to achieve self-sufficiency, and more rapid improvement of industries producing manufactured goods.
- Repelita IV: Program emphasis on agriculture, maintaining efforts to achieve self-sufficiency, and on the continued improvement of industries which produce heavy and light industrial

machinery which will continue to be developed in connection with the next Repelita.

Much has been achieved during the four Five-Year Development Plans. There has been significant economic growth that resulted in the improvement of the quality of life of the people, reflected by increases in income per capita. Significant achievements are also reflected in other sectors of society such as political and cultural development, all of which have enabled the country to achieve greater national security and stability.

For the coming Pelita V, development goals continue to emphasize the improvement of equity, high economic growth, and dynamic national stability. The achievements of the previous Pelitas naturally serve as the basis for the growth and development anticipated for the future take-off era of Pelita VI.

B. Health Development

Health Development is an integral part of the national development. It has an important role in the national development process itself. It is a major factor reflecting its achievement, since health is one of the basic factors involved in the creation of social prosperity and the improvement of the quality of life. Social-economic development depends on improvement in the health status of the people. Improved health status itself is an indicator of the development achievements of a nation, because health is a basic human need. Good health status is defined as physical, mental and social well being, and not merely as a state of being free from illness, disability, or weaknesses (Health Department, 1982).

Many developing countries with low per capita incomes have attempted to categorize health development only as a factor that merely reflects an outcome of general economic development. In such cases, economic growth often has not increased very rapidly. By contrast, other countries, like Japan and Korea, were forced to recognize that high quality human resources are a nation's most important stock of capital, because in these countries other resources were not abundant. As a consequence, these countries, among other things, encouraged investment in health and education thus rapidly improving the quality of human capital. As a result they achieved very rapid rates of economic growth which left many other countries far behind.

Health is essential for the improvement and acceleration of the development. Healthy people can participate more actively in the development process. They can be more effective, efficient, and productive than people whose health status is low. Thus better health status of a nation's people can contribute toward and even accelerate the attainment of the nation's development goals. Improved health status is a major factor in the development of the economy itself.

As stated in the 1988 National Development Guidelines, the quality of the people should be improved, because it is the main force for development,

and at the same time, it is the goal of development to create high quality people who can play an active role in the country's social and economic development. Therefore the development of human resources should be planned, and implemented comprehensively and in an integrated fashion. This development must include planned improvements in people's health and nutritional status, as well as improvements in education and training, and in the creation of increased opportunities for productive employment.

Detailed Health Development policy and direction is stated in No. II/MPR/1988, Decision by the Peoples' Deliberative Assembly or TAP MPR, and the National Guidelines for the State Policy (GBHN) for the health sector. These policies and directions are as follows (Health Department, 1989):

1. Health development is directed toward the improvement of health status including nutritional status of the community to achieve improved prosperity and the improvement of the quality of life of the people in general. Health development is conducted with priorities given to improving family and public health, prevention of diseases, curative treatment and recovery from illness. The national health system needs to incorporate community participation and private sector involvement in the development process of the health sector.
2. Health development is primarily directed toward the low income people, residing in both rural and urban areas. Special attention also is given to isolated tribes, transmigration areas, and country borders. Therefore, efforts in health services must be increased and enlarged in order to reach more people of the community, with low cost but better quality health services being delivered.
3. Improvement of health is accomplished through prevention of contagious diseases, better nutrition, clean water supplies, healthy environments, and better mother and child health care, including family planning. Special attention also is directed toward eliminating pollution and industrial waste problems, and problems related to the inappropriate use of narcotics and drugs. Health education should also be expanded in order to develop health awareness among the people. These efforts must be channeled through community health centers, and the outreach health and family planning posts established in the various cities and villages of the nation.
4. To improve health services, hospitals, health institutions, and community health centers must be improve the health services that are delivered. There also is a need for a more equal distribution of health personnel, including paramedics, and in the distribution of drugs so that they are readily

available and can be utilized easily by members of the community needing them. Improved efficiency in the use of health facilities also is required.

5. Humanistic approaches toward improving health services delivered by both the Government and the private sector must be maintained. Methods of payment by members of the community for the health services that they consume should be developed and implemented, based on sound insurance principles.
6. Research and development of traditional medicine should be conducted, not only to improve health services, but also to maintain and preserve the nation's culture heritage. Based on the direction and decision of the 1988 National guidelines for state Policy (GBHN) for the fifth Repelita, the National Health System should be developed and sustained to direct and guide the implementation of health development conducted by the Government and by the private sector. Special attention should be given toward equity, and to the operations, and maintenance of health facilities (Health Department, 1989).

By the end of Repelita V, it is hoped that all conditions necessary to support the "take-off" stage of Repelita VI will be achieved. The "take-off" stage of health development is a stage whereby the National Health System is accepted and functions effectively and efficiently in all sectors and in the community. This means the community has understood, internalized, and adopted a positive attitude toward achieving a healthy life, as well as the necessity to be more self-reliant in order to attain a just and prosperous community based on the Pancasila ideology. Ultimately, this will be reflected in the improvement of health conditions, and an increase in active community participation in health development efforts.

To achieve these goals, successive assessments of the economics of the health sector are required. The results will be utilized in the process of planning, policy making, implementation, evaluation and ultimately the development of the health sector as an important element of overall economic and social development itself.

C. Situational Analysis of Health Efforts in Indonesia

Health efforts in Indonesia, like in other countries, are conducted through various avenues of service delivery including hospitals, community health centers and sub-centers, private clinics, dispensaries, etc. Also, there are traditional health services which exist in the country, including services conducted by the community. In addition, there are public health efforts at the grass roots level offered directly through the community. These services generally are the responsibility of the government. In order to achieve most

effective results, however, the Government needs the support of the community in various health programs, including programs of disease prevention, clean water supply, healthy environment, and food and drug control.

1. Major Efforts

The progress of efforts to expand the number of health facilities, programs, and manpower by the end of Pelita IV can be summarized as follows (Health Department, 1988; Health Department, 1989):

- a. During the Repelita IV there was an increase in the number of Posyandus (out-reach health and family Planning posts), from 90,000 Posyandus, operating in 40,000 villages at the end of 1984, to 200,000 posyandus, operating in 52,000 villages in the country by the end of 1988.
- b. The number of public health centers (Puskesmas) also increased from 5,353 by the end of Repelita III, to 5,642 during Repelita IV. This also applies to the number of sub-Puskesmas, which increased from 13,636 to 14,562, including the 1,322 private clinics and MCH services, but does not include the 1,100 sub-Puskesmas which were upgraded to Puskesmas service capability status. The number of mobile clinics also increased from 2,479 during Repelita III to 3,251 by the end of Repelita IV, and the number of Puskesmas in remote areas also was increased.
- c. The number of Government and private general hospitals increased from 1,273 (114,778 beds) during Repelita III to 1,436 (122,998 beds) by the end of Repelita IV. In relation with the target of Pelita IV, this achievement represented only 30% of stated goals. The increase in the number of hospitals from type D to type C achieved only 50% of the intended target (34 out of the intended target of 77). In the case of type C to type B only 5 out of 8 hospitals achieved the intended target.
- d. Health personnel also increased, improving the ratio between doctors and Puskesmas from 0.7 to 0.9. The ratio between paramedics and Puskesmas increased from 3.0 to 6.8.
- e. The number of health personnel at Government hospitals also increased. The ratio of the number of health personnel to the number of beds increased

from 1 : 7 at the end of 1984, to 1 : 6 by the end of 1988. The number of paramedics also increased, but the ratio between the paramedics to beds remained the same, 1 : 2.

- f. The provision of needed drugs has significantly increased from Repelita I to Repelita IV. For example 98% of the national demand is fulfilled by local/domestic production, as compared to only 20% during the Repelita I. Greater equity of distribution also has been achieved. The production and the use of traditional medicine also has increased.

2. Some Major Issues Outstanding

Based on the above information and other observations concerning the development of health facilities, programs and personnel, however, some major problems remain outstanding. These may be described as follows (Health Department, 1988):

- a. The drop-out rate of volunteers at the Posyandus remains high. This is due to the lack of personnel maintaining the volunteers, geographical conditions, and other factors.
- b. The construction of new Puskesmas only achieved only 56% and the construction of new sub-Puskesmas only achieved 62% of stated targets. This resulted in the decrease of the ratio between the number of population per Puskesmas from 1 : 30,000 during the beginning of Pelita III to 1 : 32,000 by the end of Pelita IV. This largely was due to the cut-back in Government funding during the three years of declines in the rate of economic which recently occurred in Indonesia.
- c. The increase in the number of hospitals and beds also was below established targets, due to the lack of Government funding, low socioeconomic status of the community, geographic conditions, lack of health personnel and facilities, and weaknesses in the planning and management of hospitals.
- d. There is a shortage of health personnel, and health personnel are distributed in a very imbalanced fashion.
- e. Facilities in private hospitals and clinics generally appear to much better than those of government.

- f. **There appears to be little or no coordination of health funding within the public and private sectors, or between those sectors.**

D. Conclusion

Most of the problems briefly described above are due to the lack of Government funding. Other factors exacerbating existing problems include inappropriate budget allocation, the lack of coordination between budgeting and planning, and the need for better prioritization of health programs.

SECTION III. HEALTH EXPENDITURES IN INDONESIA: PATTERNS OF SOURCES AND USES OF FUNDS

A. Introduction

1. General Scope and Problems Faced

The analysis of health costs and budgets in Indonesia involves dealing with a large number of very complex problems. Budget allocations originate from many sources and thus often require different financial procedures and systems to be followed in their utilization, planning, reporting and accounting. To completely analyze these problems, taking into account all of their complexity, would require a long and in-depth research effort in and of itself.

In view of the complexities in budgeting, planning, reporting, etc. noted in the paragraph immediately above, readers should note that the analysis described in this paper represents just the beginning of a continuing process. The analysis presented here, represents only a general discussion of some of the most important aspects of the probable sources and uses of funds involved in paying for health services in Indonesia, and can only indicate general cost allocations and expenditure tendencies in the future.

2. Approach Taken in Analysis

In general, health expenditure and funding sources in Indonesia can be divided into two categories: Government and the private sector. The private sector includes individual members of communities as well as strictly private sector employers and insurance firms. The definition of sources of funds admittedly is somewhat arbitrary, due to the lack of consistent, integrated, and uniform accounting of revenues and spending from the various sources of expenditure. Appropriate reconciliation was attempted in all cases.

Data utilized in the analysis consist of secondary data gathered from several Government departments involved in health as well as data collected from non-health agencies and institutions of government. In addition, much of the data were obtained from studies of community and other private sector agencies utilizing and financing spending on health services. The HEPAU (AKEK), Bureau of Planning, Department of Health already is in the process of updating the data collected thus far.

Also the Unit is analyzing some of the budgetary and other complexities known to exist in order to refine estimates of sources and uses of health sector funds in Indonesia in the past. Later, the Unit will attempt to forecast sources and uses of health sector funds patterns into future periods under various alternative assumptions involving current financing trends and the far reaching institutional developments that currently are ongoing in Indonesia.

Great care was taken to avoid possible double counting of spending or uses of funds, and of their sources. For example, expenditures which originate from the production of parastatals especially for drugs and supplies, e.g., BUMN (a Government parastatal called the Government Enterprises Board), are not included in our estimates, because BUMN funds ultimately are used to finance payments allocated from the Inpres fund (President's Instruction), which are expended on hospitals, the community, and on various elements of services delivered in the private medical sector, all of which already are explicitly accounted for appropriately elsewhere in the analysis. The results of the analysis including tables summarizing the results and calculations are reported in the immediately following sections of this paper.

B. Overview of Health Expenditures in Indonesia: 1982-1989

Table 1 below presents data reflecting health expenditures in Indonesia for years 1982/83-1986/87. Measured in terms of current (nominal) prices in the year of 1982/1983, the total volume of health expenditure is estimated at Rp. 1,743.16 billions, with Rp. 494.88 billions (28.39%) coming from the government, and Rp. 1,248.28 billions (71.61%) estimated to come from the community (individuals and other elements of the private sector, including private employers, and funds provided by parastatals either directly or through insurance programs). In the year 1986/1987, total health expenditures are estimated to be Rp. 2,423.25 billions, with Rp. 724.41 billions (29.89%) coming from the Government and Rp. 1,698.84 billions (70.11%) coming from the community and other private sources, all measured in terms of current (nominal) prices, see Table 1 below.

During the last 5 years, even when measured in current prices, health financing in Indonesia has begun to exhibit an unfavorable tendency. Financing in the year of 1986/87, amounted to Rp. 2,423.25 billions compared with total financing in the year of 1982/83 amounting to Rp. 1,743.16 billions (Table 1), thus showing an increase of only 39.01% over the entire period, or an average annual increase of 8.7%, when measured in current prices.

When expenditures are converted into constant prices with a base year of 1983, however, budget outlays are seen to have increased only 4.35% over the period, thus on average increasing only 1.36% annually. In some years, outlays on development actually decreased when measured in constant 1983 prices. The largest decrease in development spending expressed in constant 1983 prices, occurred between the years 1982/83 and 1983/84, and was a - 7.81% between those years. The largest increase in development spending occurred in the year of 1985/86 when development outlays increased 9.29% over the preceding year, 1984/85, however, increased development outlays in terms of 1983 prices declined in the following year.

If we take a look at health financing per capita, the picture looks even worse. Expenditures measured in terms of current (nominal) prices increased from Rp. 11,267.90 in the year of 1982/83 to Rp. 14,368.36 in the year of 1986/87. After adjusting expenditures and expressing them in 1983 constant prices, however, per capita spending on health is seen to have actually decreased over the entire period.

Table 1: National Health Expenditure in Indonesia, Fiscal Years 1982/83-1986/87

SECTOR	1982/83	1983/84	1984/85	1985/86	1986/87	AVERAGE ANNUAL GROWTH
Government *						
Nominal Prices	494.88	539.81	574.91	691.90	724.41	
Percent	28.39	29.49	29.42	30.66	29.89	
Annual Growth(%)		9.08	6.50	20.35	4.70	10.16
Private Community						
Nominal Prices	1,248.8	1,290.64	1,579.29	1,564.94	1,598.84	
Percent	71.61	70.51	70.58	69.34	70.11	
Annual Growth(%)		3.39	6.37	13.46	8.56	8.07
Total						
Nominal Prices	1,743.16	1,830.45	1,954.20	2,256.84	2,423.25	
Annual Growth(%)		5.01	6.76	15.49	7.37	8.66
Adjusted by 1983 price	1,985.46	1,830.45	1,747.06	1,909.29	2,071.88	
Annual growth(%)		-7.81	-4.56	9.29	8.52	1.36
Population						
Nominal	154,701.17	158,104.59	161,582.89	164,976.13	168,440.63	
Annual Growth(%)	2.20%	2.20	2.20	2.10	2.10	2.16
Per Capita						
Nominal	11,267.90	11,577.44	12,094.13	13,679.82	14,386.36	
Annual growth(%)		2.75	4.46	13.11	5.16	6.37
Per Capita						
Adjusted by 1983 Price	12,834.14	11,577.44	10,812.15	11,573.13	12,200.34	
Annual growth(%)		9.79	-6.61	7.04	6.28	-0.77
\$ US **						
Nominal	16.33	17.42	10.74	12.55	8.77	
Annual growth(%)		-30.68	-5.93	16.85	-30.10	-12.32

Source: Unit AKEK/HE & PAU, Bureau of Planning, MOH, 1988

Notes:

1. Public Sources of Finance: Central, Province, District and Foreign Assistance
2. Private Sources of Finance: Direct payment (out of pocket) and from Employers and Insurance Companies
3. For Comparison * Sri Lanka (1982) US \$ 10.25, Philippines (1982) US \$ 25.00, and USA (1982) US \$ 1,402.65
 *) Minus Government Enterprises Expenditure for drug production.
 **) Taking account of exchange rate adjustments.

Table 1, which presents health expenditure data converted into US dollars (US\$) according to the current foreign exchange rate each year, reveals a rather striking decrease in annual per capita health expenditures in terms of constant 1983 prices. In the year 1982/83 per capita spending on health was US\$ 16.33, but dropped to US\$ 8.77 by year 1986/87. This level of per capita spending on health is significantly lower in comparison to other Asean countries for which income per-capita was comparable to that of Indonesia.

Referring to Table 2 below, it can be seen that, measured in nominal terms, the rate of growth in Gross Domestic Product (GDP) measured in current prices showed a marked decrease from 17.61% in the year of 1983/84 to only 2.09% in the year 1986/87. Over the entire period, however, the rate of growth of GDP averaged 11.81% annually. Adjusting the data and expressing them in terms of 1983 constant dollars, however, it can be seen that GDP growth in the years 1983/84 and 1986/87 was virtually the same, 3.25% and 3.21%, respectively. Annual growth adjusted in GDP averaged 2.89% over the period as shown in Table 2 below.

When measured in terms of current prices, aggregate health expenditures as a percentage of GDP over the period, averaged 2.48% yearly, decreasing from 2.78% in the year of 1982/83 to 2.51% in 1986/87. Government health expenditures averaged of 0.73% of GDP with a tendency to increase only slightly beginning in the year 1984/85. The increase in the rate of growth in community and other elements of private sector expenditure, averaged 1.75% annually over the period.

3. Conclusions

Private sector financing is a much larger source of funds for the provision of health services than previously thought. Declines in the rate of economic development in years 1984/85 and 1985/86 brought about decreases in the rates of both public and private sector spending for health services, but the declines in public sector funding were more severe than those occurring in the private sector. These observations suggest that private sector funding sources are more resilient to changes in the state of the economy than government, and that perhaps greater reliance should be placed on private sector funding sources in the future in order to achieve a more satisfactory rate of sustained growth and development of health services in Indonesia. Caution must be exercised in over reliance on private sector sources of funds and provision of health services, however, in that the private sector typically expresses little concern for equity in the provision and financing of health services. This latter issue will be explored in latter sections of this paper. Before going into those issues, however, attention is given to the constraints currently existing with respect to Government budgeting and use of funds, and their implications for health services financing and provision.

C. Brief Analysis of Constraints and Implications

Many problems involving financing and budgeting for health could be studied and examined from many angles and in greater depth including current policies guiding budgeting and budget planning, and those governing the availability of funds. As noted above, these will be analyzed in-depth at a later stage of research and policy analysis. For purposes in this paper, it is sufficient to outline some of the major policy and procedural constraints, and to draw attention to their implications for health financing issues.

Table 2: Health Expenditure and Gross Domestic Product 1982/83-1986/87
(Billion Rp.)

SECTOR	1982/83	1983/84	1984/85	1985/86	1986/87	AVE ANN GROW
Total Health Expenditure						
Nominal Prices	1,743.16	1,830.45	1,954.21	2,256.84	2,423.25	
Annual Growth(%)		5.01	6.76	15.49	7.37	8.66
Government Health Expenditure						
Nominal	494.88	539.81	574.91	691.90	724.41	
Annual Growth(%)		9.08	6.50	20.35	4.70	10.16
G.D.P.						
Nominal	62,646.50	73,679.60	87,535.50	94,491.50	96,469.30	
Annual Growth(%)		17.61	18.81	7.95	2.09	11.61
Adjusted by 1983 Prices	71,360.39	73,679.60	78,218.61	79,915.95	82,481.25	
Annual Growth(%)		-0.33	3.25	6.13	2.17	3.21
Health Expenditure of GDP(%)	2.78	2.48	2.23	2.39	2.51	2.48
Public Health Expenditure of GDP(%)	0.79	0.73	0.66	0.73	0.75	0.73

Source: Unit AKEK/HE & PAU, Bureau of Planning, MOH, 1988.

1. The Limitation of Funds

During the period 1982/83-1986/87, the rate of growth in Indonesia's economic development was not sufficient to generate a volume of funds within Government or in the private community that would permit substantial expenditures on health services essential to meeting the population's basic needs for them. From the limited funds available, the bulk of spending was used to finance the delivery and consumption of curative medical services. There is no question that curative health care is very important and is very much needed by the population. Other types of health programs offer services that prevent illness and disease, however, and thus are far more efficient in terms of their relative costs and benefits as compared to curative health services. These include programs that provide clean water supplies and which improve the health environment so that people avoid becoming ill (e. g., communicable disease and vector born disease control). Such programs, however, were relatively under funded over the period of economic constraint, 1982/83-1986/87.

Due to low income and possibly low supply of the availability of services of all types, household expenditure for health services in Indonesia remains low. Government funds were insufficient to pick-up the slack and could not be used to cover the fund limitations at community health program levels, because the household's discretionary income available to be used for health remained limited. A matter worth emphasis in this connection is that community and other private sector health financing is already around 70% of total health expenditure in Indonesia.

2. The Inefficient Use of Funds

Even though the level of health resources available may increase each year, they may be used inefficiently. For example, in some cases the increased use of health manpower may have an almost negative impact on overall health status. This can be said to occur in cases where highly trained and thus highly paid health manpower is used in connection with very expensive medical equipment and drugs ("high tech") to treat a relatively small number of highly complicated illnesses, often with little or no lasting success. These same resources if used to treat a much larger number of fatal but relatively uncomplicated illnesses could have saved more lives than when used as they often have been used in the past. The point is that often fund allocations do not correspond to the priority of need or aggregate effectiveness as measured by potential impact in improving health status of the entire population.

There still are many inefficiencies observed during working hours, particularly in cases in which many urban based Government employees work "half time" in private practice. At the kecamatan level, this is also occurs in connection with the way in which Puskesmas manpower is used in providing services in Posyandus.

Note that there are also many management inefficiencies in processing and utilizing available funds. For example, one of the biggest problems in the financial process, involves the inability to control expenditures, due to inaccurate reporting procedures, and the lack of proper budgeting and planning of health facilities and other program expenditures.

3. The Distribution of Funds

Many serious problems are faced in distributing and utilizing the funds available, particularly those originating in the Government sector. Indonesia is the fifth largest country in the world in terms of size of population, and the breadth of the country from coast to coast (from the eastern tip of Sumatra to the western side of Irian Jaya, is about three thousand miles, which is roughly the same as the United States of America). Complicating matters further, the geographical and population characteristics of Indonesia are extremely diverse. The population is distributed over 27 provinces spanning 13,500 islands, and the population distribution is grossly unequal. For example, it is estimated that more than 60% of the total population of 184 millions is concentrated on the islands of Java and Bali. These factors dictate an unequal allocation of funds among the various provinces and districts of the nation, which also gives rise to legitimate concerns about equity in the context of future development.

Also, as may be expected, income also is not uniformly distributed geographically among individual members and households of the nation. Thus some population groups with relatively high-incomes live in areas in which they have access to better service than other population groups. Also as typical of almost all countries of the world, urban populations in general

are absorbing a greater share of health resources than those living in rural areas. Currently in Indonesia, about 50% of total health resources available are utilized by members of urban populations, while urban dwellers constitute only 25% of the total population.

4. The Lack of Coordination and Integration

Health funding comes from many sources. In the absence of less than optimal coordination, sometimes the same program has many different funding sources. Every source has its rigid rules which impedes the ability to fully utilize and absorb the funds that theoretically are available. In other cases, the volume of funds actually allocated for implementation is inconsistent with the priorities established during the process of planning. Planning, budgeting and implementation remain to be fully coordinated and integrated.

5. Source of Mobilization of Funds

Health sector financing remains as an uncoordinated and nonuniform process. The problems associated with funds provided by the Government have already been noted above. Community and private company participation, and the role of private health insurance in assisting in financing health programs and services remain ill-defined. Overall, the results are unsatisfactory, however, efforts are being made to correct these deficiencies.

In order to access and use the funds needed to operate health programs and facilities, managers of Government facilities frequently stretch or bend existing laws. For example, the laws pertaining to the use of user fees levied at health facilities as set by Government established tariffs require that funds that are collected by health facilities be remitted back to government. In many instances, however, health facility managers do not remit all the funds collected in order to finance needed programs of health services which are under funded from legitimate legal sources.

Health insurance as a concept in Indonesia is neither widely understood nor appreciated. The use of health insurance is not a widespread or common practice either by individuals, or within the community collectively, although Indonesia has a long history of village "health funds" which remain to be organized and placed on an actuarial footing. The funding as well as delivery of health services on the part of private companies as well as those activities of the BUMN also remain to be coordinated and integrated. Efforts are being made to bring about needed coordination and integration through the development and adoption of the principles of DUKM, but this is a very slow process although much has been accomplished in this area which will be reported in a subsequent study after the analysis of problems, successes, and probable future directions of health services financing has been completed. In the next section of this paper, analysis is focused on Government sources of funds for financing the provision of health services.

D. Government Sources of Funds for Financing Health Services

1. Funding and Data Sources

For purposes of analysis, health financing provided by the Government can be grouped by administrative levels. Administration levels include Center (Central level), Province (Provincial level) and Kabupaten (District level) according to the related Government Department, or according to the budget allocation: the Development Budget, and the Routine Budget (Operating and Maintenance).

At the current time, as noted above, funds are allocated from several different Government sources following different systems of planning and fund allocations. These different sources of funds and associated processes are described below.

1. Funding Sources Originating at Central Government Levels

a. In Relation to Department of Health

The principal source of funds for development expenditures originating at the central Government level is provided from the APBN Development budget, which is annotated as the Central Government DIP Budget. The data reflecting budget allocations from this source were collected from the Planning Bureau Department of Health Republic of Indonesia. The budget realization or actual expenditure data from this source were collected from the Quarterly Report from the Inspectorate General, Department of Health, and from Bappenas (National Planning Board), RI.

The principal source of funds used for routine or operating and maintenance expenditures are allocated from the APBN-Routine Budget, annotated as the Central Government DIK Budget. The routine budget is the budget provided from Center DIK, the routine budget allocation, and the data used for purposes of analysis were collected from the Financial Bureau, Department of Health, and from the Quarterly Report of the Inspectorate General, Department of Health, RI.

In addition, funds are provided from the INPRES (President's Special Funds) budget. Funds provided from INPRES represent subventions coming from Central Government to the Provincial and District Government including funds for health services provision, acquisition of medicines and drugs, supplements to the budgets of Puskesmas, other facilities, and outreach program development, for clean-water and environmental improvement programs, and other items. The data collected for purposes of analysis were provided from the Bureau of Planning, Department of Health, RI and from the Directorate General Public Administration and Provincial Autonomy, Department for Internal Affairs, RI.

An additional source of budget is provided by the SBBO (Operational Cost Subvention Fund). The operational cost subvention fund is a budget from

the Central Government to the Provincial Government and to the District Government. This budget is a special fund to augment hospital routine costs and maintenance. Data were provided by the Directorate General, for Medical Services, Department of Health, Department for Internal Affairs, and Department of Finance, RI.

Salaries are budgeted under the Otonomous Regional Subvention (SDO) budget. This budget contains salaries for health personnel in the Provincial and District Government. This budget is included in the Routine Budgets of Provincial and District Governments, thus analysis of budget allocations from this source will be discussed in the Routine Budget of Provincial and District Governments.

b. Funds Provided from Other Departments.

There are many departments outside the Department of Health which allocate funds for health, e.g., Hankam (Department for Defense and Security), provides health services for military personnel. The Department of Education and Culture provides funds for medical education, and the Department of Religion provides funds for Haji Health Services. The Department of Transmigration provides funds for transmigrant health services.

Other departments such as the Department of General Works, Department of Social Affairs, etc. also provide funds in connection with various activities. For purposes of analysis, data were collected directly from each relevant source in the related departments.

c. Funds provided from BUMN Depkes (government enterprises controlled by the Department of Health).

The budget provided from BUMN Depkes is an operational cost for the production of pharmaceutical products and related products. BUMN Depkes consists of Kimia Farma, Indo Farma and Bio Farma all of which are Government sponsored and controlled enterprises/producing pharmaceuticals. Note that it was not possible to collect the investment costs associated with these agencies for purposes of this study.

Spending by Perum Husuda Bhakti, originally a Government agency, which is charged with administrating the health insurance benefits of Government employees and their families up to one spouse and three children, has now been accorded perum (parastatal) status and soon will become virtually private, is included in the total funds reflecting expenditures by private sector enterprises. The data used in the analysis were collected directly from the related agencies and companies of BUMN. Also, funds provided from non-Depkes BUMD (regional and provincial level parastatal agencies) sources are included in the private sector enterprises group. Note that expenditures for drug production were excluded in the interests of avoiding double counting, because these production costs already are included in the

expenditures for treatment and services financed by Government sponsored insurance and individual buyers.

d. Funds provided from APBD Tingkat I and Tingkat II (Provincial and District Government Budgets).

Funds provided from APBD Tingkat I consist of the general Development Budget which complements the Central Governments Development Budget and the Province Routine Budget including SDO (Regional Otonom Subvention) for salaries and incentives on behalf of Depkes manpower. The data were directly collected from the First Level Regional Government Report as presented to the Department for Internal Affairs, RI.

Funds provided from APBD Tingkat II (District Level Government Budget) consist of a Development Budget and the Routine Budget. The Development Budget for health, in general, complements the Development Budget provided from the Central Government and from the Provincial Government.

The Routine Budget includes salaries and incentives as well as a maintenance budget, which, in general, originates from the District Government's income from services rendered by facilities. The data used for analysis were collected from the related Provincial Government routine budget reports.

All data collected were analyzed and processed by Unit AKEK/HE & PAU, Bureau of Planning, Department of Health, RI. In the course of analysis, every source was detailed and organized in a consistent form, although many difficulties were encountered due to the non-uniformity of the finance information systems of all the agencies involved.

1. Overview of Local Government Health Expenditures 1982/83-1986/87

In the last five years, the overall health budget provided from Government increased from 494.88 billions in 1982/83 to 724.41 billions in 1986/87 or an increase of 46.36% or 10.16% yearly, (see Table 4). When the data are adjusted on the basis of 1983 constant prices, however, Table 4 shows that the budget only grew by 2.7% annually.

Compared to the Total Government Budget, the public sector outlays for the health sector have been relatively small and constant, consistently averaging around 3.3% per year during the last five years, (see Table 3 below).

Table 3: Government Health Expenditures by Source, Fiscal Year 1982/83 - 1986/87
(Realization, Billion Rp.)

SOURCES	1982/83 (%)	1983/84 (%)	1984/85 (%)	1985/1986 (%)	1986/1987 (%)
CENTRAL 1)					
(Minus G.E.)	323.93	337.99	347.71	388.27	371.25
A. M O H	291.26 58.9	298.37 55.3	305.68 53.2	341.33 49.3	328.41 45.3
1. C.D.B. 3)	111.54	108.44	101.72	94.76	65.24
2. C.R.B. 4)	73.52	83.34	97.31	122.57	138.82
3. Special Fund (Inpres)	98.45	98.45	98.45	114.552	114.552
4. Subsidy for the Hospital (SBRO)	7.7506	8.1428	8.2	9.4525	9.7865
B. NON M O H	32.66 6.6	39.62 7.3	42.03 7.3	46.94 6.8	42.84 5.9
PROVINCE	73.05 14.8	92.06 17.1	112.25 19.5	152.47 22.0	171.55 23.7
A. Development	22.31	17.91	27.62	35.95	47.62
B. Routine 2)	50.74	74.15	84.63	116.52	123.93
DISTRICT	77.55 15.7	79.62 14.7	84.60 14.7	110.13 15.9	115.96 16.0
A. Development	3.5353	3.6296	5.4372	5.478	5.7683
B. Routine 2)	74.01	75.99	79.17	104.65	110.20
FOREIGN AID	20.36 4.1	30.14 5.6	30.34 5.3	41.03 5.9	65.65 9.1
T O T A L	494.88 100	539.81 100	574.91 100	691.90 100	724.41 100
Total Government Budget	14,358.3	18,315.1	19,383.5	22,824.6	21,892.8
% Health Expenditure of Total Government Budget	3.4	2.9	3.0	3.0	3.3
Gross Domestic Product	62,646.5	73,697.6	87,535.5	94,491.5	96,489.3
% Health Expenditure of GDP	0.8	0.7	0.7	0.7	0.8
Population	154.7	158.1	161.6	165.0	168.4
Per Capita (Rp.)	3,198.9	3,414.2	3,558.0	4,193.9	4,300.7
Constant 1983 Prices	3,643.6	3,414.2	3,177.3	3,548.1	3,677.1

Source : Unit AKI/K/HE & PAU, Bureau of Planning, 1988

Notes :

1. Exclude Government Enterprises for Drug Production to avoid double counting
G.E. = Government Enterprises.
2. Includes the Health Staff Salary (Subsidy from Central through SDO)
3. CDB: Central Development Budget.
4. CRB: Routine Development Budget.

The percentage of GDP devoted to health expenditures provided from the Government is small, and this tendency appears to have remained the same during the last five years period (e.g., 0.8% in 1982/83 and 0.8% in 1986/87).

The health budget per-capita provided from the Government in the last five years increased from year to year, from Rp. 3,198,90 in 1982/83 to become Rp. 4,300,20 in 1986/87, representing an increase of 34.4% (see Table 4).

After adjusting the data on the basis of 1983 prices, budgets over the period 1982/83 and 1986/87 appear to have remained virtually unchanged (see Table 3).

The principal source of funds for the health budget is from the Central Government, although its percentage contribution to the total public sector health budget for the last five year has decreased. Expressed in terms of nominal prices, in the year 1982/83 the health funds coming from the Central Government were 58.9% of the total Government health budget, and decreased to 45.3% of the total Government health budget in 1986/87. The decrease was due to the 41.5% reduction in the total funds allocated to the Central DIP. The Routine Budget nearly doubled over this period, while INPRES and SBBO increased only slightly (see Table 3 above).

The health budget at the Provincial level as a percentage of total health budget provided by Central level increased from 14.8% in 1982/83 to 23.7% in 1986/87. In general, the percentage of Government budget provided at the Provincial level has exhibited a tendency to increase every year (Table 3).

In terms of 1983 prices, the health budget provided from the District Government (Kabupaten/Kodya) shows a tendency to remain virtually constant as a percentage of total Government allocated health budget, although in nominal terms this source of funding has increased every year for which data were analyzed. Health financing from other Government Departments also remained virtually the same over the period.

Note that the Routine Budgets of Central, Provincial and Kabupaten levels of Government all increased during the years studied as more money was allocated mostly for additions to salaries. If the budgets from the Province and Kabupaten levels were consolidated, the aggregate of total Government financing from these sources shows a increase of from 30.5% in 1982/83 to 39.7% in 1986/87. Note, however, that this total and resulting percentages includes the salary and the incentive components of health manpower which is given by the Central Government to lower levels of Government through the SDO (Central Government support for salaries):

If these salary allocations are separated, we can calculate the un-subsidized regional budget (Province plus Kabupaten) given to health programs. For 1982/83, the salary (Province plus Kabupaten funding levels) subvention amounted to Rp. 93,590.2 or 62.1% of total province and kabupaten's financing. For 1986/87, the total salary was Rp. 169,543.2 billions or 59% from the total Province and Kabupaten's financing. Thus after subtraction, it is seen that there was an increase from 10% in 1982/83 to 13.8% in 1986/87 in Provincial and Kabupaten financing of health services over the period, i.e., the percentage of total Government funding attributable to local Government increased over the period.

Table 4: Government Health Expenditure by Source, by Nominal and Constant 1983 Prices
Fiscal Year 1982/1983-1986/1987
(Billion Rp.)

SOURCE OF FINANCE	1982/83	1983/84	1984/85	1985/86	1986/87	AVER
CENTRAL-MOH 1) Nominal	291.26	298.37	305.70	341.33	328.41	
Annual Growth(%)		2.4	2.5	11.7	-3.8	3.2
Constant Price(83)	331.75	298.37	273.30	288.77	280.79	
Annual Growth(%)		-10.1	-8.4	5.7	-2.8	-3.9
CENTRAL-NON MOH						
Nominal	72.66	39.62	42.03	46.94	42.84	
Annual Growth(%)		21.3	6.3	11.7	-8.7	7.6
Constant Price(83)	37.20	39.62	37.57	39.71	36.63	
Annual Growth		6.5	-5.2	5.7	-7.8	-0.2
PROVINCE 2)						
Nominal	73.05	92.06	112.25	152.47	171.55	
Annual Growth(%)		26.0	21.9	35.8	12.5	24.1
Constant Price(83)	83.20	92.06	100.35	128.99	146.68	
Annual Growth(%)		10.6	9.0	28.5	13.7	15.5
DISTRICT 2)						
Nominal	77.55	79.62	84.60	110.13	115.96	
Annual Growth(%)		2.7	6.3	30.2	5.3	11.1
Constant Price(83)	88.33	79.62	75.63	93.17	99.15	
Annual Growth(%)		-9.9	-5.0	23.2	6.7	3.7
FOREIGN AID						
Nominal	20.36	30.14	30.33	41.03	65.65	
Annual Growth(%)		48.0	0.6	35.3	60.0	36.0
Constant Price(83)	23.19	30.14	27.12	34.71	56.13	
Annual Growth(%)		30.0	-10.0	28.0	61.7	27.4
TOTAL BUDGET						
Nominal	494.88	539.81	574.91	691.90	724.41	
Annual Growth(%)		9.1	6.5	20.3	4.7	10.2
Constant Price(83)	563.67	539.81	513.97	585.35	619.37	
Annual Growth(%)		-4.2	-4.8	13.9	5.8	2.7

Source: Unit AKFK/III & PAU, Bureau of Planning, MOH, 1988.

Notes:

1. Excludes expenditures by Government Enterprises for drug production to avoid double counting.
2. G.E. = Government Enterprises.

An exceptional increase of the Central Budget, Department of Health occurred in 1985/86 as shown in Table 4. But in the next year (1986/87), there was a decrease -3.8%. The Central Budget for Non-Departments of Health showed the same pattern: increasing in 1985/86, but decreasing in the next year.

The BUMN's financing for PN Bio Farma, Kimia Farma and Neo Farma increased rapidly, including increases in salaries. Although not shown in Table 4, over the five years period, the increment in this area was nearly two-fold, increasing from Rp. 91.2 billions in 1982/83 to Rp. 192.6 billions

in 1986/87 for an average growth of 20.8% per year. In our analysis these numbers have been excluded in order to avoid double counting.

4. Realization of Utilization Costs by Health Services Programs

Clearly the health budget from the Government is used for various kinds of health programs: public health services, manpower, health education, maintenance health manpower, research, drugs and medicine production, administration, and, etc. The costs of acquiring drugs and medicines were included in the costs of services. In the last five year period there was a change in the level of funds utilized, measured in nominal values. Table 5 below shows realization expenditures by programs and services over the period 1982/83-1986/87.

In 1982/83, funds were utilized mostly for health services (hospital services) which absorbed 32.8% from the total budget in that year. This was followed by Puskesmas' services, 20.7%, administration services, 13.4%, other health unit services, 11.4%, manpower, 0.8%, and for research and development, 0.4%. Note that the percentage spent for research and development is very small in comparison to the important role of the research and development in the total development program.

By 1986/1987 fund utilization patterns had changed significantly as shown in Table 5. Expenditures on hospitals and Puskesmas had decreased to 30.8% and to 17.8%, respectively. Actual expenditures by other health service program such as administration and other health units shows an increase of 15.4%.

For the five year period, in general, actual expenditure for the services of hospitals and Puskesmas grew 8.7% and 5.9% per year. Health expenditures on behalf of other health units only grew by 8.6% per year, while for the administration the rate of growth was 15.8% yearly.

The health research programs and project related health program average growth rates were 9.7% and 9.1 each per year, while education and training program growth averaged only 7.3% per year. Puskesmas' services including KIA (mother and child health) shows the lowest rate of growth, 5.9%. This difference mainly was caused by the decrease of the development budget.

A special analysis was made of the cost allocation made for the child survival programs (see Table 6 below). Every program or service which contributed to decreases in child mortality was grouped separately and compared to total Government budget allocations for health. Based on constant 1983 prices, child survival allocations constituted 14.5% of the Government health budget in 1982/83, but decreased to 11.9% in 1985/86. Over the period 1982/83 to 1986/87, nominal growth in Government budget allocations for child survival services averaged only 7.2% per year, and in terms relative to the total budget, decreased by 2.7% over the period, ending-up at 12.8% in the year 1986/87.

Table 5: Government Health Expenditures (Realization) by Program and Services
Fiscal Year 1982/1983-1986/1987.
(Nominal, Billion Rp.)

PROGRAM/ SERVICES	1982/83	1983/84	1984/85	1985/86	1986/87	AVERAGE ANNUALLY GROWTH
HOSPITAL	162,10 (32,8%)	195,70 (36,3%)	194,32 (33,8%)	227,20 (32,8%)	222,70 (30,8%)	8,7%
HEALTH CENTER	102,53 (20,7%)	101,21 (18,7%)	112,73 (19,6%)	129,83 (18,8%)	127,85 (17,6%)	5,9%
MANPOWER	29,91 (6,0%)	33,76 (6,3%)	38,83 (6,6%)	40,19 (5,8%)	45,91 (6,3%)	7,3%
PROGRAMS	75,17 (15,2%)	76,23 (14,1%)	74,39 (12,9%)	95,76 (13,9%)	104,04 (14,4%)	9,1%
RESEARCH AND DEVELOPMENT	1,98 (0,4%)	2,99 (0,6%)	2,82 (0,5%)	2,11 (0,3%)	1,89 (0,3%)	9,7%
ADMINIS. 1)	66,55 (13,4%)	64,74 (12,0%)	74,88 (13,0%)	98,60 (14,3%)	111,56 (15,4%)	15,8%
OTHER HEALTH UNITS 2)	56,64 (11,4%)	65,14 (12,1%)	76,93 (13,4%)	98,17 (14,2%)	111,46 (15,4%)	18,6%
TOTAL	494,88 (100,0%)	539,81 (100,0%)	574,91 (100,0%)	691,90 (100,0%)	724,42 (100,0%)	10,2%

Source: Unit AKER/HE & PAU, Bureau of Planning, MOH, 1988

Notes: Excludes Government Enterprises Expenditure for Drug Production
(to avoid double counting)

- 1). Include salary of Province and District level staff
- 2). Include Construction and Maintenance of Government Building
in Province and District level.

The actual expenditures for child survival services provide from Government sources could not be classified in detail due to difficulties caused by differences in recording and reporting systems.

Table 6: Government Health Expenditures (Realization)
for Child Survival, Fiscal Year 1982/83-1986/1987
(Billion Rp)

Program/Budget	1982/83	1983/84	1984/85	1985/86	1986/87	Average Annual Growth(%)
Government Health Budget	494,88	539,81	574,91	691,90	724,41	10,2
Program Health Center Budget	177,70	165,21	171,97	204,26	230,89	7,2
Child survival Budget	71,61	66,98	69,30	82,32	93,05	7,2
Child survival budget to total (%)	14,5	12,4	12,1	11,9	12,8	-2,7

Source: Unit AKER/HE & PAU, Bureau of Planning, MOH, 1988

Notes: Excludes Government Enterprises for drug production (to avoid double counting)

Table 7 shows the separate expense categories of various sources of funds. Unclassified items in the budgets were 7.03% of the total in 1982/83 and reached 14.71% in 1986/87. In 1982/83 the actual expenditures for investment purposes constituted only 23.0% of the total budget. The investment operational cost ratio was 0.33%. In 1987 the investment cost

decreased to 11.7% and the investment operational cost ratio decreased to 0.16%.

Table 7: Government Health Expenditure Realization By Budget Item Fiscal Year 1982/1983 - 1986/1987
(Billion Rupiah)

Budget Categories	1982/83	1983/84	1984/85	1985/86	1986/87	Average Annual Growth
I. INVESTMENT	113,65 (22,97%)	118,29 (21,91)%	116,10 (20,19)%	119,11 (17,21)%	25,07 (11,74%)	-5,4%
1.Land	5,26	3,20	1,78	6,52	1,43	26,17%
2.Equipment	25,73	20,31	26,36	22,99	12,47	-12,45%
3.Construction	76,35	82,95	81,26	79,60	67,85	-2,53%
4.Others	6,31	11,83	6,70	10,00	3,32	6,64%
II. OPERATIONAL	346,46 (70,00%)	373,66 (6,9,22%)	413,11 (7,86%)	485,43 (70,16%)	532,77 (73,55%)	11,42%
5.Salary	149,45	171,05	171,42	230,97	257,29	15,20%
6.Drug	65,68	68,00	81,68	88,65	94,51	9,70%
7.Material	39,27	40,26	53,80	62,25	66,3	14,72%
8.Travel	13,46	12,52	15,22	16,26	10,98	-2,80%
9.Maintenance	55,03	58,53	60,15	71,18	62,35	3,77%
10.Others	23,57	23,30	30,84	16,12	41,00	32,02%
SUB TOTAL	460,11 (92,77)%	491,95 (91,13%)	529,21 (92,05%)	606,55 (87,67%)	617,84 (85,29%)	31,6%
III. UNCLASSIFIED	34,77 (7,03%)	47,86 (8,87%)	45,70 (7,95%)	87,36 (12,33%)	106,57 (14,71%)	16,42
TOTAL	494,88 (100%)	539,81 (100%)	574,91 (100%)	691,90 (100%)	724,41 (100%)	24,106

Source: Unit AKE R/III: & PAU Bureau of Planning, MOH, 1988.

Notes: Exclude Government Enterprises expenditure for drug (to avoid double counting).

In general, the actual public sector expenditures for health for the five year period was relatively constant, except in 1986/87 when there was a decrease of 25% as compared to the budget in 1982/83. The largest single expenditure of investment funds was for construction.

Over the five year period, the operational fund expenditure increased each year, averaging 11.4% per year. Expenditures for salaries and incentives in 1982/83 absorbed the most funds, 32.5% of total operational costs, or 30.2% of total costs.

The year 1986/87 showed increasing expenditure figures as compared to previous years. The expenditures for salaries and incentives was 41.6% of the total operating budget, or 35.6% of the total budget. The average increase for salaries for the five year was 15.2% per year, which includes additions to staff and the result of promotions, as well as individual increases.

5. Equity in the Distribution of Health Funding

Government funds at provincial level are provided from 3 sources: from Central Government (including Foreign Aid), Provincial Government and District Government. Funds provided from Central levels is the Development-APBN (National Income and Expenditure Budget), the

Routine-APBN, INPRES, SBBO, and the Foreign Aid. The District Government Budget is provided from the Development-APBD (Regional Income and Expenditure Budget), and the Routine-APBD.

Data for this analysis were collected for only three years: 1982/83, 1983/84 and 1984/85. The health budgets allocated to the provinces in those periods displayed a tendency to increase from year to year. Measured in nominal prices, in 1983/84 the total was Rp. 422.4 billions, or Rp. 2,673.14 per capita. In 1984/85 this climbed to Rp. 446.9 billions, or Rp. 2,766.60 per capita, and to Rp. 541.4 billions, or Rp. 3,266.26 per capita in 1984/85.

Table 8: Provincial Government Health Expenditure Trend
(Billion Rupiah)

No.	1983/84	1984/85	1985/86
1. Total	422,411.0	446,897.0	541,383.0
2. Per Capita	2,673.14	2,766.76	3,266.26
3. Annually growth		9.0%	21.1%
4. % to Total Government Health Expenditure	62.6%	62.5 %	64.3%

Source : Unit AKEK/HE & PAU, Bureau of Planning, MOH, 1988.

Notes : * in Rupiah

The financing per-capita for each province depends in part on their own funding resources. The funds provided each year from the Central level differ for each province. Funds provided from the First Level and the Second Level for each province and kabupaten depends on their own funding available and regional policies.

The expenditure per capita depends on the program priorities established in each province. These priorities take into account geographic differences, size and characteristics of the population, and the pattern of diseases. Social and economic conditions, however, are not included in determining fund allocations. In view of this, the distribution of financing per capita was analyzed in order to determine the degree of equity existing among the various provinces, taking into account the dissimilarities of their populations.

Analysis of a sample of 41 kecamatan in different provinces in Indonesia revealed that the average health cost per-capita was Rp. 1,070.00. Assuming that this figure represents the health cost at the rural district level, the comparative figure between various administrative levels, including rural villages can be presented as follows:

National per-capita	Rp. 4,852 (100.0%)
Central	Rp. 1,586 (32.7%)
Provincial	Rp. 2,196 (45.3%)
Kecamatan(District Level)	Rp. 1,070 (22.0%)

From the above figures, we draw the tentative conclusion that considerable inequity exists within the budget allocations and the distribution of health resources which is inconsistent with Health Development Policy. Only 22% of health funds are distributed in the rural areas, while 75% of the total population resides there, implying that while three fourths of the population at risk lives in rural villages, they receives only slightly more than 20% of the health resources available.

6. Unit Costs of Various Government Services

In the Government health service delivery system in Indonesia, health services have been expanded gradually in order to maximize the efficiency with which health resources are utilized. Expanding health services gradually helps to avoid excessive costs of services associated with wasteful use of the services of specialists, high technology equipment and of expensive drugs and medicine. Yet it is clear that this approach has met with a variety of problems and difficulties. It is difficult to predict the demand for services in communities and there are significant limitations in providing service facilities when and where they are most needed. Manpower, drugs, and medicines have not always been used efficiently. As a result, unit costs per service unit have become risen sharply at most Government facilities.

In terms of payment for health services, members of the community pay according to set rules which are not necessarily based on ability to pay. The fee and charge tariff system has not taken into account community levels of income, or payment from third parties. Government pays an enormous subsidy for every service, which results in a greater advantage to high-income individuals and communities, and for those who receive services free from private enterprise or who are covered by health insurance. Sometimes the community has not been served adequately requiring individual members to incur additional expenditure such as buying additional medicines out-of-pocket.

A coordinated research study conducted by Unit AKEK/ HE & PAU, Bureau of Planning, Department of Health, the Institute of Demography, and the Faculty of Economics, University of Indonesia, RI provides an indication of the unit costs of various services from all kinds of types of hospitals, as follows:

Table 9: THE AVERAGE UNIT COST FOR EACH CATEGORY OF HOSPITAL
(In Rupiah)

HOSPITAL TYPE	Outpatient	Inpatient
I/1	9,862	24,470
C	3,239	13,052
D	3,948	12,554
MILITARY HOSPITAL	6,815.50	19,164

Source : Unit AKEK/HE & PAU, Bureau of Planning, MOH, 1988

If the above calculations are correct, these data can serve as a basis for establishing a more rational tariff policy in the future by considering the community as a hospital services user, and charging members according to costs of providing services and ability to pay. An analysis made by the World Bank in 1987 showed that hospital revenue was around Rp. 34.5 billions. This revenue covered only 16% of hospital routine budget, constituting only 10% of overall hospital financing.

Community health centers in Indonesia try to meet basic needs for health services by members of communities in both urban and rural areas. These efforts include disease treatment, disease prevention, health improvement, health recovery and environment improvement. In reality, every community health effort is a task for the Government.

There is a charge for treatment and other services according to the joint ministerial Decree from The Ministry of Health and The Ministry for Internal Affairs No. 684A/Menkes/SKB-/IX/1987, decrees that health service retribution to Puskesmas/Unit Puskesmas/Puskesmasling be set at Rp. 300.00.

A research study conducted in 1987 by Unit AKEK/ HE & PAU, Bureau of Planning, Department of Health in cooperation with The Faculty for Public Health, University of Indonesia estimated unit costs of various health activities in a sample of Puskesmas in Indonesia. The results are as follows:

Table 10: The Unit Cost for various Health Efforts in the Health Center
(In Rupiah)

Type of Services	Budget
1. Treatment	Rp. 1,087.0
2. KIA (MCH)	Rp. 526.0
3. KB (FP)	Rp. 1,337.0
4. Immunization	Rp. 647.0

Source : Planning Bureau, Depkes RI, 1988.

The maximum cost is for family planning, and the minimum cost is for mother and child health (KIA). In terms of the service activities identified, the cost for treatment and for KIA service is according to the Letter of Decision (SK) mentioned above. The revenue from Puskesmas service is relatively small. The World Bank estimated that revenue from Puskesmas totaled Rp. 2.1 billions. This amount covers only 3% of the routine budget of the Puskesmas program.

For outreach service, the Puskesmas has an additional service unit called Puskesmas Pembantu (assistant) and Posyandu implemented by the

community with assistance from a nearby Puskesmas. Previous studies revealed that unit costs in Puskesmas Pembantu are only 50% as compared to the unit costs of Puskesmas. As operational units, however, these units need more personnel, but supplies of drugs and medicines appear to be adequate.

Unit costs of services rendered in Posyandus is Rp. 860.00 per service which is relatively expensive, given the level of services provided. From an economic point of view such high levels of costs do not suggest that these units are efficient. The bulk of cost expenditures in Hospitals, Puskesmas and Posyandus goes for personnel, salaries, and for drugs and medicines.

After reviewing the research results presented above, it can be concluded that there is a need to provide various alternative delivery approaches in order to achieve a more efficient and effective operational approach to providing health care in Indonesia. From this analysis, many factors must be taken into consideration including unit costs, service coverage, quality of services, sources of services, and sources of revenues for various types of health services facilities.

7. Relation between Financing and Health Policy

Progress of health science and technology and social development, will change the nature of health services and professional and consumer expectations radically. These factors will influence the cost of health services delivery and must be considered in health planning and policy formulation activities including policies concerning how to maintain or even increase preventive and community health activities and insure an optimal mix of Government and private sector delivery and financing, and cost sharing.

Health policy is different between one country and another. It depends on the rate of general and health development in each country. In a country with limited health facility infrastructure, health efforts will be directed toward expanding infrastructure and services, following well thought out strategies resulting in well defined program priorities. The pattern of health financing also will influence the type and quantities of services delivered, and form of health services delivery system.

In some cases, health financing sources are targeted toward a small segment of the entire population which does not need health services desperately. In such cases funds are used mostly for health personnel incentives. Consequently, it is very difficult to ask people to be involved in community health service where incentives are low. This in part has led to the general imbalance in the placement of health personnel between rural and urban areas.

Every funding source has its own task. If financing comes from many sources, tasks may overlap, or some areas of needed service have no source of funds, i.e., gaps may exist. That is why, if financing comes from many

sources, it can create contradictory results, causing many difficulties in achieving the goals of a comprehensive overall policy. In cases in which coordination capacity is low, undue waste can occur due to uncontrolled financing. In order to avoid this, an analysis concerning financing sources is very important for both the planning and the implementation of health policy.

Health planning has three main elements:

- Purposeful decisions taken according to established scales of priority.
- Approaches and strategies to achieve targeted goals objectives.
- Monitoring and evaluation of implementation.

During the course of implementation, a plan should be revised according to changes inside or outside the health system. In general, these adjustments will result in a modifications in financing or fund utilization as needed in order to achieve goals set previously.

Health development policy in Indonesia clearly states the need for health programs to increase services on behalf of low-income groups, because they need services more than those who are better off. For this group, health activities are needed to prevent communicable diseases, and to provide mother and child health, family planning, clean-water facilities and environment health, and improvements in nutritional status. In addition, appropriate types of diagnostic equipment and treatment services are needed, as well as adequate referral systems providing access to more sophisticated diagnostic and treatment services when needed.

Clearly, country must create its own financing procedures and mechanisms taking into account basic health conditions, evaluation and analysis of the interests of all concerned parties, including political interests. Financial information is very important in order to prevent problems and to facilitate making fund allocations according to established policies.

Information concerning financing sources, and patterns of utilization of funds provides insights concerning possible future patterns of fund utilization. From reviewing recent financial information, various problems in health financing can be identified such as: inefficiency in fund utilization, the need for fund reallocation, better ways of fund mobilization, optimal pricing and tariff policies, and improvements that can be made in health planning and financial management needed in order to achieve more efficient alternatives to solving health problems.

E. Health Financing by the Community/Private(Individuals and Firms)

It is difficult to undertake an accurate analysis of community/private expenditures for health, because of the lack of data. In general, community expenditures are devoted to purchasing medical services and illness prevention and health promotion services. Community or private service can be obtained from Government service facilities, private providers, and traditional healers. Individuals also can treat themselves by purchasing drugs and medicines from pharmacies and drugstores.

Data must be collected from every source where the community spends money to obtain health service. Various studies and data collection activities that were undertaken in 1986-1987 are listed immediately below:

- National Household Health Cost Survey, 1985-1986.
- Survey of Community Expenditures on Private Hospitals
- Survey of Community Expenditures on Costs of Services Provided by Private Doctors
- Survey of Private Sector Employer Financing of Employee Health Services.
- Survey of Health Expenditures Paid by Public and Private Sector Sponsored Health Insurance
- Drug Distribution Survey in Indonesia in 1986.
- Medical Education Survey

From the various studies, analyses and data collection efforts, cost/expenditure implications were derived concerning community health problems in 1985/1986, and how funds were utilized in obtaining health services needed.

1. Financing Sources of the Community and Other Private Sector Elements.

Financing sources by the community including the remaining components of the private sector can be listed and briefly explained as follows:

- a. Household expenditure for health financing (out of pocket or direct payment). These expenditures represent purchases from service units, purchases of medicines, and outlays on transportation costs, and other expenses.

- b. Financing by private enterprise and non-Depkes BUMN for their personnel, counting only those costs that are used to finance the costs of health services.
- c. Financing through Health Insurance, including Perum Husada Bhakti, Asabri for RI Military Personnel, PKTK for private sector employers, and Jasa Raharja for traffic accidents.
- d. Funds collected through social activities or by religious organizations. Due to difficulty in data collection, data in this area were not collected and included in the present analysis.

Community or private health financing in 1982/83 (as presented in Table 11) was Rp. 1,248.3 billions and increased to Rp. 1,698,8 billions with an average increase of 8.1% during 5 years, all measured in nominal prices. After adjusting the data to constant 1983 prices, the increase averaged only 0.8% per year.

Examining the sources of funds, the bulk of health care was financed by households whose expenditures covered an average of 75% of total spending from private sources (community/private), whereas employers' spending averaged only 19.2%, and health insurance spending averaged 5.6% of total spending per year.

Community or private health financing is relatively high, but has not been organized in a very coordinated fashion. Funds provided from Private Enterprises/ BUMN and from Health Insurance are collected in a coordinated manner, and thus funds are collected easily.

Total spending was Rp. 383.6 billions or 24.5% of total spending from community and other private sector sources in 1985/1986. In general, private outlays are expended mainly for medical treatment, while to obtain other health services, funds were absorbed from Government sources. Private enterprise, e.g., BUMN, expenditure per capita is above the community average, and presumably those enrolled receive a better service.

Per capita costs of services financed through ASKES are below the average, but the quality of service is not different compared with the community, and even is sometimes better. This is because ASKES and sometimes other health insurance organizations utilize Government services at a discount, arguing that such discounts are reasonable in view of "bulk purchases" of services made by organizations that are large in size.

Table 11: Private Health Expenditure Estimation by Sources of Finance Fiscal Years 1982/83-1986/87
(Billion Rp.)

Source	1982/83	1983/84	1984/85	1985/86	1986/87	Ave. Annual Growth
Direct Payment:						
- Nominal	947.9 ¹⁾	965.3	1,020.7	1,181.1 ²⁾	1,284.6	8.0%
- Constant 83 Prices	1,079.7	965.3	912.5	909.2	1,098.3	.8%
Employer:						
- Nominal	248.9	253.6	268.2	291.7	317.3	6.3%
- Constant 83 Prices	283.5	253.6	239.8	246.8	271.3	-0.8%
Insurance:						
- Nominal	51.5	71.7	90.4	92.1	97.0	18.1%
- Constant 83 Prices	58.7	71.7	80.9	77.9	82.9	9.4%
TOTAL:						
- Nominal	1,248.3	1,290.6	1,379.3	1,564.9	1,698.9	8.1%
- Constant 83 Prices	1,421.8	1,290.6	1,233.1	1,308.7	1,452.6	0.8%

Source: Unit AKER/HIE & PAU, Bureau of Planning, MOH, 1988

Notes: 1). World Bank Study
2). SKRT 1985/86

Payment for services provided by Government facilities is based on a fee and charge tariff, which in general is lower than full costs of services. Therefore the Government subsidizes every service provided to insurance holders, Government enterprises, as well as private individuals paying out-of-pocket. In addition, the premiums collected by insurance companies was Rp. 190.1 billions, but only 49% was paid out for services. Thus while insurance companies cover nearly 10% of population, their spending only constitutes about 6% of total funds spent on health services in the nation.

2. Funds Utilization from Community/Private Sources

In general, health expenditures by the community/private sector for health is for curative services only. For that reason the community/private sector seeks services from Government or private service facilities, and from individual private practices. It is estimated that in the private sector about 97% of overall cost is disbursed for treatment, and only 3% for education and other things. Almost all preventive health services, are provided by the government, except immunizations which sometimes are provided to some community groups who pay private or individual facilities for such services, (see Table 13).

Table 12: Private Health Expenditure by Source, and Population 1985/1986.

Source of Finance	Est. Population	Est. Cost (000 Rp.)	Per Capita (Rp.)
I. INSURED			
A. INSURANCE SCHEME	15,967,321	190,116,000	11,906.6
Perum ASTEK	2,317,582	47,495,000	20,493.3
Perum Husada Bhakti	13,000,000	66,348,000	5,103.7
Perum Jasa Raharja 1)	N/A	58,529,000	N/A
Perum ASABRI	629,739	14,144,000	22,460.1
Private Insurance	20,000	3,600,000	180,000
B. EMPLOYER 2)	18,000,000	291,700,000	16,205.6
II. UNINSURED			
Household direct payment	115,165,358	1,083,124,000	9,404.95
TOTAL	165,100,100	1,564,940,000	9,124.22 *

Source: Unit AKER/HE & PAU, Bureau of Planning, MOH, 1988.

- Notes:
- 1). Casualty Insurance.
 - 2). Estimated family size 5 members.
- * Excludes estimated expenditures for Perum Jasa Raharja

Of total household expenditure for health, 37.0% was for Hospital services, 5.4% was spent for Puskesmas services, and 12.9% was sent on private practice payments, totalling 55.3%. For drugs, expenditure was about 42.7%, with the rest going toward education and "others."

Private enterprise or BUMN spent 63.4% for services and 36.6% for drugs and medicines. Insurance organizations spent 57.3% of their total expenditures for services, 23.5% for drugs and medicines and 19.2% for "others." The conclusion is that private/BUMN pay out significant amounts for services, while insurance organizations obviously use their funds for other purposes (Table 13).

The Household Health Survey taken for 1985/86 indicated that 32% of the community utilized hospitals and Government Puskesmas' for outpatient services, 20% resorted to self-treatment, and 48% used the services of private providers and facilities. For inpatient care, 74% used Government facilities and the remaining 26% used private facilities. For observation and monitoring of pregnancy, 68% attended Government facilities. For those giving birth, 16% used Government facilities, and the remaining 48% seeking assistance used the services of private medical practitioners or traditional birth attendants.

Private enterprise/BUMN pay around Rp. 72.9 billions for private individual practice service, or 25% of overall spending. Insurance enterprises, in general, use Government health services facilities.

Table 14 below shows community expenditure by types of services for years 1982/83 and 1985/86. The data reveal that the increase in Puskesmas services averaged around 93%, and that there is a tendency for the community to seek less service from private/individual practitioners, which showed an increase averaging around 18%. It maybe the case that Puskesmas services were utilized increasingly by the community, because of the broader range of services that they offered as compared to private providers at that time.

Table 13: Private Health Expenditures by Health Services, Fiscal Year 1985/1986
(Billion of Rupiah)

TYPE OF SERVICES	OUT OF POCKET (DIRECT PAYMENT)	EMPLOYER PAID	PAID BY HEALTH INSUR.	TOTAL
Hospital Services	437.5 (37.0%)	112.0 (38.4%)	43.6 (47.4%)	593.1 (37.9%)
Health Center [*] Services	63.8 (5.4%)	N/A N/A	9.0 (9.8%)	72.9 (4.7%)
Drug Purchase	504.7 (42.8%)	106.8 (36.6)	21.6 (23.5)	633.1 (40.5%)
Private Practitioner	152.1 (12.9%)	72.9 (25.0%)	0.2 (0.2%)	225.2 (14.4%)
- Physician	81.0 (6.7%)	72.9 (25.0%)	N/A N/A	153.9 (9.8%)
- Paramedic	36.2 (3.1%)	N/A N/A	0.2 (0.2%)	36.4 (2.3%)
- Traditional Healer	13.5 (1.2%)	N/A N/A	N/A N/A	13.5 (0.9%)
- Community Cadre	21.4 (1.9%)	N/A N/A	N/A N/A	21.4 (1.4%)
Education	23.0 (1.9%)	N/A N/A	N/A N/A	23.0 (1.5%)
Others	N/A N/A	17.6 (19.1%)	17.6 (19.1%)	17.6 (1.1%)
TOTAL	1,181.1 (75.5%)	291.7 (18.6%)	92.0 (5.9%)	1,564.9 (100%)

Source: Unit AKEK/HE & PAU, Bureau of Planning, MOH, 1988.

Notes:

*). Treatment and Mother and Child Health Services in Health Center.

Over time, the community apparently increasingly prefers to consume modern maternity services, thus services rendered by traditional birth-attendants decreased to 67%. Education expenditure, in this case education of doctors, increased drastically by 450% or by 4.5 times. Obviously, the education of doctors is becoming increasingly expensive in Indonesia.

Table 14: The Community/Private Expenditure for Health Service
(Billion Rp.)

TYPES OF SERVICES	1982/83	1985/86	Increased
Hospital Services	411.7	593.2	44%
Pharmacies Services	24.9	72.9	03%
Medicine Purchased	531.7	633.1	19%
Private Practitioner:	273.7	225.2	- 18%
- Doctor Specialist	152.5	153.9	1%
- Midwives/Paramedics	82.4	36.4	- 56%
- Traditional birth-attendants	40.8	13.5	- 67%
Education	4.2	23.0	450%

Source: Unit AKER/HE & PAU, Bureau of Planning, MOH, RI, 1988.

1. Community Expenditure per Individual per Services in Private Facilities

As described earlier, the community obtains medical services both from the Government and private hospitals and clinics, or from private practitioners. Information obtained as the result of various studies are presented in Table 15 below showing the level of community expenditures according to types of services received.

Table 15: Per capita Private Health Expenditure by Services 1986
(In Rupiah)

Type of Services	Per capita Expenditure
Public Services	
- Hospital: Out Patient	Rp. 7,434 (NHHS)
In Patient	Rp.32,665 (NHHS)
- Health Center: Out Patient	Rp. 1,031 (NHHS)
Private Services	
- Hospital:	
• Out Patient	Rp. 9,938 (NHHS)
• In Patient	Rp. 6,908 (SS)
	Rp.30,054 (NHHS)
	Rp.36,720 (SS)
Physician (Specialist)	Rp. 6,520 (SS)
Physician (General Practitioner)	Rp. 4,521 (NHHS)
	Rp. 3,334 (SS)
Paramedic	Rp. 1,109 (NHHS)
Traditional healer	Rp. 2,142 (NHHS)
Self Treatment	Rp. 929 (NHHS)

Source: Unit AKER/HE & PAU, Bureau Planning, MOH, 1988.

Notes: NHHS: National Health Household Survey (SKRT). SS: Special Study.

The figures presented in Table 15 reveal a great difference between levels of expenditure as compared to revenue received as a result of services delivered. This difference is explained by the fact that individuals pay for drugs and medicines in addition to services received. The Household Health Survey (SKRT) estimated total expenditures in cases when individuals were sick, but included the costs of drugs and medicines

purchased. Other research results were confined to estimating the costs to individuals of direct payments for services delivered.

Total unit costs for one service gives some insight on this matter as shown in Table 16 below. From the figures presented in Table 15, when compared with the Household Health Survey (SKRT) results, we can conclude that the community and other elements of the private sector are able to pay the actual unit costs of service either provided by government, or by private facilities. For Government services, however, the fee and charge tariff is below the actual average costs of delivering services, due to Government subsidy.

Table 16: The Comparison between The Unit Cost by Services
Direct Payment by Community, 1986
(Rupiah)

Type of Services	Unit Cost	Direct Payment
Public Services		
a. Hospitals:		Out Patient Rp. 7,434.0 (SKRT)
Hospitals: Type B		In Patient Rp. 32,665.0 (SKRT)
• Out Patient	Rp. 4,974 - Rp.14,749	
• In Patient	Rp.17,711 - Rp.35,227	
Hospitals: Type C		
• Out Patient	Rp. 3,239	
• In Patient	Rp.13,052	
Hospitals: Type D		
• Out Patient	Rp. 3,948	
• In Patient	Rp.12,554	
b. Health Centers		
Health Center		
• Out Patient	Rp. 1,087	Rp. 1,031
Private Services		
Hospitals		
• Out Patient	Rp. 4,39 - Rp. 9,332	Out Patient Rp. 6,980 (SKRT)
• In Patient	Rp. 8,292 - Rp.73,942	In Patient Rp.36,720 (SKRT)
Private Company Hospitals		
• Out Patient	Rp.12,009 - Rp.44,200	
• In Patient	Rp.14,971- Rp.232,011	Rp.52,000 (Study)

Source: Unit AKEK/HE & PAD, Bureau of Planning, MOH, 1988.
Notes: SKRT, National Health Household Survey, 1986.

An analysis is needed for determining the best ways to improve services at all levels. Although the volume of services financed by private enterprises and BUMN for health services is relatively high, the amount is below the national average per capita, because these agencies are able to buy services from Government providers at both subsidized and often discounted prices. Thus an analysis of an appropriate pricing strategy should be undertaken in

order to provide a basis for formulating an efficient and equitable pricing policy.

F. Foreign Aid

Foreign aid for health development from various sources has been available each year, especially after the decrease in the Government Health Development Budget (APBN - DIP), which is the most important source of funding for health development. Foreign assistance received over years 1982/83- 1985/86 are presented in table 17 below. Between 1982/83 and 1986/87, the Government of Indonesia received foreign aid for health sector development and improvement from 13 sources. This assistance consisted of both loans or grants. The largest volume of loan funds came from the IBRD (World Bank), and ADB (Asian Development Bank), while the maximum of grant funds were contributed by USAID (United States Agency for International Development) and WHO (World Health Organization).

Table 17: Health Development Foreign Aid Trends Fiscal Year 1982/1983 - 1986/1987
(Billion Rp.)

Aid in Relation to Budget	1982/83	1983/84	1984/84	1984/85	1985/86
Central Government Health Development	111.54	108.44	101.72	94.76	65.24
Total Government Health Budget	494.86	539.81	574.91	691.90	724.41
Foreign Aid	20.36	30.14	30.34	41.03	65.65
Ratio Foreign Aid to Central Health Development Budget	0.18	0.28	0.30	0.43	1.0
% Foreign Aid to Total Public Health Budget	4.1%	5.6%	5.3%	5.9%	9.1%

Source: Unit AKEK/HE & PAU, Bureau of Planning, MOH, 1988.

Since 1982/83 foreign aid has been directed toward hospital services, nutritional development programs, immunization program development, instructional and health training, family planning in villages, communicable disease prevention and increasing the availability of clean-water supplies in villages.

Data covering the period of study reveal an upward trend, especially beginning in 1985/86. In 1982/83, the ratio of foreign aid to Government Health Development Program (APBN - DIP) was 0.18, while in 1986/87 foreign aid was more than the APBN-DIP. In terms of the total Government health expenditures, however, the percentage of foreign aid to total expenditures in 1982/83 was 4.1% which rose to 9.1% in 1986/87.

The foreign aid fund allocation toward various health program areas ranges from 3.5% to 32.1% of the related total budget, for example:

- a. Foreign contributions toward financing Government hospital services averaged about 4.9% of the total budget.
- b. Foreign contributions toward financing treatment and mother and child health at Puskesmas level averaged 5.9% of the total budget.
- c. Foreign contributions toward financing prevention program, disease eradication, community health instructional averaged 17.9% of the total budget.

Foreign aid, in general, is directed toward investment financing, however, in recent years there is an increasing tendency to finance maintenance and operational costs, with foreign aid allocations.

G. Planning, Budgeting, and Financial Allocation.

To accelerate national health development, a master plan is needed, including expected targets established for each year. If this were done, it would be much easier to allocate funds from various sources at the time when budget plans are being developed. The master plan should be flexible so that it can be revised according to changing circumstances and the availability of funds.

Every funding source available is influenced by economic conditions, both inside and outside the country. In Indonesia recent economic conditions were not very favorable, due to decreases in oil prices, decreases in other export commodity prices, and other difficulties, all resulting in the inability to achieve the targeted 6% rate of growth in GDP. The rate of growth in GDP fell to 2.3% over years 1986-88, and is predicted to grow only by 3.4% over the period 1988-90, and is projected to average around 3.8% over the years 1988-93 because of higher growth projected for years 1990-95 of 4% as shown in Table 18 below.

Table 18: GDP Projections 1987/88 - 1993/94

Projected Growth Rates	1986 - 88	1988 - 90	1990 - 95	1988 - 93
GDP	2.3%	3.4%	4.0%	3.8%
GNP	4.8%	3.7%	5.1%	4.5%

Source: Prof Moh, Aeryad Anwar, Paper in the Health Fifth Year Plan Preparation Work Shop

Examining the percentage of health development costs in both Government and the private sector as a percentage of GDP during these five years, it is clear that it would have been difficult to increase the percentage of health financing during those years. The average of the Government health cost to GDP was only 0.73%. The average of community/private health cost was only 1.74%.

H. Projections of Potential Funds Availability

Table 19 below presents projections of GDP for years 1987/88 (base year) to 1993/94. These projections are used in forecasting possible future trends in the availability of funds for financing the delivery of health services.

Table 19: GDP Projections 1987/88-1993/94
(Billions Rp.)

PROJECTIONS	87/88	88/89	89/90	90/91	91/92	92/93	93/94
POPULATION	171.5	174.9	178.4	182.0	185.6	189.3	193.1
GDP	98,708.5	102,064.6	105,534.8	109,122.9	113,487.8	118,827.0	122,748.4
GDP/CAPITA Rp.	575,559.0	583,559.0	589,909.0	594,576.0	611,464.0	623,490.0	635,673.0

Source: Arsyad Anwar

Notes:

1. GDP number on GDP 1986/87. The GDP Growth used the World Bank Estimation that 2.3% in 1986-1988, 3.4% in 1989-1991, and 4% in 1992-1994
2. Estimation growth of GDP, based on population growth and using nominal Rupiah.

After studying present economic development conditions in Indonesia, population growth, private health costs, and recognizing that total health expenditures actually decreased when expenditures are adjusted according to constant 1983 prices, we should consider at least two alternative scenarios (Gani, 1987).

Table 20: Health Expenditure Projections 1987/88-1993/94: Scenario I
(Billion Rupiah)

SOURCE	87/88	88/89	89/90	90/91	91/92	92/93	93/94
Public Source 11% to GDP	1,085.8	1,122.7	1,160.9	1,200.3	1,298.3	1,298.3	1,350.2
Private Source fixed 1.74% to GDP	1,717.5	1,775.9	1,836.3	1,898.7	1,974.7	2,055.7	2,135.8
Total	2,803.3	2,898.6	2,997.2	3,099.0	3,223.1	3,354.0	3,486.0

Source: Unit AKER/HE & PAU, Bureau of Planning, MOH, 1988.

Table 21: Health Expenditure Projections 1987/88-1993/94: Scenario II
(Billion Rupiah)

SOURCE	87/88	88/89	89/90	90/91	91/92	92/93	93/94
Public Sources 0.9% to GDP	868.6	898.2	928.7	960.3	998.7	1,038.6	1,080.2
Private Sources fixed 1.74% to GDP	1,717.5	1,778.9	1,836.3	1,898.7	1,974.7	2,055.7	2,135.8
Total	2,586.1	2,677.1	2,765.0	2,859.0	2,973.4	3,094.3	3,216.0

Source: Unit AKER/HE & PAU, Bureau of Planning, MOH, 1988.

Based on the forecasts of GDP presented in Table 19, the revenue implications of two fund availability scenarios were calculated. The objective was to determine whether or not either scenario would generate revenues sufficient to meet health development needs in the future. The results of these calculations are presented in Tables 20 and 21 above.

From both sets of projections, forecasts of funding availability that could be provided from the Government and community/private would not be sufficient to finance the level of health development needed. Clearly an alternative solution must be developed. One such alternative is sketched below.

First, the trend over the last five years could be made as a point of reference to estimate investment budget plan, personnel salary, operations and maintenance (O & M). Second, needed health programs could be developed and described according to expected targets every budget year. This budget plan could be prepared to cover Government health program efforts, and efforts to coordinate community/private fund sources with an eye toward achieving maximum efficiency in mobilizing and utilizing funds.

Various studies have been implemented to be used as a basis for the development of a master plan. For example, past World Bank studies showed that the O & M costs needed to improve service to minimally acceptable standards would required Rp. 630 billions (World Bank 1987) as follows:

Hospitals	310 billions
Puskesmas	Rp. 250 billions
Disease Eradication	Rp. 70 billions
TOTAL	Rp. 630 billions

The total funds available from current planned budgets, however, is only Rp. 278.8 billions or 44.2% of the required amount. That is why, for the future, we must look for additional sources of funds, including foreign aid. The decrease in investment expenditures that occurred during the last five years also must be taken into consideration.

In 1986/87, the ratio between investment cost and operational cost was 0.12, and if during the next five years this ratio remains the same, investment costs can be calculated with expected targets every year. Funds must be provided from many sources including foreign aid. For service programs, the last five years trends can be used as a basis for calculations, in combination with exploring other funding sources, for example increasing fee and charge tariffs at service facilities and expanding health insurance coverage according to the principles of DUKM.

Community health programs such as disease eradication, provision of clean water supplies, immunization, mother and child health, and others can be allocated based on the trends during the last five years. Especially for programs related to children, life expectancy can be increased from 10% to 15% at the present time with the funds provided from Government budget, and with greater efficiency and fund mobilization. At the same time, it is possible to manage hospital services better and to improve program priorities. Better funding and allocation formulas must be developed between Central and Provincial administrative levels, and urban and rural areas.

From the above, it may be concluded that the various studies that have been completed coupled with additional studies to be undertaken in the near future are necessary to form a basis for the preparation of a master plan of health programs together with budget planning in the future. Following this approach would lead to more rational and accurate planning and decision making, resulting in the achievement of expected goals and targets.

Even after developing an appropriate master plan linked to realistic program budgets, various problems remain to be addressed in the future including the following:

- The development of more rational patterns of funding, and
- Integrating funding and financing processes with health program execution in an integrated fashion, taking into account the relationship between investment development plans and the routine budgets that would be required for future operations and maintenance.

For health development, as described earlier, there are 6 fund allocations from the Central Government and 4 fund allocations from local government. For community health, in addition to funds allocated as described above, there are other funds available from The Military Defense Department (Department Hankam), The Department of Education and Culture (Depdikbud), and other Departments and BUMN (Government parastatals). These funding sources and the use of them must be planned in an integrated fashion as well.

In order to accomplish this, each funding source must follow the same procedures for utilization, reporting and accountability. The current situation presents many difficulties for health program implementation in the field. Difficulties are constantly being encountered in the field in coping with non-integrated planning and budgeting procedures and policies, resulting in uncontrolled implementation activities financed from various sources which are not clearly related. The situation often is worse if, after fund liquidation, it is discovered that spending has not conformed to the schedule of planned activities. In the last period of budgeted year, all funds

were absorbed, but in the past the Department of Health has had to default unexpended budget balances not utilized within allowable expenditure periods.

In the mean time, some alternative procedure must be developed and implemented in order to solve these problems. Such a procedure should incorporate the following features:

1. Implementation of the regulation already established by the Ministry of Internal Affairs, rule Number 9 in 1982. This is important, because implementation efforts must be in accordance with the relevant problems and needs at regional and local levels.
2. Integrated planning based on all budget sources.
3. Regional and local priorities should be specifically included in local budgets.
4. In order to avoid inconsistencies in deciding priorities, sectoral and regional budget rules, and other budget and operational rules must be prepared by regional authorities in an integrated fashion before being submitted for review by Central levels. It is important to increase regional authority in the process of promoting greater decentralization.
5. Integrated funding can be implemented step by step so that various sources of funds can be grouped by source and expenditure, i.e., consolidation of budgets.
6. Fund utilization must be made more flexible in order to minimize differences in timing between fund availability and the timing of needs for actual spending of funds.

In order to resolve these problems, a proper financial information system must be created including a standard accounting system for all health service units and health programs. The goal is to produce an accounting system which when implemented will simplify program management and the process of project implementation, while at the same time facilitating the monitoring of spending and assuring accountability. It is essential to prepare management personnel with appropriate training to utilize the financial information available efficiently and properly. Without appropriately trained personnel, even a vastly improved accounting system is likely to yield less than optimal results.

SECTION IV: RESOURCE MOBILIZATION ANALYSIS

Given the current unfavorable Government finance situation, worsened by the difficulty to improve household expenditure for health services by the community, a procedure needs to be developed to mobilize the maximum funds that are available. Political and health policy statements clearly emphasize that improvement of public health and the environment is the responsibility of the government with the support and active participation of the community. Financing for health treatment and recovery is the shared responsibility of the Government, the community and the private sector.

There needs to be an effective strategy for mobilizing funds. There are important factors that need to be considered, for example: the quantity and quality of health services made available, equity, rates of utilization of service facilities, choice of technology, etc.

The following are the sources from which funds can be mobilized:

1. Government
2. Out of pocket expenditures
3. User charges
4. Insurance companies
5. Semi-government companies
6. Private companies
7. Foreign aid
8. Non-government organizations.

After these funding sources are identified, and thoroughly analyzed, attention must be focused on establishing appropriate processes and procedures for mobilizing funds to finance health services delivery. Various studies have been conducted and have been used to help in the analysis of financing the delivery of health care.

A. Government Funding

Government funds may be divided into three source, namely: central, local (province and district). During the last five years, the average health budget as a percent of the total national budget ranged from 2.9% to 3.4%. Health spending per capita was Rp. 4,300.70 (1986/1987) or US \$ 2.59. From the total budget, only 45.3% was used for expenditures directly related to the

Department of Health, and directed toward the national development. This budget also includes salaries for employees.

For developing countries such as Indonesia, levels of expenditures for health should be increased. Other countries at similar levels and stages of development spend more on health services than Indonesia. For example in terms of the percentage of Government spending on health as a percentage of total Government spending is 5.5% in Thailand, 6.5% in the Philippines, and is 22.5% in Costa Rica. In some developing countries in Africa, the average budget is above 6.5% (source: The World Health Assembly, Geneva, May 1987).

In recognition of these facts, it seems entirely reasonable that Government funding both from the Central level and the Local level could be increased from the average of 0.73% to 1.1%. Even including private sector spending, Indonesia spends only about 2.8% of its GDP on health which is far below the standard of 5.0% proposed by WHO.

There are different procedures that can be implemented: routine budget from the central level should be increased according to the minimum budget for maintenance and health operational facilities, or 75% of the World Bank projection (Rp. 630 billions) which is equal to Rp. 472.5 billion.

Provincial and district routine budgets also can be increased. The budget from the local Government is usually derived from payments of fees for health services. The household health survey (SKRT) showed that most of the community are capable of paying for the health services that they consume.

The survey also indicated that Rp. 265.8 billions are received by Government from hospital provided health services. The World Bank estimated that hospitals receive back only a total of 47.1 billions, or 17.7%. This difference occurs due to the following reasons:

1. Almost all fees collected by service facilities must be remitted to local Government authorities.
2. Local authorities retain a portion of these funds to finance routine expenditures.
3. After further budget cutting, funds are allocated back to health facilities to be used to deliver health services. About 40% to 90% of the total revenues collected are given back to the health institutions collecting them originally.

The assumptions involved in the above discussion admittedly are rough, based on the national data, including all types of hospitals, puskesmas, sub-puskesmas, and other facilities, and do not include certain Government health institutions. If this "chain" can be improved, resulting in payment by

the community returned at a rate of 75%, this would generate Rp. 265.8 billions, the funds remaining to be mobilized would be Rp. 199.5 billions. If both these procedures are implemented, it would be possible to achieve the target of 1.1% of total Government budgets being devoted to the provision of health services.

B. Household Health Expenditure (Out of Pocket)

From the Household Health Survey, 1985, it was found that most members of the community are capable of paying for the health services that they receive. Table 22 below shows the household survey results concerning public ability to pay for health services.

Table 22: Average Costs per Treatment Paid by Community Members to Health Providers
(Billion Rupiah)

Type of Services		Average Cost per Treatment 1)
Out Patient a)	Health Center	1.031
	Self Treatment	925
	Physician(Private Practice	4.521
	Government Hospital	7.434
	Private Hospital	9.938
In Patient b)	Government Hospital	179.655
	Private Hospital	275.845

Source: National Household Survey, 1985.

Notes:

1) Average cost:

a. Out patient for one visit

b. In patient all bed days excluding travel costs and waiting time costs

Table 22 shows that the community in the aggregate actually paid more for services than required by the existing tariff. Moreover, the results show that total outlays almost equal the actual costs per service. This means that the community could almost pay a tariff based on actual unit costs.

A study of the use of hospitals and puskesmas was conducted in the Provinces of West Nusa Tenggara (NTB) and East Kalimantan. This study attempted to determine the distribution of health facility usage by income class. The study revealed that government health facilities are used by mostly the middle to high income groups, see Table 23 below.

Table 23 shows that the low income classes of the population of NTB (classes 1, 2 and 3) constitute 81.4% of the total population. But upon examining the sample of patients utilizing the facility, it was found that low-income classes only constitute 51% of the total sample of patients attending Government facilities. Further examination reveals that 22.2% of the population with middle and high income (classes 4,5,6,7, and 8) utilized the remaining 49%.

Table 23: Proportion of Population Utilizing Health Services Facilities by Income Group:
NTB and KAL-TIM, 1988.

INCOME LEVEL PER CAPITA (Monthly/Rp)	NUSA TENGG ARA BARAT				KAL- TIMUR			
	Population		Consumer Sample		Population		Consumer Sample	
	Total	%	Total	%	Total	%	Total	%
0 - 7,629	502,246	17.1	98	9.8	13,019	0.9	40	2.9
7,630 - 12,716	1,124,980	38.2	209	20.9	178,713	12.7	113	8.4
12,717 - 19,774	767,692	26.1	203	20.3	309,136	21.9	211	15.8
19,075 - 25,432	279,467	9.5	155	15.5	197,947	14.0	231	17.3
25,433 - 38,148	183,036	6.2	160	16.0	302,617	21.4	273	20.4
38,149 - 50,864	45,307	1.5	84	8.4	196,120	13.9	190	14.2
50,865 - 76,296	30,482	1.0	59	5.9	136,188	9.7	152	11.4
76,297 +	9,996	4.0	31	3.1	76,806	5.5	129	9.6
TOTAL	2,943,206		999		1,410,546		1,339	

Source: Unit AREK/HE & PAU, Bureau of Planning, MOH, 1988.

It can be concluded that the lower-income members of the community, although needing services the most, either do not want to use the services available or have difficulty in utilizing health facilities. Members of low-income classes actually should have more access to the Government operated health facilities than members of the middle and higher income classes of the community.

In East Kalimantan, the low-income community (classes 1,2,3) constitute 35.5% of the total population, but only 27.1% were represented in the sample of patients using Government health facilities. The 29.1% of the population in the higher income classes (classes 6, 7, 8,) represented 35.2% of the sample of patients using Government facilities. It is again evident that members of the low income classes of the community use Government health facilities the least, although these health facilities primarily are intended for their use.

Based on the findings from the various studies reviewed above, there is a need to develop ways to increase the revenue generated and retained by Government health service institutions. Some ways of accomplishing this are elaborated below.

1. The Adoption of New Tariff and Pricing Policies

- a. A higher fee and charge tariff should be adopted that would take into account that only a very small portion of the low income members of the community use Government facilities, and the fact

that members of middle and high income groups are capable of paying more than the tariff rates that currently are in effect.

This increase in tariff should be based on the ability of members of the community to pay without decreasing access to health facilities on behalf of members of low-income groups.

b. **The Adoption of a New Pricing Strategy for Hospitals**

A new pricing strategy should be implemented as a matter of policy. In hospitals having VIP rooms, Classes I and II, the tariff for such rooms should be established at levels equal to the actual unit costs of such accommodation, or even higher so as to provide additional revenues with which to subsidize low income earners. Such rooms should represent approximately 40-50% of total beds provided. The remaining beds should be provided for members of low income groups who would be subject to paying user fees at Government subsidized rates. The very poor would be entirely exempted from paying any user fees.

c. **The Adoption of a New Pricing Strategy for Insurance Organizations**

Institutionally affiliated health facility users, namely those covered by insurance companies (e.g., ASKES/BPDPK), should be charged the actual unit costs of services received. The current situation clearly indicates that those covered by such insurance companies are under charged in terms of the actual costs of services thus are subsidized by government, and that substantial revenues are retained by these institutions and used for purposes other than that for which they were intended.

d. **The Adoption of Differential Tariff by Province**

Different service charges should be applied for different Provinces. For provinces with relatively strong economies, tariffs should be established at levels which are higher than those established for Provinces with relatively weak economies. Negative criticism concerning the differences among Provincial tariffs, would be blunted on the basis of the recognition that the differences in tariffs among

Provinces is justified on the basis of ability to pay as reflected by the comparative strength of the economy of each individual Province. Perhaps just as importantly, equity in service delivery can be maintained when applying this procedure, if levels and qualities of services are maintained at equal levels in all Provinces.

2. Direct Use of Revenue

- a. Adjust fee tariffs upward to more closely approximate if not equal actual costs of service delivery.
- b. Permanently Allow Health Facilities to Retain Revenues Collected in the Form of User Fees

In the present situation, based on existing law, the total amount of revenue received from Government facilities must be remitted from health facilities to local governments, although the revenue is small as compared to the total expenditure. To facilitate health facilities maintenance and operational cost, local Government law should be improved to allow some flexibility. Recently, a new law was passed on a trial basis allowing revenue from health services at hospitals and puskesmas to be used directly without having to have to be remitted the local government. This recent law should be made permanent, because this flexibility increases both the funds to be used for operational cost and maintenance of facilities and the incentives for facility managers to collect them.

- b. Improve Quality of Health Facility Financial Management

Allowing retention of revenues from user fees would allow managers of health facilities to gain more control over financial management, and thus be able to use funds more efficiently. This would require that capable people be involved in managing funds at health facilities. Without improvements in financial management of the resources of health facilities, the flexibility allowed for in the in the new law likely would will lead to less than desirable results.

3. Improvement of Service Quality and Health Facility Utilization

- a. Improvement of Service Quality

The quality of services delivered at health facilities must be improved. This improvement should be implemented in all areas of the delivery of health services in both the public and private medical sectors. This would include maintenance, diagnosis, medical treatment, and drug usage. The community

should have a more complete and better health service which still is within their economic capacity to pay, when coupled with an improved and more rational pricing strategy as described above.

b. Improvements in the Rate of Utilization of Health Facilities

Ways to increase rates of health facility usage should be developed. Introduction of more rational tariffs and pricing strategies and policies, as well as upgrading the quality of health services provided should have a favorable effect on utilization.

Various studies have shown that health facilities in Indonesia are used only minimally. In rural areas, contact rates are only 0.8% per year, and in urban areas, contact rates are only 1.5%. A series of market surveys should be carried out to find out the causes for the minimum usage of health facilities.

c. Use of Social Marketing Techniques

Experiments in social marketing promoting health education and the availability of new, improved, and effective services, and new fee and tariffs should be conducted.

This will require a review of and perhaps the adoption of new and revised standards of medical ethics which should be consistent in both the public and private medical sectors. These revised standards of medical ethics and proper ways of marketing health services should be vigorously enforced.

4. Revenue Enhancement

Under the current tariff system, revenue is relatively small, constituting only Rp. 47.1 billions or 10% of total recurrent expenditures in 1985/1986. As already mentioned above, 75% of this revenue is derived from hospitals, amounting to Rp. 34.5 billions (16% of the recurrent expenditure). Revenue from the Puskesmas is much smaller, constituting only Rp. 2.1 billions, or 3% of total recurrent expenditures in 1985/86. Table 24 below presents some revealing information of the sources and percentages of cost recovery at various types of health facilities in Indonesia.

To decrease the amount of Government subsidy, the hospitals should be able to increase revenues through increased cost recovery as much as 2 to 3 times more than is the case currently.

Table 24: Estimates of Cost Recovery, 1983/84-1985/86

TYPE OF SERVICES	TOTAL REVENUE (Billion Rp.)			% OF REVENUE TO EXPENDITURE		
	1983/84	1984/85	1985/86	1983/84	1984/85	1985/86
HOSPITAL	24.2	30.8	34.5	20.2	22.0	19.9
HEALTH CENTER	1.8	1.0	2.1	3.8	1.6	3.0
CDC-Program	0.0	0.0	0.0	0.0	0.0	0.0
TRAINING AND EDUCATION	0.0	0.0	0.0	0.0	0.0	0.1
OTHER	11.7	10.5	10.6	9.6	8.0	6.0
TOTAL	37.7	42.4	47.1	8.7*	11.5*	10.2*

Source: World Bank staff estimates.

* - Total revenue divided by total expenditures calculated over all types of services.

Another way to enhance revenue generation is through "bundling" or packaging services sold to health insurance organizations (e. g., Perum Husada Bhakti), in such a way as to recover full average costs of all elements of service delivery, including the costs of room and board (room accommodation), and all costs of ancillary and direct medical services as follows:

- Accommodation Services = room , meals, etc.
- Ancillary Services = x - r a y , laboratory, etc.
- Direct Medical Services = Operation; consultation, etc.

5. Concluding Comments Concerning Ways to Increase Revenue Generation and Retention

Through the proposed procedures, funds collected would be increased. The fund received from the community/public should also be used efficiently, to avoid waste and unnecessary expenditure.

C. Expansion of Coverage of Social Financing

The development of health insurance, although recently demonstrating some improvement, is still slow. Only a few organizations are making achievements, especially those for which health insurance premium payments are compulsory, such as Perum Husada Bhakti, an insurance policy directed for Government employees and retired citizens and their

families, Asabri which provides coverage members of the armed forces and their families, ASTEK which provides coverage for many types of workers and their families, and Jasa Raharja which provides insurance coverage related to traffic accidents.

The data indicate that the members of the community who are covered by insurance companies is only 16 million or less than 10% of the total population. The majority of these people are covered by Perum Husada Bhakti (government employee/civil servants, retired citizens, and their families).

The funds collected through premiums is large, and each year it increases. In 1981 the total volume of funds collected was Rp. 101.6 billions, and by 1984 the total had increased to Rp. 186.4 billions, representing an increase of 83.5%.

Nevertheless, the funds paid out for services provided at health facilities on behalf of insured members generally is very low as can be seen immediately below:

●	ASTEK	46%
●	Jasa Raharja	22%
●	PHB	85%
●	Asabri	71%

With an increase of the insurance participation, expansion of health services would be enhanced, and if funds collected from premiums are paid out at rates which are more appropriate in covering actual costs of services and the fund mobilized on behalf of the health sector would certainly be much larger. In Repelita V, 20% of the total population is targeted to be covered by some form of health insurance. This does not seem to be too ambitious.

D. Private and Semi-Government Companies

In general, the private and semi-government companies provide health facilities for their employees. The health facilities that are used, may be owned by the companies themselves or, they use facilities from out-side, such as those owned by the government, private, individuals, and company insurance (PKTK). In these cases, funds allocated per capita are quite high. Semi-government companies (BUMN, Perum Husada Bhakti, etc.) spend Rp. 78,400 to Rp. 327,300 per employee for health services, whereas Private companies, spend between Rp. 53,000 to 107,000.

Based on the number of employees covered by these companies, it is estimated that the funds paid out for health services in 1985/1986 reached only 291.7 billions rupiahs. From this total, most spending could be said to have been used inefficiently in the sense that outlays represent payment of user fees and charges at public facilities which are heavily subsidized. If

insurance groups were required to pay the full cost of services more funds would be mobilized to relieve Government financing pressures.

E. Foreign Aid

Since 1982/1983, financial aid from foreign countries for health has been very extensive. In the last five years there has been a three fold increase in foreign aid. There are 13 source of fund from foreign countries, but the majority of this aid is for investment (infrastructure), and not enough aid is provided for maintenance and operational costs. This emphasis on infrastructure development will cause operational and maintenance costs to rise in the future and is a matter of considerable concern.

Most of the foreign aid is directed by the Indonesian government, and therefore the burden of development continuation and sustenance will be in its hands in the future. There is a growing recognition that this responsibility should be shared between the Government and the private sector. Improvement in joint development planning and implementation is therefore needed. Furthermore, other fund resources need to be identified. Through mobilization of domestic funds, it is expected that foreign loans can be reduced thereby assisting Government to pay back previous loans.

F. Non Government Organizations

Non Government organizations (NGOs) in Indonesia have an important role in the development of health. Usually NGOs have participated in private hospital activities through contributing spiritual, social activities, funds, some infrastructure, equipment, and manpower. Through social and professional organization, NGOs also support Government health programs in disease prevention, and health services provision, especially in rural areas.

NGOs also have played a significant role in providing simple/basic health services, in posyandus, and through participation in other health related community activities. Cooperation with NGOs should be sustained and improved, including cooperation in health financing.

SECTION V: ANALYSIS OF THE EFFICIENCY OF HEALTH RESOURCE UTILIZATION

Health services have become more and more complex and expensive. Furthermore modern society demands a better quality health services. The economic situation of the country, however, is not favorable for improving the health services delivery system as much as would be desirable in the near future, unless resources are used more efficiently and new financing formulas are developed and put into place. This section of this paper is concerned with describing ways in which health resources often are wasted and suggests some ways of improving their utilization in the future.

In many countries, like in Indonesia, financial waste and irrational use of resources is common. One of the reasons for this is, the lack of skill in financial management, the use of inappropriate technologies, and waste of resources expended for unnecessary health services. There are also other inhibiting social factors involving political and ethical issues, including inappropriate attitudes among both service providers and members of the consuming population.

In order to begin to solve some of these problems, efforts are needed to improve the degree of control exercised over all resources, and use of funds. Also needed are improvements in health strategies and technologies which are used for various health programs. Efforts also must be made to develop effective measures of cost containment and the regulation of health resources.

A. Improvement in Budget and Program Planning

Waste of funds usually occurs in resource utilization, because supplies of services and facilities provided do not coincide with previously developed plans and actual needs. For example, the amount of drugs and medicines available in certain place does not coincide with need, because the kind of drugs and medicines supplied are inappropriate for treating the types of diseases and illnesses that are presented. Also drugs and medicines are frequently wasted, because of delays in their acquisition and distribution.

Waste may also occur in the improper use of diagnostic facilities from over or under utilizing certain diagnostic tests and procedures, resulting in the unnecessary waste of manpower, equipment and supplies. In many cases, waste occurs from the improper use and maintenance of vehicles. Because of the lack of supervision, money is wasted for the maintenance of some vehicles which are not used for program operations.

There is also inefficiency in the use of manpower. In certain places, time devoted by health personnel to perform the services for which they are paid is only 50%, due to the minimum use of health facilities by the community.

A close examination of the distribution of health manpower reveals that there is a concentration of health personnel in urban as compared to rural

areas. In some villages sub-puskesmas can not operate due to a lack of health personnel.

One of the great dilemmas that exists in the case of health manpower stems from the fact that Government does not have enough money to create the number of health positions or posts that are needed. Health personnel are trained but can not be assigned until a post becomes vacant or is newly created, which depends on the availability of funding (or the completion of development projects that are behind schedule, due to shortages of funds). This creates the impression that there are more health personnel than are actually needed, but in fact many existing health institutions can not operate because of the shortage of personnel which principally is due to a shortage of funds.

To make progress in solving these problems, there needs to be a comprehensive improvement in all aspects of health programming, planning, implementation, supervision and evaluation. This will require an increase in the knowledge and information infrastructure needed to accomplish all the tasks required.

The first infrastructure needed is an integrated management information system that functions well at all levels of government. The second infrastructure needed is an effective financial management system that provides integrated budgetary planning and financial information that can be used as inputs into the decision making process at each level of the administrative structure.

These two main infrastructure should also be supported by people who understand the problem well, and who have the imagination to develop effective solutions to problems. This means that the people involved in resource management should have the proper training, experience, knowledge and skills that are required.

B. Efficiency

There are many factors contributing to the inefficiency in the current use of health resources. These are elaborated immediately below.

1. Health Facilities Used by the Community.

Health facilities are provided both by Government and the private sector. But utilization rates are low as compared to the availability of manpower and facilities, particularly at Government facilities. In rural areas, the contact rate is around 0.8 times per person per year. In urban areas the contact rate is 1.5 times per person per year. Bed days per year are below 80 days per 1000 population. These rates are very low in comparison with other countries. For example, the contact rate in Sri Lanka on average is above 2.5 times per person per year, and bed days per person per year is 161 days per 1000 population. In China, the bed days per year is 476 days

per 1000 population, and in the United Kingdom, the rate is 2000 days per 1000 population.

The bed occupancy rate (BOR) in hospitals in Indonesia averages below 60%, and in some hospitals, it is even lower than 20%. Other countries have an average of more than 85%, and some countries in Africa average more than 100%. Examining the areas within which the homes of patients and the nearest health facility at the Kabupaten are located, the area usually is not more than 25 square km.. The bulk of patients visiting type B hospitals at the provincial level come from the capital city of the Province where these hospitals usually are located.

Puskesmas clients usually come from places within 5 square km, from within 2 square km. in the case of sub-puskesmas, and within 300-500 meters in the case of posyandus. These figures suggest that there are still is a large number of the population that are beyond the convenient reach of health facilities.

The SKRT survey presents a clearer description concerning where the community usually seeks health services. Based on that survey, it is estimated that 35.7% of patients go to the Government facilities (hospitals, puskesmas, etc), 24.7% go to individual private facilities, including the paramedics, and 39.6% go to traditional healers or choose self-treatment. For obstetric services, 52% of which take place where modern care is received, and 48% of all cases are seen by traditional birth attendants.

Examining this pattern of health facility under utilization suggests the need for further analysis on such issues concerning whether the community genuinely has accepted the health services provided by the Government and the private sector, can the community truly afford to pay for the health services received, or does the public perceive quality as being too low in absolute terms or relative to price? Note that the SKRT survey suggests that the community's ability to pay is adequate.

There needs to be an examination of other possible causes of under utilization of health facilities. Another possible cause is related to the distance of health facilities from the homes of patients. In Indonesia, it is common that if one member of the family or neighborhood is sick and needs health treatment at the hospital, other members of the family or close friends are obliged to accompany the sick person to the source of treatment. Additional funds are needed for this purpose, and this creates a problem.

An in-depth market survey focusing on the factors influencing the rates of utilization of existing health facilities should be conducted, with an eye toward trying to learn why people seek medical treatment from various sources. In addition, information should be derived that would shed light on what would be the response to changes in quality of services, distance between dwellings and health facilities, changes in prices for certain groups of individuals and types of services, etc.

2. Efficiency in the Use of Health Manpower Resources

There is a need to conduct an analysis of health manpower utilization. The analysis of health manpower utilization is a complex matter that includes planning, supply, management and utilization, distribution and employment career structures, and salaries for health and supporting personnel. Some of the possible sources of inefficiency in the utilization of health manpower resources are as follows:

a. Absence of Policy for Rationally Distributing Health Manpower

There is no policy concerning the distribution of health personnel, and no criteria have been established concerning location assignments for health personnel, based on job category and educational background. Previous studies have indicated that the lower the level of service provided by the individual, the lower the educational background of the personnel providing the service. For basic health services, the manpower needed consist of assistant nurse/health volunteers, other trained public volunteers, and trained traditional midwives. Training for these cadres of health personnel needs to be reconsidered, since education costs have increased substantially, partly due to the extension of the period of training.

b. Management of Working Hours

The management of working hours of health staff often is inefficient; in many cases only 50% of the time for which health personnel are paid is spent providing services. Lack of coordination of various program activities, and the extensive progress of posyandus in utilizing health personnel instead of volunteers contributes to this inefficiency.

Studies in many countries, reveal that optimum utilization of working hours reduces the cost for health services up to 30%. Optimum use of working hours also effectively increases the quantity of operational manpower available and therefore permits increases in program coverage in the field. Job descriptions and the type of personnel performing various activities both within and outside the puskesmas should be made clear, in order to reduces waste in manpower utilization and funds.

Other types of inefficiency in manpower are due to the fact that many health personnel, after being trained are posted in a position not suited to the training acquired. In other cases, personnel are transferred to other positions for which they have not been trained. In some cases it is the training itself that does not suit the job. In the interests of achieving future program improvement, research should be conducted to determine the proper training that is required for each of the assigned posts individuals are likely to be asked to assume. Job descriptions should be revised or developed in cases where they do not already exist. Also career paths including salary adjustments and additional training required should be planned and revised if need be on behalf of all cadres of health personnel.

3. Inefficiency in Technology Utilization.

Unnecessary use of drugs, medicines, equipment including vehicles, and health facilities should be avoided to the maximum degree possible. Unnecessary use of health resources frequently occurs, because there are too many donor agencies and institutions who are willing to give loans to the Government which are directed mainly for facilities or other physical investment.

The problem with these types of loans is that Government often is hard pressed to raise funds sufficient to maintain buildings, facilities and other types of infrastructure. Foreign aid also too often is made available only in the form of modern and sophisticated equipment, and the does not include funding the costs of the sophisticated health manpower needed to operate the equipment provided. In many cases facilities and equipment must remain unused and thus resources are wasted. Another consequence of this is that sometimes the facilities are used for providing health services that are not necessary or which do not need high technology equipment to treat the illnesses presented.

Planning the future supply of health infrastructure and services must take the cost, effectiveness, manpower, and health service delivery implications of new health technologies into account.

4. Effective Financing Strategy

Many studies have been conducted to select appropriate methods in the prevention of communicable diseases. The progress in health diagnosis, treatment and disease prevention will increase the number of program activities to be performed and in their costs. Therefore efforts should be undertaken now to reduce waste in program costs and to maximize results.

Research in Aceh on lung disease treatment showed that the selection of long-term and short-term medicine is important. The selection of long-term medicine is more suitable to reducing the rate of patient drop-out and the spreading of resistant organisms. The utilization of volunteer workers seemed ineffective, since no significant improvement was apparent, although substantial funds were allocated for their incentives and training. In the case of diarrheal control programs, more efficient and rational drug use has been introduced that can reduce treatment costs up to 51%.

The same result also appears to have occurred in the ARI (acute respiratory tract infection control) program, where it was found that treatment costs can be reduced by Rp. 8.5 million per puskesmas. If this were applied to the entire population, the amount would reach Rp 46.7 billion. Similar results possibly could be achieved in the cases of immunization and malaria control programs. The question is now whether these approaches can be applied consistently.

5. Economizing Health Cost

High costs of health care is one of the problems faced by almost all countries including already developed as well as developing countries. The high costs of health care delivery is largely due to high payments for the services of doctors, diagnostic examinations, and the costs of drugs and medicines. Until now there has been no pricing policy developed to apply to service providers, including individual and institutional providers. There currently exist no procedural policies concerning diagnostic examinations.

The current policy concerning drugs states that generic drugs are to be used whenever possible in order to achieve effective and efficient results in terms of cost relative to effectiveness. This policy initiative has been adopted by many countries and represents an example of what Indonesia can do to moderate or even reduce the rate of escalation in the rise in the cost of providing medical services. In connection with reducing costs, the use of generic medicine should also be supported by pricing policy that applies to health services and diagnostic procedures.

C. Financing, Allocation, and Reallocation Analysis

Government financing allocation which will be discussed in this section will be limited to fund utilization based on the following types of services provided: hospital services, puskesmas and public health services, drugs and medicines, and training and education for health personnel. Each of these topics will be addressed individually below.

1. Hospital Services

Hospital services rank first in terms of costs. Hospital expenditures include investment costs and operational costs including salaries. In 1985/1986 the total expenditure for hospital was 34.1% of the total budget. Of this amount 27.7% percentage points of this percentage was contributed by government, and 72.3% by the community/private.

The large amount of funds allocated does not guarantee a better service by hospitals, since the total amount allocated only covers 56.1% of the total funds needed. The Government subsidy for health funding is high. To decrease the amount of subsidy, at least three areas must be targeted:

- Reducing unit costs by increasing the utilization of health facilities already available.
- Increasing fee and charge tariffs for services at hospitals, based on the economic condition of the community. With the increase of revenue and cost containment, Government funds can be used more effectively for maintenance and program operations, as well as for the implementation of other health programs.

- Improving hospital management, supported by better financial, medical record, and management information reporting systems indirectly will improve the efficiency of hospitals.

2. Health Center Services

Health center financing includes financing for salaries, equipment, supplies, drugs and medicine, MCH programs, and funding for the sub-centers. Most of the funds required for operating health centers are contributed by Government (80%). Total funds allocated for health centers are only 8.4% of the total funds allocated to health services by government.

Other activities covered by health center funding includes activities such as public health programs and posyandus (village posts in which clinics are held on a periodic basis, usually once a month). These activities are given only 4% of the total national health budget. The more activities provided in the posyandu, the more funds that are needed. Therefore, there should be an increase in the budget to provide for operating posyandus. The amount of funds needed depends on the unit cost of each posyandu which varies from Rp 193,000 to Rp. 1,050,000 per year. The range of cost varies with the extent of coverage of each individual posyandu, and on the amount of patient service given. Currently, the average workload of posyandus is estimated to be about 20 - 30 patients per month.

One way of increasing the patient volume of puskesmas would be to construct new puskesmas that are located near hospitals. This approach is suggested by the research findings indicating that unit costs for out patient treatment is very high. If newly constructed puskesmas can accommodate hospital out patient demand at lower unit costs than if such services were provided in hospitals, cost savings could be used for preventive efforts.

3. Allocation of Funds for Drugs and Medicines

Fund allocation for drugs and medicines and their production, is the largest among the total funds allocated for health by the Government. In 1985/1986 the funding for these items reached 27.9% of the total budget. Funds allocated for drugs and medicines constitutes three main activities: purchase of drugs, production of drugs by the Government, and purchase of drugs by the community.

Examining drug and medicine consumption per capita per year, reveals that there was an increase in spending from US\$ 3.27 in 1980 to US \$ 9.00 in the year 2000. This increase is caused by "market variation value". The largest market is through pharmacy (49%) with an index value of 1.3, and drugstore (18%) with an index value of 1.1, and other health facilities (24%) with an index value (the base) of 1.

From the information provided in the paragraph immediately above, it is clear that methods should be developed to reduce the large mark-up of costs

above the costs of production. For example, the higher percentage of market at the pharmacy (49%) with an index value of 1.3 could be reduced by marketing the drugs in other health facilities where the percentage is much lower, i.e., 1.0. If ways could be found to accomplish this, fund allocations for drugs could be decreased while at the same time improving the effectiveness of their administration.

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